IOWA DEPARTMENT OF TRANSPORTATION

TO OFFICE: Right of Way

DATE: August 14, 2012

ATTENTION: M. J. Sankey

REF. : Scott County
Proj. #: BRFN-022-5(29)--39-82
ROW#: STPN-022-5(32)--2J-82
PIN: 10-82-022-030

FROM: Jim Schoenrock

OFFICE: Design

SUBJECT: Right of Way Submittal (D5)

This project involves the replacement of the IA 22 Bridge (Maint. No. 8292.8S022) over Donaldson Creek, 2.8 miles west of the junction of I-280.

Traffic will be maintained via staged construction with one lane open in each direction at all times.

Access rights will not be acquired on this project.

The project directory is W:\Projects\8202203010\Design. No printed plan sheets are included with this submittal. PDF files of the sheets can be found on the network in W:\Projects\8202203010\Design\Design Events\D5 folder. Plans and cross section files have been sheeted for batch plotting. The file, ProjectDocumentation_82022029.xlsm has a description of the MicroStation and GEOPAK files, chains and profiles. It also specifies the scale and number of sheets in each file.

Construction need lines required for this project are at the catch (intercept) point and have been added to the design file. The Office of ROW is advised to attach the following design models:

File	Model	Level	Need Type
82022029.dsn	Road_Design_Line_Work	dsnGroundlineIntercept	Permanent
82022029.dsn	DET_0020_IA22WB	dsnGroundlineIntercept	Temporary
82022029.dsn	DET_0020_IA22EB	dsnGroundlineIntercept	Temporary

Culverts were completed (B1) on 7/27/12. It is shown on "dsnCulvertStrucProp" in plan view and referenced in to the design file as 82022029.str from the "BRPrelim" folder and also drawn on the cross sections.

The earthwork on this project is in waste, approximately 700 cu. yds. Soils Design indicates that there are no identifiable slope stability issues that may affect the ROW on this project.

No special mitigation area is required.

Utilities on this project are as follows:

Mid American Energy
Centurylink
DME Railroad
Linwood Mining

The current letting date is 1/15/14

You may indicate your acceptance or request additional information by e-mail.

JRS:mk
Attach.
cc:

M. J. Kennerly	N. L. McDonald
K. D. Nicholson	G. A. Novey
D. L. Maifield	D. R. Claman
R. L. Stanley	J. P. Rost
Judy Lensing	S. C. Marler
E. J. Ranney	L. C. Funnell
D. A. Widick	T. L. Gettings
S. J. Gent	M. A. Swenson
T. Crouch	J. W. Smith
E. C. Wright	D. A. Popp
J. N. McCollough	B. Bradley
J. Vortherms	J. R. Schnoebelen
K. Yanna	S. Flockhart
M. Hobbs	E. Engle

D-5 Checklist

_X___ D-5 shell letter completed
_X___ Complete x-sections available
_X___ Plans and cross section files have been sheeted for batch plotting.
_X___ Culverts and structures complete
_____ Overhead signs and signals preliminary location identified.
_X___ Structure TS+L for all 4' and larger, pipes or culverts.
_____ Entrance (PDA) locations match access control letter
_X___ Entrance profile(s) on the plans and x-sections
_____ Stability berms completed
_X___ Final ditching done
_____ Borrows identified
_____ Wetland ROW requirements identified
_X___ Plan sheets checked for Township Range, scale, and other details
_X___ Plan sheets PDFs created and check printed
_____ Tab sheet for special needs included
_X___ Utility Legend

BRIDGE REPLACEMENT
BRFN-022-5(29)--39-82

LETTING DATE
01/15/2014

SCOTT Co.

Iowa Department of Transportation

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

SCOTT COUNTY

BRIDGE REPLACEMENT

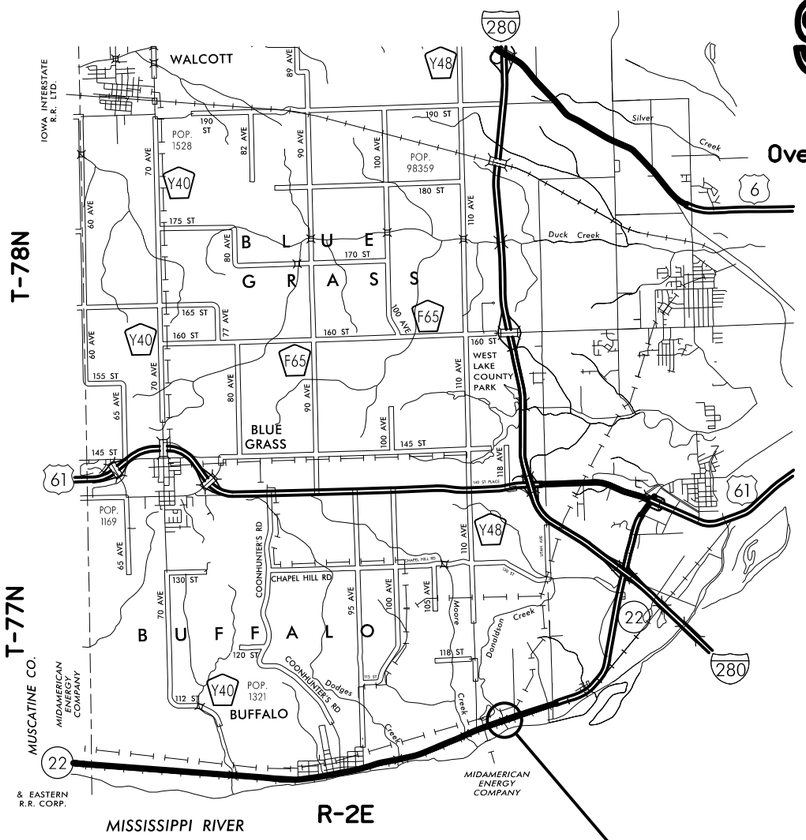
Over Donaldson Creek 2.8 miles W. Of I-280

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

NO MILEAGE SUMMARY



PROJECT LOCATION
STA. 293+65.30
M.P. 92.80

LOCATION MAP SCALE
0 1 2 3
Miles

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

REVISIONS

	TOTAL
PROJECT IDENTIFICATION NUMBER	
10-82-022-030	
PROJECT NUMBER	
BRFN-022-5(29)--39-82	
R.O.W. PROJECT NUMBER	
STPN-022-5(32)--2J-82	

INDEX OF SHEETS

DESIGN DATA RURAL

2013 AADT	4900	V.P.D.
2033 AADT	6100	V.P.D.
2033 DHV	630	V.P.H.
TRUCKS	21	%
Total Design ESALs	--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	James R. Schoenrock	Primary Signature Block

PRELIMINARY PLANS

Subject to change by final design.

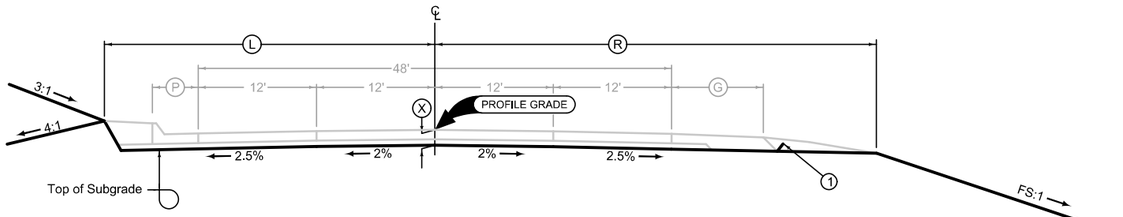
D5 PLAN – August 14, 2012

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER A.1

10:28:02 AM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029A01.sht

LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	FS
IA 22	291+30.00	291+54.00	29.5	44.2	22	4
IA 22	291+54.00	291+64.71	29.5	47.9	22	4
IA 22	291+64.71	291+90.38	29.5	47.9-46.9	22	4
IA 22	291+90.38	292+26.33	29.5-33.1	46.9-45.6	22	4
IA 22	292+26.33	292+95.78	33.1-40.0	45.6	22	4
IA 22	292+95.78	293+15.77	40.0	45.6	22	4
IA 22	294+25.80	294+70.00	40.0	44.2	22	4
IA 22	294+70.00	295+22.70	40.0-29.5	44.2	22	4
IA 22	295+22.70	298+15.00	29.5	44.2	22	4

2_Grade
Modified



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

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

4 LANE GRADING

(1) In areas where proposed shoulder elevation closely matches existing shoulder elevation, grade only as required to place proposed shoulder. Refer to cross sections for more information.

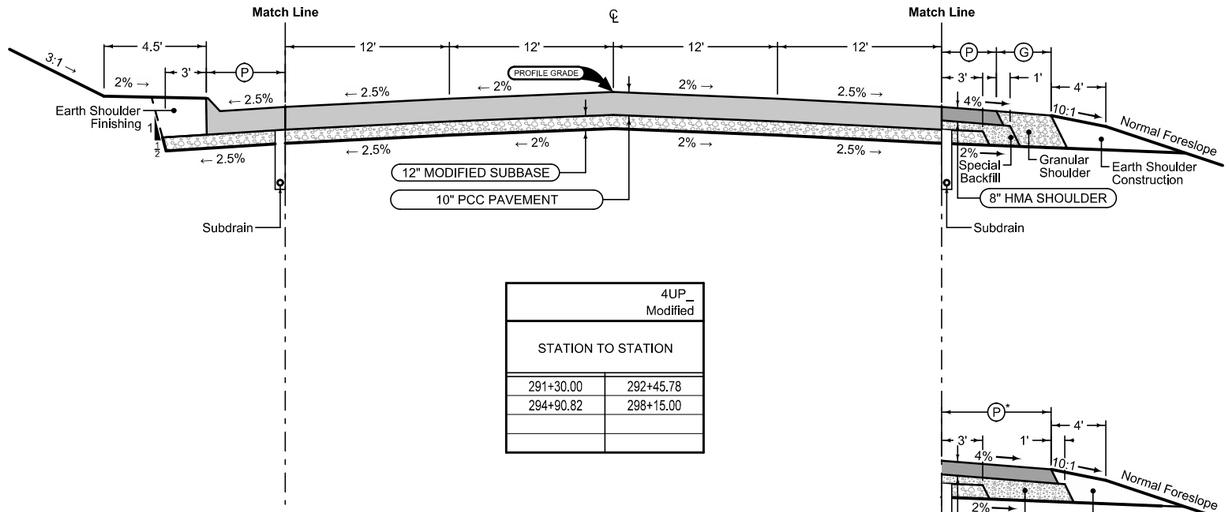
Curbed Shoulder

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

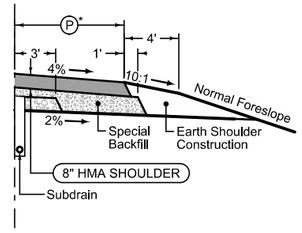
STATION TO STATION		(P) Feet	Curb Type See PV-102
291+30.00	291+90.38	1	6" Sloped
291+90.38	292+95.78	1.0-11.54	6" Sloped
292+95.78	293+10.78	11.54	6" Sloped
294+25.82	294+70.70	11.54	4" Sloped
294+70.70	295+22.70	11.54-1.0	4" Sloped
295+22.70	295+53.20	1	4" Sloped
295+53.20	296+48.20	1	1.5" Drop
296+48.20	298+15.00	1	6" Sloped

2_Curb_
Modified



STATION TO STATION	
291+30.00	292+45.78
294+90.82	298+15.00

4UP_
Modified



Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

STATION TO STATION		(P) Feet	(G) Feet
291+30.00	291+54.00	4	6
294+40.82	298+15.00	4	6

2_C_
10-19-10

Paved Shoulder at Guardrail

Shoulder Jointing:
Longitudinal joint: B

* See 7156 for shoulder width and additional breaks.

STATION TO STATION	
291+54.00	292+95.78

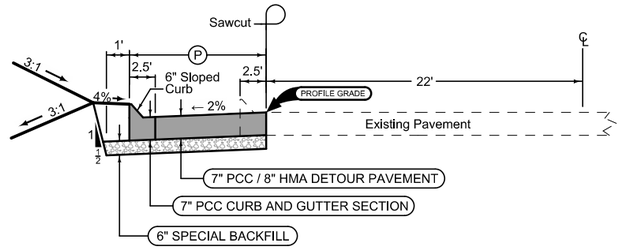
2_P_Guard_
10-19-10

See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

IA 22

Detour-1



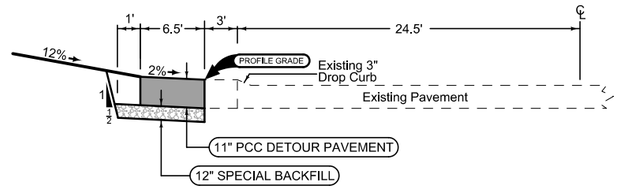
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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

DETOUR PAVING - STAGE 1

STATION TO STATION		(P) Feet
288+54.00	289+67.00	3-12
289+67.00	290+49.00	12
291+04.00	301+19.00	12

Detour-2



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

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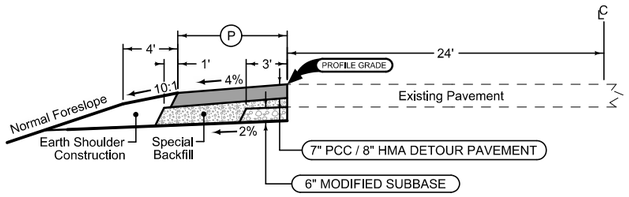
DETOUR PAVING - STAGE 1

STATION TO STATION	
290+49.00	291+04.00

Detour-3



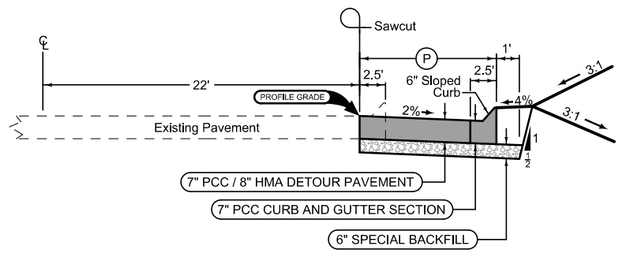
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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

DETOUR PAVING - STAGE 1

STATION TO STATION		(P) Feet
301+79.00	303+65.00	10
303+65.00	304+65.00	10-2

Detour-4



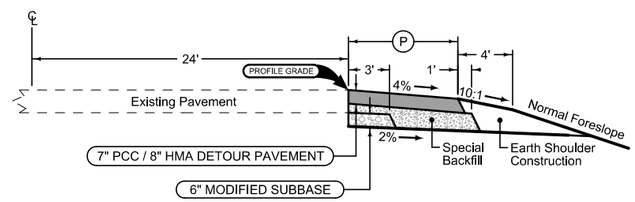
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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

DETOUR PAVING - STAGE 2

STATION TO STATION		(P) Feet
287+57.00	288+60.00	3-12
288+60.00	290+39.00	12

Detour-5

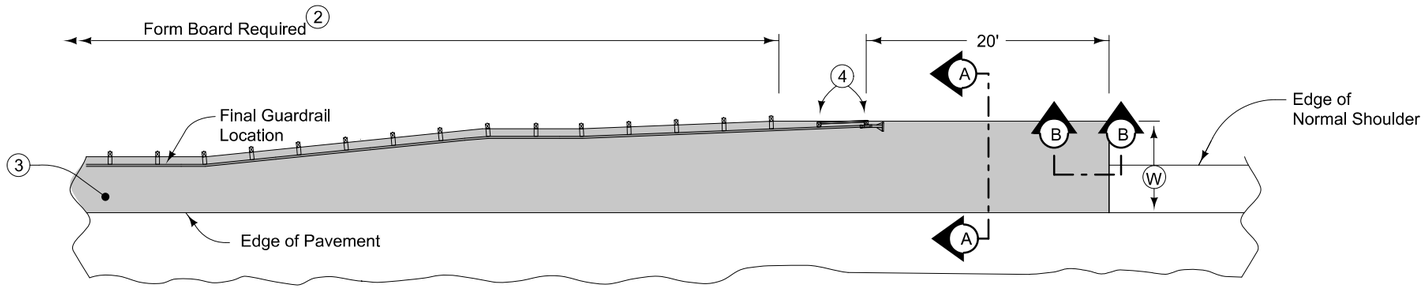


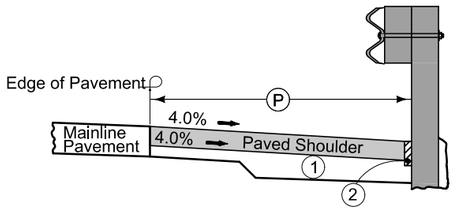
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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

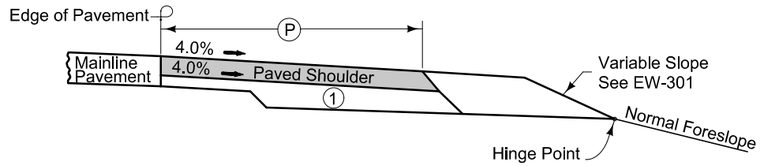
DETOUR PAVING - STAGE 2

STATION TO STATION		(P) Feet
298+15.00	298+58.00	10
298+58.00	299+60.00	10-2

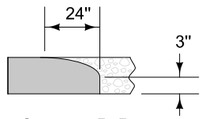




Typical Section with Form Board



Section A-A



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

6" HMA Paved Shoulder at guardrail. 7" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse joints in shoulder at mid-panel of the mainline pavement. Place longitudinal joint at W/2 from edge of mainline pavement when W is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail.Removal & reinstallation of guardrail will be allowed with no additional payment.

Refer to Shoulder tabulation (112-9) for quantities.

(1) 6" subgrade treatment.

(2) When guardrail posts are installed prior to construction of paved shoulder, nail 1" x 6" untreated form boards along the face of guardrail posts for the length shown. This board is to prevent shoulder material from contacting the sides of the posts and altering the function of the guardrail. Form board not required for final 2 posts.

(3) Continue paved shoulder to existing paved shoulder or 20' beyond the end of guardrail.

(4) Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement.

PAVED SHOULDER AT GUARDRAIL

SURVEY SYMBOLS

- FW Wire Fence
- PR Electic Riser Pole
- LUM Luminaire
- TA Tower Anchor
- RRS Railroad Signal
- PPA Power Pole Co. 1
- GDL Guard Rail Steel
- SI Sign
- OUT Tile Outlet
- BB Billboard
- SL Speed Limit Sign
- MM Mile Marker Post
- TPD Telephone Pedestal
- RRB Railroad Signal Box
- TIL Tile Line
- DU Centerline Draw or Stream (Up)
- D Centerline Draw or Stream (Down)
- EW Edge of Water
- BNK Stream Bank
- RIP Rip-Rap
- RR Centerline of Railroad Tracks
- TLA Underground Telephone Line Co. 1
- ELB Underground Electric Line Co. 2
- WLA Underground Water Line Co. 1
- GHA Underground High Pres Gas Co 1
- IN Storm Sewer Intake
- RET Retaining Walls
- TLNR Tree Line Right
- TLNL Tree Line Left
- STA Storm Sewer Line Co. 1

UTILITY LEGEND

- DME RailRoad

MidAmerican Energy (Gas)
Scott Bull
2811 5th Avenue
Rock Island, IL 61201
309-793-3763
sabull@midamerican.com

MidAmerican Energy (Electrical Transmission)
Tom Alberson
106 East 2nd Street
Davenport, IA 52801
563-338-8155
ktalbertson@midamerican.com

MidAmerican Energy (Electrical Distribution)
Jeff Thomas
2811 5th Avenue
Rock Island, IL 61201
309-793-3763
jwthomas@midamerican.com

Centurylink
Steven Parker
320 2nd Avenue SW
Rochester, MN 55902
507-285-2335
steven.parker4@quest.com

City of Buffalo
Al Horst
329 Dodge Street
Buffalo, IA 52728
563-381-2226
bufpublicworks@mchsi.com

Linnwood Mining
Abandoned Water Line

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)

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER D.1

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BUFFALO TWP.
T-77N R-2E
SEC. 24

POT Sta 283+07.48

285

290

295

+77 Prop. Type "B" Ent.

+01 Prop. Type "B" Ent.

+80 Prop. Type "B" Ent.

St.S.

IA 22 (ML022)

BEGIN CONSTRUCTION
STA 287+57.00

BEGIN PAVING
STA 291+30.00

DONALDSON CREEK

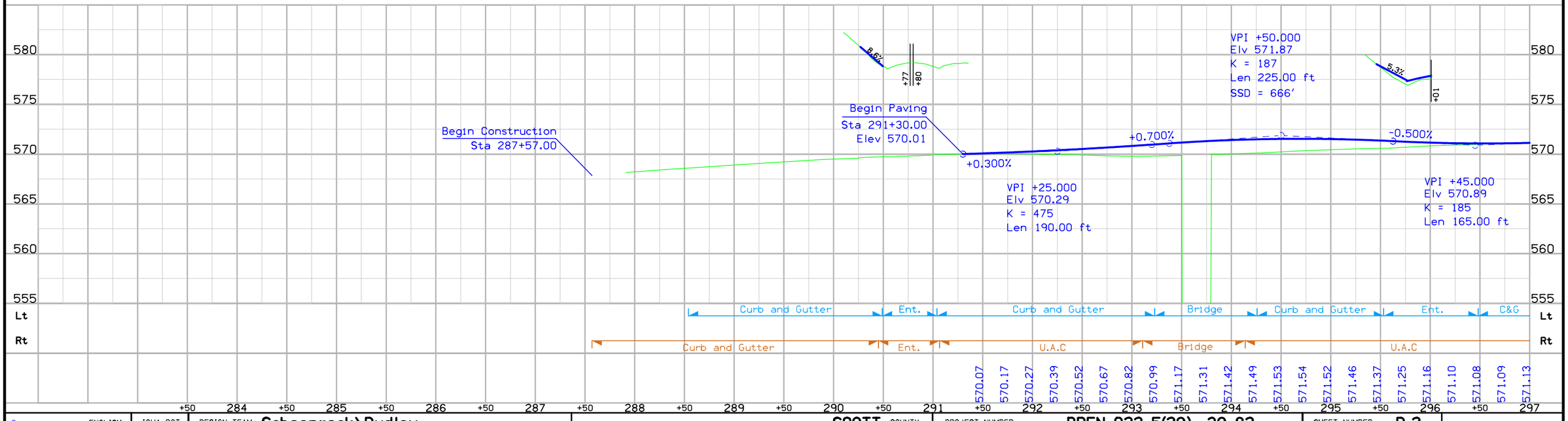
Sta. 293+65.8
30'x83.5' Conc. Arch Bridge
D.A. = 2100 Ac. R - H
(REMOVE)

Sta 293+65.09
Build 100'-0 x 68'-0
Concrete Beam Bridge

DAKOTA MINNESOTA EASTERN RR

0 FEET 50

Design No. 514
File No. 30687



C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER	BRFN-022-5(29)--39-82	SHEET NUMBER D.2

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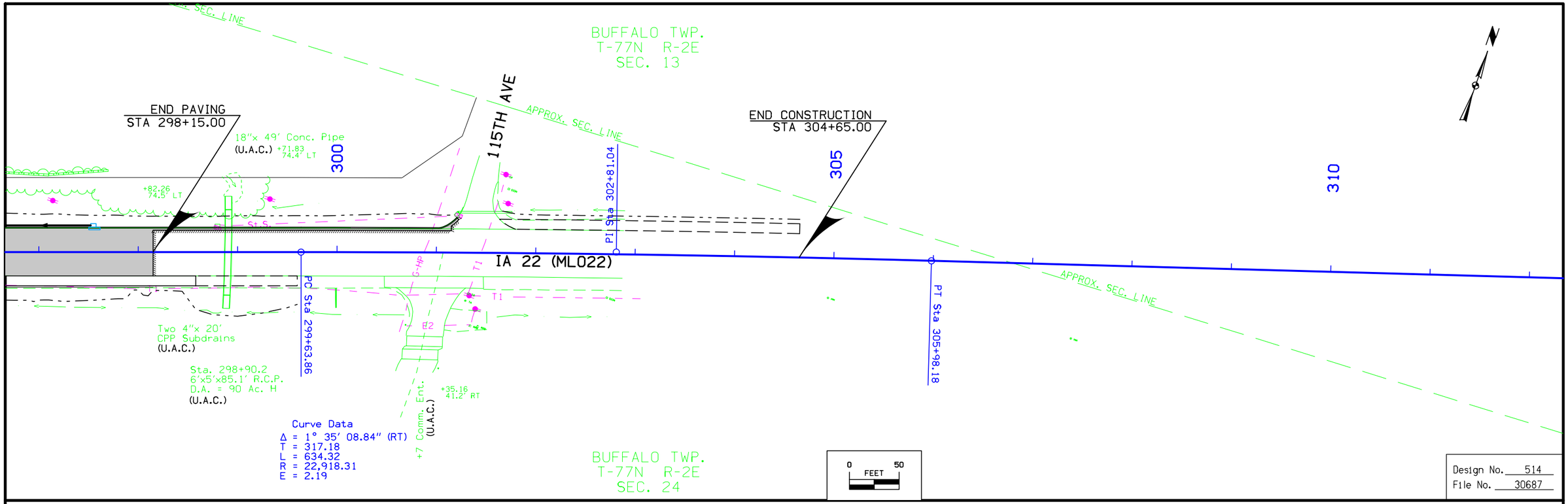

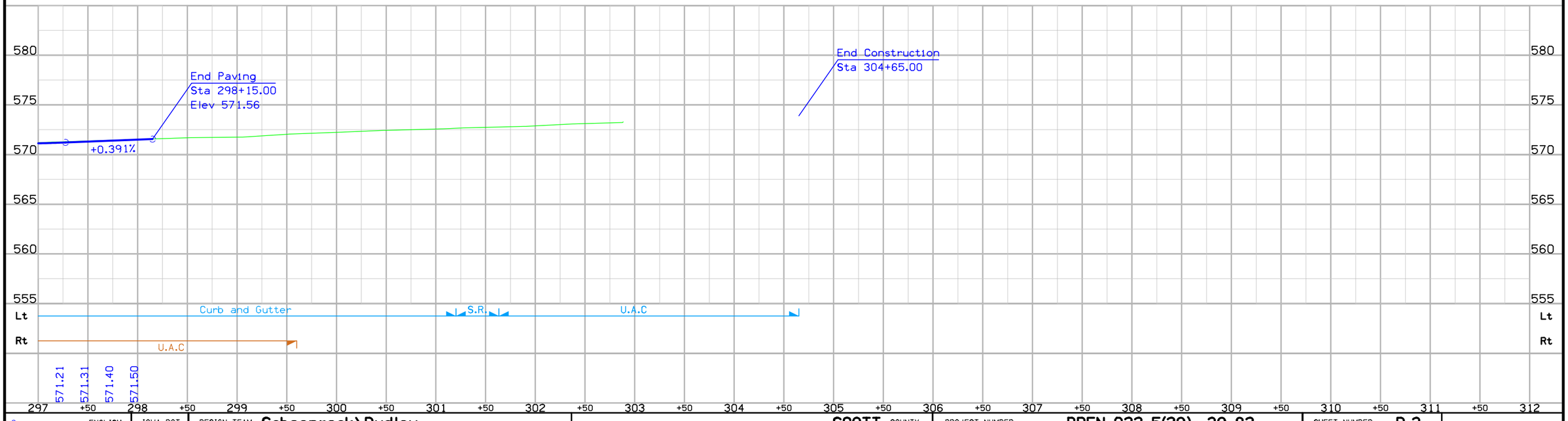

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER D.3	

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BUFFALO TWP.
T-77N R-2E
SEC. 24

287 288 289 290 291 292 293

St.S. T1 E2

IA 22 (ML022)

BEGIN WB
DETOUR PAVING
STA 288+54.00

DAKOTA MINNESOTA
EASTERN RR

0 FEET 20

Design No. 514
File No. 30687

574 572 570 568 566 564 562 560

BEGIN WB
DETOUR PAVING
Sta 288+54.00

12%
2%
+01

Curb and Gutter Ent. Curb and Gutter

Lt Rt

287 +20 +40 +60 +80 288 +20 +40 +60 +80 289 +20 +40 +60 +80 290 +20 +40 +60 +80 291 +20 +40 +60 +80 292 +20 +40 +60 +80 293

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER F.1

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BUFFALO TWP.
T-77N R-2E
SEC. 24

DONALDSON CREEK

APPROX. SEC. LINE

BUFFALO TWP.
T-77N R-2E
SEC. 13

293 294 295 296 297 298 299

St.S. St.S. St.S. St.S.

APPROX. SEC. LINE

IA 22 (ML022)

St.S. T1 T1 T1 T1

DAKOTA MINNESOTA
EASTERN RR

0 20
FEET

Design No. 514
File No. 30687

576 574 572 570 568 566 564 562

10%
2%
10+

Lt Curb and Gutter Ent. Curb and Gutter Lt
Rt Rt

293 +20 +40 +60 +80 294 +20 +40 +60 +80 295 +20 +40 +60 +80 296 +20 +40 +60 +80 297 +20 +40 +60 +80 298 +20 +40 +60 +80 299

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER F.2

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BUFFALO TWP.
T-77N R-2E
SEC. 13

115TH AVE

EXTEND 18" RCP
TO STA. 301+90.00

299 300 301 302 303 304 305

St.S.

IA 22 (ML022)

END WB
DETOUR PAVING
STA 304+65.00

DAKOTA MINNESOTA
EASTERN RR

0 FEET 20

Design No. 514
File No. 30687

578 576 574 572 570 568 566 564

END WB
DETOUR PAVING
Sta 304+65.00

Lt Curb and Gutter — Side Road — U.A.C
Rt

299 +20 +40 +60 +80 300 +20 +40 +60 +80 301 +20 +40 +60 +80 302 +20 +40 +60 +80 303 +20 +40 +60 +80 304 +20 +40 +60 +80 305

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER F.3

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BUFFALO TWP.
T-77N R-2E
SEC. 24

BEGIN EB
DETOUR PAVING
STA 287+57.00

STOP EB
DETOUR PAVING
STA 290+45.11

287 288 289 290 291 292 293

St.S.

IA 22 (ML022)

T1

E2

DAKOTA MINNESOTA
EASTERN RR

0 FEET 20

Design No. 514
File No. 30687

574 572 570 568 566 564 562 560

Lt
Rt

BEGIN EB
DETOUR PAVING
Sta 287+57.00

STOP EB
DETOUR PAVING
Sta 290+45.11

Curb and Gutter

287 +20 +40 +60 +80 288 +20 +40 +60 +80 289 +20 +40 +60 +80 290 +20 +40 +60 +80 291 +20 +40 +60 +80 292 +20 +40 +60 +80 293

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER F.4

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BUFFALO TWP.
T-77N R-2E
SEC. 13

RESUME EB
DETOUR PAVING
STA 298+58.00

END EB
DETOUR PAVING
STA 299+60.00

115TH AVE

296 297 298 299 300 301 302

St.S.

IA 22 (ML022)

T1 E2 G-HP

BUFFALO TWP.
T-77N R-2E
SEC. 24

0 FEET 20

DAKOTA MINNESOTA
EASTERN RR

Design No. 514
File No. 30687

578 576 574 572 570 568 566 564

Lt
Rt

RESUME EB
DETOUR PAVING
STA 298+58.00

END EB
DETOUR PAVING
STA 299+60.00

U.A.C.

296 +20 +40 +60 +80 297 +20 +40 +60 +80 298 +20 +40 +60 +80 299 +20 +40 +60 +80 300 +20 +40 +60 +80 301 +20 +40 +60 +80 302

C ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER	BRFN-022-5(29)--39-82	SHEET NUMBER	F.5

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Survey Information

Scott County
SAP 0699
BRFN-022-5(29)--39-82
IA22 Bridge over Donaldson Creek 2.8 miles west of the junction of I-280
PIN 10-82-022-020

General Information

This survey is in English Units.

Control Information -Opus & RTN observations were utilized as a basis for project control. 11 Control Points were held fixed in the RTK calibration.

2 held fixed Vertically; 601,605
9 held fixed Vertically and Horizontally; 49,50,51,52,53,54,600,603,606

Vertical Datum

This survey is relative to NAVD 88 vertical datum.

At the project location, CP49 was observed with both a IaRTN observation and in a four-hour static GPS observation. The vertical difference between the two observations was 0.15 feet. The OPUS elevation value of 567.578 was held fixed in a bench level loop. CP54 was observed with both a IaRTN observation and in a four-hour static GPS observation. The vertical difference between the two observations was also 0.27 feet. The Opus elevation value of 572.325 was held fixed in a bench level loop.

A bench level loop originated and terminated on CP49, elevation 567.578 on BM600 was computed by backing elevations west from CP49.

The adjusted elevations of all CP and BM points along the route were held fixed in the RTK vertical calibration. The total length of the loop was 1.5 mile with a missed closure of 0.0061 feet.

The estimated vertical difference between NAVD88 to NGVD29 at the project site is 0.19' were (29 higher is than 88).

Equations:

BM#603 this survey	Elev. =566.498
BM#133A	Elev. =567.25 1973 Situation Plan FN-22-5(2)--21-82
BM#603	Elev. =566.688 (Computed NGVD 29)
BM#605 this survey	Elev. =567.145
BM#133	Elev. =567.90 1973 AB Plan FN-22-5(2)--21-82 Sheet 55 of 419
BM#605	Elev. =567.335 (Computed NGVD 29)
BM#606 this survey	Elev. =568.934 (US Corps of Engineers BM 16-R-5...Fd 2" Pipe w/Cap)
BM# 16-R-5	Elev. =571.75 1987 Storm Sewer AB Plan FN-22-5(17)--21-82 Sheet G01 of 22
BM# 16-R-5	Elev. =571.75 1975 Grading/Pave AB Plan FN-22-5(2)--21-82 Sheet 56 of 419
BM# 16-R-5	Elev. =569.653 F-22-5(2)-20-82 H.C. Brockman Bench Levels Notes Page 15
BM#606	Elev. =569.22 (Computed NGVD 29)

Horizontal Datum

Project Coordinate Transformation

Iowa State Plane South Zone coordinates in US feet were transformed to project ground coordinates using a 1/combined scale factor broadcast about a held point. The held State Plane coordinate and project coordinate at CP16 are N= 542164.037 E=2395111.853

1 / GRID = 1.000063684

VERTICAL DATUM = NAVD 88 <> HORIZONTAL DATUM = NAD 83 (IARTN)

Local Project Plane Coordinate Conversion Equation:
a. Local Project Coord y = [(State Plane y - hold point y) 1/grid factor] + hold point y
b. Local Project Coord x = [(State Plane x - hold point x) 1/grid factor] + hold point x

ALL COORDINATES CONVERTED TO ENGLISH UNITS

POINT	STATE PLANE COORD(Y)	STATE PLANE COORD(X)	POINT SCALE FACTOR	LOCAL PROJECT PLANE COORD(Y)	LOCAL PROJECT PLANE COORD(X)	ESTIMATED GPS DERIVED ORTHOMETRIC HEIGHT
16	542164.037	2395111.853	0.999958200	542164.037	2395111.853	567.674
49	545271.503	2410839.412	0.999958760	545271.701	2410840.414	567.577
50	545654.368	2411620.108	0.999958830	545654.590	2411621.159	566.309
51	545888.072	2412475.012	0.999958860	545888.309	2412476.118	569.589
52	545993.312	2412803.102	0.999958900	545993.556	2412804.229	566.817
53	546068.372	2412791.123	0.999958900	546068.621	2412792.249	570.012
54	546360.898	2413901.196	0.999958980	546361.165	2413902.393	572.327
600	545016.905	2410205.754	0.999958760	545017.087	2410206.715	567.603
601	545512.137	2411392.554	0.999958760	545512.350	2411393.591	567.051
602	545810.193	2412237.255	0.999958830	545810.425	2412238.346	567.838
603	546089.722	2412813.537	0.999958900	546089.972	2412814.664	566.498
604	546129.851	2412916.034	0.999958900	546130.104	2412917.168	571.059
605	546173.140	2413319.925	0.999958980	546173.395	2413321.085	567.145
606	546175.157	2413555.122	0.999958980	546175.412	2413556.297	568.934

Alignment

The mainline alignment is a retrace of the existing alignment found on the FN-22-5(2)--21-82 AB Plan. Stationing was backed up & carried forward from a Mag nail found at PC Sta 299+64.35 without equation.

