PCC PAVEMENT - GRADE AND NEW
NHSX-061-2(106)--3H-29

LETTING DATE 12/19/2023

DES MOINES COUNTY

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM
DES MOINES COUNTY
PCC PAVEMENT - GRADE AND NEW

US 61
S of 210th St to N of Mediapolis

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
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REVISIONS

	TOTAL 565
PROJECT IDENTIFICATION NUMBER	
97-29-061-010-02	
PROJECT NUMBER	
NHSX-061-2(106)--3H-29	
R.O.W. PROJECT NUMBER	
NHSN-061-2(91)--2R-29	

INDEX OF SHEETS

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DESIGN DATA RURAL

20 –	AADT	8,130	V.P.D.
20 –	AADT	10,226	V.P.D.
20 –	DHV	862	V.P.H.
TRUCKS		12	%
Total Design ESALs		--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	Jeffrey A. Hillegonds	Primary Signature Block	X
X	X	X	X

PRELIMINARY PLANS

Subject to change by final design.

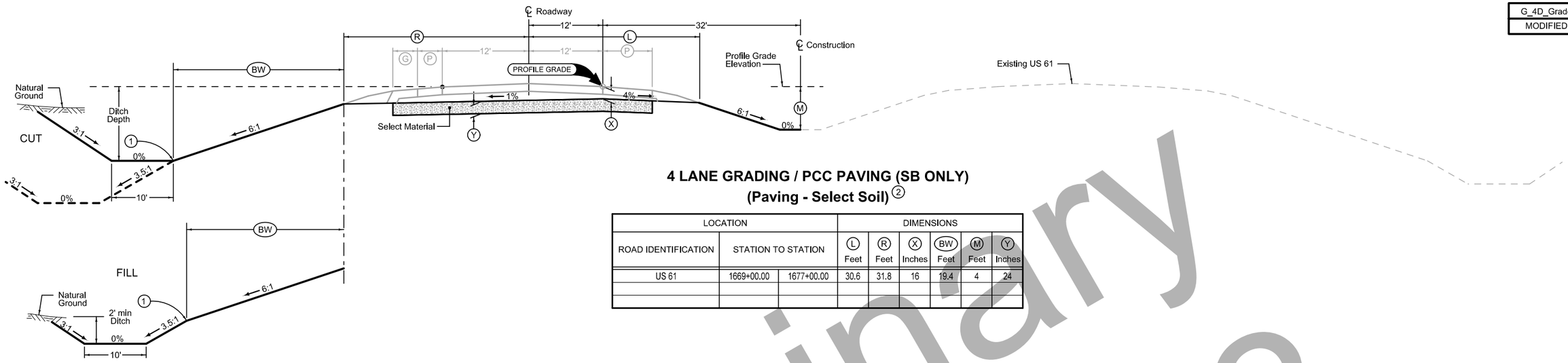
DM5 PLAN – Date: 07/21/2023

Preliminary 08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER A.2

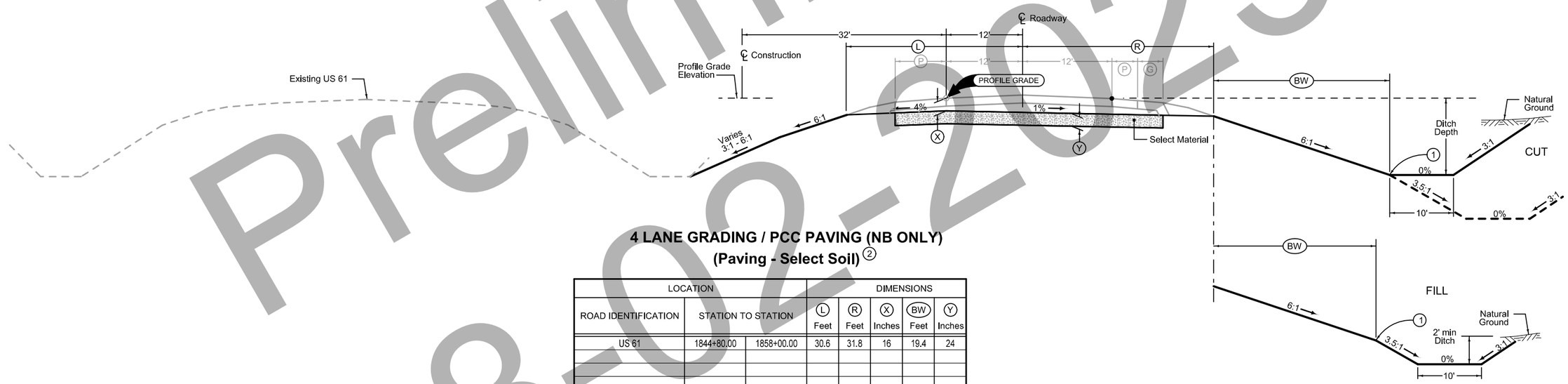
1:10:43 PM 7/20/2023 3994 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101097\Design_(106) Grade-Pave (Section 2)\CADD_Files\Sheet_Files\SHT_29061106_A01.dgn

G_4D_Grade
MODIFIED



4 LANE GRADING / PCC PAVING (SB ONLY)
(Paving - Select Soil) (2)

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(M) Feet	(Y) Inches
US 61	1669+00.00	1677+00.00	30.6	31.8	16	19.4	4	24



4 LANE GRADING / PCC PAVING (NB ONLY)
(Paving - Select Soil) (2)

LOCATION			DIMENSIONS				
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(Y) Inches
US 61	1844+80.00	1858+00.00	30.6	31.8	16	19.4	24

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.

Quantity calculations based on Select Soil. Refer to Sheet B.4 for "Delayed Paving - Special Backfill" option.

Refer to Paving Typical on Sheet B.9 for paving limits and paving width values

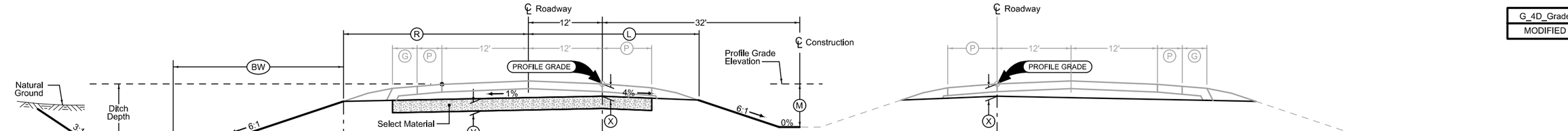
(1) Refer to project plan and cross sections for specific location of foreslope change.

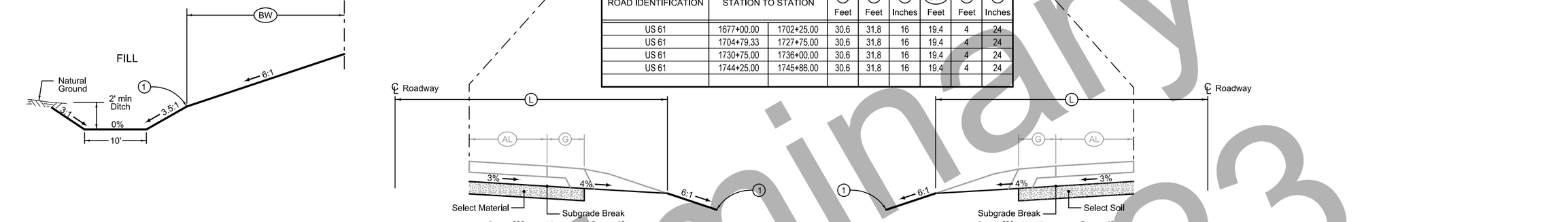
(2) Compaction with Moisture Control for Select Soil is required. Maintain moisture content within limits specified in Article 2107.03,H,1 of the Standard Specifications.

US HIGHWAY 61

Preliminary
08-02-2023

G_4D_Grade
MODIFIED





4 LANE GRADING / PCC PAVING (SB ONLY)
(Paving - Select Soil) (2)

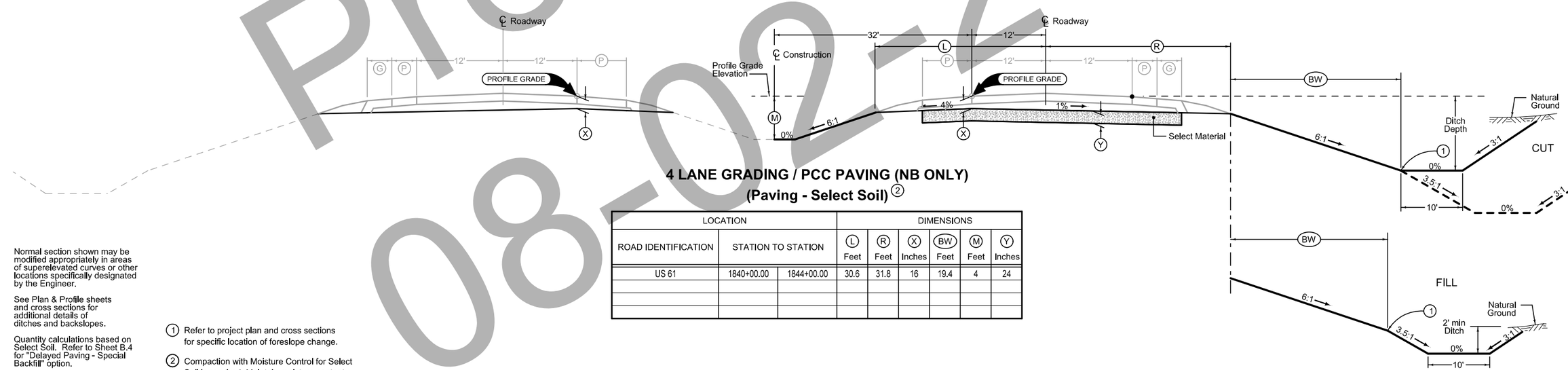
LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(M) Feet	(Y) Inches
US 61	1677+00.00	1702+25.00	30.6	31.8	16	19.4	4	24
US 61	1704+79.33	1727+75.00	30.6	31.8	16	19.4	4	24
US 61	1730+75.00	1736+00.00	30.6	31.8	16	19.4	4	24
US 61	1744+25.00	1745+86.00	30.6	31.8	16	19.4	4	24

Auxiliary Lane Grading

LOCATION			(L) Feet	Notes
ROAD IDENTIFICATION	STATION TO STATION			
US 61	1704+00.33	1709+60.33	42.6	210th St.
US 61	1709+60.33	1711+40.33	42.6-30.6	210th St.
US 61	1730+75.00	1736+00.00	42.6	Hawk Rd.

Auxiliary Lane Grading

LOCATION			(L) Feet	Notes
ROAD IDENTIFICATION	STATION TO STATION			
US 61	1721+25.17	1723+05.17	30.6-42.6	Hawk Rd.
US 61	1723+05.17	1727+75.00	42.6	Hawk Rd.



4 LANE GRADING / PCC PAVING (NB ONLY)
(Paving - Select Soil) (2)

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(M) Feet	(Y) Inches
US 61	1840+00.00	1844+00.00	30.6	31.8	16	19.4	4	24

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.

Quantity calculations based on Select Soil. Refer to Sheet B.4 for "Delayed Paving - Special Backfill" option.

Refer to Paving Typical on Sheet B.9 for paving limits and paving width values

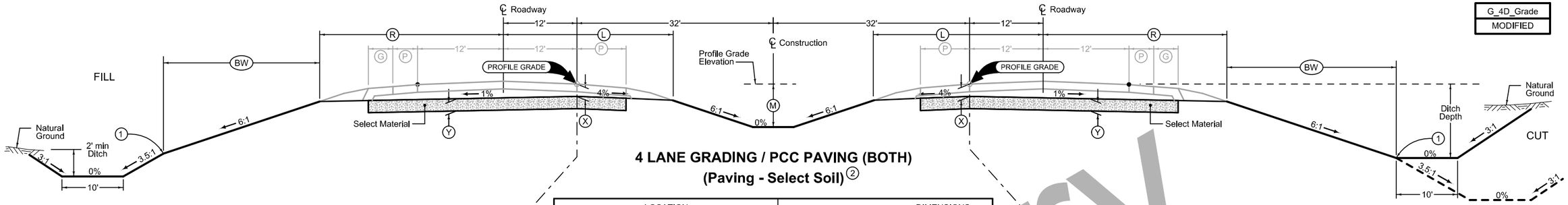
(1) Refer to project plan and cross sections for specific location of foreslope change.

(2) Compaction with Moisture Control for Select Soil is required. Maintain moisture content within limits specified in Article 2107.03,H,1 of the Standard Specifications.

US HIGHWAY 61

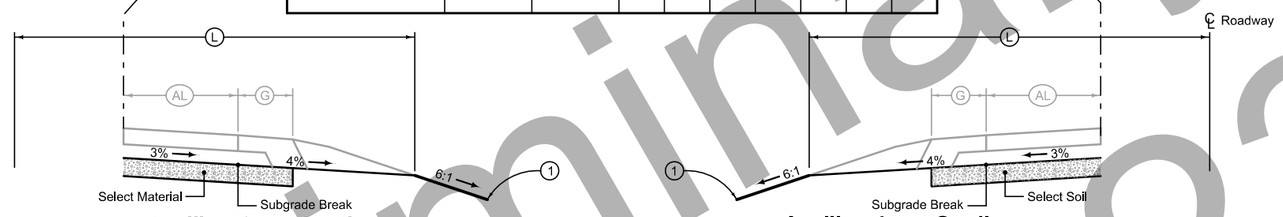
Preliminary
08-02-2023

G_4D_Grade
MODIFIED



4 LANE GRADING / PCC PAVING (BOTH)
(Paving - Select Soil) (2)

LOCATION			DIMENSIONS						
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(MW) Feet	(M) Feet	(Y) Inches
US 61	1702+25.00	1704+79.33	30.6	31.8	16	19.4	64	4	24
US 61	1727+75.00	1730+75.00	30.6	31.8	16	19.4	64	4	24
US 61	1736+00.00	1744+25.00	30.6	31.8	16	19.4	64	4	24

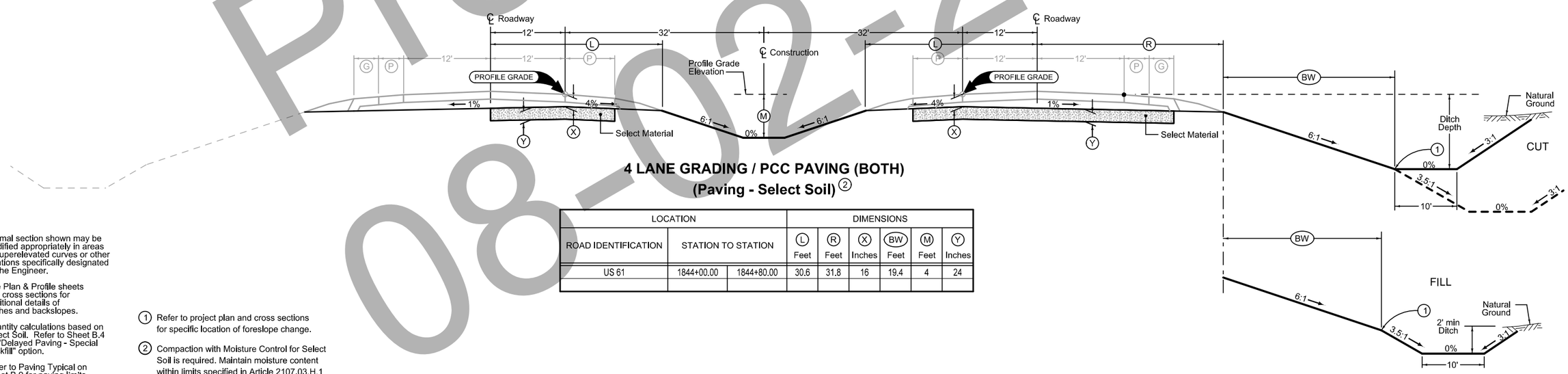


Auxiliary Lane Grading

LOCATION			(L) Feet	Notes
ROAD IDENTIFICATION	STATION TO STATION			
US 61	1730+47.26	1730+75.00	42.6	Hawk Rd.
US 61	1736+00.00	1736+13.62	42.6	Hawk Rd.
US 61	1736+13.62	1737+95.67	42.6-30.6	Hawk Rd.

Auxiliary Lane Grading

LOCATION			(L) Feet	Notes
ROAD IDENTIFICATION	STATION TO STATION			
US 61	1727+75.00	1728+65.17	42.6	Hawk Rd.



4 LANE GRADING / PCC PAVING (BOTH)
(Paving - Select Soil) (2)

LOCATION			DIMENSIONS						
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(M) Feet	(Y) Inches
US 61	1844+00.00	1844+80.00	30.6	31.8	16	19.4	4	24

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.

Quantity calculations based on Select Soil. Refer to Sheet B.4 for "Delayed Paving - Special Backfill" option.

Refer to Paving Typical on Sheet B.9 for paving limits and paving width values

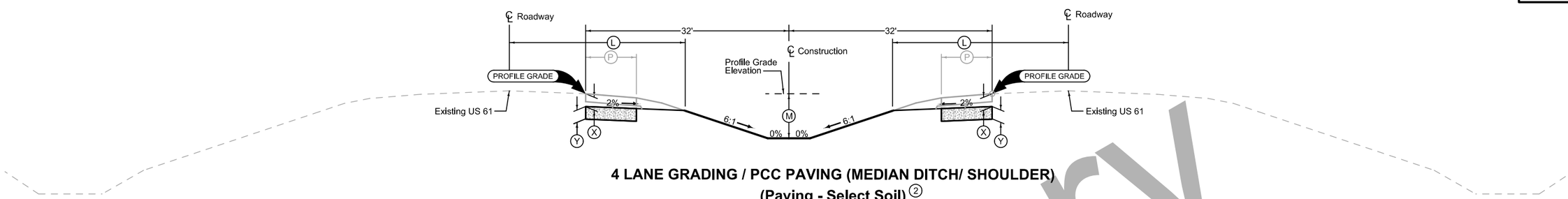
(1) Refer to project plan and cross sections for specific location of foreslope change.

(2) Compaction with Moisture Control for Select Soil is required. Maintain moisture content within limits specified in Article 2107.03,H,1 of the Standard Specifications.

US HIGHWAY 61

Preliminary
08-02-2023

G_4D_Grade
MODIFIED



4 LANE GRADING / PCC PAVING (MEDIAN DITCH/ SHOULDER)
(Paving - Select Soil) ②

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		Ⓛ Feet	Ⓧ Inches	Ⓜ Feet	Ⓨ Inches		
US 61	1624+89.33	1636+56.00	30.6	16	4	24		
US 61	1665+56.98	1676+85.00	30.6	16	4	24		

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.

Quantity calculations based on Select Soil. Refer to Sheet B.4 for "Delayed Paving - Special Backfill" option.

Refer to Paving Typical on Sheet B.5 for paving limits and paving width values

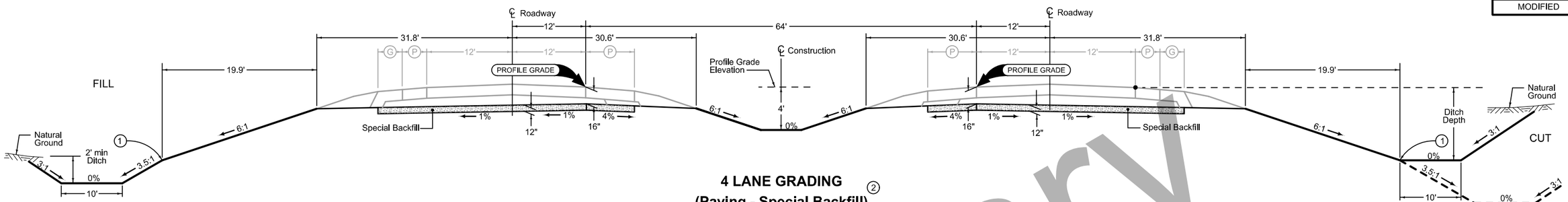
① Refer to project plan and cross sections for specific location of foreslope change.

② Compaction with Moisture Control for Select Soil is required. Maintain moisture content within limits specified in Article 2107.03,H,1 of the Standard Specifications.

Preliminary
08-02-2023

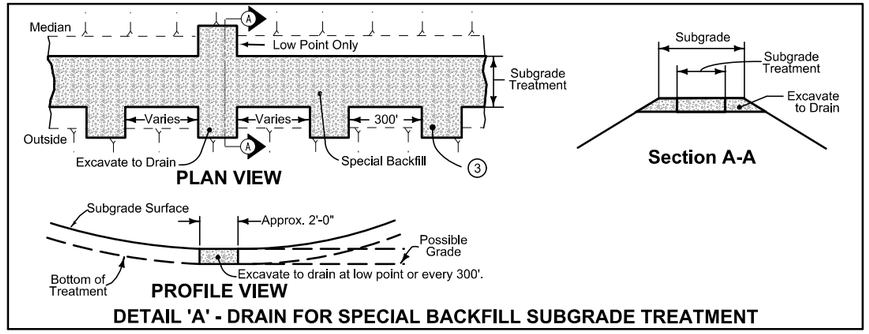
US HIGHWAY 61

G_4D_Grade_Delay_S
MODIFIED



4 LANE GRADING (2)
(Paving - Special Backfill)
(Optional)

Preliminary
08-02-2023



DETAIL 'A' - DRAIN FOR SPECIAL BACKFILL SUBGRADE TREATMENT

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

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

Quantity calculations based on Select Soil. Refer to sheets B.1 through B.3 for "Delayed Paving - Select Soil" option.

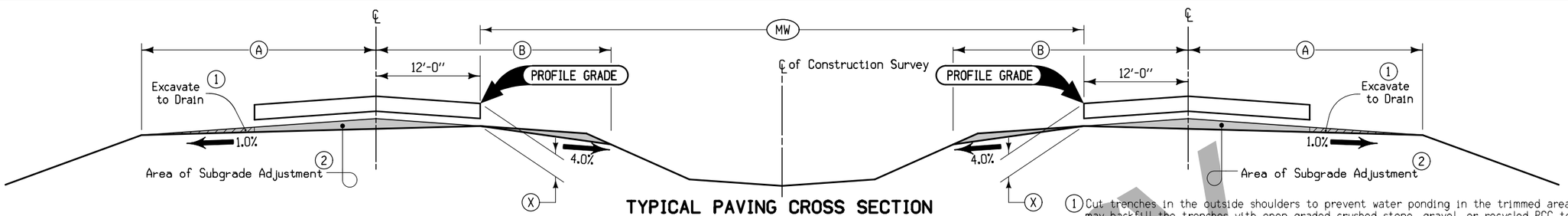
(1) Refer to project plan and cross sections for specific locations of foreslope change.

(2) See Detail 'A'

(3) Excavate a portion of subgrade as necessary to provide drainage for the treatment. The additional excavation and Special Backfill for outlets is incidental and will not be paid for separately.

US HIGHWAY 61

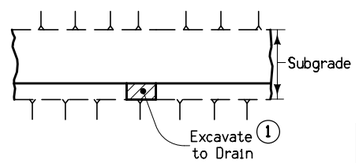
2101
MODIFIED



TYPICAL PAVING CROSS SECTION
SUBGRADE ADJUSTMENT TO 1% SLOPE
4-LANE DIVIDED ROADWAY

Subgrade adjustment is required on tangent section of the roadbed. Curved sections that require superelevation will require subgrade adjustment through the curve. Refer to table and cross sections for more details.

(X) is the distance between the Profile Grade and the bottom of the 1% grade line at the inside of pavement.



PLAN VIEW

(1) Cut trenches in the outside shoulders to prevent water ponding in the trimmed area. The contractor may backfill the trenches with open graded crushed stone, gravel, or recycled PCC to allow water to drain. The material used to backfill is incidental.

(2) Trim the roadbed to within 0.05 feet of final subgrade elevation. Exercise extreme care in the trimming operation so that the stability of the subgrade is not damaged. If using trimmed material for shoulder construction, place the material in a windrow on either foreslope. Do not allow stored materials to pond water. Granular surfacing material, if placed over winter, is included in the trimmed volume.

LOCATION			CLASS 10 EXCAVATION QTY	(A) Feet	(B) Feet	(MW) Feet	(X) Inches	COMMENT
ROAD IDENTIFICATION	STATION TO STATION							
US 61 - NB	1676+85.00	1702+24.59	1081.7	31.8	30.6	64.0	16.0	
US 61 - NB	1704+79.33	1721+25.17	701.0	31.8	30.6	64.0	16.0	
US 61 - NB	1721+25.17	1723+05.17	72.3	31.8	30.6-42.6	64.0	16.0	
US 61 - NB	1723+05.17	1727+75.00	177.5	31.8	42.6	64.0	16.0	
US 61 - NB	1744+25.00	1763+76.06	831.0	31.8	30.6	64.0	16.0	
US 61 - NB	1763+76.06	1769+76.06	382.2	31.8-71.0	30.6	64.0	16.0	
US 61 - NB	1769+76.06	1773+64.33	165.4	31.8	30.6	64.0	16.0	
US 61 - NB	1773+64.33	1775+44.33	48.3	31.8-31.5	30.6	64.0	16.0	
US 61 - NB	1775+44.33	1777+06.33	18.0	---	30.6-31.4	64.0	16.0	4% inside shoulder subgrade slope through curve.
US 61 - NB	1777+06.33	1784+27.05	80.1	---	31.4	64.0	16.0	4% inside shoulder subgrade slope through curve.
US 61 - NB	1787+18.60	1795+03.15	93.0	---	31.4	64.0	16.0	4% inside shoulder subgrade slope through curve.
US 61 - NB	1795+03.15	1796+65.15	18.6	---	31.4-30.6	64.0	16.0	4% inside shoulder subgrade slope through curve.
US 61 - NB	1796+65.15	1798+45.15	48.3	31.5-31.8	30.6	64.0	16.0	
US 61 - NB	1798+45.15	1799+70.00	53.2	31.8	30.6	64.0	16.0	
US 61 - NB	1799+70.00	1812+00.00	792.7	72.3-31.8	30.6	64.0	16.0	
US 61 - NB	1812+00.00	1838+00.00	1107.4	31.8	30.6	64.0	16.0	
US 61 - SB	1745+86.00	1760+00.00	602.3	31.8	30.6	64.0	16.0	
US 61 - SB	1760+00.00	1772+30.00	783.6	31.8-76.2	30.6	64.0	16.0	
US 61 - SB	1772+30.00	1773+64.33	57.2	31.8	30.6	64.0	16.0	
US 61 - SB	1773+64.33	1775+44.33	48.3	31.8-31.5	30.6	64.0	16.0	
US 61 - SB	1775+44.33	1777+06.33	34.5	---	30.6-32.5	64.0	16.0	
US 61 - SB	1795+03.15	1796+65.15	9.0	---	32.5-30.6	64.0	16.0	
US 61 - SB	1796+65.15	1798+45.15	48.3	31.5-31.8	30.6	64.0	16.0	
US 61 - SB	1798+45.15	1802+25.00	161.8	31.8	30.6	64.0	16.0	
US 61 - SB	1802+25.00	1808+23.94	381.5	71.0-31.8	30.6	64.0	16.0	
US 61 - SB	1808+23.94	1839+39.32	1326.9	31.8	30.6	64.0	16.0	
US 61 - SB	1839+39.32	1842+23.66	92.7	12.0	30.6	64.0	16.0	No trimming under detour.
US 61 - SB	1842+23.66	1844+00.00	33.0	12.0	30.6	64.0	16.0	No trimming under detour.
		Total:	9249.8					

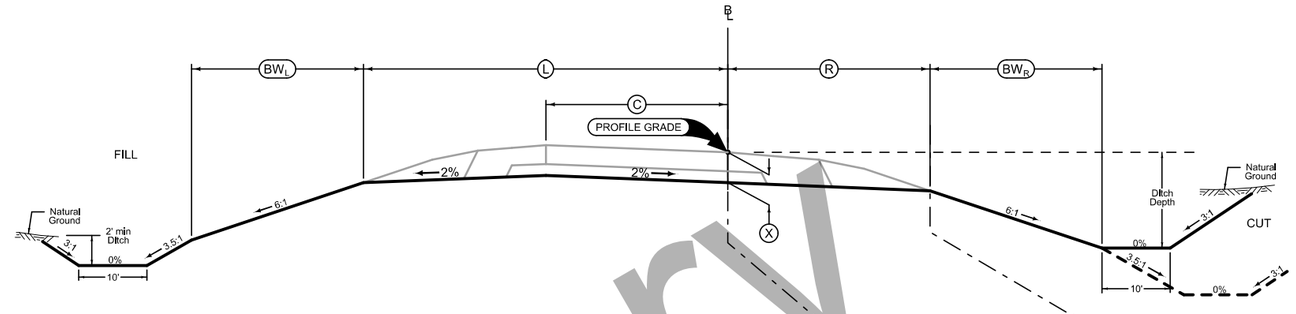
Preliminary
08-02-2023

LOCATION				DIMENSIONS						
INTERCHANGE	RAMP	STATION TO STATION		L Feet	R Feet	C Feet	X Inches	BW_L Feet	BW_R Feet	RTL Feet
US 61 at H38	A	21785+05.02	21786+63.60	33.8	19.5	16	22	16.9	16.7	--
US 61 at H38	B	31783+46.90	31784+59.90	33.8	--	16	22	16.9	16.7	32.9
US 61 at H38	C	41785+04.87	41787+17.53	33.8	19.5	16	22	16.9	16.7	--
US 61 at H38	D	51786+44.97	51788+20.28	33.8	19.5	16	22	16.9	16.7	--

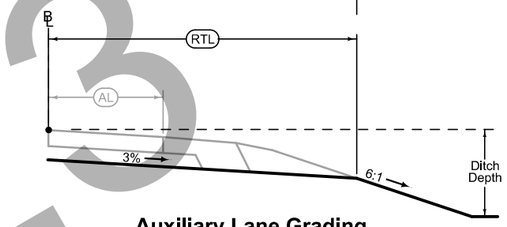
Section view is in direction of traffic.

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

G_1R_Grade
MODIFIED



RAMP GRADING



Auxiliary Lane Grading

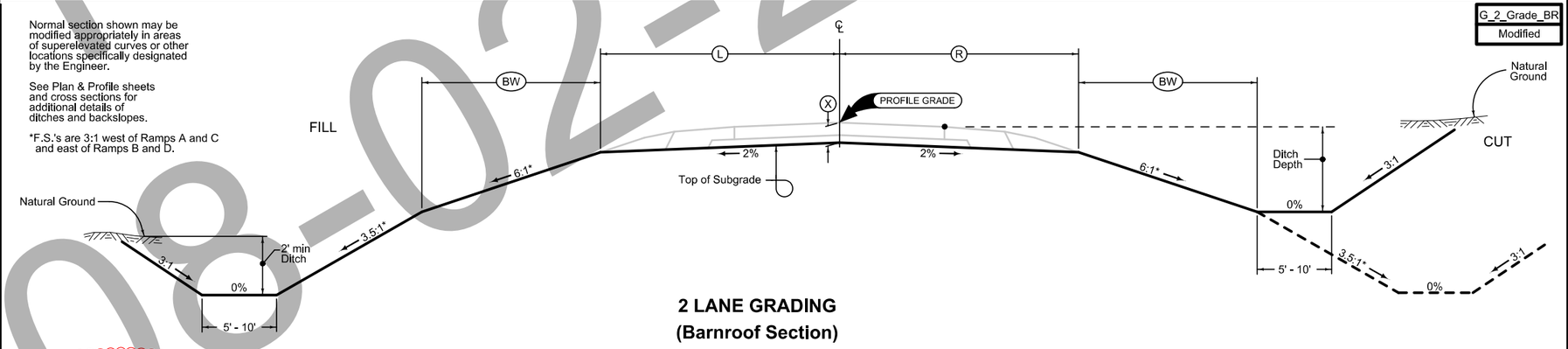
LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		L Feet	R Feet	X Inches	BW Feet
H38	11773+15.00	11774+17.92	23.2	23.2	21	N/A
H38	11774+17.92	11781+44.49	23.2-42.4	23.2-42.4	21	N/A
H38	11781+44.49	11789+49.56	42.4	42.4	21	16.8
H38	11789+49.56	11797+73.19	42.4-27	42.4-27	21	N/A
H38	11797+73.19	11801+64.14	27	27	21	N/A

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.

*F.S.'s are 3:1 west of Ramps A and C and east of Ramps B and D.

G_2_Grade_BR
Modified



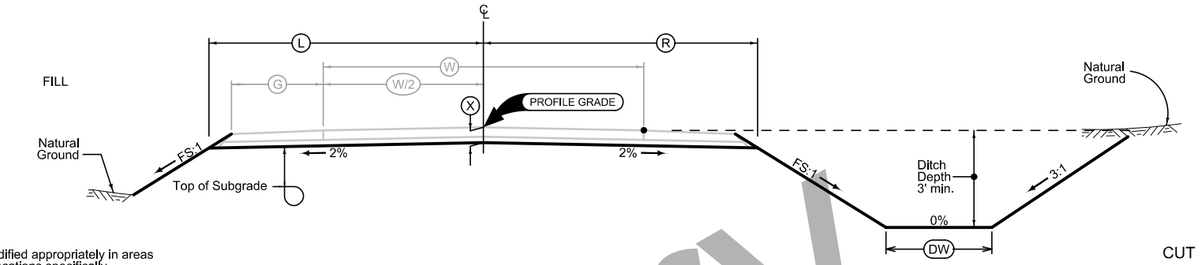
2 LANE GRADING
(Barnroof Section)

LIMITS STILL NEED REVIEWED AND CONFIRMED

Preliminary
08-02-2023

2_Grade
Modified

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		W Feet	L Feet	R Feet	X Inches	FS	DW Feet
235th St	236+50.00	250+50.00	24	21.3	21.3	14	3	10



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.

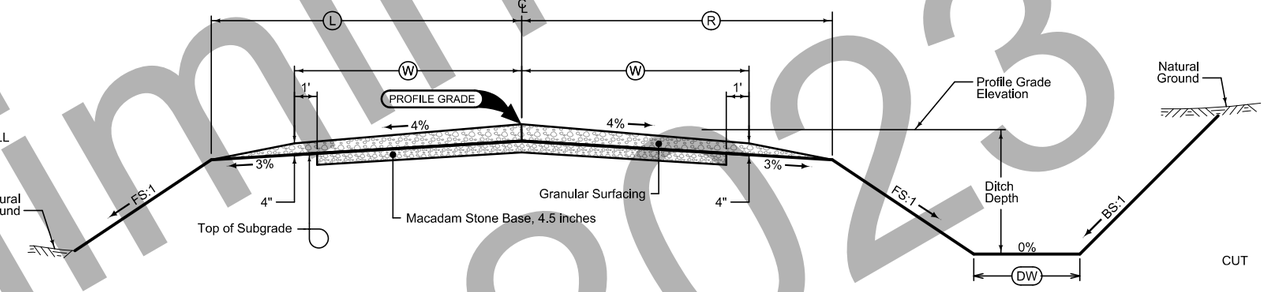
2 LANE GRADING

Need discussion with County during DM5 review. and all county roads.
For Paved Sideroads, refer to (69) B sheets.
County wants 2' paved shoulders beyond the 12' lanes (total of 28' paved width).
And they want 9" of macadam stone under all paved sideroads.

2_GradeGran
Modified

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		W Feet	L Feet	R Feet	FS	BS	DW Feet
210th St. (Right)	11703+66.66	11705+50.03	13	15	15	3	3	5
Hawk Rd	11730+12.52	11736+50.00	13	15	15	3	3	5
Public Accessway (ENTR11774)	103+25.00	104+40.44	13	15	15	3	3	4
Public Accessway (ENTL11775)	105+76.39	107+00.00	13	15	15	3	3	4
(1) Hawk Rd Detour	51727+72.16	51737+75.00	13	15	15	3	3	5

(1) Macadam stone not required.



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.

Station limits include paved fillet extensions for non-paved side roads.
See Typical 7149 for details of paved fillet extensions for non-paved side roads.

Place Granular Surfacing as follows:
Grading design application rate is 70 tons per station based on a 4.25 inch average thickness.

Place Macadam Stone Base as follows:
Grading design application rate is 3,089 tons per mile.

GRADING AND GRANULAR SURFACING

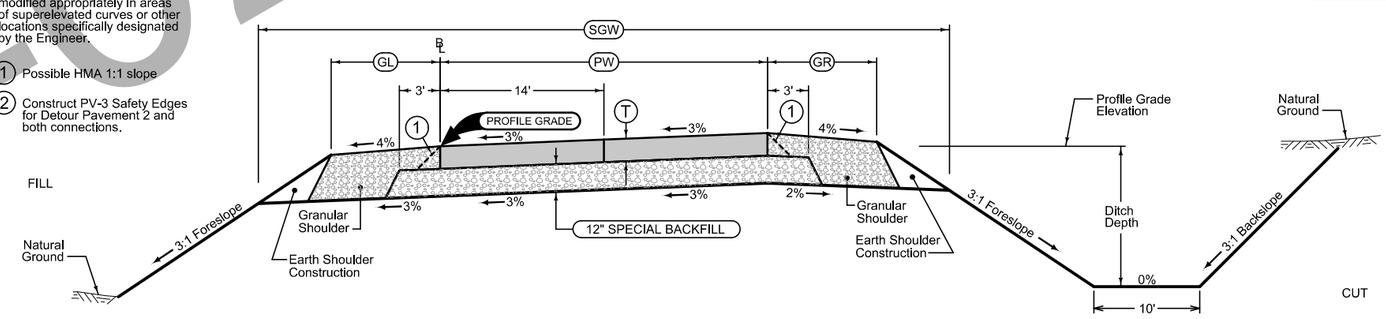
D_Detour
Modified

LOCATION			DIMENSIONS									
			HMA			PCC					12" Special Backfill	Earth Shoulder Construction
ROAD IDENTIFICATION	STATION TO STATION		PW Feet	T Inches	SGW Feet	PW Feet	T Inches	SGW Feet	GL Feet	GR Feet	Tons/Station	Station
Detour Connection 1A	61733+01.39	61736+68.66	2 - 28	10	11.1-45.8	2 - 28	9	10.8-45.2	3	N/A	145	3.7
Detour Pavement 1	61736+68.66	61745+86.00	28	10	45.8	28	9	45.2	3	3	248	18.4
Detour Connection 2A	61839+39.32	61844+67.27	2 - 28	10	11.1-45.8	2 - 28	9	10.8-45.2	3	N/A	145	5.3
Detour Pavement 2	61844+67.27	61849+15.84	28	10	45.8	28	9	45.2	3	3	248	9.0
Detour Connection 2B	61849+15.84	61854+48.79	28 - 2	10	45.8-11.1	28 - 2	9	45.2-10.8	3	N/A	145	5.3

Quantity calculations based on vertical pavement edges.

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

1. Possible HMA 1:1 slope
2. Construct PV-3 Safety Edges for Detour Pavement 2 and both connections.



DETOUR PAVING

Preliminary
08-02-2023

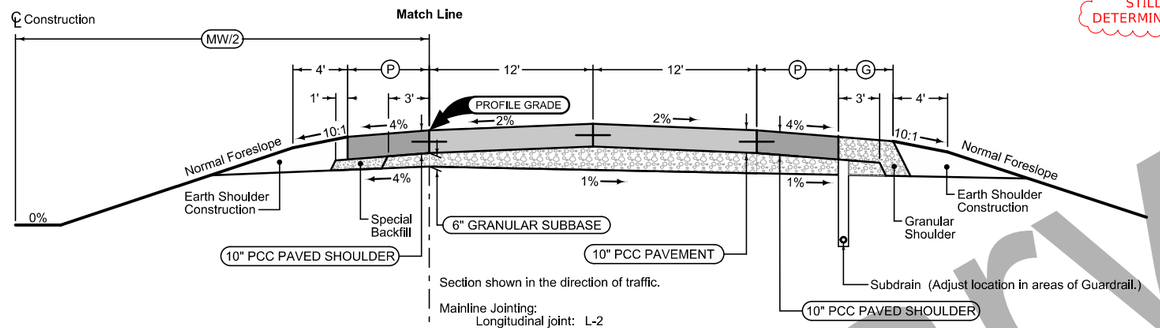
Shoulder

STILL NEED TO DETERMINE JOINT TYPES

Shoulder Jointing:
Longitudinal joint: BT-2 or BT-3
Transverse joint: C at 17' spacing

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
			4_C_ 10-19-10
SB	1669+00.00	1701+41.01	6
SB	1711+40.53	1727+89.57	6
SB	1737+95.87	1784+19.17	6
SB	1787+60.90	1844+80.00	6
NB	1676+85.00	1702+24.59	6
NB	1704+79.33	1721+24.97	6
NB	1731+27.88	1784+27.05	6
NB	1787+18.60	1858+00.00	6
* SB	1624+89.33	1630+80.00	6
* NB	1631+20.24	1636+26.00	6
* NB	1665+56.98	1674+50.13	6

* Shoulder Reconstruction in Temp Detour Removal Areas



Section shown in the direction of traffic.

Mainline Jointing:
Longitudinal joint: L-2
Transverse joints: CD at 17' spacing

STILL NEED TO DETERMINE JOINT TYPES

Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
			4DP_ 04-21-20
SB	1669+00.00	1783+89.62	64
SB	1787+70.75	1844+80.00	64
NB	1676+85.00	1783+76.48	64
NB	1787+69.39	1858+00.00	64

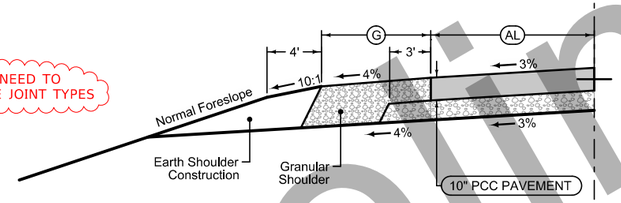
Combination Shoulder

STILL NEED TO DETERMINE JOINT TYPES

Shoulder Jointing:
Longitudinal joint: BT-2 or BT-3
Transverse joint: C at 17' spacing

Direction of Travel	BEGIN STATION	END STATION	(P) Feet	(G) Feet
				4_C_ 10-19-10
SB	1669+00.00	1760+00.00	6	4
SB	1772+30.00	1784+38.87	6	4
SB	1787+21.51	1802+23.94	6	4
SB	1808+23.94	1839+39.32	6	4
NB	1676+85.00	1702+40.66	6	4
NB	1703+80.66	1728+85.36	6	4
NB	1730+25.29	1763+76.06	6	4
NB	1769+76.06	1783+86.11	6	4
NB	1787+38.92	1799+70.00	6	4
NB	1812+00.00	1858+00.00	6	4

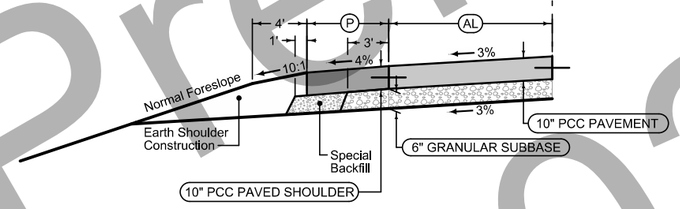
STILL NEED TO DETERMINE JOINT TYPES



Auxiliary Lane w/Granular Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(G) Feet
				4_AuxLane_PCC_ 10-19-10
SB	1704+00.33	1709+60.33	12	6
SB	1709+60.33	1710+50.63	12-6	6
SB	1730+47.26	1736+13.62	12	6
SB	1736+13.62	1737+04.64	12-6	6
NB	1722+15.17	1723+05.17	6-12	6
NB	1723+05.17	1728+65.17	12	6



Auxiliary Lane w/Paved Shoulder

Auxiliary Lane Jointing:
Longitudinal joint: L or KT
Transverse joint: Match Mainline

Shoulder Jointing:
Longitudinal joint: BT-2 or BT-3
Transverse joint: C at 17' spacing

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
				4_AuxLane_PCC_ 10-19-10
SB	1710+50.63	1711+40.33	6-0	6
SB	1737+04.64	1737+95.67	6-0	6
NB	1721+25.17	1722+15.17	0-6	6

See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

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

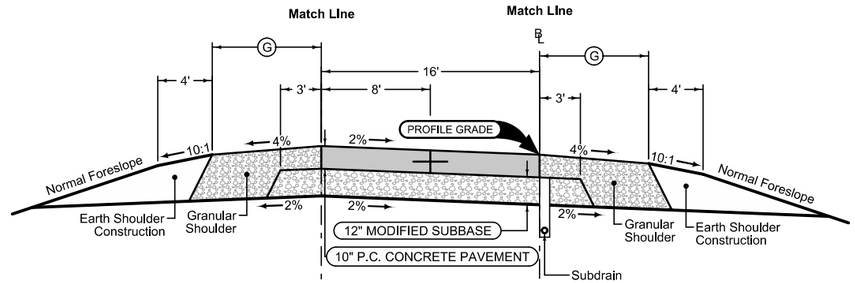
Ramp Taper details tabulated herein. Refer to Standard Road Plan PV-410 and PV-411 for details of Ramp Tapers.

US HIGHWAY 61

Preliminary 03-02-2023

Granular Shoulder

				1R_G_ 10-19-10
INTERCHANGE	RAMP	BEGIN STATION	END STATION	(G) Feet
US 61 at H38	A	21785+05.02	21802+25.00	4
US 61 at H38	B	31769+75.00	31784+59.90	4
US 61 at H38	C	41772+28.66	41787+17.53	4
US 61 at H38	D	51786+44.97	51799+71.34	4



Granular Shoulder

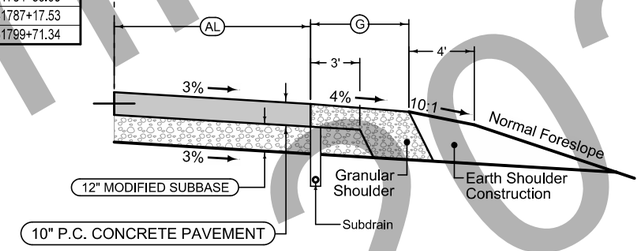
				1R_G_ 10-19-10
INTERCHANGE	RAMP	BEGIN STATION	END STATION	(G) Feet
US 61 at H38	A	21785+05.02	21802+25.00	6
US 61 at H38	C	41772+28.66	41787+17.53	6
US 61 at H38	D	51786+44.97	51799+71.34	6

STILL NEED TO DETERMINE JOINT TYPES

Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 15' spacing.
Longitudinal joints: L-2.

			1RP_ 04-20-21
INTERCHANGE	RAMP	BEGIN STATION	END STATION
US 61 at H38	A	21785+05.02	21802+25.00
US 61 at H38	B	31769+75.00	31784+59.90
US 61 at H38	C	41772+28.66	41787+17.53
US 61 at H38	D	51786+44.97	51799+71.34



STILL NEED TO DETERMINE JOINT TYPES

Auxiliary Lane

Longitudinal joint: L-2 or KT-2
Transverse joint: Match Ramp

					2_AuxLane_PCC_ Modified
INTERCHANGE	RAMP	STATION TO STATION		(AL) Feet	(G) Feet
US 61 at H38	B	31769+75.00	31777+12.73	0	6
US 61 at H38	B	31777+12.73	31778+92.73	0-12	6
US 61 at H38	B	31778+92.73	31784+59.90	12	6

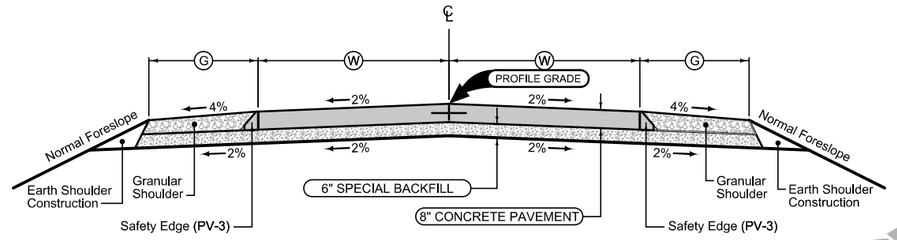
See Tab 100-24 for pavement quantities.
See Tab 112-9 for shoulder quantities.

RAMPS

Preliminary 08-02-2023

Granular Shoulder

ROAD IDENTIFICATION	STATION TO STATION		(G) Feet
235th St	236+50.00	250+50.00	6



Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

ROAD IDENTIFICATION	STATION TO STATION		(W) Feet
235th St	236+50.00	250+50.00	12

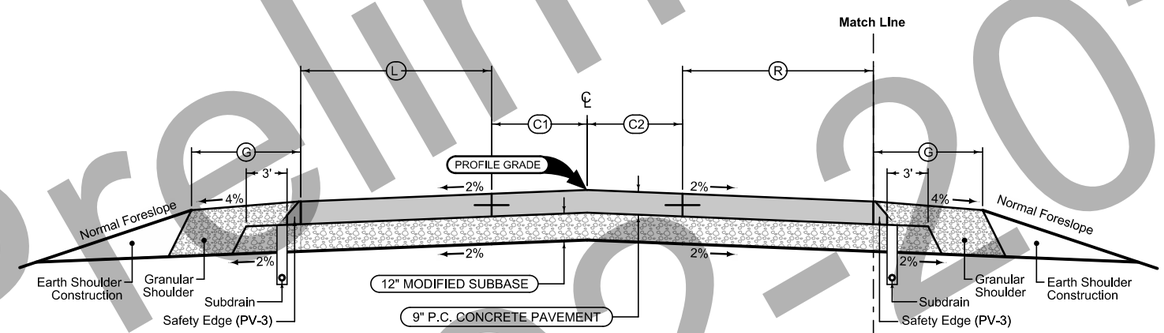
Granular Shoulder

ROAD IDENTIFICATION	STATION TO STATION		(G) Feet
235th St	236+50.00	250+50.00	6

Need discussion with County during DM5 review. and all county roads.
For Paved Sideroads, refer to (69) B sheets.
County wants 2' paved shoulders beyond the 12' lanes (total of 28' paved width).
And they want 9" of macadam stone under all paved sideroads.

Granular Shoulder with Safety Edge

2_G_ 10-21-14			
ROAD IDENTIFICATION	STATION TO STATION		(G) Feet
H38	11773+15.00	11781+90.73	6



STILL NEED TO DETERMINE JOINT TYPES

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

ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(C1) Feet	(C2) Feet	(R) Feet
H38	11773+15.00	11774+17.92	12	0	0	12
H38	11774+17.92	11776+60.89	12	0 - 3.9	0	12
H38	11776+60.89	11781+44.49	12	3.9 - 8	0 - 8	12
H38	11781+44.49	11781+90.73	12	8	8	12

LIMITS STILL NEED REVIEWED AND CONFIRMED

STILL NEED TO DETERMINE JOINT TYPES

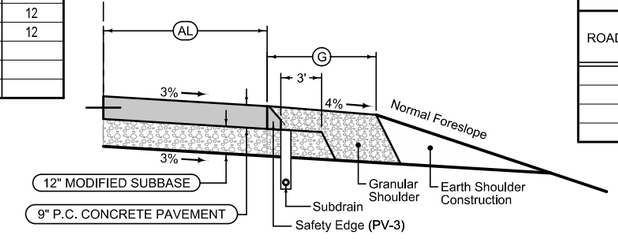
Granular Shoulder with Safety Edge

2_G_ 10-21-14			
ROAD IDENTIFICATION	STATION TO STATION		(G) Feet
H38	11773+15.00	11778+41.45	6

Auxiliary Lane with Granular Shoulder with Safety Edge

Longitudinal joint: L or KT
Transverse joint: Match Mainline

2_AuxLane_PCC_ Modified				
ROAD IDENTIFICATION	STATION TO STATION		(AL) Feet	(G) Feet
H38	11778+41.45	11779+61.18	0 - 12	6
H38	11779+61.18	11781+21.64	12	6



See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

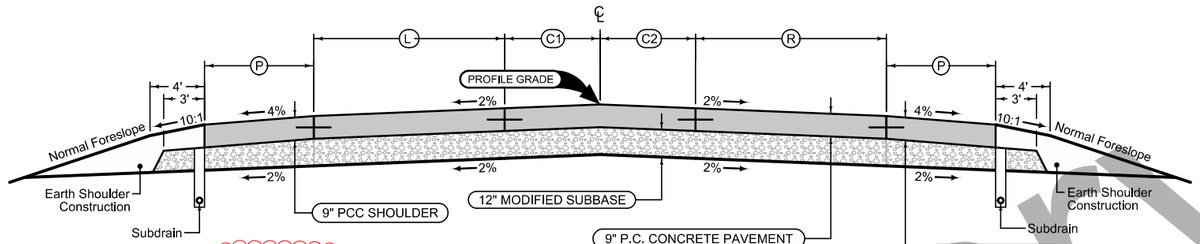
SIDE ROADS

Preliminary 08-02-2023

Full Depth PCC Shoulder

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

2_P_FullPCC_ 10-19-10			
ROAD IDENTIFICATION	STATION TO STATION		(P) Feet
H38	11782+92.49	11788+52.01	10



STILL NEED TO DETERMINE JOINT TYPES

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

ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(C1) Feet	(C2) Feet	(R) Feet
H38	11781+90.73	11789+12.82	12	8	8	12

LIMITS STILL NEED REVIEWED AND CONFIRMED

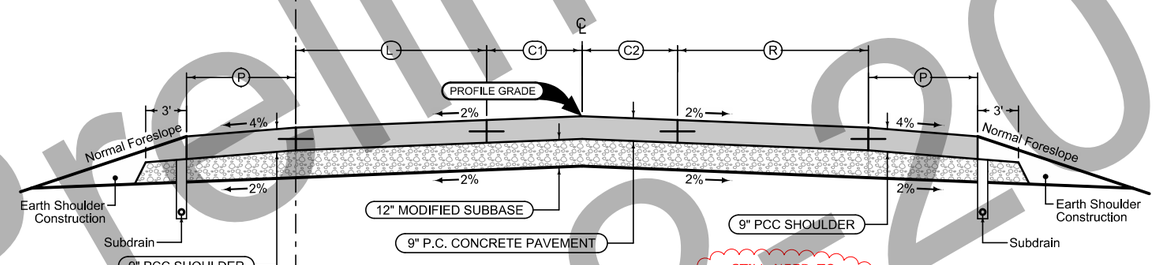
Need discussion with County during DM5 review. and all county roads.
For Paved Sideroads, refer to (69) B sheets.
County wants 2' paved shoulders beyond the 12' lanes (total of 28' paved width).
And they want 9" of macadam stone under all paved sideroads.

Full Depth PCC Shoulder

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

2_P_FullPCC_ 10-19-10			
ROAD IDENTIFICATION	STATION TO STATION		(P) Feet
H38	11792+83.60	11801+64.14	10

Match Line



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

STILL NEED TO DETERMINE JOINT TYPES

ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(C1) Feet	(C2) Feet	(R) Feet
H38	11789+12.82	11789+49.56	12	8	8	12
H38	11789+49.56	11794+15.90	12	8 - 3.7	8 - 0	12
H38	11794+15.90	11797+73.19	12	3.7 - 0	0	12
H38	11797+73.19	11801+64.14	12	0	0	12

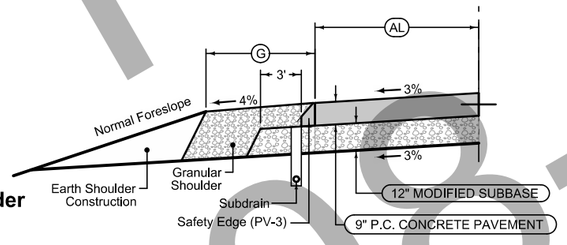
LIMITS STILL NEED REVIEWED AND CONFIRMED

Full Depth PCC Shoulder

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

2_P_FullPCC_ 10-19-10			
ROAD IDENTIFICATION	STATION TO STATION		(P) Feet
H38	11790+20.67	11801+64.14	10

Auxiliary Lane with Granular Shoulder with Safety Edge



Longitudinal joint: L or KT
Transverse joint: Match Mainline

2_AuxLane_PCC_ Modified				
ROAD IDENTIFICATION	STATION TO STATION		(AL) Feet	(G) Feet
H38	11789+88.85	11791+63.84	12	6
H38	11791+63.84	11792+83.60	12 - 0	6

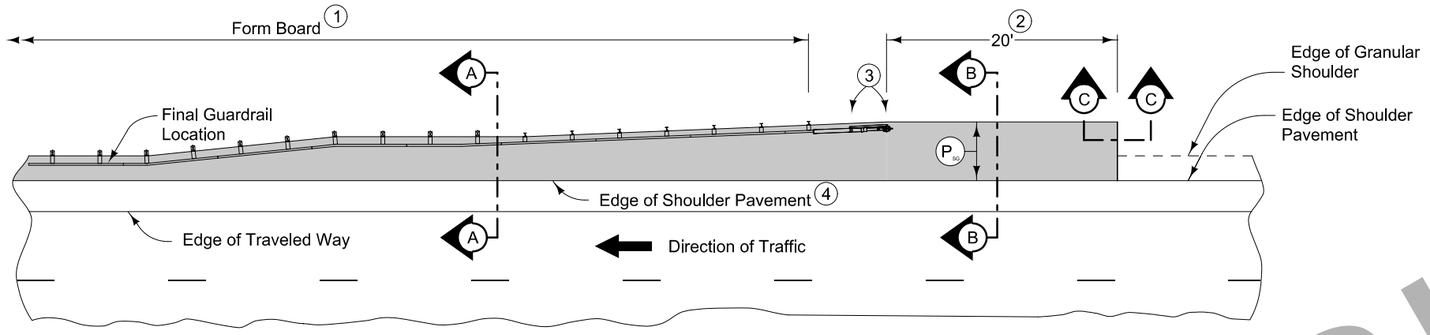
See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

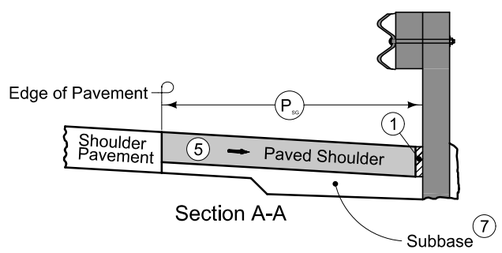
SIDE ROADS

Preliminary 08-02-2023

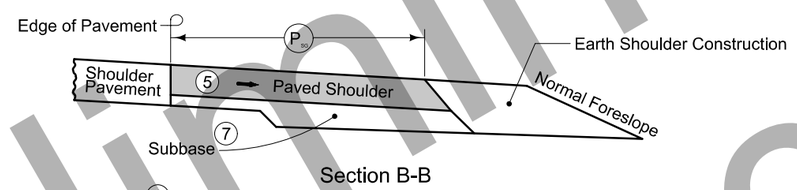
7157
Modified



PLAN VIEW

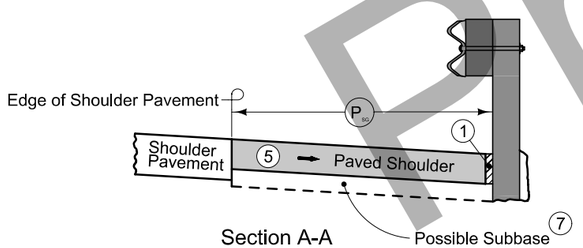


Section A-A

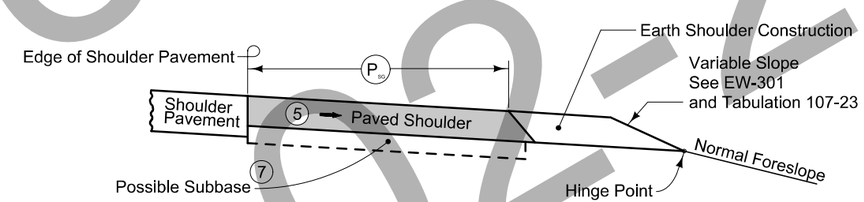


Section B-B

NEW CONSTRUCTION 6



Section A-A



Section B-B

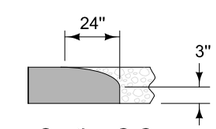
EXISTING SHOULDER

10" PCC Paved Shoulder at guardrail using the following jointing layout:

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

Refer to Tabulation 112-9 for shoulder quantities.

1. When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
2. Continue paved shoulder 20 feet beyond the center of the first post.
3. Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
4. 'KT' (per PV-101) joint for PCC shoulder.
5. Match shoulder slope.
6. The Contractor has the option to pave the paved shoulder at guardrail and the full width paved shoulder as one operation.
7. Refer to other details in the plan.

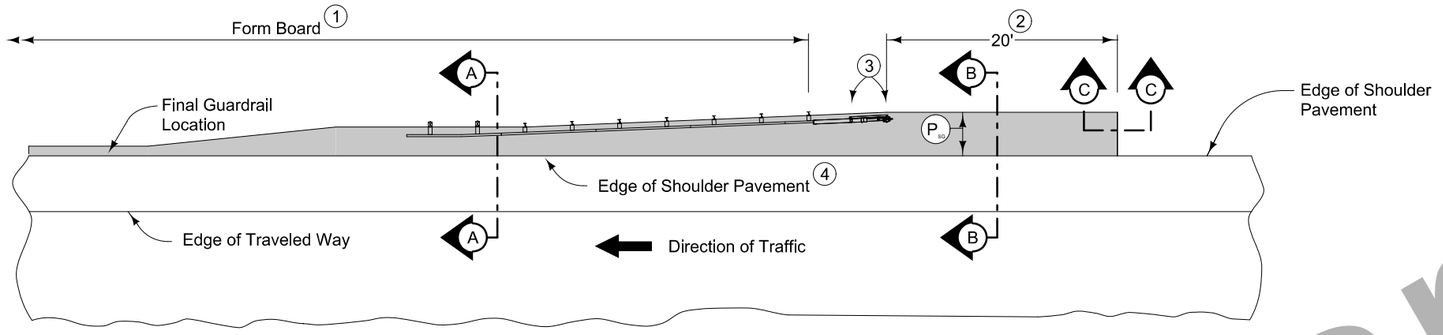


Section C-C
Roll down at granular shoulder or earth.