Alignment Equations

PC Sta 299+64.35 This Survey
=PC Sta 299+64.35 FN-22-5(2)--21-82 AB Plan

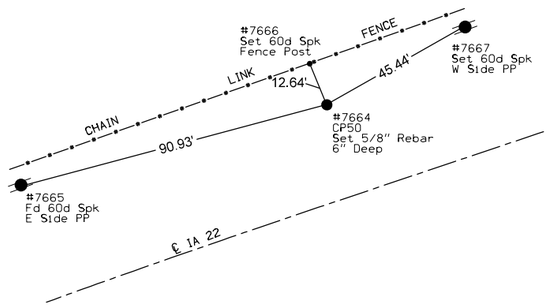
BENCHMARKS

						ELEVATION
No. 602 Sta.	287+47.228	28.098 Rt.	Y: 545810.425	X:2412238.346	Cut a square on SW Corner intake----------	567.838
No. 603 Sta.	293+83.546	45.303 Lt.	Y: 546089.972	X:2412814.664	Fd IHC BM on InHdwl of Arch Brg----------	566.498
No. 604 Sta.	294+93.554	49.308 Lt.	Y: 546130.104	X:2412917.168	Fd RR Spk S Side PP----------	571.059
No. 605 Sta.	298+89.086	43.306 Rt.	Y: 546173.395	X:2413321.085	Fd IHC BM on Outlet Hdwl----------	567.145
No. 606 Sta.	301+12.522	118.648 Rt.	Y: 546175.412	X:2413556.297	Fd US CORPS BM A STANDARD CAP on a 2" Pipe access thru a hinged cap on a 4" pipe=US Corps BM# 16-R-5 Pipe----------	568.934

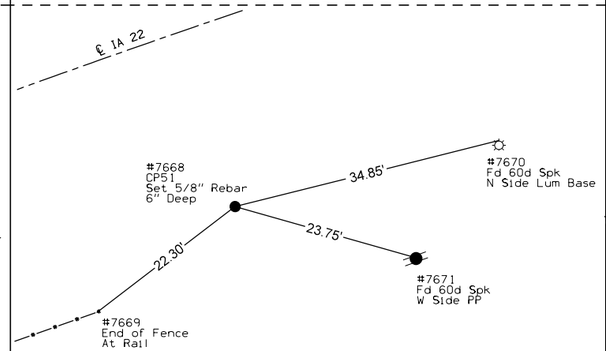
MISCELLANEOUS LOCATIONS

No. 600 Sta.**********	Y: 545017.087	X:2410206.715	Fd "X" SE Wing of Br----------	567.603
No. 601 Sta.**********	Y: 545512.350	X:2411393.591	Cut a square on SE Corner intake----------	567.051

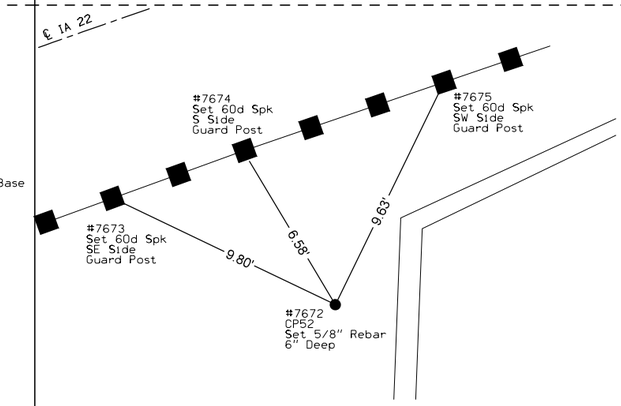
C.P. NO STATIONING
C.P. 50, Set 5/8" Rebar 6" Deep
N=545654.590 E=2411621.159



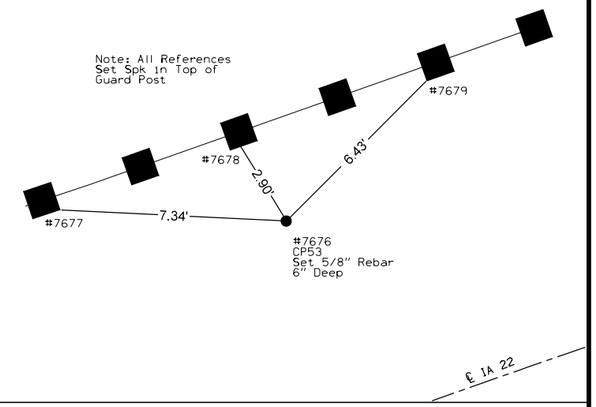
C.P. 289+97.38 RIGHT 33.16
C.P. 51, Set 5/8" Rebar 6" Deep
N=545888.309 E=2412476.118



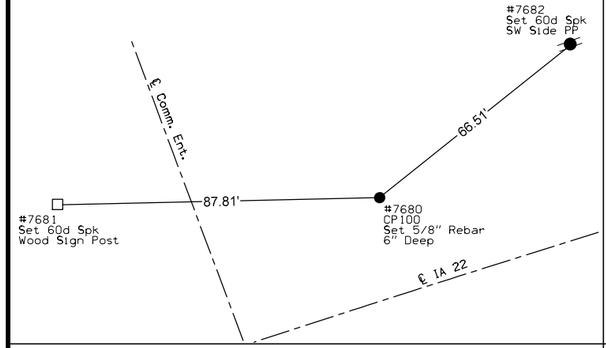
C.P. 293+41.84 RIGHT 42.25
C.P. 52, Set 5/8" Rebar 6" Deep
N=545993.556 E=2412804.229



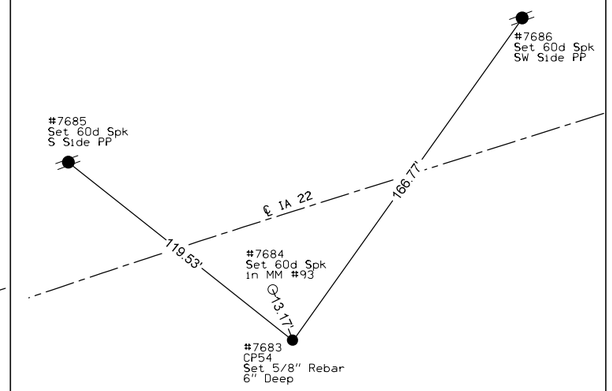
C.P. 293+55.34 LEFT 32.56
C.P. 53, Set 5/8" Rebar 6" Deep
N=546068.621 E=2412792.249



C.P. 296+50.59 LEFT 30.21
C.P. 100, Set 5/8" Rebar 6" Deep
N=546163.972 E=2413071.688



C.P. 305+01.05 RIGHT 51.89
C.P. 54, Set 5/8" Rebar 6" Deep
N=546361.165 E=2413902.393



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER G.2

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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)
3	ML022	283+07.48	545,691.63	2,411,814.02															
C1	ML022							299+63.86	546,238.98	2,413,377.35	302+81.04	546,343.79	2,413,676.71	305+98.18	546,440.27	2,413,978.86			
5	ML022	326+93.81	547,077.77	2,415,975.17															

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	
C1	ML022										1° 35′ 08.84″ RT	317.18′	634.32′	22,918.31′	2.19′	

Scott	ROW Project Number:STPN-022-5(32)--2J-82		PIN:	10-82-022-030												
	Over Donaldson Creek 2.8 Miles W. Of I-280															
PARCEL NO.	OWNER NAME	R/W STATE - FEE	R/W STATE - EASE	R/W COUNTY - FEE	R/W COUNTY - EASE	R/W CITY - FEE	R/W CITY - EASE	EXCESS	BORROW - FEE	BORROW - T.E.	MITIGATION	OTHER	HOUSE	BUILDING(S)	A/C ONLY	TOTAL ACQ.
1	LINWOOD STONE PRODUCTS CO, INC.		0.31 AC													
2R	DAKOTA, MINNESOTA & EASTERN R.R.		0.35 AC													
2 PARCELS	TOTALS	0 AC	0.66 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC					
		0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF								

	DESIGN:	Schoenrock\Dudley		IOWA DOT * OFFICE OF ROW	SCOTT COUNTY	PROJECT NUMBER	BRFN-022-5(29)--39-82	SHEET NUMBER	

8:05:33 AM mgogert W:\Projects\8202203010\ROW\Parcel_Check List.dgn

(1)

LINWOOD STONE PRODUCTS CO, INC.
& LINWOOD MINING & MINERALS CORP.

APPROX. SEC. LINE

+86 Quarry Ent.

Two 96" X 70'
Cast Iron Pipes
(U.A.C.)

PERMANENT EASEMENT FOR
EROSION CONTROL MEASURES

BUFFALO TWP.
T-77N R-2E
SEC. 24

POT Sta 283+07.48

285

288+75
℄50'±ExR/W

290+05
℄65'

290

+77 Prop.
Type "B" Ent.

293+20
℄75'(Exist.Corner)

294+35
℄140'

294+80
℄135'

295

+01 Prop.
Type "B" Ent.

St.S.

IA 22 (ML022)

BEGIN CONSTRUCTION
STA 287+57.00

287+55
℄36'±PropR/W

290+40
℄43'±PropR/W

BEGIN PAVING
STA 291+30.00

+80 Prop.
Type "B" Ent.

291+10
℄45'±PropR/W

292+55
℄49'±PropR/W

DONALDSON CREEK

Sta. 293+65.8
30'x83.5' Conc. Arch Bridge
D.A. = 2.00 Ac. R - H
(REMOVE)

Sta 293+65.09
Build 100'-0 x 68'-0
Concrete Beam Bridge

DAKOTA MINNESOTA
EASTERN RR

294+90
℄55'

(2R)

DAKOTA, MINNESOTA
& EASTERN R.R.

293+30
℄75'

293+90
℄75'

TEMPORARY EASEMENT
TO SHAPE UNDER BRIDGE

(1)

LINWOOD STONE PRODUCTS CO, INC.
& LINWOOD MINING & MINERALS CORP.

0 FEET 50

FLINT HILLS RESOURCES
PINE BEND, LLC

+86 Comm. Ent.

For Mainline Details
Refer to Sheet No. D.2

For Detour Details
Refer to Sheets No. F.1, F2 & F4

Right of Way Design Information

**THIS SHEET INCLUDED
FOR INFORMATION ONLY**

ROW Team: GETTINGS/DUMDEI/GOGERTY
ROW #: STPN-22-5(32)--2J-82
Plan Date: 8/15/12
Color Legend:

- **Property LIne**
- **Temporary Easement**
- **Permanent Acquisition**

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER H.1

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LINWOOD STONE PRODUCTS CO, INC.
& LINWOOD MINING & MINERALS CORP.

APPROX. SEC. LINE

BUFFALO TWP.
T-77N R-2E
SEC. 13

115TH AVE

APPROX. SEC. LINE

18"x 49' Conc. Pipe
(U.A.C.) +71.83
74.4' LT

300

+82.26
74.5' LT

St S

PI Sta 302+81.04

305

310

IA 22 (ML022)

APPROX. SEC. LINE

PT Sta 305+98.18

2R

Two 4"x 20'
CPP Subdrains
(U.A.C.)

DAKOTA, MINNESOTA
& EASTERN R.R.

Sta. 298+90.2
6'x5'x85.1' R.C.P.
D.A. = 90 AC. H
(U.A.C.)

PC Sta 299+62.86

299+35
℄65'

299+35
℄50'

TEMPORARY EASEMENT
TO SHAPE

Curve Data
Δ = 1° 35' 08.84" (RT)
T = 317.18
L = 634.32
R = 22,918.31
E = 2.19

+7 Comm.
(U.A.C.)

+35.16
41.2' RT

300+40
℄35'±PropR/W

299+90
℄35'±PropR/W

BUFFALO TWP.
T-77N R-2E
SEC. 24

0 FEET 50

TA

FLINT HILLS RESOURCES
PINE BEND, LLC

TEXPAR ENERGY, LLC

For Mainline Details
Refer to Sheet No. D.3

For Detour Details
Refer to Sheets No. F2, F3 & F5

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: GETTINGS/DUMDEI/GOGERTY
ROW #: STPN-22-5(32)--2J-82
Plan Date: 8/15/12
Color Legend:
Property LInes
Temporary Easement
Permanent Acquisition

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER H.2

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108-23A
08-01-08

TRAFFIC CONTROL PLAN

IA 22
Traffic will be maintained by staged construction with one lane open in each direction at all times.

108-26A
08-01-08

STAGING NOTES

2014 Construction Season
Stage I
Traffic Control
Two-lane two-way traffic will be maintained with 11' lanes on the existing north lane and shoulder of IA 22.

Construction
Construct the south 34' of paving of IA 22.

Stage II
Traffic Control
Two-lane two-way traffic will be maintained with 11' lanes on the newly constructed south lane and shoulder of IA 22.

Construction
Construct the north 34' of paving of IA 22.

102-15
08-01-08

TABULATION OF SPECIAL EVENTS

Event	Location	Date
xx	xx	xx

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 Subbase
- Proposed Special Backfill
- Temporary Barrier Rail
- Proposed Granular Shoulder
- Temporary Shoulder
- Existing Shoulder Strengthening
- 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

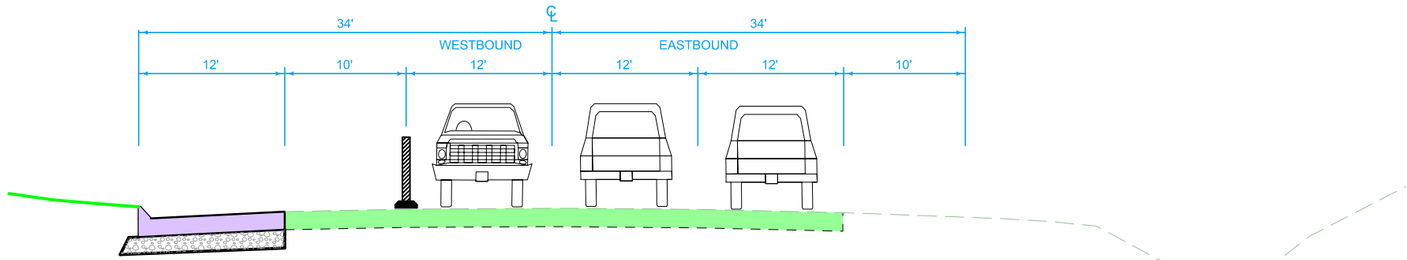
PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

- Channelizing Device
- Drum
- Temporary Lane Separator
- Tubular Marker
- Channelizer Marker
- Concrete Barrier Marker
- Delineator
- Temporary Barrier Rail
- Pavement Removal
- Crash Cushion
- Traffic Signal
- Flagger
- Temporary Floodlighting
- Traffic Sign
- Type III Barricade
- Type A Warning Light
- Direction of Traffic
- Safety Closure

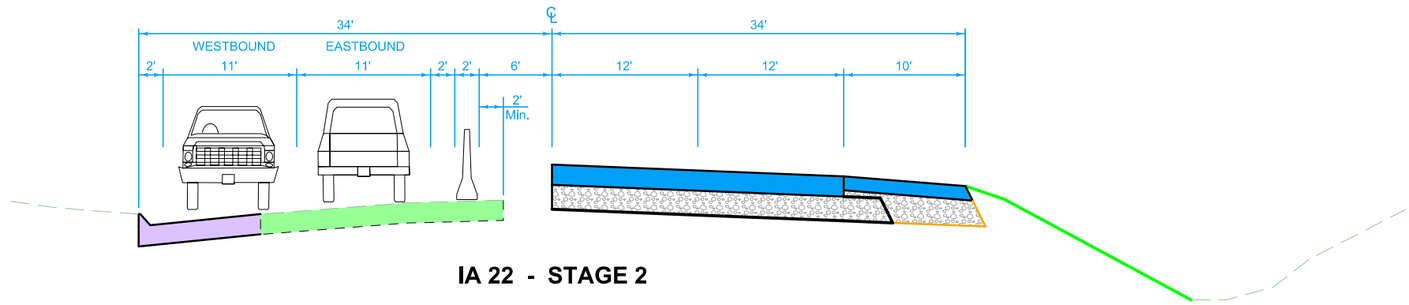
NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

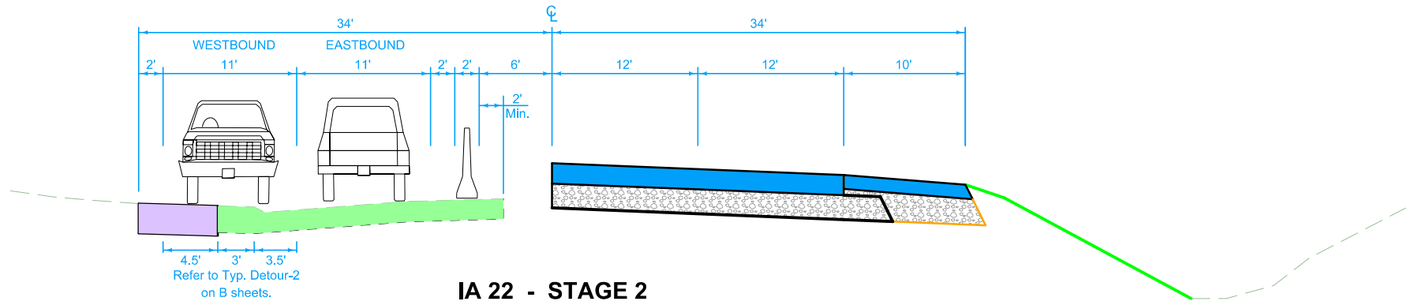
(COVERS SHEET SERIES J)



IA 22 - STAGE 1



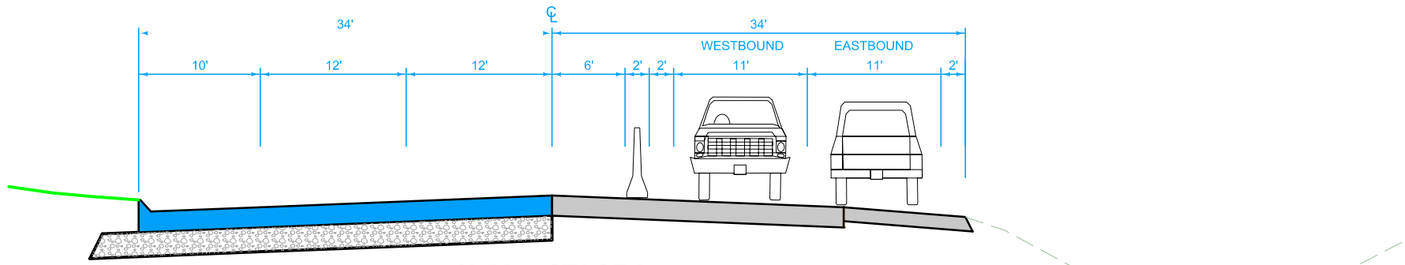
IA 22 - STAGE 2



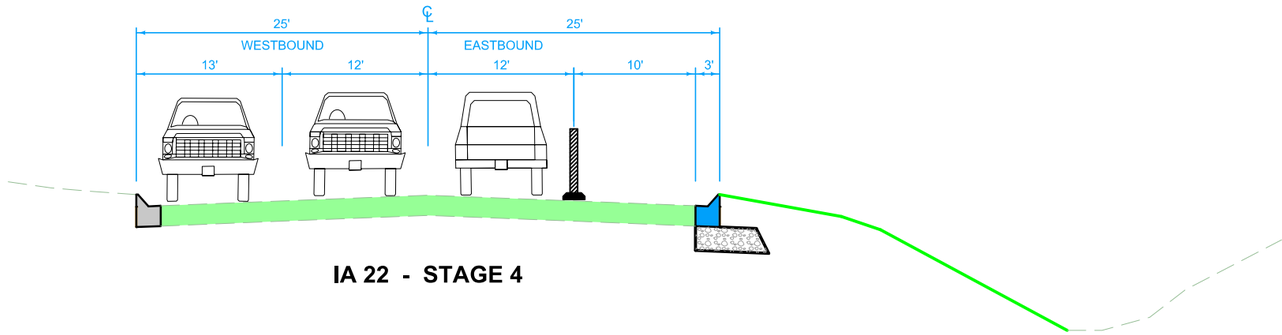
IA 22 - STAGE 2
Mine Ent. Sta 290+77

C ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER	BRFN-022-5(29)--39-82	SHEET NUMBER J.3

10:40:09 AM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029J03.sht



IA 22 - STAGE 3



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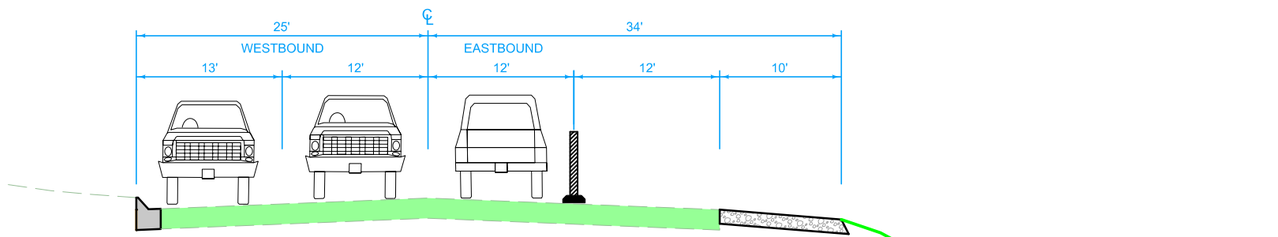
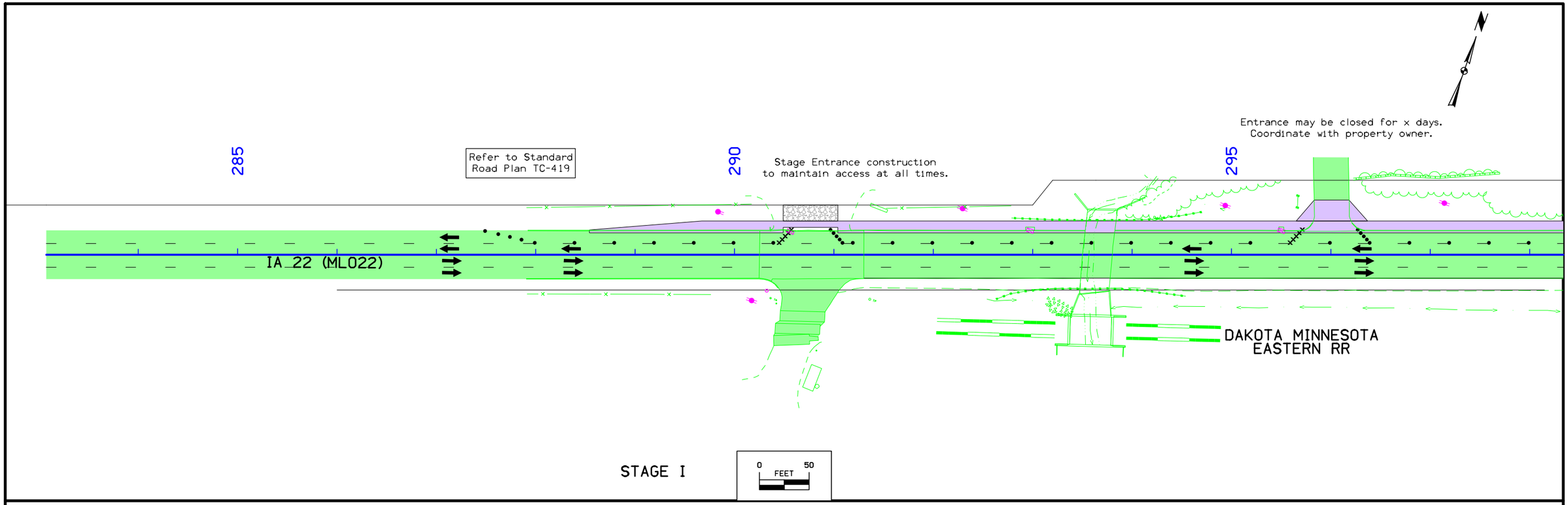
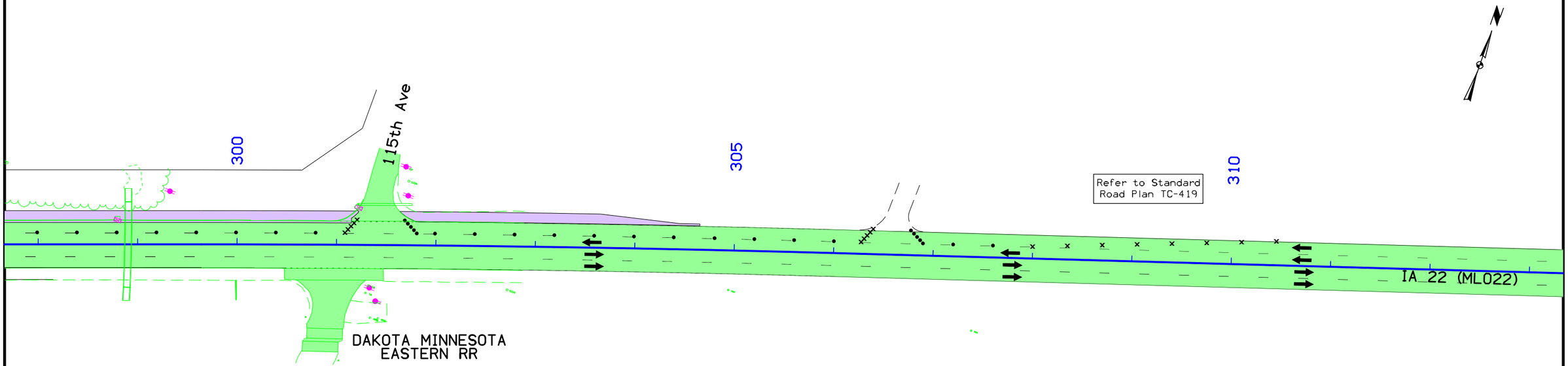


IA 22 - STAGE 4



STAGE I



STAGE I

C ENGLISH	IOWA DOT	DESIGN TEAM **Schoenrock\Dudley**	**SCOTT** COUNTY	PROJECT NUMBER	**BRFN-022-5(29)--39-82**	SHEET NUMBER	**J.5**

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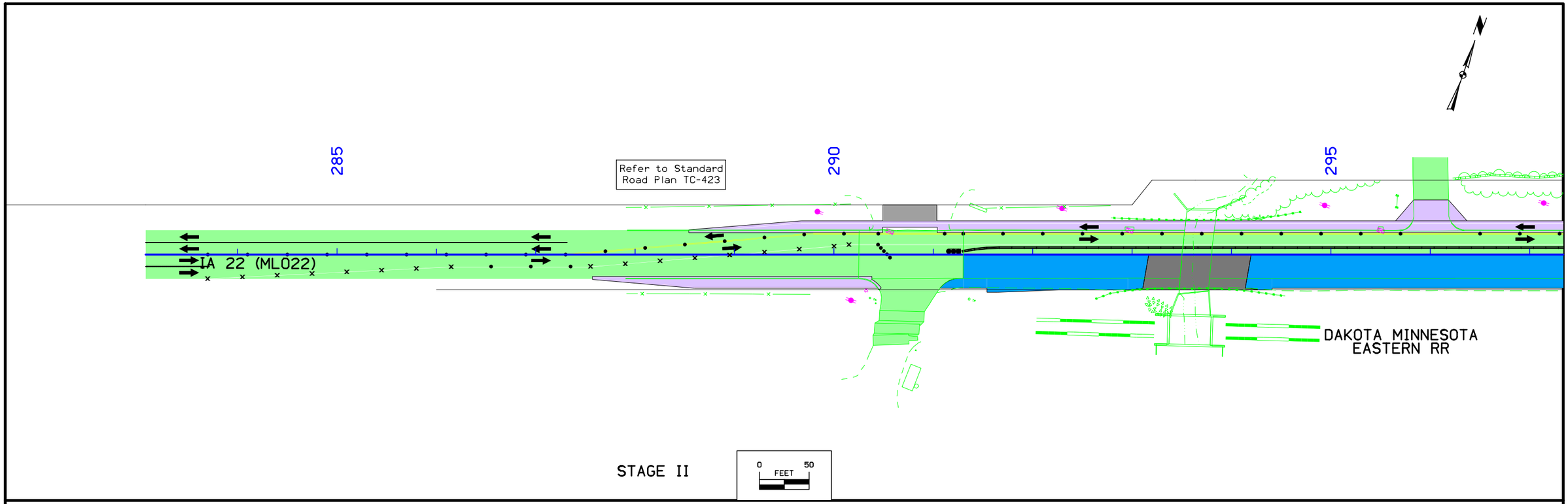
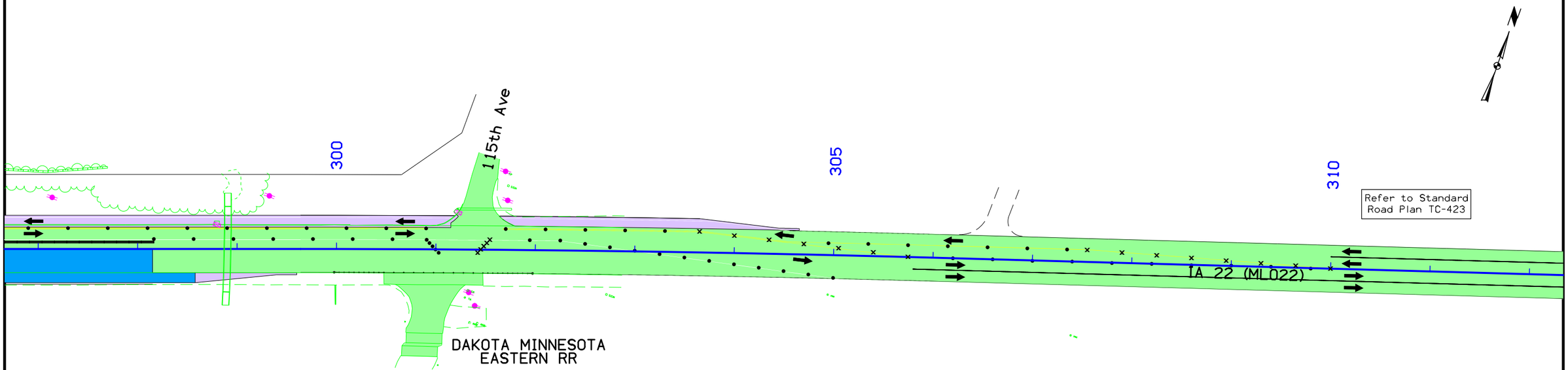


STAGE II

0 FEET 50



STAGE II

0 FEET 50

C ENGLISH	IOWA DOT	DESIGN TEAM **Schoenrock\Dudley**	**SCOTT** COUNTY	PROJECT NUMBER	**BRFN-022-5(29)--39-82**	SHEET NUMBER **J.6**

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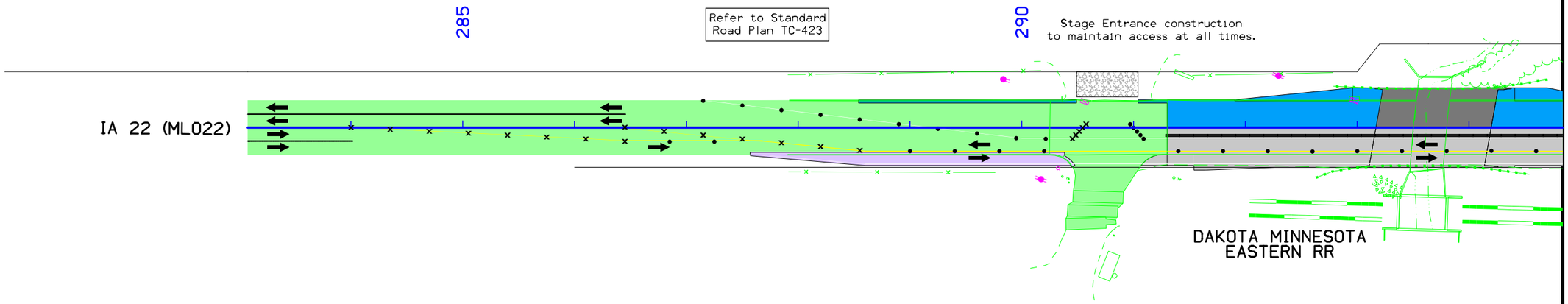

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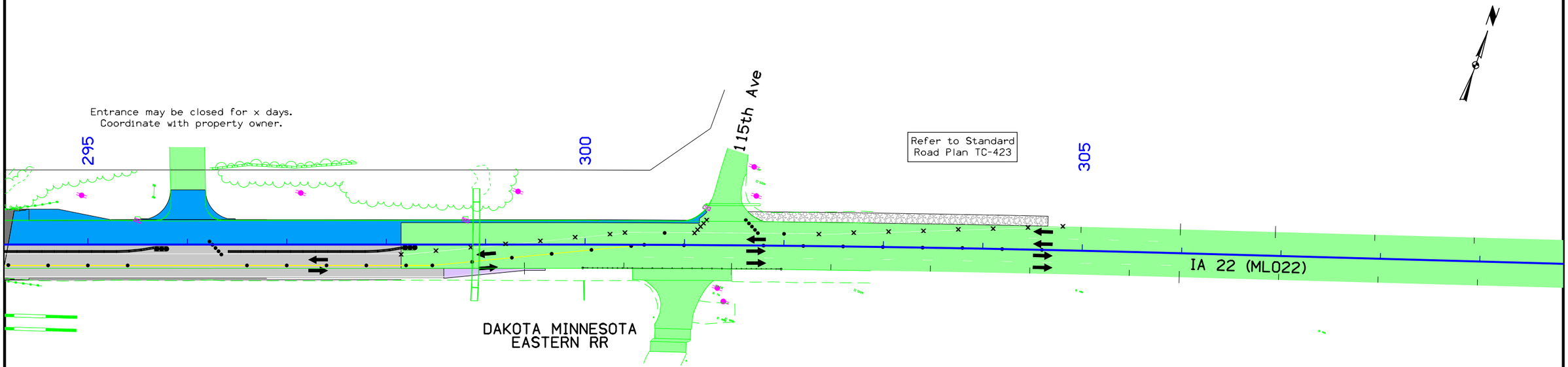

STAGE III

0 FEET 50

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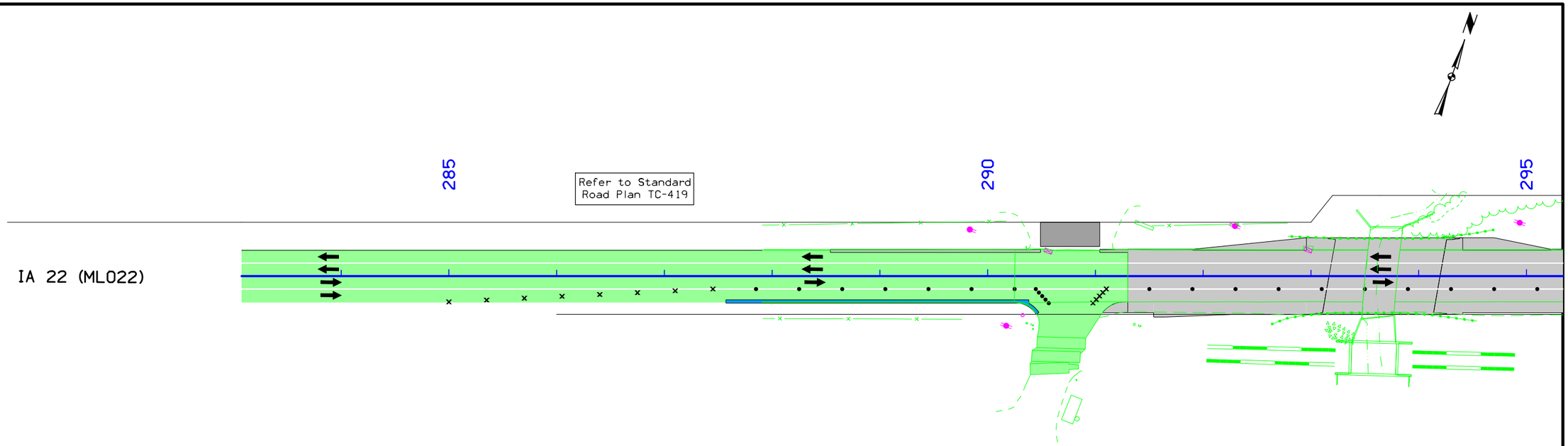
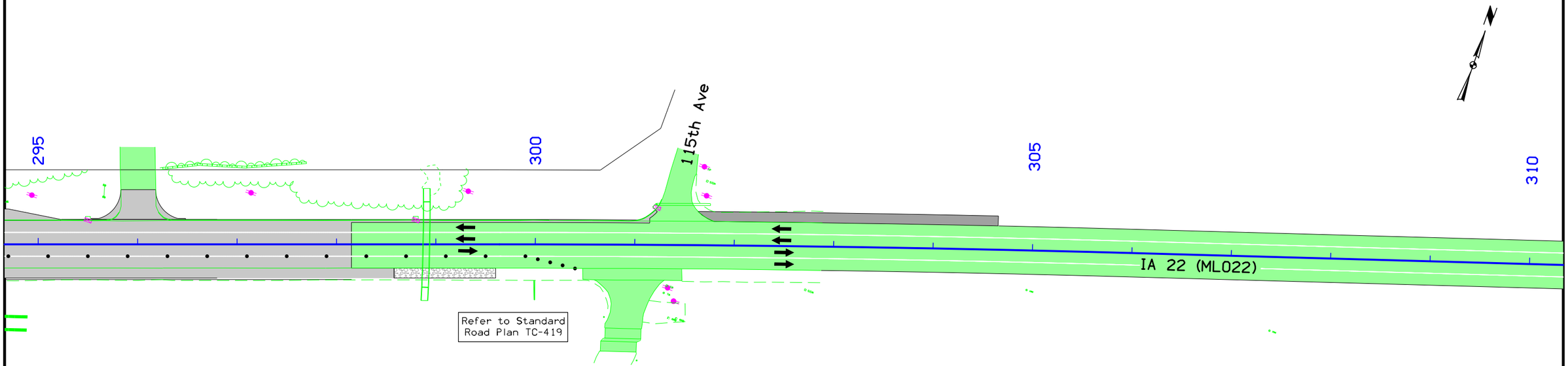


STAGE IV

0 FEET 50



STAGE IV

0 FEET 50

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER	BRFN-022-5(29)--39-82	SHEET NUMBER J.8

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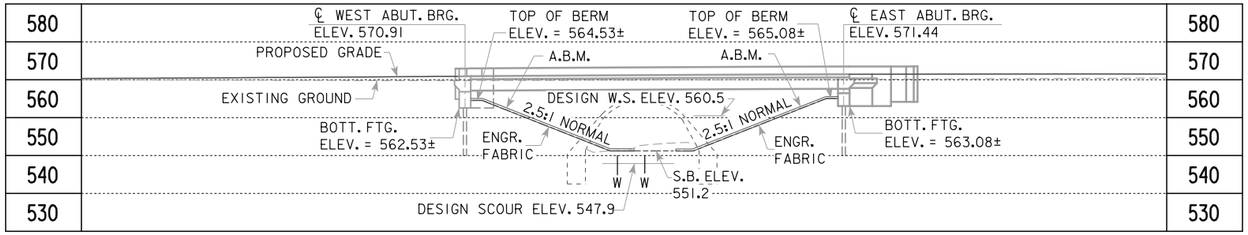
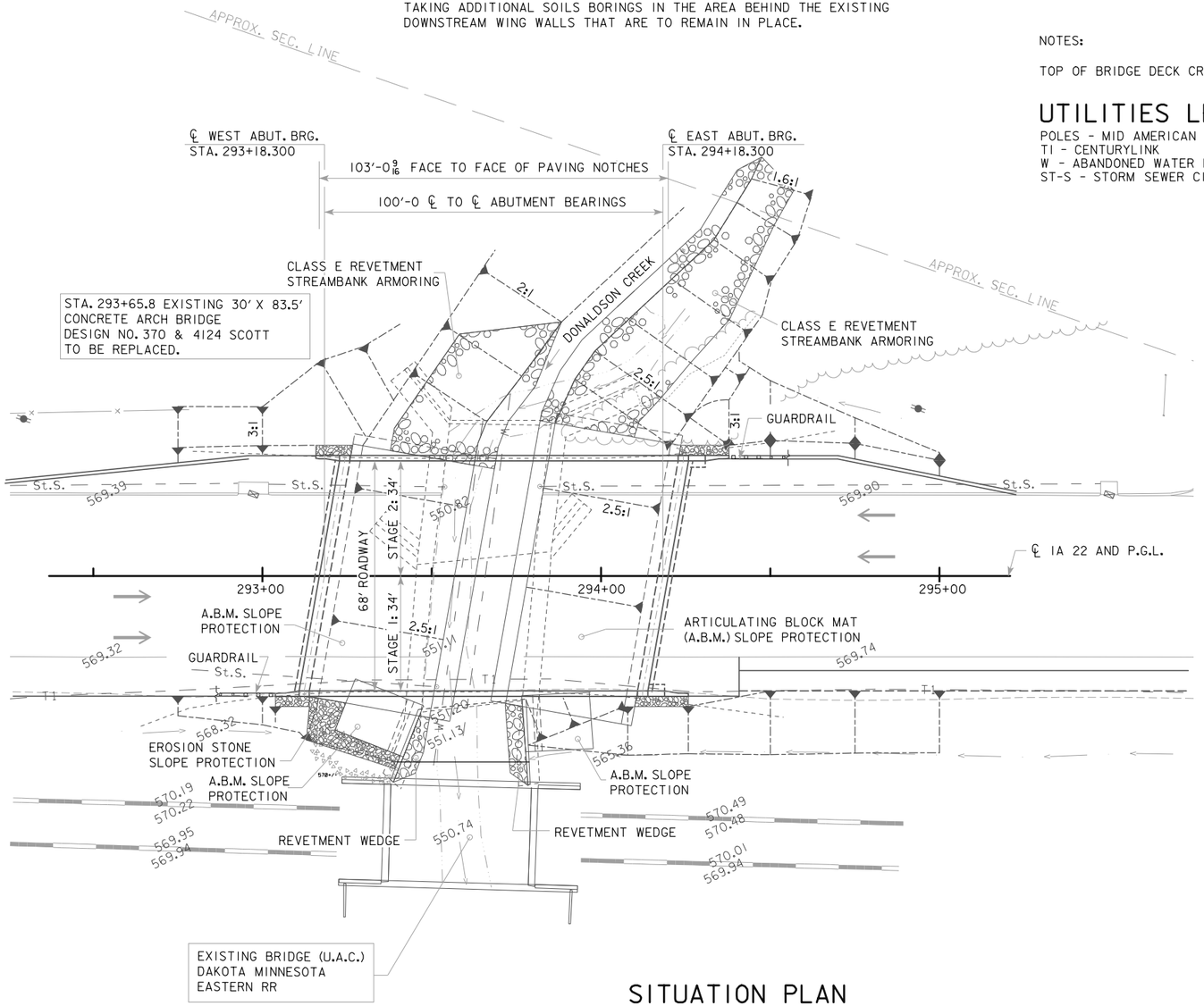


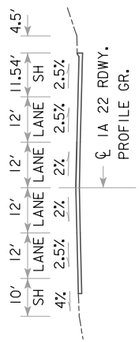
LONGITUDINAL SECTION ALONG ℄ APPROACH ROADWAY

** NOTE TO SOILS DESIGN
PER MEETING WITH BOB STANLEY ON 2-29-12, SOILS DESIGN SHOULD CONSIDER TAKING ADDITIONAL SOILS BORINGS IN THE AREA BEHIND THE EXISTING DOWNSTREAM WING WALLS THAT ARE TO REMAIN IN PLACE.



SITUATION PLAN

TYPICAL APPROACH SECTION



BENCH MARK NO. 603 STA. 293+83.546, 45.303 LT. FD IHC BM ON INHDWL OF ARCH BRG, ELEV. 566.498

NOTES TO FINAL DESIGNER:

STAGE I - THE INTENT IS TO PROVIDE > 1' CLEAR OVER THE EXISTING ARCH BRIDGE TO ALLOW IT TO REMAIN IN PLACE AS NEEDED FOR STAGE I CONSTRUCTION.

SPECIAL CONSIDERATION OF PILE DESIGN AT ABUTMENTS DUE TO SHALLOW BEDROCK.

WING EXTENSION PROPOSED AT EAST ABUTMENT ONLY.

COORDINATE DECK DRAIN DESIGN WITH DOUG RICK.

USE TL-4 BARRIER.

ESTIMATED SCOUR DEPTH IN FRONT OF THE REMAINING WING WALLS CAN BE FOUND IN THE PROJECT FILE.

NOTES:

TOP OF BRIDGE DECK CROWN 0.03' BELOW PROFILE GRADE.

UTILITIES LEGEND:

POLES - MID AMERICAN ENERGY
TI - CENTURYLINK
W - ABANDONED WATER LINE LINWOOD MINING
ST-S - STORM SEWER CITY OF BUFFALO

g=+0.300% g=+0.700% g=-0.500%

VPI STA = 292+25.000
VPI ELEV = 570.29
VC = 190.00'

VPI STA = 294+50.000
VPI ELEV = 571.87
VC = 225.00'

PROPOSED PROFILE GRADE IA 22

HYDRAULIC DATA

DRAINAGE AREA = 3.3 SQ. MI.
STREAM SLOPE = 47.6 FT./MI.

Q2 = 390 CFS
STAGE = 555.7
CHANNEL VELOCITY = 4.2 FPS

Q_{50} = 1920 CFS
STAGE = 560.5
BACKWATER = 0.0 FT.
AVG. BRIDGE VELOCITY = 5.2 FPS

Q_{100} = 2320 CFS
STAGE = 561.3
BACKWATER = 0.0 FT.
AVG. BRIDGE VELOCITY = 5.5 FPS
CALCULATED DESIGN SCOUR = 547.9*

Q_{500} = 3110 CFS
STAGE = 562.9
AVG. BRIDGE VELOCITY = 5.8 FPS
CALCULATED CHECK SCOUR = 547.9*

ROADWAY OVERTOP 570.0
STA. 291+30

EXTREME HW STAGE = NOT AVAILABLE
AVG. LOW WATER STAGE = 551.4

* ACTUAL SCOUR WILL BE DEPENDENT UPON SOILS REVIEW OF THE ELEVATION TO COMPETENT ROCK.

TRAFFIC ESTIMATE

2013 AADT	4900	V.P.D.
2033 AADT	6100	V.P.D.
2033 DHV	630	V.P.H.
TRUCKS	21	%
TOTAL DESIGN ESALs	-	

LOCATION

IA 22 OVER DONALDSON CREEK
T-77N R-2E
SECTION 24
BUFFALO TOWNSHIP
SCOTT COUNTY
BRIDGE MAINT. NO. 8292.8S022
LATITUDE 41.464382°
LONGITUDE -90.681313°

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

DESIGN FOR 10° SKEW (L.A.)

100'-0 X 68'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

100'-0 SPAN (BTB BEAMS)

SITUATION PLAN

STATION 293+68.30 IA 22 ?

SCOTT COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 4 FILE NO. 30687 DESIGN NO. 514

DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER BRFN-22-5(29)--39-82	SHEET NUMBER

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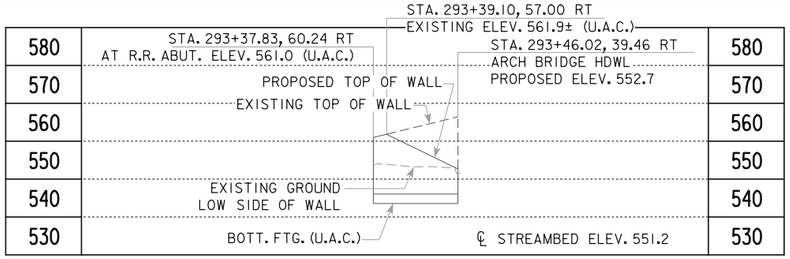
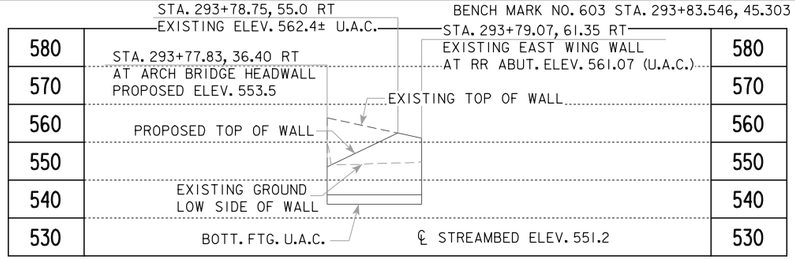
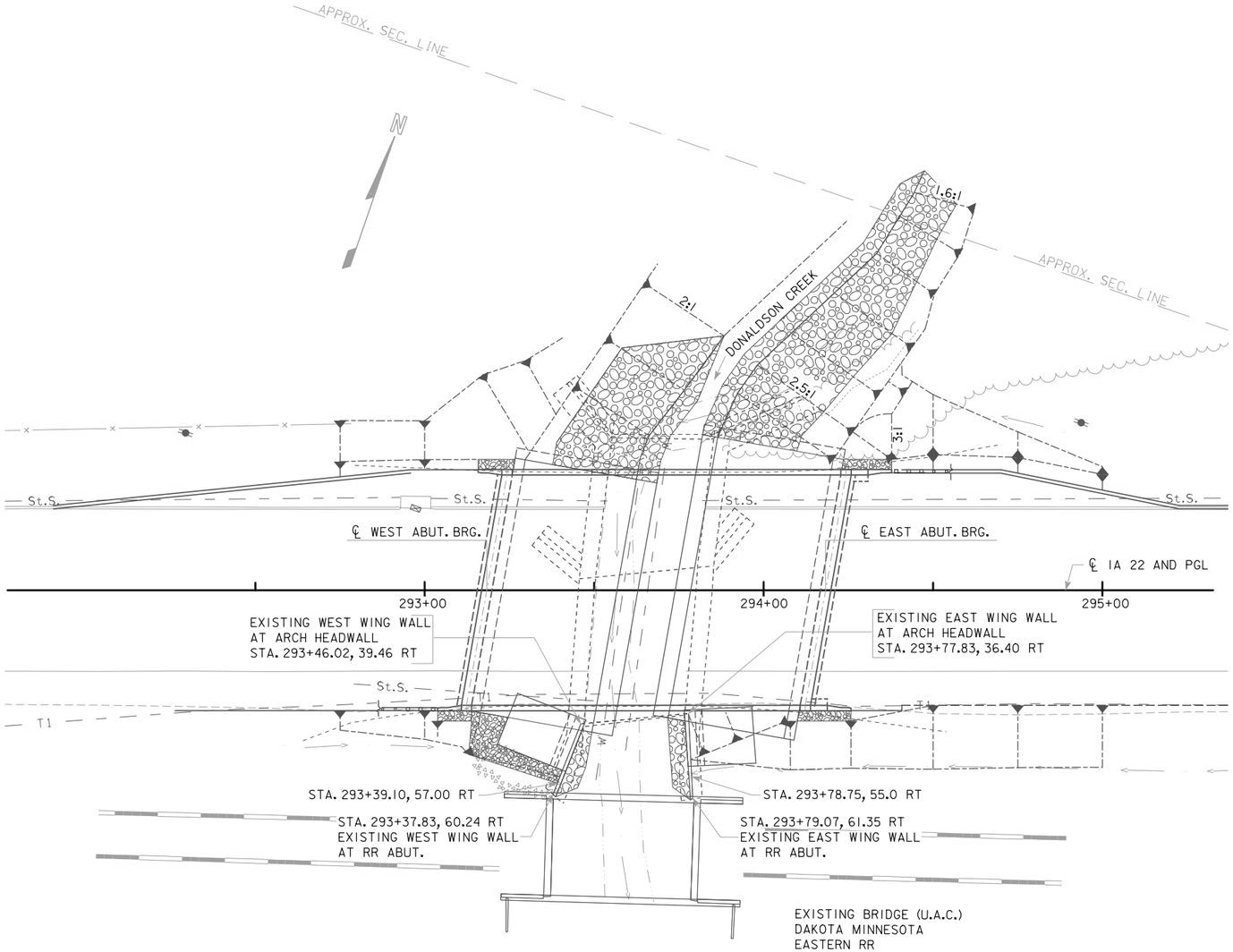


SECTION ALONG EXISTING WEST WING WALL



BENCH MARK NO. 603 STA. 293+83.546, 45.303 LT. FD IHC BM ON INHDWL OF ARCH BRG, ELEV. 566.498

SECTION ALONG EXISTING EAST WING WALL



SITUATION PLAN

NOTES:

THE DOWNSTREAM WING WALLS WILL REMAIN IN PLACE, WITH PROPOSED MODIFICATION TO THE TOP OF WALL PROFILES AS SHOWN IN THE SECTIONS.

NOTE TO FINAL DESIGNER:

SEE BOB STANLEY'S 3-27-12 NOTE IN THE FILE-

IT IS PROPOSED TO LEAVE ALL BELOW-GROUND PORTIONS OF THE WINGWALL AND EXISTING ARCH THAT DON'T NEED TO BE REMOVED TO ACCOMMODATE THE NEW CONSTRUCTION (INCLUDING THE WING WALL'S FOOTING) IN PLACE SO AS TO PROVIDE AS MUCH STABILITY TO THE CUT-OFF WALL AS POSSIBLE.

COORDINATE WITH SOILS DESIGN TO DETERMINE WHETHER OR NOT A TIE BACK WILL BE REQUIRED FOR THE WING WALL LEFT IN PLACE.

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

DESIGN FOR 10° SKEW (L.A.)

100'-0 X 68'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

100'-0 SPAN (BTB BEAMS)

SITUATION PLAN

STATION 293+68.30 IA 22 ?

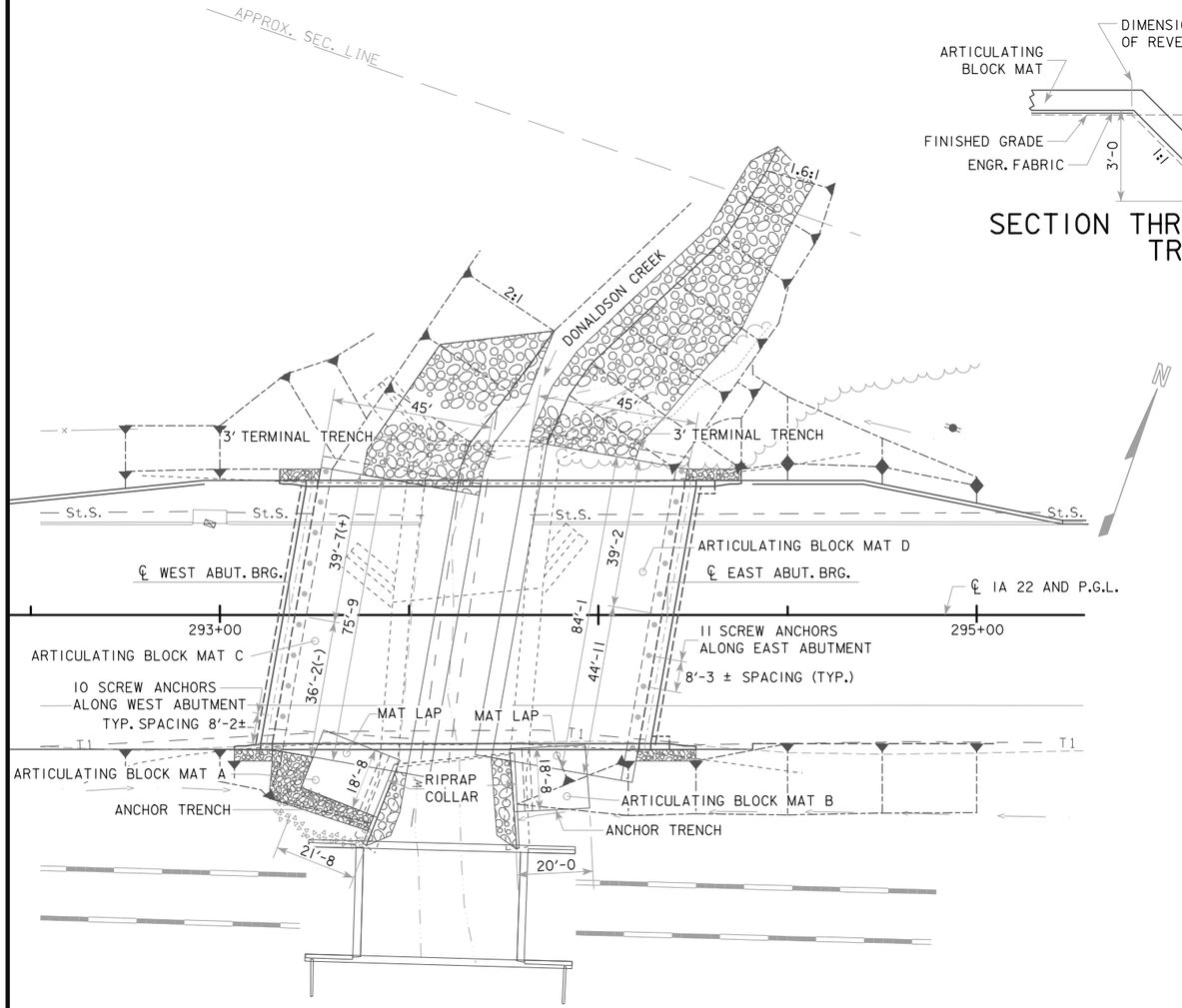
SCOTT COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 4 FILE NO. 30687 DESIGN NO. 514

DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER BRFN-22-5(29)--39-82	SHEET NUMBER

BENCH MARK NO. 603 STA. 293+83.546, 45.303 LT. FD IHC BM ON INHDWL OF ARCH BRG, ELEV. 566.498



0 ENGLISH 40
SCALE IN FEET

NOTES:

1. ARTICULATING BLOCK MAT (A.B.M.) DIMENSIONS ARE ALONG GRADE.

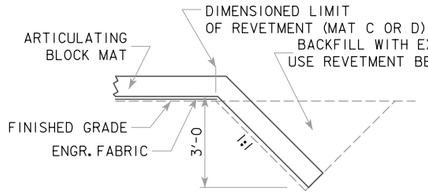
2. A.B.M. SHALL BE UNDERLAIN WITH ENGINEERING FABRIC TO THE DIMENSIONED LIMITS.

3. POSITION THE EDGE OF MATS A AND B FLUSH WITH THE FRONT FACE OF WING WALLS. MATS A AND B REQUIRE A 1' X 3' NOTCH OUT DUE TO THE ANCHOR TRENCH TERMINATING AT THE BACK FACE OF THE WING WALL.

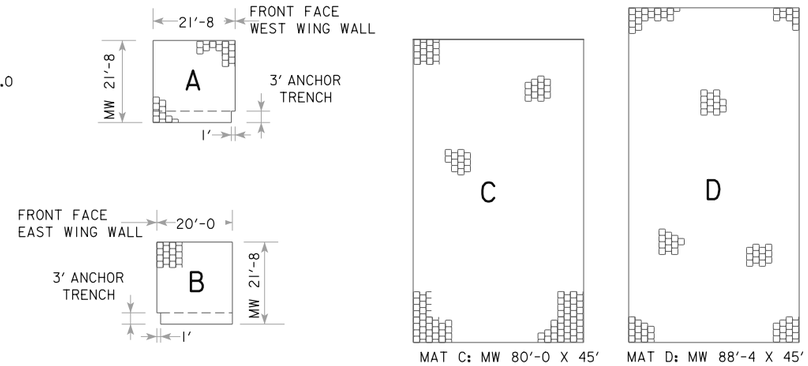
4. POSITION THE EDGE OF MATS C AND D FLUSH ALONG THE FRONT FACE OF ABUTMENTS. MATS C AND D OVERLAP MATS A AND B.

5. SCREW ANCHORS SHALL BE INSTALLED ALONG THE FRONT FACE OF EACH ABUTMENT AT THE NUMBER AND SPACING SHOWN. SEE DETAIL.

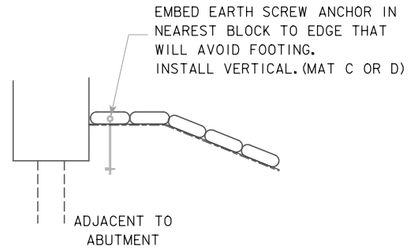
SITUATION PLAN



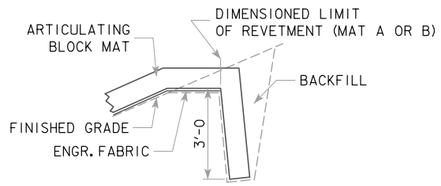
SECTION THROUGH TERMINAL TRENCH



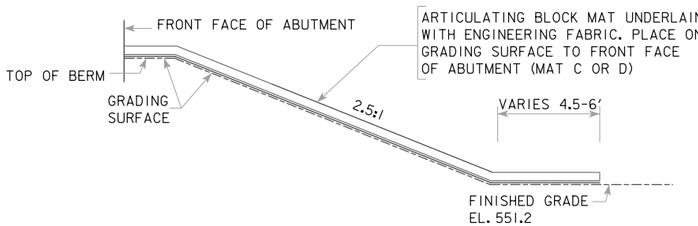
MAT SIZE DETAILS



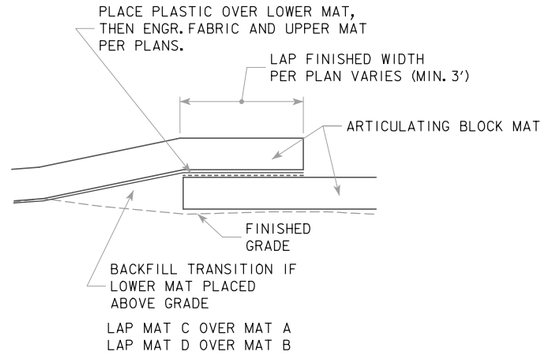
EARTH SCREW ANCHOR DETAIL



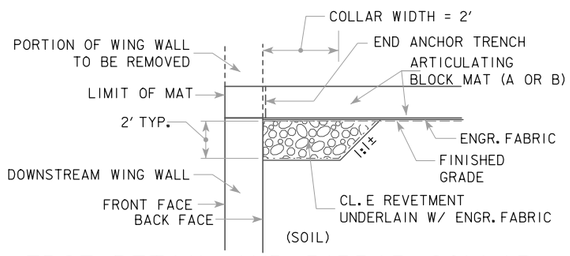
SECTION THROUGH ANCHOR TRENCH



SECTION THRU NON-EMBEDDED REVETMENT BERM



MAT LAP DETAIL



EDGE DETAIL AND RIPRAP COLLAR

PRELIMINARY

DESIGN FOR 10° SKEW (L.A.)

100'-0 X 68'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

100'-0 SPAN (BTB BEAMS)

SITUATION PLAN

STATION 293+68.30 IA 22

SCOTT COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 3 OF 4 FILE NO. 30687 DESIGN NO. 514

DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER BRFN-22-5(29)--39-82	SHEET NUMBER

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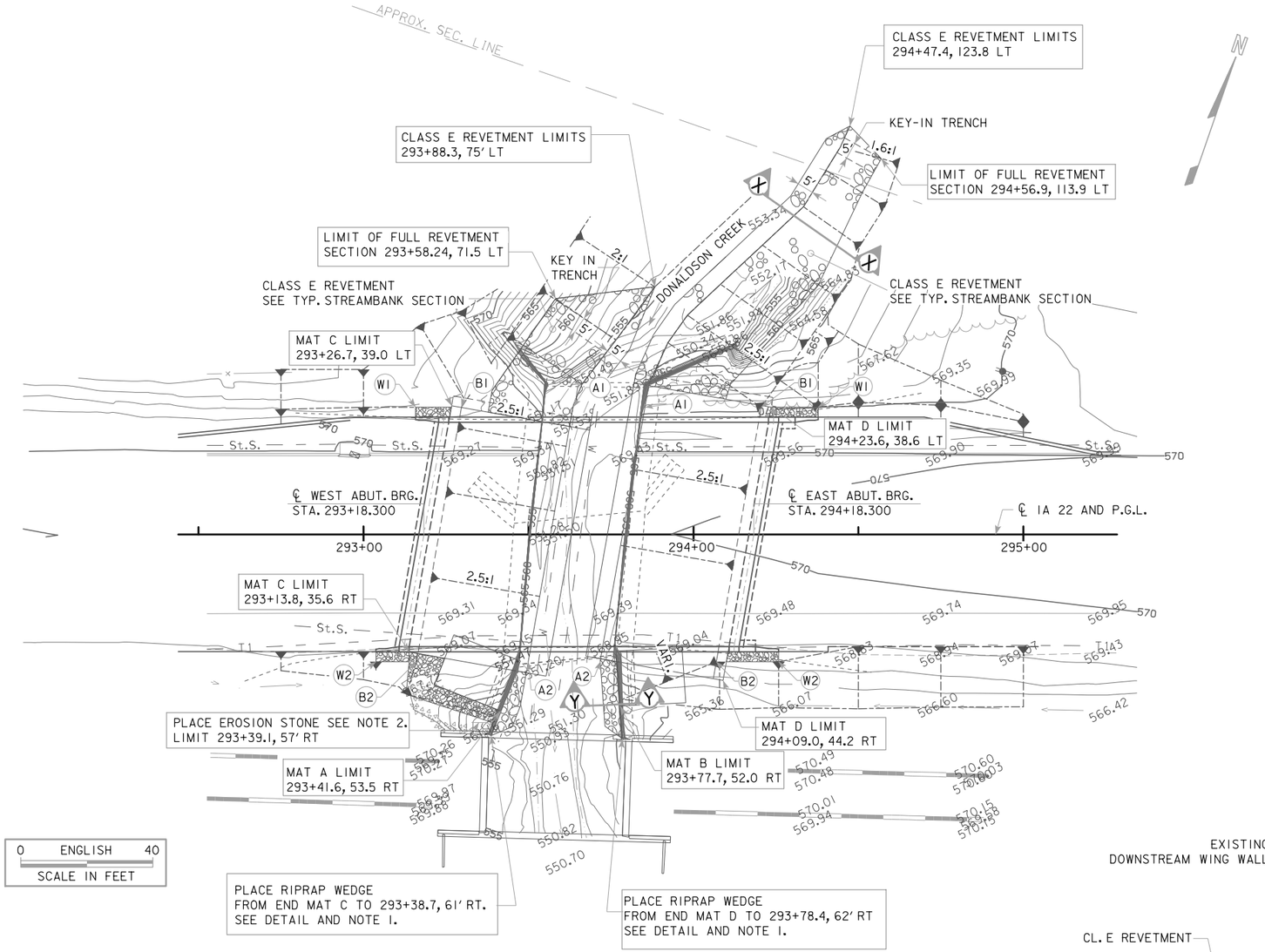
BENCH MARK NO. 603 STA. 293+83.546, 45.303 LT. FD IHC BM ON INHDWL OF ARCH BRG, ELEV. 566.498



SITE PLAN

NOTES:

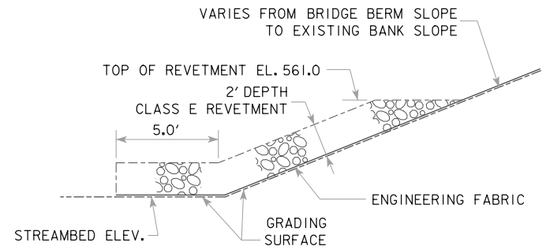
1. FOR RIPRAP WEDGE, CORE OUT 3' DEPTH OF SOIL ON LOW SIDE OF WING WALLS. PLACE 3' DEPTH CLASS E REVETMENT UNDERLAIN WITH ENGINEERING FABRIC. MATCH TOP OF REVETMENT TO ADJACENT BANK SLOPES.

2. CORE OUT 9 INCH DEPTH OF SOIL AT SOUTHWEST CORNER DITCH AREA AS SHOWN. PLACE 9 INCH DEPTH OF EROSION STONE UNDERLAIN WITH ENGINEERING FABRIC. MATCH TOP OF EROSION STONE TO ADJACENT GRADES AND TOP OF MAT.