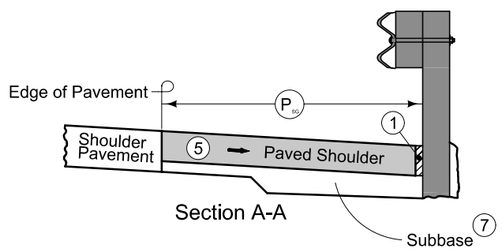
PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)

Preliminary
08-02-2023

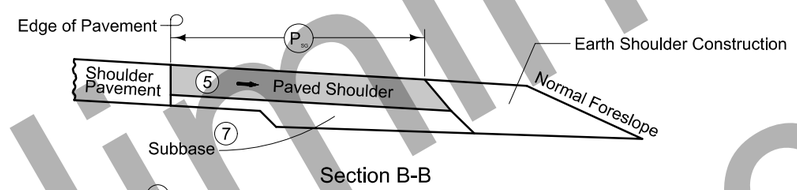
7158
Modified



PLAN VIEW

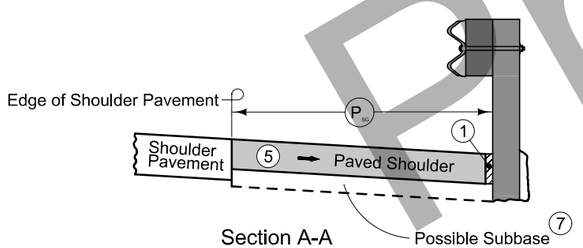


Section A-A

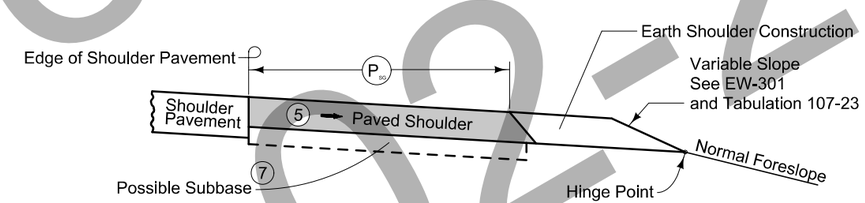


Section B-B

NEW CONSTRUCTION 6



Section A-A



Section B-B

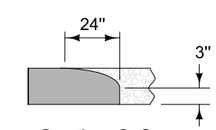
EXISTING SHOULDER

10" PCC Paved Shoulder at guardrail using the following jointing layout:

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

Refer to Tabulation 112-9 for shoulder quantities.

1. When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
2. Continue paved shoulder 20 feet beyond the center of the first post.
3. Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
4. 'KT' (per PV-101) joint for PCC shoulder.
5. Match shoulder slope.
6. The Contractor has the option to pave the paved shoulder at guardrail and the full width paved shoulder as one operation.
7. Refer to other details in the plan.

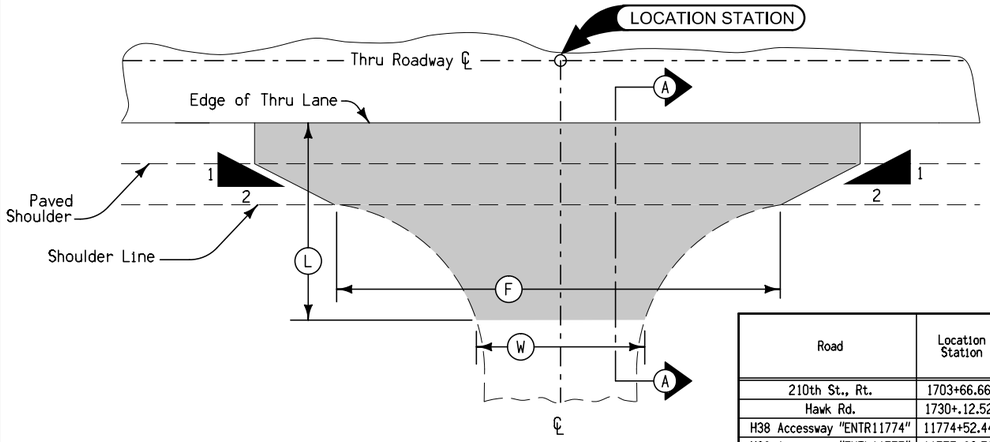


Section C-C
Roll down at granular shoulder or earth.

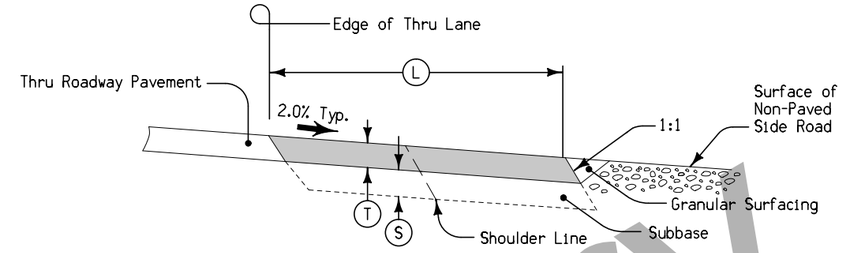
PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO FULL WIDTH PAVED SHOULDER)

Preliminary
08-02-2023

7149
REVISED



PLAN



SECTION A-A

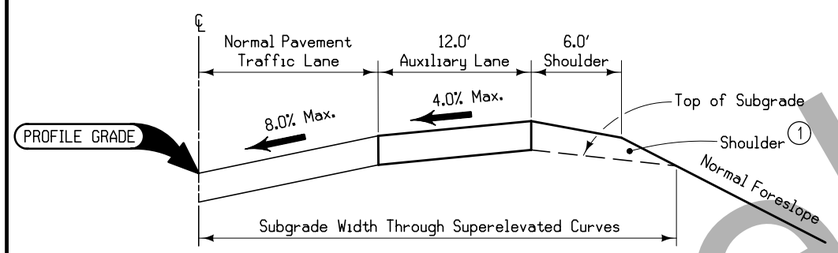
Special shaping of surface prior to placement of fillet or fillet extension may be required by the Engineer and is incidental to other work on the project.

Pavement and subbase quantities are not included with mainline and sideroad quantities.

Road	Location Station	(F) Feet	(S) Inches	(T) Inches	(L) (50' min.) Feet	(W) Feet	Div. 2 PCC, 9 in. (SY)	Div. 2 PCC, 10 in. (SY)	Div. 2 Granular Subbase (SY)	Div. 2 Modified Subbase (CY)
210th St., Rt.	1703+66.66	124	6	10	50	25.3	--	382.6	397.8	--
Hawk Rd.	1730+.12.52	124	6	10	50	25.3	--	382.9	397.9	--
H38 Accessway "ENTR11774"	11774+52.44	124.4	12	9	50	24.8	320.1	--	---	111.5
H38 Accessway "ENTL11775"	11775+62.78	124.7	12	9	50	24.8	320.7	--	---	111.5
						Totals:	640.8	765.5	795.7	223.0

FILLET EXTENSION FOR NON-PAVED SIDE ROADS

2013
09-29-92



Notes:

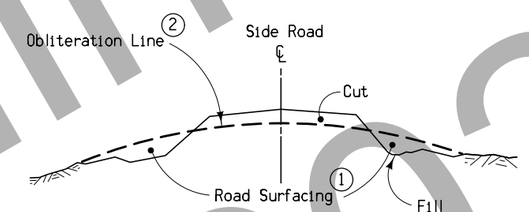
On the high side of superelevated curves, the surface of auxiliary lane pavement shall be maintained at the same slope as the adjacent traffic lane until the superelevation reaches 4.0%. When the traffic lane pavement slope is greater than 4.0%, the auxiliary slope will remain constant at 4.0%.

On the low side of superelevated curves, the surface of auxiliary lane pavement shall slope the same as the adjacent lane pavement.

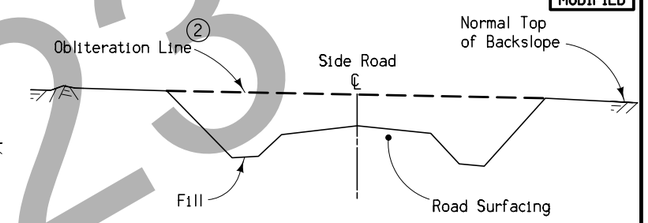
(1) Refer to other drawings for details of shoulder design and construction.

TYPICAL HALF SECTION OF AUXILIARY LANE THROUGH AREAS OF SUPERELEVATION

4302
MODIFIED



Fill Section



Cut Section

(1) Existing road surfacing (granular material) shall be placed as shown unless otherwise directed by the Engineer or provided for in the detail project plans.

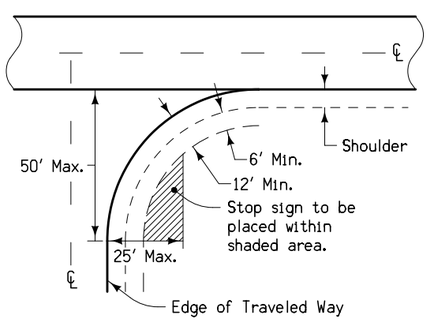
(2) When specified, the upper 1' to be suitable for vegetation (grass or crops).

Note:
The work of obliterating or reshaping old roadbeds shall be done at the direction of the Engineer.

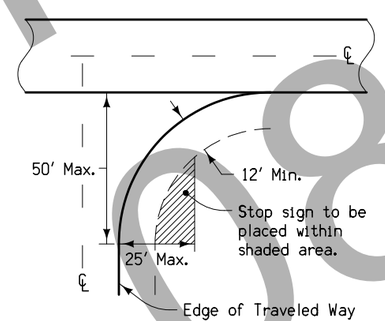
ROAD IDENTIFICATION	LOCATION STATION	OBLITERATION LENGTH (STA)
210TH	11699+50, Lt.	2.2
US 61	1742+48, Rt.	1.4
235TH	240+30, Lt.	2.9
235TH	243+88, Lt.	2.7
Hawk Rd.	51727+72, Lt.	10.0
	Total =	19.2

TYPICAL DETAILS FOR OBLITERATION EXISTING ROADBED

9503
07-15-97



CASE 'A'
WITH SHOULDER



CASE 'B'
WITHOUT SHOULDER

NOTES:

Stop signs should be confined to the shaded areas, but as close to the approach roadway as possible to provide the motorist with the best visual impact.

If possible, stop signs should be placed at the point where vehicles are to stop or as near as practical.

In rural areas, the lateral clearance should not be closer than 6' from the edge of a usable shoulder, or if none, 12' from edge of the traveled way.

In urban areas, stop signs should be placed a minimum of 6' from the near edge of the intersected street or a minimum of 4' in advance of the near edge of a marked crosswalk. Lateral clearance may be reduced to a minimum of 2' from the face of a curb.

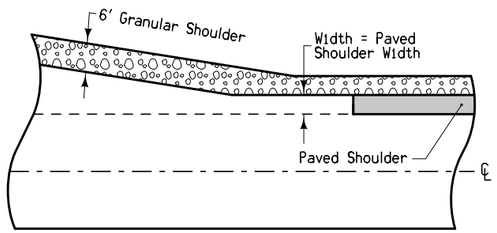
Where the approach roadway consists of two lanes of traffic, a second stop sign should be placed where it is visible to traffic in the inner lane.

At channelized intersections, the additional stop sign may be placed on a channelized island or median.

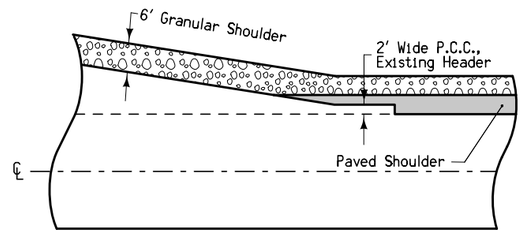
STOP SIGN PLACEMENT

Preliminary
08-02-2023

7154A
10-20-09



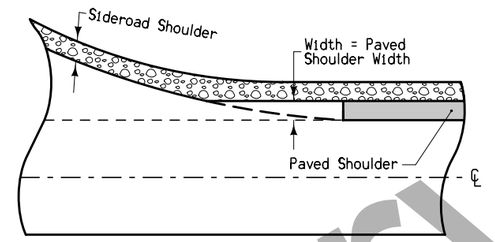
With Newly Constructed Turn Lanes



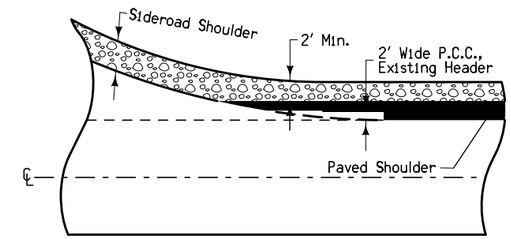
At UAC Turn Lanes

PAVED SHOULDER DETAIL AT TURN LANES

7154B
10-19-21



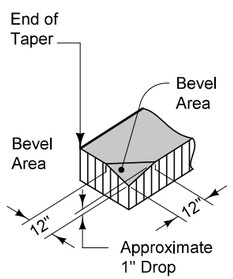
With Newly Constructed Returns



At UAC Returns

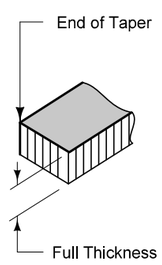
PAVED SHOULDER DETAIL AT RETURNS

7101
10-19-10



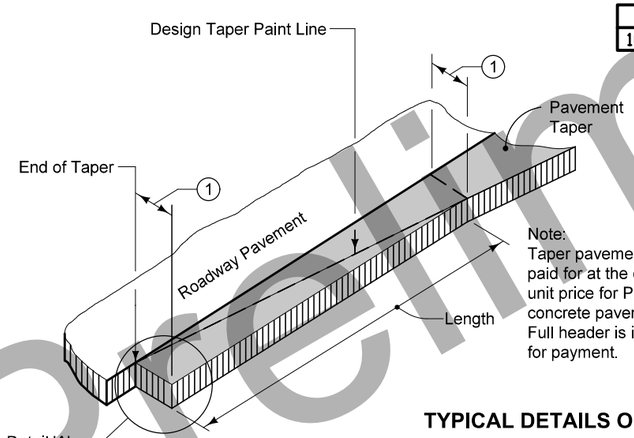
DETAIL 'A'

FOR
GRANULAR SHOULDERS



DETAIL 'A'

FOR
PAVED SHOULDERS



Note:
Taper pavement to be paid for at the contract unit price for P.C. concrete pavement. Full header is included for payment.

(1) Normal width is 2'-0". Construct 4'-0" width when butting into 4' wide HMA shoulders (See Typical 7154A).

TYPICAL DETAILS OF PCC PAVEMENT HEADER

Preliminary
08-02-2023

SURVEY SYMBOLS

- TDC Tree Deciduous
- TEV Evergeen Tree
- SI Sign
- PPA Power Pole Co. 1
- IN Storm Sewer Intake
- MM Mile Marker Post
- LUM Luminaire
- INB Storm Sewer Beehive Intake
- ROW Right of Way Mark
- OUT Tile Outlet
- MH Utility Access (Manhole)
- HT Electrical Highline Tower
- SHR Shrub
- UB Utility Box
- TPD Telephone Pedestal
- GV Gas Valve
- RET Retaining Walls
- WV Water Valve
- WEL Well
- FHD Fire Hydrants
- WHU RV Water Hook Up
- TV Satelite TV Dish
- TA Tower Anchor
- BNK Stream Bank
- CUL Culvert
- D Centerline Draw or Stream (Down)
- DIK Centerline of Dike or Dam
- Terrace
- DU Centerline Draw or Stream (Up)
- EW Edge of Water
- FCL Chain Link and Security Fence
- FW Wire Fence
- FWD Wood Fence
- GDL Guard Rail Steel
- GPR Guard Post (4 or More Posts)
- PIP Pipe Culvert
- RIP Rip-Rap
- SP Stream Profile
- TIL Tile Line

UTILITY LEGEND

Eastern Iowa Light and Power
Tom Quiram
P.O. Box 3003
Wilton, IA 52778-3003
563-732-2211
tquiram@easterniowa.com

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Mary Montgomery
200 1st St. SE
Cedar Rapids, IA 52401
319-786-8196
rerow@alliantenergy.com

T1 — Windstream
(underbuilt on power poles)
Steve Kness
1450 N. Center Pt. Rd
Hiawatha, IA 52233
319-538-1985
stephen.kness@windstream.com

F02 — Mediapolis Telephone Company
Marc Carlson
652 Main St.
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rdf@mutel.com

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319-786-8196
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Jim Hopp
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319-258-2103
jhopprrwa@gmail.com

W2 — San. — St.S. — City of Mediapolis
510 Main St.
PO Box 97
Mediapolis, IA 52637
319-394-3125
mepocity@mepotelco.net

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.**	
Lavender	(9)	Temporary Pavement Shading
Yellow	(4)	Proposed Pavement Shading
Orange	(6)	Proposed Granular Shading
Orange	(70)	Proposed Shoulder Granular Shading
Yellow	(68)	Proposed Shoulder Paved Full Depth Shading
Yellow	(132)	Proposed Shoulder Paved Partial Depth Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)	Grading Shading
Orange, Light	(134)	Proposed Granular Entrance Shading
Yellow	(220)	Proposed Paved Entrance Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading
Green, Light	(225)	Existing Pavement Shading
Red	(3)	Proposed Structure Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(10)	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 — Survey Line
- Station — Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area
- Obliterate Roadbed

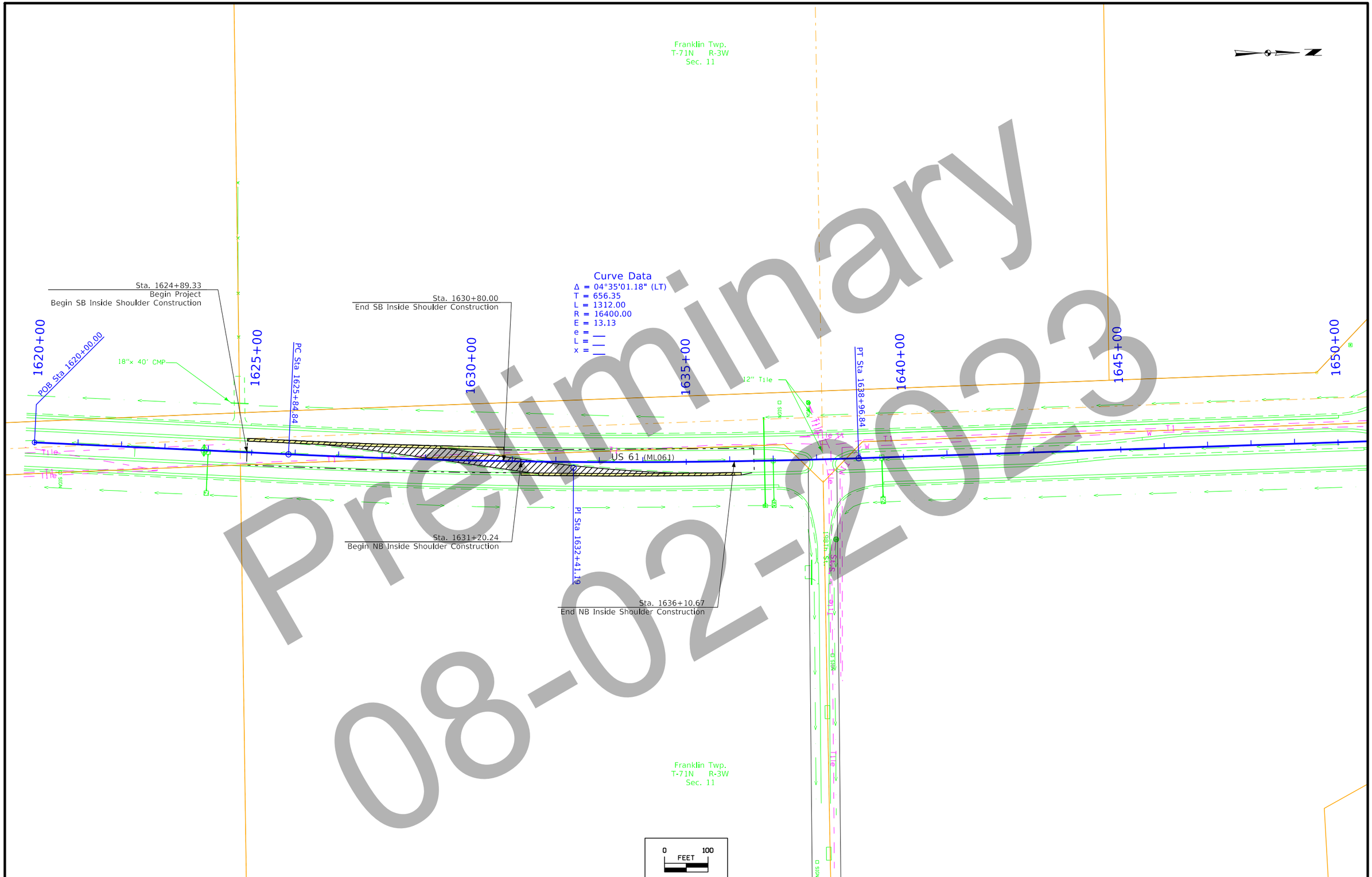
RIGHT-OF-WAY LEGEND

- 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

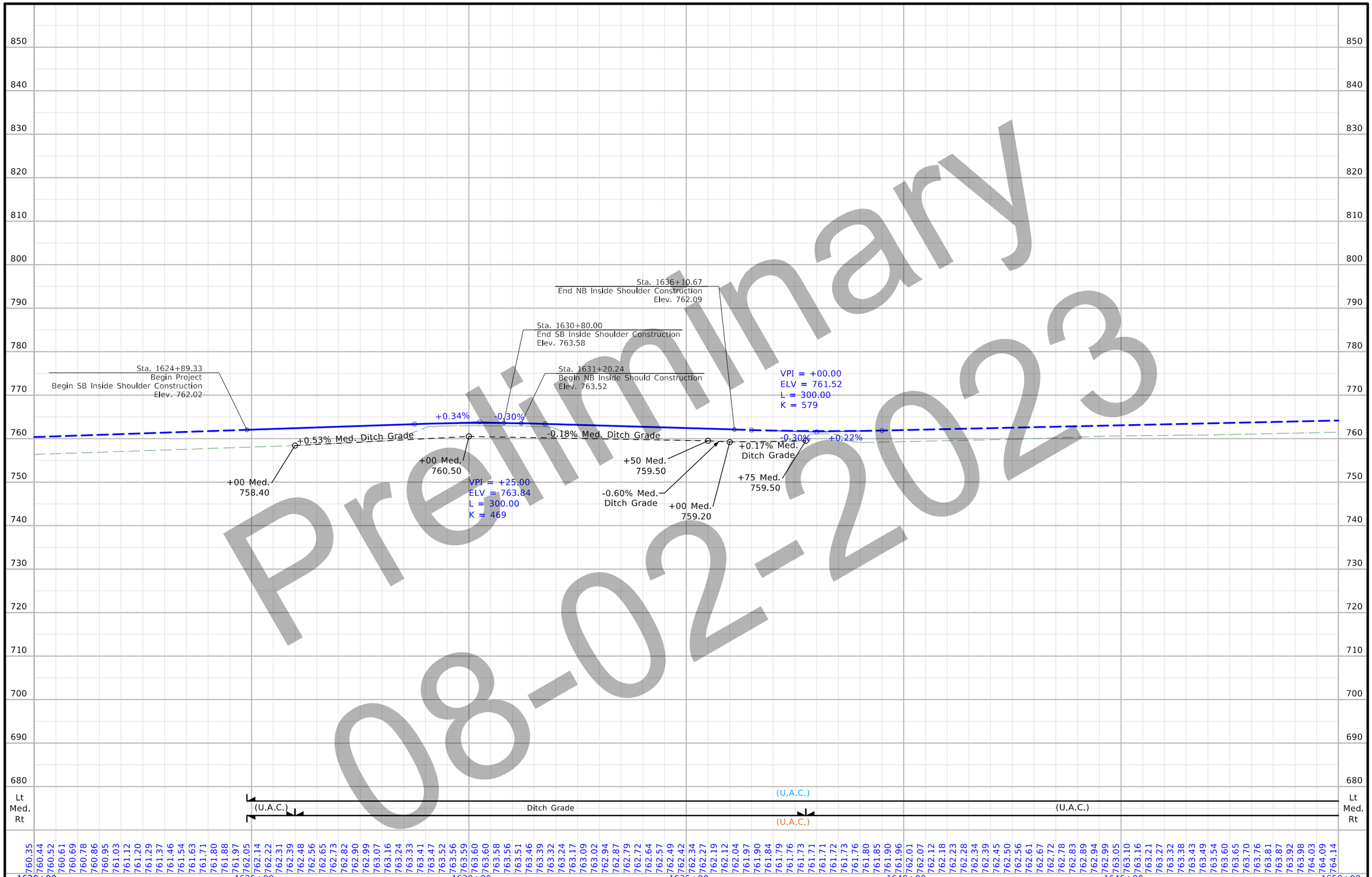
(COVERS SHEET SERIES D, E, F, & K)

Preliminary
08-02-2023



Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.2



Preliminary
08-02-2023

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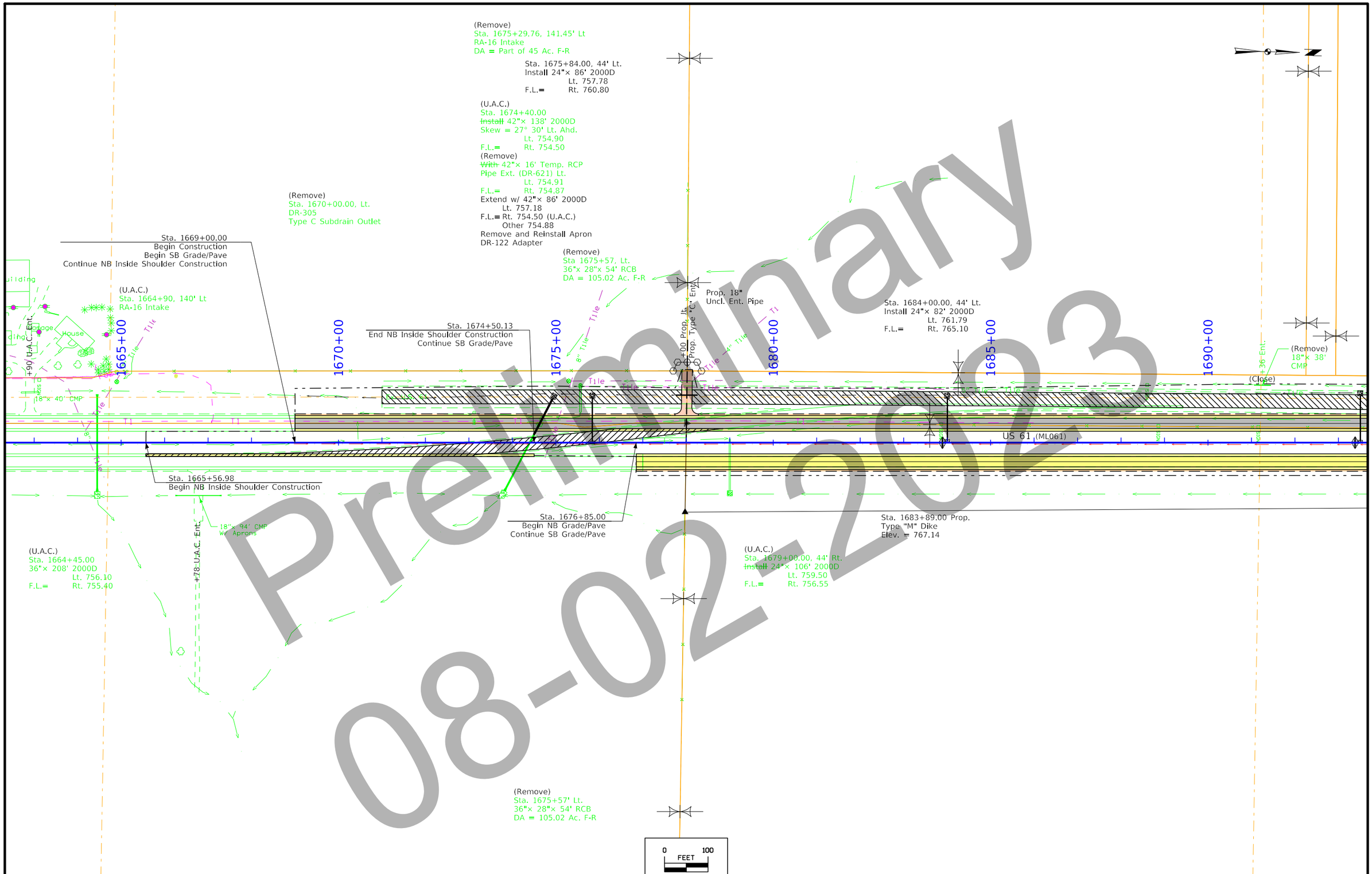

Preliminary
08-02-2023

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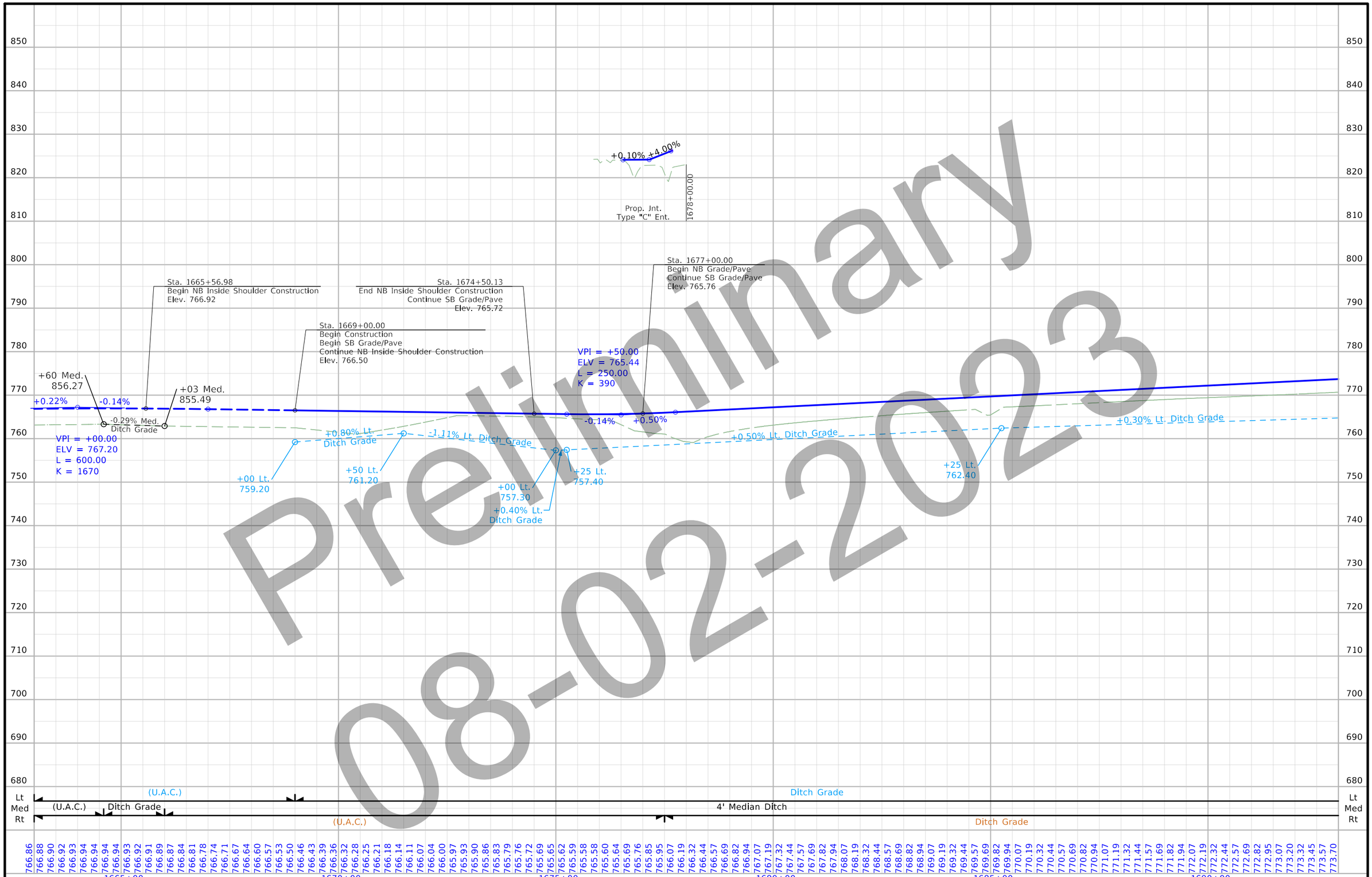


Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.5

2:27:31 PM 7/20/2023 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101097\Design_(106) Grade-Pave (Section 2)\CADD_Files\Sheet_Files\SHT_29061106_D02.dgn

Franklin Twp.
T-71N R-3W
Sec. 2

Yellow Spring Twp.
T-72N R-3W
Sec. 35

Sta. 1721+50.00, 44' Lt.
Install 24"× 72' 2000D
With 24"× 51' CMP
Lt. 748.13
F.L.= Rt. 760.90
Other 758.75
Other 757.33
Other 748.23

Update

(U.A.C.)
Sta. 1720+81.68
10'× 7'× 154' RCB
Skew = 15° Lt. Ahd.
Lt. 746.05
F.L.= Rt. 745.40
Design No. 321
10'× 7'× ???' RCB
Skew = 15° Lt. Ahd.
Lt. ???.??
F.L.= Rt. ???.??
Design No. 421

(U.A.C.)
Sta. 1716+29.00
Install 42"× 138' 2000D
Skew = 35° Rt. Ahd.
Lt. 758.04
F.L.= Rt. 756.79
Extend with 42"× 114' 2000D
Skew = 35° Rt. Ahd.
Lt. 758.60
F.L.= Rt. 757.79 (U.A.C.)
Other 757.97
Remove and Reinstall Apron
DR-122 Adapter

Sta. 1713+00.00, 44' Lt.
Install 24"× 82' 2000D
Lt. 763.83
F.L.= Rt. 767.58

Sta. 1693+50.00, 44' Lt.
Install 24"× 90' 2000D
Lt. 764.90
F.L.= Rt. 769.90
Other 767.33

Sta. 1702+24.59
End NB Paving
Begin NB Grade/Pave
Continue SB Grade/Pave

Prop. 18"
Uncl. Ent. Pipe

5" Tile

(Remove)
18"× 38' CMP

Prop. 18"
Uncl. Ent. Pipe

PVC Vent

Intake

90°16'12.75"

1695+00

1700+00

1705+00

1710+00

1715+00

1720+00

(Remove)
18"× 34' CMP

(Remove)
High Tension Cable
Guardrail

(Remove)
18"× 38' CMP

(Close)

6" Subdrain, PVC

US 61 (ML061)

Sta. 1693+38.00 Prop.
Type "M" Dike
Elev. = 771.89

POT Sta 1703+07.36 (US 61)
= POT Sta 11703+07.36 (210th St.)

POT Sta 1703+10.66 (US 61)
= POT Sta 11703+10.66 (210th St.)

90°00'00"

Sta. 1704+79.33
End NB Grade/Pave
Begin NB Paving
Continue SB Grade/Pave

Sta. 1713+11.00 Prop.
Type "M" Dike
Elev = 769.60

210th St. (SR210)

(Remove)
Sta. 1715+60.07, Lt.
36"× 36"× 30' RCB
With 42" Conc Pipe Ext Lt. &
With 42" Conc Pipe Ext Rt.
DA = 73.88 Ac. F

(Remove)
Sta. 1721+06.36
96"× 56"× 21' Stone Arch
With 8'× 5'× 23' RCB Ext Lt. &
With 8'× 5'× 26' RCB Ext Rt.
DA = 618.0 Ac F-R

Construction Limits Have Extended
In These Areas Due to Temporary
Sediment Control Basins

Franklin Twp.
T-71N R-3W
Sec. 2

Yellow Spring Twp.
T-72N R-3W
Sec. 35

For Side Road Details
Refer to Sheet No. E.1

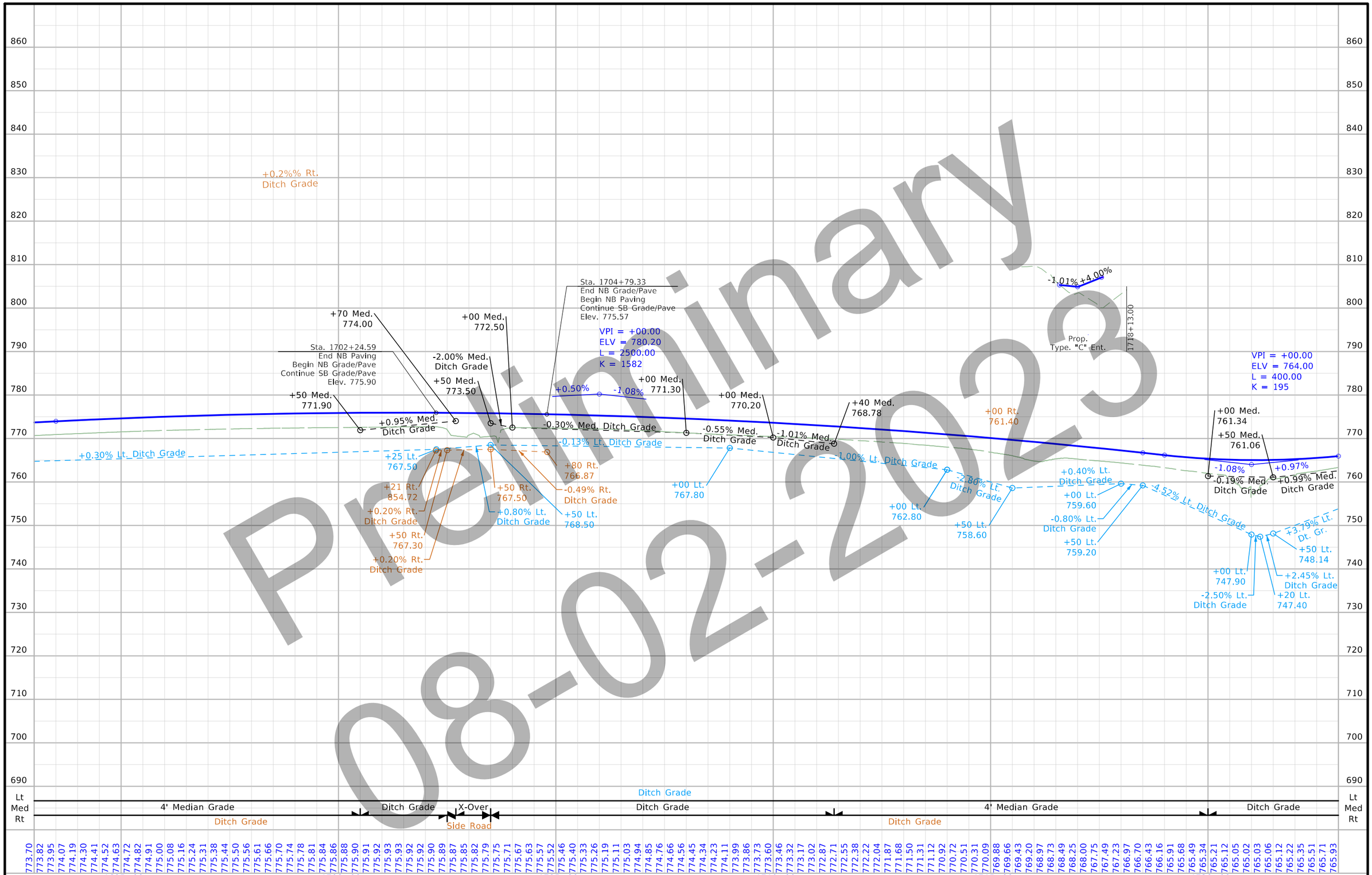
For Intersection Details
Refer to Sheets No. L.2 - L.4

0 100
FEET

For Culvert Situation Plan
Refer to Sheets No. V.1 - V.4

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.6



Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.7

For Detour Pavement 1
Refer to Sheet No. F.1

Yellow Spring Twp.
T-72N R-3W
Sec. 35

Sta. 1730+50.00, 44' Lt.
Install 24"× 90' 2000D
Lt. 765.10
F.L.= Rt. 770.40
Other 767.52

Sta 1731+50.06 144.04' Lt (ML061)

Sta 1730+00.88 157.22' Lt (ML061)

POT Sta 1729+56.52 (US 61)
= POT Sta 11729+56.52 (Hawk Rd.)

Do Not Disturb
Existing Building

Do Not Disturb
Existing LP Tank

Sta 1732+69.18 137.50' Lt (ML061)

Sta 1734+55.05 144.00' Lt (ML061)

Curve Data
Δ = 22°27'00.80" (LT)
T = 565.61
L = 1116.72
R = 2850.00
E = 55.58
e = 5.60%
L = 252
x = 90

Sta. 1740+40.00
Install 72"× 214' 2000D
Lt. 768.04
F.L.= Rt. 768.76

Construction Limits Have Extended
in This Area Due to Temporary
Sediment Control Basin

Sta. 1744+38.00 Prop.
Type "M" Dike
Elev = 754.58

Sta 1744+03.51
174.00' Lt (ML061)

Sta 1750+64.99
184.00' Lt (ML061)

Field Fence

Sta. 1745+86.00
End SB Grade/Pave
Begin SB Paving
Continue NB Paving

Prop. 18"
Uncl. Ent. Pipe

Prop. 18"
Uncl. Ent. Pipe

PC Sta 1730+21.30

PT Sta 1741+38.02

Sta 1738+95.03
149.00' Lt (ML061)

US 61 (ML061)

Sta. 1727+75.00
End NB Paving
Begin NB Grade/Pave
Continue SB Grade/Pave

89°25'44.09"

Sta 1730+05.05
143.40' Rt (ML061)

Sta. 1730+75.00
End NB Grade/Pave
Begin NB Paving
Continue SB Grade/Pave

Sta 1735+15.01
168.99' Rt (ML061)

PI Sta 1735+86.91

Field Fence

Sta. 1736+00.00
End NB Paving
Begin NB Grade/Pave
Continue SB Grade/Pave

Sta. 1740+28.00 Prop.
Type "M" Dike
Elev = 770.30

Sta 1741+05.05
162.81' Rt (ML061)

(Remove)
Ent. Pipe

Sta 1746+10.02
179.00' Rt (ML061)

Sta. 1744+25.00
End NB Grade/Pave
Begin NB Paving
Continue SB Grade/Pave

Prop. Turnaround
for Existing U.S. 61

Sta 1751+14.99
184.00' Rt (ML061)

Prop. 18"
Uncl. Ent. Pipe

Exist. US 61 (U.A.C.)

(U.A.C.)
Sta. 1744+50.00, 44' Rt.
~~Install~~ 24"× 76' 2000D
With 24"× 49' CMP
Lt. 782.34
F.L.= Rt. 769.36
Other 780.47
Other 778.72
Other 769.46

Sta. 1744+66.31 245.29' Rt. Prop.
Type "C" Ent.

(Remove)
Sta. 1739+31.71 Rt.
24"× 24"× 32' RCB
With 30"× 15' Conc Pipe Ext Lt. &
With 30"× 15' Conc Pipe Ext Rt.
DA = 17.05 Ac. F

Yellow Spring Twp.
T-72N R-3W
Sec. 35

Hawk Rd. (SRHAWK)

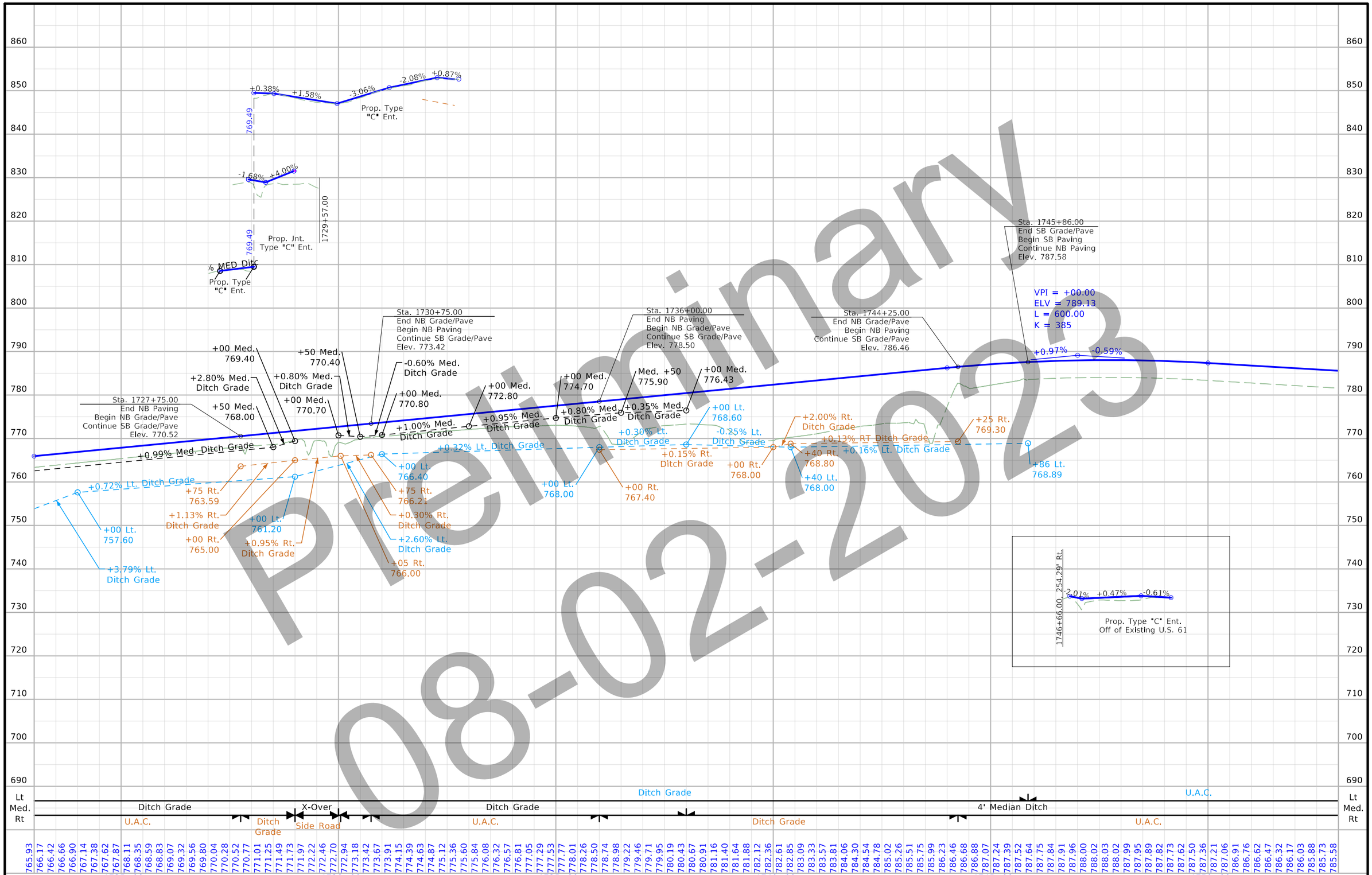
0 100
FEET

For Hawk Rd. Detour
Refer to Sheet No. F.3

For Side Road Details
Refer to Sheet No. E.2

For Intersection Details
Refer to Sheets No. L.5 - L.7

Preliminary
08-02-2023



Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.9

Yellow Spring Twp.
T-72N R-3W
Sec. 35

Yellow Spring Twp.
T-72N R-3W
Sec. 26

Note: Existing Topsoil Stockpiles to remain in place and become property of the IowaDOT.

(U.A.C.)
Sta. 1758+11.00 Prop.
Type "M" Dike
Elev = 780.56

(U.A.C.)
Sta. 1773+88.00 Prop.
Type "M" Dike
Elev = 785.14

1755+00

1760+00

1765+00

1770+00

1775+00

1780+00

Field Fence

Sta 1765+00.01
144.00' Lt (ML061)

Sta 1770+00.09 164.00' Lt (ML061)
= Sta 41770+01.93 87.98' Lt (RPCH38)

Ramp C (RPCH38)

Existing Topsoil Stockpile

US 61 (ML061)

PC Sta 1776+30.73

Field Fence

Sta 1764+05.00
139.00' Rt (ML061)

Sta 1766+45.08
149.00' Rt (ML061)

Existing Topsoil Stockpile

Ramp B (RPBH38)

(U.A.C.)
Sta. 1758+00.00, 44' Rt.
~~Install~~ 24"× 68' 2000D
With 24"× 35' CMP
F.L.= Lt. 778.63
Rt. 771.10
Other 776.86
Other 775.85
Other 771.20

(U.A.C.)
Sta. 1765+75.00, 44' Rt.
~~Install~~ 24"× 86' 2000D
F.L.= Lt. 774.43
Rt. 771.91
Other 773.52

Sta 1771+20.53 204.01' Rt (ML061)
= Sta 31771+28.31 98.07' Rt (RPBH38)

(U.A.C.)
Sta. 1774+00.00, 44' Rt
~~Install~~ 24"× 76' 2000D
F.L.= Lt. 783.16
Rt. 780.82

Tower Anchor

Cell Tower

Shed

Tower Anchor

Exist. US 61 (U.A.C.)

House

Garage

Building

Shed

Building

Yellow Spring Twp.
T-72N R-3W
Sec. 26

Building

Building

Building

Shed

H38 (SRH38)

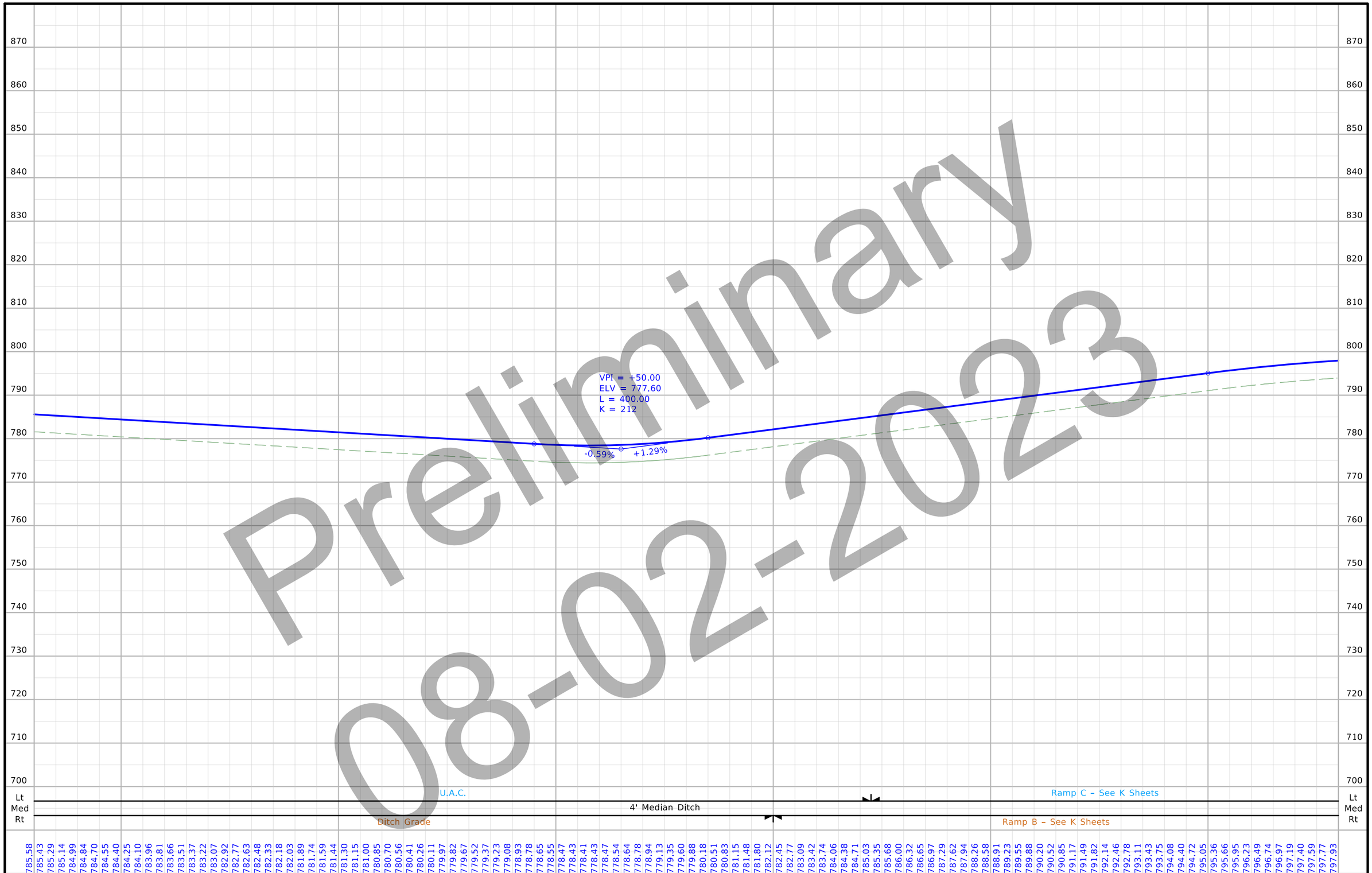
0 100
FEET

For Interchange Details
Refer to Sheets No. K.1 - K.6

For Side Road Details
Refer to Sheet No. E.3 - E.4

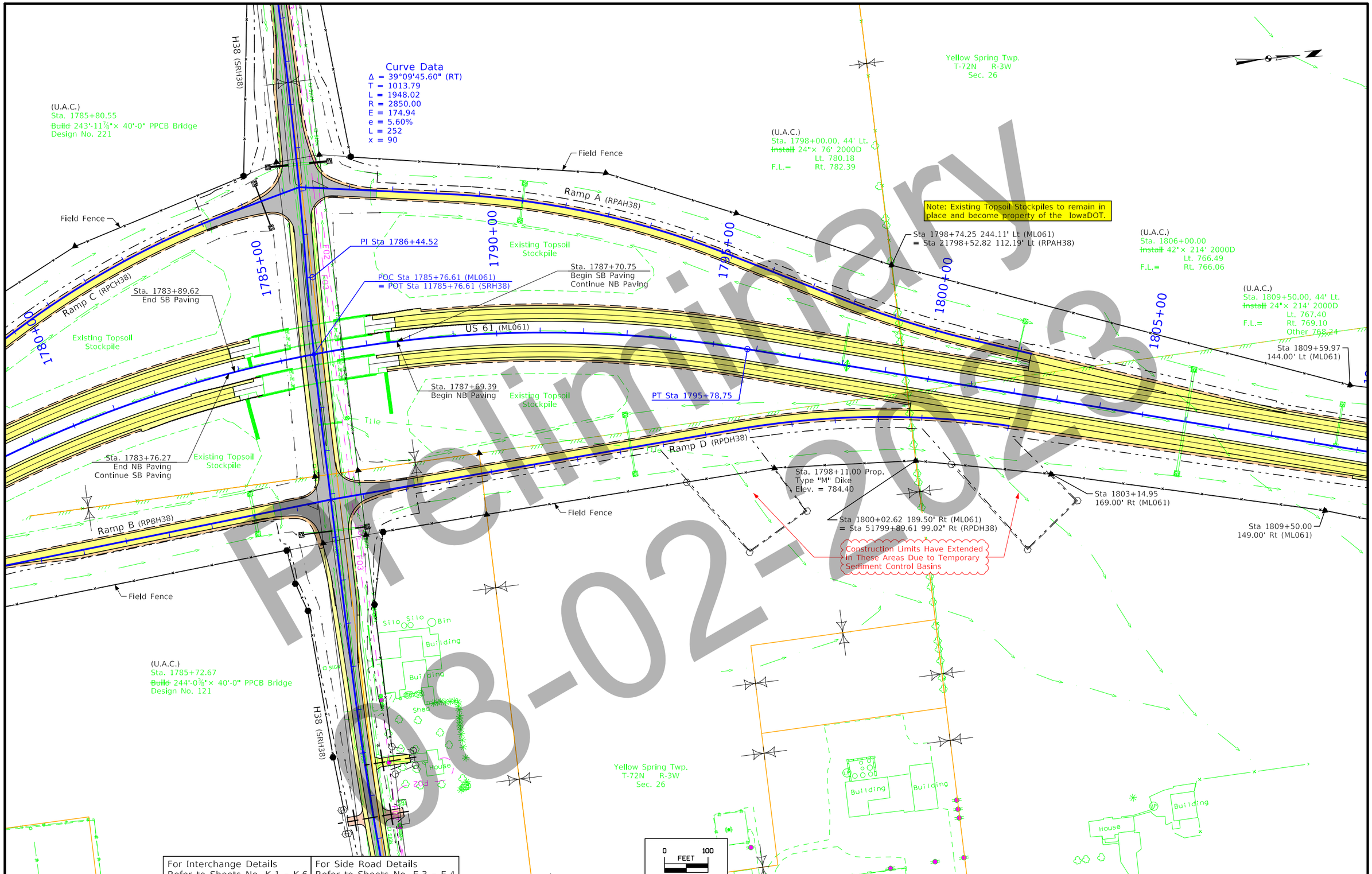
Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.10



Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.11

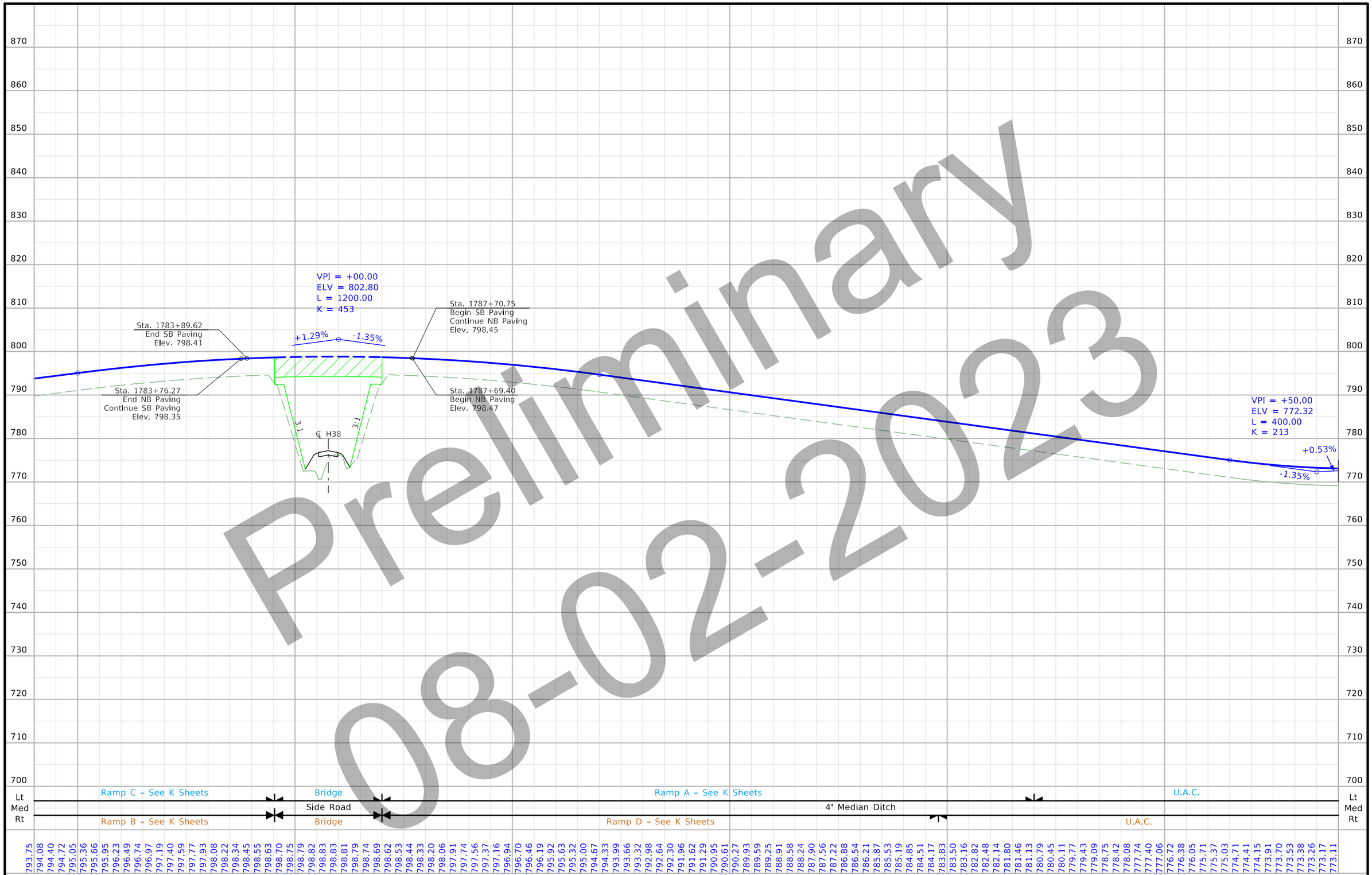


Preliminary
08-02-2023

For Interchange Details
Refer to Sheets No. K.1 – K.6

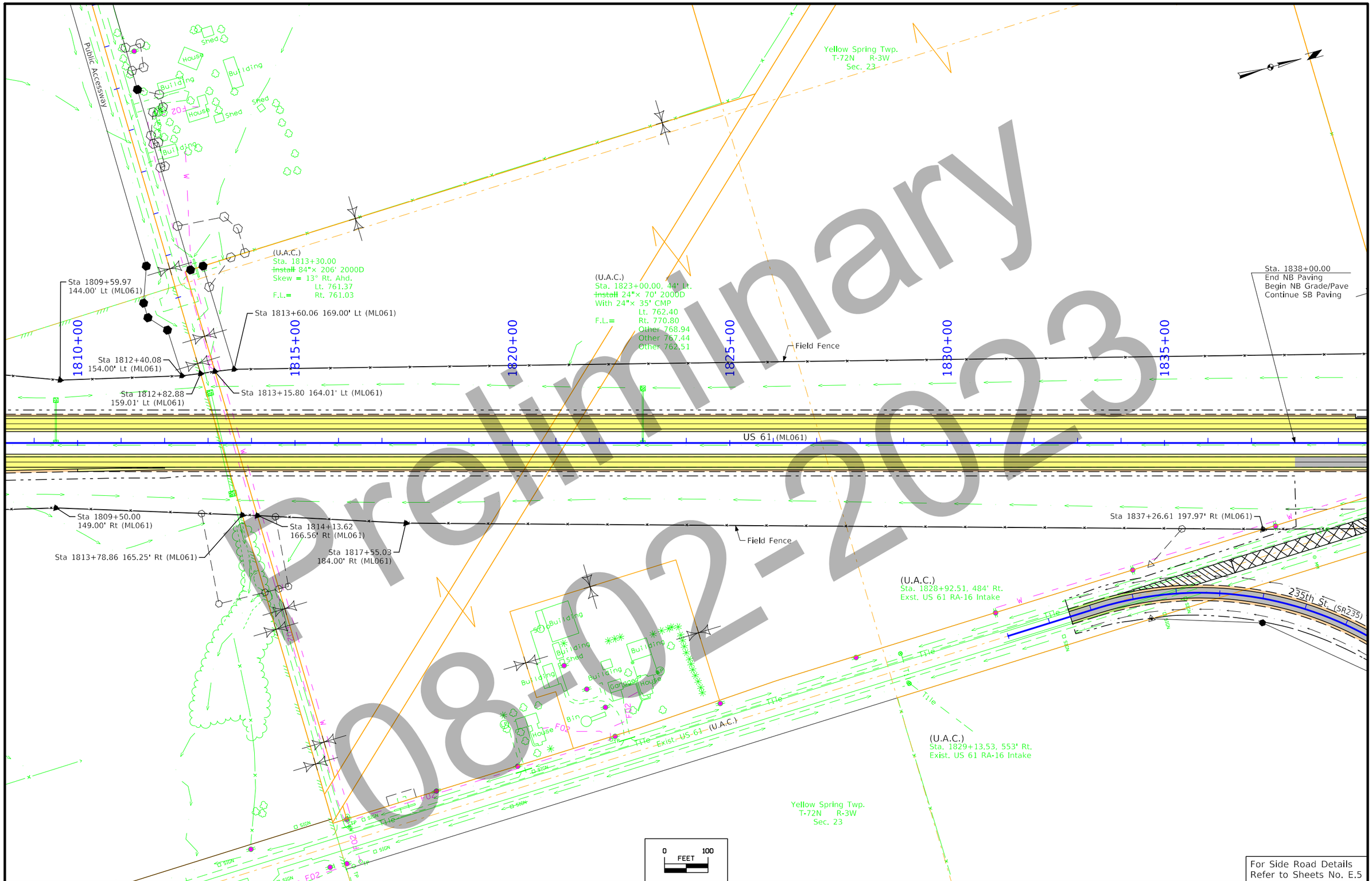
For Side Road Details
Refer to Sheets No. E.3 – E.4

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.12



Preliminary
08-02-2023

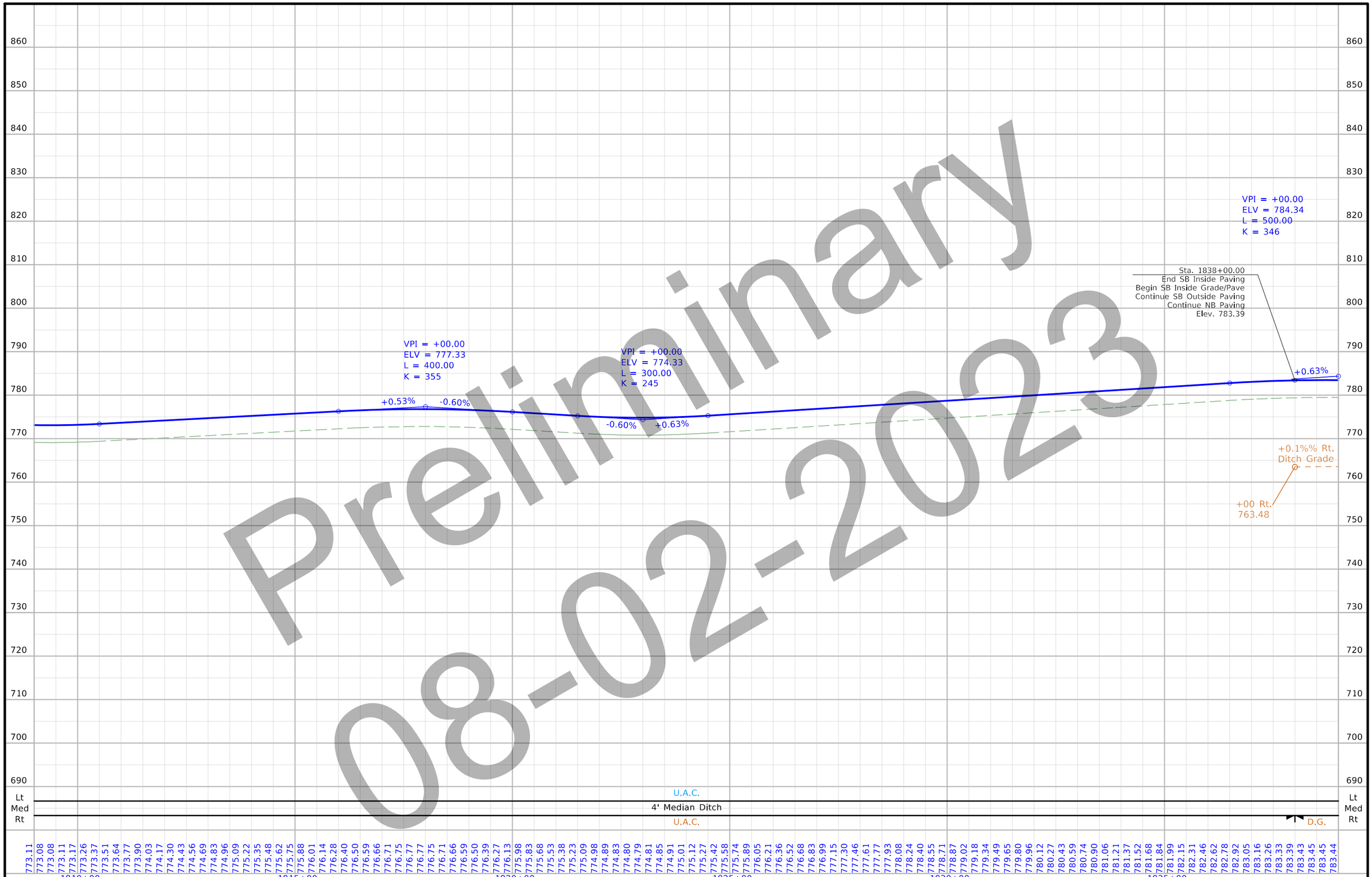
FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.13



Preliminary
08-02-2023

For Side Road Details
Refer to Sheets No. E.5

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.14



Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.15

For Detour Pavement 2
Refer to Sheets No. F.2

Yellow Spring Twp.
T-72N R-3W
Sec. 23

(U.A.C.)
Sta. 1865+67.75, 95' Lt.
Exist. US 61 RA-16 Intake

(U.A.C.)
Sta. 1865+72.72, 167' Lt.
Exist. US 61 RA-16 Intake

Yellow Spring Twp.
T-72N R-3W
Sec. 14

240th St.