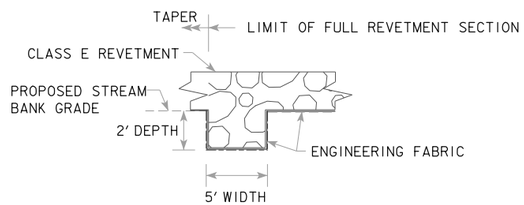
BERM SLOPE LOCATION TABLE

POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	293+63.51	38.58 LT	551.20	293+85.30	38.58 LT	551.20
A2	293+49.91	38.58 RT	551.20	293+71.76	38.58 RT	551.20
B1	293+29.67	38.58 LT	564.53	294+20.53	38.58 LT	565.08
B2	293+16.07	38.58 RT	564.53	294+06.93	38.58 RT	565.08
W1	293+15.77	38.58 LT	569.99	294+37.80	38.58 LT	570.54
W2	293+03.78	38.58 RT	569.90	294+25.80	38.58 RT	570.57

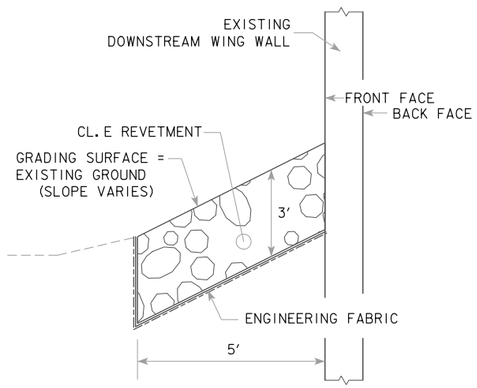
BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE



TYPICAL STREAMBANK SECTION X-X



SECTION THROUGH KEY-IN TRENCH



TYPICAL RIPRAP WEDGE SECTION Y-Y

ESTIMATED ARMORING QUANTITIES

LOCATION	REVETMENT CL. E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)	6 IN. A.B.M. (SY)	EROSION STONE (T)	CONC. GROUT (CY)	SCREW ANCH. (EA.)
BANK LINING - WEST STREAMBANK	172.0	158.9	9.1	0	0	0	0
BANK LINING - EAST STREAMBANK	305.7	284.6	6.2	0	0	0	0
BERM LINING - WEST ABUTMENT	0	378.8	15.0	400.0	0	72.0	10
BERM LINING - EAST ABUTMENT	0	420.5	15.0	441.7	0	79.5	11
BANK LINING AND COLLAR - WEST WING	23.6	88.1	23.3	51.8	10.2	9.3	0
BANK LINING AND COLLAR - EAST WING	28.5	63.1	19.9	47.8	0	8.6	0
TOTALS	529.8	1394.0	88.5	941.3	10.2	169.4	21

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.

PRELIMINARY

DESIGN FOR 10° SKEW (L.A.)

100'-0 X 68'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

100'-0 SPAN (BTB BEAMS)

SITUATION PLAN - SITE

STATION 293+68.30 IA 22 ?

SCOTT COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 4 OF 4 FILE NO. 30687 DESIGN NO. 514

DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER BRFN-22-5(29)--39-82	SHEET NUMBER

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)
- TS A — Topsoil (Type A Disposal)
- TS B — Topsoil (Type B Disposal)
- TS C — Topsoil (Type C Disposal)
- 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

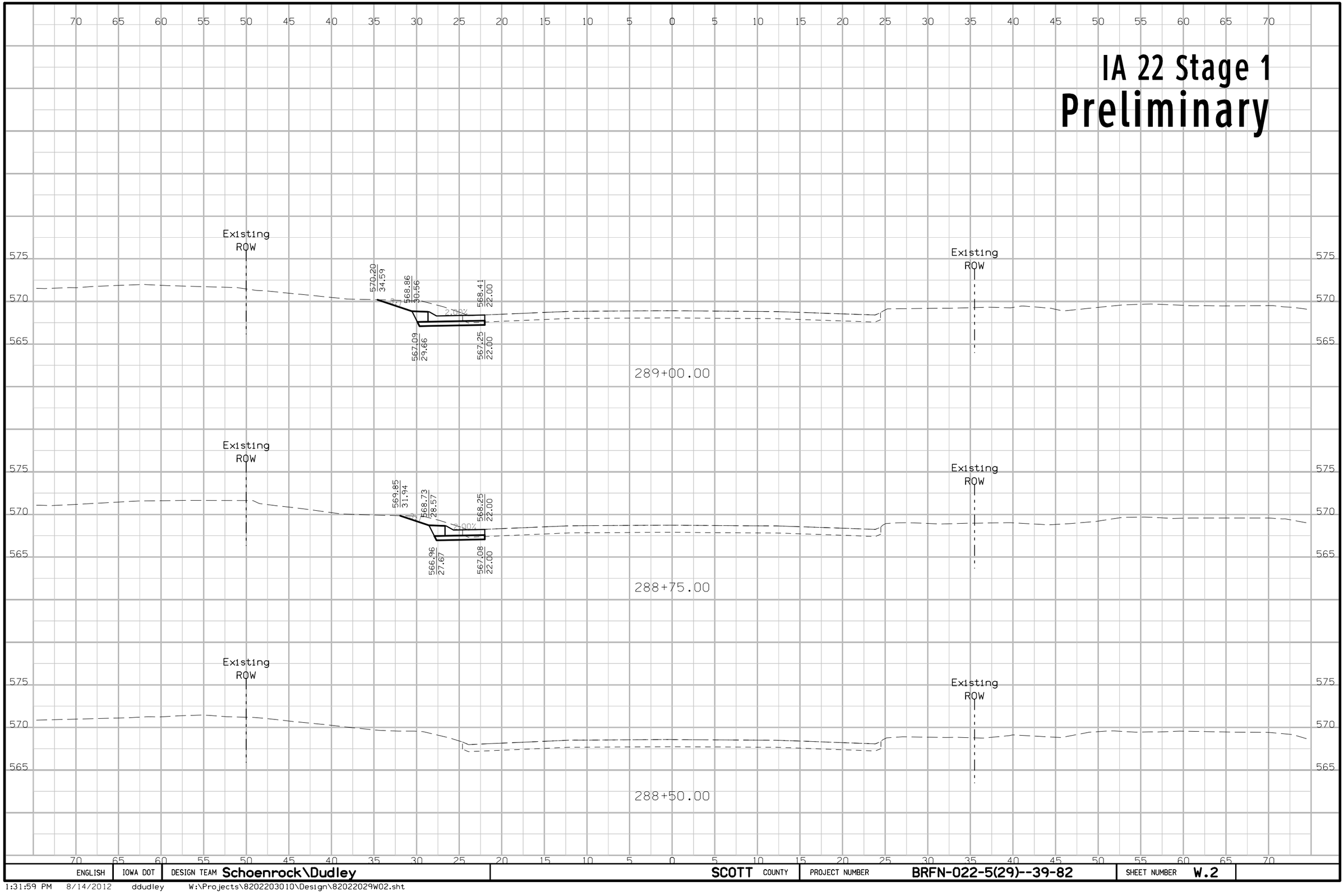
Proposed ROW — Proposed Right-of-Way Limit

Temporary ROW — Temporary Right-of-Way Limit

CROSS SECTION LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES W, X, Y, & Z)

IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.2

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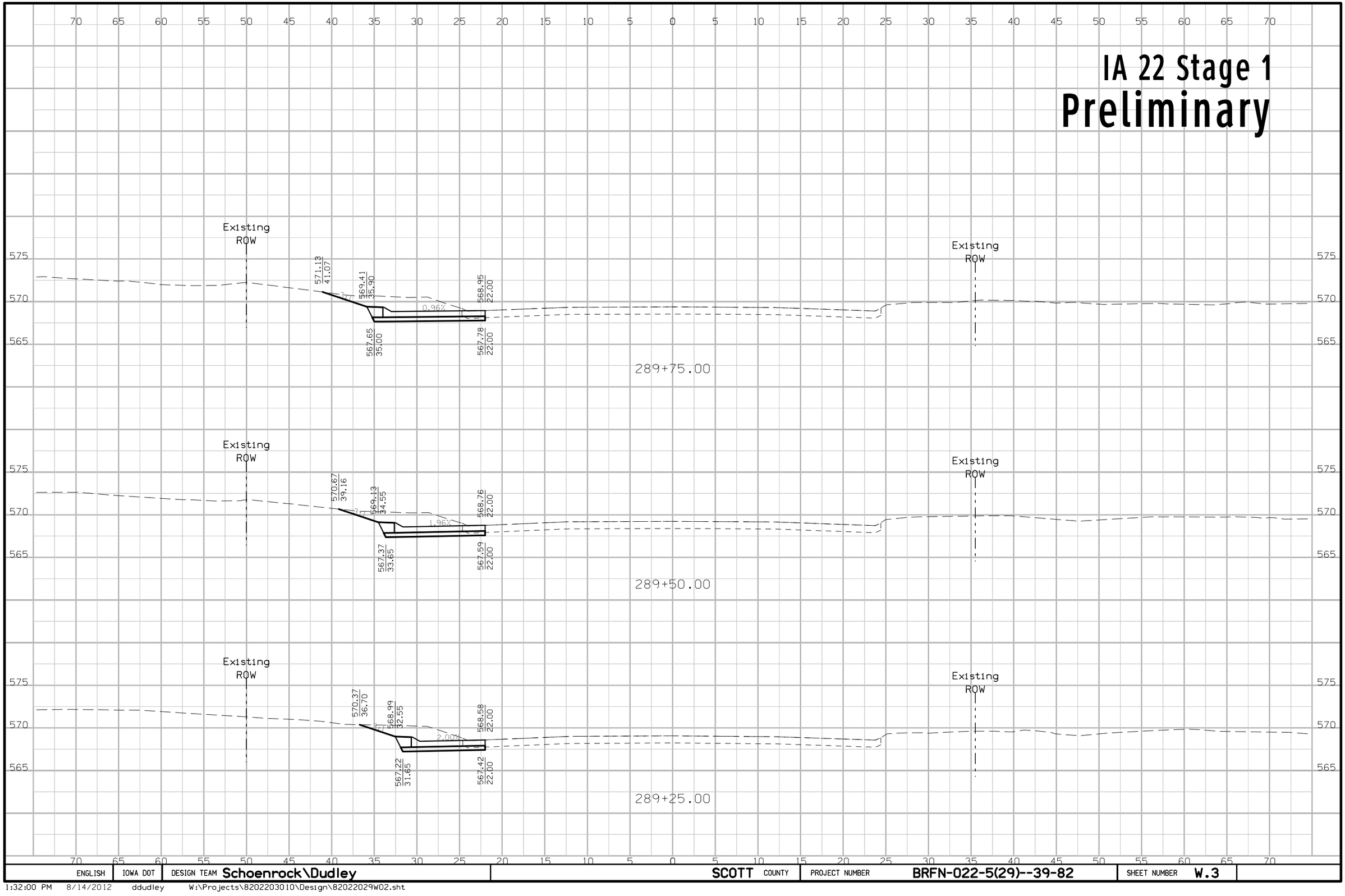
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.3

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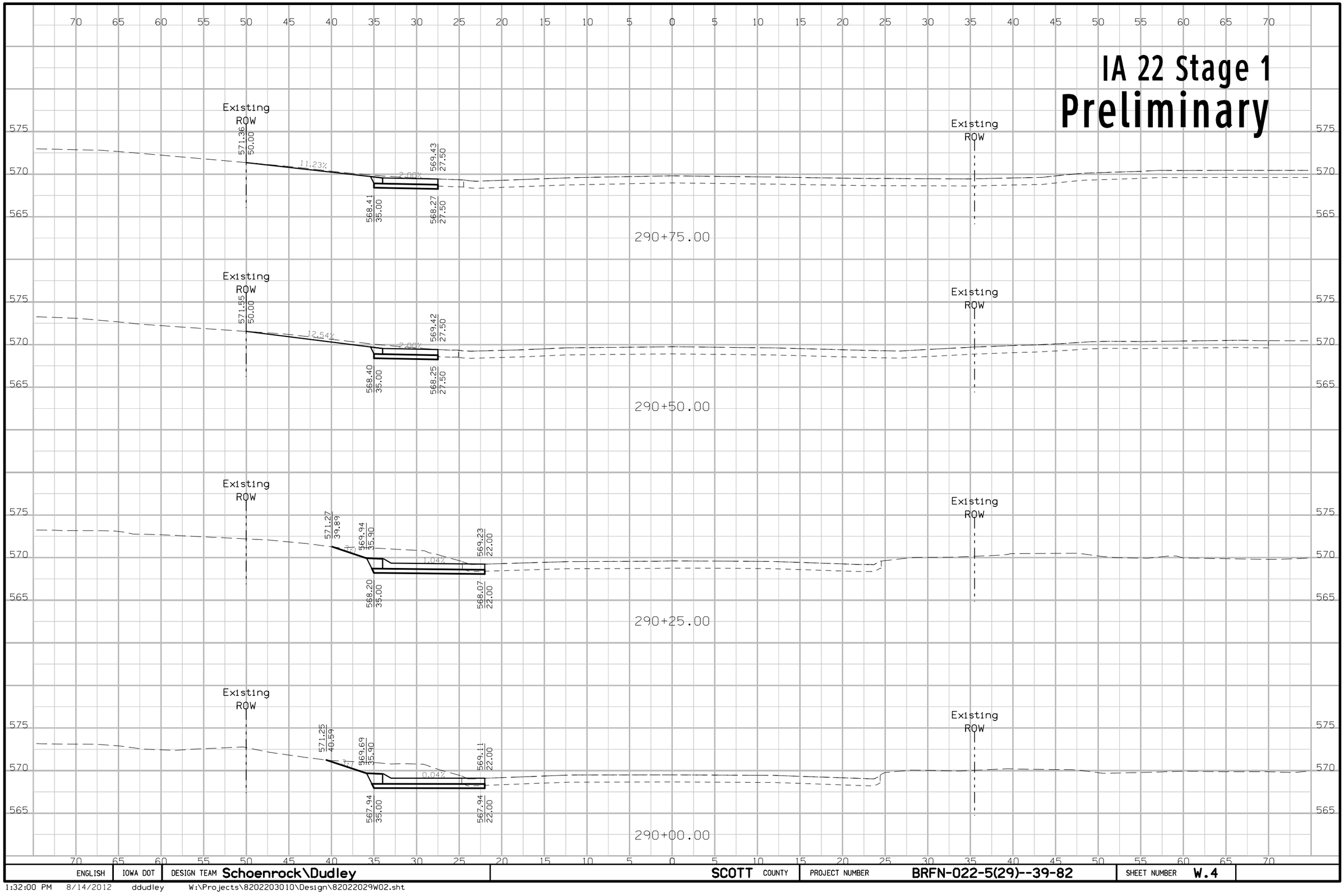
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.4

1:32:00 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W02.sht

IA 22 Stage 1
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

580 575 570 565

Existing ROW

571.93 / 41.14 — 570.19 / 35.90 — 569.71 / 22.00

568.43 / 35.00 — 568.54 / 22.00

3% — 0.84%

291+75.00

Existing ROW

580 575 570 565

Existing ROW

571.56 / 39.74 — 570.28 / 35.90 — 569.68 / 22.00

568.53 / 35.00 — 568.51 / 22.00

3% — 0.16%

291+50.00

Existing ROW

575 570 565

Existing ROW

570.99 / 37.86 — 570.33 / 35.90 — 569.62 / 22.00

568.60 / 35.00 — 568.45 / 22.00

3% — 1.16%

291+25.00

Existing ROW

575 570 565

Existing ROW

571.45 / 50.00 — 569.42 / 27.50

568.41 / 35.00 — 568.26 / 27.50

11.82% — 2.00%

291+00.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.5

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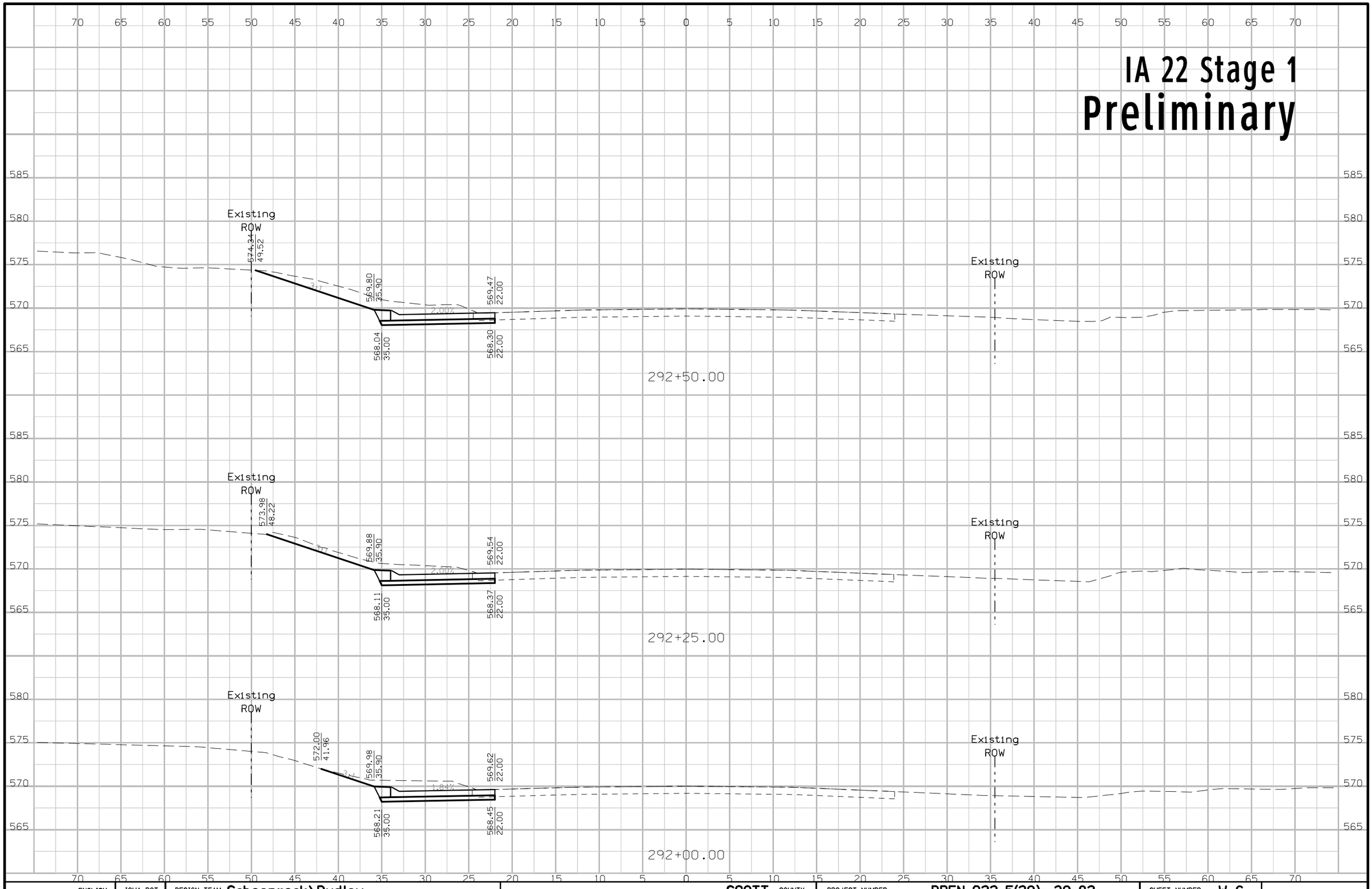
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.6

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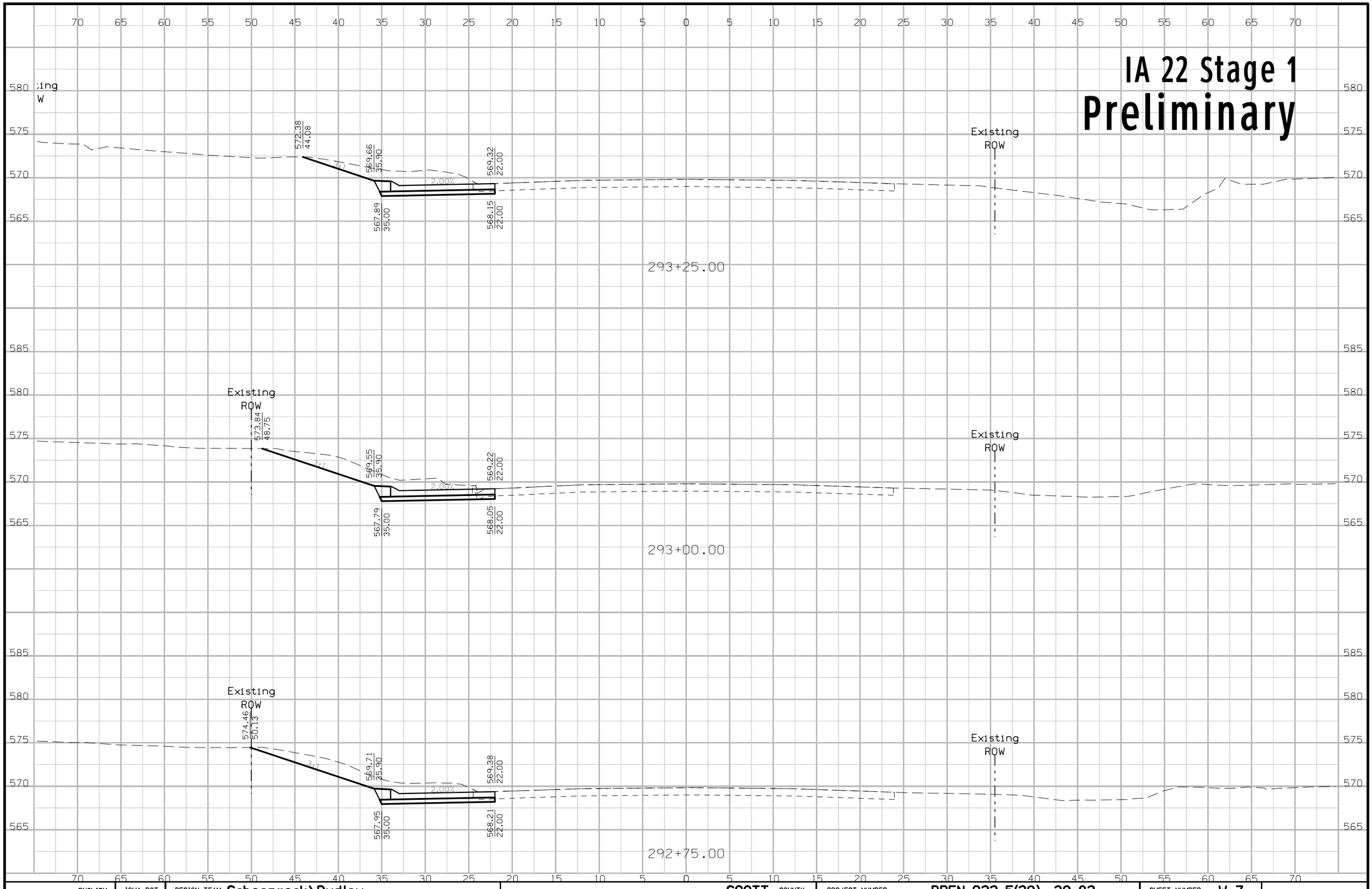
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.7

1:32:01 PM 8/14/2012 ddudley W:\Projects\82022030\10\Design\82022029W02.sht

IA 22 Stage 1
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

575 570 565 560 555 550

569.81
35.90

2.00%

569.48
22.00

568.05
35.00

568.31
22.00

:ing
W

Existing
ROW

293+75.00

:ing
W

570.35
37.74

569.40
22.00

567.97
35.00

568.23
22.00

Existing
ROW

293+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.8

1:32:01 PM 8/14/2012 ddudley W:\Projects\82022030\10\Design\82022029W02.sht

IA 22 Stage 1
Preliminary

294+50.00

:ing
W

Existing
ROW

570.38
36.70

569.78
22.00

568.35
35.00

568.61
22.00

2.00%

570.28
36.85

569.62
22.00

568.20
35.00

568.46
22.00

294+25.00

570.12
36.61

569.55
22.00

568.13
35.00

568.39
22.00

294+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.9

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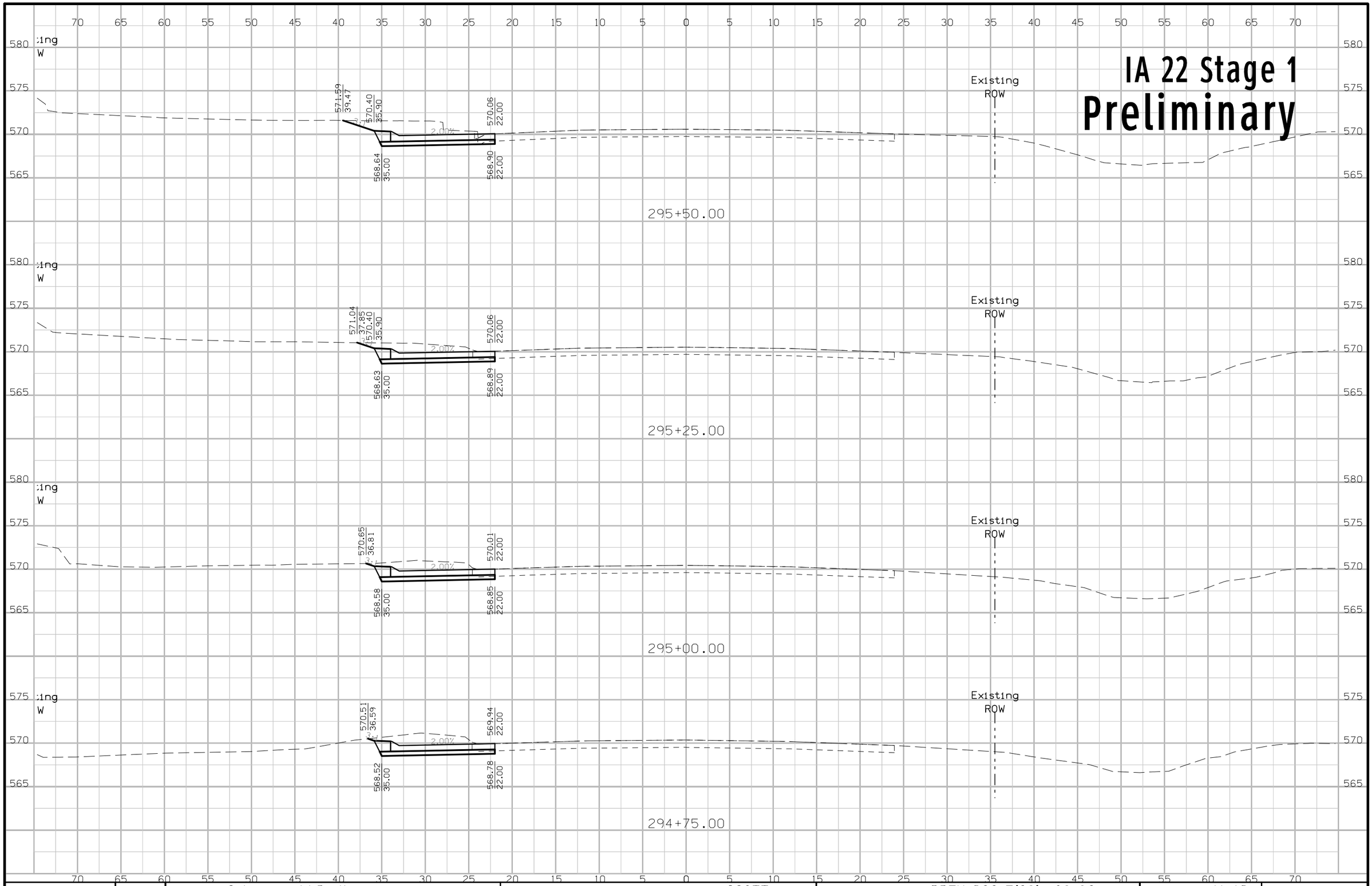
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.10

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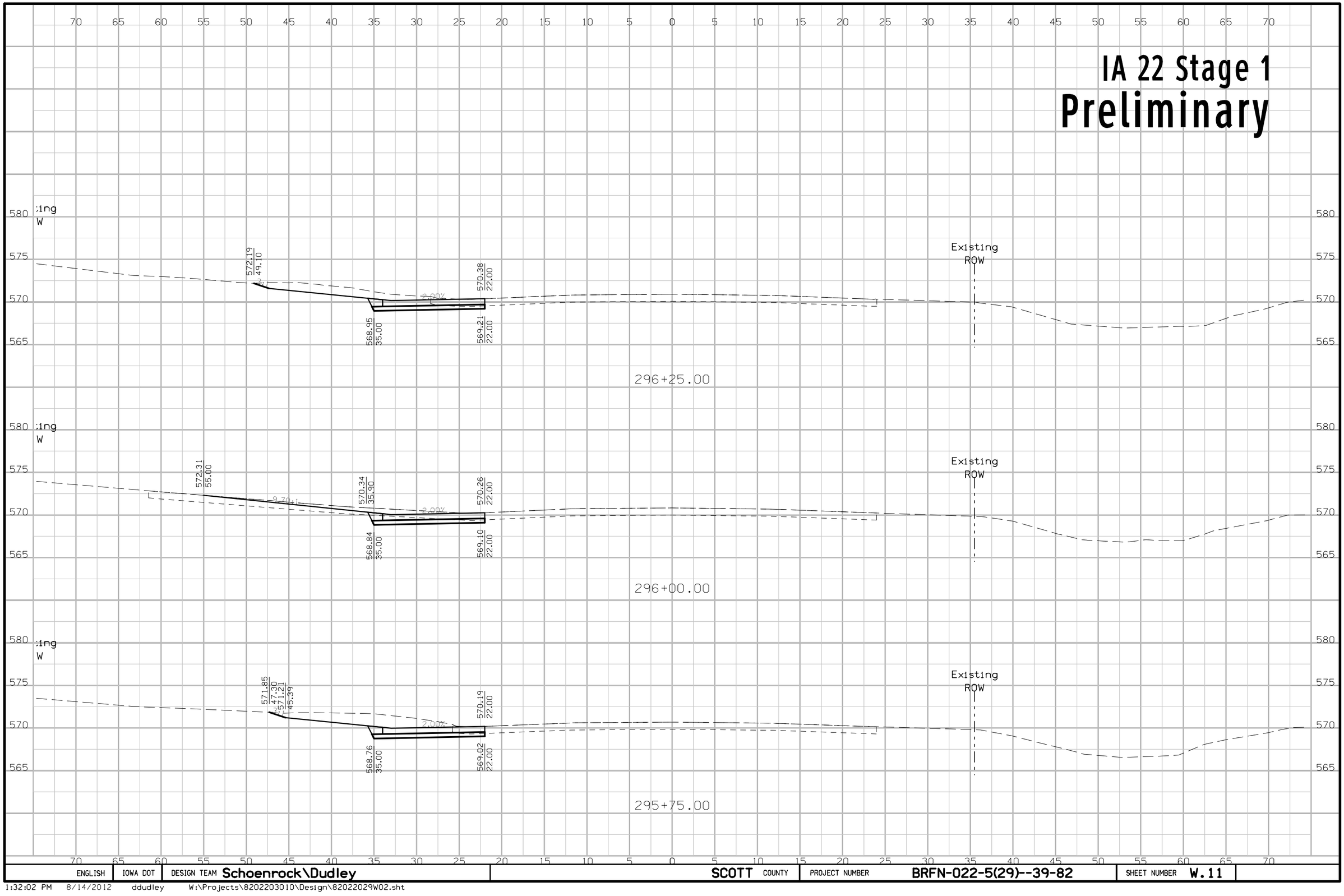
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.11

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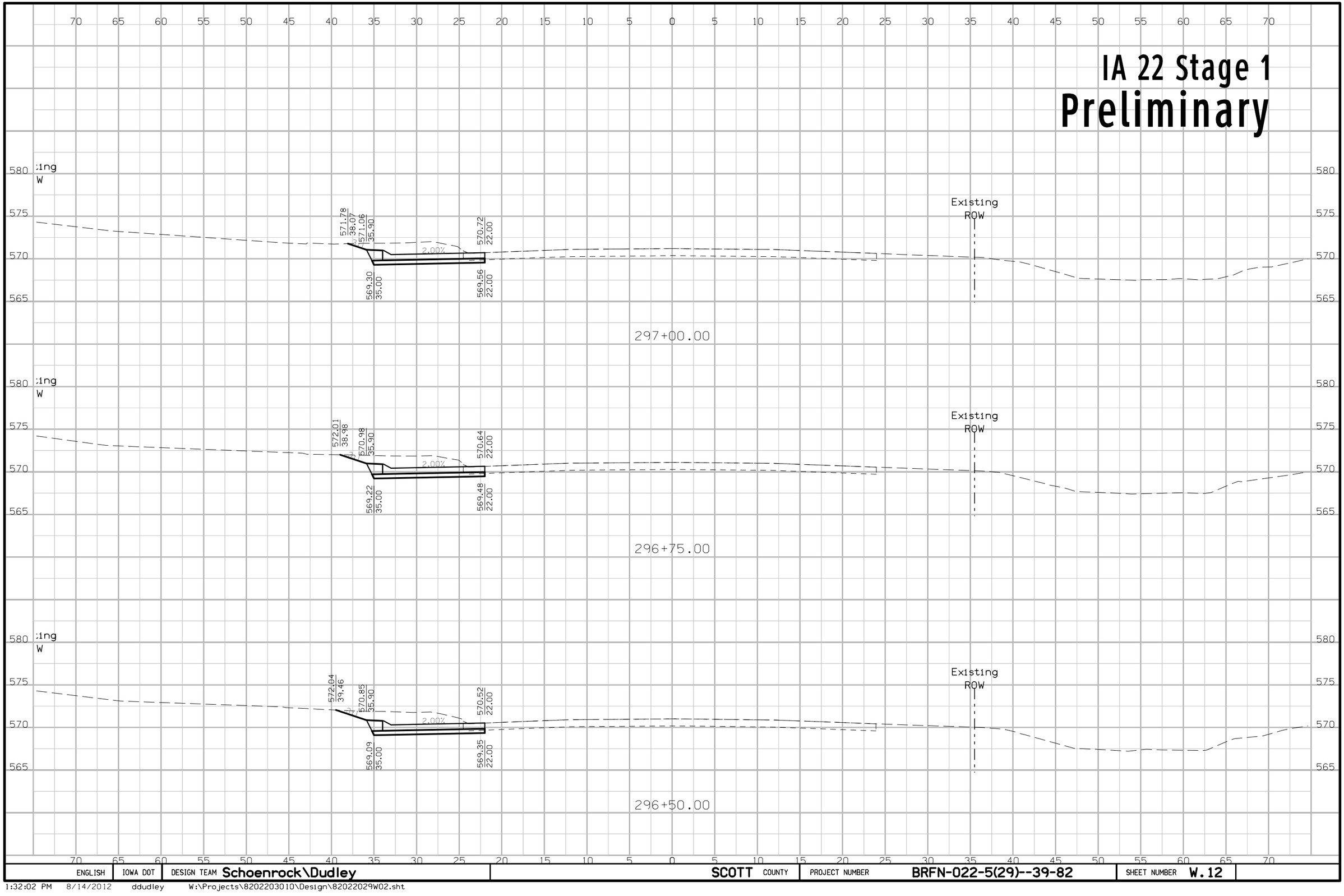
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.12