(U.A.C.)
Sta. 1841+00.00, 44' Lt.
~~Install~~ 24"× 72' 2000D
With 24"× 59' CMP
Lt. 764.20
F.L.= Rt. 778.66
Other 776.85
Other 775.59
Other 764.30

(U.A.C.)
Sta. 1849+95.76, 54' Lt.
Exist. US 61 RA-16 Intake

(Remove)
Sta. 1849+99.94, 127' Lt.
Exist. US 61 RA-16 Intake

Sta 1840+34.01 205.65' Lt (ML061)

Sta. 1840+00.00
End NB Paving
Begin NB Grade/Pave
Continue SB Paving

Sta 1845+34.53 207.40' Lt (ML061)

Curve Data
Δ = 17°10'48.27" (LT)
T = 543.81
L = 1079.46
R = 3600.00
E = 40.84
e = 4.80%
L = 216
× = 90

Sta. 1844+80.00
End SB Inside Grade/Pave
End SB Outside Paving
Begin SB Grading
Continue NB Grade/Pave

Field Fence

Sta. 1841+11.00 Prop.
Type "_" Dike
Elev. = 780.58

Sta. 1845+30.00
End SB Grading
Continue NB Grade/Pave

PC Sta. 1844+64.86

1840+00

1845+00

1850+00

1855+00

1860+00

1865+00

1870+00

PT Sta 1855+44.32

US 61 (ML061)

End Priority 1
Access Control

(Remove)
18"× 34'
CMP

(Remove)
24"× 105'
CMP

Sta 1842+12.13
195.28' Rt (ML061)

Sta. 1844+00.00
End SB Inside Paving
Begin SB Inside Grade/Pave
Continue SB Outside Paving
Continue NB Paving

Sta 1849+74.98
208.99' Rt (ML061)

PI Sta 1850+08.67

Field Fence

Sta 1857+96.73
167.27' Rt (ML061)

Sta. 1858+00.00
End NB Grade/Pave
End Construction
End Project

(Remove)
Sta. 1843+18.65, 41' Rt.
Exist. US 61 RA-16 Intake

(Remove)
Sta. 1843+26.20, 113' Rt.
Exist. US 61 RA-16 Intake

Sta. 1848+50.00 44' Lt.
Install 36"× 86' 2000D
With 36"× 33' UNCL
Lt. 770.00
F.L.= Rt. 764.55
Other 767.91
Other 767.49
Other 764.66

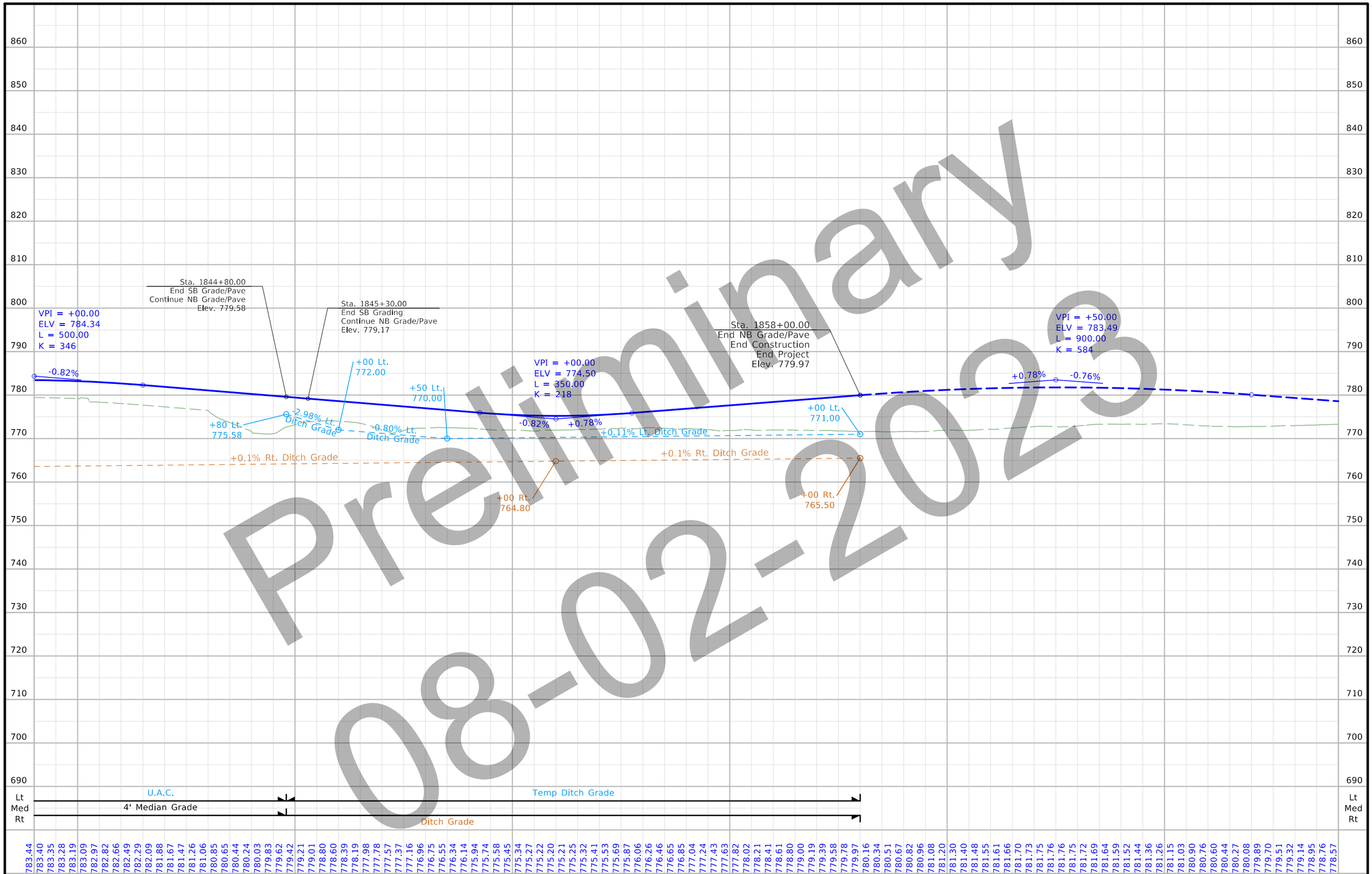
235th St. (SR235)

Yellow Spring Twp.
T-72N R-3W
Sec. 23

0 FEET 100

For Side Road Details
Refer to Sheet No. E.5

Preliminary
08-02-2023



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER D.17

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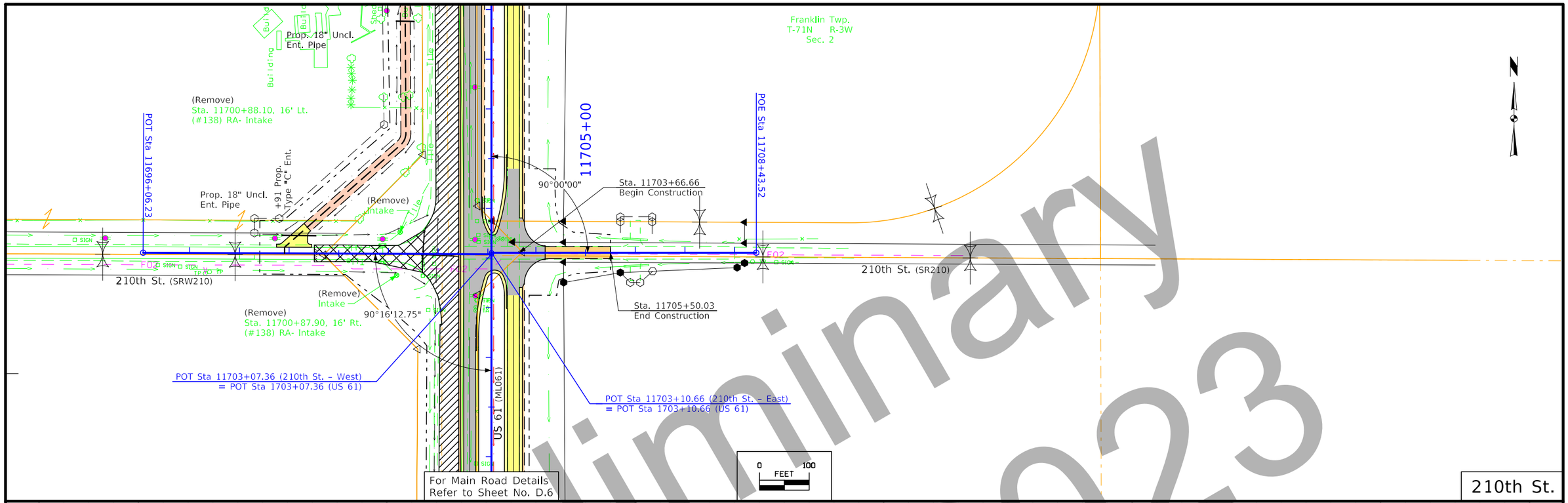
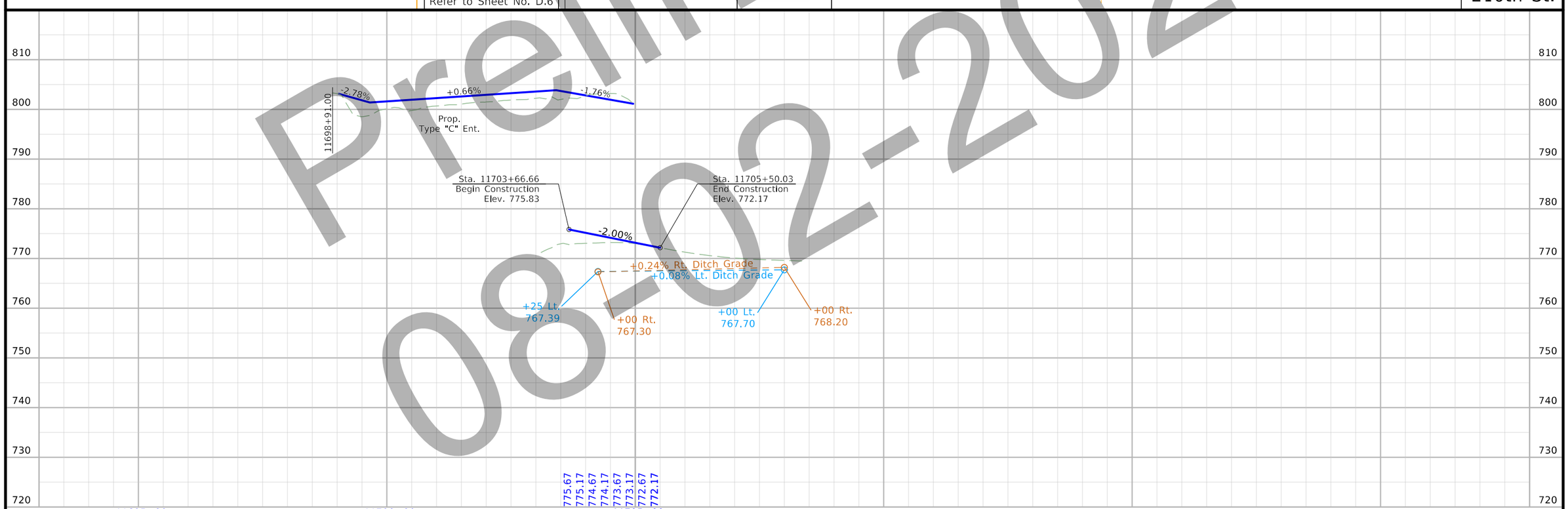
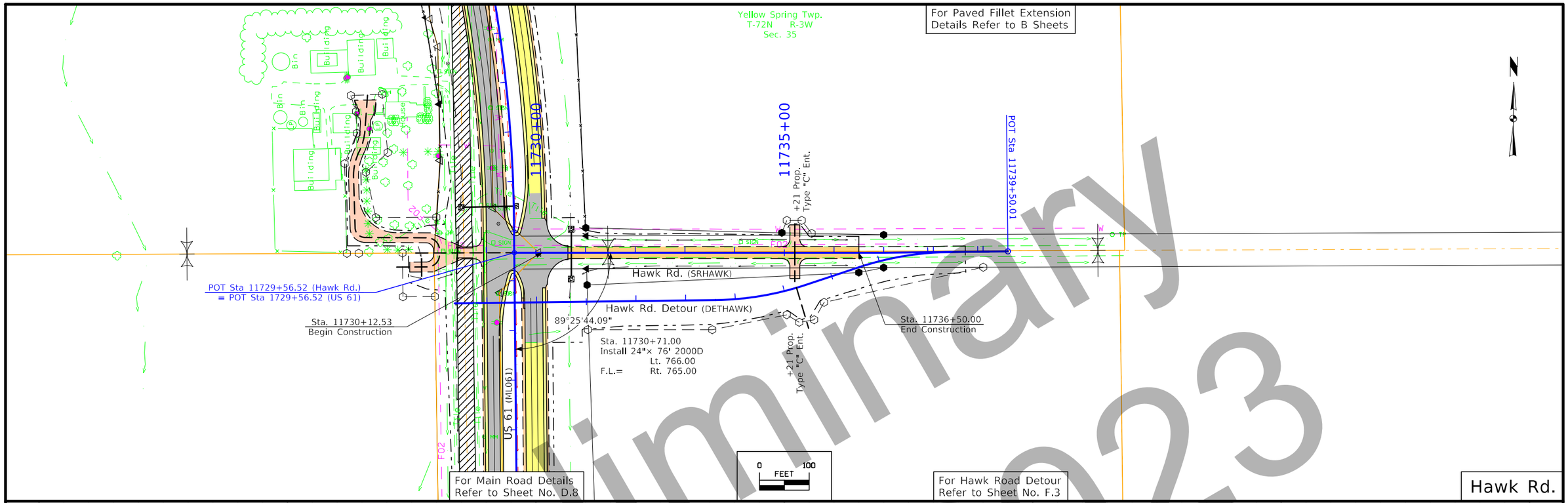
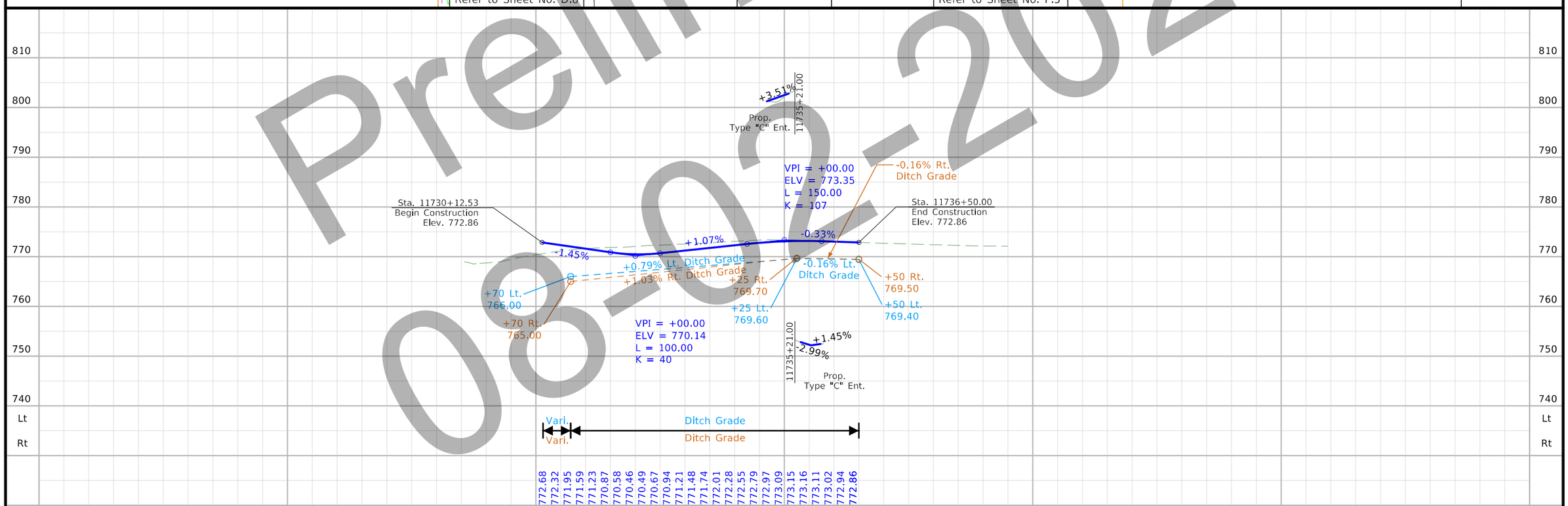




Preliminary
08-02-2023

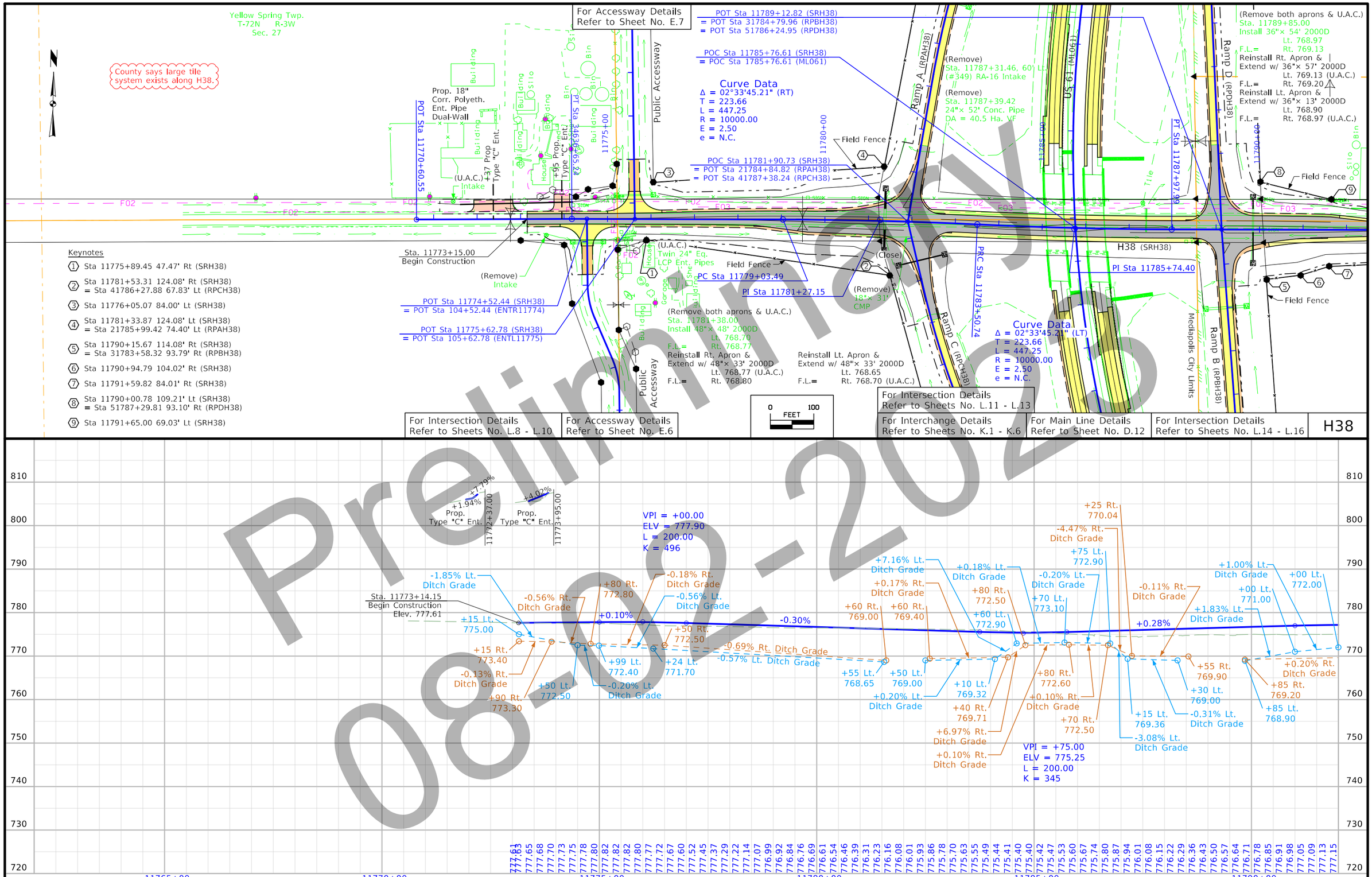
FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER E.1





Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER E.2



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER E.3

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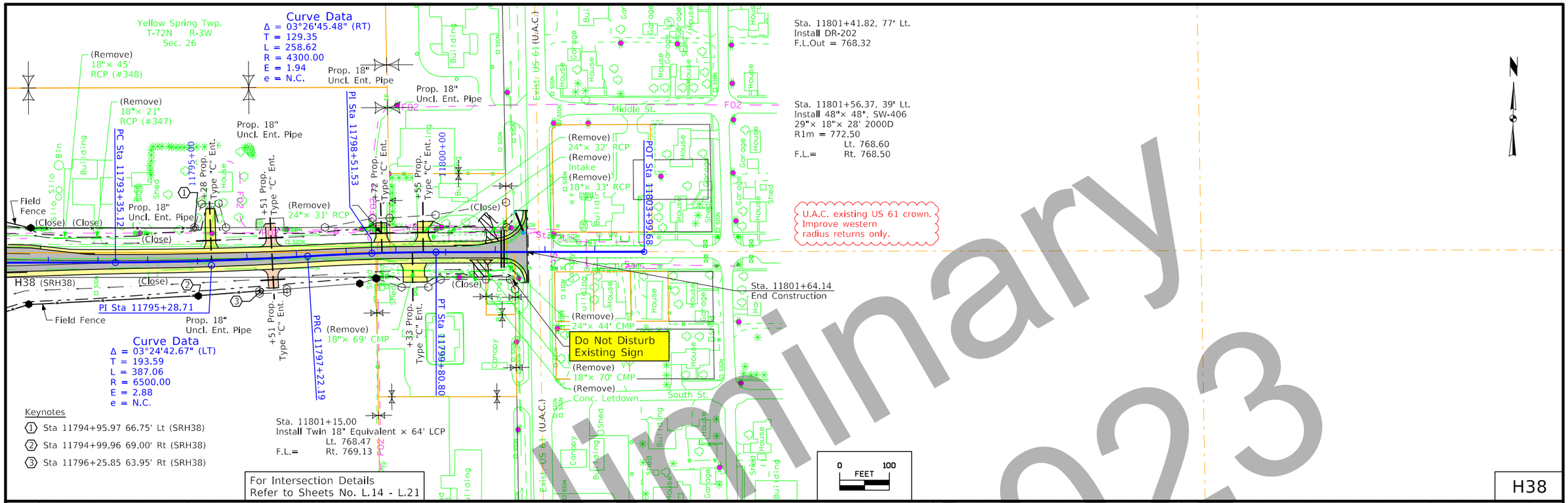

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER E.4

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For Main Line Details
Refer to Sheets No. D.14 & D.16

US 61 (ML061)

240+00

245+00

235+00

250+00

PI Sta 245+24.55

(Remove)
Sta. 244+81.23, 170' Lt.
RA-3 Intake
DA = 0.1 Ha. F.

(Remove)
Sta. 244+93.58, 193' Lt.
RA-3 Intake
DA = 0.1 Ha. F.

6" PVC Riser

6" PVC

(Remove)
Intake

235th St. (SR235)

POT Sta 235+00.00

PC Sta 237+12.79

PT Sta 249+81.10

POT Sta 253+12.40

Sta. 236+50.00
Begin Construction

Sta. 250+50.00
End Construction

Curve Data
Δ = 90°50'11.06" (RT)
T = 811.76
L = 1268.32
R = 800.00
E = 339.72
e = N.C.

Yellow Spring Twp.
T-72N R-3W
Sec. 23

0 FEET 100

235th St.

Preliminary
08-02-2023

VPI = +75.00
ELV = 775.30
L = 300.00
K = 436

Sta. 236+50.00
Begin Construction
Elev. 772.73

Sta. 250+50.00
End Construction
Elev. 773.16

+50 Rt.
769.20

+50 Rt.
770.60

+0.41%

-0.28%

+0.10% Rt. Ditch Grade
+0.10% Lt. Ditch Grade

+50 Lt.
769.00

+50 Lt.
770.40

Ditch Grade

Ditch Grade

810 800 790 780 770 760 750 740

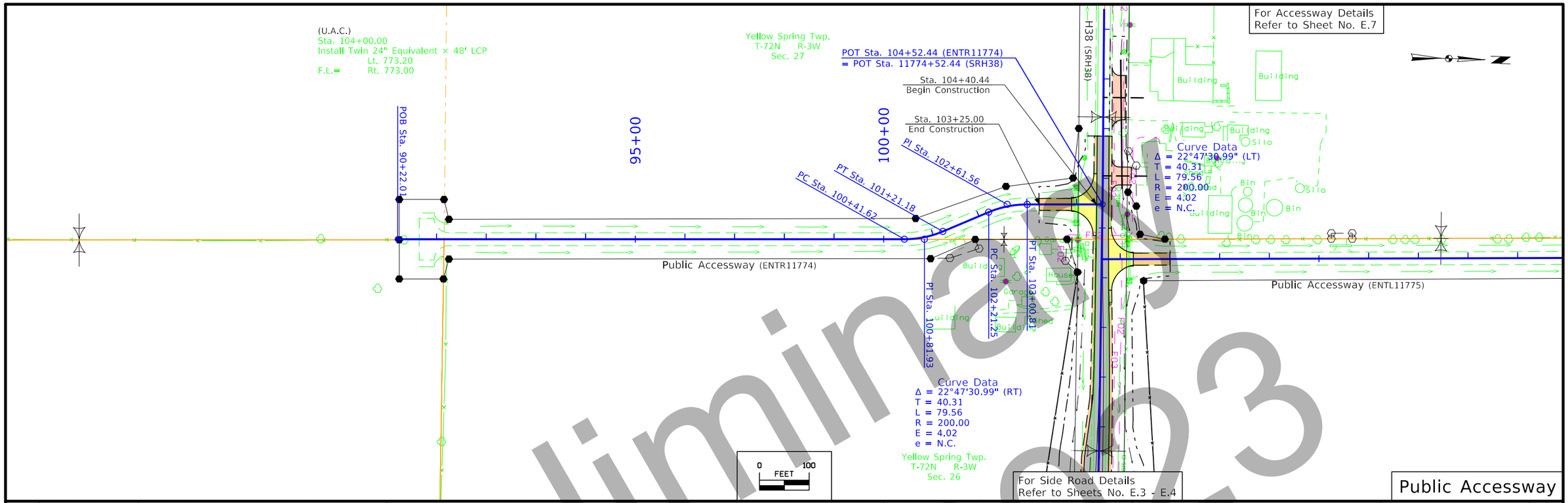
Lt

Rt

772.73 772.83 772.94 773.04 773.14 773.24 773.35 773.45 773.55 773.66 773.76 773.86 773.96 774.07 774.17 774.27 774.37 774.48 774.58 774.68 774.78 774.86 774.93 774.98 775.02 775.04 775.05 775.05 775.03 774.99 774.95 774.89 774.82 774.75 774.68 774.61 774.54 774.47 774.40 774.33 774.26 774.19 774.12 774.06 773.99 773.92 773.85 773.78 773.71 773.64 773.57 773.50 773.43 773.36 773.30 773.23 773.16

235+00 240+00 245+00 250+00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER E.5



Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER E.6

For Accessway Details
Refer to Sheet No. E.6

POT Sta 105+62.78 (ENTL11775)
= POT Sta 11775+62.78 (SRH38)

Public Accessway (ENTR11774)

Public Accessway (ENTL11775)

H38 (SRH38)

(U.A.C.)
Sta. 106+18.00
Install 24" Equivalent × 62' LCP
Lt. 772.35
F.L.= Rt. 771.90

Sta. 107+00.00
End Construction

Sta. 105+76.39
Begin Construction

Yellow Spring Twp.
T-72N R-3W
Sec. 27

Yellow Spring Twp.
T-72N R-3W
Sec. 26

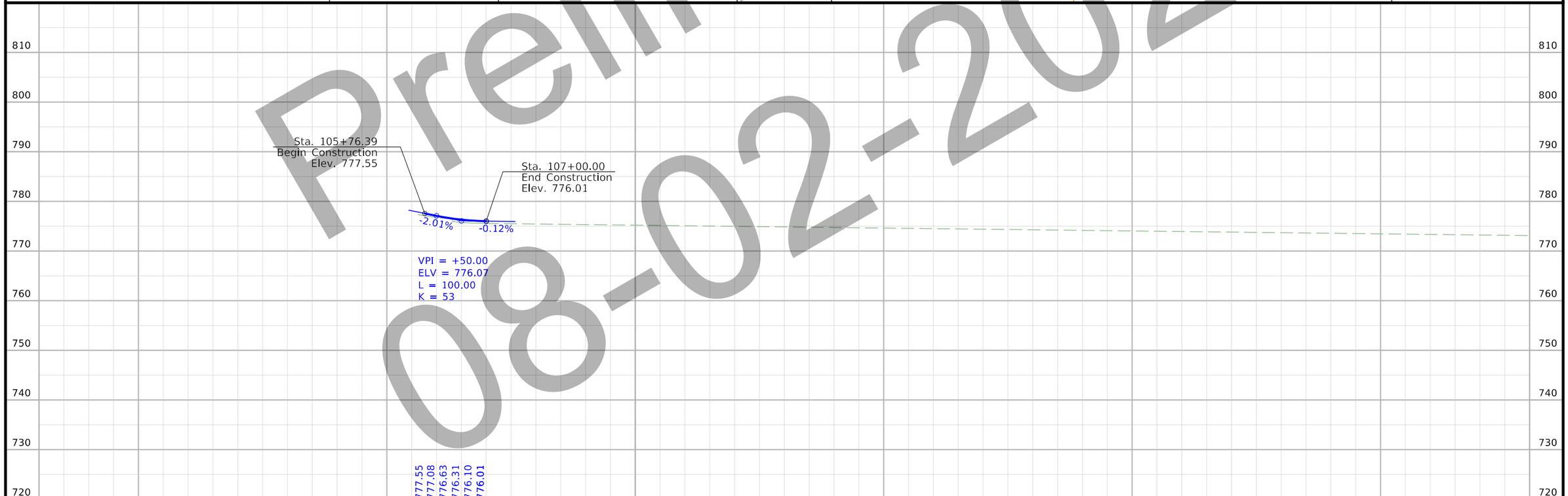
110+00 115+00 120+00 125+00

Building Building Building Building Building Silo House Shed Shed Bin Bin Bin Silo Building Building House Garage Shed Building Building

0 100
FEET

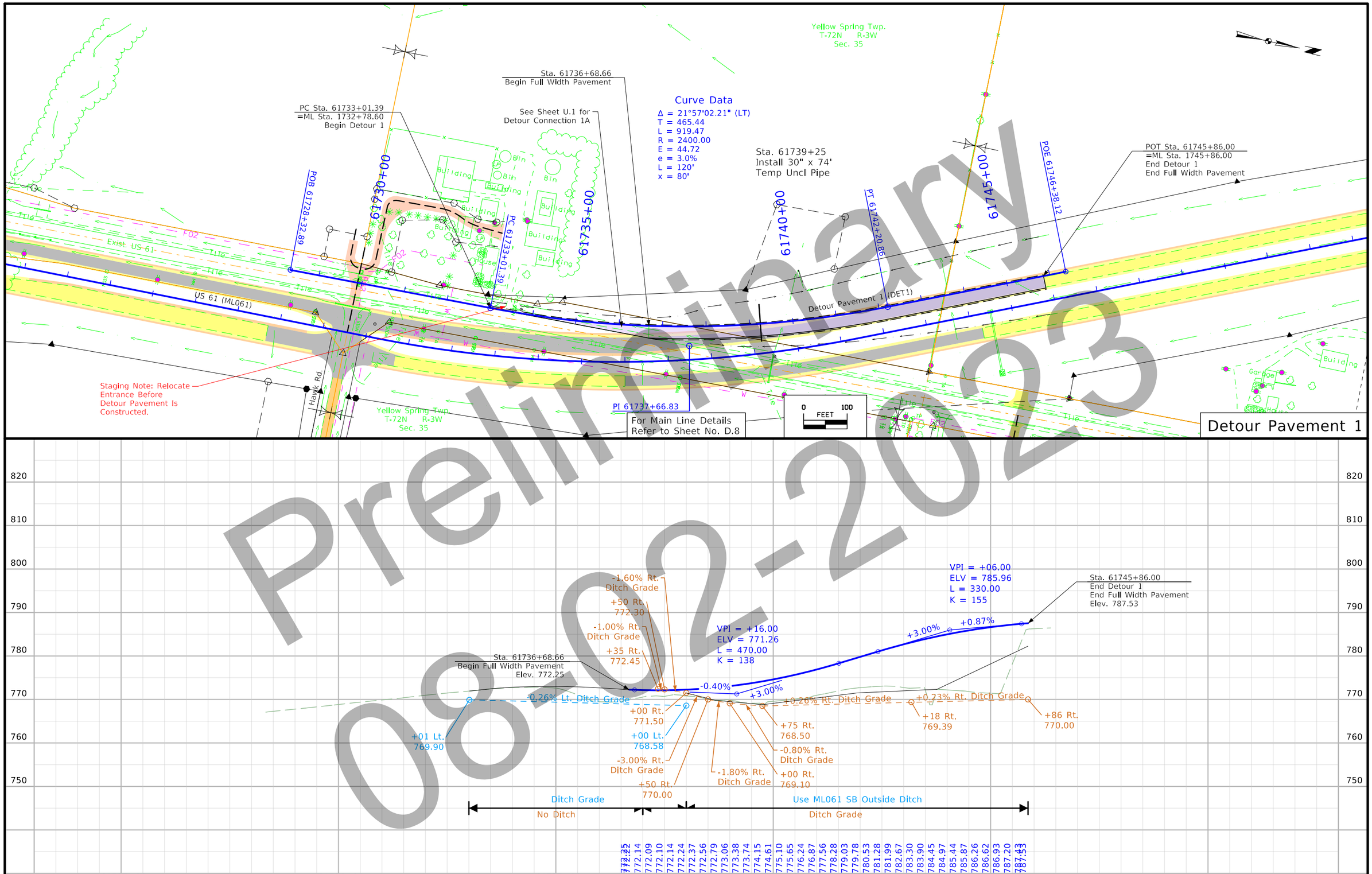
For Side Road Details
Refer to Sheets No. E.3 - E.4

Public Accessway



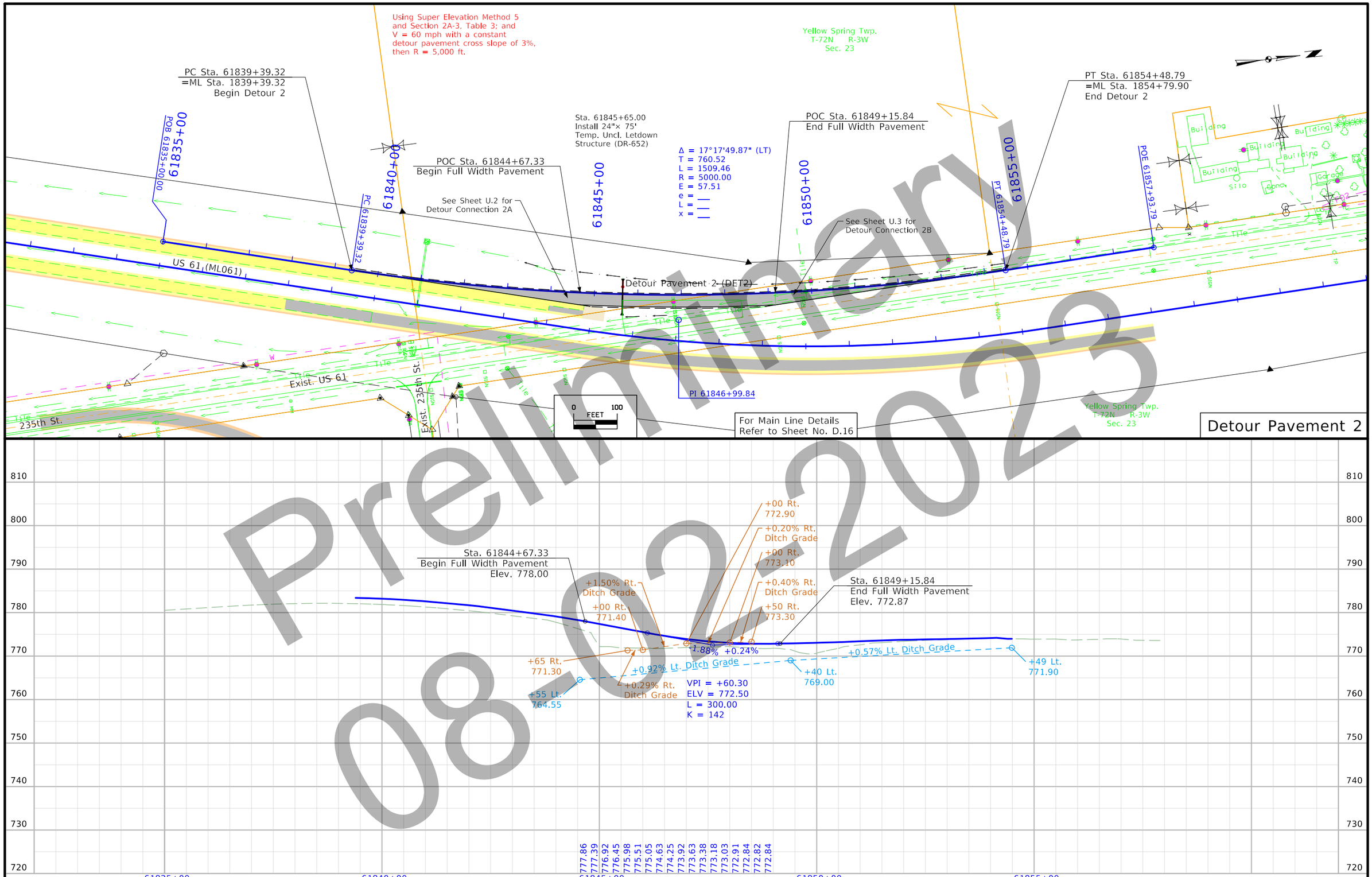
Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER E.7



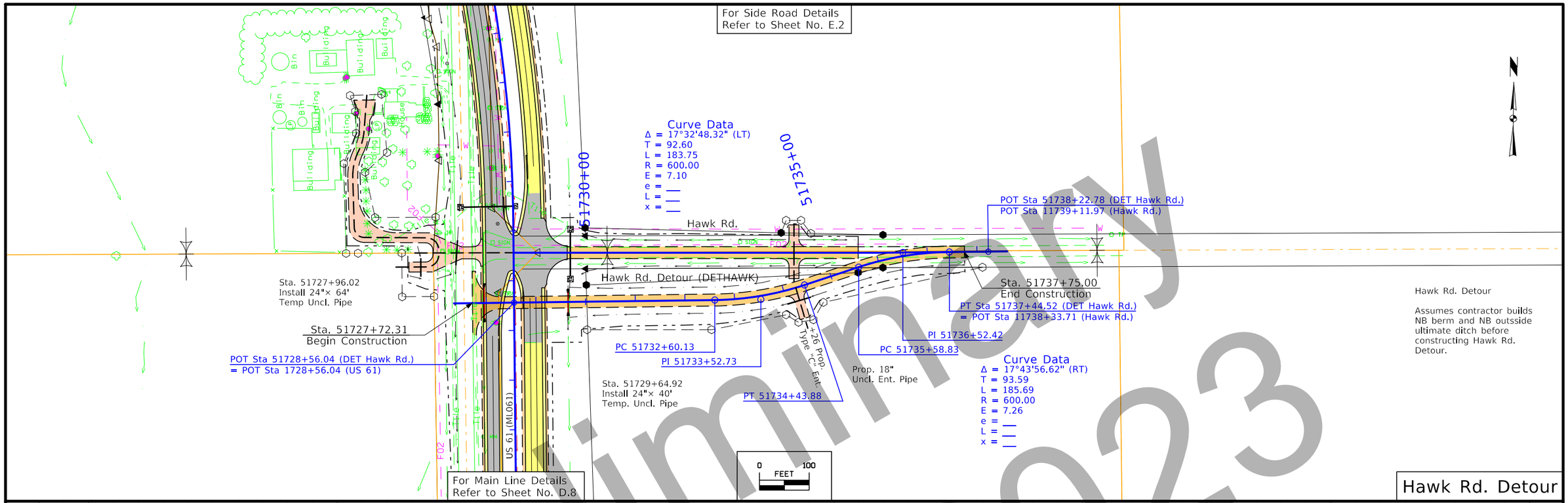
Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER F.1



Preliminary 08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER F.2



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER F.3

9:25:12 AM 7/19/2023 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101097\Design_(106) Grade-Pave (Section 2)\CADD_Files\Sheet_Files\SHT_29061106_F03.dgn

Survey Information

Horizontal Control -

Control Monuments used for this project consisted of 11 Des Moines County GPS Monuments and 2 Louisa County GPS Monuments. These monuments are all 5/8" diameter aluminum rods with 2.5" diameter aluminum caps encased in 5" diameter PVC pipes with aluminum access covers. All monuments were previously set as part of countywide GPS control networks. Each monument was observed for a minimum of two 5 minute RTK sessions, at differing times of day using the Iowa RTN as a reference station. The monuments completely surround the project area, are approximately 1 to 2 miles east or west of the existing US 61 alignment and are spaced 3 to 4 miles apart north and south. These monuments are considered to be in safe locations that will survive construction.

Control Points used for this project consisted of 80 iron pins that were previously set along the existing Highway 61 alignment. These points were used for the initial survey work completed in 1999 and recovered for the new survey work. An additional 3 iron pins were set to supplement the points recovered. Points are no more than 1300 feet apart and intervisible. All points were observed for a minimum of two 5 minute RTK sessions, at differing times of day using the Iowa RTN as a reference station.

All Control Monuments and Control Points were referenced to at least three durable physical objects and complete sketches were made in the field notes.

GPS Horizontal Errors	Mean Error of Observations	0.034
	Standard Deviation of Error	0.021

Coordinate System -

The coordinate system used is NAD83(CORS) (Epoch 2002.00) Iowa State Plane, South Zone, U. S. Survey Feet. The 13 Control Monuments were used to compute an average scale factor for the project area to convert from grid distances to ground distances. After applying the scale factor, a shift was applied to hold a central point in the job at true state plane coordinate values.

A sample of these initial coordinate values was compared to the coordinates from the previous work. This resulted in a scale difference of 0.62' over the entire length of the project or approximately 0.03' per mile. To ensure all previous work would merge seamlessly with the new work, the average scale factor initially computed was adjusted to correct the difference. The shift was also recomputed to better fit the previous work.

Final Scale and Shift Parameters-	Scale Factor	0.99992280532
	Northing Shift	-27.7970
	Easting Shift	-176.3040

Vertical Control -

The vertical datum used is NAVD88. Benchmarks for this project consisted of 82 benchmarks that were previously established along the existing Highway 61 alignment. These were used for the initial survey work completed in 1999 and recovered for the new survey work. An additional 21 benchmarks were established to supplement the ones recovered. Benchmarks are spaced no more than 1300' apart.

The levels were started at an offsite benchmark, run to the job just North of the BOP and then run along the existing US 61 corridor. Side legs were added as necessary. The levels were run through all control points and all benchmarks. The levels were closed out on 2 separate offsite benchmarks. The levels were run in approximately 0.5 to 1 mile segments, each segment was closed back on its starting point at the end of each day.

The original benchmark used at the South end of the project in1999 was not found. However, Des Moines County notes were found where this benchmark had been transferred to another location. We started our leveling at this point, MW#701. The closing benchmarks were NGS N126, point MW#725 and a USGS monument 20RWM, point MW#730. This USGS monument was also used in 1999 for the previous work.

The average closure error was 0.014' over 32 looped segments. All looped segments were left unadjusted. Holding the Des Moines County elevation value of the starting benchmark MW#701 resulted in a closure of +0.08' on both NGS N126, MW#725 and USGS monument 20RWM, MW#730. A comparison of the 1999 benchmark elevations and the new elevations showed an average difference of +0.085' using 51 common points that should have held stable since the previous work was done.

Assuming that the starting benchmark elevation was in error and based on the above information all computed elevations were adjusted by -0.08 to better match the 2 closing benchmarks and the benchmarks previously used on this project.

Preliminary
08-02-2023

HORIZONTAL CONTROL

Point	North	East	Elevation	Description
10	316565.66	2290949.79	653.28	CP 5/8" IR ALUM. CAP
11	317319.97	2290212.99	615.15	CP 1/2" RBR
12	318446.49	2289469.77	571.01	CP 5/8" IR
13	319644.91	2288664.75	568.12	CP 5/8" IR
14	320278.11	2287983.20	570.37	CP 5/8" IR
15	320370.58	2288429.47	569.82	CP 5/8" IR
16	323957.12	2287382.86	0.00	CP 5/8" IR
17	323995.18	2287800.98	677.06	CP 5/8" IR
18	325079.06	2287189.51	681.26	CP 5/8" IR
19	326383.07	2286383.21	686.33	CP 5/8" IR
20	327128.52	2285760.24	693.13	CP 5/8" IR
21	328217.60	2284674.37	696.55	CP USGS MON.
22	330490.16	2284595.51	693.77	CP 5/8" IR
23	332134.41	2284467.60	699.39	CP CUT "X" ON RAIL
24	333512.68	2284552.27	701.99	CP CONC. MON. WITH 5/8" IR
25	335585.92	2284465.93	705.51	CP 5/8" IR
26	337984.93	2284415.36	708.32	CP 5/8" IR
27	340978.93	2284241.98	713.85	CP 5/8" IR
28	342777.37	2284140.88	717.74	CP 5/8" IR
29	344981.61	2284223.10	717.61	CP 5/8" IR
30	346827.67	2284061.21	719.18	CP CUT "X" ON RAIL
31	349067.67	2284088.87	730.03	CP 5/8" IR
32	350770.10	2283997.02	736.48	CP 5/8" IR
33	352181.14	2283961.03	741.88	CP 5/8" IR
34	354450.91	2283876.68	748.66	CP 5/8" IR ALUM. CAP
35	357594.25	2283872.40	755.26	CP 5/8" IR
36	360061.44	2283711.89	756.93	CP 5/8" IR
37	363164.70	2283719.54	759.12	CP 5/8" IR
38	365358.82	2283705.38	763.19	CP CON. MON. WITH 1/2" IR
39	367956.49	2283568.49	770.09	CP 5/8" IR
40	370533.13	2283515.82	767.07	CP 5/8" IR
41	372470.68	2283509.56	773.09	CP 5/8" IR
42	375793.19	2281367.31	773.97	CP 5/8" IR
43	375806.57	2282595.02	774.34	CP 5/8" IR
44	379824.12	2283313.63	770.15	CP CUT "X" ON RAIL
45	381467.31	2283176.63	772.02	CP 5/8" IR
46	383709.46	2283086.69	774.36	CP CON. MON.
47	387152.02	2283014.98	757.53	CP 5/8" IR
48	388442.31	2282835.22	751.57	CP 5/8" IR
49	389095.02	2281964.68	755.79	CP CUT "X" ON RAIL
50	391654.27	2281884.15	751.00	CP 5/8" IR
51	393694.80	2281727.63	746.54	CP 5/8" IR
52	394377.56	2279854.48	744.43	CP 5/8" IR
53	394375.10	2280584.83	738.75	CP 5/8" IR
54	397704.15	2279678.36	740.23	CP 5/8" IR
55	399123.67	2279264.72	736.55	CP 5/8" IR
56	400548.52	2278729.52	734.18	CP 5/8" IR ALUM. CAP
57	402939.54	2278990.17	727.94	CP 5/8" IR
58	404687.79	2279046.90	724.86	CP 5/8" IR ALUM. CAP
59	406278.76	2278920.89	720.91	CP 5/8" IR
100	321738.06	2288570.42	0.00	CP 5/8" IR W/CAP
101	323044.07	2287878.96	643.35	CP 5/8" IR W/CAP
102	329355.92	2284632.84	692.53	CP 5/8" IR W/CAP
103	331269.82	2284605.23	698.34	CP 5/8" IR W/CAP
104	334601.80	2284509.89	702.19	CP 5/8" IR W/CAP
105	336804.45	2284426.80	708.20	CP 5/8" IR W/CAP
106	339475.89	2284355.38	713.68	CP 5/8" IR W/CAP
107	344078.21	2284252.53	707.73	CP 5/8" IR W/CAP
108	345854.02	2284169.40	712.64	CP 5/8" IR W/CAP
109	347924.00	2284120.10	724.22	CP 5/8" IR W/CAP
110	353683.46	2283924.82	746.40	CP 5/8" IR W/CAP
111	355976.19	2283946.93	752.61	CP 5/8" IR W/CAP
112	358752.18	2283764.53	756.87	CP 5/8" IR W/CAP
113	361415.50	2283693.30	756.94	CP 5/8" IR W/CAP
114	366725.34	2283570.62	769.49	CP 5/8" IR W/CAP
115	369376.61	2283633.56	766.22	CP 5/8" IR W/CAP
116	371464.12	2283541.11	770.81	CP 5/8" IR W/CAP
117	374021.86	2283489.00	772.68	CP 5/8" IR W/CAP
118	374117.64	2283458.78	774.83	CP 5/8" IR W/CAP
119	375907.17	2283343.66	771.18	CP 5/8" IR W/CAP
120	376420.49	2283321.24	769.62	CP 5/8" IR
121	377731.16	2283357.86	762.92	CP 5/8" IR W/CAP
122	382680.80	2283194.52	771.68	CP 5/8" IR W/CAP
123	385469.61	2283143.29	763.23	CP 5/8" IR W/CAP
124	390399.79	2281979.70	754.04	CP 5/8" IR W/CAP
125	392655.85	2281861.82	751.01	CP 5/8" IR W/CAP
126	394487.71	2281466.83	708.94	CP 5/8" IR W/CAP
127	396311.19	2280761.35	678.34	CP 5/8" IR W/CAP
128	401700.27	2278857.10	730.79	CP 5/8" IR W/CAP
129	405618.26	2278976.98	718.00	CP 5/8" IR W/CAP

HORIZONTAL CONTROL (CONT.)

Point	North	East	Elevation	Description
130	407463.91	2279240.16	728.87	CP 1/2" IR
131	408635.16	2279408.93	726.80	CP 1/2" IR
132	409819.08	2279519.10	716.00	CP 1/2" IR

VERTICAL CONTROL

Point	North	East	Elevation	Description
508	316706.83	2290897.26	648.46	BM CUT "X" IN HDWL OVER CMP
515	322181.17	2288400.38	611.47	BM CUT "X" IN RCB
516	322598.16	2288093.15	617.83	BM CUT "X" IN RCP
518	324312.31	2287678.08	681.26	BM FROST NAIL W. SIDE BRACE POST
519	324817.31	2287234.72	682.98	BM R.R. SPIKE IN E. SIDE OF P.P.
520	325589.15	2286781.37	686.33	BM R.R. SPIKE IN E. SIDE OF P.P.
521	326572.90	2286120.43	690.21	BM BALL OF R.R. RAIL
522	327535.14	2285399.89	699.08	BM 60d SPIKE IN S. SIDE OF P.P.
524	328269.77	2284814.28	698.29	BM BALL OF R.R. RAIL
527	329592.47	2284655.35	695.80	BM BALL OF R.R. RAIL
529	330915.69	2284619.68	697.05	BM R.R. SPIKE IN N. SIDE OF P.P.
530	332259.24	2284405.97	699.77	BM 60d SPIKE IN E. SIDE OF ANGLE POST
532	333576.62	2284431.14	704.10	BM BALL OF R.R. RAIL
533	333578.86	2284551.34	704.61	BM BALL OF R.R. RAIL
534	334809.54	2284523.95	705.61	BM R.R. SPIKE IN E. SIDE OF P.P.
536	336107.10	2284555.67	707.40	BM 60d SPIKE IN W. SIDE TEL. PAD POST
538	337518.18	2284350.66	704.33	BM BRASS DISK IN HDWL
540	338785.78	2284387.82	713.87	BM R.R. SPIKE IN W. SIDE OF P.P.
542	340117.92	2284230.11	714.82	BM BALL OF R.R. RAIL
544	341522.82	2284325.53	718.31	BM CONC. MON. WITH IR
552	342095.54	2284213.09	705.11	BM BRASS DISK IN HDWL
554	343280.93	2284267.10	712.42	BM BALL OF R.R. RAIL
556	343904.57	2284146.97	699.50	BM BRASS DISK IN HDWL
558	344465.65	2284248.49	704.59	BM R.R. SPIKE IN E. SIDE OF P.P.
560	345244.08	2284217.70	719.99	BM R.R. SPIKE IN E. SIDE OF P.P.
564	346815.50	2284093.38	714.31	BM BRASS DISK IN HDWL
566	348012.86	2284030.98	728.30	BM NAIL IN E. SIDE OF CORNER POST
569	349436.84	2283995.81	733.35	BM BALL OF R.R. RAIL
571	350769.02	2283962.62	739.96	BM BALL OF R.R. RAIL
572	352071.97	2283871.80	743.42	BM R.R. SPIKE IN N. SIDE OF FENCE POST
574	353585.44	2284014.35	748.14	BM R.R. SPIKE IN W. SIDE OF BRACE POST
576	354750.93	2283987.54	752.10	BM R.R. SPIKE IN SW. SIDE OF CORNER POST
577	354751.37	2283877.77	752.90	BM BALL OF R.R. RAIL
581	357485.65	2283779.98	756.63	BM CONC. MON.
586	360061.50	2283831.08	758.81	BM 60d SPIKE IN W. SIDE OF CORNER POST
588	361494.65	2283793.45	758.67	BM 60d SPIKE IN W. SIDE TEL. PAD POST
590	362710.87	2283774.19	763.04	BM R.R. SPIKE IN N. SIDE OF FENCE POST
594	365140.84	2283625.21	761.13	BM BRASS DISK IN HDWL
598	367810.30	2283671.74	770.54	BM 60d SPIKE IN NW. SIDE OF ANGLE POST
599	367920.84	2283477.93	770.33	BM R.R SPIKE IN N. SIDE OF P.P.
602	369697.78	2283528.85	754.61	BM BRASS DISK IN HDWL
605	370602.31	2283484.25	770.18	BM CONC. MON.
606	372130.27	2283545.92	773.43	BM R.R SPIKE IN P.P.
610	374651.15	2283370.38	778.55	BM "X" ON S. BOLT OF F.H.
620	377532.38	2283367.95	768.27	BM R.R. SPIKE IN W. SIDE OF P.P.
622	378403.13	2283322.54	767.38	BM CUT "X" ON RCBC
623	378450.70	2283271.69	767.32	BM BRASS DISK ON RCBC
624	379824.95	2283314.48	770.69	BM 60d SPIKE IN S. SIDE OF CORNER POST
628	382377.40	2283116.62	774.62	BM R.R. SPIKE IN W. SIDE OF P.P.
630	383555.80	2283091.60	774.76	BM R.R. SPIKE IN E. SIDE OF P.P.
632	385116.33	2283036.43	767.73	BM 60d SPIKE IN E. SIDE OF CORNER POST
634	386458.97	2283000.15	761.87	BM 60d SPIKE IN E. SIDE OF BRACE POST
636	387708.55	2282965.66	758.15	BM 60d SPIKE IN E. SIDE OF BRACE POST
637	387720.82	2283084.71	756.84	BM BALL OF R.R. RAIL
638	388688.45	2282573.55	739.27	BM BRASS DISK IN HDWL
640	389335.48	2282033.49	754.26	BM R.R SPIKE IN W. SIDE OF P.P.
644	391731.57	2281915.29	752.69	BM 60d SPIKE IN W. SIDE OF BRACE POST
646	392751.49	2281867.14	753.40	BM 60d SPIKE IN W. SIDE OF BRACE POST
648	393852.48	2281701.54	749.28	BM 60d SPIKE IN W. SIDE OF BRACE POST
650	394945.29	2281289.33	696.63	BM BRASS DISK SE. CORNER OF BRIDGE
654	397757.46	2279654.43	741.82	BM R.R SPIKE IN E. SIDE OF P.P.
656	398633.69	2279420.32	739.68	BM R.R SPIKE IN W. SIDE OF P.P.
658	399598.00	2279180.99	735.98	BM R.R SPIKE P.P.
660	400341.81	2278764.86	722.33	BM CUT "X" IN HDWL
661	400547.58	2278879.34	731.15	BM R.R. SPIKE IN S. SIDE OF P.P.
662	401576.00	2278881.44	724.88	BM CUT "X" IN RCP FES
664	402606.87	2279021.13	716.24	BM CUT "X" IN RCP FES
666	404246.34	2279039.68	725.74	BM R.R SPIKE P.P.
668	405610.37	2278998.89	712.51	BM CUT "X" IN FES

VERTICAL CONTROL (CONT.)