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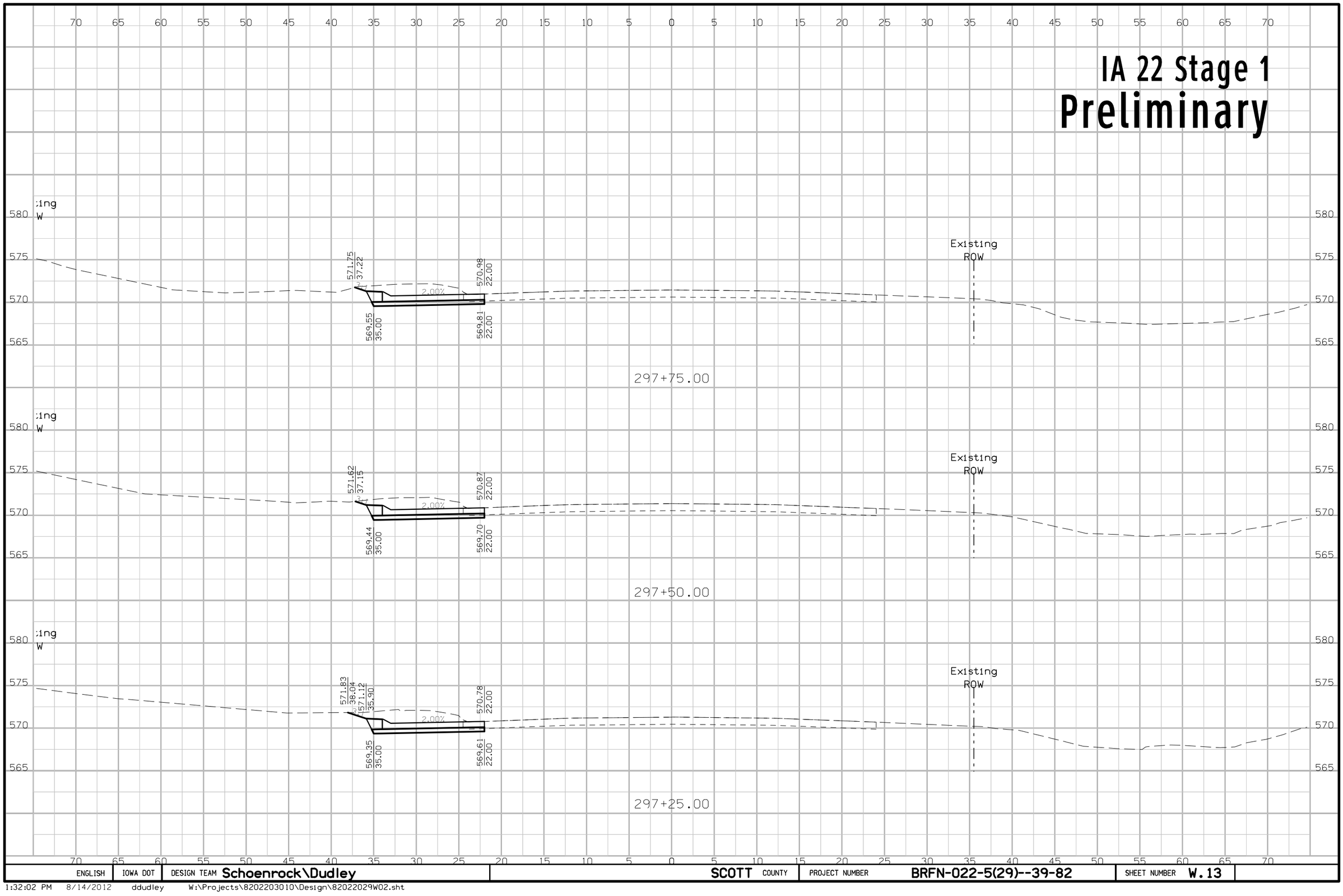
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.13

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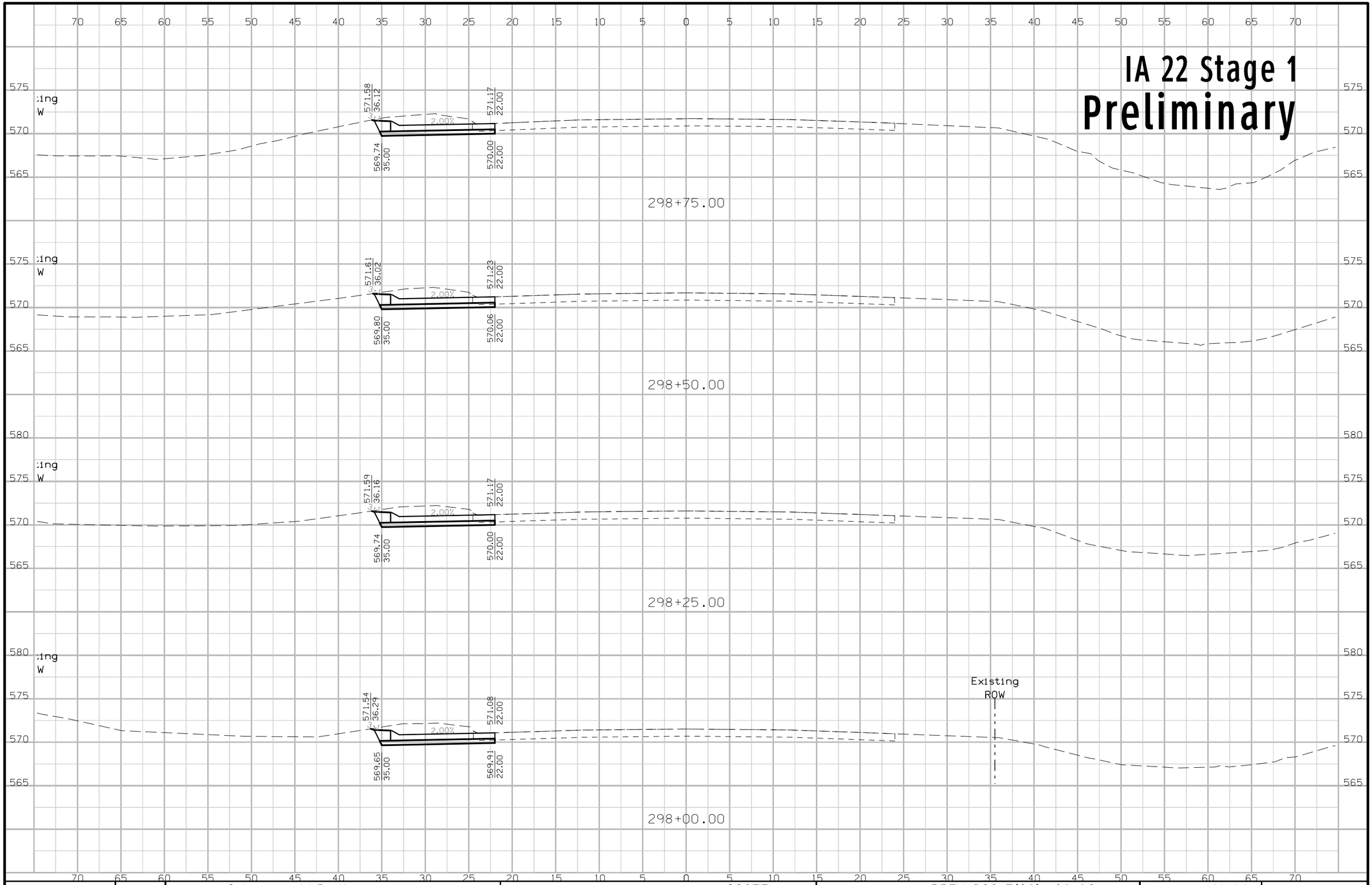
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.14

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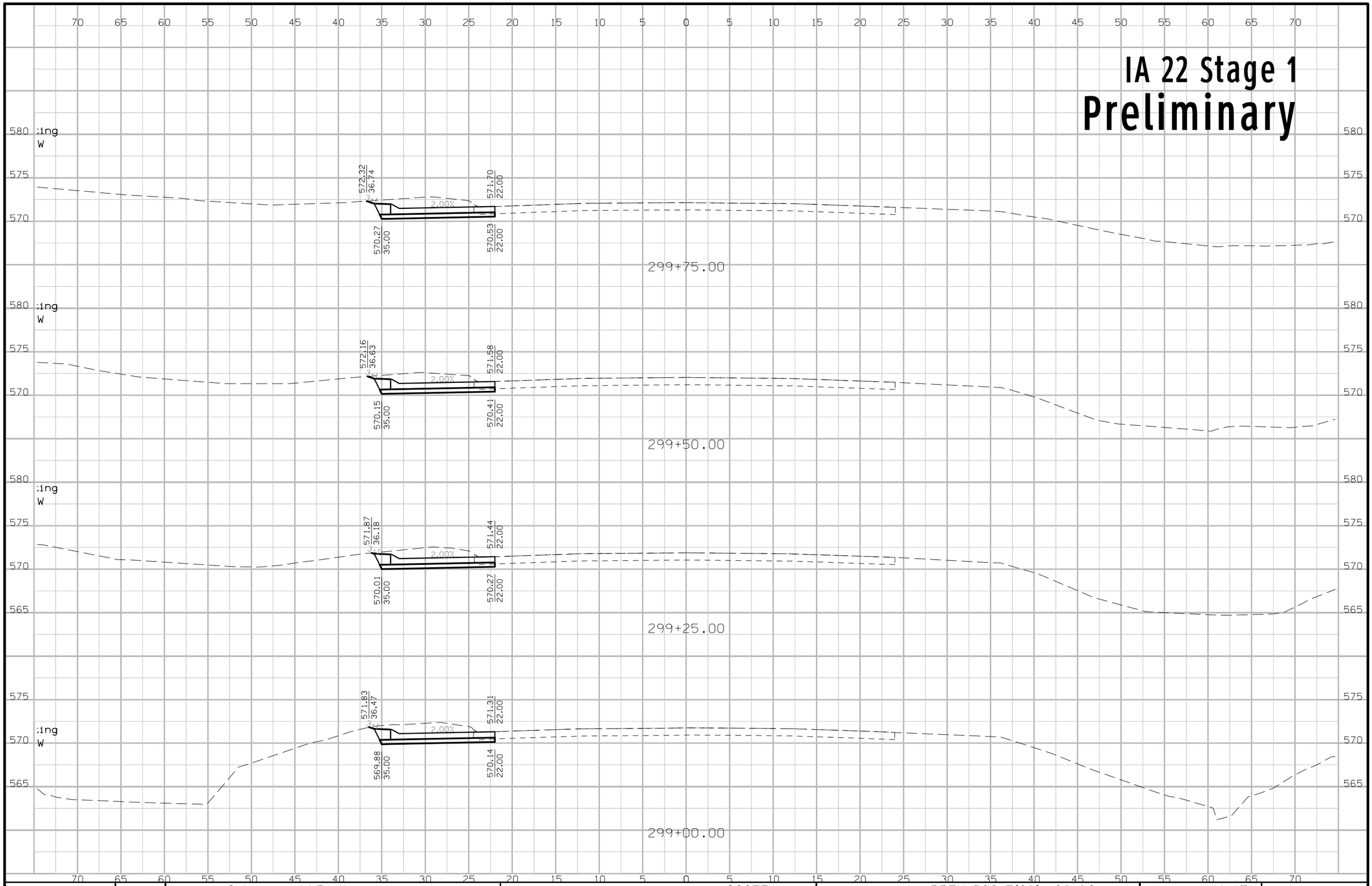
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER	BRFN-022-5(29)--39-82	SHEET NUMBER W.15

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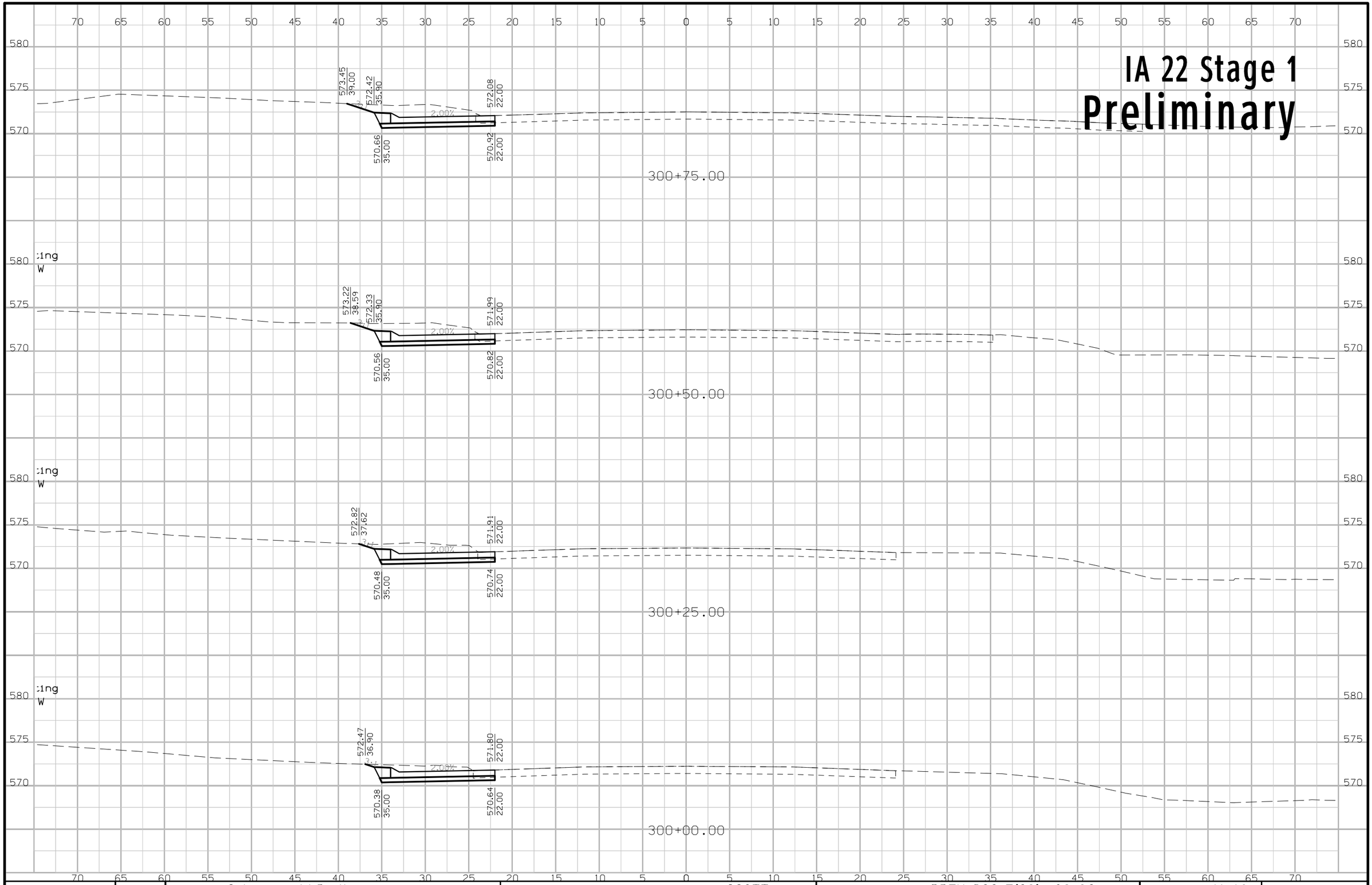
IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER	BRFN-022-5(29)--39-82	SHEET NUMBER W.16

1:32:03 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W02.sht

IA 22 Stage 1
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

580
575
570

572.33
26.76
571.00
26.76

301+75.00

115th Ave

301+50.00

301+25.00

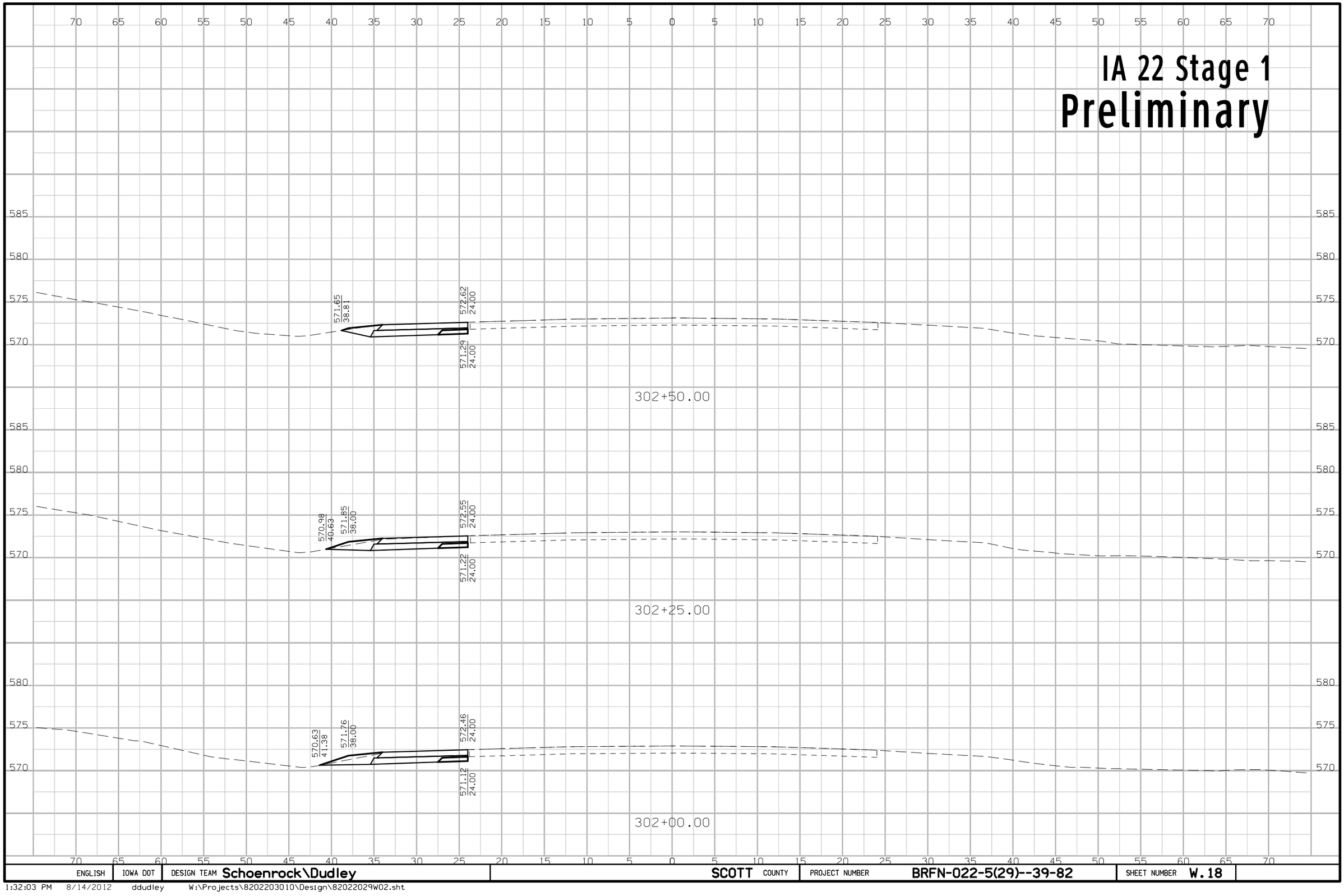
573.13
37.78
572.50
35.90
2.00%
572.17
22.00
570.74
35.00
571.00
22.00

301+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.17

1:32:03 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W02.sht

IA 22 Stage 1
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.18

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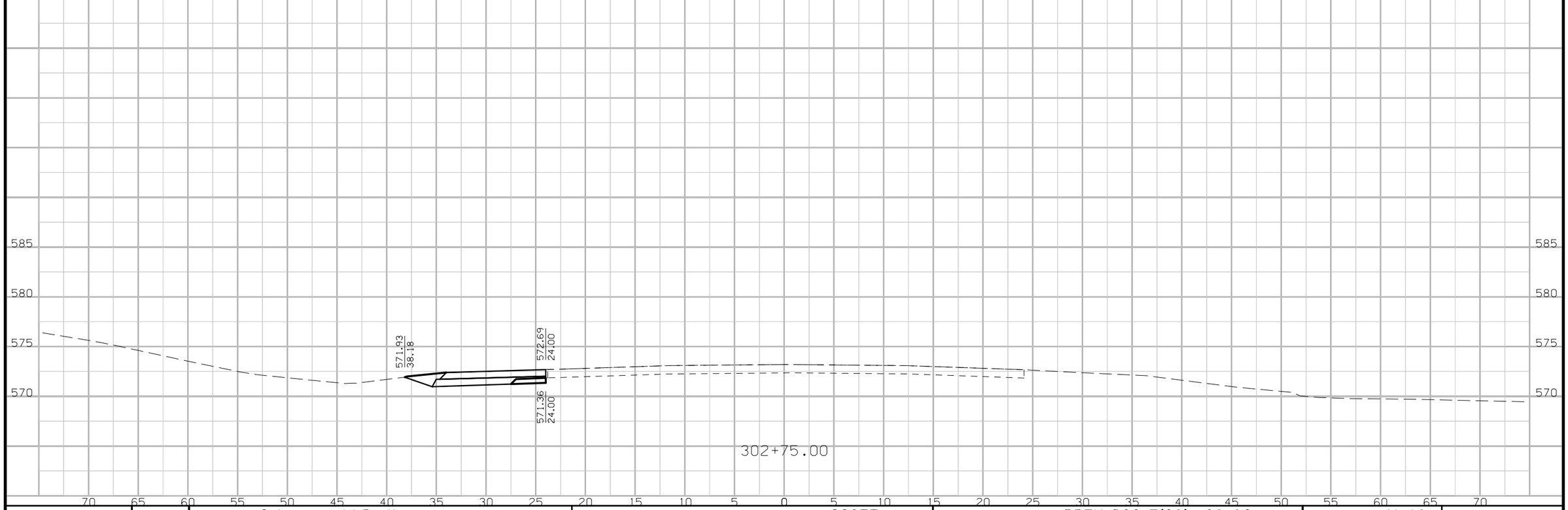
IA 22 Stage 1

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.19

1:32:03 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W02.sht

IA 22 Stage 2
Preliminary

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.20

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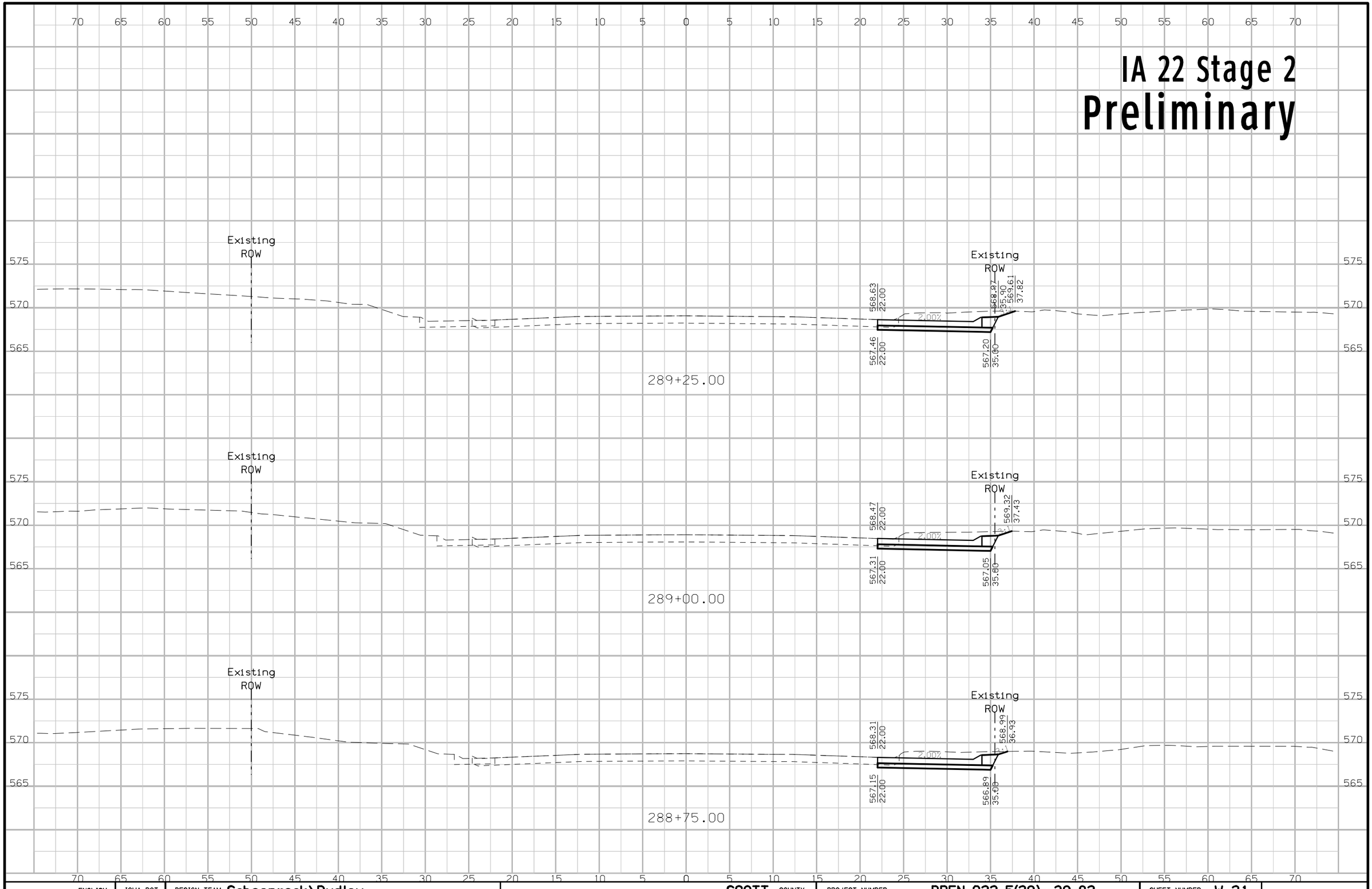
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.21

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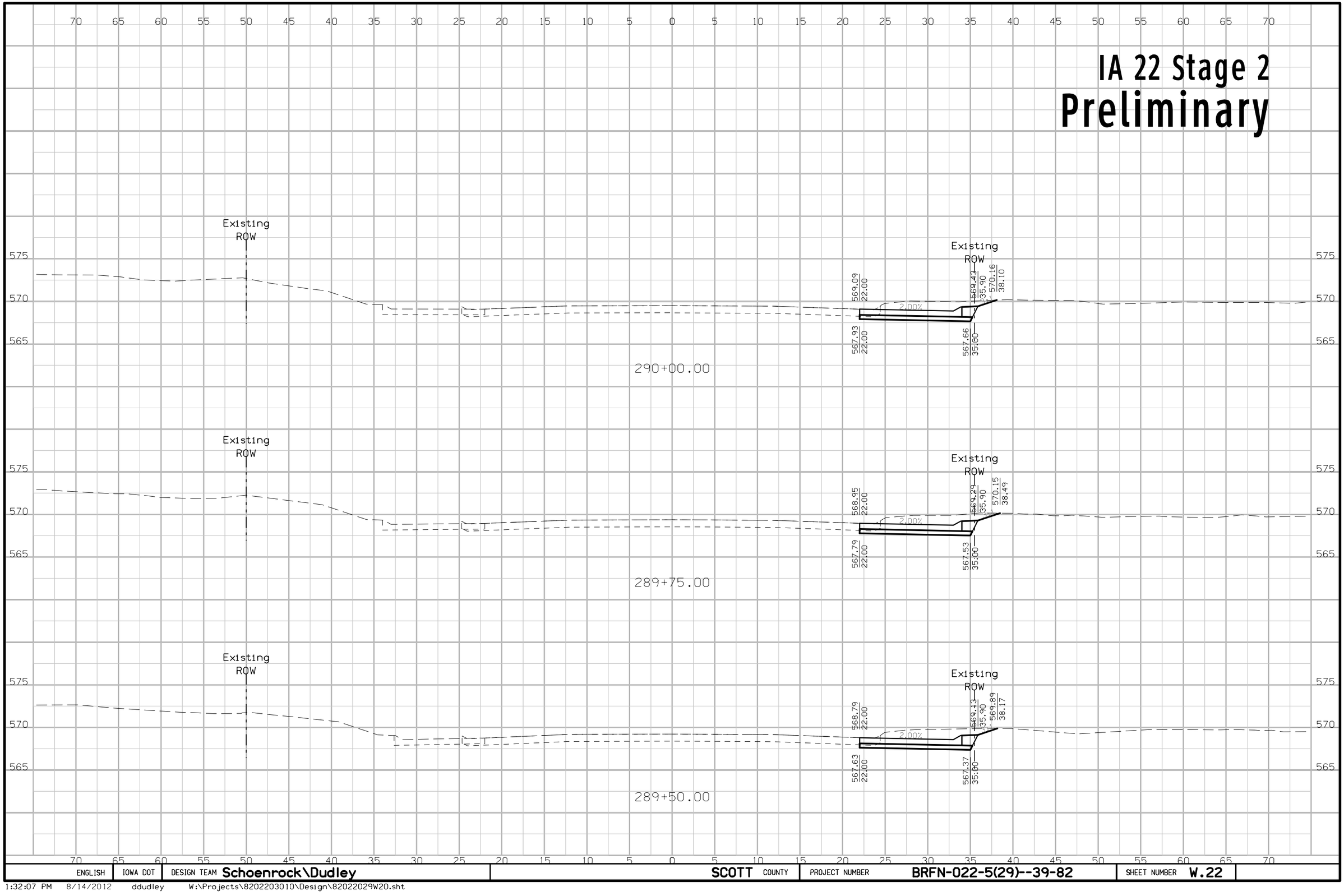
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.22

1:32:07 PM 8/14/2012 ddudley W:\Projects\82022030\10\Design\82022029W20.sht

IA 22 Stage 2
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

575
570
565

Existing ROW

Existing ROW

291+00.00

290+75.00

290+50.00

290+25.00

569.19
22.00

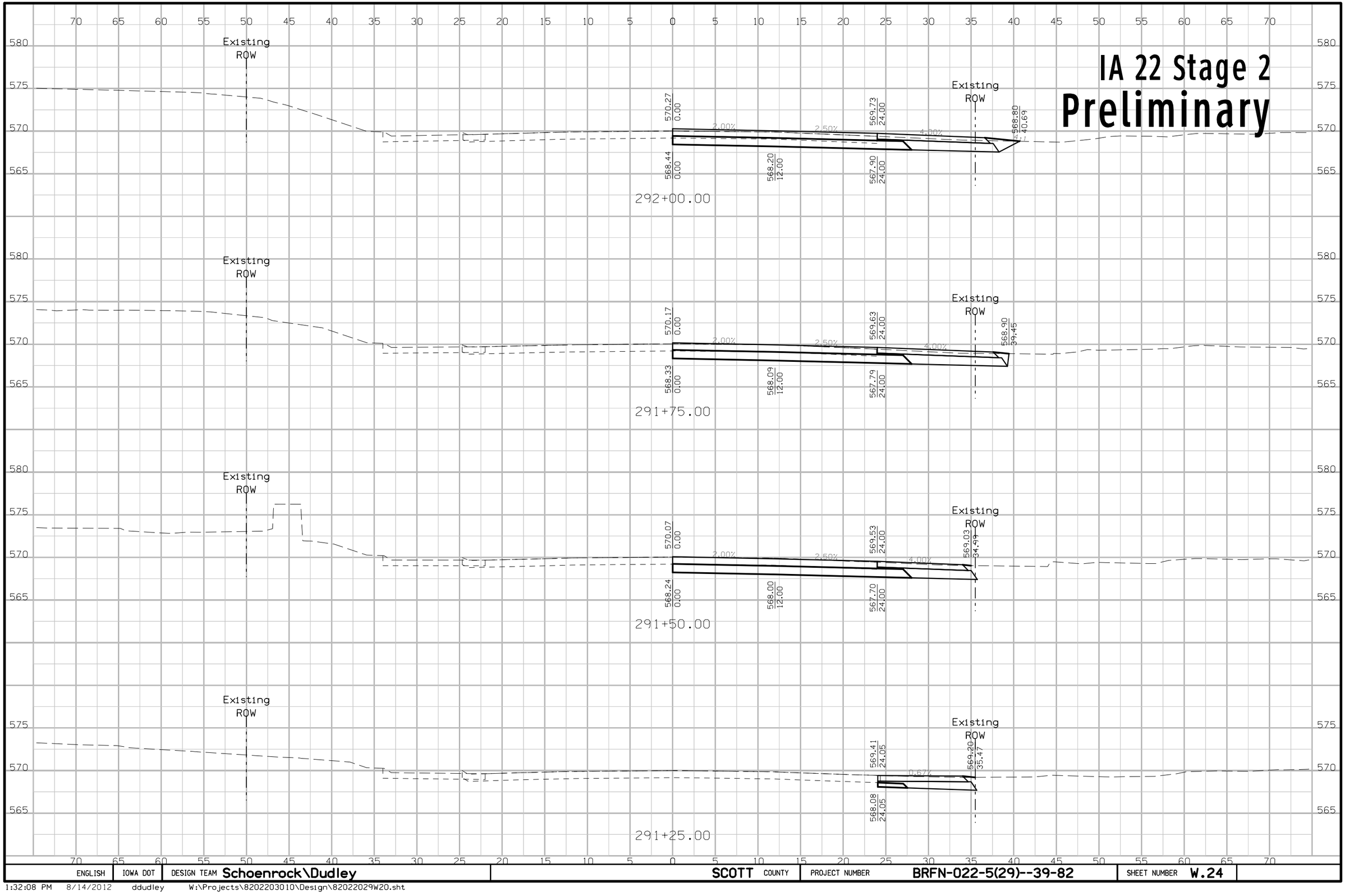
568.02
22.00

2.00%

569.53
135.90
570.28
38.15

567.76
35.00

IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.24

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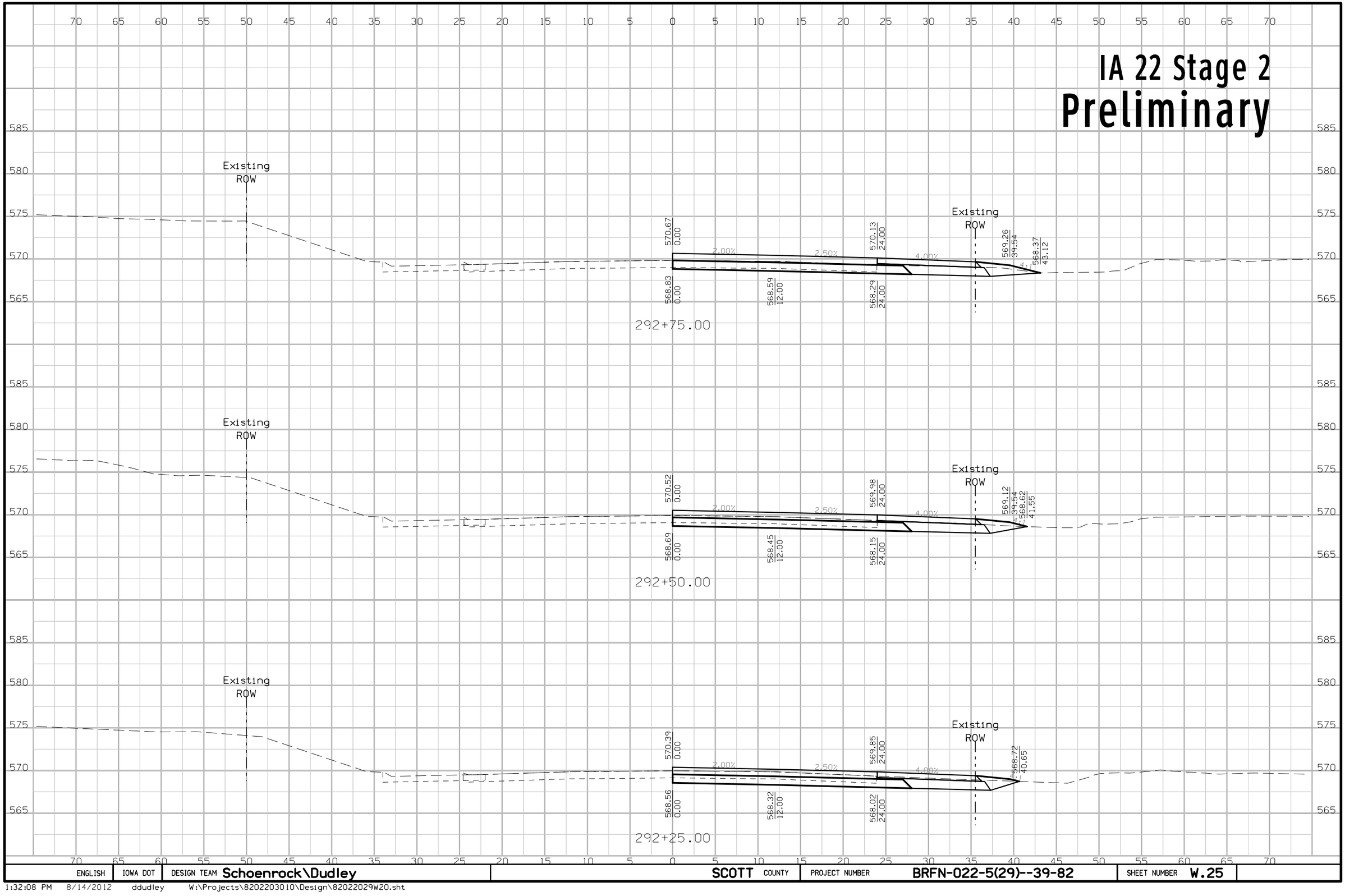
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.25

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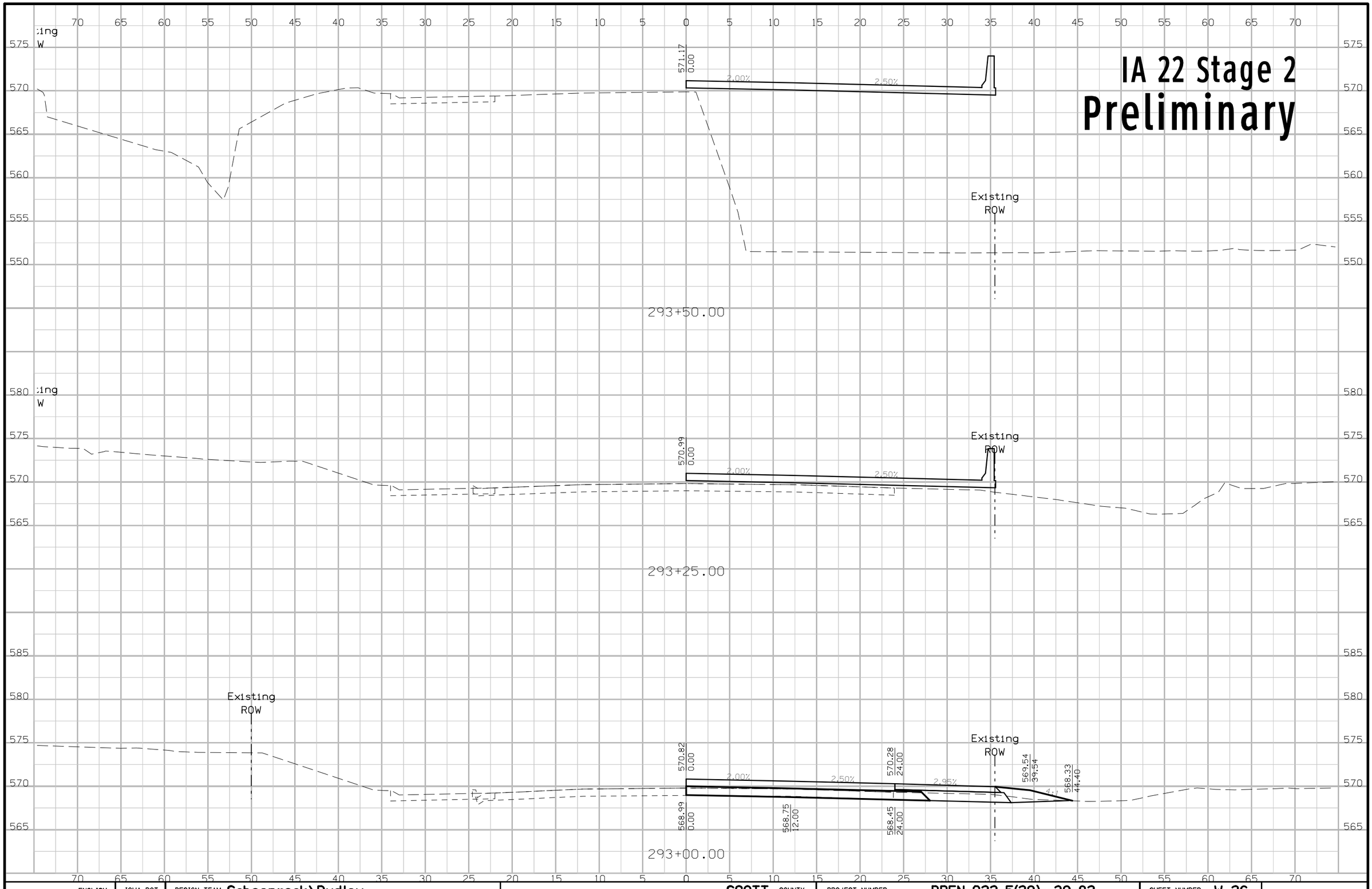
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.26

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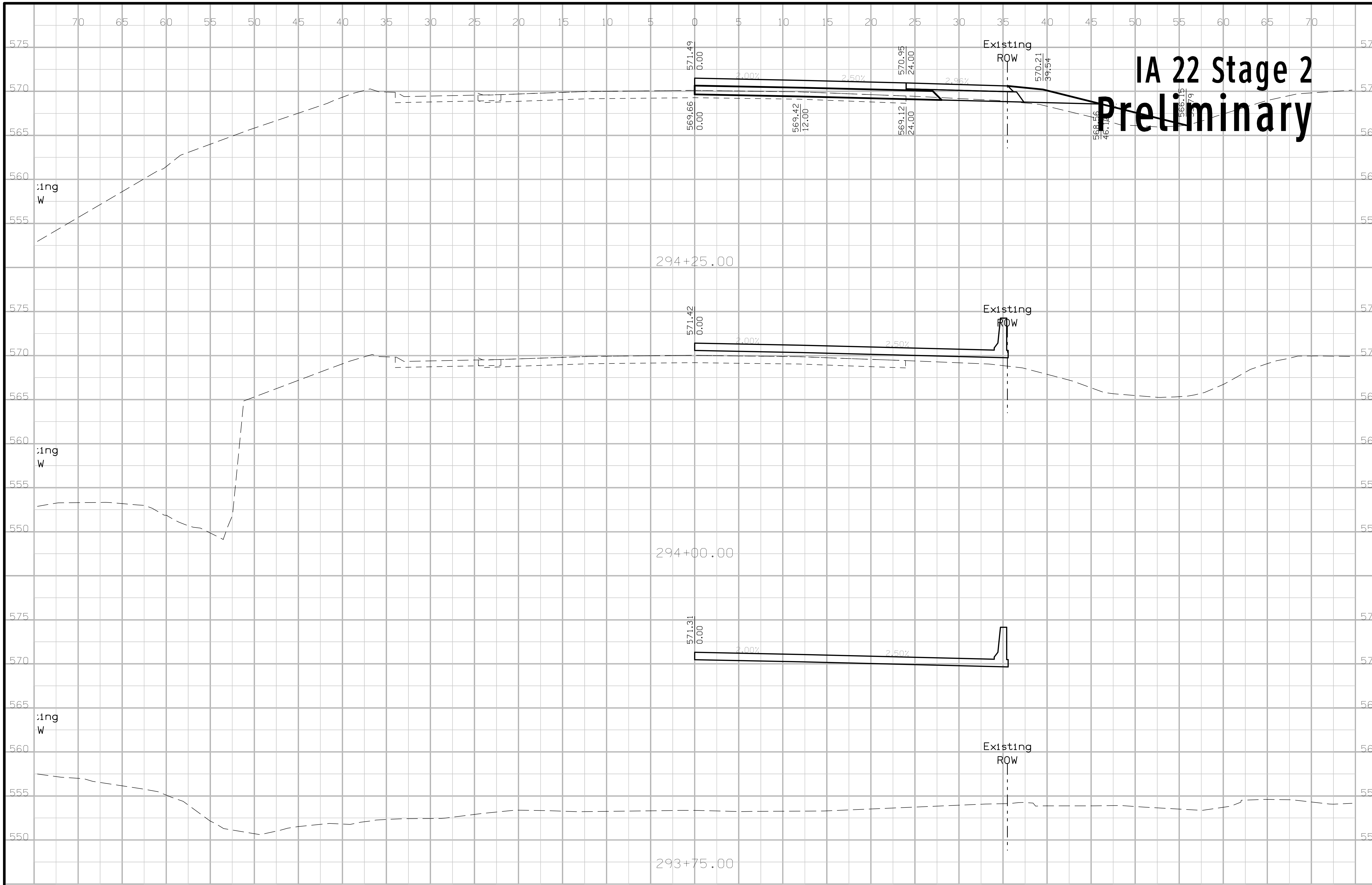

ENGLISH | IOWA DOT | DESIGN TEAM Schoenrock\Dudley | SCOTT COUNTY | PROJECT NUMBER BRFN-022-5(29)--39-82 | SHEET NUMBER W.27

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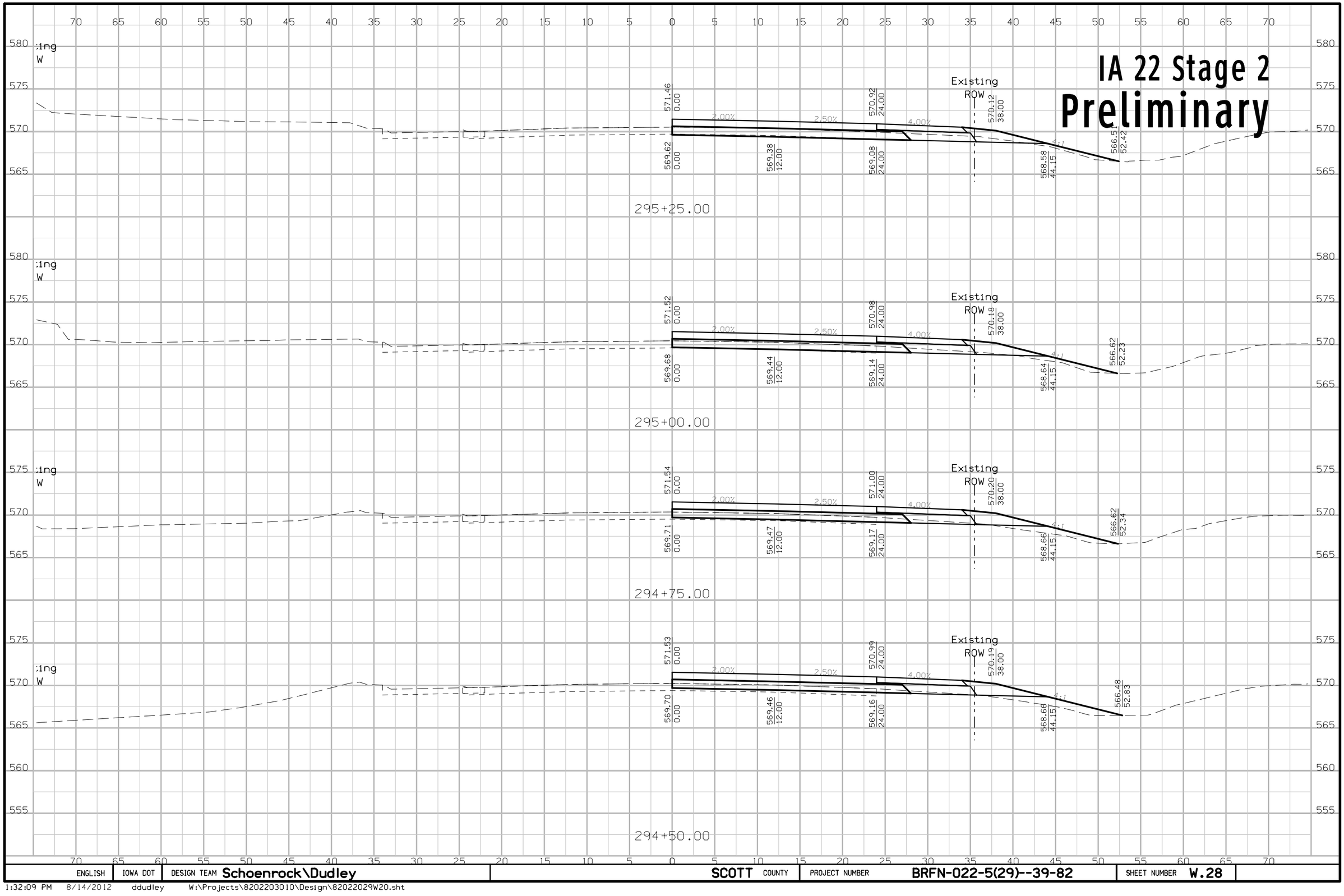
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.28

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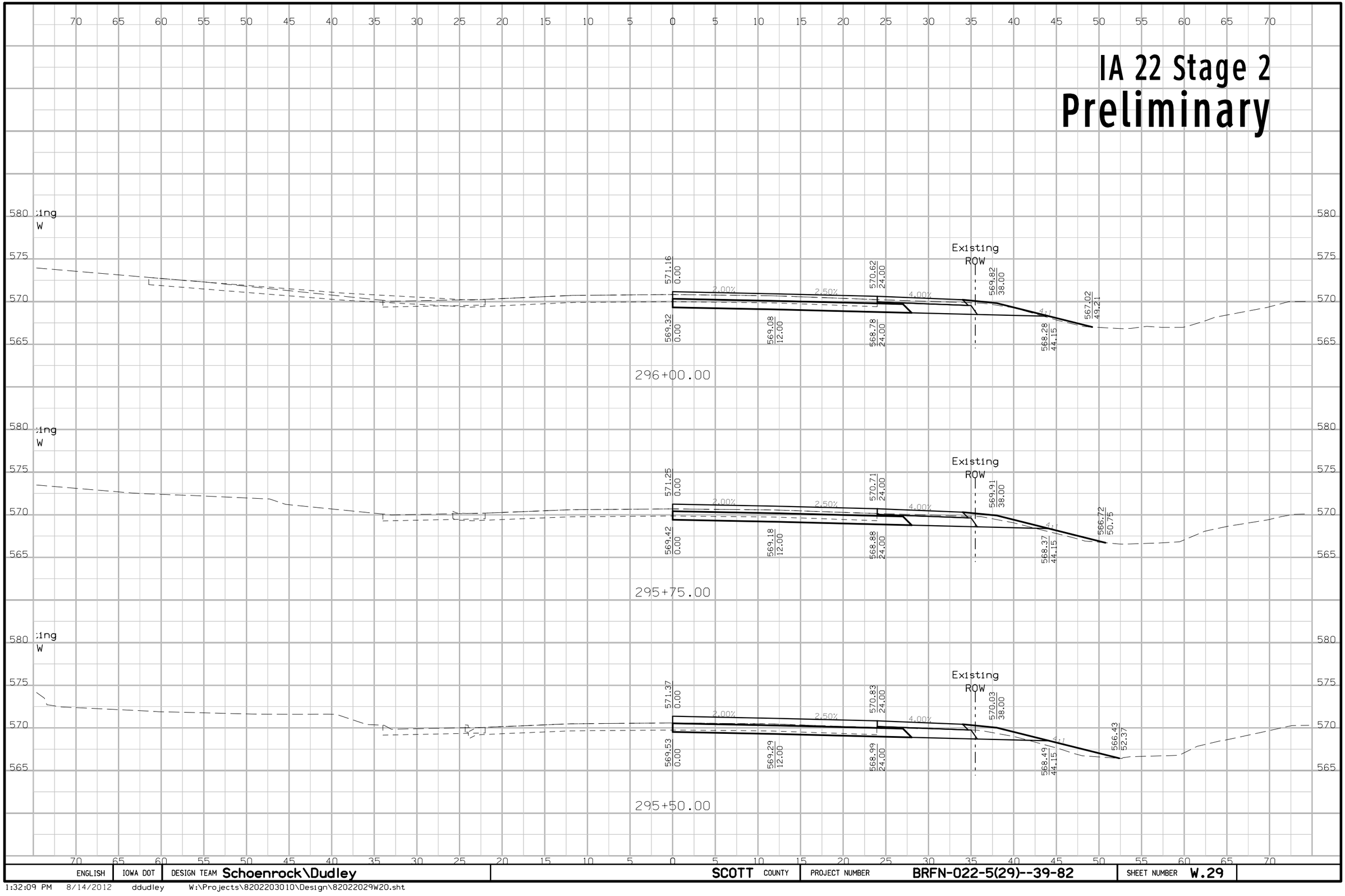
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.29

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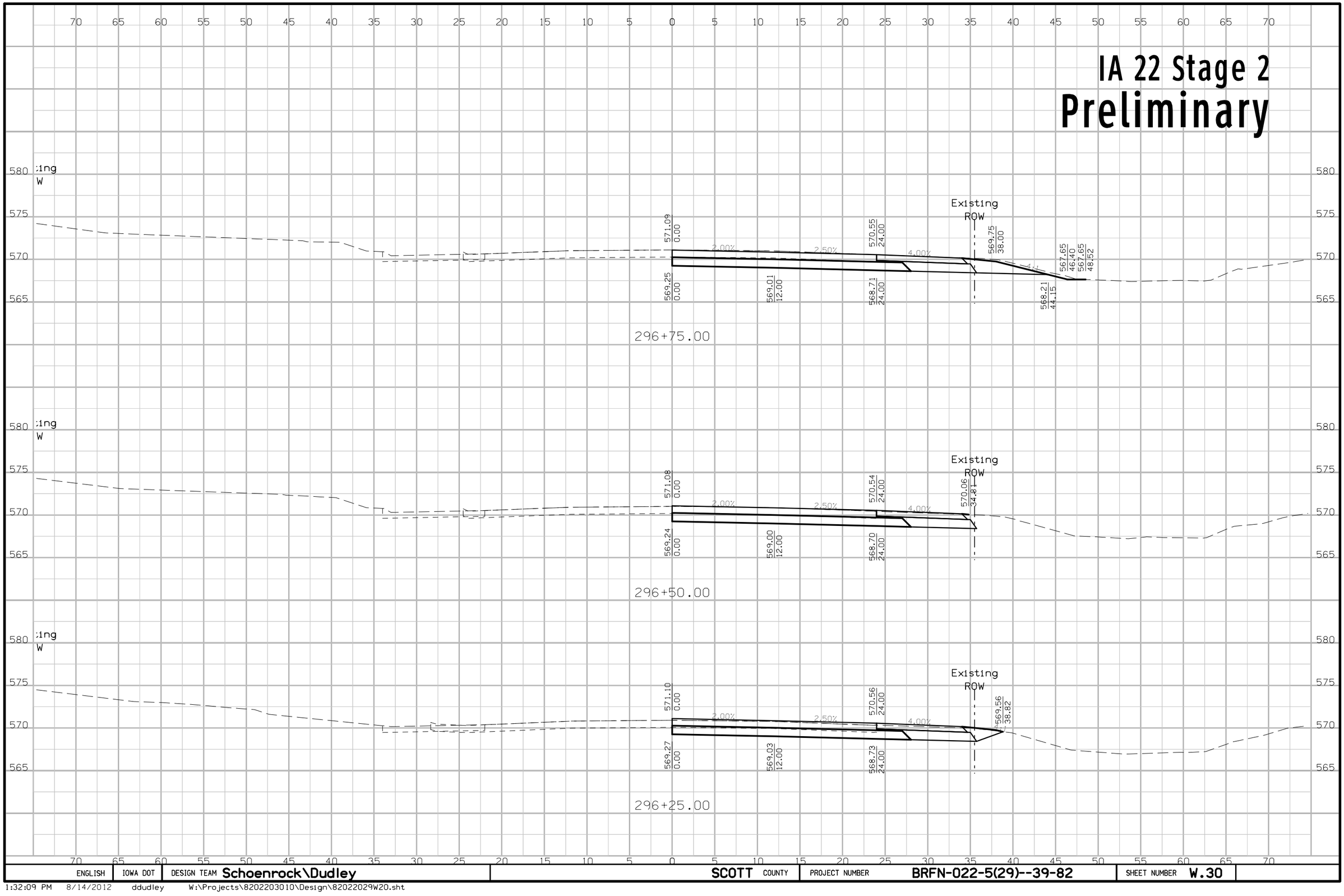
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.30

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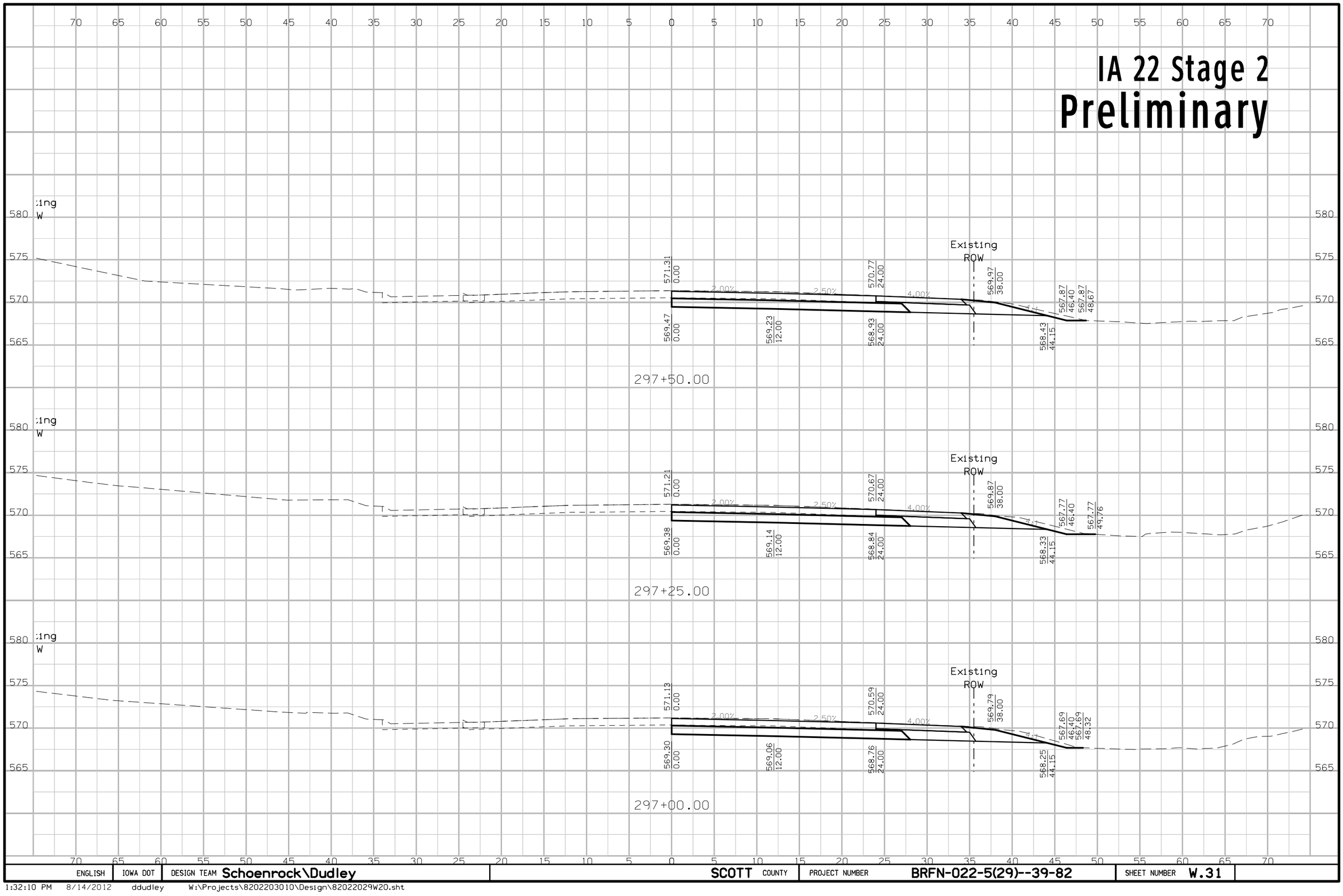
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.31

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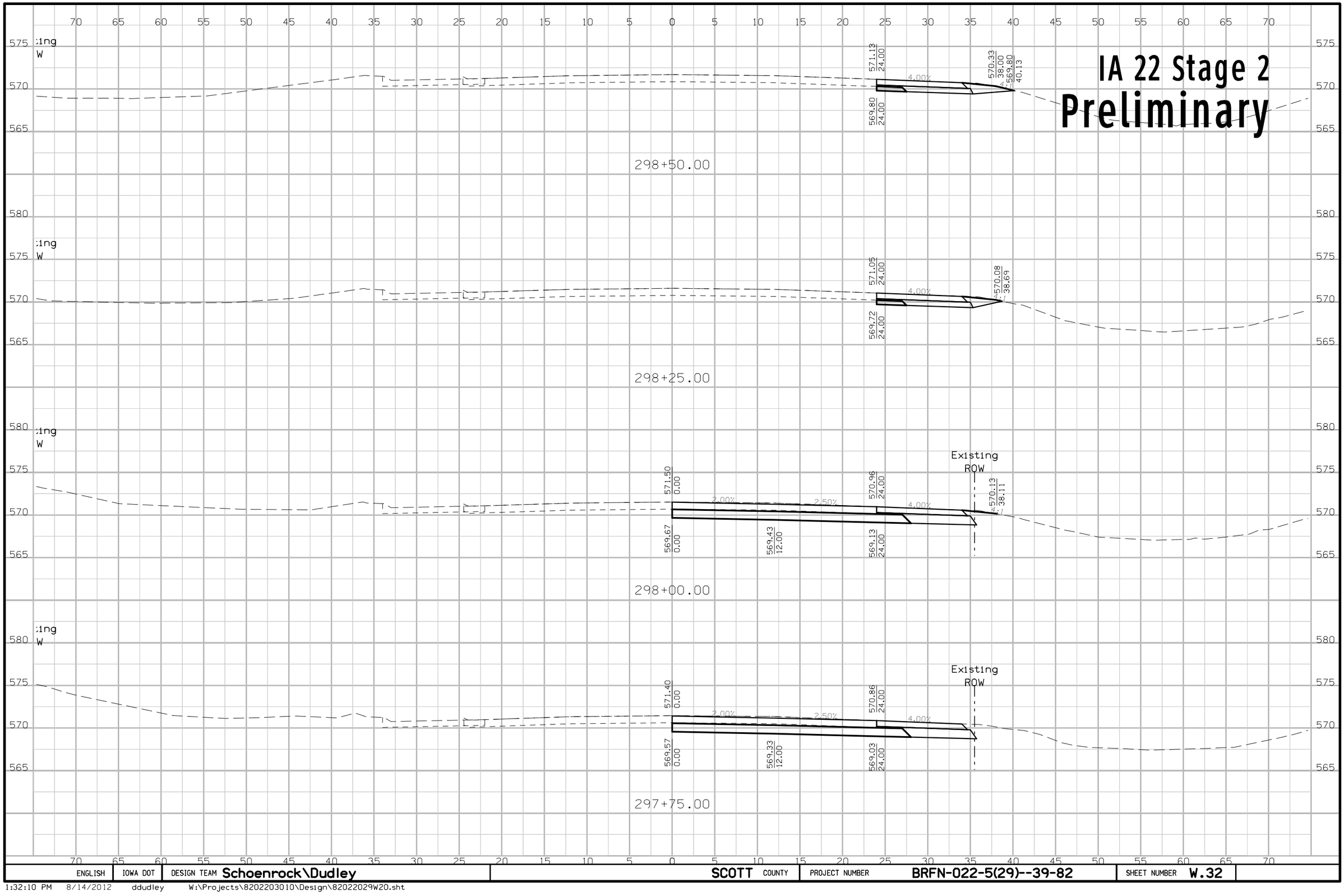
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.32

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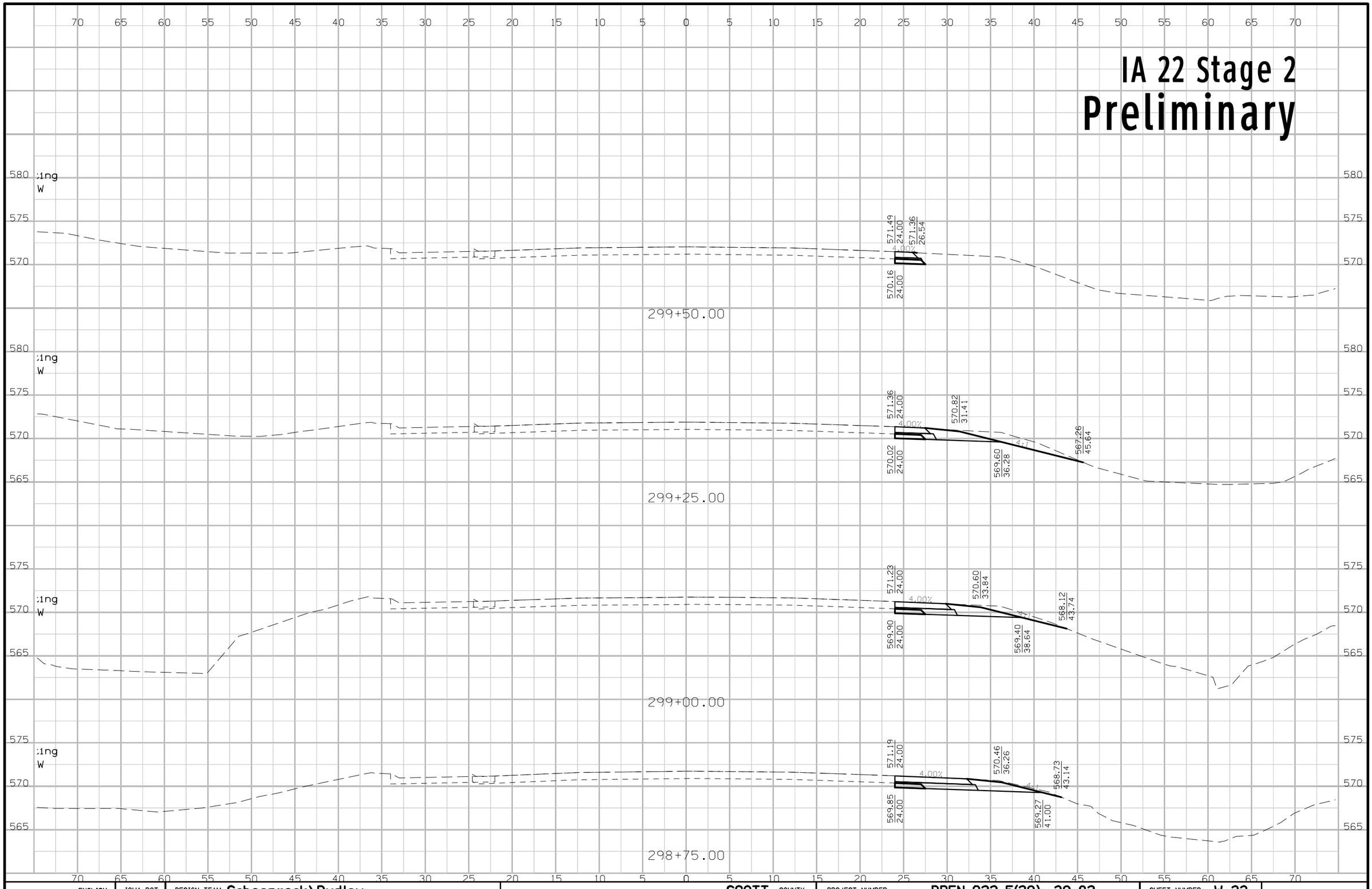
IA 22 Stage 2
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.33