Point	North	East	Elevation	Description
670	406505.75	2279025.91	719.20	BM CUT "X" IN FES
701	317340.23	2294847.55	557.07	BM CUT "X" ON INTAKE
702	320824.08	2294002.67	685.81	BM GEAR SPIKE IN P.P.
703	320386.60	2291489.95	586.64	BM GEAR SPIKE IN P.P.
704	318941.75	2289023.62	576.10	BM CUT "X" ON NW. BRIDGE WALL
705	317673.33	2289785.23	583.05	BM GEAR SPIKE IN P.P.
706	321188.77	2288447.04	586.49	BM CUT "X" ON HDWL
707	323006.56	2287829.86	651.24	BM GEAR SPIKE IN P.P.
708	356053.57	2283951.04	755.94	BM "X" ON BOLT OF F.H.
709	358753.12	2283872.23	758.90	BM GEAR SPIKE IN BRACE POST
710	364079.45	2283702.32	759.45	BM CUT "X" ON CULVERT
711	366745.55	2283685.87	770.54	BM GEAR SPIKE IN BRACE POST
712	368849.24	2283641.33	770.49	BM GEAR SPIKE IN P.P.
713	372863.05	2283529.37	774.78	BM GEAR SPIKE IN P.P.
714	373640.88	2283565.74	776.91	BM "X" ON BOLT OF F.H.
715	375885.53	2283408.64	773.65	BM GEAR SPIKE IN P.P.
716	375775.63	2282050.02	775.82	BM GEAR SPIKE IN FENCE POST
717	375775.22	2281366.75	772.87	BM CUT "X" ON CULVERT
718	381102.31	2283333.12	773.91	BM GEAR SPIKE IN P.P.
719	390380.54	2281865.10	756.81	BM GEAR SPIKE IN BRACE POST
720	396636.28	2280484.96	682.58	BM CUT "X" ON BRIDGE WALL
721	410516.75	2279626.40	699.92	BM CUT "X" ON E END 48" CONC PIPE
725	409331.77	2288093.80	636.95	BM NGS 446
730	373423.75	2294123.68	766.96	BM CONC MON RWM20
731	394379.79	2279854.42	747.68	BM GEAR SPIKE IN P.P.

HORIZONTAL CONTROL MONUMENTS

Point	North	East	Elevation	Description
99236	313485.39	2279200.49	0.00	CP DM CO GPS 99-236
99238	338732.07	2277389.66	0.00	CP DM CO GPS 99-238
99240	357602.22	2276008.71	0.00	CP DM CO GPS 99-240
99242	378910.75	2275330.96	0.00	CP DM CO GPS 99-242
99244	399440.14	2275016.23	0.00	CP DM CO GPS 99-244
99249	315171.61	2292424.08	0.00	CP DM CO GPS 99-249
99251	336206.60	2287765.76	0.00	CP DM CO GPS 99-251
99253	357466.16	2291248.64	0.00	CP DM CO GPS 99-253
99255	379869.39	2293947.62	0.00	CP DM CO GPS 99-255
99257	399885.77	2294557.13	0.00	CP DM CO GPS 99-257
99259	325304.84	2305476.11	0.00	CP DM CO GPS 99-259
200633	415630.45	2290117.08	0.00	CP LOUISA CO GPS 2006-33
200634	415599.02	2274858.29	0.00	CP LOUISA CO GPS 2006-34

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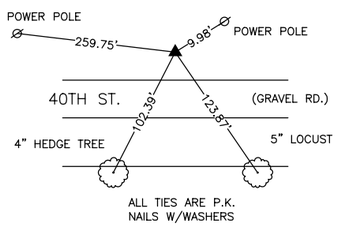
CONTROL MONUMENT
LOUISA CO. 2006–33

N: 415630.45 E: 2290117.08 EL. 0.00

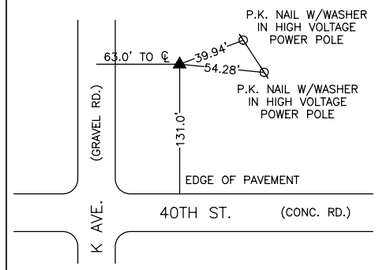
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX 29.6' NORTH OF CENTERLINE



CONTROL MONUMENT
LOUISA CO. 2006–34

N: 415599.02 E: 2274858.29 EL. 0.00

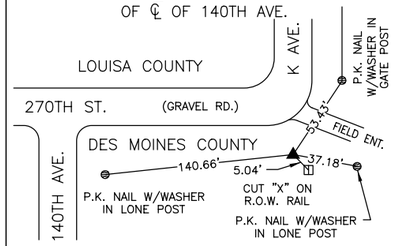
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX



CONTROL MONUMENT
DES MOINES CO. 99–244

N: 399440.14 E: 2275016.23 EL. 0.00

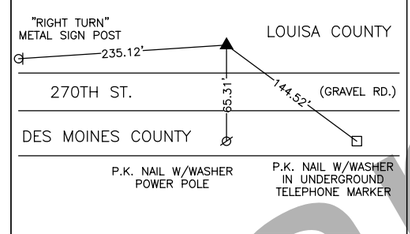
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX 29.0' SOUTH OF ℄ OF 270TH ST. & 160' EAST OF ℄ OF 140TH AVE.



CONTROL MONUMENT
DES MOINES CO. 99–257

N: 399885.77 E: 2294557.13 EL. 0.00

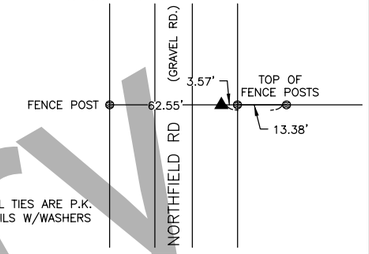
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX



CONTROL MONUMENT
DES MOINES CO. 99–255

N: 379869.39 E: 2293947.62 EL. 0.00

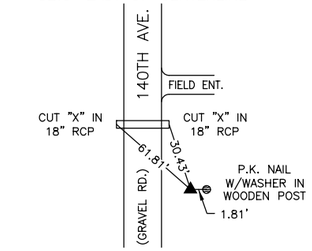
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX 31.0' EAST OF CENTERLINE



CONTROL MONUMENT
DES MOINES CO. 99–242

N: 378910.75 E: 2275330.96 EL. 0.00

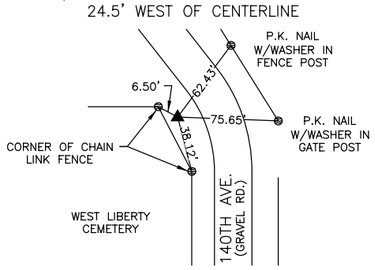
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX 32.0' EAST OF CENTERLINE



CONTROL MONUMENT
DES MOINES CO. 99–240

N: 357602.22 E: 2276008.71 EL. 0.00

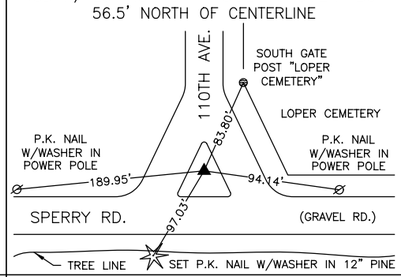
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX 24.5' WEST OF CENTERLINE



CONTROL MONUMENT
DES MOINES CO. 99–253

N: 357466.16 E: 2291248.64 EL. 0.00

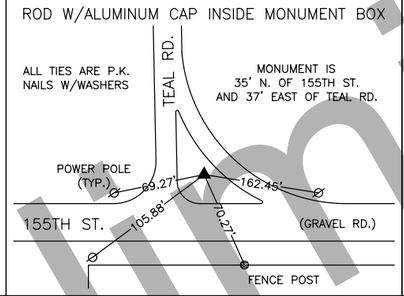
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX 56.5' NORTH OF CENTERLINE



CONTROL MONUMENT
DES MOINES CO. 99–238

N: 338732.07 E: 2277389.66 EL. 0.00

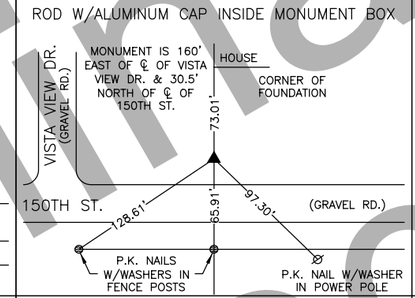
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX



CONTROL MONUMENT
DES MOINES CO. 99–251

N: 336206.60 E: 2287765.76 EL. 0.00

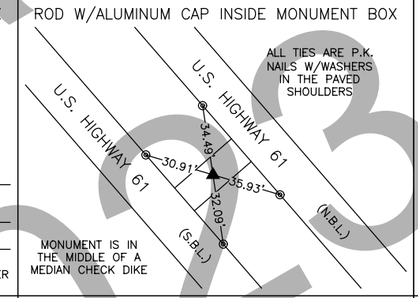
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX



CONTROL MONUMENT
DES MOINES CO. 99–249

N: 315171.61 E: 2292424.08 EL. 0.00

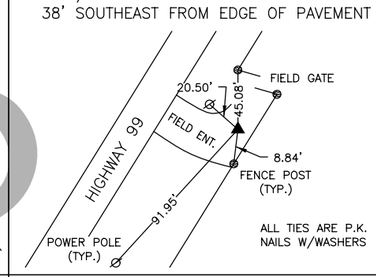
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX



CONTROL MONUMENT
DES MOINES CO. 99–259

N: 325304.84 E: 2305476.11 EL. 0.00

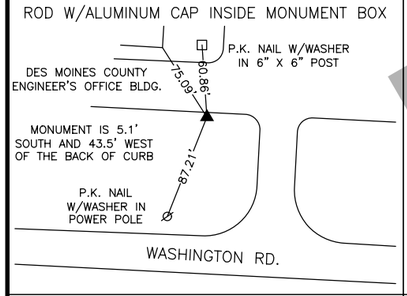
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX 38' SOUTHEAST FROM EDGE OF PAVEMENT



CONTROL MONUMENT
DES MOINES CO. 99–236

N: 313485.39 E: 2279200.49 EL. 0.00

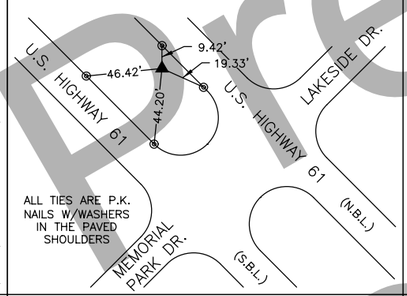
ROD W/ALUMINUM CAP INSIDE MONUMENT BOX



CONTROL POINT 10

N: 316565.66 E: 2290949.79 EL. 653.28

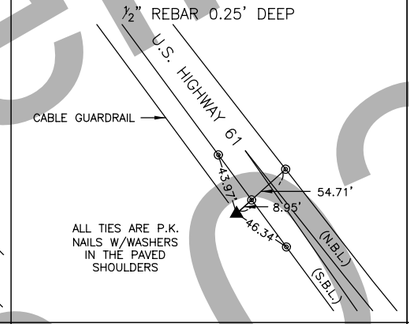
5/8" REBAR W/ALUMINUM CAP 0.5' DEEP



CONTROL POINT 11

N: 317319.97 E: 2290212.99 EL. 615.15

1/2" REBAR 0.25' DEEP

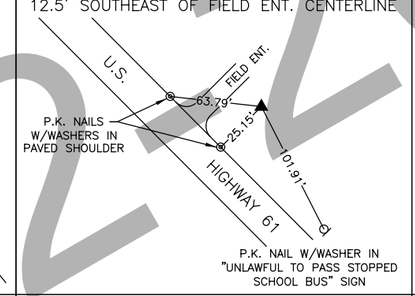


CONTROL POINT 12

N: 318446.49 E: 2289469.77 EL. 571.01

5/8" REBAR 0.25' DEEP

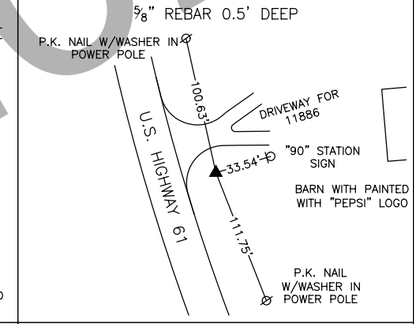
12.5' SOUTHEAST OF FIELD ENT. CENTERLINE



CONTROL POINT 13

N: 319644.91 E: 2288664.75 EL. 568.12

5/8" REBAR 0.5' DEEP

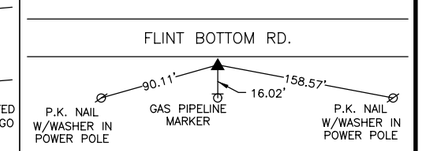


CONTROL POINT 14

N: 320278.11 E: 2287983.20 EL. 570.37

5/8" REBAR 1.0' DEEP

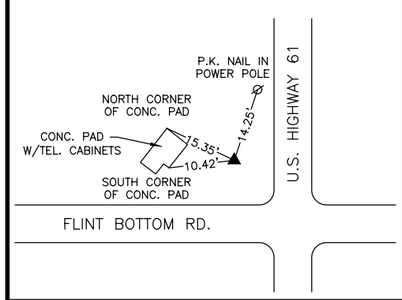
14'± SOUTH OF CENTERLINE



CONTROL POINT 15

N: 320370.58 E: 2288429.47 EL. 569.82

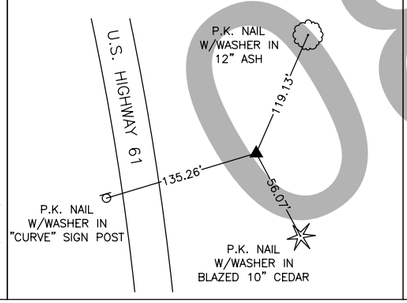
5/8" REBAR IN CONCRETE



CONTROL POINT 100

N: 321738.06 E: 2288570.42 EL. 0.00

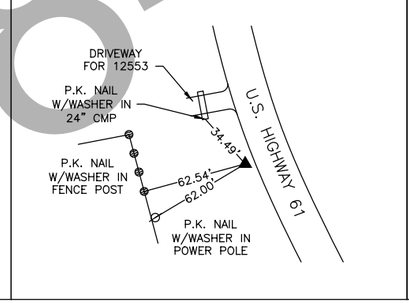
5/8" REBAR W/CAP 0.5' DEEP



CONTROL POINT 101

N: 323044.07 E: 2287878.96 EL. 643.35

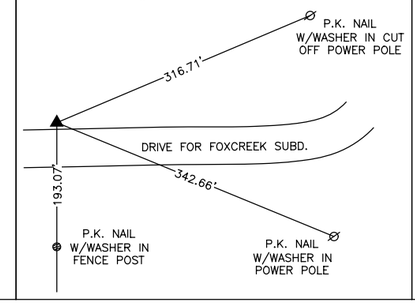
5/8" REBAR W/CAP 0.5' DEEP



CONTROL POINT 16

N: 323957.12 E: 2287382.86 EL. 0.00

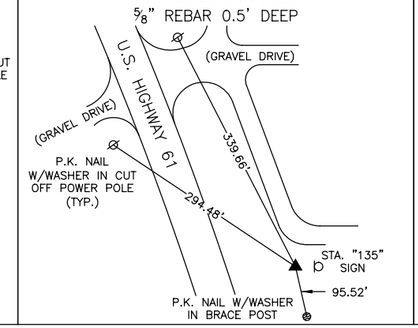
5/8" REBAR 0.5' DEEP



CONTROL POINT 17

N: 323995.18 E: 2287800.98 EL. 677.06

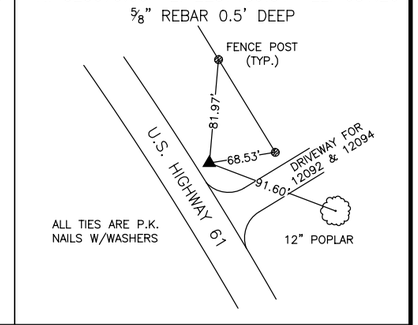
5/8" REBAR 0.5' DEEP



CONTROL POINT 18

N: 325079.06 E: 2287189.51 EL. 681.26

5/8" REBAR 0.5' DEEP



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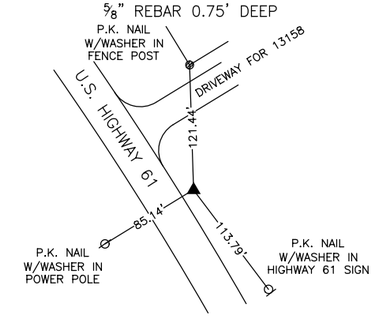
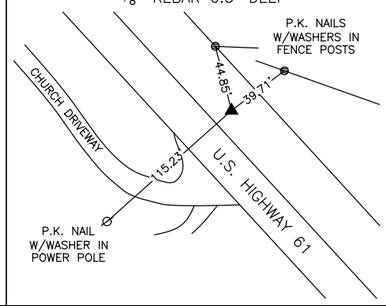
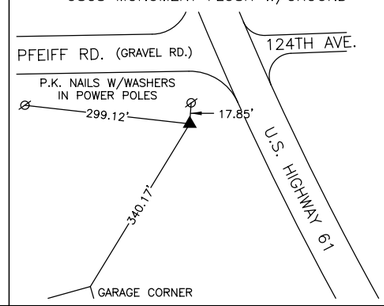
CONTROL POINT 19
N: 326383.07 E: 2286383.21 EL. 686.33
5/8" REBAR 0.75' DEEP



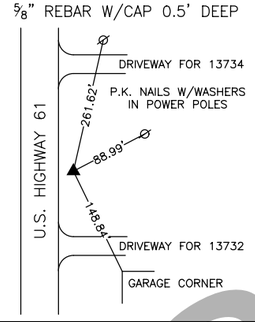
CONTROL POINT 20
N: 327128.52 E: 2285760.24 EL. 693.13
5/8" REBAR 0.5' DEEP



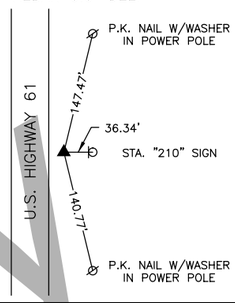
CONTROL POINT 21
N: 328217.60 E: 2284674.37 EL. 696.55
USGS MONUMENT FLUSH W/GROUND



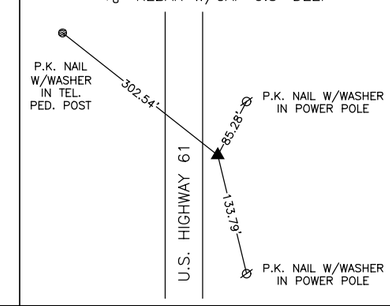
CONTROL POINT 102
N: 329355.92 E: 2284632.84 EL. 692.53
5/8" REBAR W/CAP 0.5' DEEP



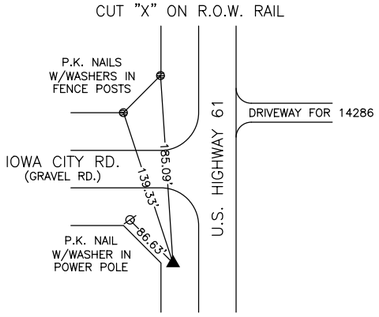
CONTROL POINT 22
N: 330490.16 E: 2284595.51 EL. 693.77
5/8" REBAR 0.5' DEEP



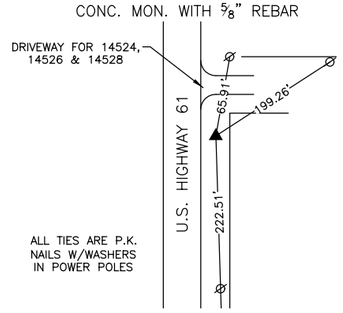
CONTROL POINT 103
N: 331269.82 E: 2284605.23 EL. 698.34
5/8" REBAR W/CAP 0.5' DEEP



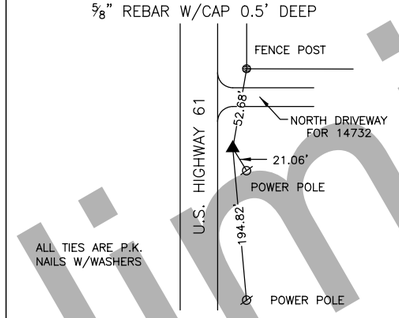
CONTROL POINT 23
N: 332134.41 E: 2284467.60 EL. 699.39
CUT "X" ON R.O.W. RAIL



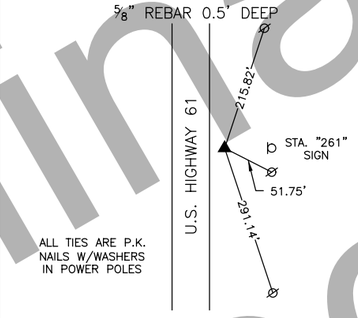
CONTROL POINT 24
N: 333512.68 E: 2284552.27 EL. 701.99
CONC. MON. WITH 5/8" REBAR



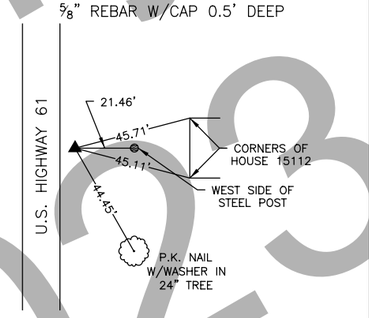
CONTROL POINT 104
N: 334601.80 E: 2284509.89 EL. 702.19
5/8" REBAR W/CAP 0.5' DEEP



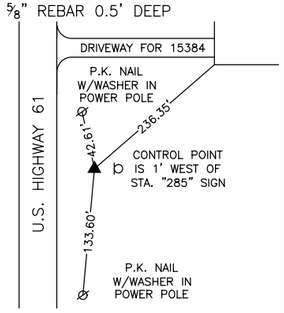
CONTROL POINT 25
N: 335585.92 E: 2284465.93 EL. 705.51
5/8" REBAR 0.5' DEEP



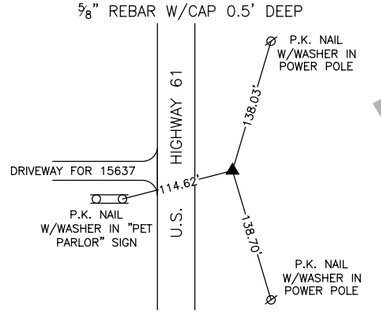
CONTROL POINT 105
N: 336804.45 E: 2284426.80 EL. 708.20
5/8" REBAR W/CAP 0.5' DEEP



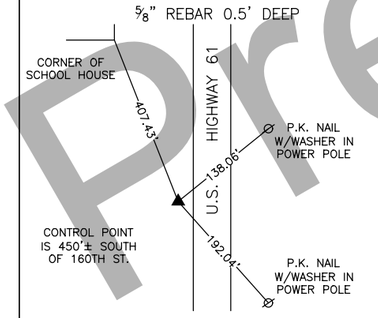
CONTROL POINT 26
N: 337984.93 E: 2284415.36 EL. 708.32
5/8" REBAR 0.5' DEEP



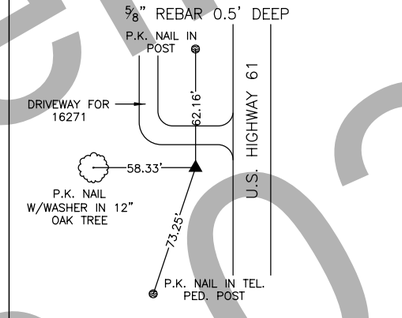
CONTROL POINT 106
N: 339475.89 E: 2284355.38 EL. 713.68
5/8" REBAR W/CAP 0.5' DEEP



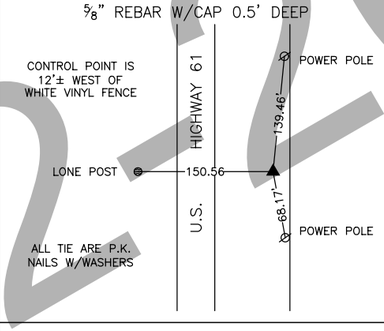
CONTROL POINT 27
N: 340978.93 E: 2284241.98 EL. 713.85
5/8" REBAR 0.5' DEEP



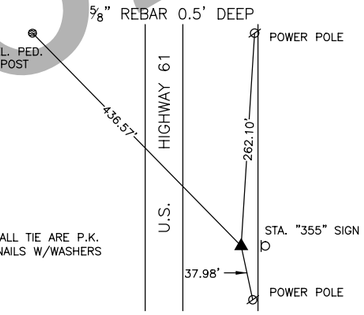
CONTROL POINT 28
N: 342777.37 E: 2284140.88 EL. 717.74
5/8" REBAR 0.5' DEEP



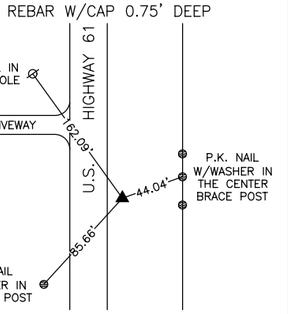
CONTROL POINT 107
N: 344078.21 E: 2284252.53 EL. 707.73
5/8" REBAR W/CAP 0.5' DEEP



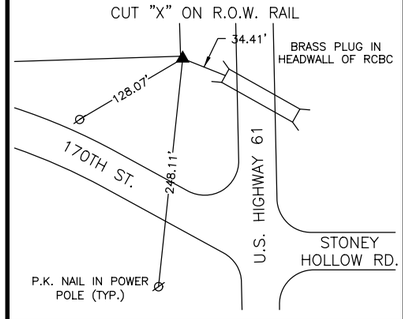
CONTROL POINT 29
N: 344981.61 E: 2284223.10 EL. 717.61
5/8" REBAR 0.5' DEEP



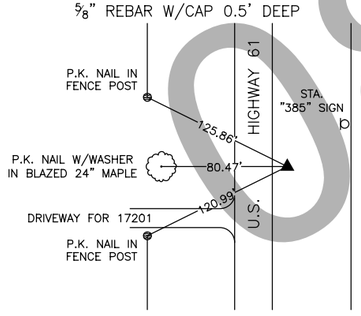
CONTROL POINT 108
N: 345854.02 E: 2284169.40 EL. 712.64
5/8" REBAR W/CAP 0.75' DEEP



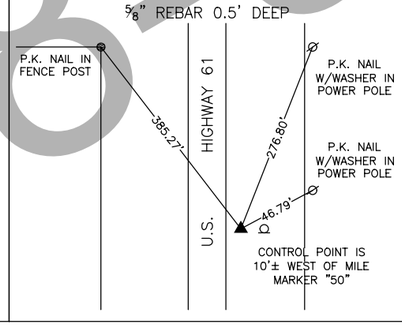
CONTROL POINT 30
N: 346827.67 E: 2284061.21 EL. 719.18
CUT "X" ON R.O.W. RAIL



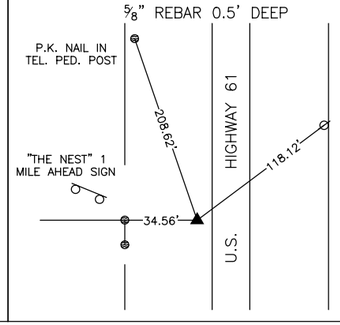
CONTROL POINT 109
N: 347924.00 E: 2284120.10 EL. 724.22
5/8" REBAR W/CAP 0.5' DEEP



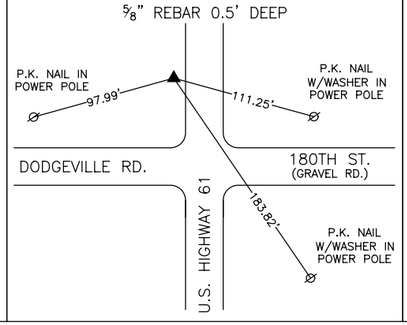
CONTROL POINT 31
N: 349067.67 E: 2284088.87 EL. 730.03
5/8" REBAR 0.5' DEEP



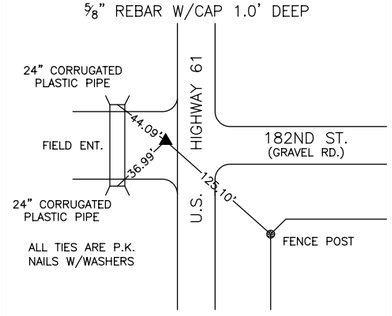
CONTROL POINT 32
N: 350770.10 E: 2283997.02 EL. 736.48
5/8" REBAR 0.5' DEEP



CONTROL POINT 33
N: 352181.14 E: 2283961.03 EL. 741.88
5/8" REBAR 0.5' DEEP



CONTROL POINT 110
N: 353683.46 E: 2283924.82 EL. 746.40
5/8" REBAR W/CAP 1.0' DEEP



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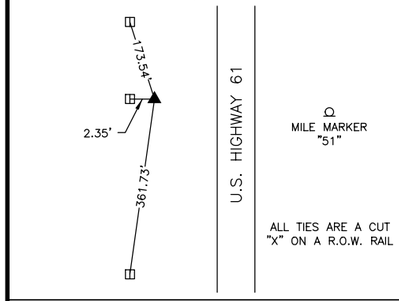
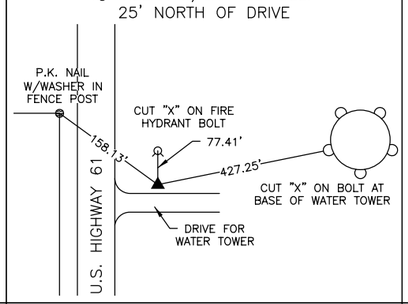
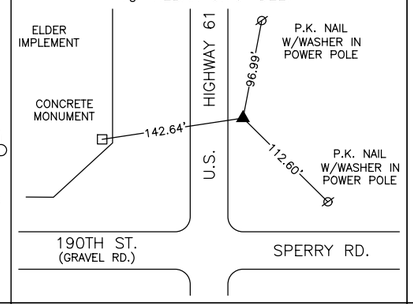
CONTROL POINT 34
N: 354450.91 E: 2283876.68 EL. 748.66
5/8" REBAR W/ALUMINUM CAP



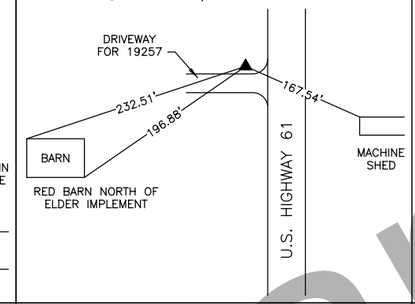
CONTROL POINT 111
N: 355976.19 E: 2283946.93 EL. 752.61
5/8" REBAR W/CAP 0.5' DEEP
25' NORTH OF DRIVE



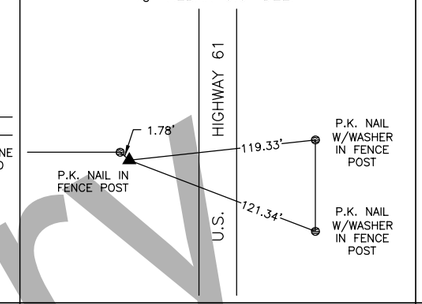
CONTROL POINT 35
N: 357594.25 E: 2283872.40 EL. 755.26
5/8" REBAR 0.75' DEEP



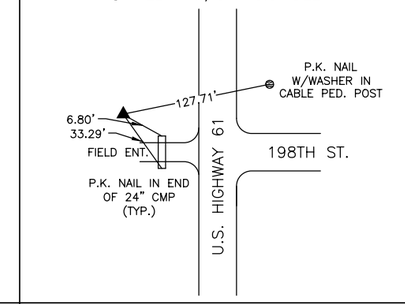
CONTROL POINT 112
N: 358752.18 E: 2283764.53 EL. 756.87
5/8" REBAR W/CAP 0.5' DEEP



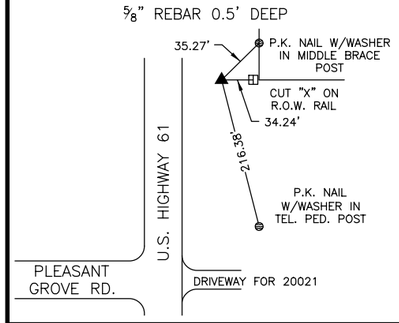
CONTROL POINT 36
N: 360061.44 E: 2283711.89 EL. 756.93
5/8" REBAR 0.5' DEEP



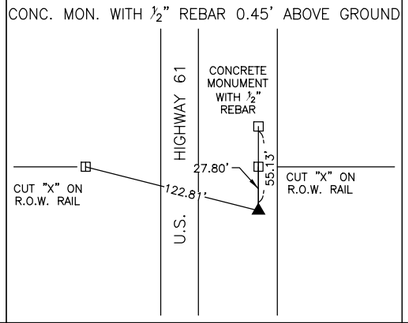
CONTROL POINT 113
N: 361415.50 E: 2283693.30 EL. 756.94
5/8" REBAR W/CAP 0.5' DEEP



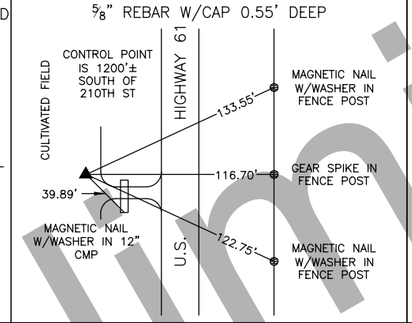
CONTROL POINT 37
N: 363164.70 E: 2283719.54 EL. 759.12
5/8" REBAR 0.5' DEEP



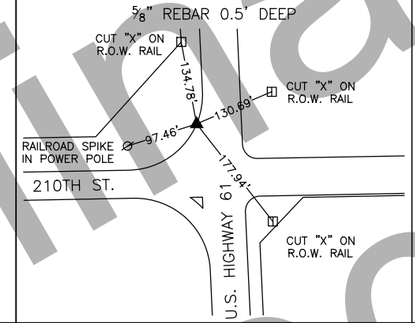
CONTROL POINT 38
N: 365358.82 E: 2283705.38 EL. 763.19
CONC. MON. WITH 1/2" REBAR 0.45' ABOVE GROUND



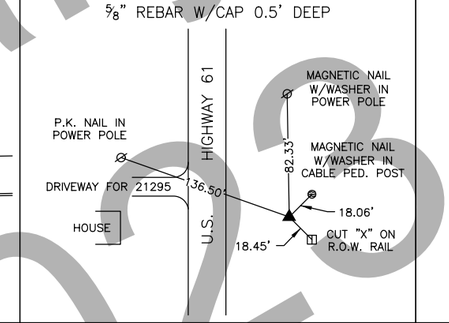
CONTROL POINT 114
N: 366725.34 E: 2283570.62 EL. 769.49
5/8" REBAR W/CAP 0.55' DEEP



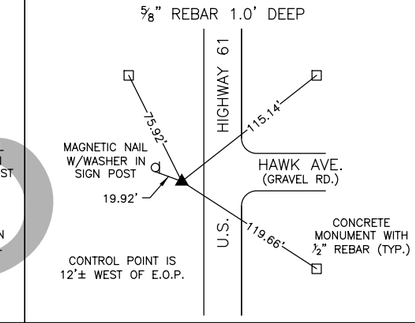
CONTROL POINT 39
N: 367956.49 E: 2283568.49 EL. 770.09
5/8" REBAR 0.5' DEEP



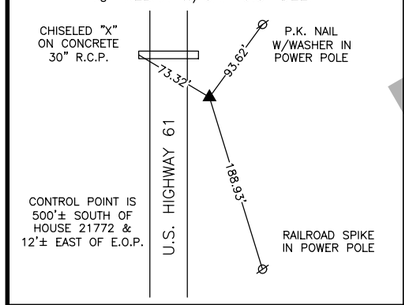
CONTROL POINT 115
N: 369376.61 E: 2283633.56 EL. 766.22
5/8" REBAR W/CAP 0.5' DEEP



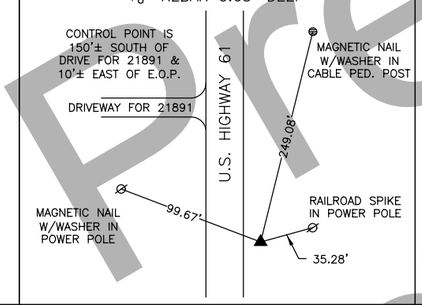
CONTROL POINT 40
N: 370533.13 E: 2283515.82 EL. 767.07
5/8" REBAR 1.0' DEEP



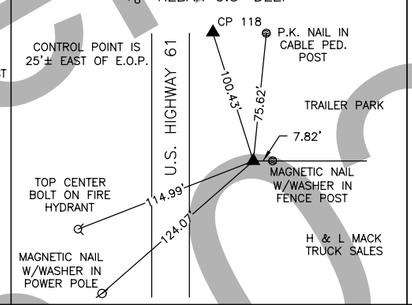
CONTROL POINT 116
N: 371464.12 E: 2283541.11 EL. 770.81
5/8" REBAR W/CAP 0.5' DEEP



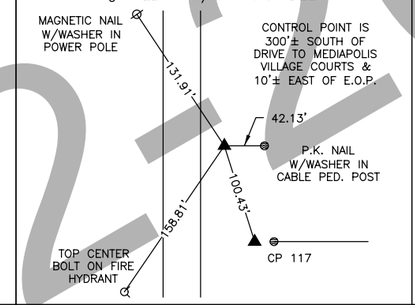
CONTROL POINT 41
N: 372470.68 E: 2283509.56 EL. 773.09
5/8" REBAR 0.65' DEEP



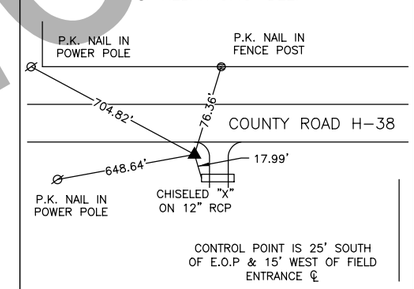
CONTROL POINT 117
N: 374021.86 E: 2283489.00 EL. 772.68
5/8" REBAR 0.5' DEEP



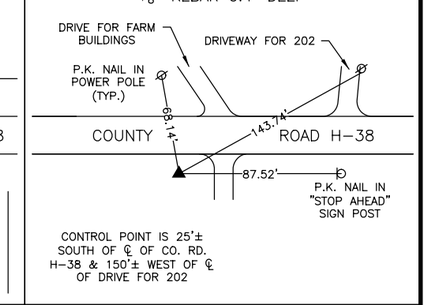
CONTROL POINT 118
N: 374117.64 E: 2283458.78 EL. 774.83
5/8" REBAR W/CAP 0.5' DEEP



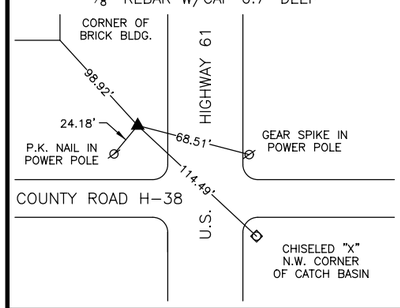
CONTROL POINT 42
N: 375793.19 E: 2281367.31 EL. 773.97
5/8" REBAR 0.45' DEEP



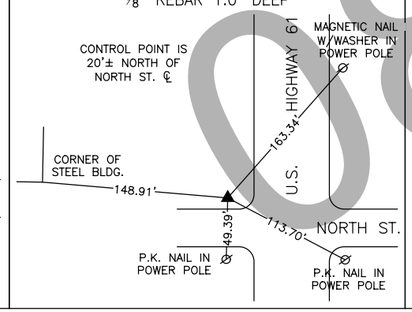
CONTROL POINT 43
N: 375806.57 E: 2282595.02 EL. 774.34
5/8" REBAR 0.4' DEEP



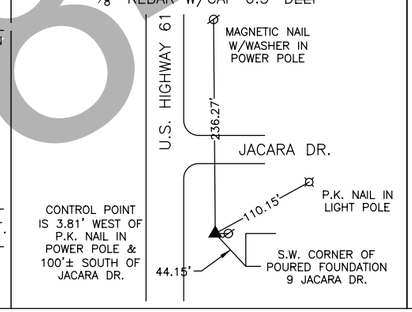
CONTROL POINT 119
N: 375907.17 E: 2283343.66 EL. 771.18
5/8" REBAR W/CAP 0.7' DEEP



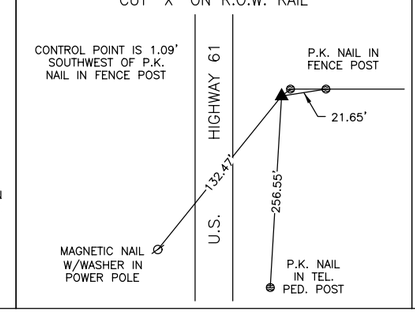
CONTROL POINT 120
N: 376420.49 E: 2283321.24 EL. 769.62
5/8" REBAR 1.0' DEEP



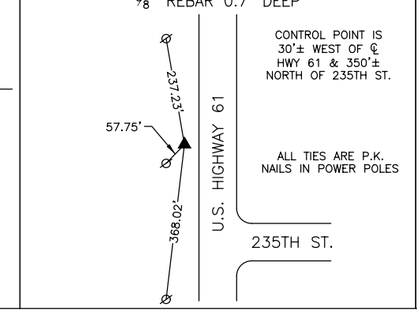
CONTROL POINT 121
N: 377731.16 E: 2283357.86 EL. 762.92
5/8" REBAR W/CAP 0.5' DEEP



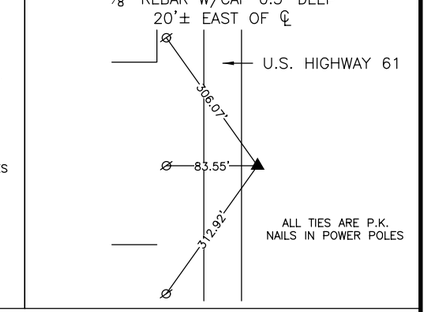
CONTROL POINT 44
N: 379824.12 E: 2283313.63 EL. 770.15
CUT "X" ON R.O.W. RAIL



CONTROL POINT 45
N: 381467.31 E: 2283176.63 EL. 772.02
5/8" REBAR 0.7' DEEP



CONTROL POINT 122
N: 382680.80 E: 2283194.52 EL. 771.68
5/8" REBAR W/CAP 0.5' DEEP
20'± EAST OF ℄



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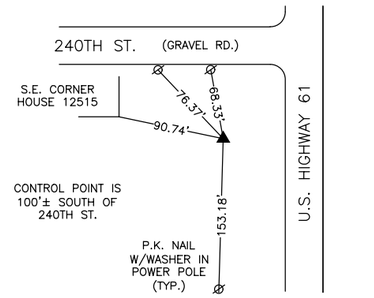
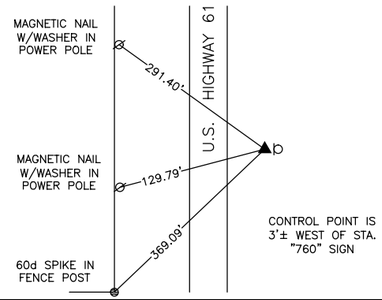
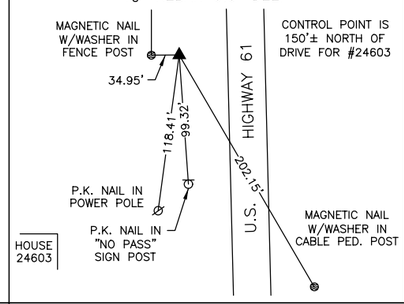
CONTROL POINT 46
N: 383709.46 E: 2283086.69 EL. 774.36
CONCRETE MONUMENT 0.6' DEEP



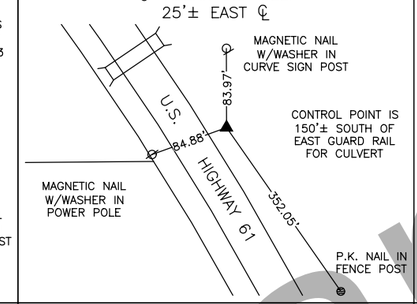
CONTROL POINT 123
N: 385469.61 E: 2283143.29 EL. 763.23
5/8" REBAR W/CAP 0.6' DEEP



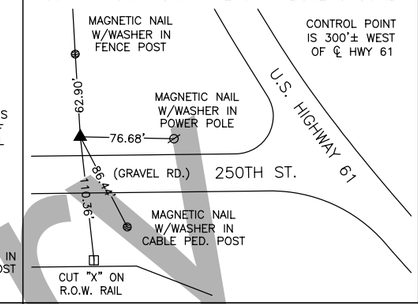
CONTROL POINT 47
N: 387152.02 E: 2283014.98 EL. 757.53
5/8" REBAR 0.5' DEEP



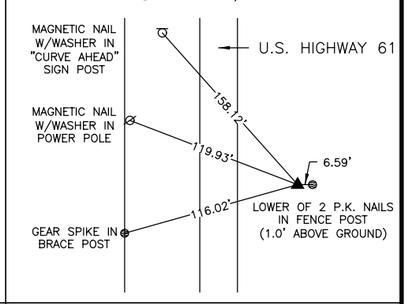
CONTROL POINT 48
N: 388442.31 E: 2282835.22 EL. 751.57
5/8" REBAR 0.5' DEEP
25'± EAST ℄



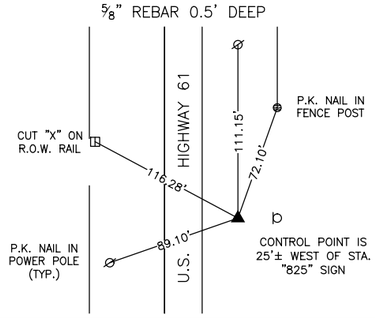
CONTROL POINT 49
N: 389095.02 E: 2281964.68 EL. 755.79
CUT "X" ON R.O.W. RAIL 0.1' ABOVE GROUND



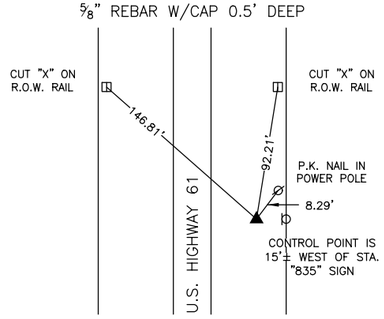
CONTROL POINT 124
N: 390399.79 E: 2281979.70 EL. 754.04
5/8" REBAR W/CAP



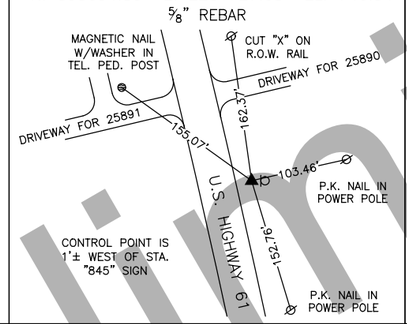
CONTROL POINT 50
N: 391654.27 E: 2281884.15 EL. 751.00
5/8" REBAR 0.5' DEEP



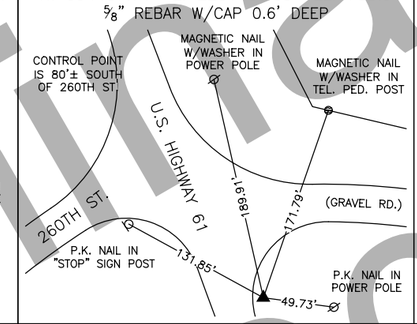
CONTROL POINT 125
N: 392655.85 E: 2281861.82 EL. 751.01
5/8" REBAR W/CAP 0.5' DEEP



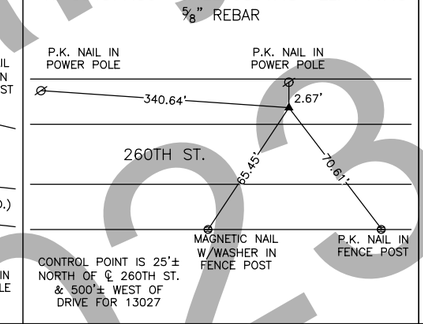
CONTROL POINT 51
N: 393694.80 E: 2281727.63 EL. 746.54
5/8" REBAR



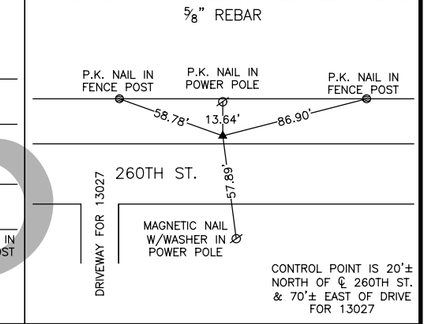
CONTROL POINT 126
N: 394487.71 E: 2281466.83 EL. 708.94
5/8" REBAR W/CAP 0.6' DEEP



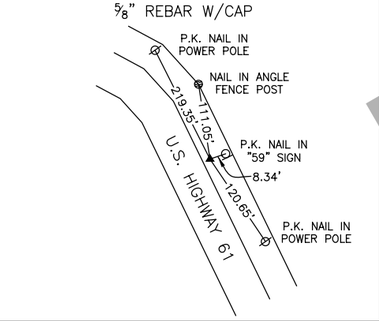
CONTROL POINT 52
N: 394377.56 E: 2279854.48 EL. 744.43
5/8" REBAR



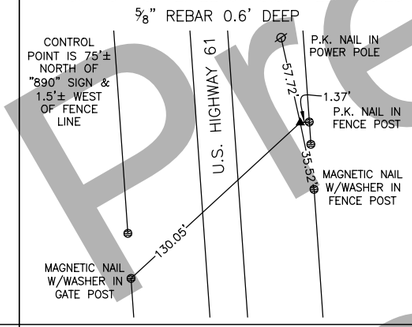
CONTROL POINT 53
N: 394375.10 E: 2280584.83 EL. 738.75
5/8" REBAR



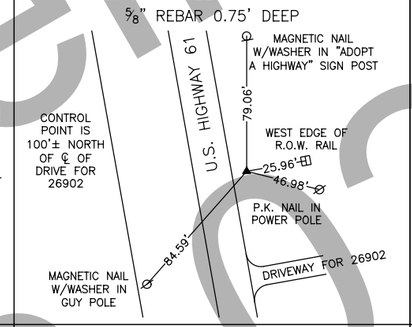
CONTROL POINT 127
N: 396311.19 E: 2280761.35 EL. 678.34
5/8" REBAR W/CAP



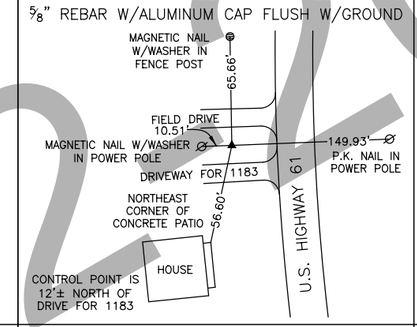
CONTROL POINT 54
N: 397704.15 E: 2279678.36 EL. 740.23
5/8" REBAR 0.6' DEEP



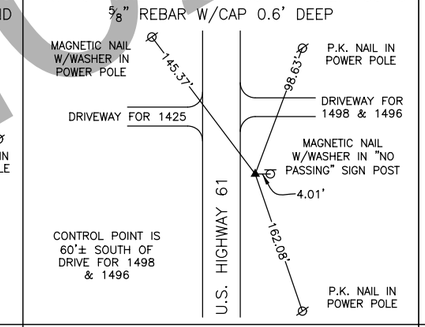
CONTROL POINT 55
N: 399123.67 E: 2279264.72 EL. 736.55
5/8" REBAR 0.75' DEEP



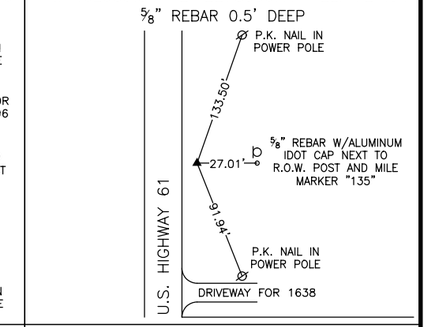
CONTROL POINT 56
N: 400548.52 E: 2278729.52 EL. 734.18
5/8" REBAR W/ALUMINUM CAP FLUSH W/GROUND



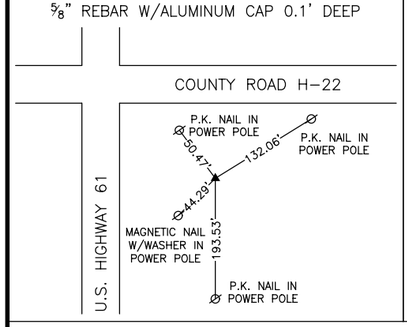
CONTROL POINT 128
N: 401700.27 E: 2278857.10 EL. 730.79
5/8" REBAR W/CAP 0.6' DEEP



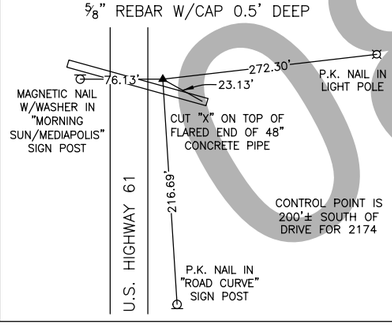
CONTROL POINT 57
N: 402939.54 E: 2278990.17 EL. 727.94
5/8" REBAR 0.5' DEEP



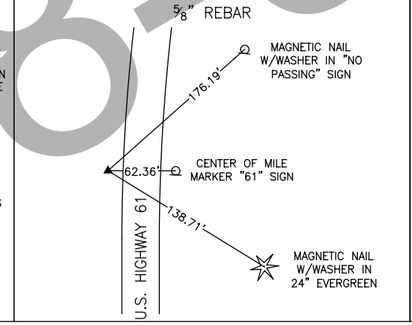
CONTROL POINT 58
N: 404687.79 E: 2279046.90 EL. 724.86
5/8" REBAR W/ALUMINUM CAP 0.1' DEEP



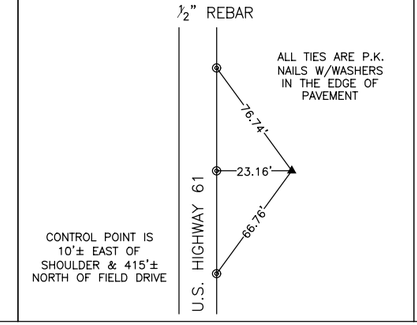
CONTROL POINT 129
N: 405618.26 E: 2278976.98 EL. 718.00
5/8" REBAR W/CAP 0.5' DEEP



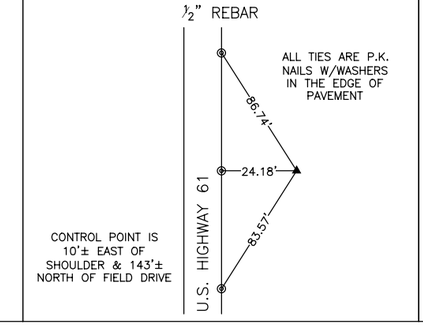
CONTROL POINT 59
N: 406278.76 E: 2278920.89 EL. 720.91
5/8" REBAR



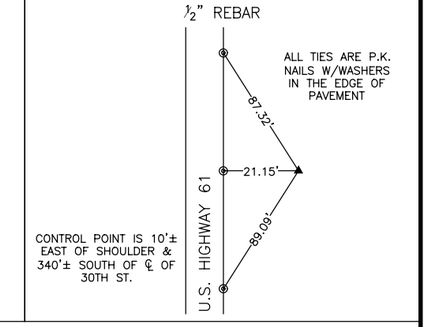
CONTROL POINT 130
N: 407463.91 E: 2279240.16 EL. 728.87
1/2" REBAR



CONTROL POINT 131
N: 408635.16 E: 2279408.93 EL. 726.80
1/2" REBAR



CONTROL POINT 132
N: 409819.08 E: 2279519.10 EL. 716.00
1/2" REBAR



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ALIGNMENT COORDINATES

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)
1	ML061	1620+00.00	359589.37	2283773.15															
2	ML061							1625+84.84	360173.20	2283807.62	1632+41.19	360828.41	2283846.31	1638+96.84	361484.61	2283832.51			
4	ML061							1730+21.30	370607.05	2283640.68	1735+86.91	371172.54	2283628.79	1741+38.02	371690.63	2283401.85			
6	ML061							1776+30.73	374889.88	2282000.49	1786+44.52	375818.49	2281593.73	1795+78.75	376795.38	2281864.78			
8	ML061							1844+64.86	381503.60	2283171.18	1850+08.67	382027.61	2283316.58	1855+44.32	382571.19	2283300.71			
9	ML061	1880+00.00	385025.83	2283229.05															
1	SRW210	11696+06.23	367882.27	2282996.70															
1	SRW210	11703+07.36	367893.71	2283697.74															
1	SRHAWK	11728+56.48	370541.18	2283542.01															
2	SRHAWK	11737+00.01	370550.51	2284385.48															
2	SRHAWK	11739+50.01	370555.92	2284635.42															
1	DETHAWK	51727+35.09	370438.94	2283523.24															
2	DETHAWK							51732+60.13	370451.49	2284048.13	51733+52.73	370453.71	2284140.71	51734+43.88	370483.73	2284228.31			
4	DETHAWK							51735+58.83	370521.00	2284337.04	51736+52.42	370551.34	2284425.58	51737+44.52	370553.27	2284519.16			
5	DETHAWK	51738+22.78	370554.89	2284597.40															
1	DET1	61728+32.89	370383.38	2283530.01															
2	DET1							61733+01.39	370851.67	2283516.08	61737+66.83	371316.90	2283502.23	61742+20.86	371743.24	2283315.49			
3	DET1	61746+38.12	372125.44	2283148.07															
1	SRH38	11770+60.55	375793.11	2280254.55															
2	SRH38	11774+17.92	375801.49	2280611.82															
3	SRH38							11779+03.49	375809.43	2281097.32	11781+27.15	375813.08	2281320.96	11783+50.74	375806.73	2281544.53			
4	SRH38							11783+50.74	375806.73	2281544.53	11785+74.40	375800.39	2281768.10	11787+97.99	375804.04	2281991.74			
6	SRH38							11793+35.12	375812.82	2282528.80	11795+28.71	375815.98	2282722.36	11797+22.19	375830.66	2282915.39			
7	SRH38							11797+22.19	375830.66	2282915.39	11798+51.53	375840.47	2283044.37	11799+80.80	375842.50	2283173.70			
8	SRH38	11803+99.68	375849.10	2283592.52															
1	RPAH38	21784+84.82	375809.99	2281384.56															
2	RPAH38							21788+29.05	376150.18	2281437.12	21791+61.02	376478.26	2281487.82	21794+86.99	376772.36	2281641.79			
4	RPAH38							21797+63.47	377017.30	2281770.02	21799+30.57	377165.35	2281847.52	21800+97.09	377323.04	2281902.81			
5	RPAH38	21802+25.00	377443.75	2281945.13															
1	RPBH38	31769+75.00	374327.74	2282351.45															
2	RPBH38							31771+06.96	374451.86	2282306.66	31773+99.63	374727.16	2282207.33	31776+89.18	375018.57	2282180.10			
3	RPBH38	31784+79.96	375805.92	2282106.55															
1	RPCH38	41769+99.00	374280.75	2282184.35															
2	RPCH38							41770+00.00	374281.65	2282183.94	41771+69.00	374435.07	2282113.04	41773+37.21	374574.42	2282017.41			
4	RPCH38							41778+75.56	375018.30	2281712.79	41782+31.28	375311.59	2281511.51	41785+79.64	375656.30	2281423.70			
5	RPCH38	41787+38.24	375809.99	2281384.56															
1	RPDH38	51786+24.95	375805.92	2282106.55															
2	RPDH38							51795+69.91	376748.92	2282045.76	51798+87.59	377065.94	2282025.32	51802+00.00	377373.69	2282104.12			
3	RPDH38	51802+01.00	377374.66	2282104.37															
1	EX061	300+00.00	371869.58	2283501.37															
2	EX061	313+29.29	373198.28	2283461.82															
3	EX061	326+53.22	374521.60	2283421.64															
4	EX061	339+78.05	375845.82	2283381.38															
5	EX061	353+04.74	377171.80	2283337.91															
6	EX061	366+31.43	378497.78	2283294.43															
6	EX061	392+84.44	381149.54	2283212.93															
1	SR235	235+00.00	380108.59	2283244.89															
2	SR235							237+12.79	380321.27	2283238.24	245+24.55	381132.64	2283212.91	249+81.10	381146.13	2284024.56			
3	SR235	253+12.40	381151.63	2284355.81															
1	DET2	61835+00.00	380588.84	2282859.24															
2	DET2							61839+39.32	381012.17	2282976.71	61846+99.84	381745.00	2283180.05	61854+48.79	382505.14	2283156.30			
3	DET2	61857+93.79	382849.98	2283145.53															
1	ENTL1678	10+00.00	365384.94	2283514.77															
1	ENTL1678	12+35.69	365386.68	2283750.45															
1	ENTR11706	20+00.00	367903.09	2283986.94															
1	ENTR11706	20+95.52	367807.59	2283988.95															
1	ENTL11706	10+00.00	367903.09	2283986.94															
1	ENTL11706	11+00.00	368003.07	2283984.84															
1	ENTL11698	10+00.00	367886.92	2283281.36															
2	ENTL11698	10+12.27	367899.18	2283281.16															
3	ENTL11698							13+24.06	368110.33	2283510.57	13+37.69	368119.57	2283520.60	13+49.65	368133.20	2283520.24			
4	ENTL11698	16+11.31	368394.76	2283513.33															
1	ENTL1718	10+00.00	369394.08	2283424.57															
1	ENTL1718	12+41.56	369399.16	2283666.08															
1	ENTR51734	10+00.00	370478.04	2284210.85															