1:32:10 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W20.sht

IA 22 Stage 2

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

580 :ing
W

575

570

299+75.00

580

575

570

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.34

1:32:10 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W20.sht

IA 22 Stage 3
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

575
570
565

Existing ROW

570.20
34.59

569.02
30.00

568.41
22.00

3.00%

566.40
28.00

566.58
22.00

Existing ROW

289+00.00

Existing ROW

569.88
33.07

568.86
30.00

568.25
22.00

3.00%

566.23
28.00

566.41
22.00

Existing ROW

288+75.00

Existing ROW

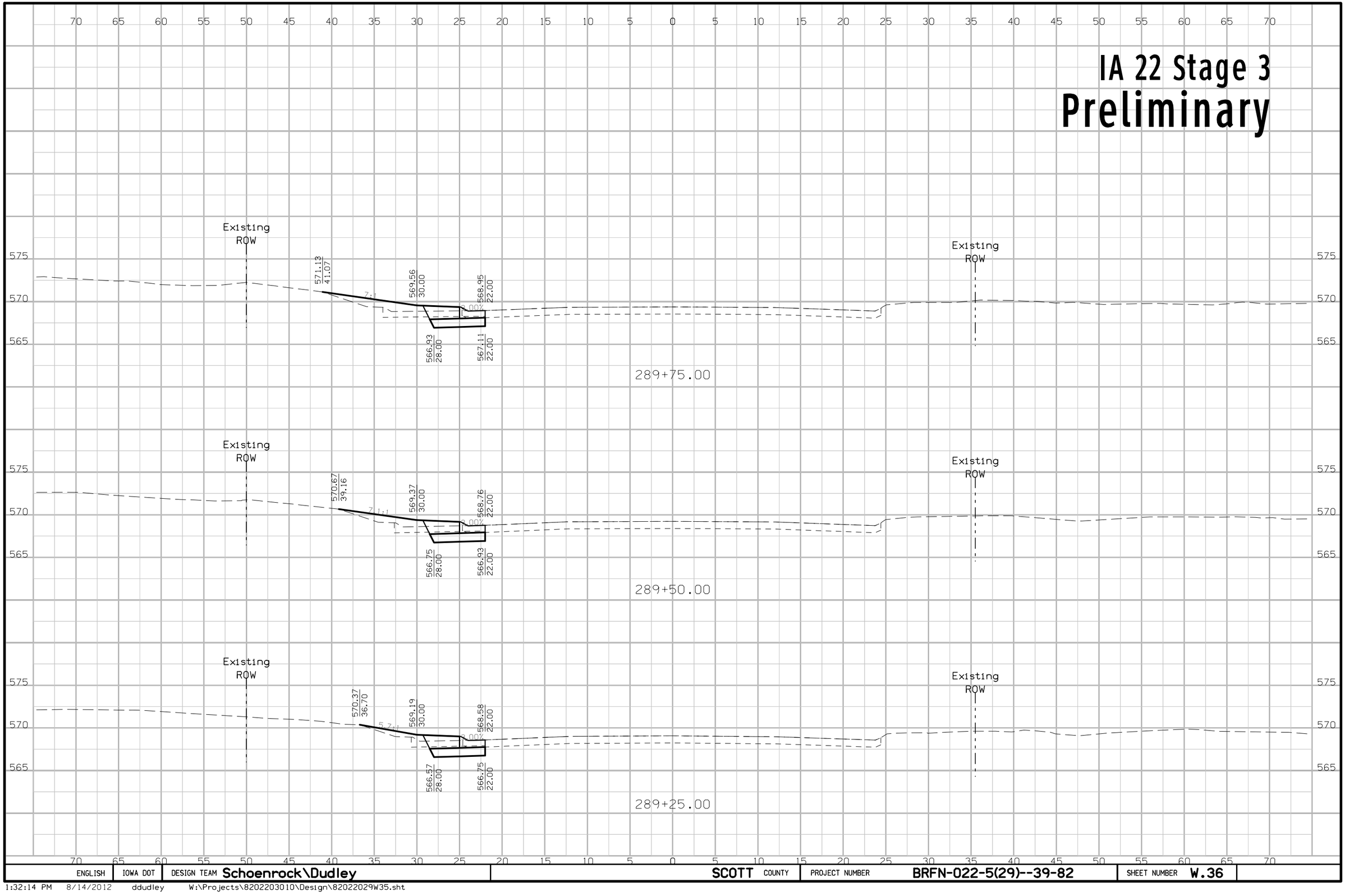
Existing ROW

288+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.35

1:32:14 PM 8/14/2012 ddudley W:\Projects\82022030l0\Design\82022029W35.sht

IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.36

1:32:14 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

IA 22 Stage 3
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

575 / 570 / 565

Existing ROW

571.36 / 50.00

8.56%

569.43 / 27.50

Existing ROW

290+75.00

Existing ROW

571.55 / 50.00

8.50%

569.42 / 27.50

Existing ROW

290+50.00

Existing ROW

571.27 / 39.89

7:1

569.84 / 30.00

3.00%

569.23 / 22.00

567.22 / 28.00

567.40 / 22.00

Existing ROW

290+25.00

Existing ROW

571.25 / 40.59

6.9:1

569.72 / 30.00

3.00%

569.11 / 22.00

567.09 / 28.00

567.27 / 22.00

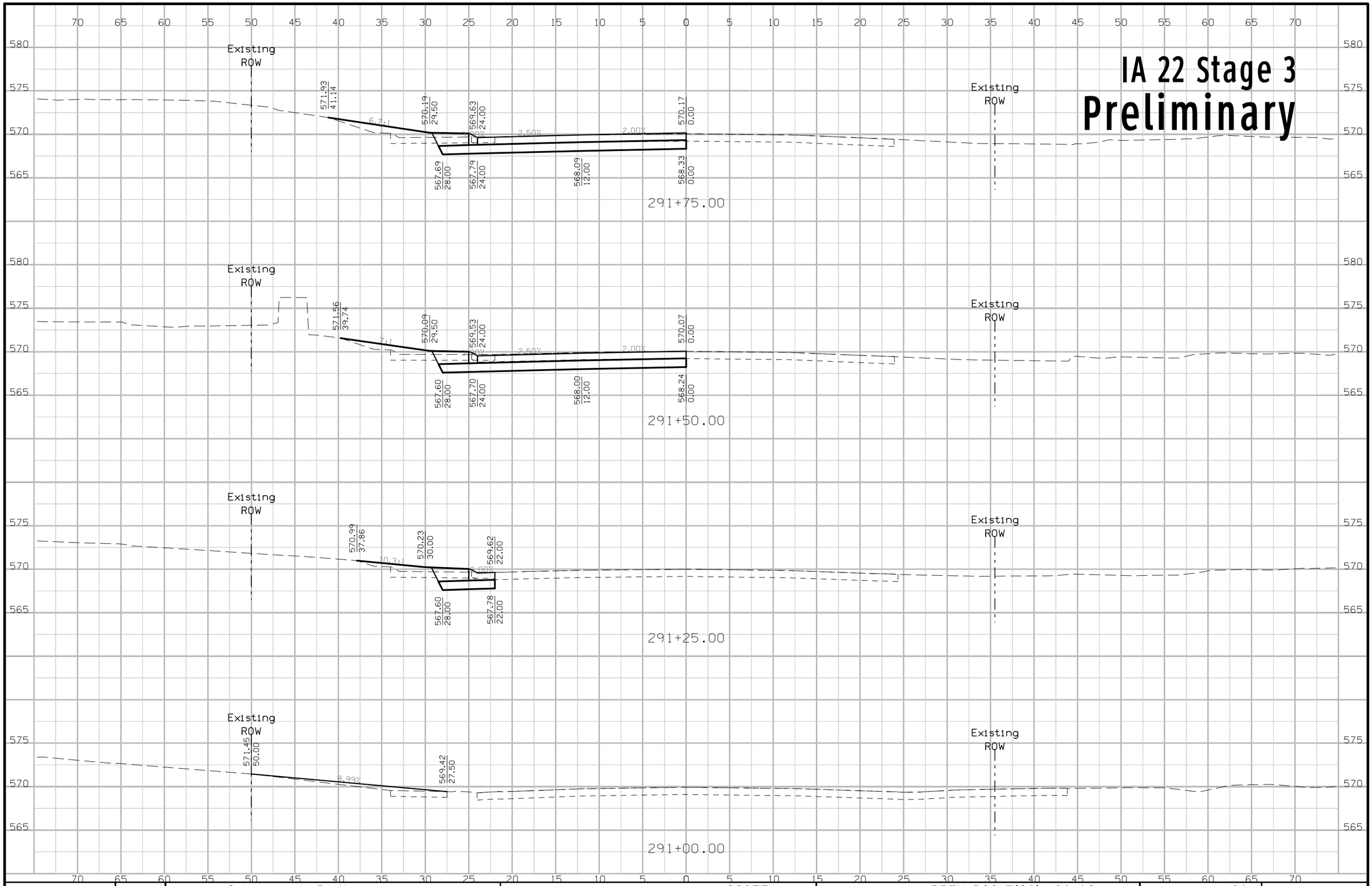
Existing ROW

290+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.37

1:32:14 PM 8/14/2012 ddudley W:\Projects\82022030\10\Design\82022029W35.sht

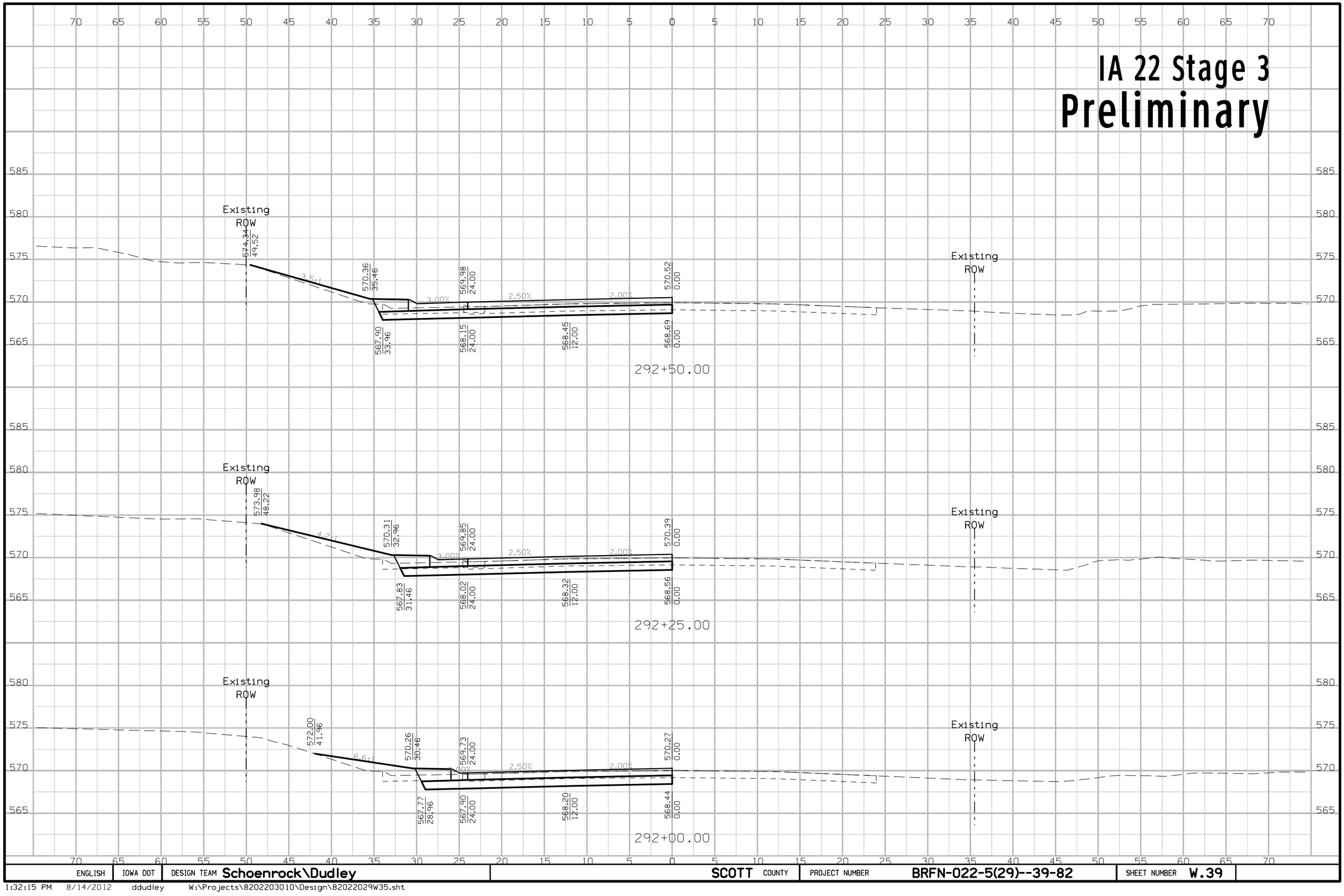
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.38

1:32:15 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

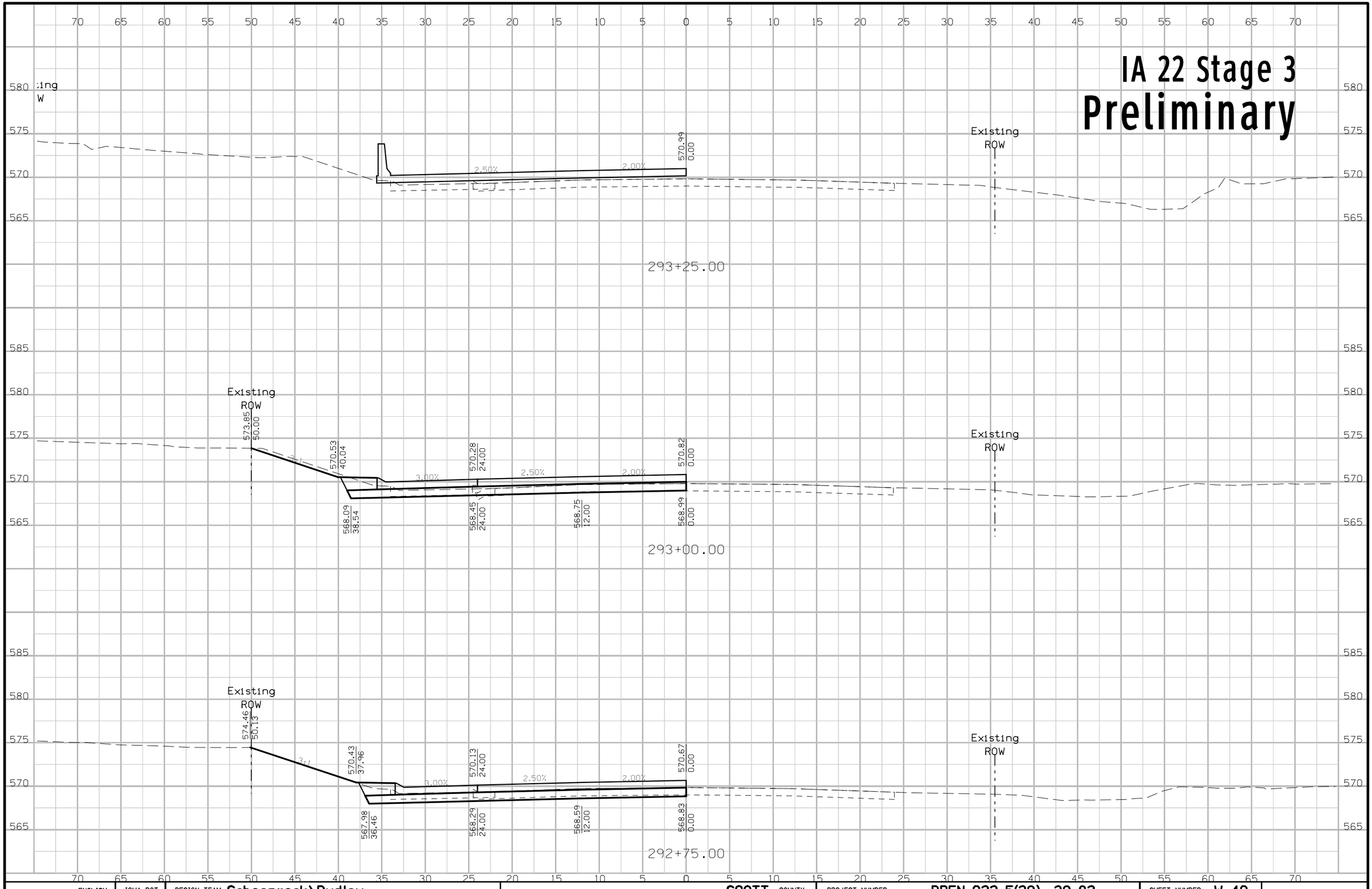
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.39

1:32:15 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

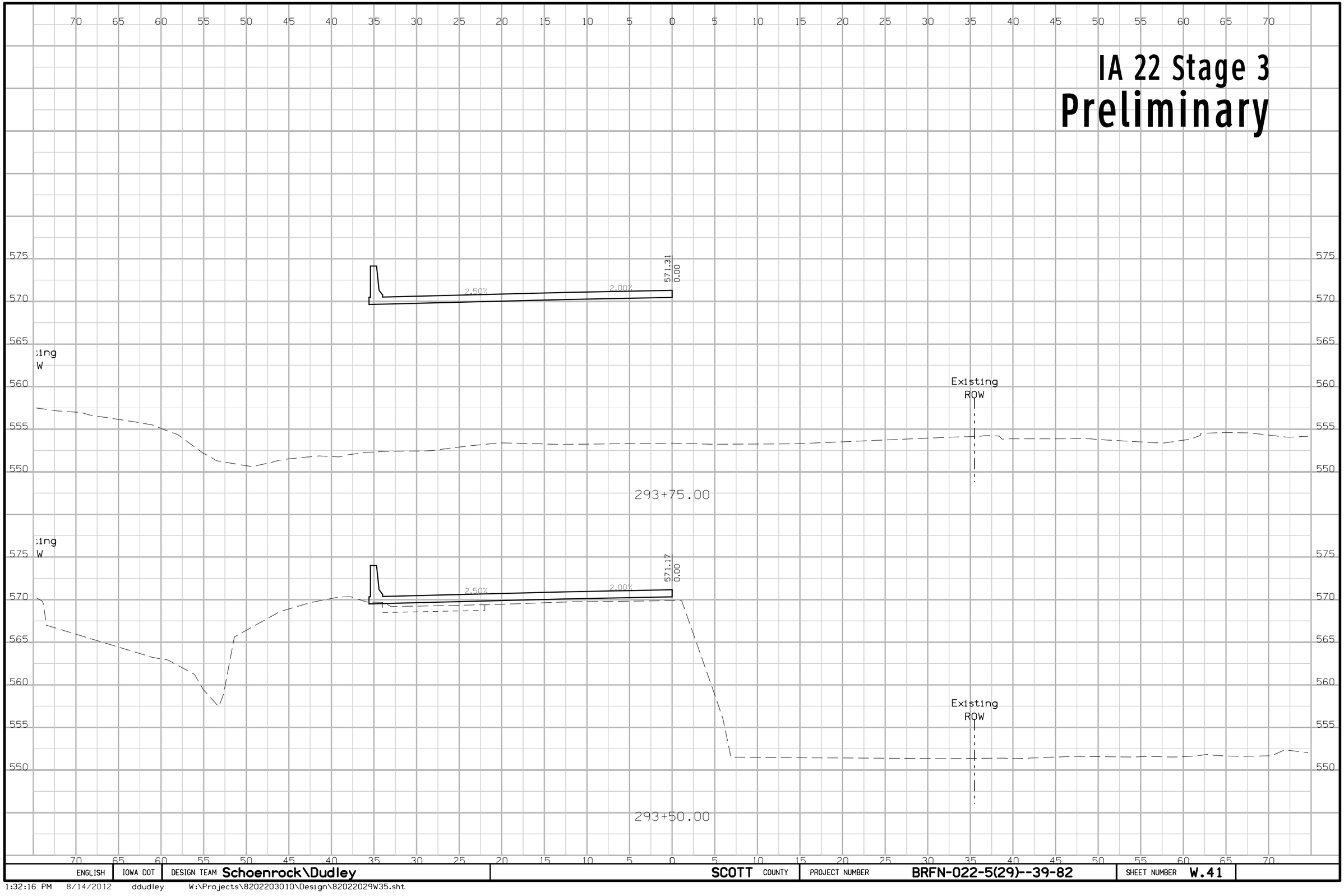
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.40

1:32:15 PM 8/14/2012 ddudley W:\Projects\82022030\10\Design\82022029W35.sht

IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.41

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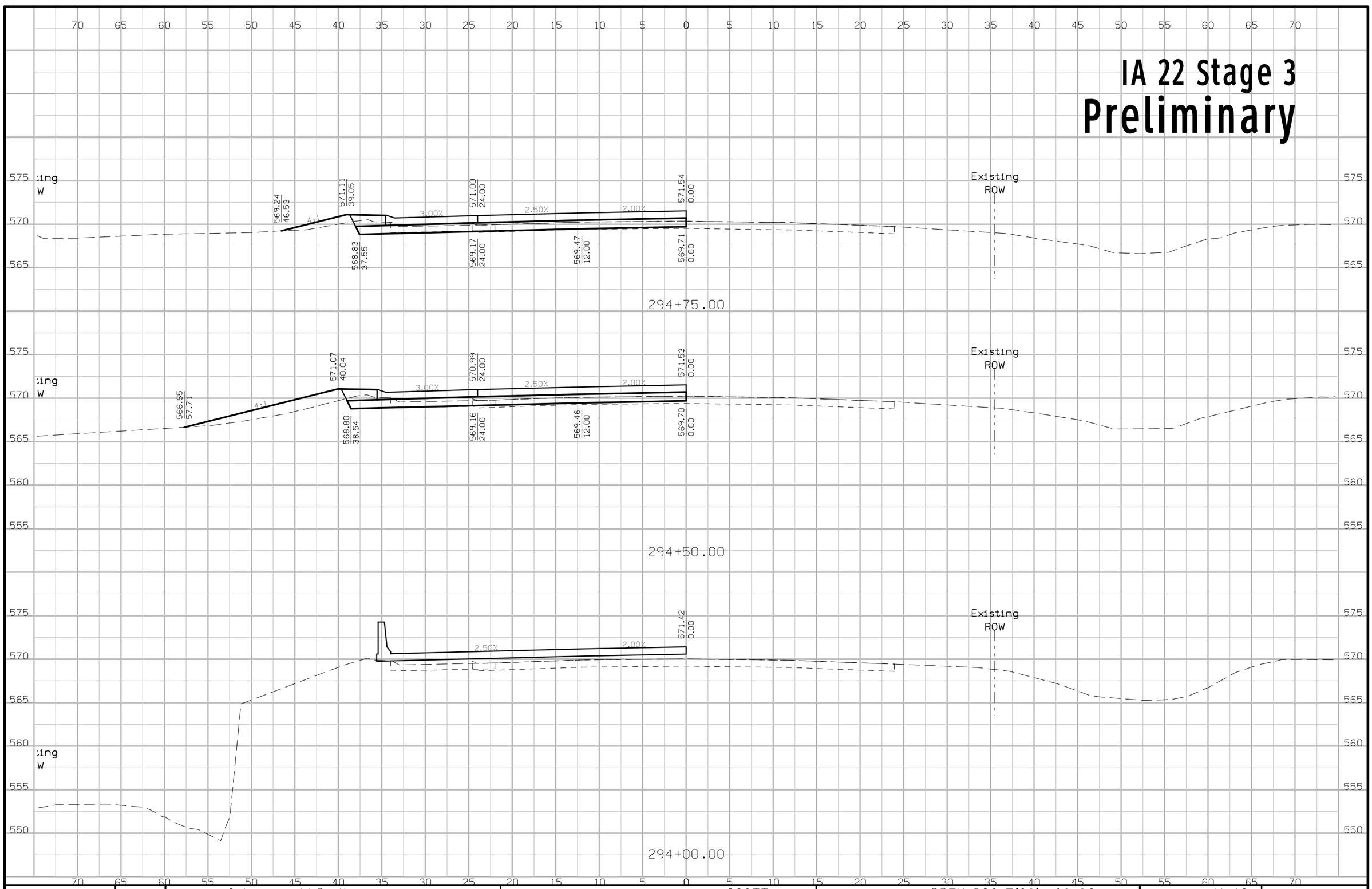
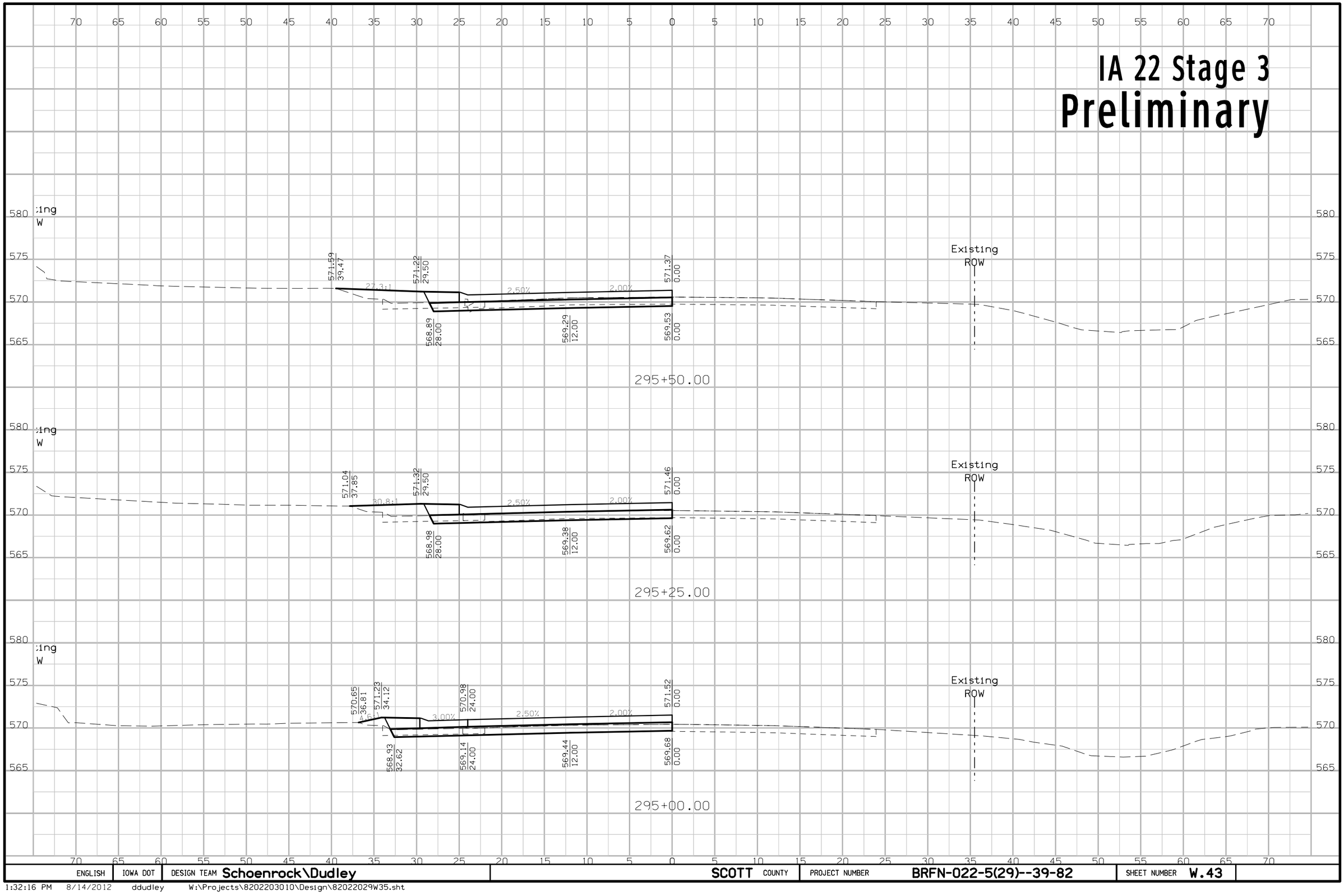
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.42

1:32:16 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

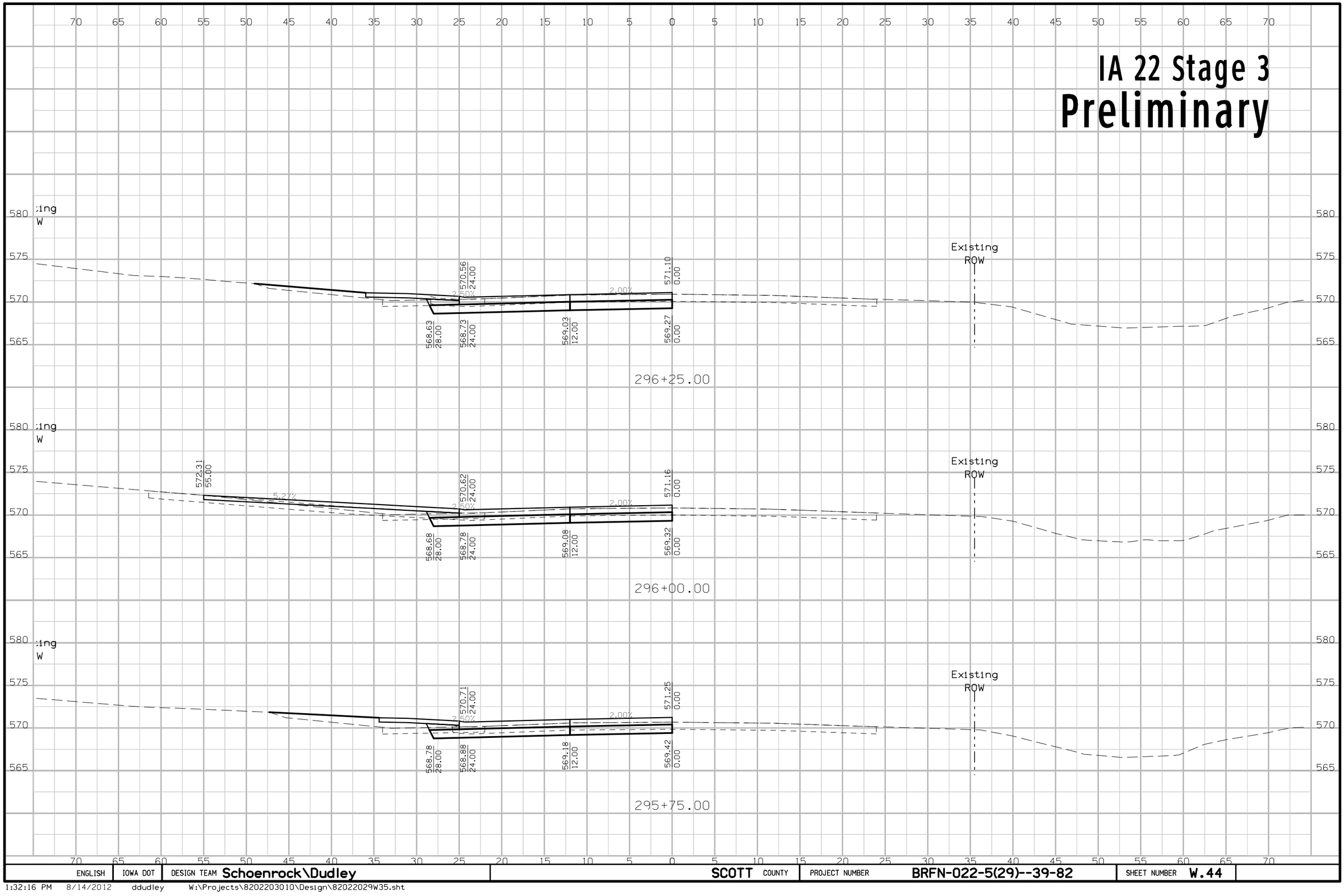
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.43

1:32:16 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

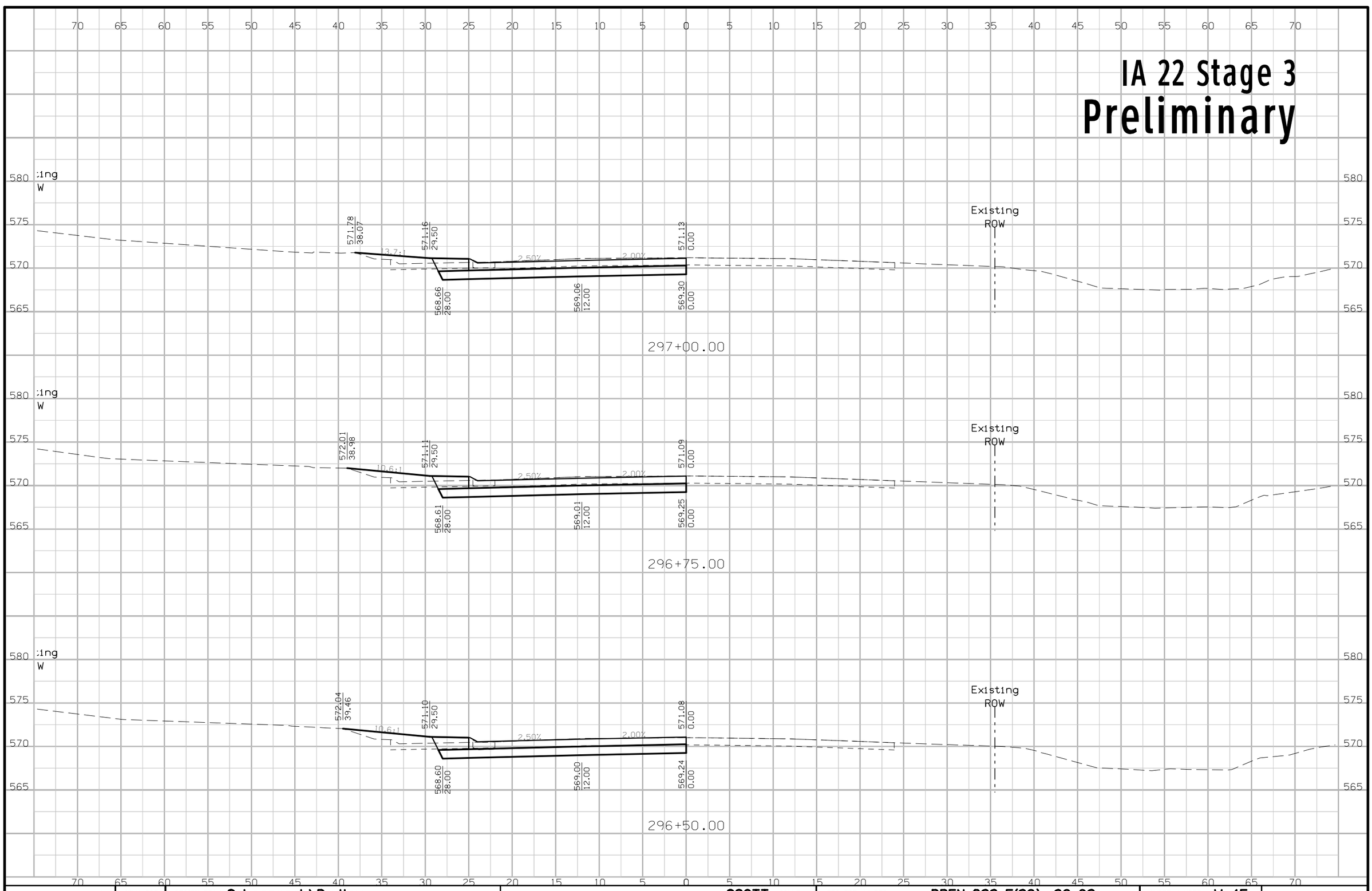
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.44

1:32:16 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

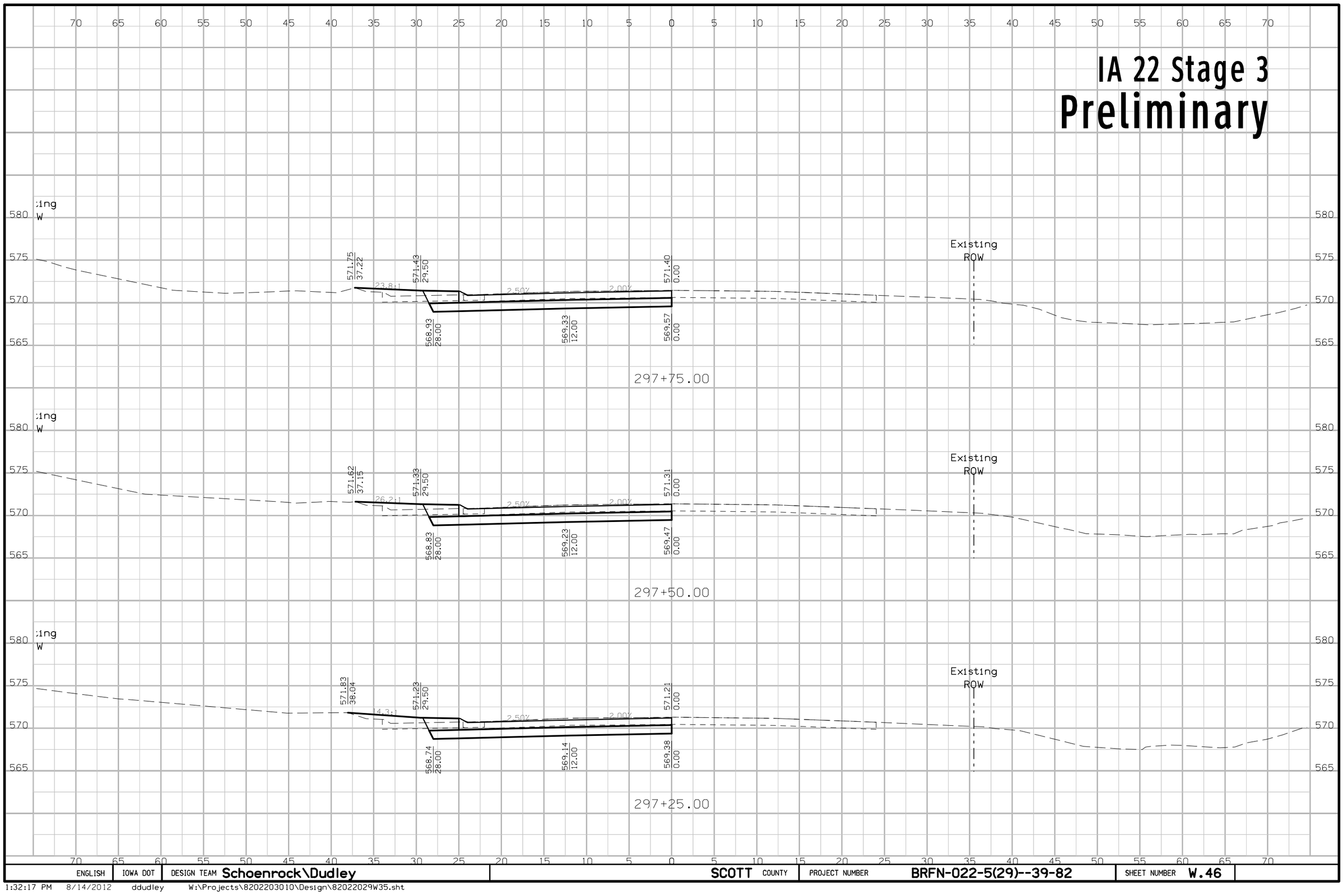
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.45

1:32:17 PM 8/14/2012 ddudley W:\Projects\82022030\10\Design\82022029W35.sht

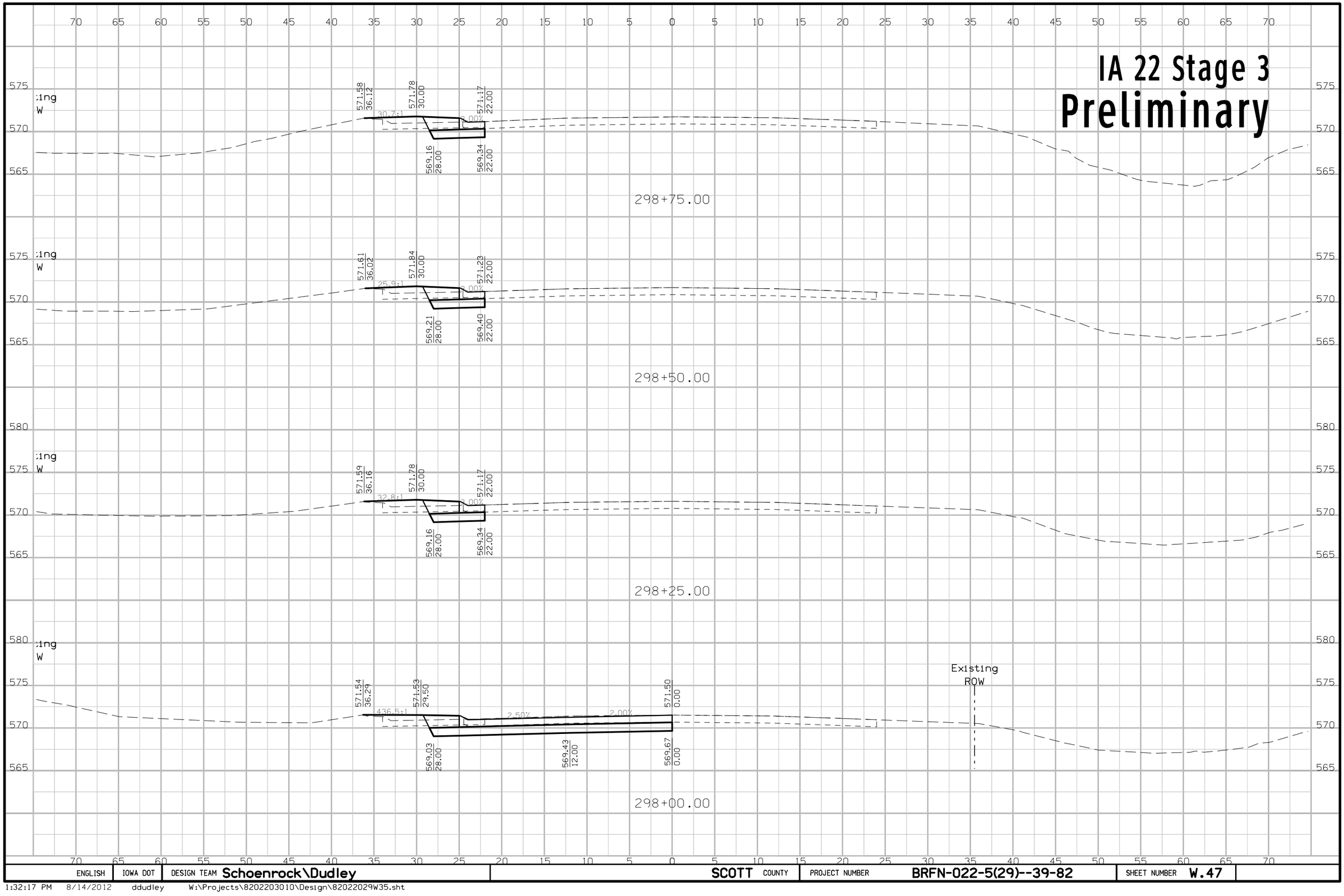
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.46

1:32:17 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

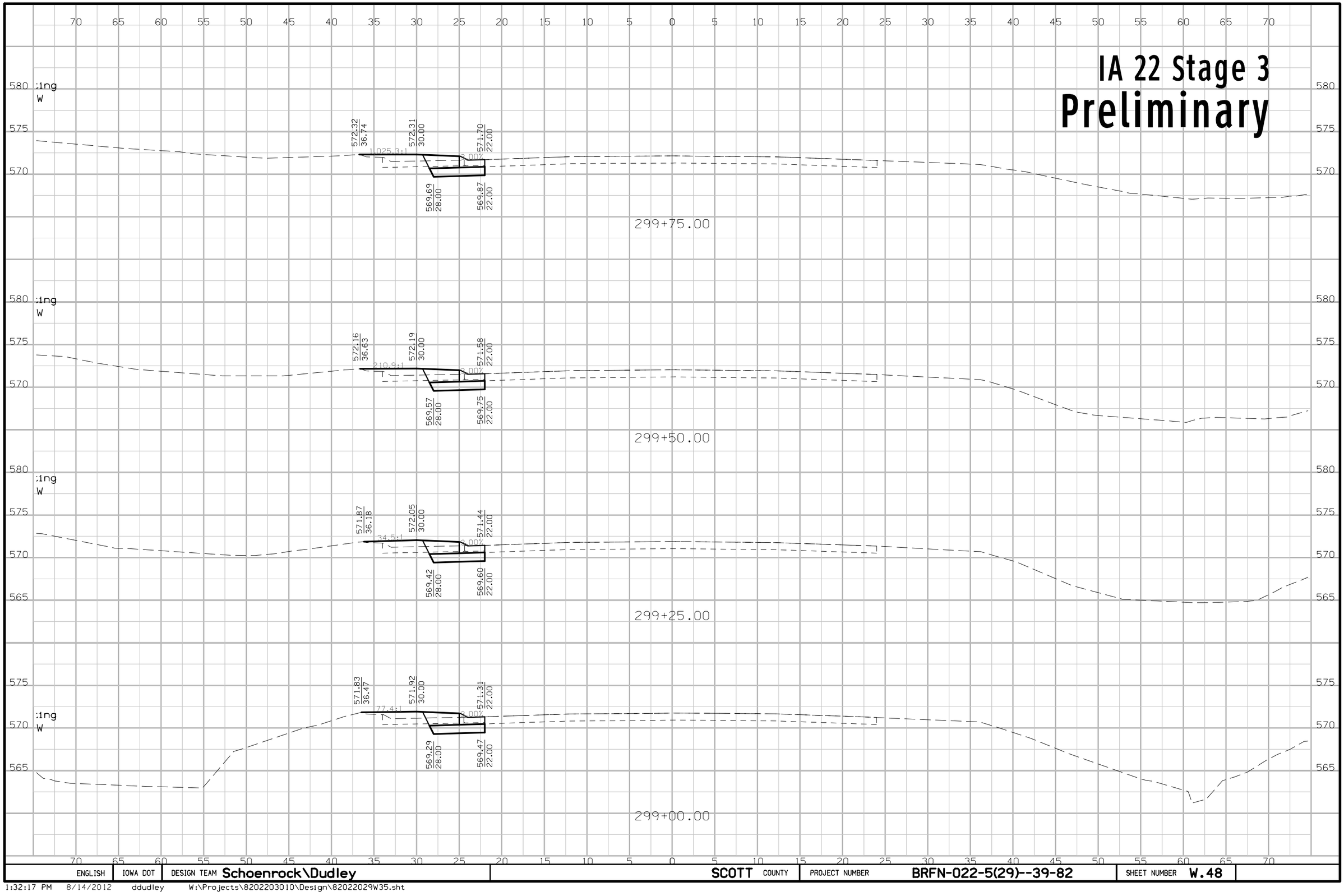
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.47

1:32:17 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

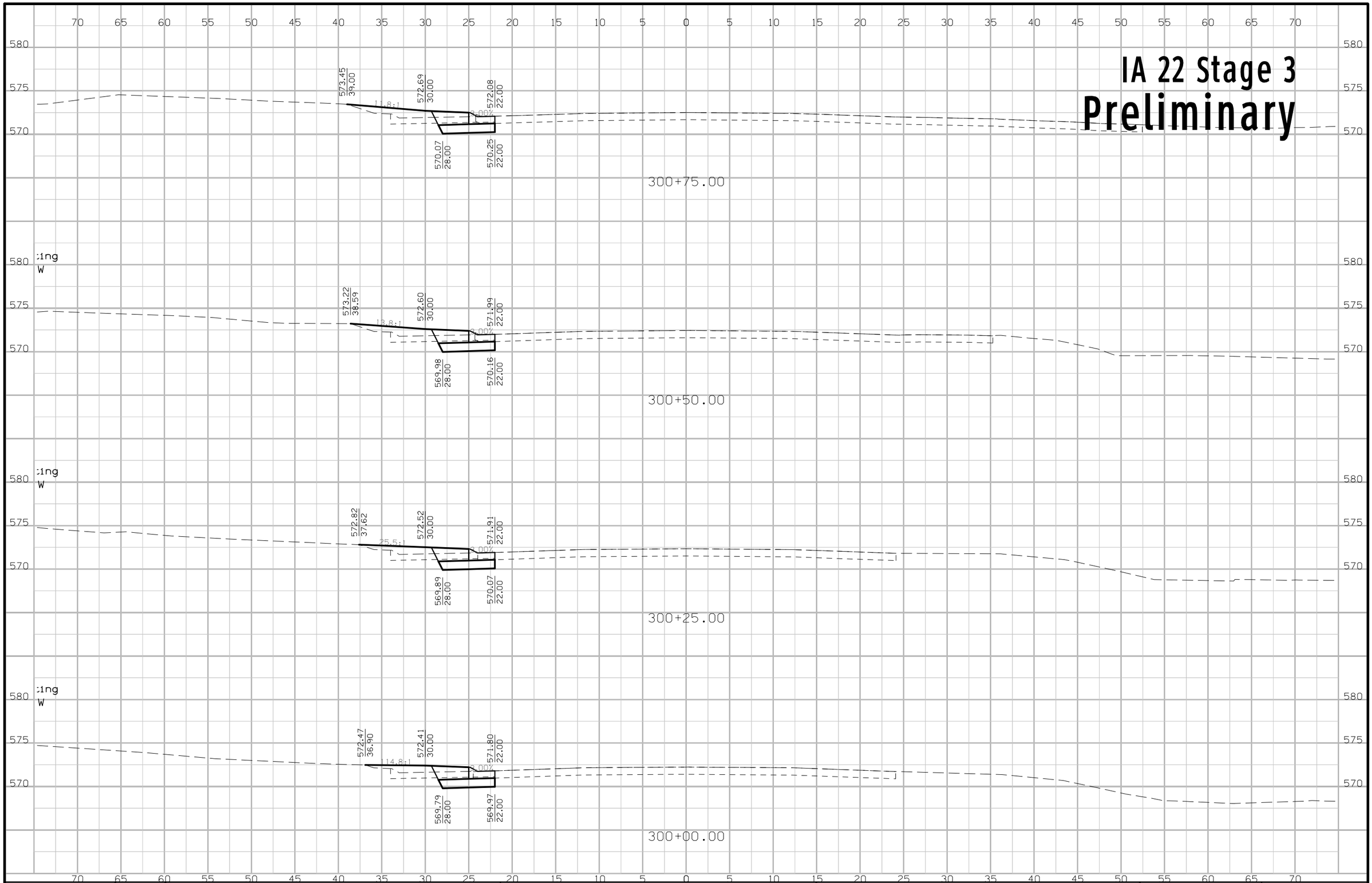
IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.48

1:32:17 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

IA 22 Stage 3
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.49

1:32:18 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

IA 22 Stage 3
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

580
575
570

301+75.00

580
575
570

115th Av

301+50.00

580
575
570

301+25.00

573.13
37.78

572.78
30.00

572.17
22.00

22.2:

3.00%

570.15
28.00

570.33
22.00

580
575
570

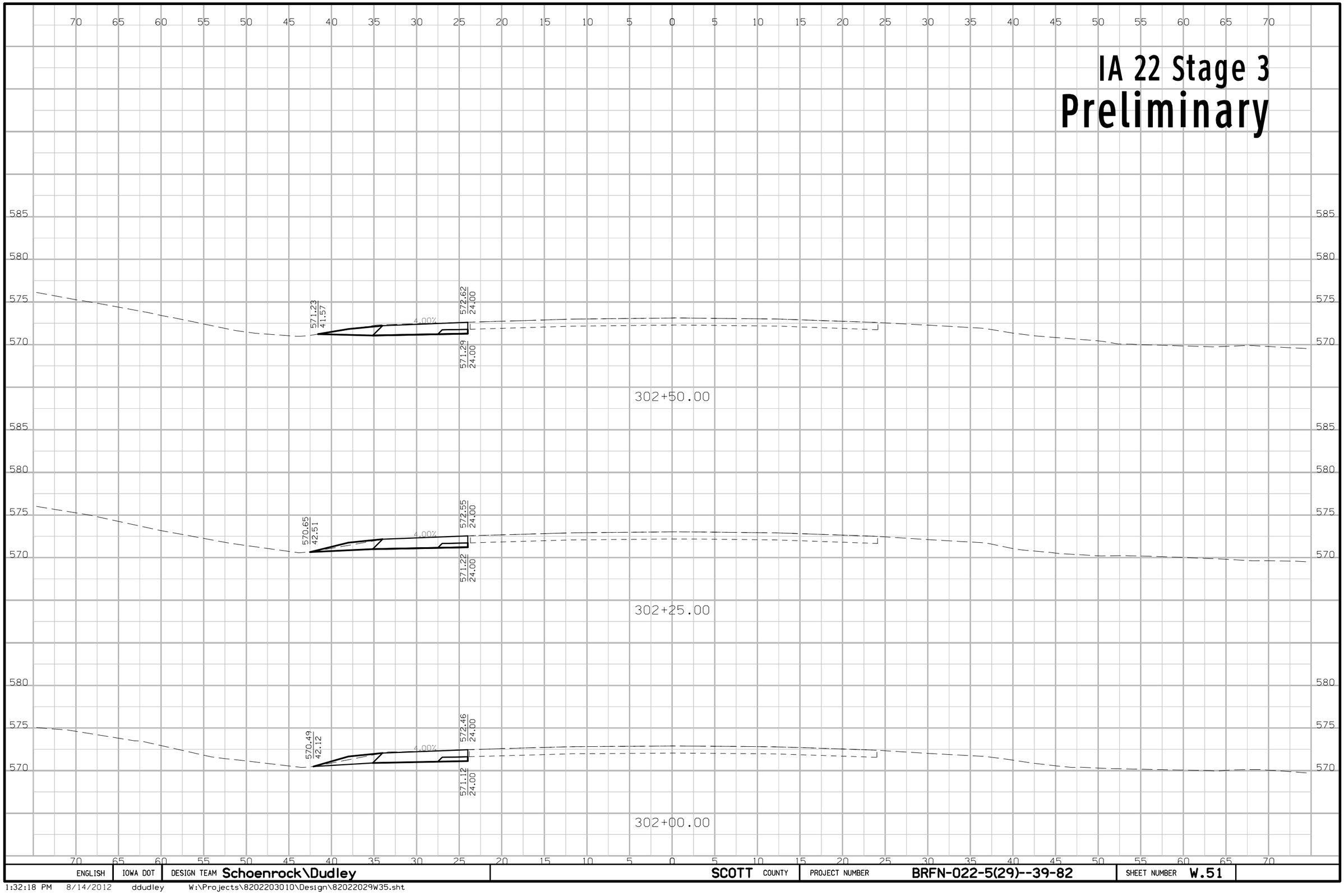
301+00.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.50

1:32:18 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

IA 22 Stage 3
Preliminary

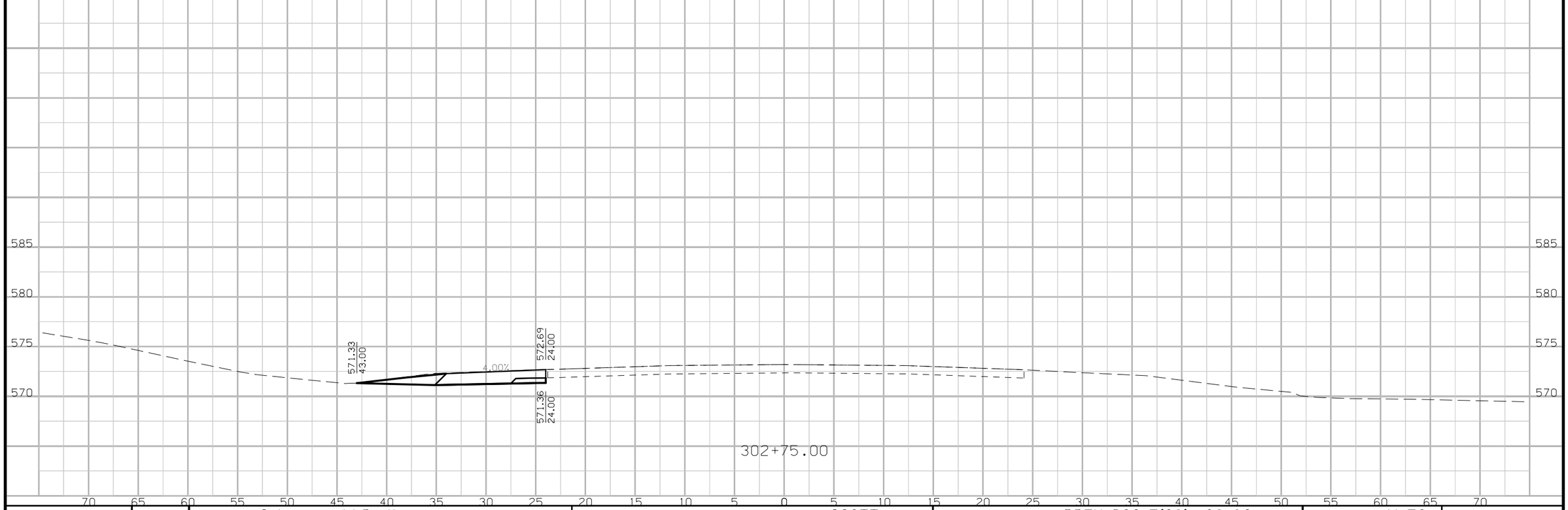


ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.51

1:32:18 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

IA 22 Stage 3

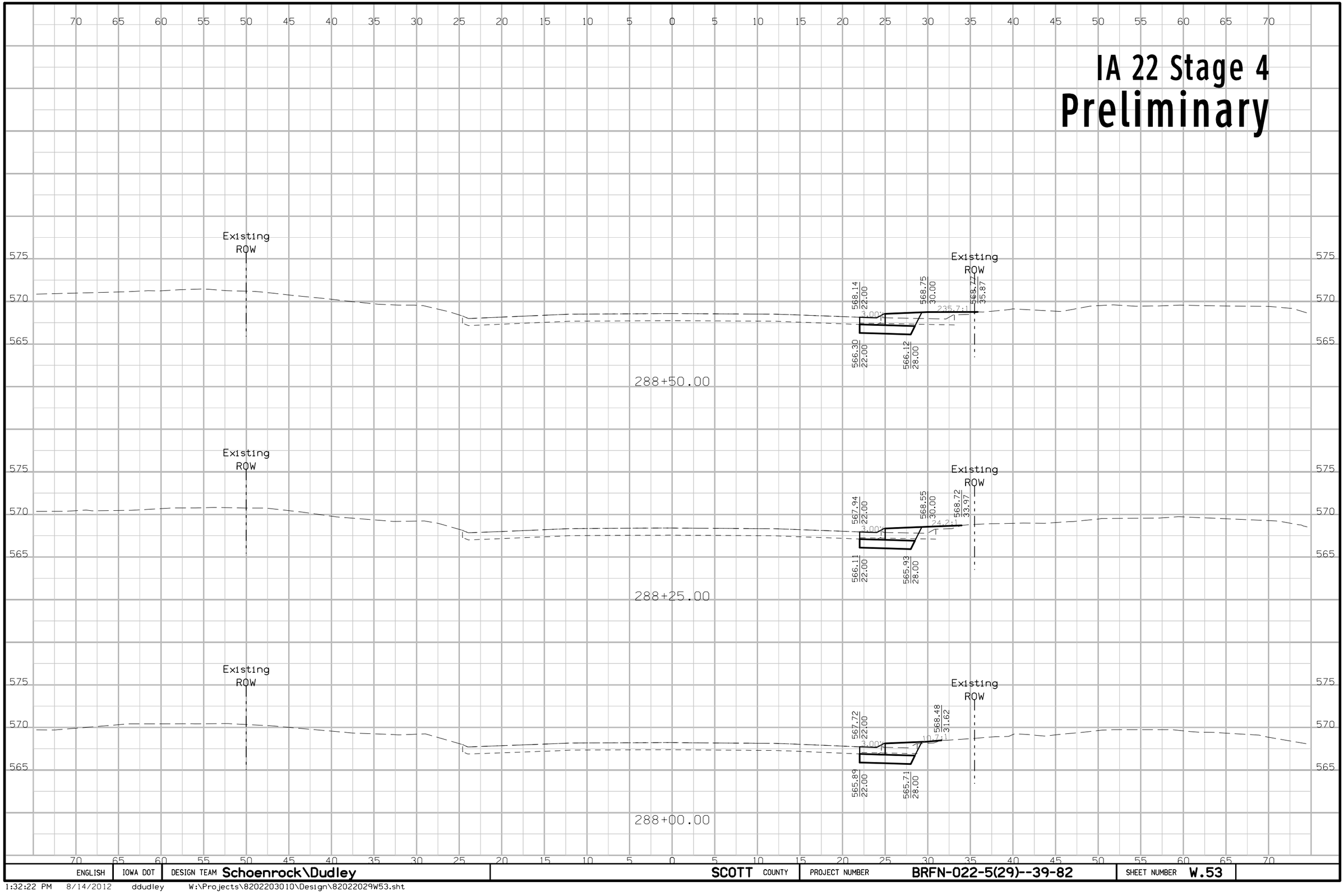
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.52

1:32:18 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W35.sht

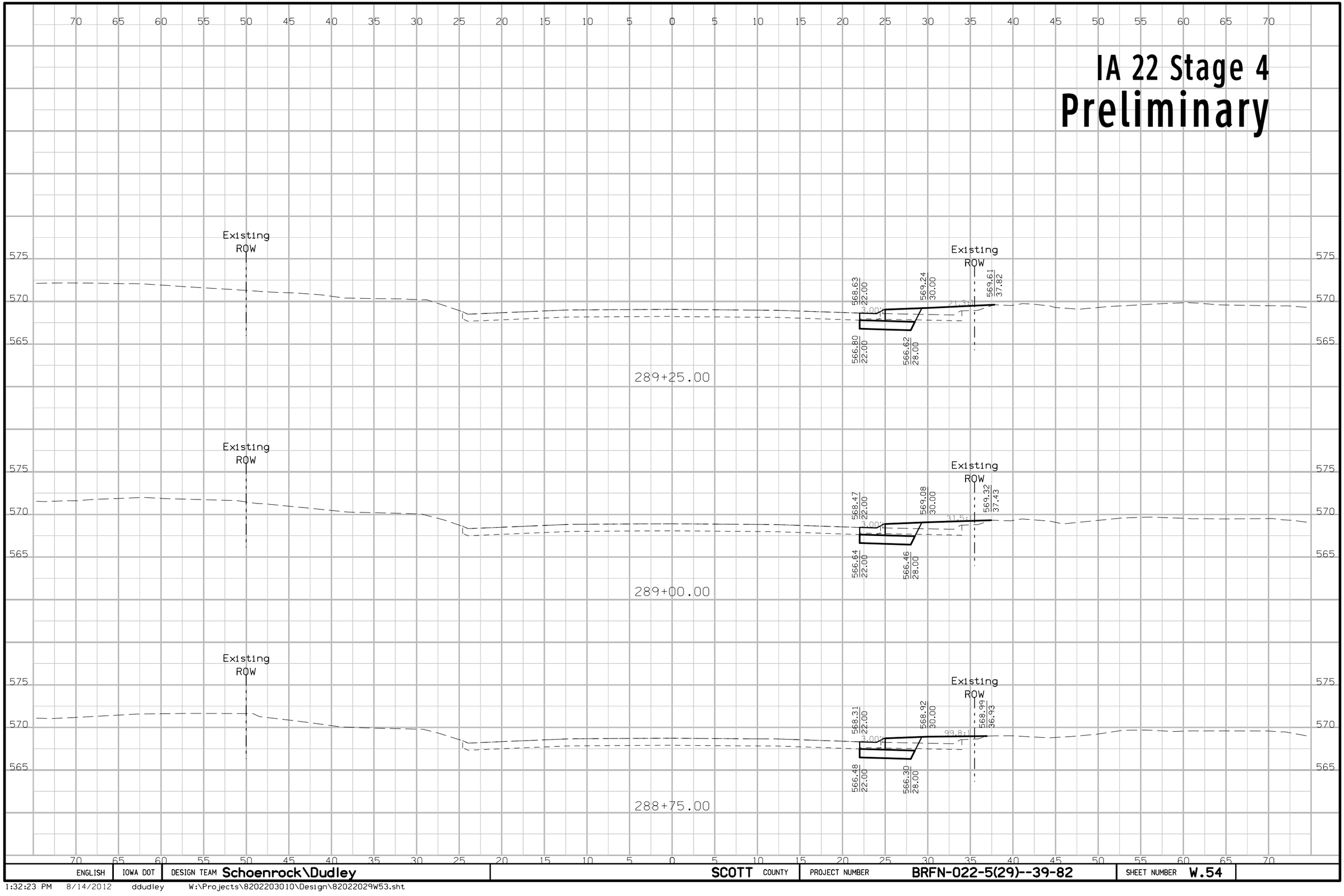
IA 22 Stage 4
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.53

1:32:22 PM 8/14/2012 ddudley W:\Projects\82022030l0\Design\82022029W53.sht

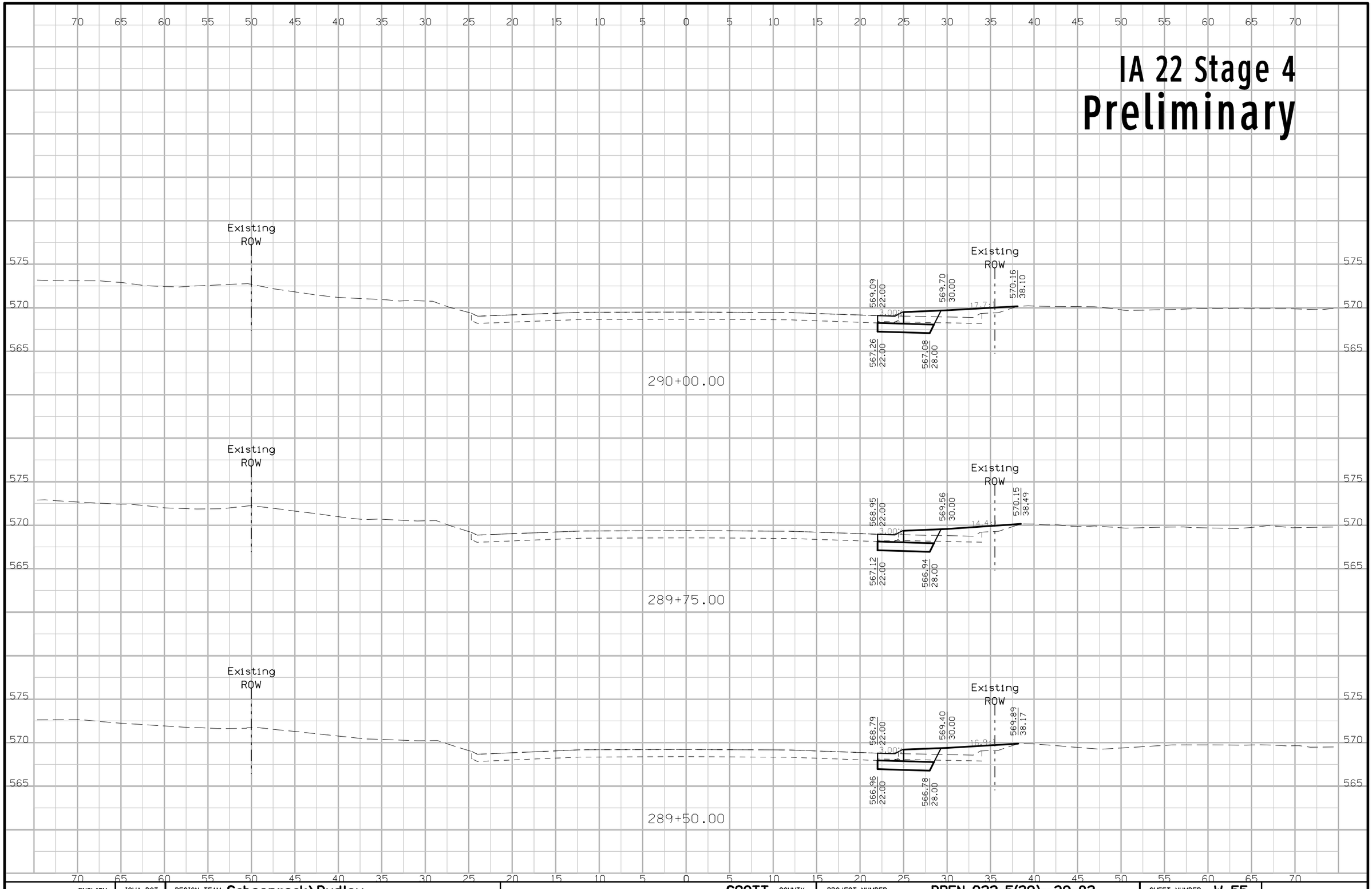
IA 22 Stage 4
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.54

1:32:23 PM 8/14/2012 ddudley W:\Projects\82022030\10\Design\82022029W53.sht

IA 22 Stage 4
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.55

1:32:23 PM 8/14/2012 ddudley W:\Projects\82022030010\Design\82022029W53.sht

IA 22 Stage 4
Preliminary

298+75.00

571.19
24.00

569.85
24.00

4.00%

569.50
41.53

4:1

564.14
62.99

298+50.00

Existing
ROW

290+50.00

Existing
ROW

290+25.00

Existing
ROW

569.19
22.00

569.80
30.00

570.28
38.15

3.00%

17.1%

1

567.36
22.00

567.18
28.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.56

1:32:23 PM 8/14/2012 ddudley W:\Projects\82022030010\Design\82022029W53.sht

IA 22 Stage 4
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

580 :ing W
575
570

299+75.00

580 :ing W
575
570

571.49
24.00
4.00%
570.16
24.00
569.81
41.53
4:1
566.23
55.86

299+50.00

580 :ing W
575
570
565

571.36
24.00
4.00%
570.02
24.00
569.67
41.53
4:1
564.70
61.42

299+25.00

575
570 :ing W
565

571.23
24.00
4.00%
569.90
24.00
569.55
41.53
4:1
563.79
64.57

299+00.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Dudley	SCOTT COUNTY	PROJECT NUMBER BRFN-022-5(29)--39-82	SHEET NUMBER W.57

1:32:23 PM 8/14/2012 ddudley W:\Projects\8202203010\Design\82022029W53.sht