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ALIGNMENT COORDINATES

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)
1	ENTR51734	10+84.97	370396.86	2284235.92															
1	ENTR11735	10+00.00	370548.53	2284206.49															
1	ENTR11735	10+58.09	370490.45	2284207.13															
1	ENTL11735	10+00.00	370606.55	2284205.85															
1	ENTL11735	10+58.02	370548.53	2284206.49															
1	ENTL1729	10+00.00	370539.41	2283443.46															
1	ENTL1729	11+98.60	370542.29	2283642.04															
1	ENTLA1729	20+00.00	370510.62	2283405.78															
2	ENTLA1729							20+61.36	370511.52	2283467.13	20+86.36	370511.88	2283492.13	21+00.63	370536.88	2283491.77			
3	ENTLA1729	21+03.86	370540.11	2283491.72															
1	EntLB1729	30+00.00	370855.80	2283343.21															
2	EntLB1729							30+72.19	370783.76	2283338.56	30+93.20	370762.80	2283337.21	31+13.71	370743.81	2283328.23			
4	EntLB1729							31+15.80	370741.91	2283327.33	31+42.87	370717.45	2283315.76	31+68.88	370690.40	2283316.86			
6	EntLB1729							32+70.56	370588.81	2283321.00	32+89.86	370569.52	2283321.78	33+01.27	370569.62	2283341.09			
8	EntLB1729							34+26.70	370570.27	2283466.51	34+51.46	370570.40	2283491.28	34+65.73	370545.64	2283491.64			
9	EntLB1729	34+71.26	370540.11	2283491.72															
1	ENTR1744	+00.00	372089.76	2283494.81															
2	ENTR1744							+72.37	372091.90	2283567.15	+97.54	372092.64	2283592.31	1+11.81	372067.47	2283592.88			
3	ENTR1744	2+54.45	371924.88	2283596.12															
1	ENTL11799	10+00.00	375942.00	2283145.72															
1	ENTL11799	11+00.00	375842.02	2283147.90															
1	ENTR11799	10+00.00	375841.49	2283125.91															
1	ENTR11799	11+00.00	375741.52	2283128.59															
1	ENTL11798	10+00.00	375939.33	2283060.84															
1	ENTL11798	11+00.00	375839.41	2283064.94															
1	EntR11796	+00.00	375825.62	2282843.89															
1	EntR11796	+81.99	375743.80	2282849.21															
1	EntL11796	10+00.00	375906.89	2282838.61															
1	EntL11796	10+81.45	375825.62	2282843.89															
1	EntL11795	10+00.00	375937.36	2282716.39															
1	EntL11795	11+18.65	375818.85	2282722.04															
1	EntR11775	100+00.00	375744.48	2280742.52															
2	EntR11775	100+24.25	375768.64	2280744.50															
2	EntR11775	100+59.43	375803.71	2280747.38															
1	ENTL11775	105+62.78	375803.86	2280756.67															
2	ENTL11775							131+40.72	378380.35	2280670.52	132+17.06	378456.66	2280667.97	132+59.86	378457.85	2280744.31			
3	ENTL11775	145+73.25	378478.41	2282057.53															
1	ENTR11774	90+22.01	374386.42	2280759.78															
2	ENTR11774							100+41.62	375405.54	2280728.53	100+81.93	375445.84	2280727.29	101+21.18	375482.51	2280710.55			
4	ENTR11774							102+21.25	375573.53	2280668.97	102+61.56	375610.20	2280652.22	103+00.81	375650.50	2280650.99			
5	ENTR11774	104+52.44	375802.05	2280646.34															
1	ENTL11773	10+00.00	375889.30	2280586.83															
1	ENTL11773	10+88.38	375800.95	2280588.91															
1	EntL11772	10+00.00	375877.54	2280429.41															
1	EntL11772	10+80.30	375797.26	2280431.29															
1	EntL359	10+00.00	377838.15	2283241.95															
1	EntL359	10+74.07	377840.55	2283315.98															
1	EntL368	10+00.00	378663.90	2283212.42															
1	EntL368	10+76.87	378666.27	2283289.25															
1	RETCSR210							30+00.00	367836.41	2283764.96	30+50.00	367886.40	2283763.91	30+78.54	367887.45	2283813.89			
1	RETDSR210							40+00.00	367960.38	2283762.35	40+50.00	367910.39	2283763.40	40+78.54	367911.44	2283813.39			
1	RETCSRHAWK							30+00.00	370480.53	2283709.36	30+24.08	370504.61	2283708.85	30+44.88	370520.01	2283727.36			
2	RETCSRHAWK							30+44.88	370520.01	2283727.36	30+62.66	370531.38	2283741.02	30+79.04	370531.58	2283758.79			
1	RETDSRHAWK							40+00.00	370555.56	2283757.29	40+49.50	370555.02	2283707.79	40+78.04	370604.51	2283706.75			
1	RETCEx61							6+00.00	375832.62	2283308.13	6+49.13	375833.39	2283357.25	6+77.66	375784.29	2283358.89			
2	RETCEx61	6+79.66	375784.36	2283360.88															
1	RetBEx61							7+00.00	375855.09	2283211.10	7+50.26	375855.89	2283261.35	8+00.00	375869.09	2283309.85			
2	RetBEx61							8+00.00	375869.09	2283309.85	8+47.46	375881.55	2283355.64	8+80.30	375928.98	2283354.06			
3	RetBEx61	8+82.30	375929.05	2283356.06															
1	RETDRPBH38							40+00.00	375632.36	2282134.82	40+45.15	375677.32	2282130.62	40+90.00	375722.21	2282135.43			

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ALIGNMENT COORDINATES

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)
2	RETDRPBH38							40+90.00	375722.21	2282135.43	41+28.71	375760.70	2282139.56	41+57.46	375769.80	2282177.19			
3	RETDRPBH38							41+57.46	375769.80	2282177.19	42+37.73	375788.67	2282255.21	43+17.46	375791.67	2282335.42			
1	RETARPDH38							10+00.00	376000.19	2282094.42	10+56.74	375943.56	2282097.95	11+13.00	375889.16	2282114.09			
2	RETARPDH38							11+13.00	375889.16	2282114.09	11+65.91	375838.43	2282129.14	12+03.61	375839.07	2282182.04			
1	RETCRPBH38							30+00.00	375784.93	2282046.08	30+46.30	375785.68	2282092.37	30+74.70	375739.58	2282096.68			
1	RETBRPDH38							20+00.00	375824.57	2282024.03	20+41.13	375825.24	2282065.16	20+68.84	375865.73	2282072.43			
2	RETBRPDH38							20+68.84	375865.73	2282072.43	21+29.13	375925.07	2282083.08	21+88.84	375985.24	2282079.32			
1	RETDRPCH38							40+00.00	375588.74	2281458.85	40+75.39	375661.05	2281437.53	41+50.00	375736.40	2281434.75			
2	RETDRPCH38							41+50.00	375736.40	2281434.75	42+03.06	375789.42	2281432.80	42+31.51	375788.22	2281485.85			
1	RETARPAH38							10+00.00	375886.39	2281412.55	10+57.15	375829.90	2281403.82	10+85.21	375828.76	2281460.96			
1	RETCRPCH38							30+00.00	375778.61	2281314.87	30+57.48	375778.30	2281372.35	31+02.31	375726.02	2281396.24			
2	RETCRPCH38							31+02.31	375726.02	2281396.24	31+52.42	375680.44	2281417.07	32+02.31	375632.03	2281430.05			
1	RETBRPAH38							20+00.00	375830.22	2281170.73	20+13.04	375830.36	2281183.77	20+26.08	375830.46	2281196.80			
2	RETBRPAH38							20+26.08	375830.46	2281196.80	20+96.54	375831.01	2281267.26	21+66.08	375851.00	2281334.83			
3	RETBRPAH38							21+66.08	375851.00	2281334.83	21+94.16	375858.97	2281361.76	22+19.49	375883.34	2281375.71			
4	RETBRPAH38							22+19.49	375883.34	2281375.71	22+75.12	375931.62	2281403.35	23+29.49	375986.59	2281411.84			
1	RETA11775							10+00.00	375874.12	2280766.32	10+50.41	375823.74	2280768.01	10+78.95	375825.83	2280818.37			
1	RETB11775							20+00.00	375821.51	2280693.76	20+50.26	375822.91	2280744.01	20+78.80	375873.14	2280742.34			
1	RETD11774							40+00.00	375733.56	2280660.44	40+50.72	375784.26	2280658.89	40+79.26	375785.09	2280709.60			
1	RETC11774							30+00.00	375782.86	2280585.26	30+49.64	375784.03	2280634.88	30+78.18	375734.41	2280636.41			

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SPIRAL OR CIRCULAR CURVE DATA

Name	Location	ΔSCS	Horizontal Alignment Data													Remarks
			Spiral Data								Curve Data					
			θS	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	ΔC	T	L	R	E	
C1	ML061										4.584°	656.350	1312.000	16400	13.129	
C2	ML061										22.450°	565.613	1116.716	2850	55.584	
C3	ML061										39.163°	1013.793	1948.025	2850	174.942	
C4	ML061										17.180°	543.809	1079.456	3600	40.842	
C1	SR235										90.836°	811.764	1268.315	800	339.720	
C1	DET2										17.297°	760.517	1509.464	5000	57.508	
C1	SRH38										2.563°	223.663	447.251	10000	2.501	
C2	SRH38										2.563°	223.663	447.251	10000	2.501	
C3	SRH38										3.412°	193.588	387.062	6500	2.882	
C4	SRH38										3.446°	129.347	258.617	4300	1.945	
C1	RPAH38										18.849°	331.971	657.943	2000	27.364	
C2	RPAH38										8.311°	167.103	333.620	2300	6.062	
C1	RPBH38										14.504°	292.675	582.221	2300	18.547	
C1	RPCH38										9.660°	169.004	337.207	2000	7.128	
C2	RPCH38										20.170°	355.719	704.075	2000	31.388	
C1	RPDH38										18.051°	317.677	630.089	2000	25.072	
C1	ENTL11775										91.018°	76.345	119.142	75	32.021	
C1	ENTR11774										22.792°	40.312	79.559	200	4.022	
C2	ENTR11774										22.792°	40.312	79.559	200	4.022	
C1	DET1										21.951°	465.439	919.465	2400	44.715	
C1	DETHAWK										17.547°	92.599	183.749	600	7.104	
C2	DETHAWK										17.732°	93.595	185.693	600	7.256	
C1	RETA11775										90.465°	50.408	78.946	50	21.000	
C1	RETB11775										90.301°	50.263	78.803	50	20.897	
C1	RETC11774										89.587°	49.641	78.179	50	20.457	
C1	RETD11774										90.820°	50.721	79.256	50	21.222	
C1	RETBRPAH38										0.163°	13.038	26.076	9142	0.009	
C2	RETBRPAH38										16.043°	70.461	140.000	500	4.940	
C4	RETBRPAH38										43.721°	28.084	53.416	70	5.424	
C4	RETBRPAH38										21.008°	55.625	110.000	300	5.113	
C1	RETCRPCH38										65.130°	57.480	102.306	90	16.789	
C2	RETCRPCH38										9.549°	50.116	100.000	600	2.089	
C1	RETARPAH38										97.639°	57.154	85.206	50	25.938	
C1	RETDRPCH38										14.324°	75.393	150.000	600	4.718	
C2	RETDRPCH38										93.401°	53.060	81.508	50	22.906	
C1	RETBRPDH38										78.887°	41.134	68.842	50	14.746	
C2	RETBRPDH38										13.751°	60.290	120.000	500	3.622	
C1	RETCRPBH38										85.599°	46.300	74.700	50	18.145	
C1	RETARPDH38										12.949°	56.742	113.000	500	3.209	
C2	RETARPDH38										74.167°	52.909	90.612	70	17.746	
C1	RETDRPBH38										11.459°	45.151	90.000	450	2.259	
C3	RETDRPBH38										70.280°	38.712	67.464	55	12.258	
C3	RETDRPBH38										11.459°	80.268	160.000	800	4.017	
C1	RetBEx61										14.324°	50.262	100.000	400	3.145	
C2	RetBEx61										76.684°	47.456	80.303	60	16.499	
C1	RETCEx61										88.992°	49.128	77.660	50	20.097	
C1	EntLB1729										21.623°	21.007	41.513	110	1.988	
C2	EntLB1729										27.647°	27.066	53.078	110	3.281	
C3	EntLB1729										87.966°	19.302	30.706	20	7.795	
C4	EntLB1729										89.466°	24.768	39.037	25	10.192	
C1	ENTLA1729										90.000°	25.000	39.270	25	10.355	
C1	RETDSRHAWK										89.429°	49.504	78.041	50	20.361	

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SPIRAL OR CIRCULAR CURVE DATA

Name	Location	ΔSCS	Horizontal Alignment Data													Remarks
			Spiral Data								Curve Data					
			θS	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	ΔC	T	L	R	E	
C1	RETCSRHAWK										51.432°	24.080	44.883	50	5.497	
C2	RETCSRHAWK										39.140°	17.774	34.156	50	3.065	
C1	ENTL11698										48.887°	13.636	25.597	30	2.954	
C1	RETDSR210										90.000°	50.000	78.540	50	20.711	
C1	RETCSR210										90.000°	50.000	78.540	50	20.711	

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04-19-11

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														
ML061	C1	2850	5.6	252	90	PV-302	1727+54.90	1728+44.90	1729+34.90	1730+96.90			1730+21.30			1728+44.90			
							1744+04.42	1743+14.42	1742+24.42	1740+62.42			1741+38.02			1743+14.42			
ML061	C2	2850	5.6	252	90	PV-302	1773+64.33	1774+54.33	1775+44.33	1777+06.33			1776+30.73			1774+54.33			
							1798+45.15	1797+55.15	1796+65.15	1795+03.15			1795+78.75			1797+55.15			
ML061	C3	3600	4.8	216	90	PV-302	1842+23.66	1843+13.66	1844+03.66	1845+29.66			1844+64.86			1843+13.66			
							1857+85.52	1856+95.52	1856+05.52	1854+79.52			1855+44.32			1856+95.52			
Ramp A	C1	2000	5.4	168	62	PV-303	21786+49.45	21787+11.45	21788+29.05	21788+79.45						21787+11.45			
							21796+66.59	21796+04.59	21794+86.99	21794+36.59						21796+04.59			
Ramp A	C2	2300	-5.2	162	62	PV-303	21797+12.07		21797+63.47	21798+12.07									
							21801+48.49		21800+97.09	21800+48.49									
Ramp B	C1	2300	5.2	162	62	PV-303	31770+55.56		31771+06.96	31771+55.56						31769+93.56			
							31777+40.58		31776+89.18	31776+40.58						31778+02.58			
Ramp C	C1	2000	-5.4	168	62	PV-303	41769+44.40		41770+00.00	41770+50.40									
							41773+92.81		41773+37.21	41772+86.81									
Ramp C	C2	2000	5.4	168	62	PV-303	41776+95.96	41777+57.96	41778+75.56	41779+25.96						41777+57.96			
							41787+59.24	41786+97.24	41785+79.64	41785+29.24						41786+97.24			
Ramp D	C1	2000	-5.4	168	62	PV-303	51795+14.31		51795+69.91	51796+20.31									
							51802+55.60		51802+00.00	51801+49.60									

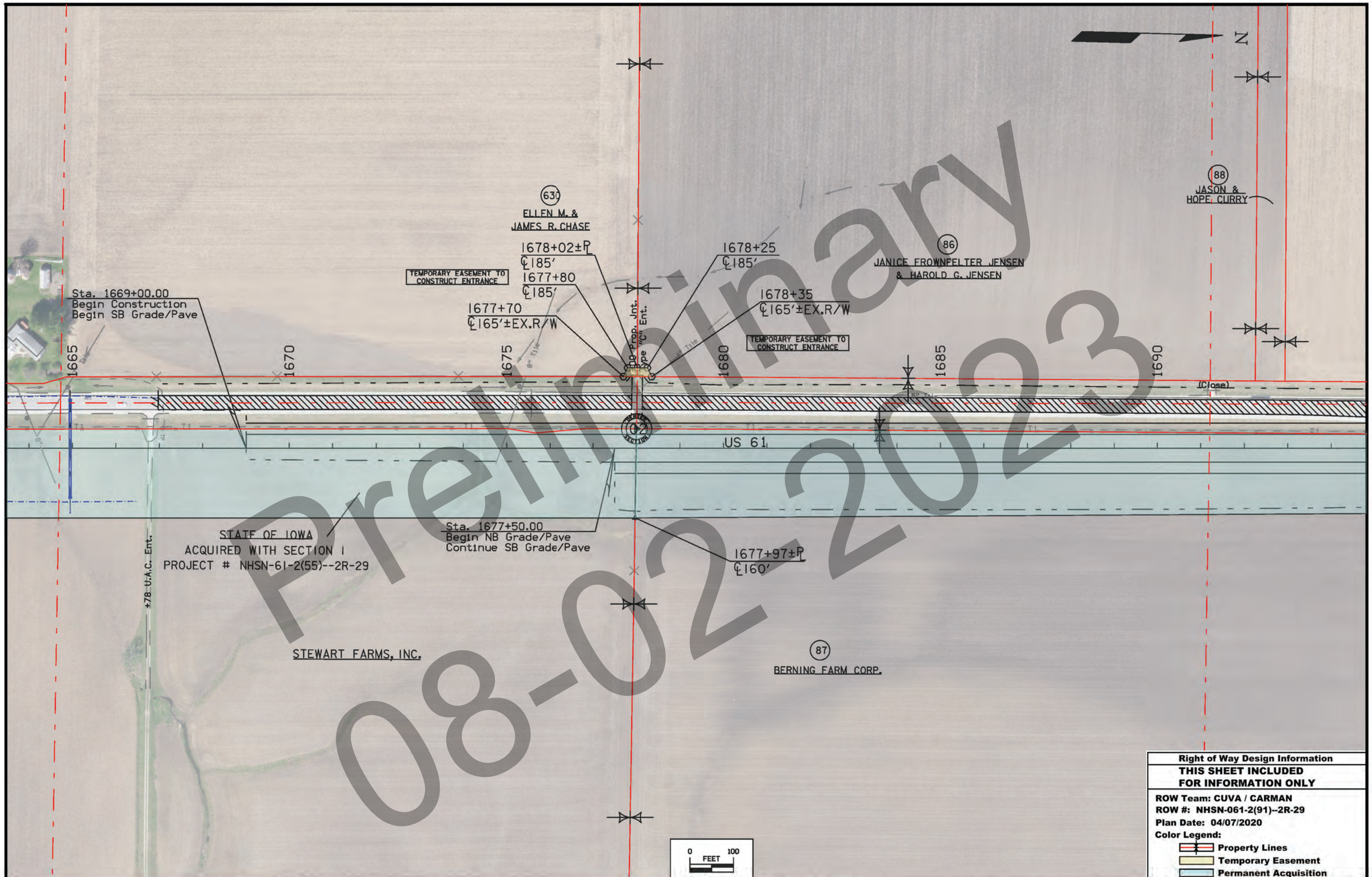
101-10
Modified

PAINTED ISLANDS

Refer to PM-120, 560-5, and 108-22.

Road Identification	Point A		Point B		Point C		Remarks
	Station	Offset	Station	Offset	Station	Offset	
		FT		FT		FT	
Ramp A	21785+51.79	-2.0	21785+16.86	-2.0	21785+14.74	-16.9	H38 Approach
Ramp B	31784+24.71	2.0	31784+46.56	2.0	31784+47.71	17.0	H38 Approach

Preliminary
08-02-2023



Preliminary
08-02-2023

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: CUVA / CARMAN
ROW #: NHSN-061-2(91)--2R-29
Plan Date: 04/07/2020
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER H.1

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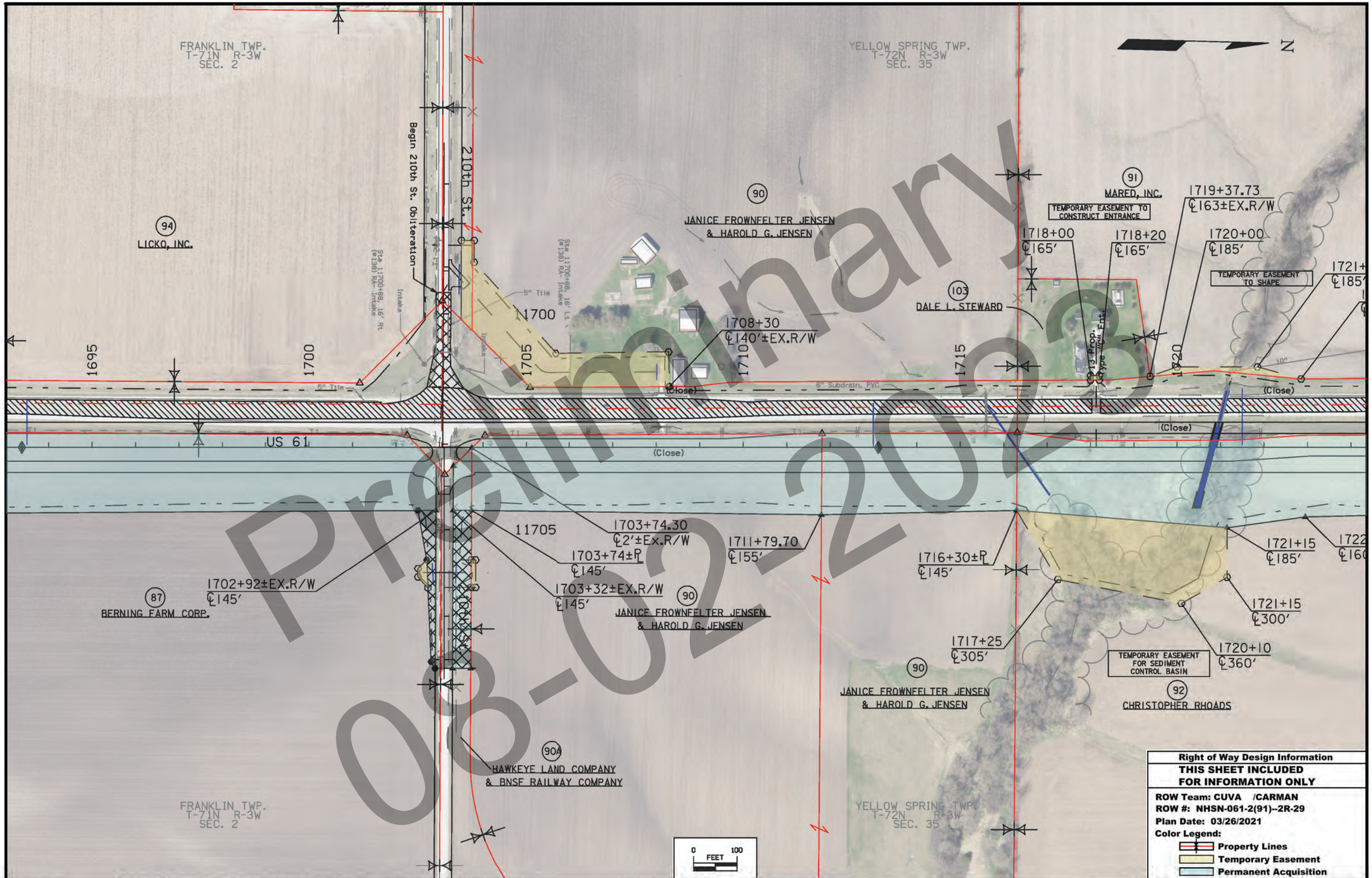

Preliminary
08-02-2021

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER H.2

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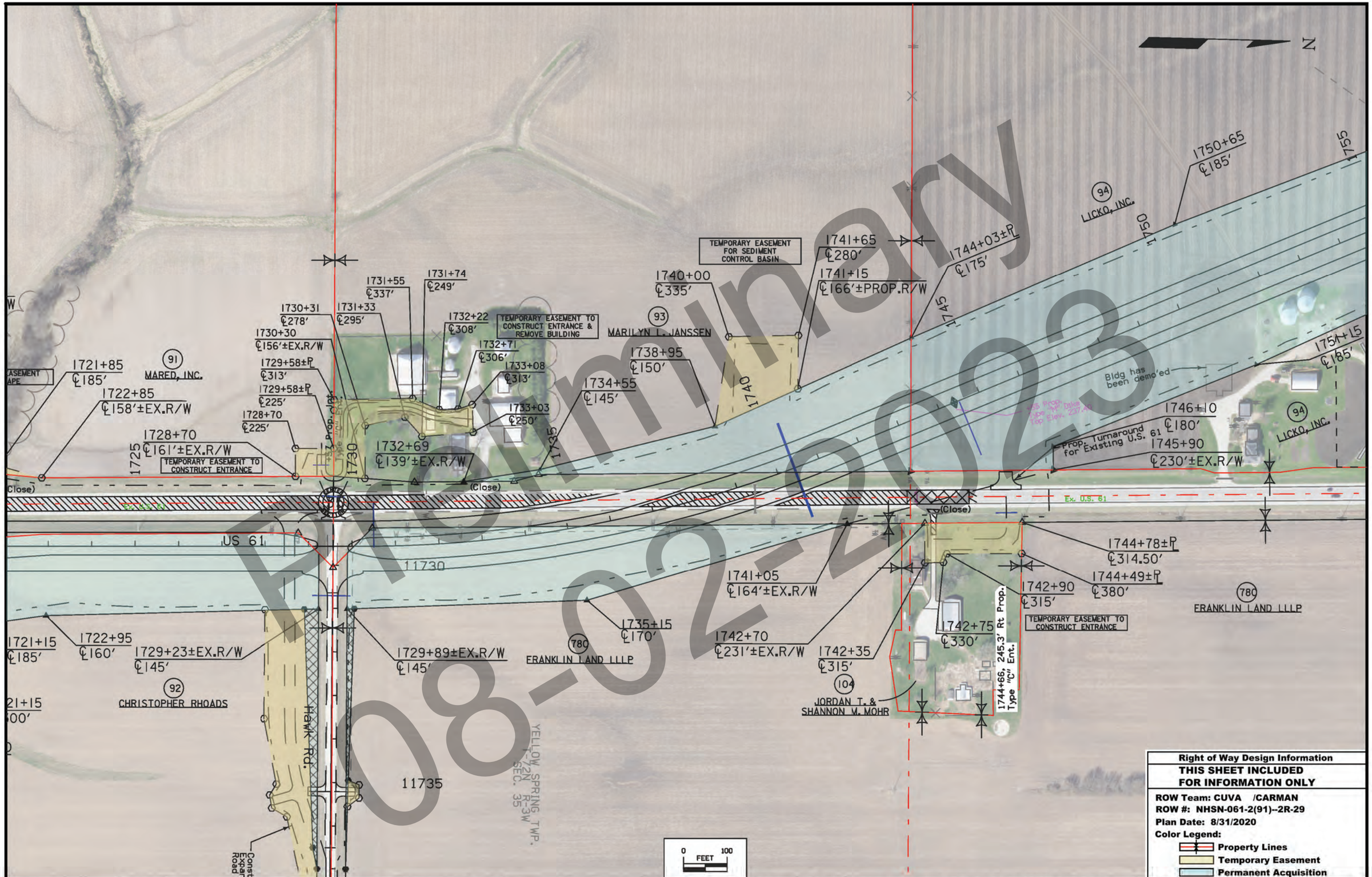

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER H.3

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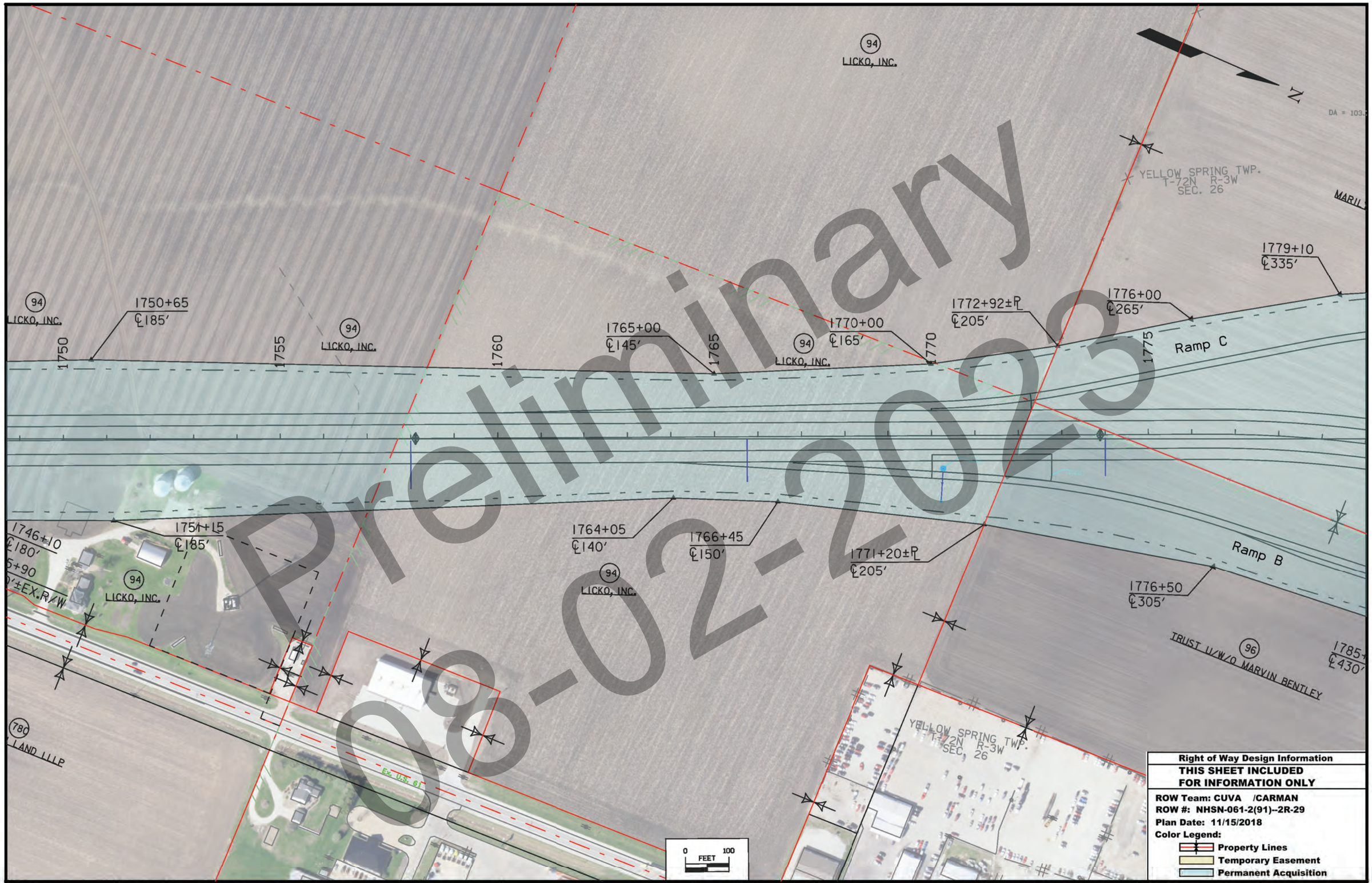

Preliminary
08-02-2023

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: CUVA /CARMAN
ROW #: NHSN-061-2(91)--2R-29
Plan Date: 11/15/2018
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER H.4

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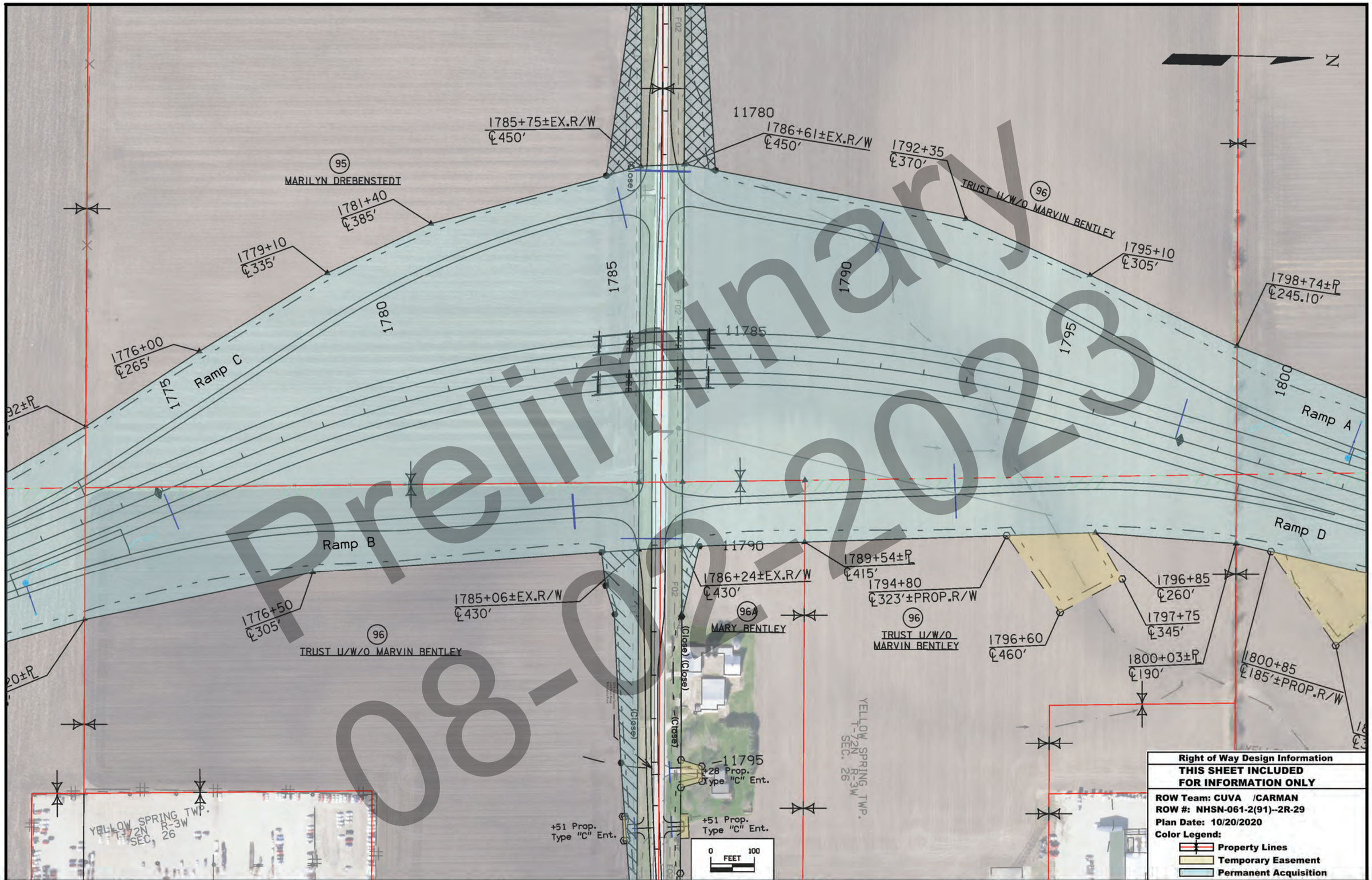

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER H.5

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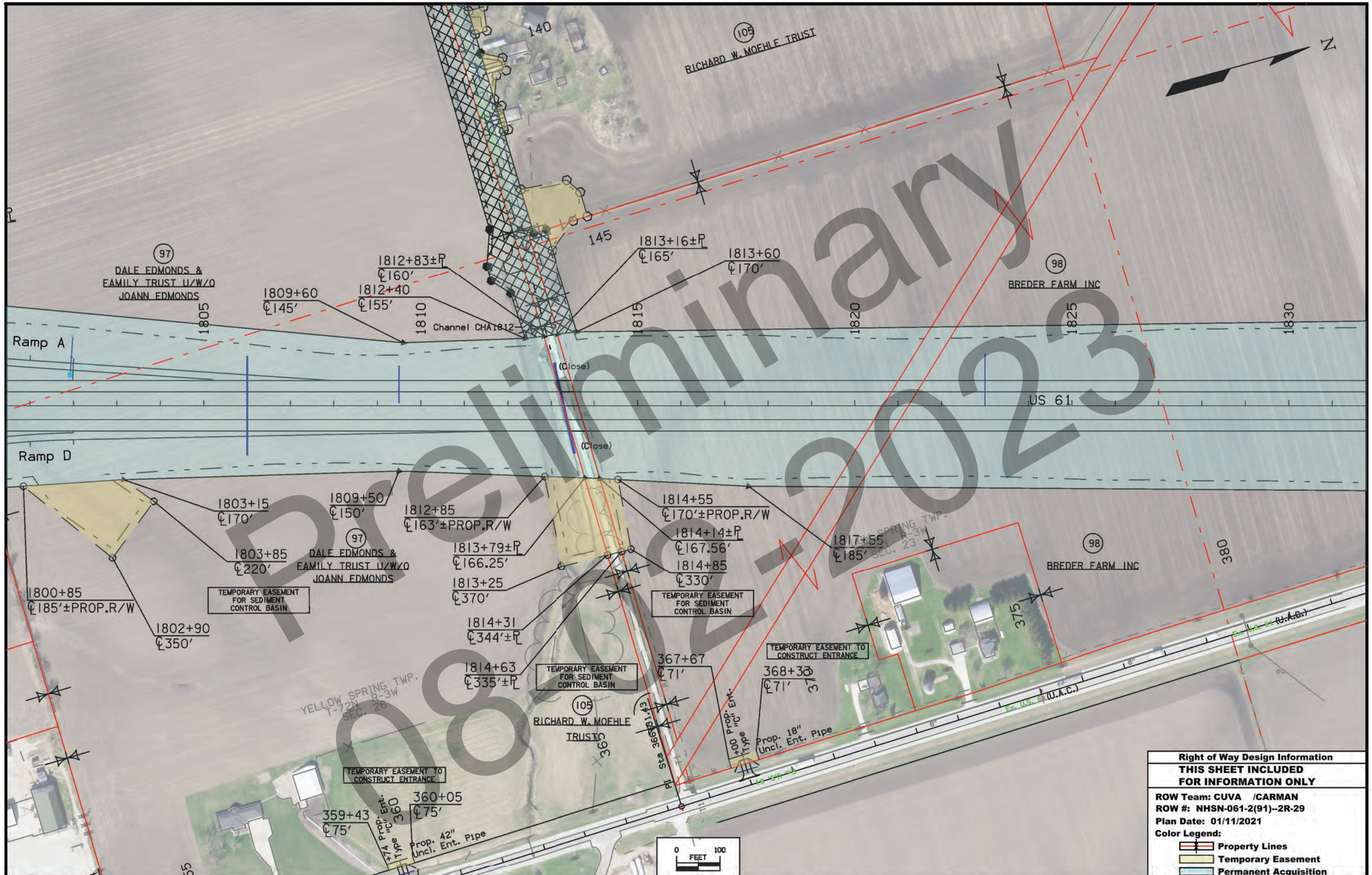

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER H.6

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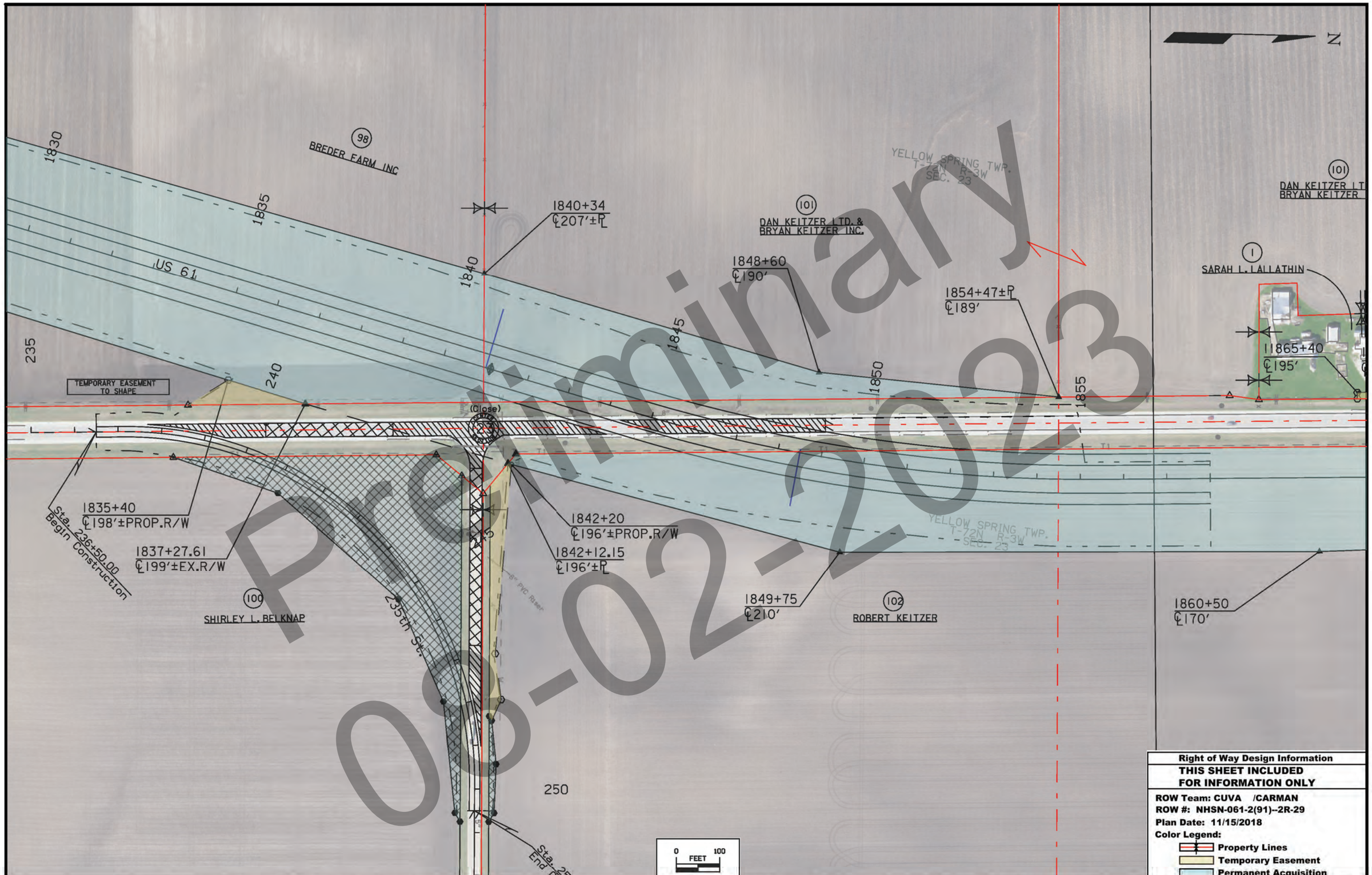

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER H.7

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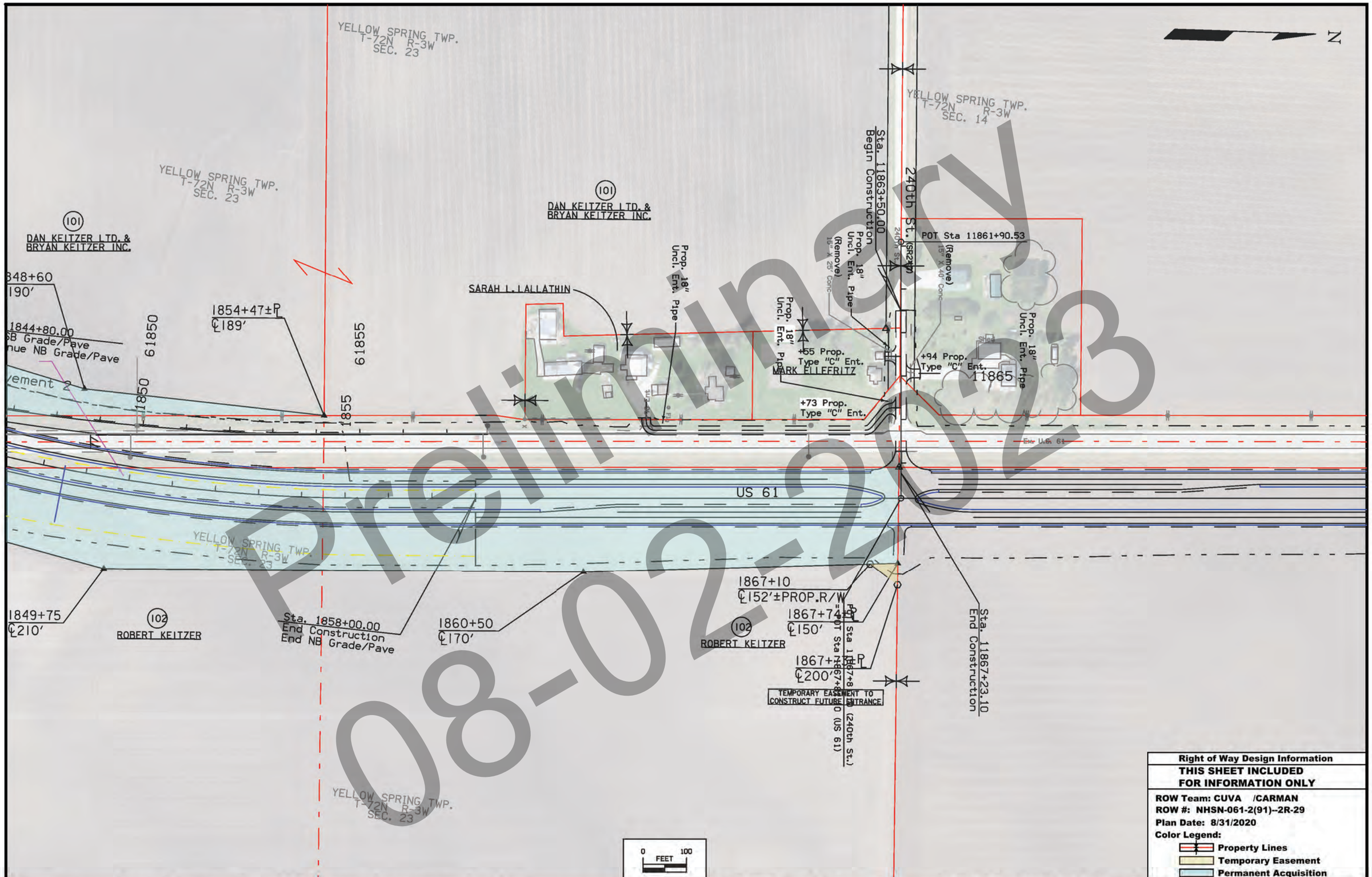

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER H.8

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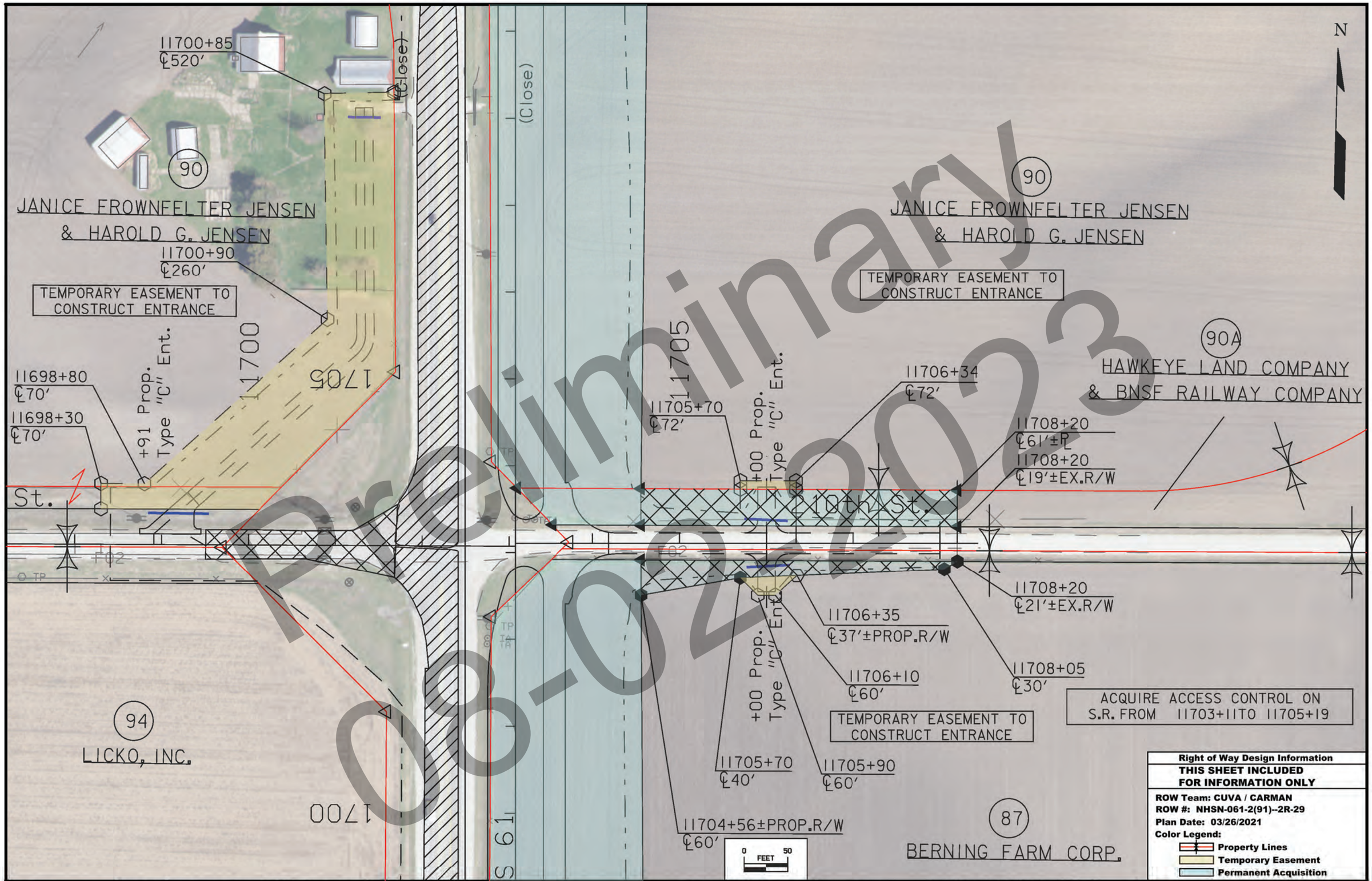

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER HE.1

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T-72N R-3W
SEC. 35

780

FRANKLIN LAND LLLP

11731+00±PROP.R/W
℄50′

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

11735+05
℄65′

11734+95
℄40′

11735

+21 Prop. Type "C" Ent.

11735+35
℄65′

ACQUIRE ACCESS CONTROL ON S.R. FROM 11730+05TO 11731+65

11735+55
℄39′±PROP.R/W

11737+00.38
℄36±EX.R/W

11730

(Close)

Hawk Rd.

11739+00
℄31′±EX.R/W

11737+00
℄30′±EX.R/W

11736+50
℄40′

11735+80
℄100′

11735+60
℄135′

+21 Prop. Type Ent.

11733+55
℄155′

TEMPORARY EASEMENT TO CONSTRUCT AND REMOVE DETOUR, CONSTRUCT AND REMOVE TEMPORARY ENTRANCE AND CONSTRUCT ENTRANCE

11735+30
℄140′

11731+03±PROP.R/W
℄65′

11735+05
℄125′

11731+06±PROP.R/W
℄155′

US 61

8" Tile

4" Tile

Ex. US 61

1730

1725

92

CHRISTOPHER RHOADS

0 FEET 50

N

Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: CUVA /CARMAN
ROW #: NHSN-061-2(91)--2R-29
Plan Date: 8/31/2020
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER HE.2

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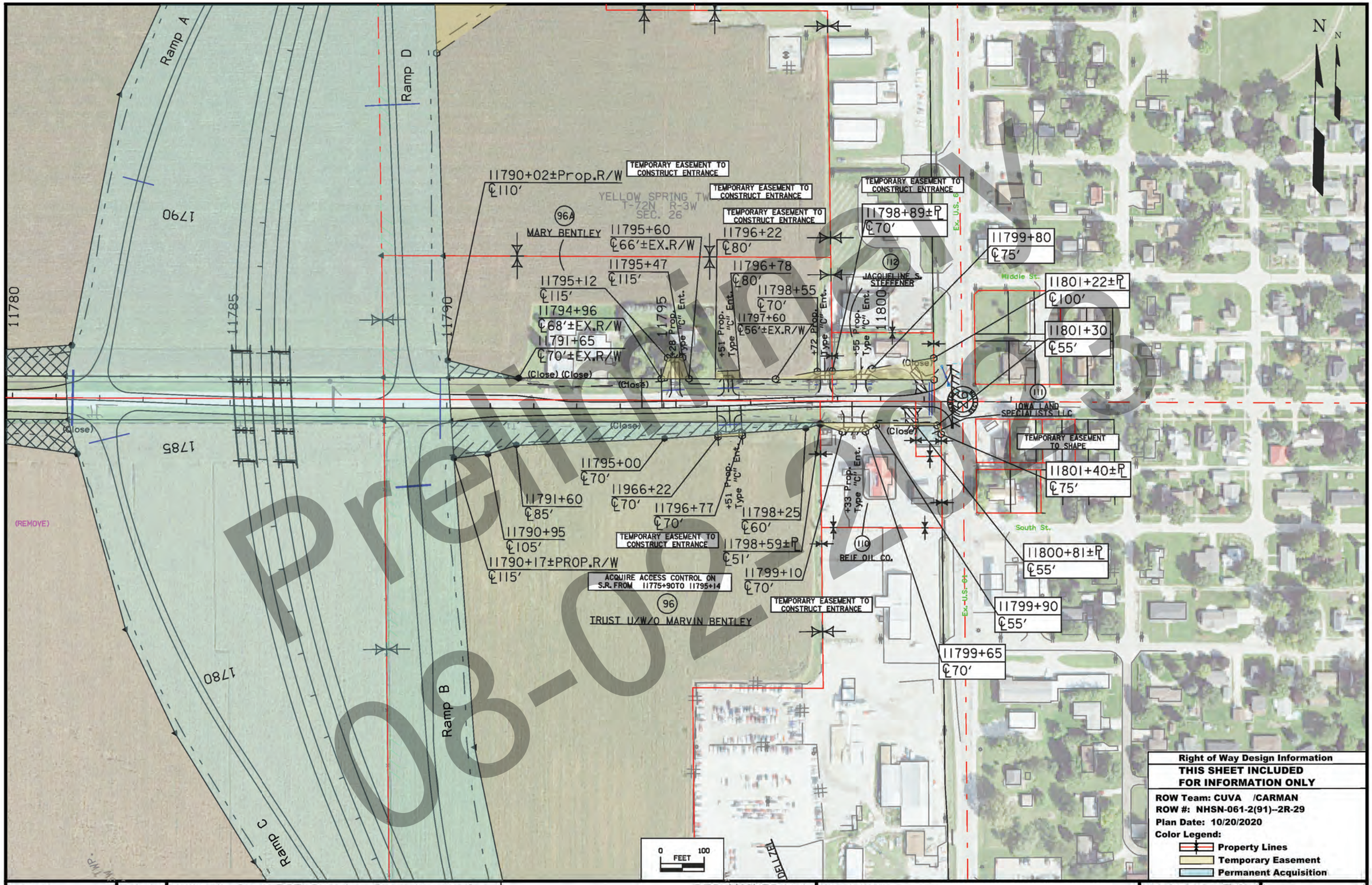

Preliminary
03-02-2021

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER HE.3

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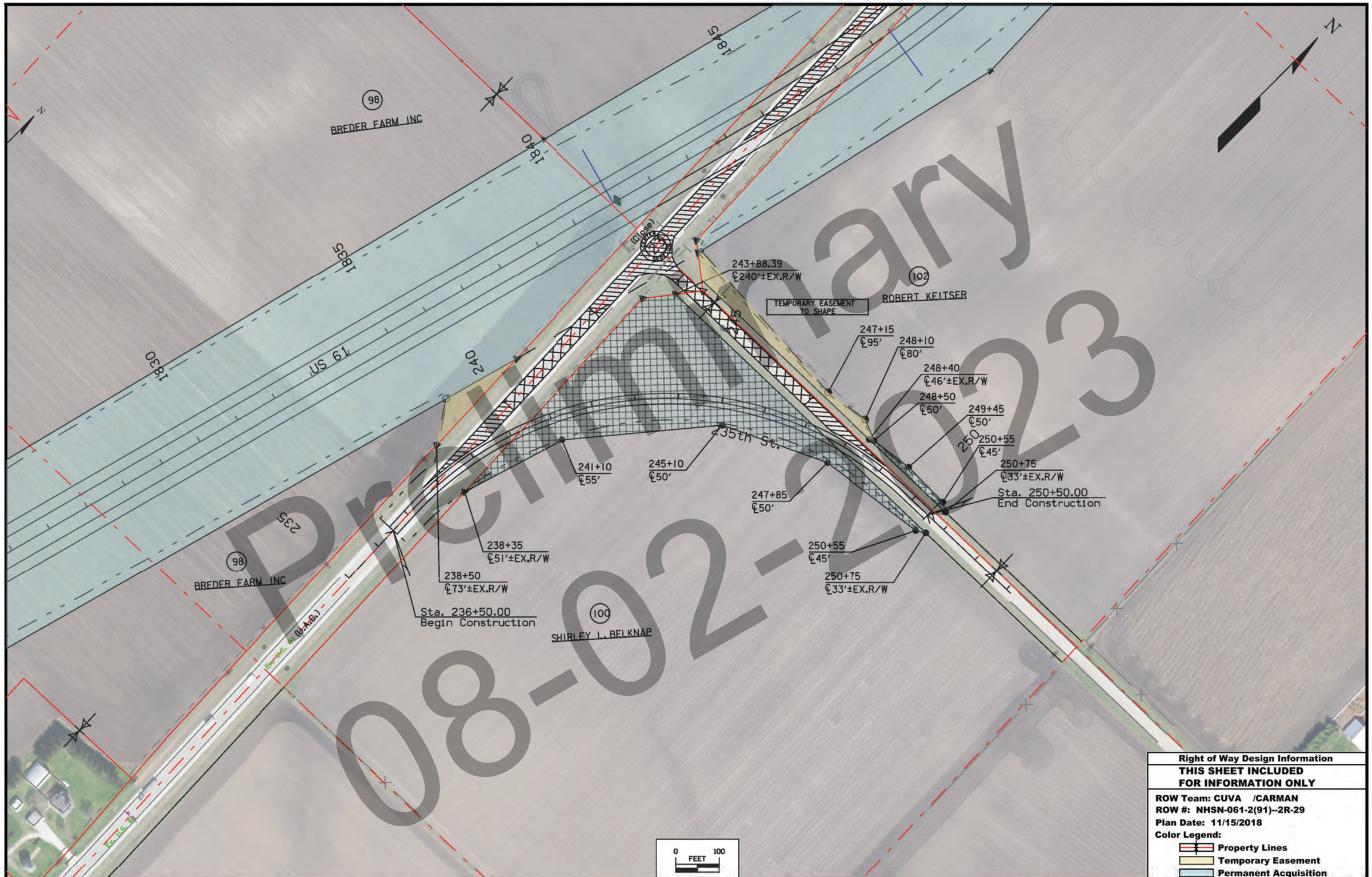

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER HE.4

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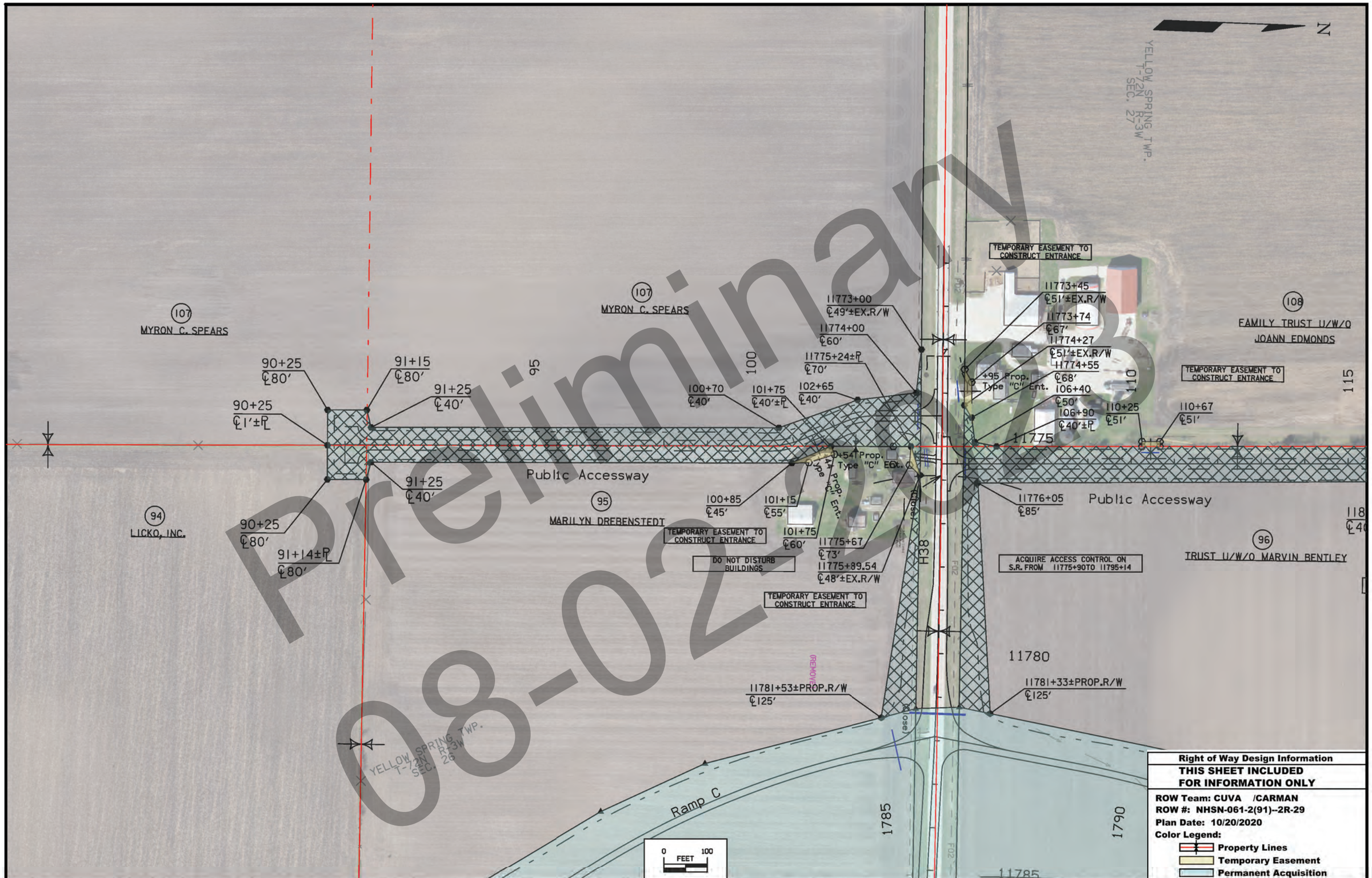

Preliminary
08-02-2023

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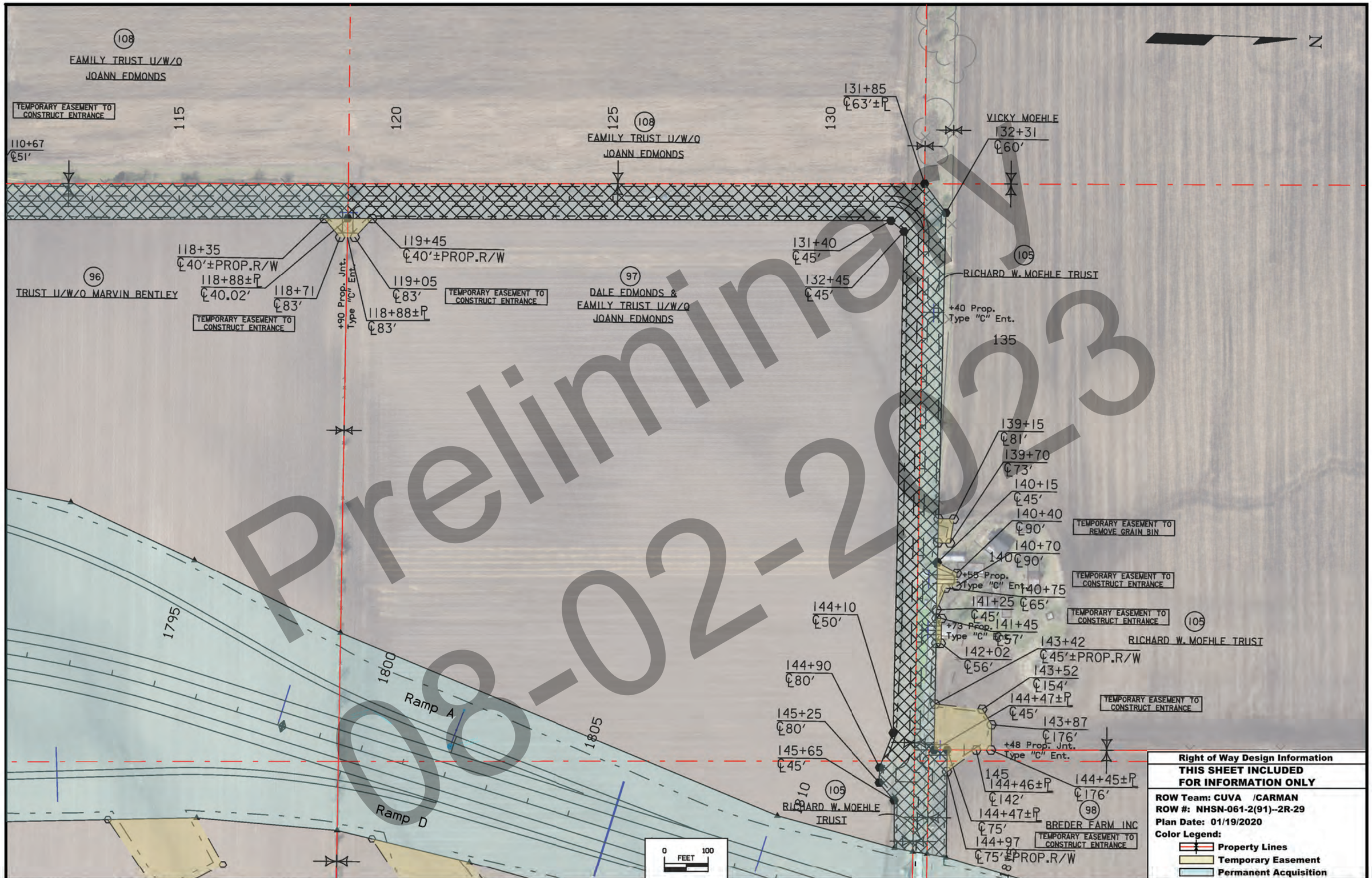

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER HE.6

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SURVEY SYMBOLS

- TDC Tree Deciduous
- TEV Evergeen Tree
- SIGN SI Sign
- PPA Power Pole Co. 1
- IN Storm Sewer Intake
- MM MM Mile Marker Post
- LUM Luminaire
- INB Storm Sewer Beehive Intake
- ROW Right of Way Mark
- OUT Tile Outlet
- MH Utility Access (Manhole)
- HT Electrical Highline Tower
- SHR Shrub
- UB UB Utility Box
- TP TPD Telephone Pedestal
- GV GV Gas Valve
- RET Retaining Walls
- WV WV Water Valve
- WEL WEL Well
- FHD Fire Hydrants
- WHU WHU RV Water Hook Up
- TV Satelite TV Dish
- TA TA Tower Anchor
- BNK Stream Bank
- CUL Culvert
- D Centerline Draw or Stream (Down)
- DIK Centerline of Dike or Dam
- DU Centerline Draw or Stream (Up)
- EW Edge of Water
- FCL Chain Link and Security Fence
- FW Wire Fence
- FWD Wood Fence
- GDL Guard Rail Steel
- GPR Guard Post (4 or More Posts)
- PIP Pipe Culvert
- RIP Rip-Rap
- SP Stream Profile
- TIL Tile Line

UTILITY LEGEND

Eastern Iowa Light and Power
Tom Quiram
P.O. Box 3003
Wilton, IA 52778-3003
563-732-2211
tquiram@easterniowa.com

Alliant Energy
Mary Montgomery
200 1st St. SE
Cedar Rapids, IA 52401
319-786-8196
rerow@alliantenergy.com

Windstream
(underbuilt on power poles)
Steve Kness
— T1 — 1450 N. Center Pt. Rd
Hiawatha, IA 52233
319-538-1985
stephen.kness@windstream.com

Mediapolis Telephone Company
Marc Carlson
— F02 — 652 Main St.
Mediapolis, IA 52637
319-394-3456
mcarlson@mtctech.net

Mutual Telephone of Morning Sun
Randy Foor
— F03 — 28 W Division St.
Morning Sun, IA 52640
319-868-7636
rdf@mutel.com

ANR Pipeline Company
Robert Southers
— G2 — 2795 Locust Avenue
Birmingham, IA 52535
319-498-4200 ext 2252
robert_southers@transcanada.com

Alliant Energy
Mary Montgomery
— G — 200 1st St. SE
Cedar Rapids, IA 52401
319-786-8196
rerow@alliantenergy.com

Rathbun Regional Rural Water
Jim Hopp
1677 Salem Rd
— W — PO Box 261
Salem, IA 52649
319-258-2103
jhopprrwa@gmail.com

City of Mediapolis
510 Main St.
— W2 —
— SAN. — PO Box 97
— ST S — Mediapolis, IA 52637
319-394-3125
mepocity@mepotelco.net

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 — Survey Line
- Station — Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area
- Pavement Obliterate
- Proposed Topsoil Stockpile

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

PATTERN AND SYMBOL LEGEND OF SOILS SHEETS

Soils Book No. Braun Intertec
Date(s) Drilled 2000-2022

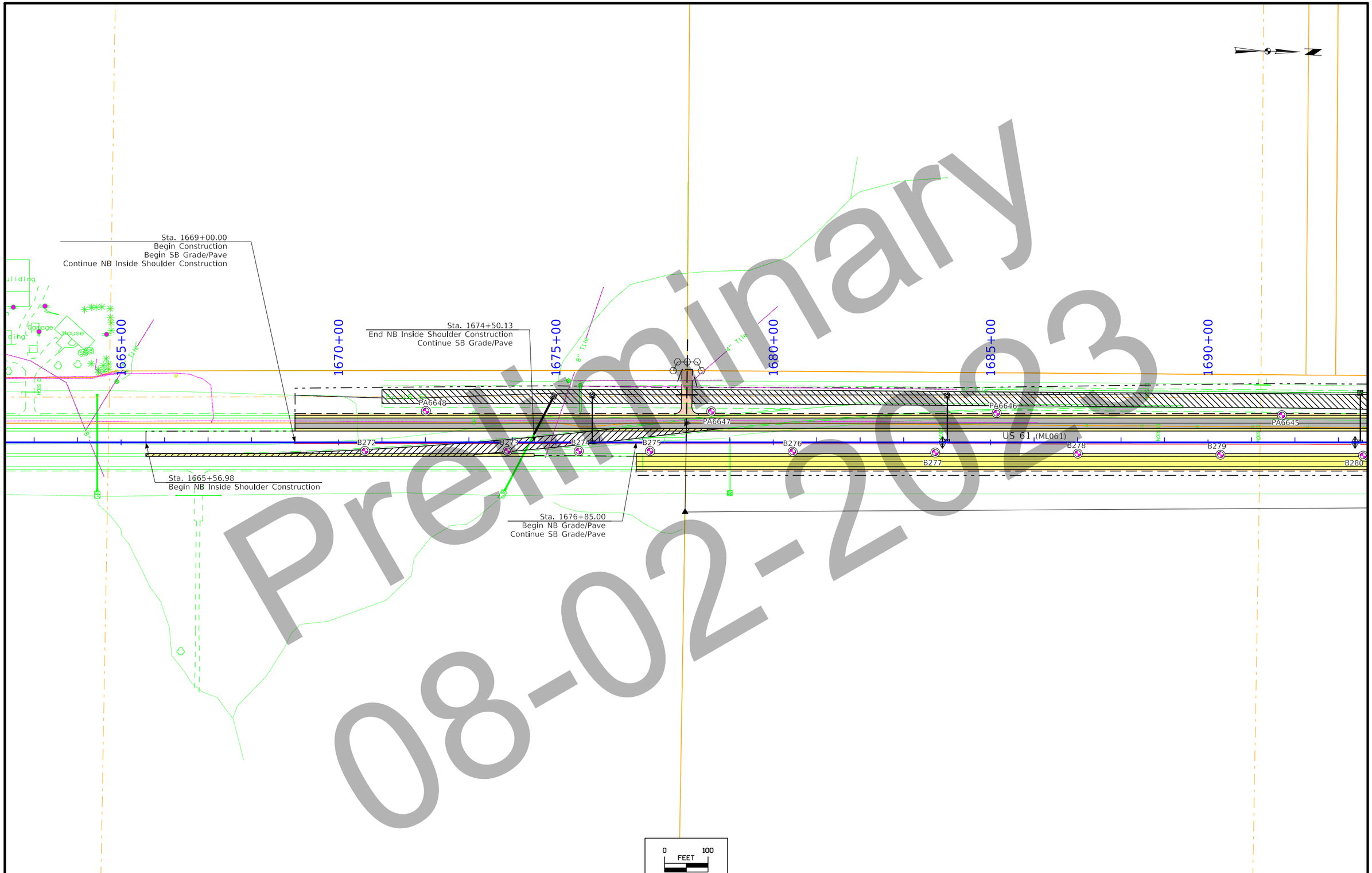
Drill	Dig/Core	
Water	Treatment	Sandstone
Dry	Sand Blanket	Unsuitable A
Sample	Soil Remediation Area	Unsuitable B
Plugged	Select Soil	Unsuitable C
Moisture	Select Sand	Sandy Soil
Shelby	Slope Dressing Only	Boulders
Blow Count	Broken and Weathered Rock	Shale
Dens. Core	Rock	

NOTE: Sounding and test boring data shown in the plans were accumulated for designing and estimating purposes. Their appearance on the plans does not constitute a guarantee that conditions other than those indicated will be encountered. Details and notes shown elsewhere shall be used for roadway and structure construction.

SOILS LEGEND AND SYMBOL INFORMATION SHEET

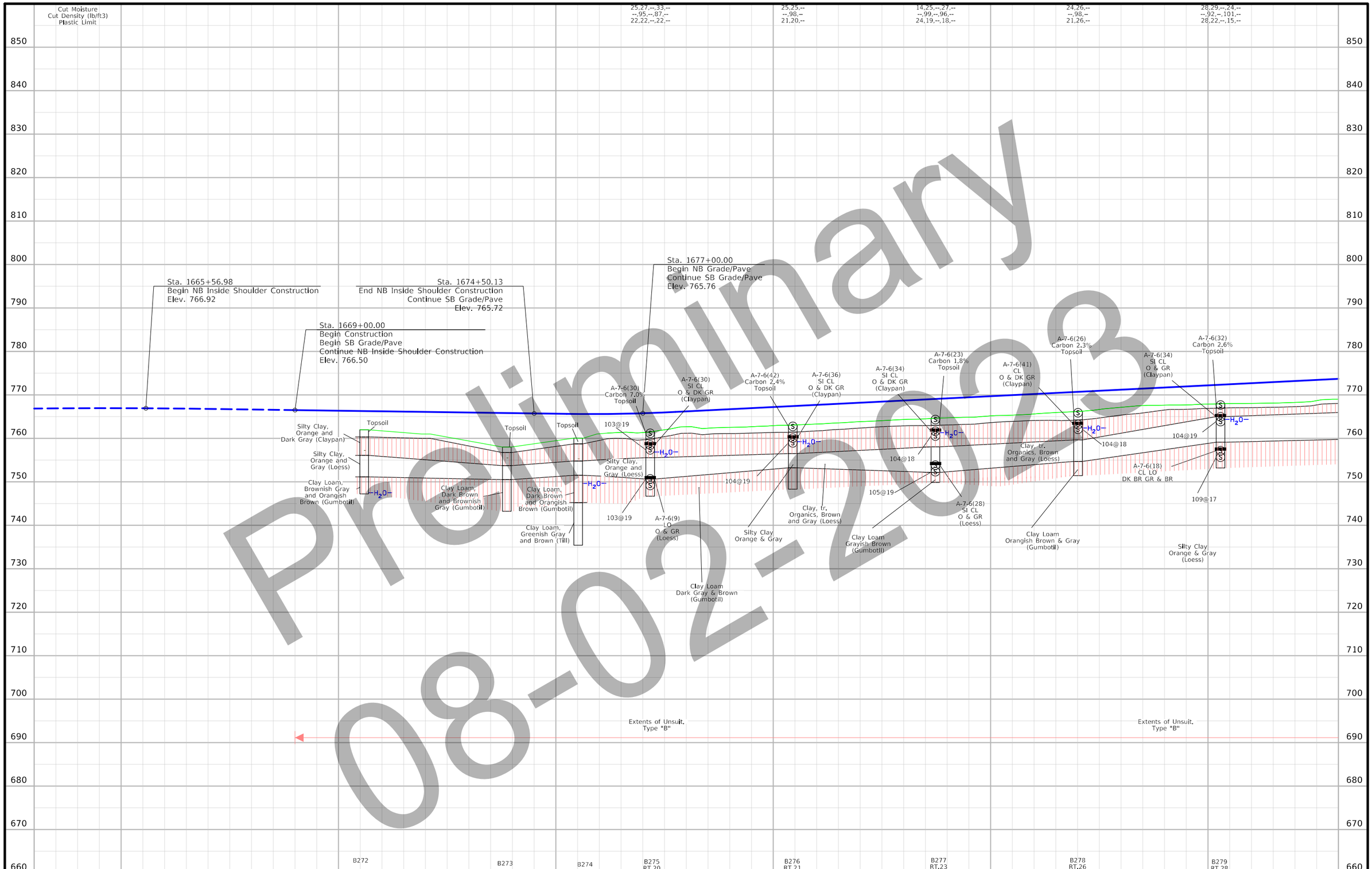
(COVERS SHEET SERIES Q)

Preliminary 08-02-2023



Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.\Braun Intertec	Des Moines COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER Q.2



Preliminary
08-02-2023

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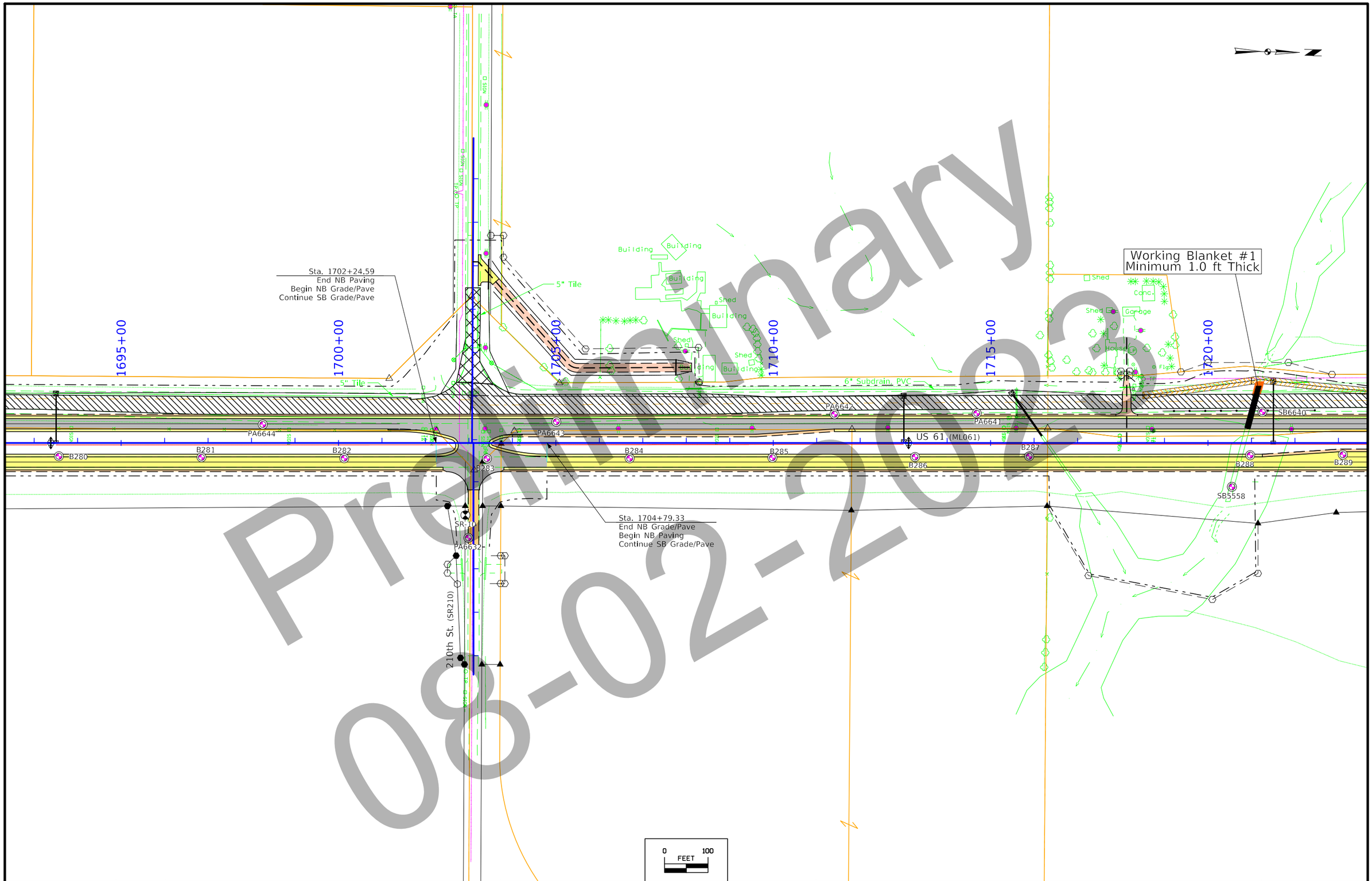

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.\Braun Intertec	Des Moines COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER Q.4

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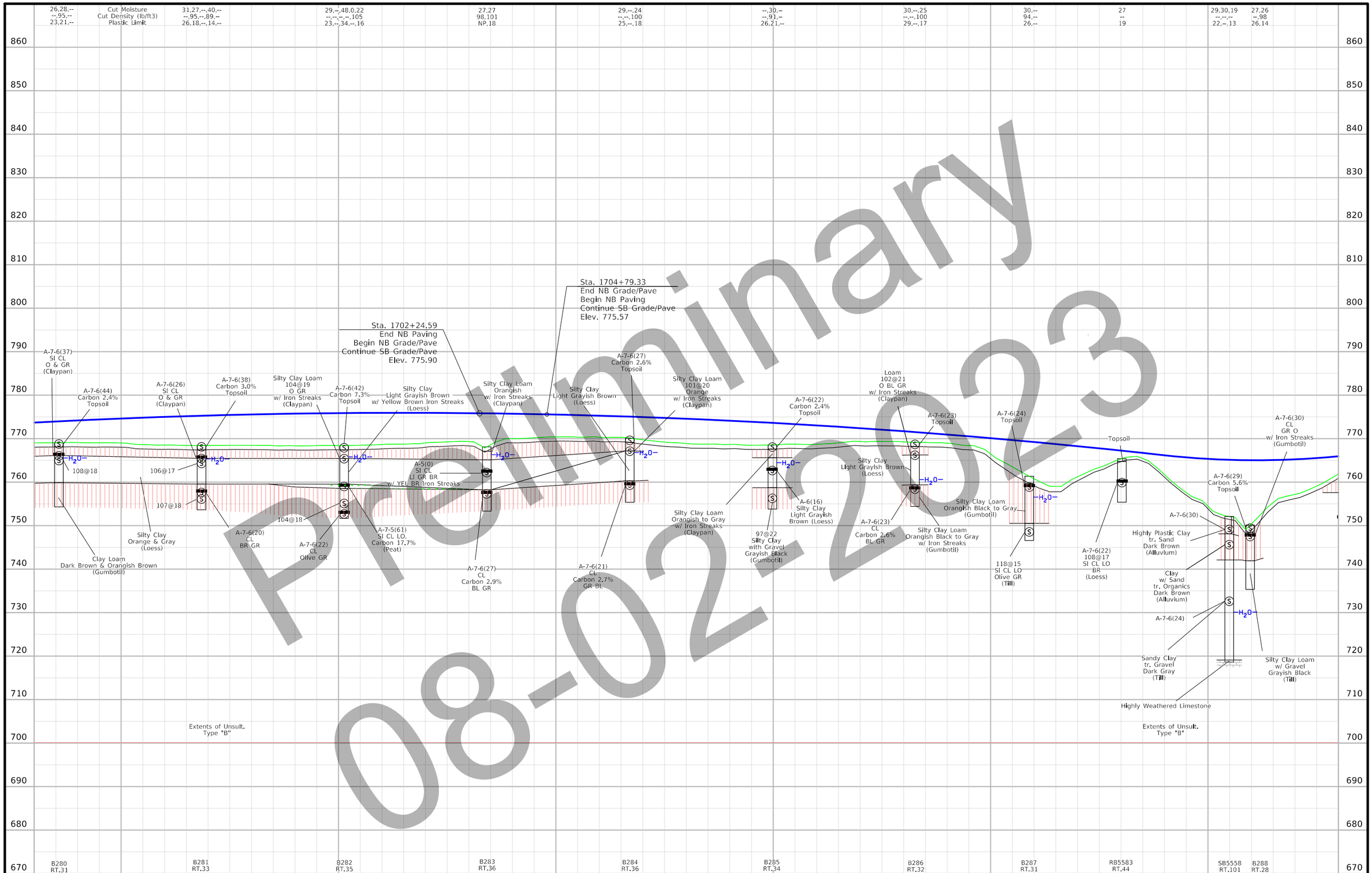

Preliminary
08-02-2023

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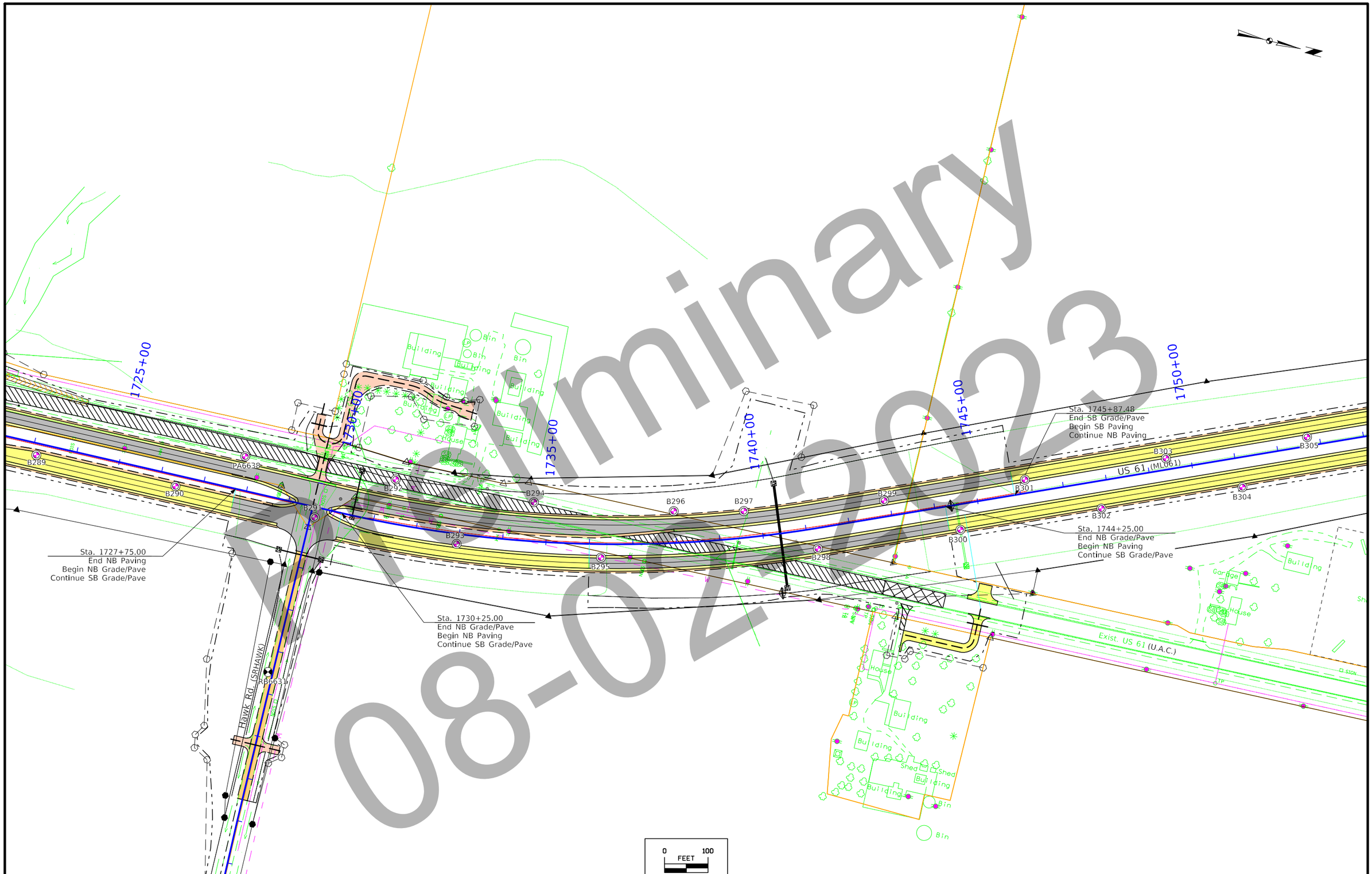

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.\Braun Intertec	Des Moines COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER Q.6

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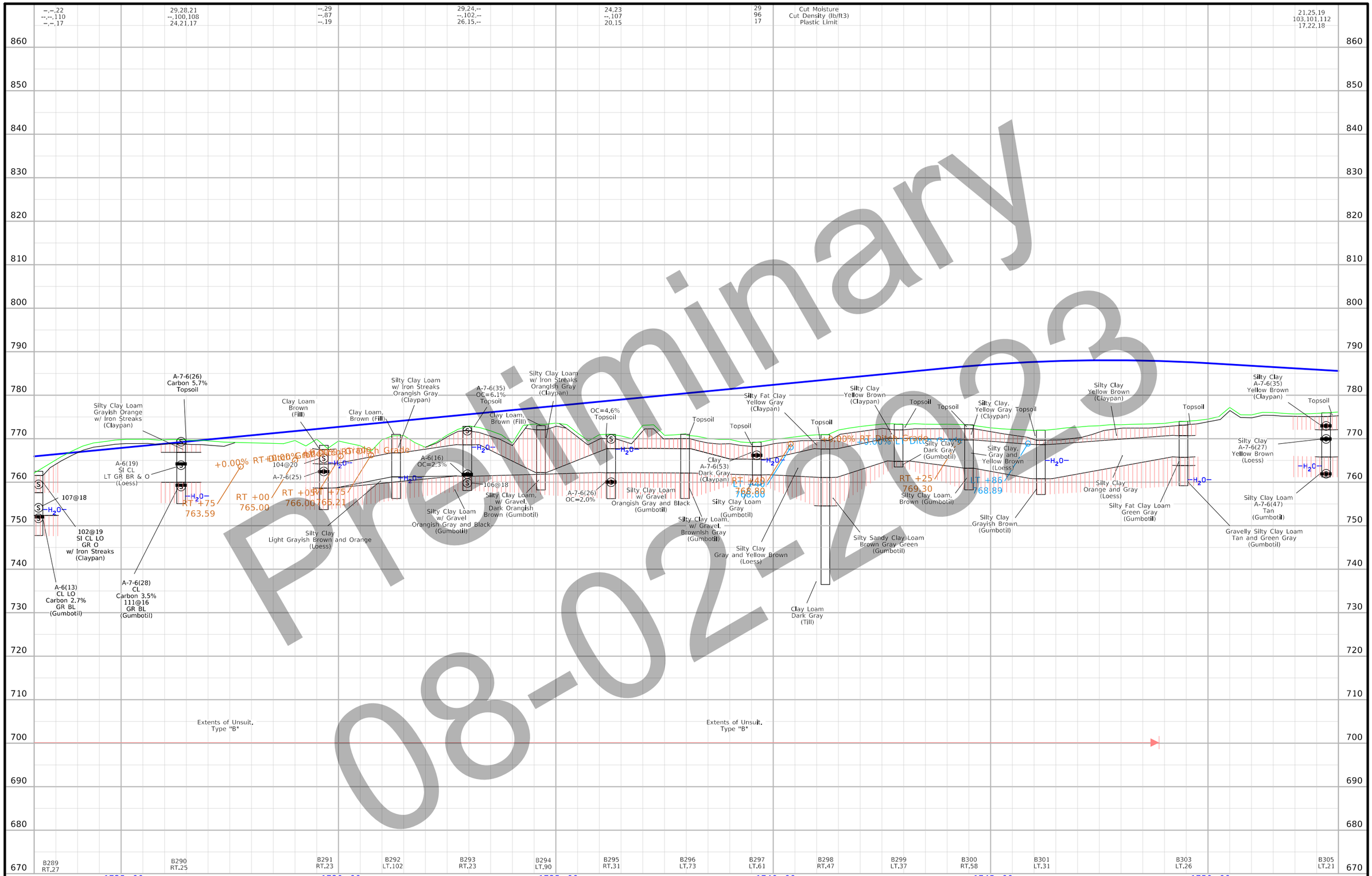
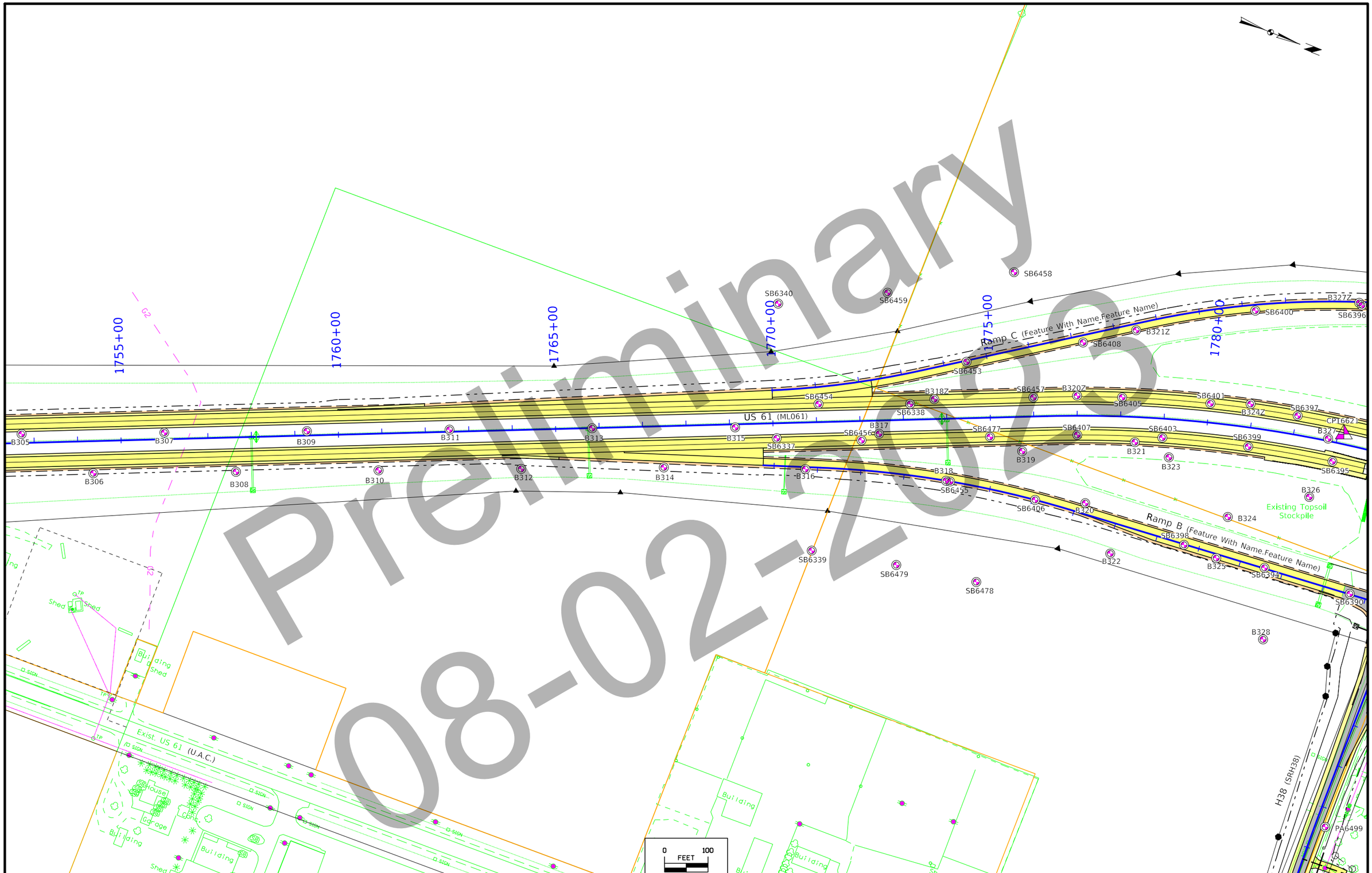


Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.\Braun Intertec	Des Moines COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER Q.7



Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.\Braun Intertec	Des Moines COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER Q.8

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Preliminary 08-02-2023

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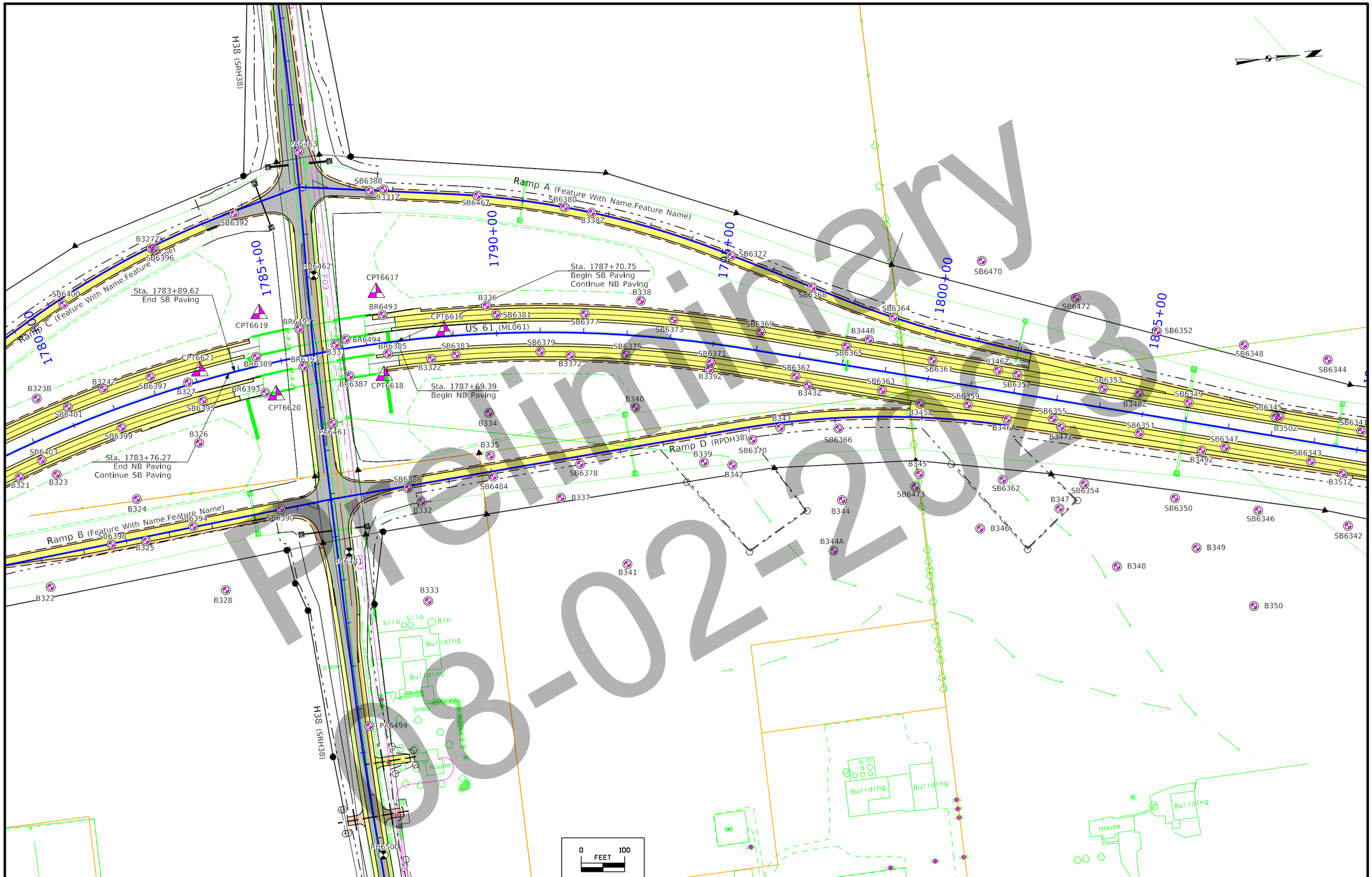

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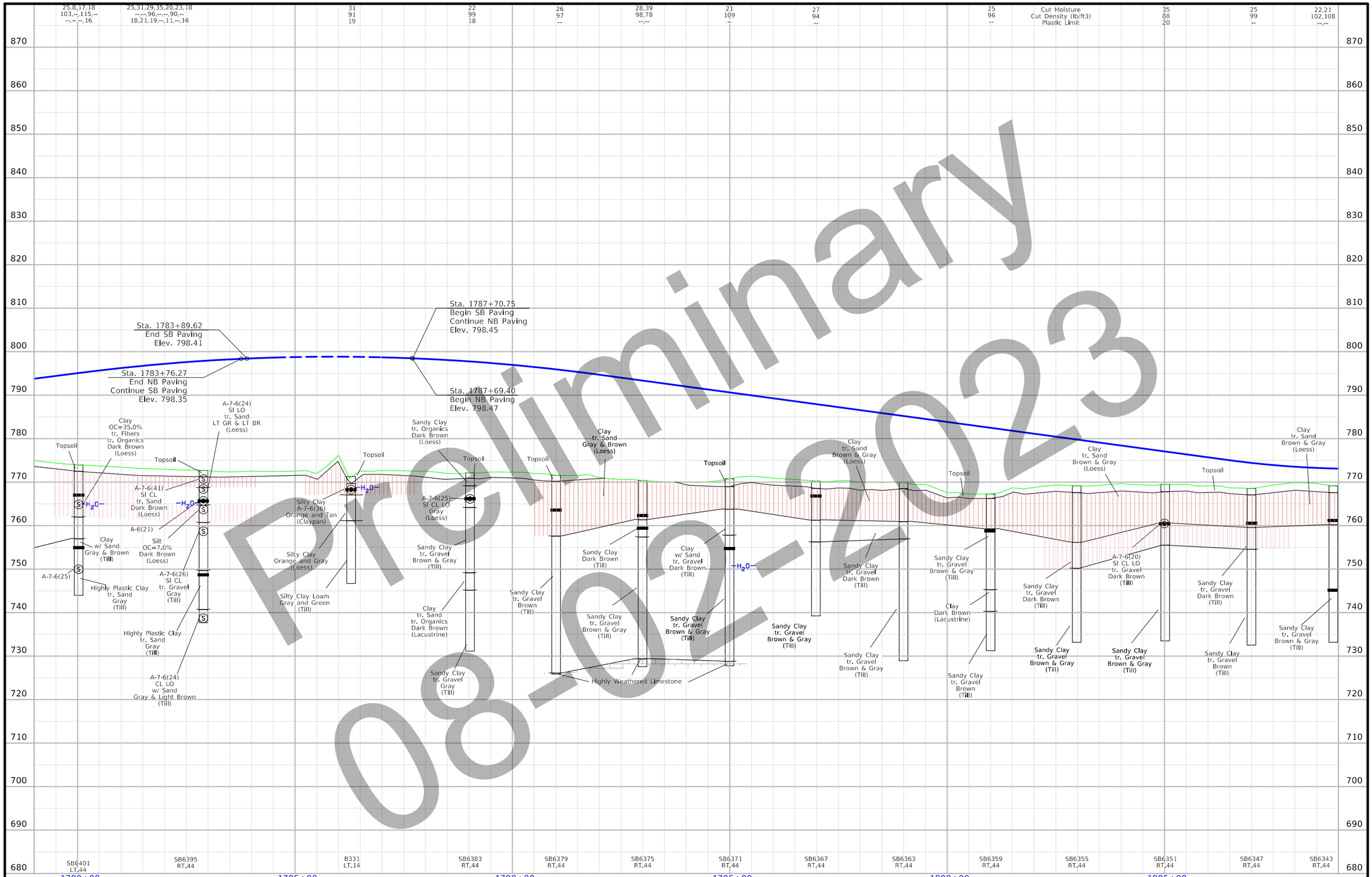

Preliminary
08-02-2023

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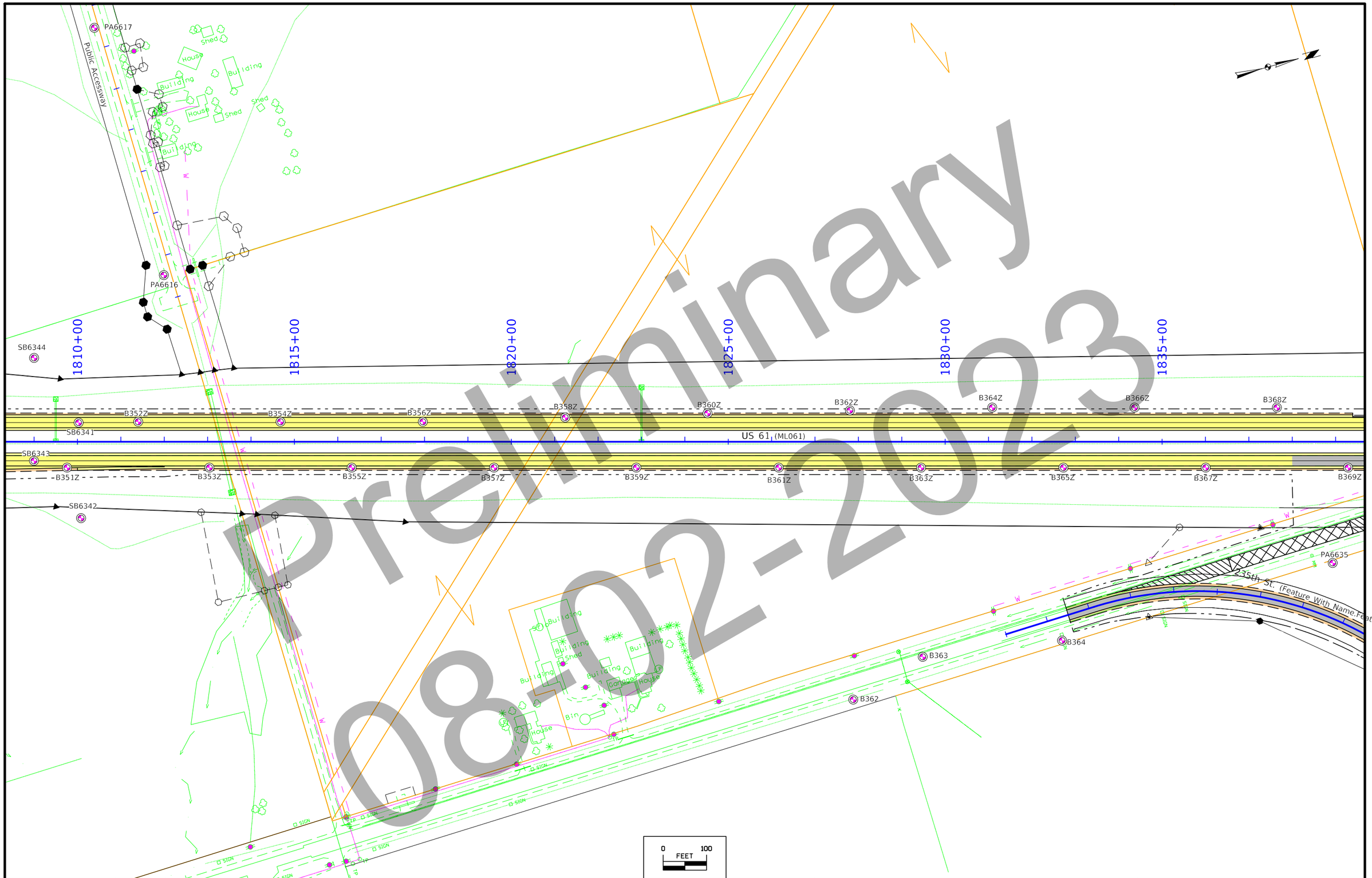

Preliminary
08-02-2023

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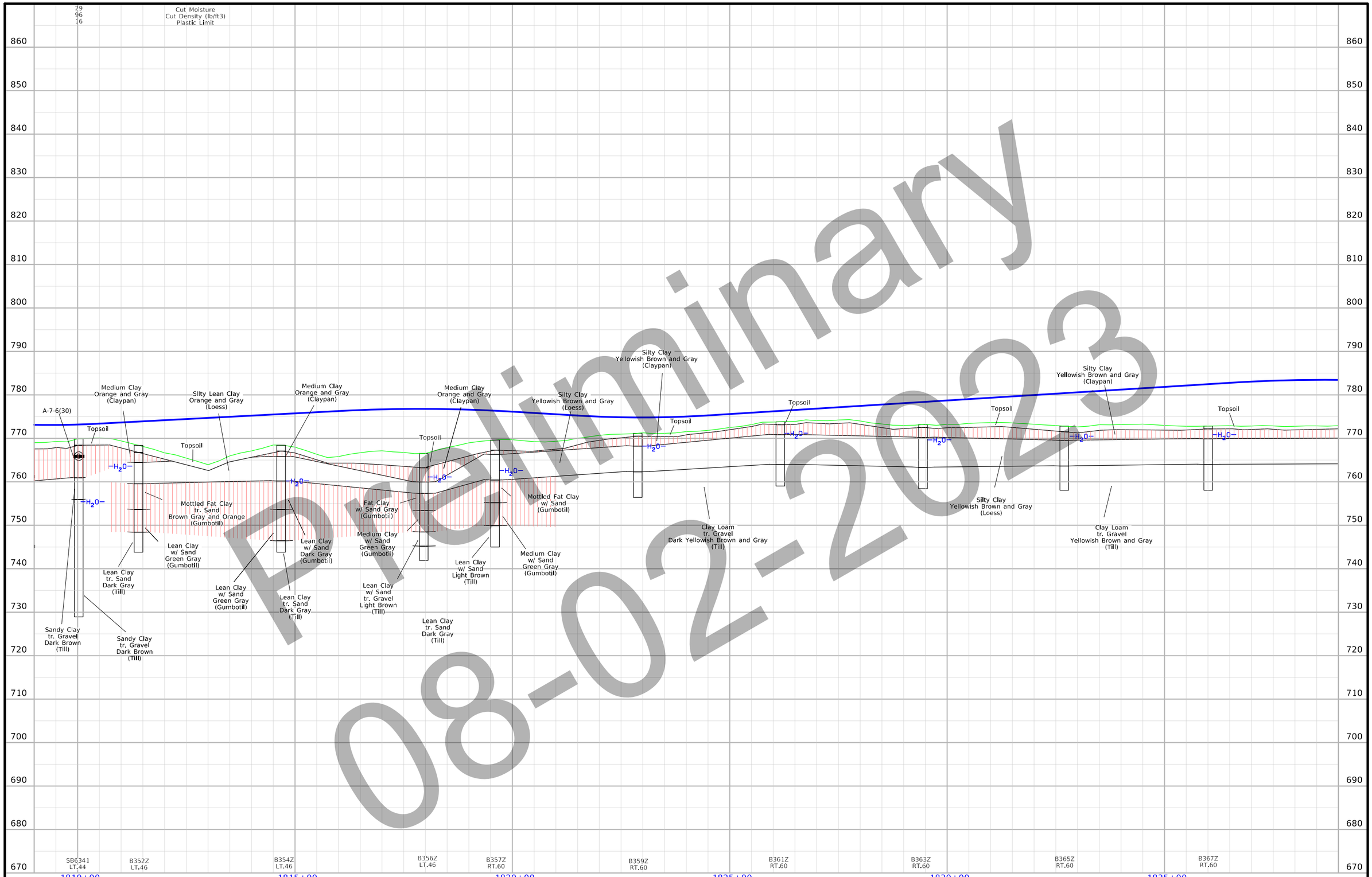

Preliminary
08-02-2023

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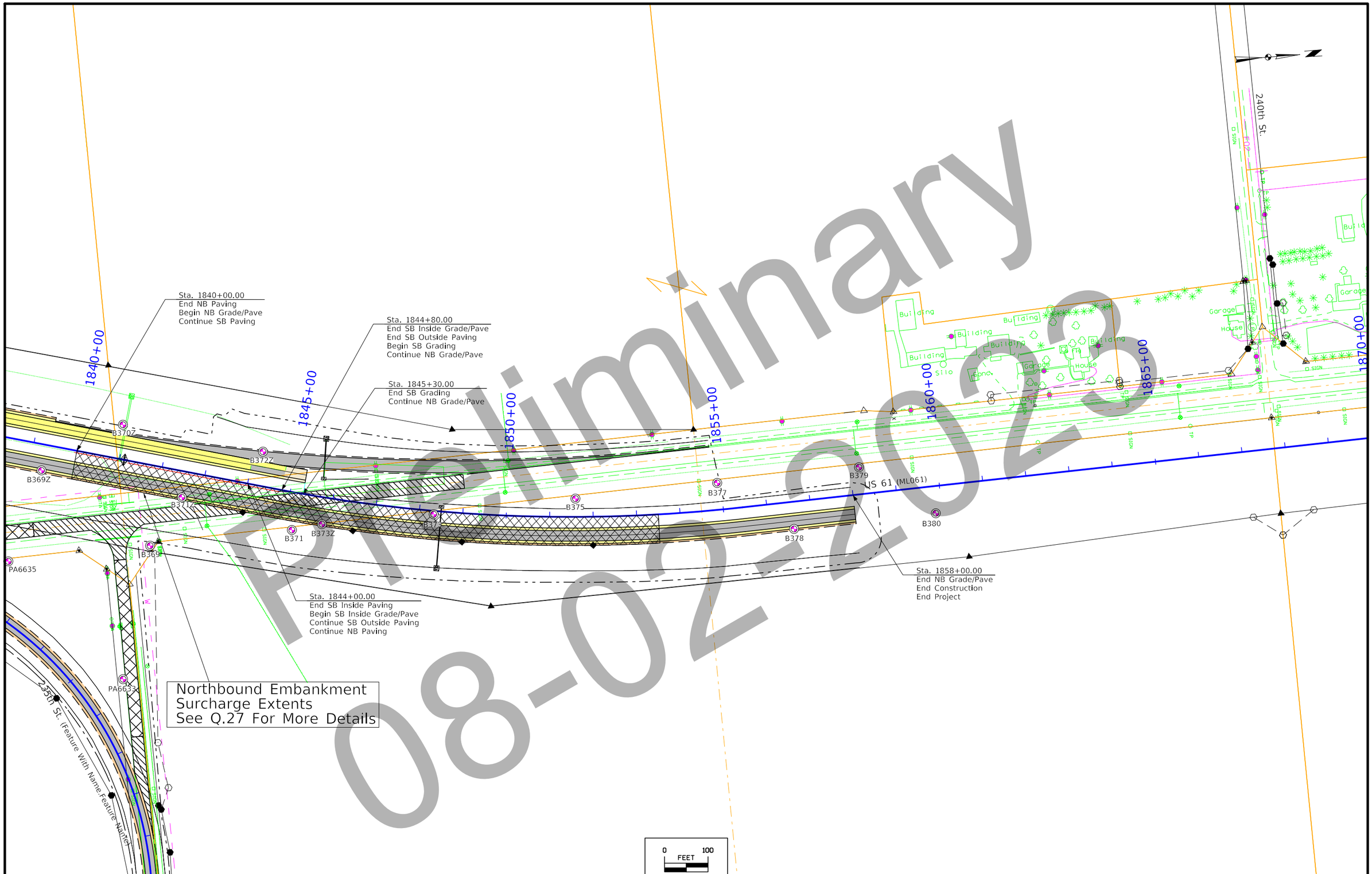

Preliminary
08-02-2023

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.\Braun Intertec	Des Moines COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER Q.14

Preliminary
08-02-2023

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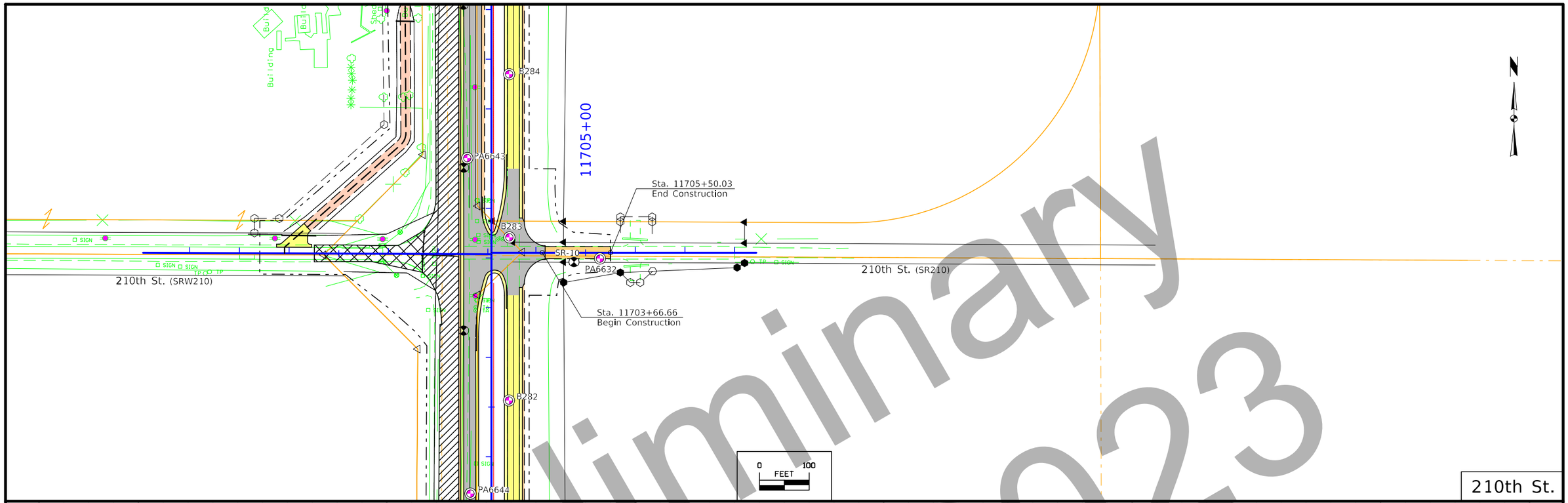

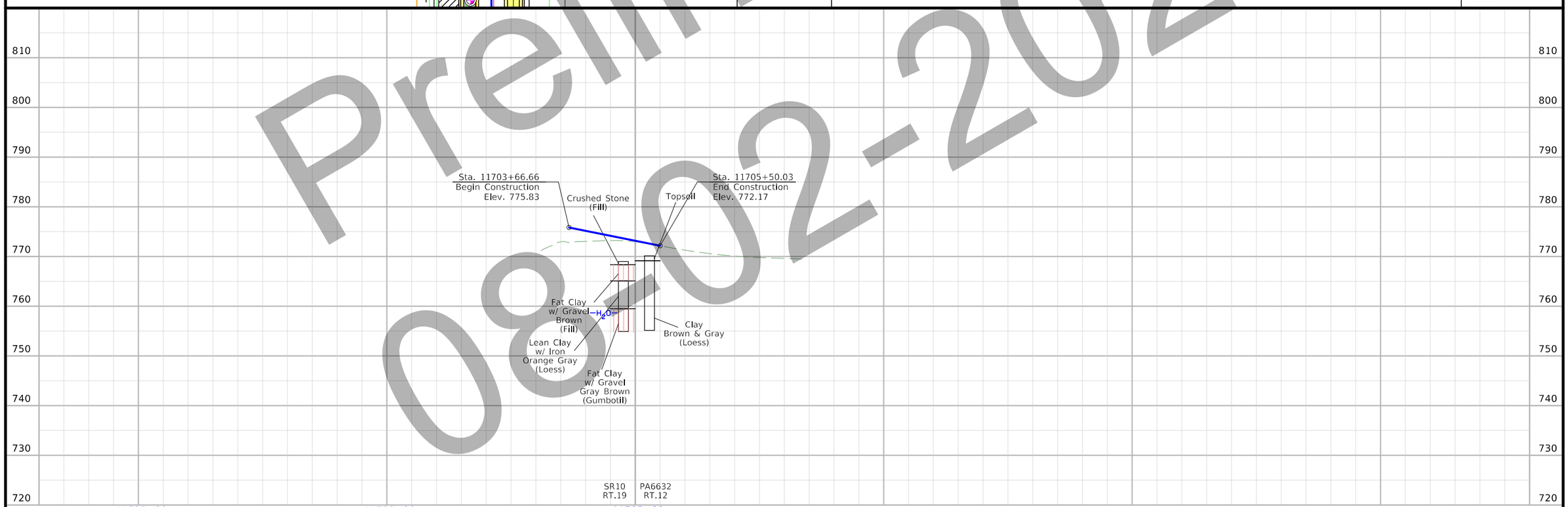

Preliminary
08-02-2023

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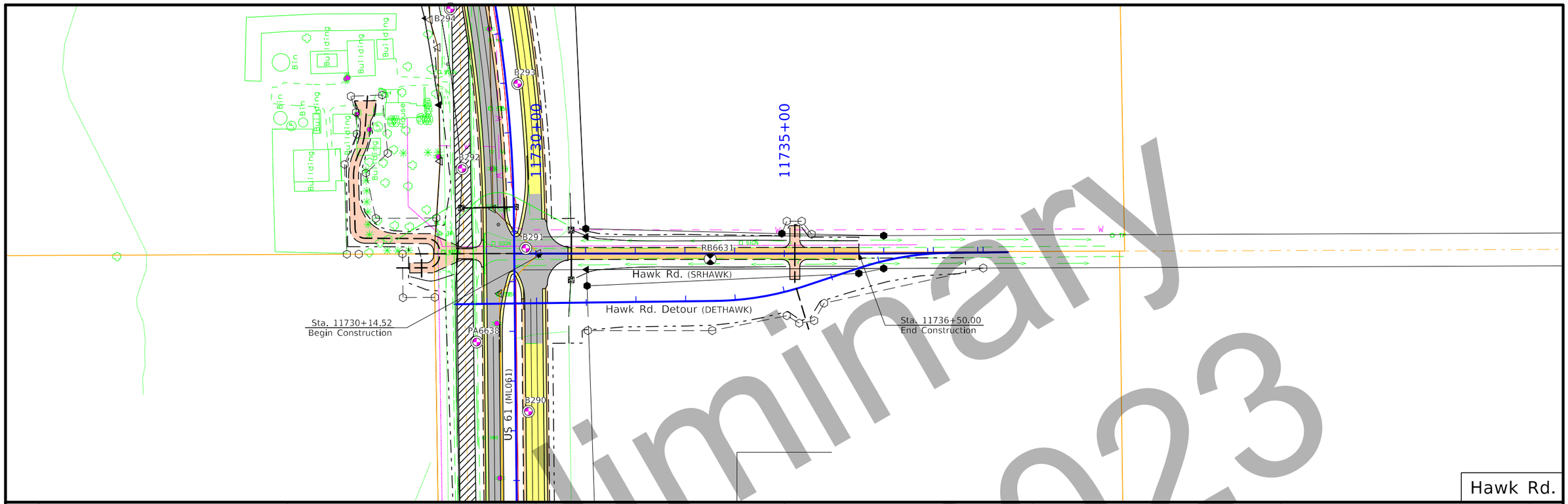

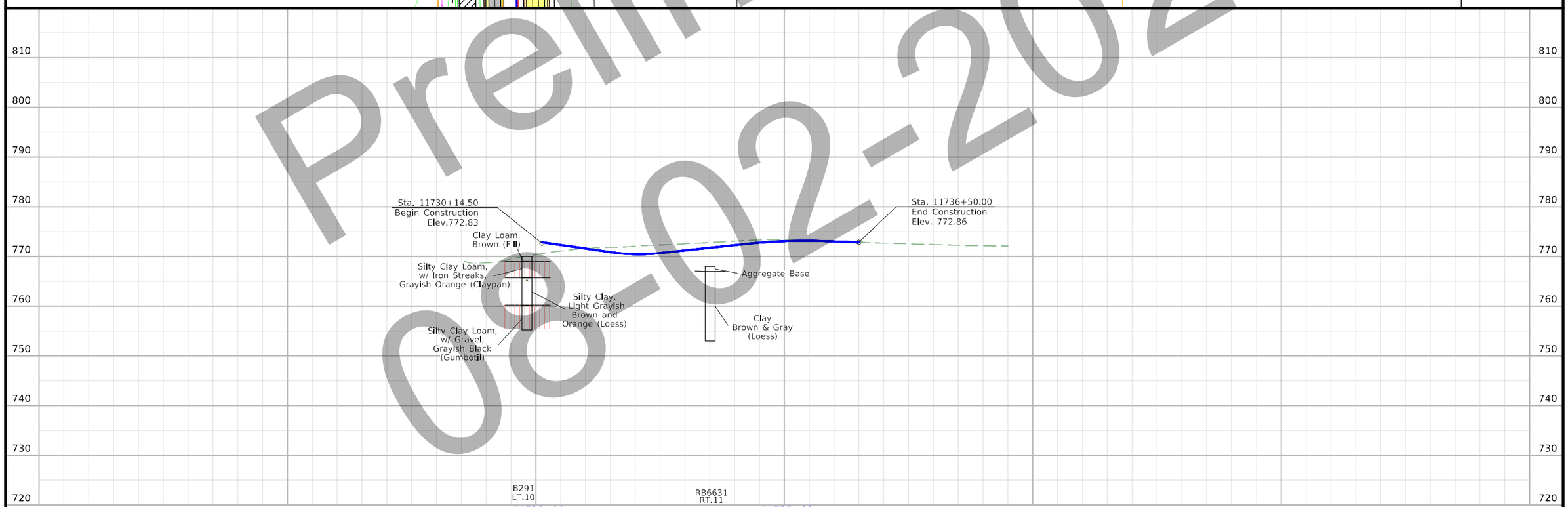

Preliminary
08-02-2023

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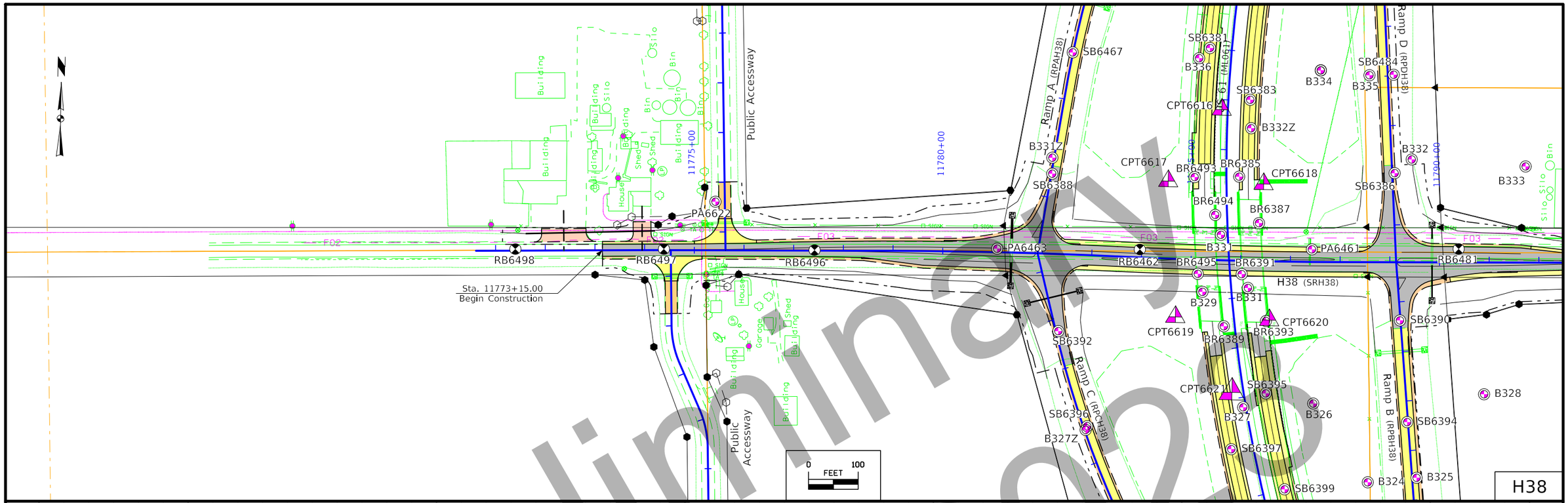

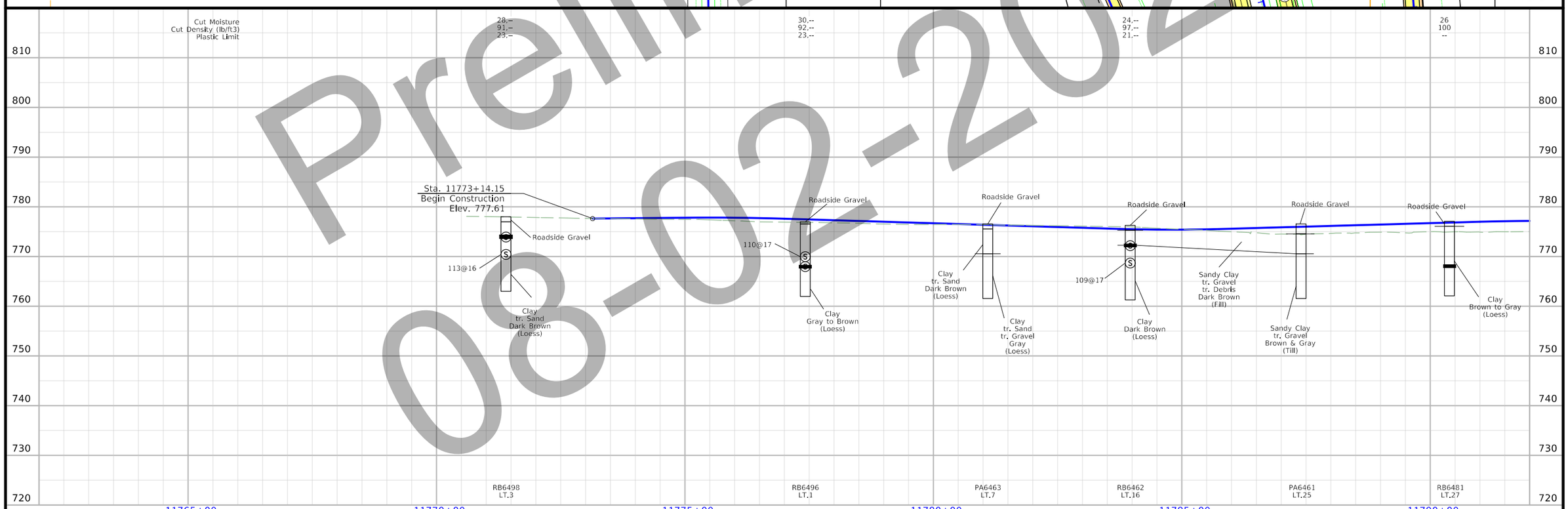

Preliminary
08-02-2023

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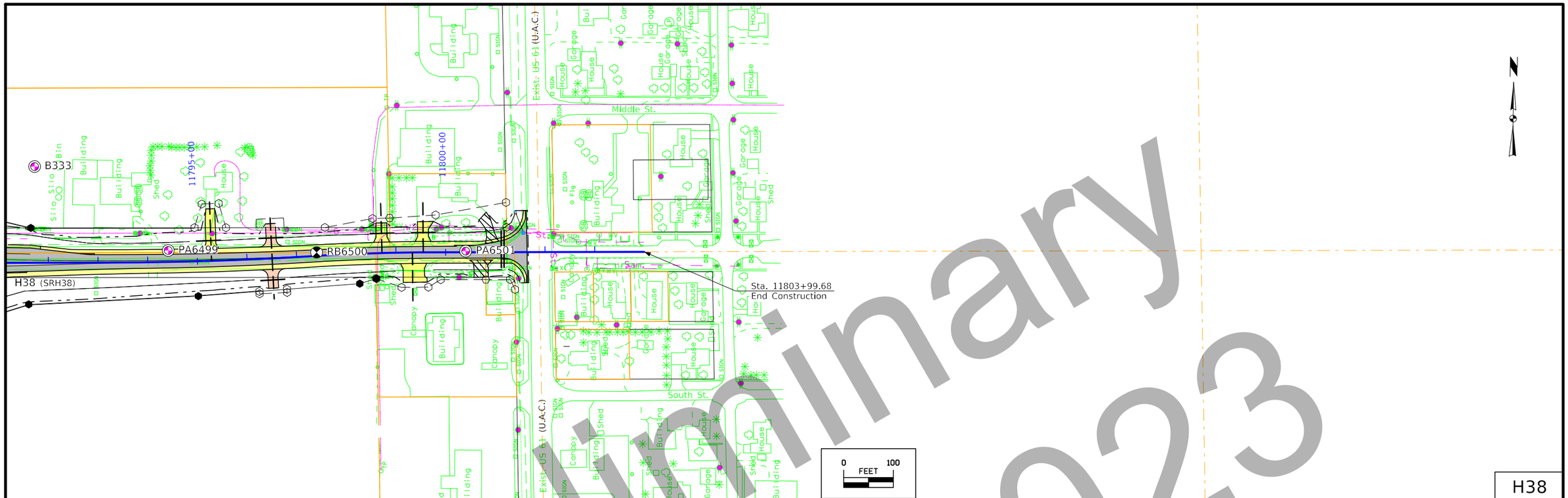

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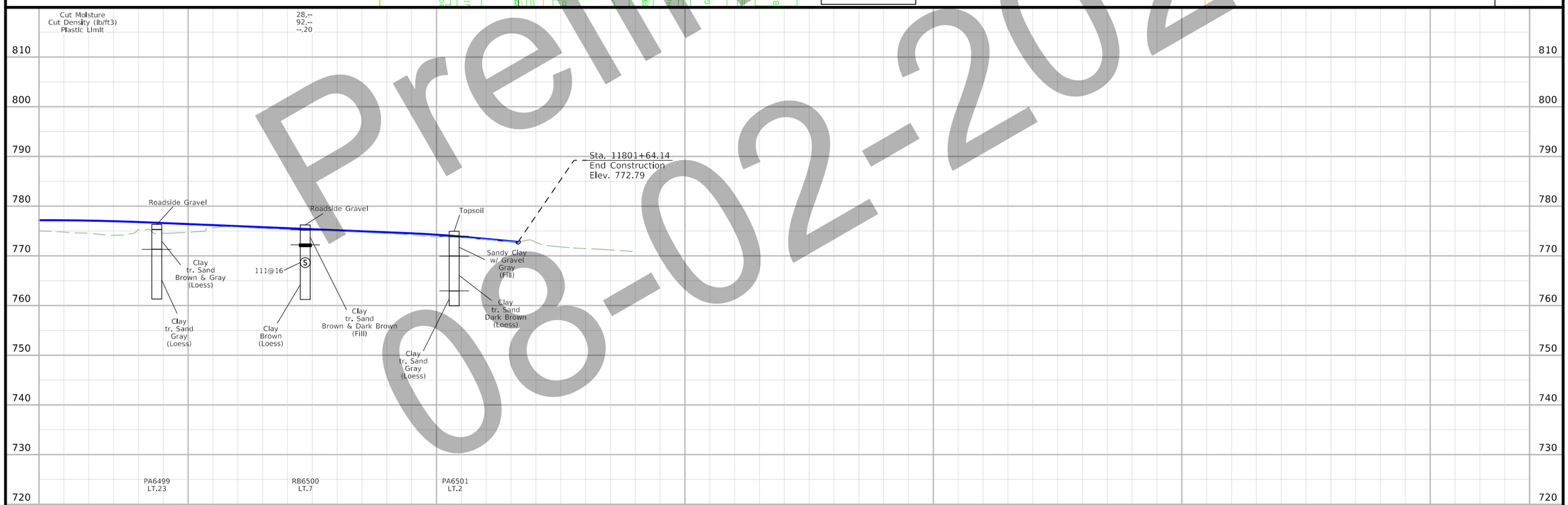

Preliminary
08-02-2023

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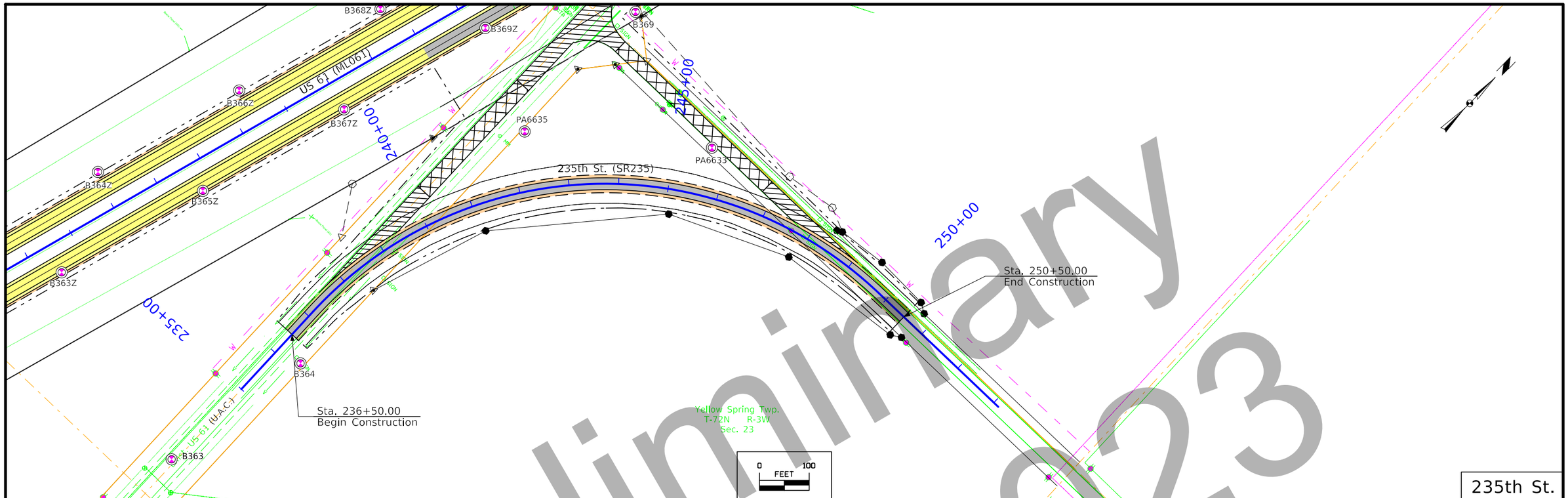

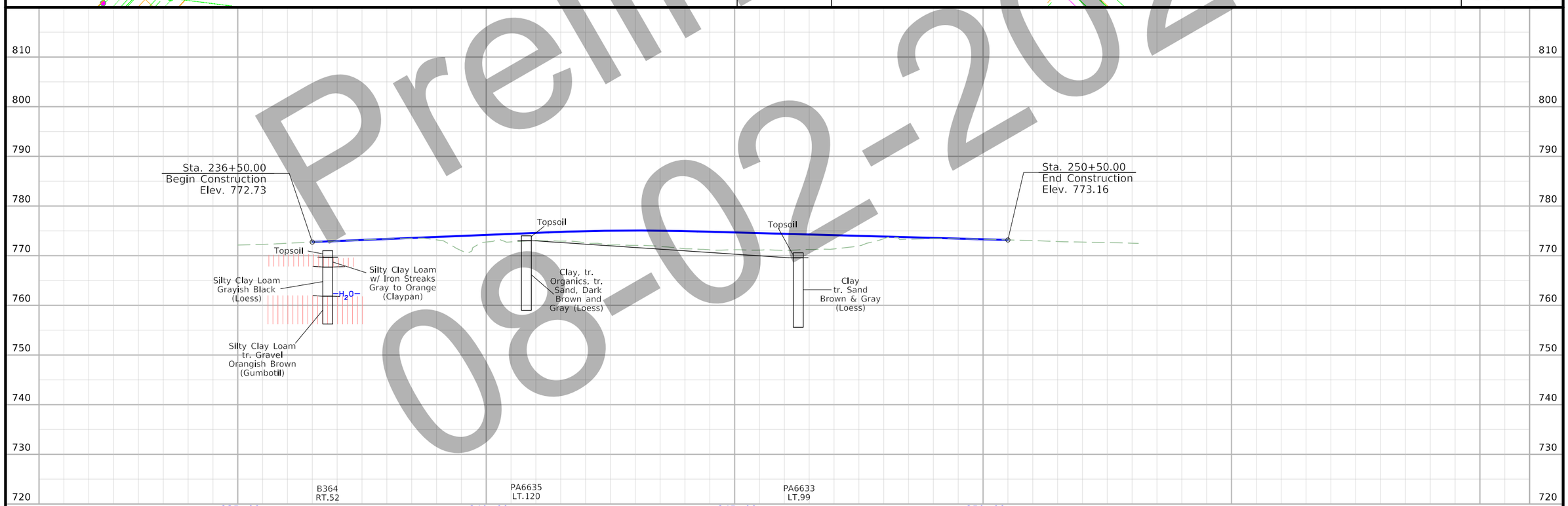

Preliminary
08-02-2023

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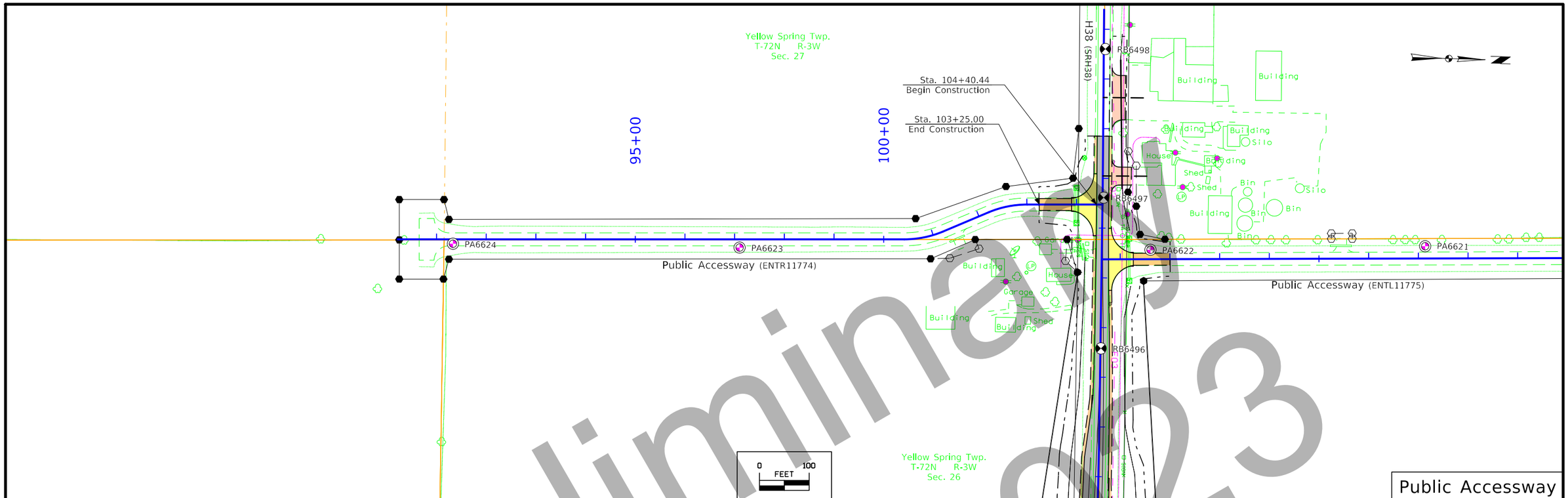

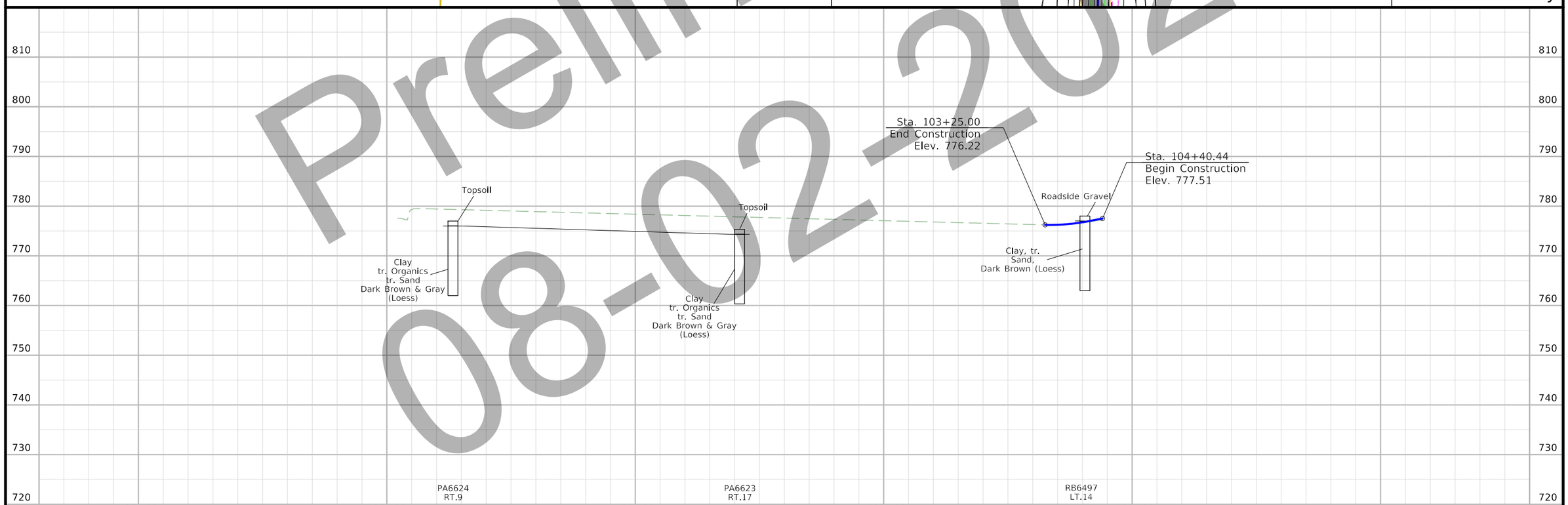

Preliminary
08-02-2023

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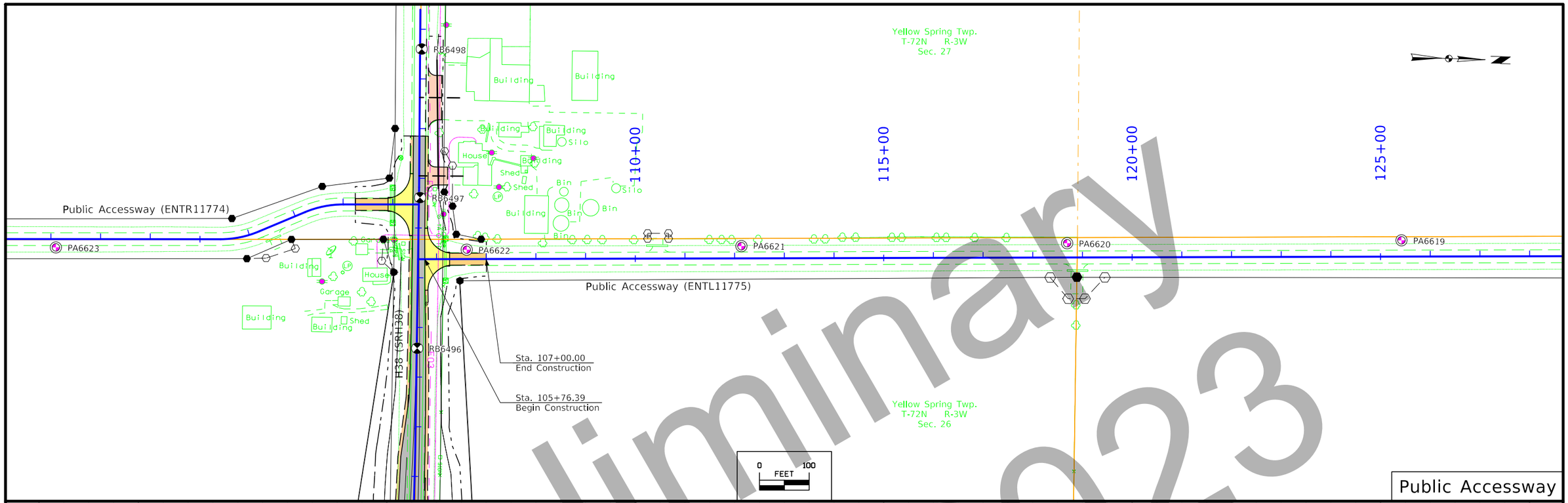

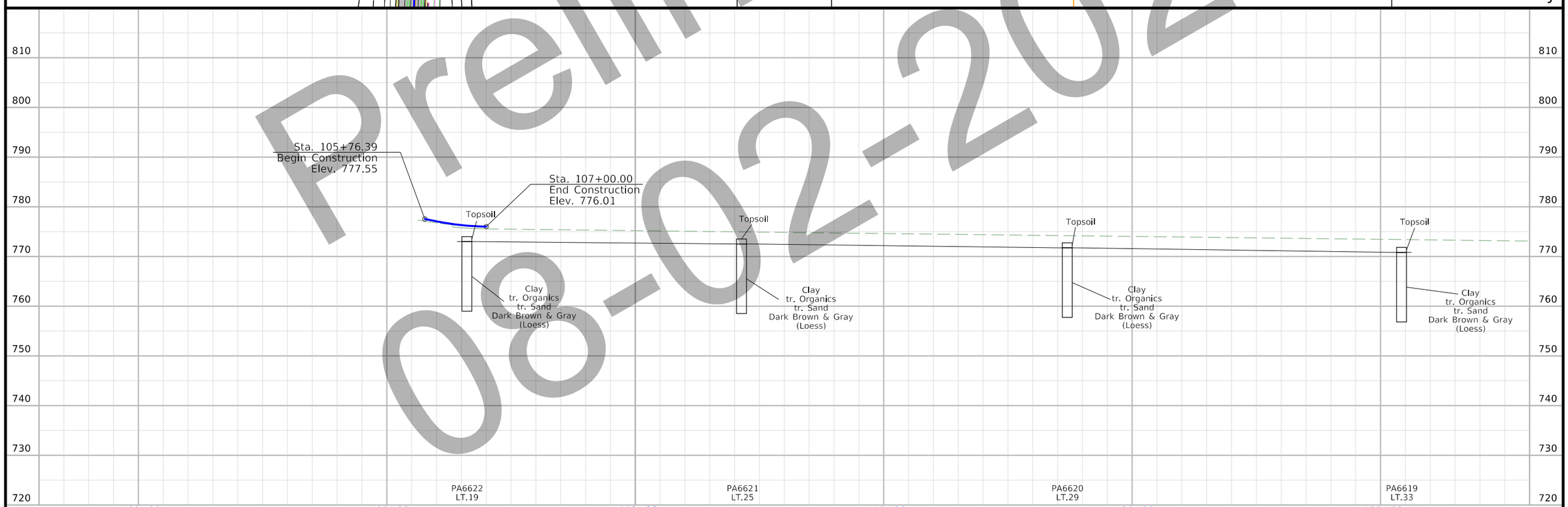

Preliminary
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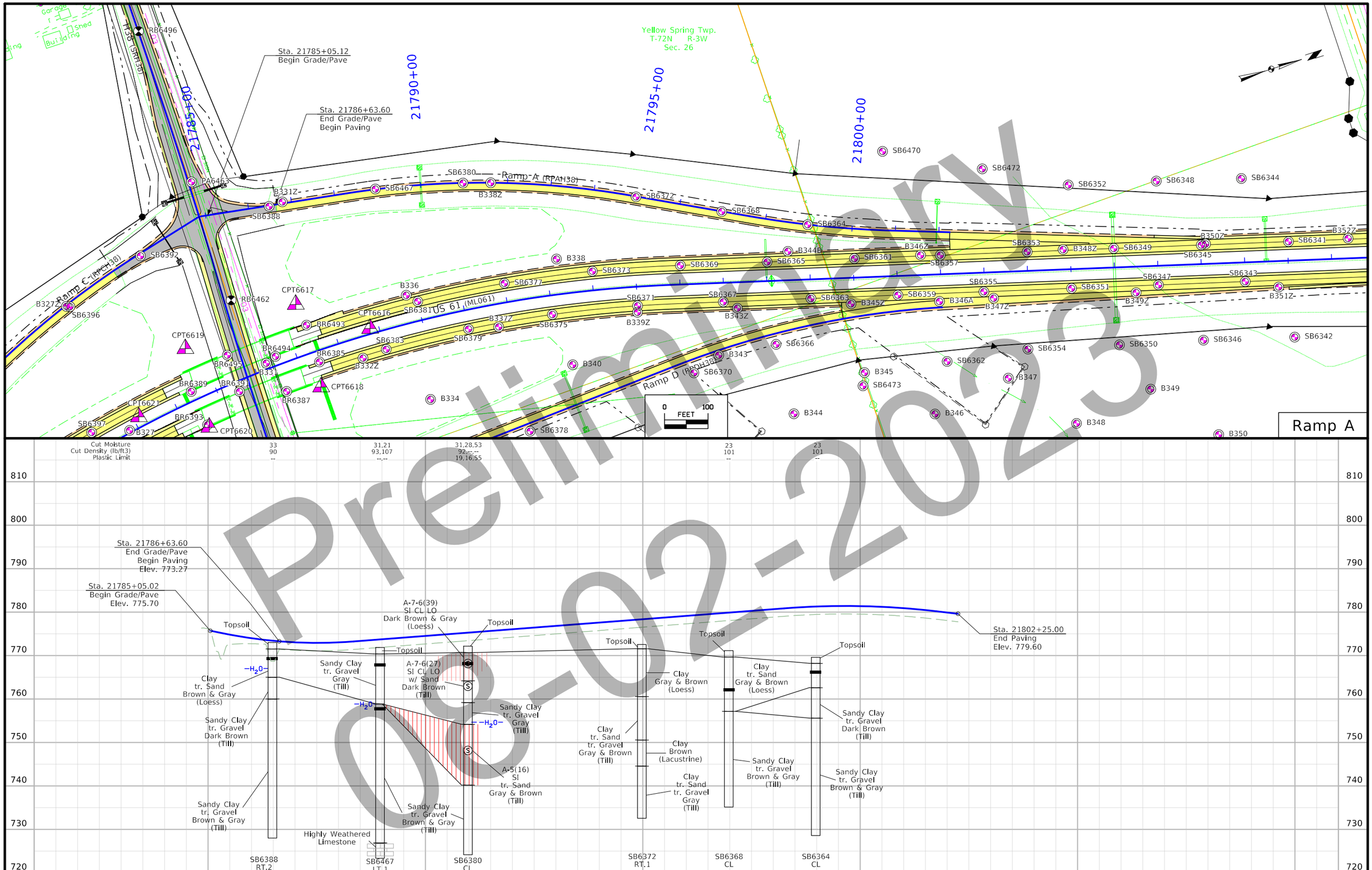

Preliminary
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FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.\Braun Intertec	Des Moines COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER Q.23

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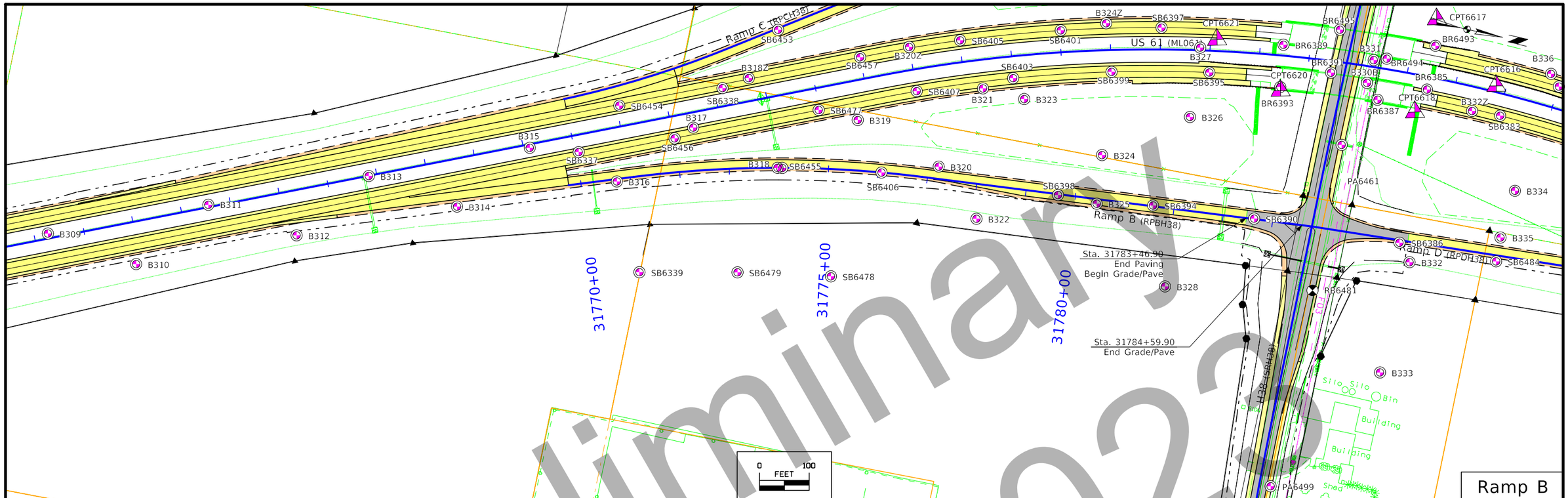

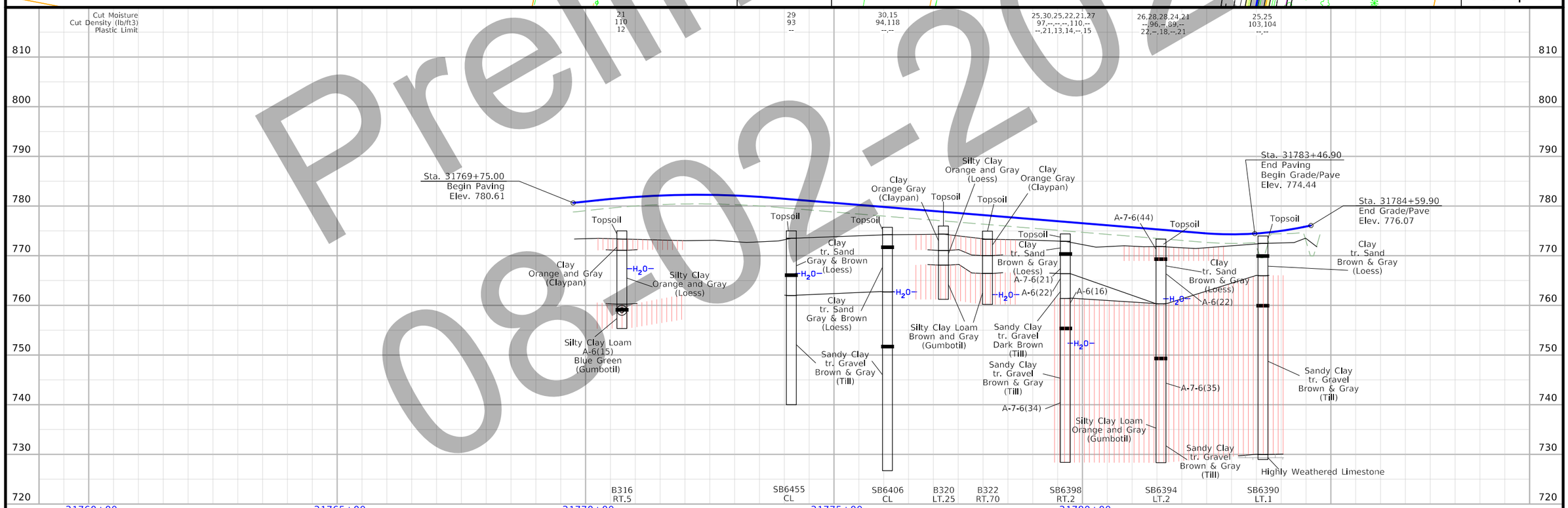

Preliminary
08-02-2023

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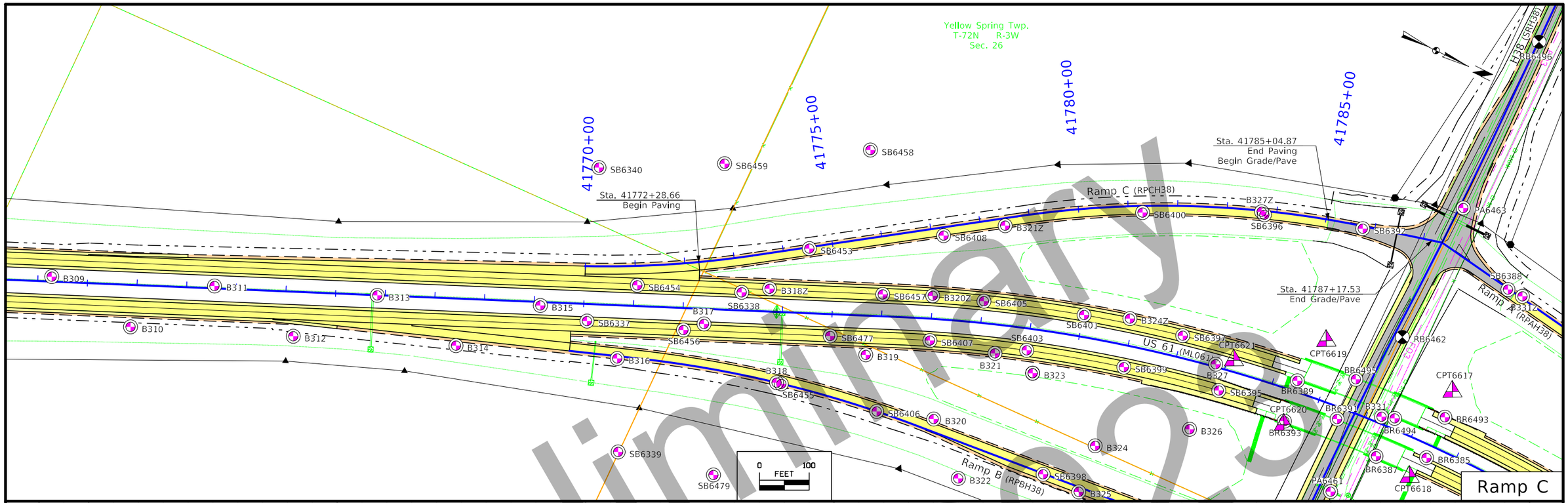

Preliminary
08-02-2023

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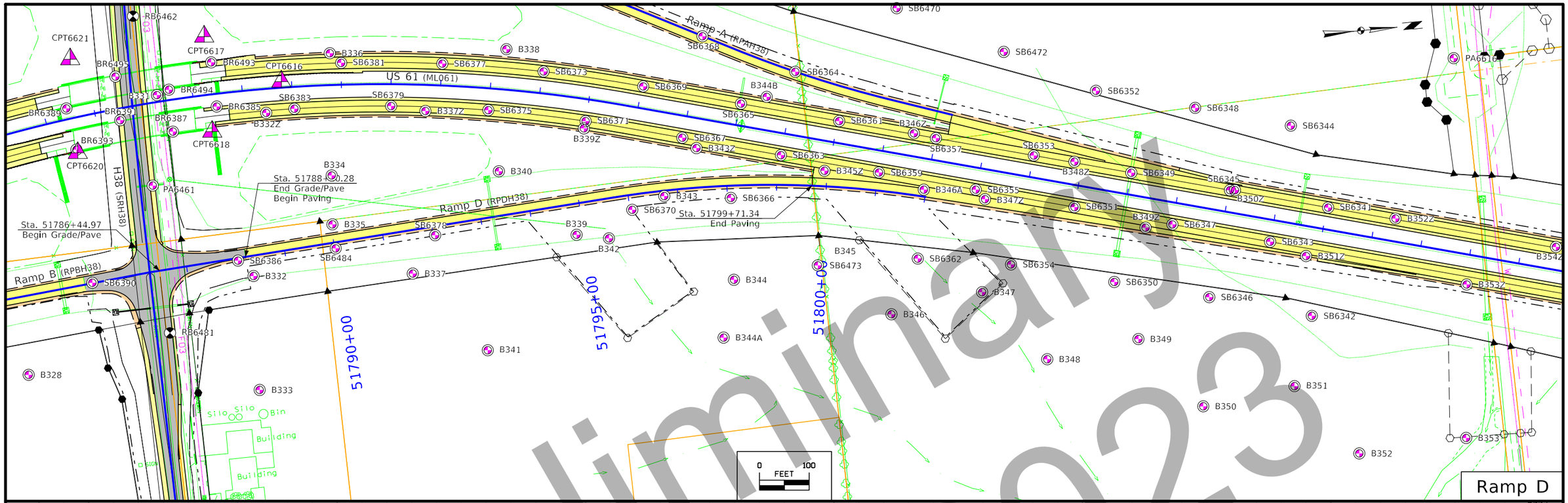

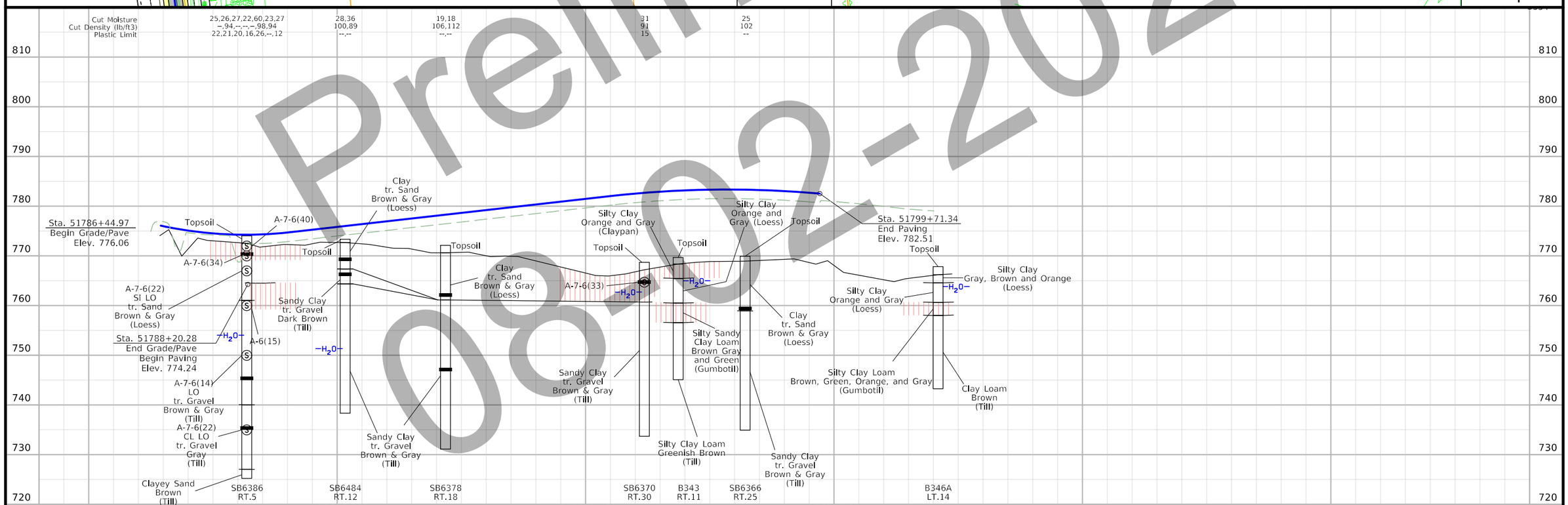

Preliminary
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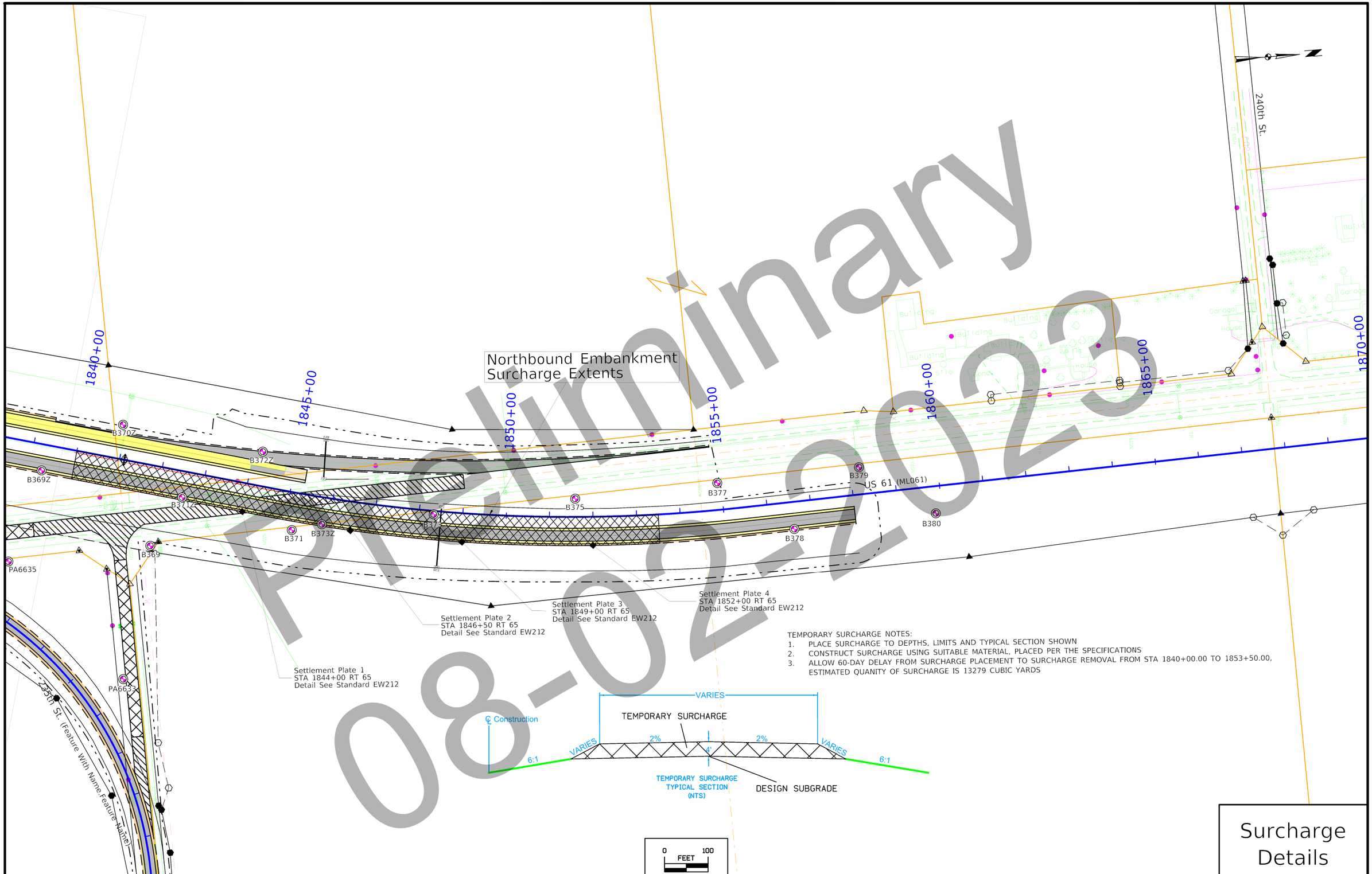

Surcharge Details

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.\Braun Intertec	Des Moines COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER Q.27

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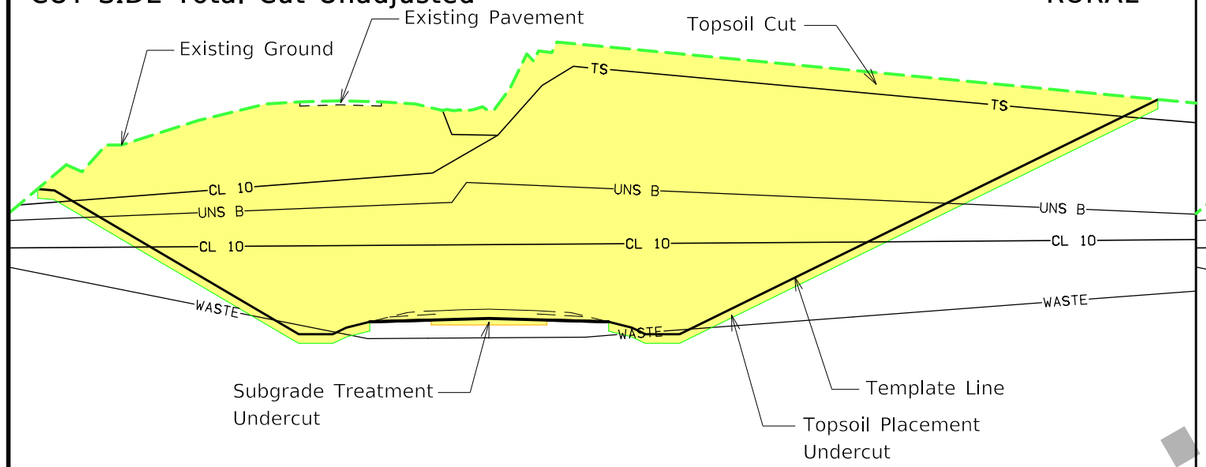
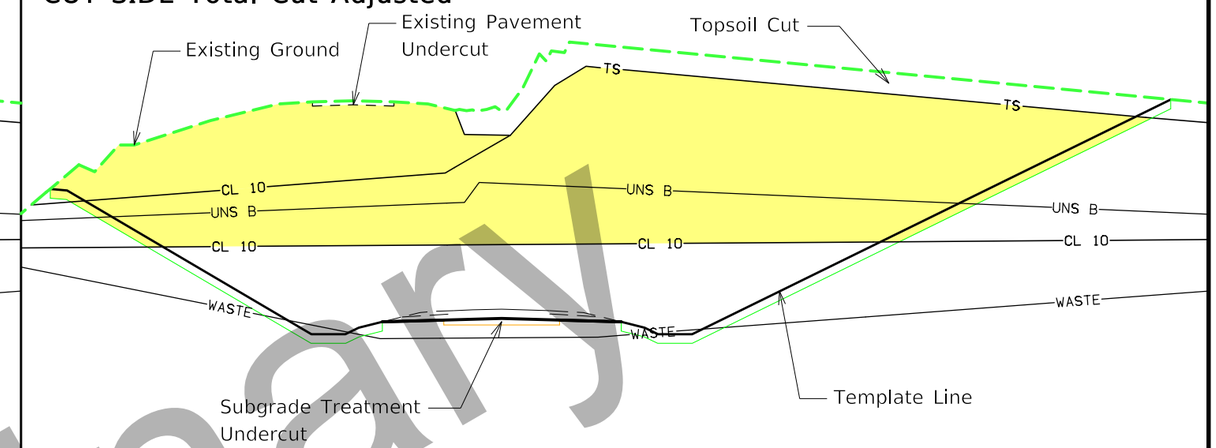
CUT SIDE Total Cut Unadjusted — RURAL



Notes:

1. "Total Cut Unadjusted" Column includes all cut values in the Station Range based on Typical, Topsoil and Subgrade Treatment needs.
2. "Total Cut Unadjusted" does not include and Existing Pavement values inside or outside the cut template as shown on cross sections.
3. Tabulated Plowing and Shaping operations are included in the "Total Cut Unadjusted" values.

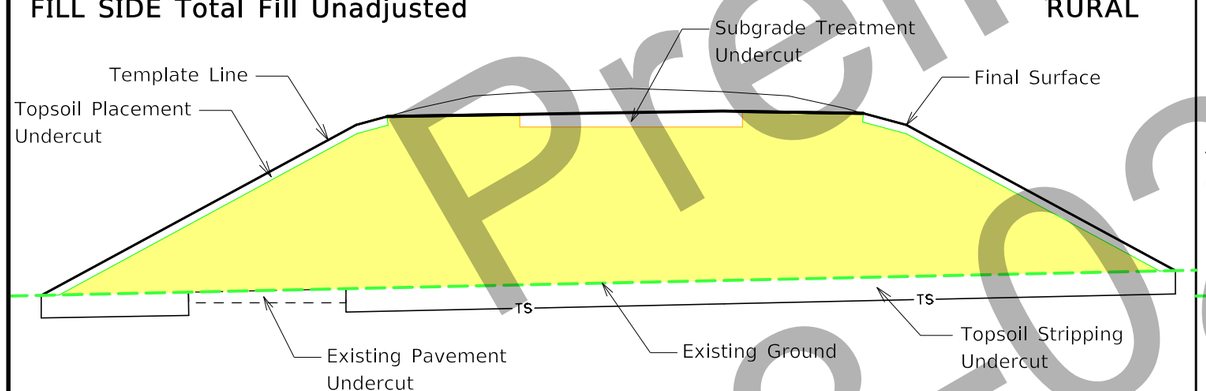
CUT SIDE Total Cut Adjusted



Notes:

1. "Total Cut Adjusted" Column includes all cut values usable as Class 10 material.
2. "Total Cut Adjusted" does not include and Existing Pavement , Existing Topsoil, or material to be wasted.

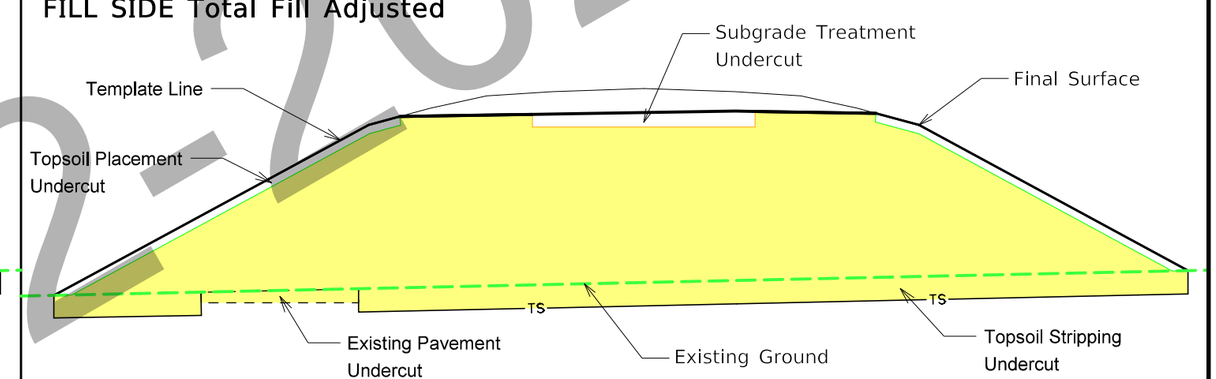
FILL SIDE Total Fill Unadjusted — RURAL



Notes:

1. "Total Fill Unadjusted" Column includes all Class 10, 12, and 13 fill. This excludes the topsoil, subgrade treatment, subbase, new pavement, and shoulder fill needs in that station range.
2. "Total Fill Unadjusted" Column does not include adjustments for additional fill from cuts such as existing pavement removed, plowing and shaping operations, entrances, dikes, or topsoil stripping.

FILL SIDE Total Fill Adjusted



Notes:

1. "Total Fill Adjusted" Column includes all Class 10, 12, and 13 fill and adjustments for additional fill from cuts such as existing pavement, plowing and shaping operations, entrances, dikes, and topsoil stripping.
2. The available area to place unsuitable materials in the T Sheet tabulation does not include the undercut values from the topsoil stripping, existing pavement, or plowing and shaping

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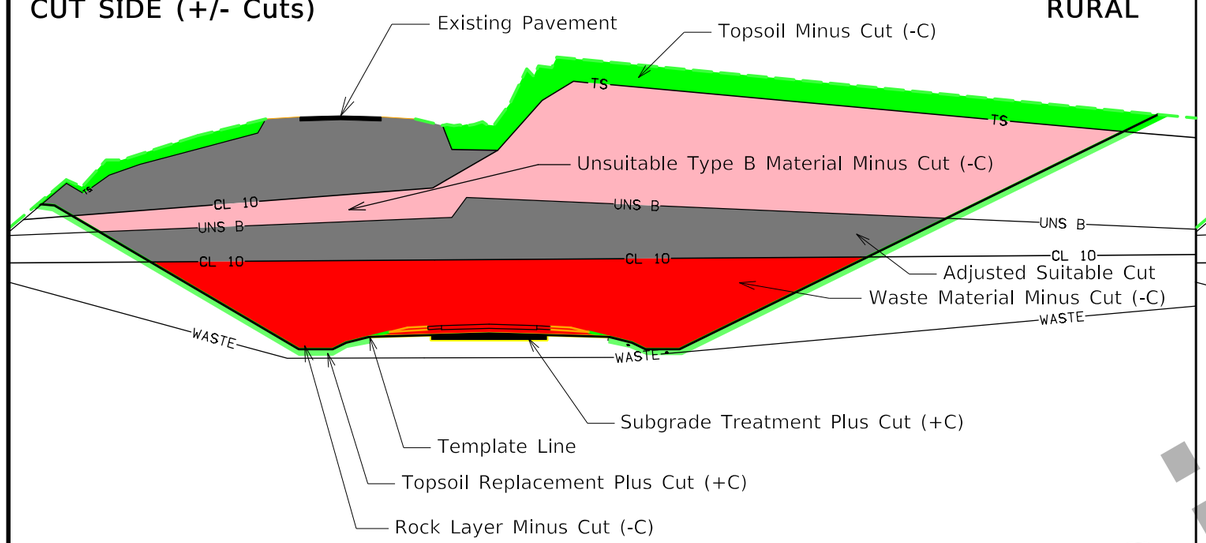
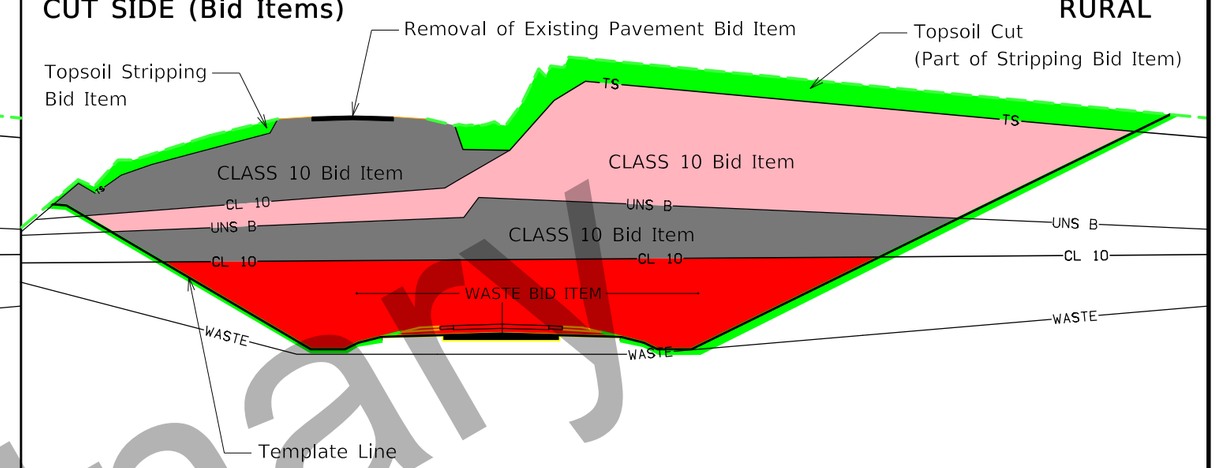
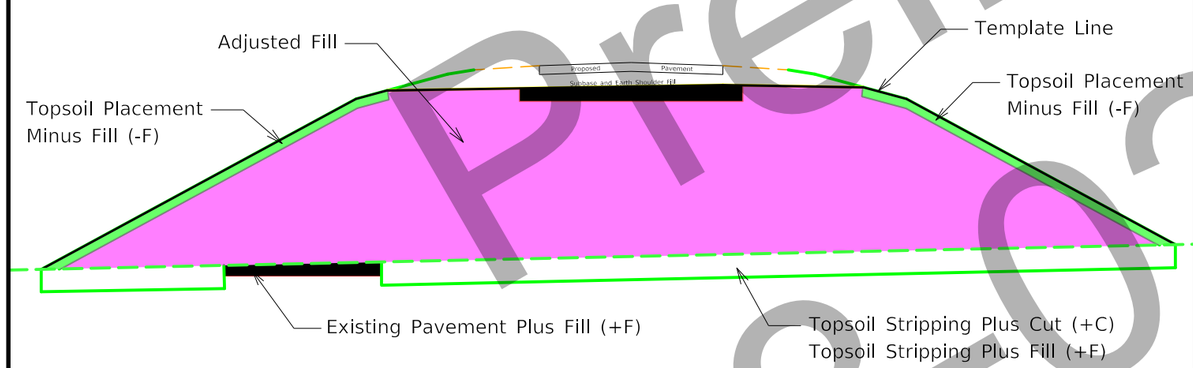
CUT SIDE (+/- Cuts) — RURAL



CUT SIDE (Bid Items) — RURAL



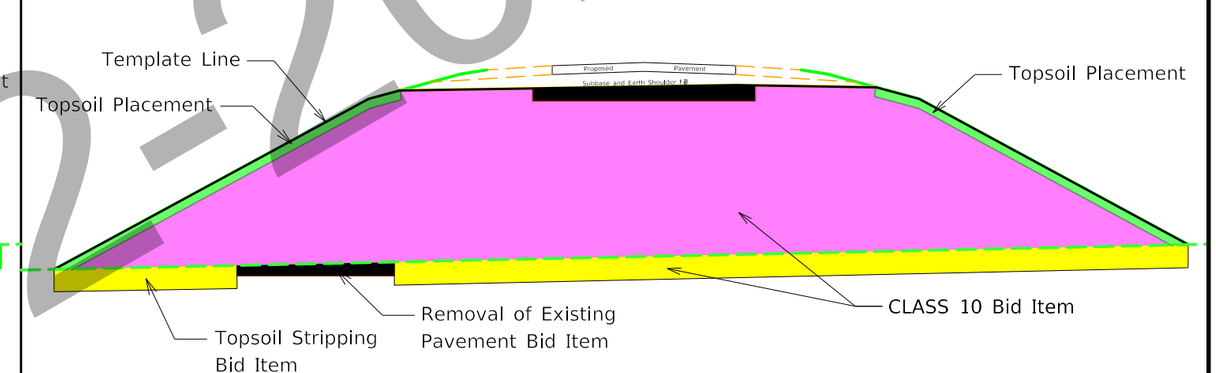
FILL SIDE (+/- Fills) — RURAL



Notes:

1. "Add Quantity +C" columns are additional cut encountered that is not Typical, Topsoil, or Subgrade Treatment Based. (Entrance, Dike, Etc.)
2. "-C" columns are either soil types or Class 10, 12, or 13 designated material that is encountered in the cut station range that is paid for by other bid items.
3. The "(SoilType) Cut" columns are soil types encountered in the cut that are paid by either Class 10, 12, or 13.
4. The "Adjusted Clas (10,12 or 13)" columns are the sum of all various soil types encountered in that station range, that are paid by Class 10, 12, or 13 bid items.
5. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

FILL SIDE (Bid Items) — RURAL



Notes:

1. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
ML061_S																						
1665+56.98	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
1665+75.00	30	13	17	0	0	0	0	13	10	10		21	27	-15	0	0	17	10	14	3		
1666+00.00	56	8	48	0	0	0	0	8	29	29		58	75	-67	0	0	48	14	19	29		
1666+25.00	56	8	48	0	0	0	0	8	29	29		57	74	-67	0	0	48	14	19	29		
1666+50.00	91	6	48	0	0	0	37	6	29	29		57	75	-68	0	0	48	14	19	29		
1666+75.00	126	5	48	0	0	0	73	5	29	29		57	75	-70	0	0	48	14	19	29		
1667+00.00	126	5	48	0	0	0	73	5	29	29		57	75	-69	0	0	48	14	19	29		
1667+25.00	126	6	47	0	0	0	73	6	29	29		57	75	-68	0	0	47	14	19	28		
1667+50.00	126	8	45	0	0	0	73	8	29	29		57	75	-67	0	0	45	14	19	26		
1667+75.00	126	9	44	0	0	0	73	9	29	29		57	74	-65	0	0	44	14	19	25		
1668+00.00	126	11	42	0	0	0	73	11	28	28		56	73	-63	0	0	42	14	19	23		
1668+25.00	125	11	41	0	0	0	73	11	27	27		54	71	-60	0	0	41	14	19	22		
1668+50.00	124	11	39	0	0	0	74	11	26	26		52	68	-57	0	0	39	14	19	20		
1668+75.00	123	10	38	0	0	0	76	10	25	25		51	66	-56	0	0	38	14	19	19		
1669+00.00	188	65	59	0	0	0	63	65	18	17	1	37	48	18	0	0	59	38	53	6		
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1669+75.00	186	17	121	0	0	0	49	17	241	94	6	340	442	-426	0	216	121	49	68	53		
1670+00.00	189	19	121	0	0	0	50	19	259	94	6	358	466	-447	0	243	121	47	66	54		
1670+25.00	183	22	112	0	0	0	49	22	279	88	7	373	485	-464	0	228	112	50	70	42		
1670+50.00	189	26	111	0	0	0	52	26	273	84	5	362	471	-445	0	148	111	52	73	38		
1670+75.00	239	64	118	0	0	0	57	64	216	82	1	299	389	-325	0	91	118	54	76	43		
1671+00.00	263	106	98	0	0	0	59	106	173	74	0	247	322	-216	0	87	98	56	78	20		
1671+25.00	247	111	75	0	0	0	60	111	178	72		251	326	-215	0	99	75	55	78	-2		
1671+50.00	240	107	71	0	0	0	61	107	190	71		261	339	-232	0	107	71	55	77	-6		
1671+75.00	242	110	70	0	0	0	63	110	197	69		266	346	-236	0	113	70	55	77	-7		
1672+00.00	251	120	68	0	0	0	64	120	203	68		271	352	-232	0	127	68	55	77	-10		
1672+25.00	259	127	66	0	0	0	65	127	216	66		283	367	-240	0	148	66	56	79	-13		
1672+50.00	264	133	65	0	0	0	67	133	233	65		298	388	-255	0	169	65	57	80	-16		
1672+75.00	270	139	63	0	0	0	68	139	251	63		315	409	-271	0	190	63	58	82	-18		
1673+00.00	276	145	62	0	0	0	69	145	269	62		331	430	-285	0	211	62	59	83	-21		
1673+25.00	284	153	60	0	0	0	70	153	286	60		346	450	-297	0	228	60	60	84	-24		
1673+50.00	291	163	58	0	0	0	70	163	301	58		359	466	-303	0	239	58	61	85	-27		
1673+75.00	295	173	52	0	0	0	71	173	311	52		363	472	-299	0	247	52	62	87	-35		
1674+00.00	304	182	51	0	0	0	71	182	324	51		375	487	-305	0	257	51	63	88	-37		
1674+25.00	316	191	54	0	0	0	71	191	333	54		387	504	-313	0	260	54	63	89	-34		
1674+50.00	323	200	53	0	0	0	71	200	332	53		385	500	-301	0	244	53	64	90	-37		
1674+75.00	320	198	51	0	0	0	71	198	320	51		372	484	-286	0	215	51	60	84	-33		
1675+00.00	316	195	50	0	0	0	71	195	299	50	0	349	454	-258	0	179	50	55	78	-28		
1675+25.00	314	196	48	0	0	0	70	196	274	48	0	323	420	-224	0	152	48	56	78	-30		
1675+50.00	305	189	47	0	0	0	69	189	254	47	2	303	394	-205	0	130	47	55	78	-31		
1675+75.00	291	181	42	0	0	0	67	181	238	42	4	284	370	-189	0	74	42	55	77	-35		
1675+84.00	99	63	13	0	0	0	23	63	81	13	2	96	125	-62	0	40	13	20	28	-15		
1676+00.00	175	110	24	0	0	0	41	110	137	24	4	165	215	-105	0	48	24	35	49	-25		
1676+25.00	270	164	42	0	0	0	64	164	199	42	7	248	323	-159	0	56	42	54	75	-33		
1676+50.00	257	154	41	0	0	0	63	154	186	40	8	234	304	-151	0	38	41	53	75	-34		
1676+75.00	246	145	39	0	0	0	63	145	175	38	8	221	287	-142	0	0	39	56	78	-39		
1677+00.00	230	141	36	0	0	0	53	141	173	36	18	226	295	-154	0	0	36	61	85	-49		
1677+25.00	208	136	33	0	0	0	38	136	164	33	20	218	283	-147	0	0	33	63	89	-55		
1677+50.00	192	129	31	0	0	0	32	129	151	31	15	197	256	-127	0	0	31	63	89	-58		
1677+75.00	180	123	28	0	0	0	29	123	167	28	18	213	277	-154	0	0	28	63	89	-61		
1678+00.00	172	120	26	0	0	0	26	120	227	26	20	273	355	-235	0	0	26	63	89	-63		
1678+25.00	168	120	23	0	0	0	25	120	239	23	21	283	368	-248	0	0	23	63	89	-66		
1678+50.00	165	120	20	0	0	0	25	120	191	20	22	233	303	-183	0	0	20	63	89	-69		
1678+75.00	164	121	18	0	0	0	25	121	176	18	22	215	280	-159	0	0	18	63	89	-71		
1679+00.00	163	123	15	0	0	0	25	123	174	15	22	211	275	-152	0	0	15	63	89	-74		
1679+25.00	163	125	13	0	0	0	25	125	171	13	22	206	268	-143	0	0	13	63	89	-76		
1679+50.00	164	127	12	0	0	0	25	127	169	12	22	203	264	-137	0	0	12	63	88	-77		
1679+75.00	162	127	11	0	0	0	25	127	169	11	22	201	262	-135	0	0	11	63	88	-78		
1680+00.00	163	128	10	0	0	0	25	128	168	10	22	199	259	-131	0	0	10	63	88	-79		
1680+25.00	166	133	9	0	0	0	25	133	166	9	22	196	255	-123	0	0	9	63	89	-80		
1680+50.00	167	136	7	0	0	0	25	136	164	7	22	193	251	-115	0	0	7	63	89	-82		
1680+75.00	168	138	5	0	0	0	25	138	164	5	22	191	248	-110	0	0	5	63	89	-84		
1681+00.00	169	140	5	0	0	0	25	140	165	5	22	191	248	-109	0	0	5	63	89	-84		
1681+25.00	170	141	5	0	0	0	25	141	166	5	21	192	250	-109	0	0	5	63	89	-84		
1681+50.00	171	141	4	0	0	0	26	141	167	4	15	186	242	-101	0	0	4	63	88	-84		
1681+75.00	172	140	4	0	0	0	27	140	167	4	13	185	241	-100	0	0	4	63	88	-84		
1682+00.00																						
Subtotals:	13,130	6,767	3,092	0	0	0	3,271	6,767	11,428	2,591	467	14,485	18,834	-12,071	0	4,882	3,092	3,221	4,512	-1,421		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1682+00.00																						
1682+25.00	174	141	4	0	0	0	28	141	166	4	9	180	234	-93	0	0	4	63	88	-84		
1682+50.00	175	142	4	0	0	0	29	142	165	4	7	176	229	-87	0	0	4	63	88	-84		
1682+75.00	175	143	4	0	0	0	28	143	165	4	9	177	231	-88	0	0	4	63	88	-84		
1683+00.00	176	144	4	0	0	0	28	144	165	4	8	177	230	-86	0	0	4	63	89	-84		
1683+25.00	177	145	4	0	0	0	27	145	164	4	13	182	236	-91	0	0	4	63	88	-84		
1683+50.00	175	144	4	0	0	0	27	144	163	4	12	179	233	-89	0	0	4	63	88	-84		
1683+75.00	174	142	5	0	0	0	27	142	162	5	11	178	231	-89	0	0	5	63	88	-83		
1684+00.00	174	143	5	0	0	0	26	143	161	5	10	177	230	-87	0	0	5	63	88	-83		
1684+25.00	174	143	5	0	0	0	26	143	160	5	5	170	221	-78	0	0	5	63	88	-83		
1684+50.00	170	140	4	0	0	0	26	140	158	4	4	167	217	-77	0	0	4	63	88	-84		
1684+75.00	166	137	4	0	0	0	26	137	156	4	8	167	218	-81	0	0	4	63	88	-84		
1685+00.00	162	133	3	0	0	0	25	133	163	3	7	173	225	-92	0	0	3	63	88	-85		
1685+25.00	152	124	3	0	0	0	25	124	176	2	7	185	241	-117	0	0	3	63	88	-85		
1685+50.00	152	125	3	0	0	0	24	125	159	2	6	166	216	-91	0	0	3	62	88	-85		
1685+75.00	163	136	3	0	0	0	24	136	136	1	6	143	186	-49	0	0	3	63	88	-85		
1686+00.00	166	140	3	0	0	0	24	140	136	1	5	142	185	-45	0	0	3	63	88	-85		
1686+25.00	169	142	3	0	0	0	24	142	137	1	5	142	184	-42	0	0	3	63	88	-85		
1686+50.00	176	148	3	0	0	0	24	148	135	0	3	139	180	-32	0	0	3	63	88	-85		
1686+75.00	182	154	4	0	0	0	25	154	133	0	2	135	176	-23	0	0	4	63	89	-85		
1687+00.00	185	156	4	0	0	0	25	156	132	0	1	134	174	-18	0	0	4	63	89	-85		
1687+25.00	186	157	5	0	0	0	25	157	131	1	1	133	173	-16	0	0	5	63	89	-84		
1687+50.00	188	158	5	0	0	0	25	158	130	1	1	132	172	-13	0	0	5	63	89	-84		
1687+75.00	190	160	6	0	0	0	24	160	129	1	0	130	169	-10	0	0	6	63	89	-83		
1688+00.00	193	162	6	0	0	0	24	162	128	1	0	129	168	-6	0	0	6	63	89	-83		
1688+25.00	195	163	7	0	0	0	24	163	129	1	0	130	169	-6	0	0	7	64	89	-82		
1688+50.00	194	163	7	0	0	0	24	163	130	1	1	132	172	-9	0	0	7	63	89	-82		
1688+75.00	194	162	8	0	0	0	24	162	132	1	1	134	174	-12	0	0	8	63	89	-81		
1689+00.00	194	162	8	0	0	0	24	162	133	1	1	135	176	-14	0	0	8	64	89	-81		
1689+25.00	194	162	9	0	0	0	23	162	134	1	1	136	177	-16	0	0	9	64	89	-80		
1689+50.00	195	162	10	0	0	0	23	162	135	1	1	137	178	-16	0	0	10	64	89	-80		
1689+75.00	198	164	10	0	0	0	23	164	136	1	1	138	180	-16	0	0	10	63	89	-79		
1690+00.00	200	165	11	0	0	0	23	165	139	1	2	142	185	-20	0	0	11	63	89	-78		
1690+25.00	201	166	12	0	0	0	23	166	144	2	2	147	192	-26	0	0	12	63	89	-77		
1690+50.00	204	168	13	0	0	0	23	168	148	2	2	151	197	-28	0	0	13	64	89	-76		
1690+75.00	206	170	13	0	0	0	23	170	151	2	2	154	201	-31	0	0	13	64	89	-76		
1691+00.00	206	170	14	0	0	0	23	170	154	2	2	158	206	-36	0	0	14	64	89	-76		
1691+25.00	208	171	14	0	0	0	23	171	157	2	2	161	210	-38	0	0	14	64	89	-75		
1691+50.00	218	182	14	0	0	0	23	182	160	2	2	164	213	-31	0	0	14	67	94	-80		
1691+75.00	216	180	14	0	0	0	22	180	163	1	3	167	218	-38	0	0	14	67	94	-80		
1692+00.00	203	166	15	0	0	0	22	166	166	1	3	171	222	-56	0	0	15	64	90	-75		
1692+25.00	200	164	15	0	0	0	22	164	168	1	3	173	225	-62	0	0	15	64	90	-75		
1692+50.00	200	163	15	0	0	0	22	163	171	1	4	176	228	-65	0	0	15	64	89	-74		
1692+75.00	198	162	15	0	0	0	21	162	174	1	4	179	233	-71	0	0	15	63	89	-74		
1693+00.00	195	159	15	0	0	0	21	159	176	1	4	181	236	-77	0	0	15	63	89	-74		
1693+25.00	198	161	15	0	0	0	21	161	175	1	4	181	235	-74	0	0	15	63	89	-74		
1693+50.00	201	164	15	0	0	0	22	164	174	1	4	179	233	-69	0	0	15	63	89	-73		
1693+75.00	197	160	16	0	0	0	21	160	175	2	5	181	236	-76	0	0	16	63	89	-73		
1694+00.00	191	155	16	0	0	0	20	155	178	2	6	185	241	-86	0	0	16	63	89	-73		
1694+25.00	187	151	16	0	0	0	20	151	181	2	7	189	246	-95	0	0	16	63	89	-73		
1694+50.00	184	149	16	0	0	0	19	149	184	2	8	194	252	-103	0	0	16	63	89	-73		
1694+75.00	181	146	16	0	0	0	18	146	186	2	9	196	255	-109	0	0	16	63	89	-73		
1695+00.00	176	142	16	0	0	0	18	142	188	2	10	200	260	-118	0	0	16	63	88	-73		
1695+25.00	170	137	16	0	0	0	17	137	192	1	11	205	266	-129	0	0	16	63	88	-73		
1695+50.00	164	132	15	0	0	0	17	132	195	1	12	208	271	-138	0	0	15	63	88	-73		
1695+75.00	160	128	15	0	0	0	16	128	196	1	13	210	273	-144	0	0	15	63	88	-73		
1696+00.00	156	125	15	0	0	0	16	125	197	1	14	212	276	-150	0	0	15	63	88	-73		
1696+25.00	150	120	15	0	0	0	15	120	200	1	15	216	281	-161	0	0	15	63	88	-73		
1696+50.00	146	116	15	0	0	0	14	116	204	1	16	221	288	-172	0	0	15	63	88	-73		
1696+75.00	142	112	16	0	0	0	14	112	209	1	17	227	295	-183	0	0	16	63	88	-72		
1697+00.00	138	109	16	0	0	0	13	109	214	1	18	234	304	-195	0	0	16	62	88	-72		
1697+25.00	134	106	16	0	0	0	12	106	220	1	12	233	303	-198	0	0	16	62	87	-72		
1697+50.00	126	99	16	0	0	0	11	99	228	1	4	233	303	-205	0	0	16	62	87	-71		
1697+75.00	123	97	16	0	0	0	11	97	235	1	14	250	325	-228	0	0	16	62	87	-71		
1698+00.00	122	96	16	0	0	0	10	96	240	1	24	266	345	-249	0	0	16	62	86	-71		
1698+25.00	116	91	16	0	0	0	9	91	245	1	25	271	353	-262	0	0	16	62	86	-71		
1698+50.00	113	88	16	0	0	0	9	88	250	1	26	277	360	-271	0	0	16	62	86	-71		
1698+75.00	113	89	15	0	0	0	8	89	254	1	27	281	366	-277	0	0	15	62	86	-71		
1699+00.00	110	87	16	0	0	0	8	87	258	1	27	286	371	-285	0	0	16	61	86	-71		
Subtotals:	11,890	9,747	712	0	0	0	1,431	9,747	11,587	118	512	12,217	15,886	-6,142	0	0	712	4,292	6,013	-5,304		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1699+00.00	108	85	16	0	0	0	7	85	261	1	25	286	372	-287	0	0	16	61	86	-70		
1699+25.00	106	83	16	0	0	0	7	83	263	1	16	281	365	-282	0	0	16	61	85	-70		
1699+50.00	102	79	16	0	0	0	7	79	265	1	10	276	359	-280	0	0	16	61	85	-70		
1699+75.00	97	75	16	0	0	0	6	75	268	1	17	286	371	-296	0	0	16	61	85	-70		
1700+00.00	95	74	15	0	0	0	6	74	270	1	28	299	388	-314	0	0	15	61	85	-70		
1700+25.00	96	75	15	0	0	0	6	75	271	1	30	302	393	-318	0	0	15	61	85	-70		
1700+50.00	96	76	15	0	0	0	6	76	270	1	31	302	392	-316	0	0	15	60	84	-70		
1700+75.00	94	74	15	0	0	0	5	74	269	1	31	301	391	-317	0	0	15	60	84	-69		
1701+00.00	92	71	16	0	0	0	5	71	267	1	31	300	390	-319	0	0	16	60	84	-68		
1701+25.00	88	67	17	0	0	0	5	67	266	1	32	299	389	-322	0	0	17	60	84	-67		
1701+41.01	50	32	15	0	0	0	3	32	150	1	20	171	223	-191	0	0	15	30	43	-27		
1701+50.00	27	13	12	0	0	0	2	13	73	1	11	85	111	-97	0	0	12	13	18	-6		
1701+75.00	93	40	50	0	0	0	4	40	200	2	32	234	304	-265	0	0	50	35	49	0		
1702+00.00	122	43	75	0	0	0	4	43	197	3	31	231	300	-258	0	0	75	36	50	25		
1702+24.59	137	47	83	0	0	0	7	47	190	3	31	224	291	-245	0	0	83	36	50	33		
1702+25.00	2	1	1	0	0	0	0	1	3	0	1	4	5	-4	0	0	1	1	1	1		
1702+48.66	164	45	106	0	0	0	13	45	183	7	29	220	286	-241	0	0	106	35	49	57		
1702+50.00	11	2	8	0	0	0	1	2	11	1	2	13	17	-14	0	0	8	2	3	5		
1702+75.00	205	41	141	0	0	0	23	41	189	12	31	232	301	-260	0	8	141	37	52	89		
1702+75.68	5	1	4	0	0	0	1	1	5	0	1	6	8	-7	0	0	4	1	1	2		
1703+00.00	160	35	66	0	0	0	59	35	166	6	26	198	257	-222	0	0	66	35	49	17		
1703+10.66	54	15	0	0	0	0	39	15	67		7	74	96	-82	0	0	0	15	21	-21		
1703+25.00	72	19	5	0	0	0	48	19	92	4	7	102	133	-114	0	0	5	20	28	-23		
1703+45.66	133	26	63	0	0	0	44	26	136	10	18	164	213	-187	0	0	63	29	40	23		
1703+50.00	35	5	24	0	0	0	6	5	29	2	5	36	46	-41	0	0	24	6	8	15		
1703+72.66	187	30	133	0	0	0	24	30	154	11	17	183	238	-208	0	0	133	31	43	89		
1703+75.00	20	3	15	0	0	0	2	3	16	1	1	19	25	-21	0	0	15	3	5	10		
1704+00.00	306	67	219	0	0	0	20	67	183	23	21	228	296	-229	30	30	219	55	77	142		
1704+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
1704+25.00	402	103	283	0	0	0	16	103	235	49	28	312	405	-302	0	0	283	75	105	178		
1704+50.00	397	106	275	0	0	0	16	106	272	63	27	362	471	-365	0	0	275	75	105	170		
1704+75.00	403	110	276	0	0	0	17	110	261	63	25	349	454	-344	0	51	276	82	114	162		
1704+79.33	63	15	45	0	0	0	3	15	44	12	4	60	78	-63	0	0	45	12	16	29		
1705+00.00	229	56	157	0	0	0	15	56	177	30	20	226	294	-238	0	0	157	40	56	101		
1705+25.00	231	83	129	0	0	0	19	83	169		23	192	250	-167	0	0	129	48	68	61		
1705+50.00	210	88	102	0	0	0	20	88	160		22	182	237	-149	0	0	102	49	68	34		
1705+75.00	194	91	83	0	0	0	21	91	152		17	169	220	-129	0	0	83	49	68	14		
1706+00.00	187	88	78	0	0	0	22	88	145		15	160	208	-121	0	0	78	49	69	9		
1706+25.00	195	95	78	0	0	0	22	95	139	0	19	157	205	-110	0	0	78	49	69	10		
1706+50.00	200	98	79	0	0	0	23	98	138	0	18	155	202	-104	0	0	79	49	69	11		
1706+75.00	205	101	80	0	0	0	24	101	139	0	16	156	203	-102	0	0	80	49	69	12		
1707+00.00	217	111	81	0	0	0	24	111	140	0	15	155	202	-90	0	0	81	49	68	13		
1707+25.00	221	113	82	0	0	0	25	113	139	0	14	153	199	-85	0	0	82	49	68	14		
1707+50.00	224	115	83	0	0	0	26	115	138	0	13	151	196	-81	0	0	83	49	68	15		
1707+75.00	227	117	83	0	0	0	27	117	137	0	11	149	194	-77	0	0	83	49	68	15		
1708+00.00	231	121	83	0	0	0	27	121	140	0	11	151	196	-75	0	0	83	49	68	15		
1708+25.00	201	124	50	0	0	0	27	124	146	0	10	156	203	-79	0	0	50	49	69	-19		
1708+50.00	161	119	15	0	0	0	26	119	144	0	10	155	201	-82	0	0	15	49	68	-53		
1708+75.00	151	113	13	0	0	0	25	113	143	0	10	153	200	-87	0	0	13	48	67	-54		
1709+00.00	148	111	13	0	0	0	25	111	146	0	10	156	203	-92	0	0	13	47	67	-54		
1709+25.00	148	111	13	0	0	0	24	111	149	0	9	158	205	-94	0	0	13	47	67	-53		
1709+50.00	150	114	13	0	0	0	23	114	150	0	8	158	206	-92	0	0	13	48	67	-54		
1709+60.33	63	48	5	0	0	0	9	48	62	0	3	65	85	-37	0	0	5	20	28	-22		
1709+75.00	89	69	8	0	0	0	12	69	89	0	4	94	122	-53	0	0	8	28	40	-32		
1710+00.00	151	118	13	0	0	0	20	118	154	0	7	162	210	-92	0	0	13	49	69	-56		
1710+25.00	153	121	14	0	0	0	19	121	155	0	7	162	210	-89	0	0	14	51	72	-58		
1710+50.00	157	124	14	0	0	0	19	124	152	0	6	159	206	-82	0	0	14	53	74	-60		
1710+75.00	159	125	14	0	0	0	20	125	150	0	6	156	203	-78	0	0	14	54	76	-62		
1711+00.00	159	125	14	0	0	0	20	125	149	0	6	155	202	-76	0	0	14	55	78	-64		
1711+25.00	161	127	14	0	0	0	20	127	148	0	6	153	199	-72	0	0	14	57	80	-66		
1711+40.33	100	80	9	0	0	0	12	80	90	0	3	93	121	-42	0	0	9	36	50	-42		
1711+50.00	63	50	5	0	0	0	8	50	57	0	2	59	76	-26	0	0	5	23	32	-27		
1711+75.00	163	129	14	0	0	0	20	129	147	0	5	152	198	-69	0	0	14	59	83	-69		
1712+00.00	162	129	14	0	0	0	19	129	149	0	6	155	201	-73	0	0	14	59	83	-70		
1712+25.00	161	128	14	0	0	0	19	128	150	0	6	156	203	-75	0	0	14	60	84	-70		
1712+50.00	161	128	14	0	0	0	19	128	150	0	6	156	203	-75	0	0	14	60	84	-70		
1712+75.00	162	129	14	0	0	0	18	129	150	0	6	157	204	-74	0	0	14	60	84	-71		
1713+00.00	163	131	14	0	0	0	18	131	151	0	6	157	204	-73	0	0	14	60	84	-71		
1713+25.00																						
Subtotals:	9,981	5,290	3,562	0	0	0	1,128	5,290	10,422	314	981	11,717	15,235	-9,948	30	88	3,562	2,967	4,156	-595		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1713+25.00	163	131	13	0	0	0	18	131	155	0	6	161	210	-78	0	0	13	60	85	-71		
1713+50.00	159	127	14	0	0	0	18	127	159	0	6	165	215	-88	0	0	14	60	85	-71		
1713+75.00	157	125	14	0	0	0	18	125	162	0	6	168	219	-94	0	0	14	60	85	-71		
1714+00.00	149	116	14	0	0	0	18	116	167	0	6	173	226	-109	0	0	14	60	85	-70		
1714+25.00	153	120	15	0	0	0	18	120	171	0	7	177	231	-111	0	0	15	61	86	-71		
1714+50.00	163	128	17	0	0	0	18	128	177	0	7	184	240	-112	0	0	17	62	87	-70		
1714+75.00	170	132	20	0	0	0	18	132	190	0	7	196	255	-123	0	0	20	64	90	-70		
1715+00.00	195	154	22	0	0	0	18	154	210	0	6	217	282	-128	0	0	22	66	93	-71		
1715+25.00	216	173	24	0	0	0	19	173	231	0	6	237	308	-135	0	0	24	69	96	-72		
1715+50.00	227	184	24	0	0	0	19	184	245	0	6	251	327	-143	0	0	24	70	98	-75		
1715+75.00	228	185	23	0	0	0	19	185	269	0	6	275	357	-172	0	0	23	70	98	-75		
1716+00.00	217	174	23	0	0	0	19	174	301	0	5	307	399	-224	0	0	23	69	97	-74		
1716+25.00	210	168	22	0	0	0	20	168	298	0	5	303	394	-226	0	0	22	69	97	-75		
1716+50.00	213	172	22	0	0	0	20	172	247	0	5	252	328	-156	0	0	22	72	101	-80		
1716+75.00	217	175	21	0	0	0	21	175	197	0	4	202	263	-87	0	0	21	72	100	-79		
1717+00.00	215	173	21	0	0	0	21	173	178	0	4	182	236	-63	0	0	21	67	94	-73		
1717+25.00	207	166	20	0	0	0	21	166	176	0	4	180	234	-69	0	0	20	65	91	-71		
1717+50.00	197	156	20	0	0	0	21	156	174	0	4	178	232	-76	0	0	20	63	88	-68		
1717+75.00	181	140	20	0	0	0	21	140	169	0	4	173	225	-85	0	0	20	62	86	-67		
1718+00.00	178	135	22	0	0	0	21	135	174	0	4	178	232	-97	0	0	22	62	87	-65		
1718+13.14	100	75	14	0	0	0	11	75	109	7	2	118	154	-79	0	0	14	33	46	-33		
1718+25.00	90	67	12	0	0	0	10	67	109	11	2	122	159	-91	0	0	12	30	42	-30		
1718+50.00	176	135	20	0	0	0	21	135	196	10	4	210	273	-138	0	0	20	62	87	-66		
1718+75.00	177	139	16	0	0	0	21	139	165	0	4	169	220	-80	0	0	16	61	86	-70		
1719+00.00	193	156	16	0	0	0	21	156	165	0	4	170	221	-64	0	0	16	63	89	-73		
1719+25.00	209	171	18	0	0	0	20	171	173	0	5	178	231	-60	0	0	18	66	92	-75		
1719+50.00	220	179	21	0	0	0	20	179	196	0	5	201	262	-83	0	0	21	71	100	-79		
1719+75.00	244	198	27	0	0	0	19	198	220	0	6	226	293	-96	0	0	27	80	113	-86		
1720+00.00	281	227	36	0	0	0	18	227	245	0	7	252	327	-101	0	0	36	89	124	-88		
1720+25.00	304	245	42	0	0	0	17	245	274	0	8	283	367	-122	0	0	42	92	129	-87		
1720+50.00	313	255	42	0	0	0	16	255	319	0	9	328	427	-172	0	46	42	92	129	-87		
1720+75.00	306	249	42	0	0	0	15	249	424	0	10	434	565	-316	0	295	42	92	129	-86		
1721+00.00	302	245	43	0	0	0	14	245	616	0	11	627	816	-571	0	317	43	94	132	-88		
1721+25.00	273	217	43	0	0	0	13	217	633	0	12	645	839	-621	0	1	43	90	126	-83		
1721+25.17	2	1	0	0	0	0	0	1	4	0	0	4	5	-4	0	172	0	1	1	-1		
1721+50.00	255	202	40	0	0	0	12	202	519	0	12	531	691	-489	0	137	40	78	109	-68		
1721+75.00	262	213	38	0	0	0	12	213	494	0	13	507	660	-447	0	100	38	78	110	-72		
1722+00.00	258	213	34	0	0	0	11	213	466	0	14	480	624	-411	0	30	34	75	106	-72		
1722+25.00	264	235	18	0	0	0	11	235	412		14	426	554	-319	0	0	18	74	103	-85		
1722+50.00	225	200	14	0	0	0	11	200	370		14	383	499	-299	0	0	14	70	98	-84		
1722+75.00	178	144	23	0	0	0	11	144	359		14	372	484	-340	0	0	23	66	92	-69		
1723+00.00	157	126	20	0	0	0	11	126	343	1	14	358	465	-340	0	0	20	61	85	-65		
1723+05.17	30	24	4	0	0	0	2	24	70	0	3	73	95	-71	0	0	4	12	17	-13		
1723+25.00	111	88	14	0	0	0	9	88	264	2	10	277	360	-272	0	0	14	44	62	-48		
1723+50.00	132	104	16	0	0	0	12	104	324	4	13	341	443	-340	0	0	16	53	74	-58		
1723+75.00	123	96	15	0	0	0	13	96	318	6	12	335	436	-341	0	0	15	51	72	-57		
1724+00.00	113	86	13	0	0	0	14	86	307	7	11	326	423	-337	0	0	13	49	69	-56		
1724+25.00	110	84	12	0	0	0	15	84	293	8	10	311	405	-321	0	0	12	49	68	-56		
1724+50.00	118	90	12	0	0	0	15	90	282	8	9	299	389	-299	0	0	12	49	69	-56		
1724+75.00	126	97	13	0	0	0	16	97	274	9	9	291	379	-282	0	0	13	49	69	-56		
1725+00.00	133	103	14	0	0	0	17	103	262	9	8	279	363	-260	0	0	14	50	70	-56		
1725+25.00	143	110	15	0	0	0	17	110	242	9	7	259	336	-226	0	0	15	50	71	-56		
1725+50.00	152	118	15	0	0	0	18	118	227	9	7	243	315	-197	0	0	15	51	71	-56		
1725+75.00	160	125	16	0	0	0	19	125	222	9	6	237	308	-183	0	0	16	51	72	-56		
1726+00.00	169	133	16	0	0	0	20	133	215	9	5	229	298	-165	0	0	16	52	72	-56		
1726+25.00	177	140	17	0	0	0	21	140	209	9	4	222	289	-148	0	0	17	52	73	-57		
1726+50.00	185	147	17	0	0	0	21	147	207	9	4	219	285	-138	0	0	17	53	74	-57		
1726+75.00	193	154	18	0	0	0	21	154	201	9	3	213	277	-123	0	0	18	53	75	-57		
1727+00.00	201	161	18	0	0	0	22	161	192	9	3	204	265	-104	0	0	18	54	75	-57		
1727+25.00	191	152	17	0	0	0	22	152	186	10	2	199	258	-106	0	0	17	35	49	-33		
1727+50.00	180	142	15	0	0	0	23	142	183	11	2	195	254	-112	0	0	15	17	24	-8		
1727+54.90	36	28	4	0	0	0	4	28	35	2	0	38	49	-21	0	0	4	3	5	-1		
1727+75.00	261	151	91	0	0	0	19	151	169	38	1	208	271	-120	0	0	91	47	66	25		
1727+89.57	134	67	60	0	0	0	7	67	70	24	0	95	124	-57	0	0	60	29	41	19		
1728+00.00	73	37	31	0	0	0	5	37	46	21	0	67	87	-50	0	0	31	12	16	15		
1728+25.00	364	192	149	0	0	0	24	192	189	86	1	276	359	-168	0	0	149	56	78	71		
1728+44.00	284	152	113	0	1	0	18	152	123	54	0	177	231	-78	0	0	113	43	60	54		
1728+50.00	89	47	36	0	0	0	6	47	39	17	0	57	74	-27	0	0	36	14	19	17		
1728+56.00																						
Subtotals:	12,591	9,754	1,734	0	1	0	1,102	9,755	16,015	419	423	16,856	21,917	-12,165	0	1,097	1,734	3,901	5,464	-3,733		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1728+56.00	88	46	36	0	0	0	6	47	39	17	0	56	73	-27	0	0	36	14	20	16		
1728+65.18	134	70	55	0	1	0	9	70	59	26	0	85	111	-41	0	0	55	22	31	24		
1728+75.00	144	74	59	0	1	0	10	75	64	27	0	91	119	-43	0	0	59	24	34	26		
1729+00.00	399	190	181	0	3	0	25	193	166	63	0	229	298	-105	0	0	181	67	93	88		
1729+21.08	358	155	177	0	5	0	21	160	178	70	0	248	323	-163	0	73	177	60	84	94		
1729+25.00	65	28	33	0	1	0	4	28	47	21	0	68	88	-60	0	16	33	11	16	17		
1729+34.90	160	69	80	0	0	0	10	69	146	63	0	208	271	-201	0	0	80	28	39	42		
1729+50.00	228	127	84	0	1	0	15	129	154	57	0	211	275	-146	0	0	84	41	58	27		
1729+56.52	92	63	21	0	1	0	7	64	31	8	0	38	50	14	0	0	21	17	25	-3		
1729+75.00	295	151	124	0	1	0	19	152	173	64	0	236	307	-155	0	77	124	49	68	56		
1730+00.00	454	163	264	0	1	0	25	165	385	149		534	694	-529	0	157	264	64	89	175		
1730+21.30	382	133	224	0	4	0	21	137	304	119		423	550	-413	70	138	224	68	95	129		
1730+25.00	65	24	37	0	1	0	4	25	46	18		63	82	-58	0	0	37	12	16	21		
1730+47.26	327	166	135	0	4	0	22	170	231	68		300	390	-220	12	62	135	48	67	68		
1730+50.00	32	23	6	0	0	0	3	23	22	4		26	34	-11	0	0	6	5	7	-2		
1730+75.00	234	159	48	0	2	0	25	162	182	30		212	276	-114	0	0	48	46	65	-16		
1730+96.90	155	96	36	0	1	0	22	97	140	23		162	211	-114	0	0	36	38	54	-18		
1731+00.00	21	13	5	0	0	0	3	13	21	3		24	31	-18	4	4	5	5	8	-3		
1731+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
1731+25.00	158	94	39	0	1	0	25	95	173	27		200	261	-166	35	35	39	43	60	-21		
1731+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
1731+50.00	166	97	43	0	1	0	25	98	292	29		321	418	-319	0	0	43	42	59	-17		
1731+75.00	189	118	46	0	1	0	25	118	299	31		330	430	-311	0	0	46	43	60	-15		
1732+00.00	197	125	47	0	0	0	25	125	193	30		223	290	-165	0	0	47	43	61	-14		
1732+25.00	202	129	48	0	0	0	25	129	195	27	0	221	288	-159	0	0	48	44	61	-13		
1732+50.00	203	129	50	0	1	0	24	129	196	27	0	224	291	-162	0	0	50	44	62	-12		
1732+75.00	203	123	55	0	2	0	24	124	198	27	1	226	294	-170	0	0	55	45	63	-8		
1733+00.00	188	123	40	0	2	0	23	124	191	17	2	210	273	-149	0	0	40	47	66	-26		
1733+25.00	176	135	18	0	2	0	22	137	184	7	3	194	252	-115	0	0	18	49	69	-52		
1733+50.00	152	105	24	0	2	0	21	107	188	8	4	201	261	-154	0	0	24	51	72	-48		
1733+75.00	139	85	33	0	2	0	19	87	193	8	6	208	270	-183	0	0	33	51	72	-38		
1734+00.00	153	100	35	0	2	0	17	101	196	7	8	211	274	-173	0	0	35	51	72	-37		
1734+25.00	129	74	36	0	2	0	16	76	197	7	9	213	276	-200	0	0	36	51	72	-35		
1734+50.00	101	43	39	0	3	0	16	46	199	7	10	215	279	-233	0	0	39	51	72	-33		
1734+75.00	84	26	41	0	4	0	14	29	203	6	11	220	286	-257	0	0	41	51	72	-31		
1735+00.00	75	17	43	0	3	0	11	21	207	7	14	228	296	-276	0	0	43	51	71	-28		
1735+25.00	89	32	47	0	2	0	8	34	219	13	17	250	325	-290	0	0	47	51	71	-24		
1735+50.00	88	30	51	0	2	0	5	32	247	21	20	288	375	-343	0	0	51	51	71	-20		
1735+75.00	101	42	55	0	1	0	3	43	279	26	23	328	426	-383	0	0	55	51	71	-16		
1736+00.00	189	121	68	0	0	0	0	121	314	29	25	368	479	-358	0	55	68	78	109	-41		
1736+13.62	118	74	44	0	1	0	0	75	225	17	14	257	334	-259	0	150	44	55	77	-33		
1736+25.00	81	41	38	0	2	0	0	43	275	16	12	303	393	-351	91	549	38	44	61	-23		
1736+50.00	170	63	102	0	5	0	0	67	795	46	25	866	1,126	-1,059	334	792	102	97	136	-34		
1736+75.00	210	41	164	0	5	0	0	46	952	99	25	1,077	1,400	-1,354	543	1,001	164	98	138	26		
1737+00.00	252	36	210	0	5	0	0	41	1,060	146	25	1,232	1,602	-1,561	685	1,143	210	100	140	71		
1737+25.00	253	35	212	0	5	0	0	40	1,122	150	25	1,297	1,687	-1,646	766	1,223	212	101	142	71		
1737+50.00	248	30	213	0	5	0	0	35	1,180	152	26	1,358	1,765	-1,731	845	1,303	213	102	144	70		
1737+75.00	243	25	214	0	5	0	0	29	1,239	155	22	1,416	1,840	-1,811	806	1,184	214	104	146	69		
1737+95.67	204	23	177	0	4	0	0	27	1,078	130	13	1,221	1,587	-1,560	303	382	177	87	122	55		
1738+00.00	44	6	37	0	1	0	0	7	232	27	2	261	340	-333	857	1,314	37	19	27	10		
1738+25.00	263	46	214	0	4	0	0	49	1,372	160	19	1,551	2,016	-1,967	1,127	1,585	214	116	163	51		
1738+50.00	276	58	215	0	3	0	0	61	1,449	162	25	1,636	2,127	-2,066	1,232	1,690	215	117	164	50		
1738+75.00	266	48	215	0	3	0	0	51	1,528	165	26	1,719	2,235	-2,184	1,333	1,790	215	118	166	50		
1739+00.00	247	27	217	0	3	0	0	30	1,601	169	26	1,796	2,335	-2,306	1,435	1,893	217	119	166	51		
1739+25.00	243	14	226	0	3	0	0	17	1,676	172	26	1,874	2,436	-2,419	1,551	2,007	226	119	167	58		
1739+50.00	252	4	244	0	4	0	0	8	1,762	175	26	1,963	2,552	-2,544	1,651	2,109	244	120	167	77		
1739+75.00	289	1	284	0	3	0	0	5	1,837	178	26	2,041	2,653	-2,649	1,706	2,163	284	120	168	117		
1740+00.00	339	4	331	0	3	0	0	7	1,875	181	26	2,082	2,706	-2,699	1,732	2,189	331	120	169	163		
1740+25.00	355	4	349	0	3	0	0	7	1,892	181	26	2,099	2,729	-2,723	1,086	1,360	349	120	168	180		
1740+40.00	214	5	208	0	1	0	0	6	1,100	104	16	1,220	1,586	-1,580	702	885	208	72	101	107		
1740+50.00	144	5	138	0	1	0	0	6	733	70	11	813	1,057	-1,051	839	1,066	138	49	68	71		
1740+62.42	177	4	172	0	1	0	0	5	944	89	13	1,046	1,360	-1,355	871	1,101	172	61	85	87		
1740+75.00	177	1	175	0	1	0	0	2	954	91	13	1,058	1,376	-1,374	1,611	2,068	175	62	87	88		
1741+00.00	344	9	332	0	3	0	0	12	1,889	179	27	2,095	2,723	-2,711	1,726	2,184	332	127	177	155		
1741+25.00	336	39	292	0	3	0	3	42	1,890	181	23	2,095	2,723	-2,682	1,013	1,251	292	129	181	111		
1741+38.02	175	37	133	0	1	0	4	38	984	98	9	1,092	1,419	-1,381	840	1,060	133	68	95	38		
1741+50.00	164	42	115	0	1	0	6	43	904	92	7	1,002	1,303	-1,260	1,599	2,057	115	64	89	26		
1741+75.00	360	96	243	0	3	0	18	98	1,879	199	9	2,087	2,713	-2,615	1,741	2,198	243	138	194	50		
1742+00.00																						
Subtotals:	13,061	4,316	7,978	0	140	0	627	4,456	41,178	4,775	699	46,652	60,651	-56,198	29,143	40,312	7,978	4,254	5,959	2,020		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1742+00.00	373	91	254	0	4	0	24	95	1,881	209	3	2,092	2,720	-2,625	1,729	2,176	254	143	201	53		
1742+24.42	368	80	258	0	4	0	26	83	1,845	214		2,059	2,677	-2,593	312	322	258	143	201	58		
1742+25.00	9	2	6	0	0	0	1	2	44	5		49	64	-62	1,500	1,958	6	3	5	1		
1742+50.00	379	75	274	0	4	0	27	78	1,890	227		2,117	2,752	-2,674	1,785	2,243	274	149	208	66		
1742+75.00	409	61	311	0	3	0	34	64	1,888	238		2,125	2,763	-2,699	1,799	2,257	311	149	209	102		
1743+00.00	422	31	350	0	3	0	38	34	1,887	245		2,132	2,772	-2,739	1,197	1,461	350	149	208	142		
1743+14.42	238	6	213	0	2	0	18	8	1,104	141		1,244	1,618	-1,610	854	1,048	213	85	120	93		
1743+25.00	181	6	162	0	1	0	11	8	830	105		935	1,216	-1,208	1,959	2,415	162	62	87	75		
1743+50.00	446	23	393	0	3	0	27	26	2,143	257		2,400	3,120	-3,094	2,444	2,902	393	146	204	188		
1743+75.00	451	18	404	0	2	0	27	20	2,364	268		2,632	3,422	-3,401	2,093	2,549	404	147	205	198		
1744+00.00	457	15	414	0	1	0	27	16	2,083	267		2,351	3,056	-3,040	562	642	414	150	211	204		
1744+04.42	83	3	74	0	0	0	5	4	296	46		342	445	-441	729	1,106	74	27	38	37		
1744+25.00	355	12	320	0	0	0	22	12	1,125	190		1,315	1,710	-1,698	844	1,300	320	99	138	182		
1744+50.00	377	9	341	0	0	0	27	9	1,200	217		1,417	1,842	-1,833	930	1,387	341	88	123	219		
1744+75.00	339	9	303	0	0	0	27	9	1,239	214		1,453	1,889	-1,880	883	1,340	303	88	123	180		
1745+00.00	301	8	266	0	0	0	27	8	1,207	191		1,398	1,817	-1,809	845	1,303	266	89	125	141		
1745+25.00	282	7	250	0	0	0	24	7	1,201	188		1,389	1,805	-1,798	593	1,050	250	90	126	125		
1745+50.00	275	5	251	0	0	0	18	5	1,010	186		1,196	1,555	-1,550	0	446	251	90	126	125		
1745+75.00	252	4	238	0	0	0	10	4	546	172		718	933	-930	0	0	238	91	127	111		
1746+00.00	139	24	112	0	0	0	3	24	134	79		213	276	-253	0	0	112	58	81	31		
1746+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1746+50.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1746+75.00	35	35	0	0	0	0	0	35	0			0	0	35	0	0	0	25	34	-34		
1747+00.00	35	35	0	0	0	0	0	35	0			0	0	35	0	0	0	25	34	-34		
1747+25.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1747+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1747+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1748+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1748+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1748+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1748+75.00	29	29	0	0	0	0	0	29	0			0	0	30	0	0	0	25	34	-34		
1749+00.00	38	38	0	0	0	0	0	38	0			0	0	38	0	0	0	25	34	-34		
1749+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1749+50.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1749+75.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1750+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1750+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1750+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1750+75.00	29	29	0	0	0	0	0	29	0			0	0	29	0	0	0	25	34	-34		
1751+00.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1751+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1751+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1751+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1752+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1752+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1752+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1752+75.00	39	39	0	0	0	0	0	39	0			0	0	39	0	0	0	25	34	-34		
1753+00.00	39	39	0	0	0	0	0	39	0			0	0	39	0	0	0	25	34	-34		
1753+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1753+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1753+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1754+00.00	38	38	0	0	0	0	0	38	0			0	0	38	0	0	0	25	34	-34		
1754+25.00	38	38	0	0	0	0	0	38	0			0	0	38	0	0	0	25	34	-34		
1754+50.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1754+75.00	40	40	0	0	0	0	0	40	0			0	0	40	0	0	0	25	34	-34		
1755+00.00	42	42	0	0	0	0	0	42	0			0	0	43	0	0	0	25	34	-34		
1755+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1755+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1755+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1756+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1756+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1756+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1756+75.00	40	40	0	0	0	0	0	40	0			0	0	40	0	0	0	25	34	-34		
1757+00.00	32	32	0	0	0	0	0	32	0			0	0	32	0	0	0	25	34	-34		
1757+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1757+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1757+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1758+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1758+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
Subtotals:	8,113	2,471	5,195	0	27	0	421	2,497	25,918	3,657	3	29,577	38,451	-35,953	21,057	27,906	5,195	3,224	4,516	680		

Preliminary
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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1758+25.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1758+50.00	40	40	0	0	0	0	0	40	0			0	0	40	0	0	0	25	34	-34		
1758+75.00	44	44	0	0	0	0	0	44	0			0	0	44	0	0	0	25	34	-34		
1759+00.00	46	46	0	0	0	0	0	46	0			0	0	46	0	0	0	25	34	-34		
1759+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1759+50.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1759+75.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1760+00.00	45	45	0	0	0	0	0	45	0			0	0	46	0	0	0	25	34	-34		
1760+25.00	46	46	0	0	0	0	0	46	0			0	0	46	0	0	0	25	34	-34		
1760+50.00	44	44	0	0	0	0	0	44	0			0	0	44	0	0	0	25	34	-34		
1760+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1761+00.00	47	47	0	0	0	0	0	47	0			0	0	48	0	0	0	25	34	-34		
1761+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1761+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1761+75.00	48	48	0	0	0	0	0	48	0			0	0	48	0	0	0	25	34	-34		
1762+00.00	46	46	0	0	0	0	0	46	4			4	5	41	0	0	0	25	34	-34		
1762+25.00	46	46	0	0	0	0	0	46	4			4	5	41	0	0	0	25	34	-34		
1762+50.00	48	48	0	0	0	0	0	48	0			0	0	48	0	0	0	25	34	-34		
1762+75.00	48	48	0	0	0	0	0	48	0			0	0	48	0	0	0	25	34	-34		
1763+00.00	46	46	0	0	0	0	0	46	0			0	0	46	0	0	0	25	34	-34		
1763+25.00	28	28	0	0	0	0	0	28	0			0	0	28	0	0	0	25	34	-34		
1763+50.00	30	30	0	0	0	0	0	30	0			0	0	30	0	0	0	25	34	-34		
1763+75.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1763+76.07	2	2	0	0	0	0	0	2	0			0	0	2	0	0	0	1	2	-2		
1764+00.00	46	46	0	0	0	0	0	46	0			0	0	46	0	0	0	24	33	-33		
1764+05.69	9	9	0	0	0	0	0	9	0			0	0	9	0	0	0	6	8	-8		
1764+25.00	30	30	0	0	0	0	0	30	0			0	0	31	0	0	0	19	27	-27		
1764+50.00	40	40	0	0	0	0	0	40	0			0	0	40	0	0	0	25	34	-34		
1764+75.00	40	40	0	0	0	0	0	40	0			0	0	40	0	0	0	25	34	-34		
1765+00.00	52	52	0	0	0	0	0	52	0			0	0	52	0	0	0	25	34	-34		
1765+05.84	12	12	0	0	0	0	0	12	0			0	0	12	0	0	0	6	8	-8		
1765+25.00	40	40	0	0	0	0	0	40	0			0	0	40	0	0	0	19	26	-26		
1765+50.00	53	53	0	0	0	0	0	53	0			0	0	53	0	0	0	25	34	-34		
1765+75.00	53	53	0	0	0	0	0	53	0			0	0	53	0	0	0	25	34	-34		
1766+00.00	50	50	0	0	0	0	0	50	0			0	0	50	0	0	0	25	34	-34		
1766+25.00	51	51	0	0	0	0	0	51	0			0	0	51	0	0	0	25	34	-34		
1766+50.00	55	55	0	0	0	0	0	55	0			0	0	55	0	0	0	25	34	-34		
1766+56.06	13	13	0	0	0	0	0	13	0			0	0	13	0	0	0	6	8	-8		
1766+75.00	42	42	0	0	0	0	0	42	0			0	0	42	0	0	0	19	26	-26		
1767+00.00	53	53	0	0	0	0	0	53	0			0	0	54	0	0	0	25	34	-34		
1767+25.00	39	39	0	0	0	0	0	39	0			0	0	39	0	0	0	25	34	-34		
1767+50.00	40	40	0	0	0	0	0	40	0			0	0	40	0	0	0	25	34	-34		
1767+75.00	55	55	0	0	0	0	0	55	0			0	0	55	0	0	0	25	34	-34		
1768+00.00	58	58	0	0	0	0	0	58	0			0	0	58	0	0	0	25	34	-34		
1768+25.00	58	58	0	0	0	0	0	58	0			0	0	58	0	0	0	25	34	-34		
1768+50.00	59	59	0	0	0	0	0	59	0			0	0	59	0	0	0	25	34	-34		
1768+75.00	59	59	0	0	0	0	0	59	0			0	0	59	0	0	0	25	34	-34		
1769+00.00	60	60	0	0	0	0	0	60	0			0	0	60	0	0	0	25	34	-34		
1769+25.00	58	58	0	0	0	0	0	58	0			0	0	58	0	0	0	25	34	-34		
1769+50.00	58	58	0	0	0	0	0	58	0			0	0	59	0	0	0	25	34	-34		
1769+75.00	44	44	0	0	0	0	0	44	3			3	4	40	0	0	0	25	34	-34		
1769+76.06	2	2	0	0	0	0	0	2	0			0	0	1	0	0	0	1	2	-2		
1770+00.00	51	51	0	0	0	0	0	51	3			3	4	48	0	0	0	24	33	-33		
1770+25.00	55	55	0	0	0	0	0	55	0			0	0	55	0	0	0	25	34	-34		
1770+50.00	52	52	0	0	0	0	0	52	0			0	0	53	0	0	0	25	34	-34		
1770+75.00	56	56	0	0	0	0	0	56	0			0	0	56	0	0	0	25	34	-34		
1771+00.00	42	42	0	0	0	0	0	42	0			0	0	42	0	0	0	25	34	-34		
1771+25.00	35	35	0	0	0	0	0	35	0			0	0	35	0	0	0	25	34	-34		
1771+50.00	49	49	0	0	0	0	0	49	0			0	0	49	0	0	0	25	34	-34		
1771+75.00	51	51	0	0	0	0	0	51	0			0	0	51	0	0	0	25	34	-34		
1772+00.00	55	55	0	0	0	0	0	55	0			0	0	55	0	0	0	25	34	-34		
1772+25.00	54	54	0	0	0	0	0	54	1			1	2	53	0	0	0	25	34	-34		
1772+30.00	11	11	0	0	0	0	0	11	1			1	1	10	0	0	0	5	7	-7		
1772+30.01	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
1772+50.00	41	41	0	0	0	0	0	41	0			0	0	41	0	0	0	20	28	-28		
1772+75.00	46	46	0	0	0	0	0	46	0			0	0	46	0	0	0	25	34	-34		
1773+00.00	40	40	0	0	0	0	0	40	0			0	0	40	0	0	0	25	34	-34		
1773+25.00	42	42	0	0	0	0	0	42	0			0	0	42	0	0	0	25	34	-34		
1773+50.00																						
Subtotals:	2,908	2,908	0	0	0	0	0	2,908	16	0	0	16	21	2,889	0	0	0	1,498	2,099	-2,099		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1773+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1773+64.33	26	26	0	0	0	0	0	26	0			0	0	26	0	0	0	14	20	-20		
1773+75.00	19	19	0	0	0	0	0	19	0			0	0	19	0	0	0	10	15	-15		
1774+00.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1774+25.00	41	41	0	0	0	0	0	41	0			0	0	42	0	0	0	25	34	-34		
1774+50.00	36	36	0	0	0	0	0	36	0			0	0	36	0	0	0	25	34	-34		
1774+54.33	6	6	0	0	0	0	0	6	0			0	0	6	0	0	0	4	6	-6		
1774+75.00	30	30	0	0	0	0	0	30	0			0	0	30	0	0	0	20	29	-29		
1775+00.00	34	34	0	0	0	0	0	34	1			1	1	34	0	0	0	25	34	-34		
1775+25.00	32	32	0	0	0	0	0	32	1			1	1	31	0	0	0	25	34	-34		
1775+44.33	23	23	0	0	0	0	0	23	3			3	4	19	0	0	0	19	27	-27		
1775+50.00	7	7	0	0	0	0	0	7	1			1	1	6	0	0	0	6	8	-8		
1775+75.00	29	29	0	0	0	0	0	29	0			0	0	29	0	0	0	24	34	-34		
1776+00.00	28	28	0	0	0	0	0	28	5			5	6	22	0	0	0	24	33	-33		
1776+25.00	27	27	0	0	0	0	0	27	5			5	6	21	0	0	0	23	32	-32		
1776+30.73	6	6	0	0	0	0	0	6	0			0	0	6	0	0	0	5	7	-7		
1776+50.00	20	20	0	0	0	0	0	20	0			0	0	20	0	0	0	17	24	-24		
1776+75.00	25	25	0	0	0	0	0	25	4			4	6	20	0	0	0	22	31	-31		
1777+00.00	24	24	0	0	0	0	0	24	4			4	6	19	0	0	0	21	30	-30		
1777+06.33	6	6	0	0	0	0	0	6	0			0	0	6	0	0	0	5	7	-7		
1777+25.00	17	17	0	0	0	0	0	17	0			0	0	17	0	0	0	15	22	-22		
1777+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1777+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1778+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1778+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1778+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1778+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1779+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1779+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1779+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1779+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1780+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1780+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1780+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1780+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
1780+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1781+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1781+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1781+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1781+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1782+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1782+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1782+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1782+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1783+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1783+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1783+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1783+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1784+00.00																						
ML061 S Totals:	72,807	42,386	22,273	0	168	0	7,981	42,554	116,587	11,874	3,085	131,545	171,027	-128,484	50,231	74,285	22,273	24,273	34,004	-11,737		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
ML061_N																						
1787+76.81	13	13	0	0	0	0	0	13	0			0	0	13	0	0	0	11	16	-16		
1788+00.00	22	22	0	0	0	0	0	22	0			0	0	22	0	0	0	19	27	-27		
1788+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1788+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1788+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1789+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1789+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1789+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1789+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1790+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1790+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1790+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1790+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1791+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1791+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1791+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1791+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1792+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1792+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1792+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1792+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1793+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1793+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1793+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1793+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1794+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1794+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1794+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1794+75.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1795+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	21	29	-29		
1795+03.15	5	5	0	0	0	0	0	5	0			0	0	5	0	0	0	3	4	-4		
1795+25.00	34	34	0	0	0	0	0	34	0			0	0	34	0	0	0	18	26	-26		
1795+50.00	25	25	0	0	0	0	0	25	0			0	0	25	0	0	0	22	30	-30		
1795+75.00	26	26	0	0	0	0	0	26	0			0	0	26	0	0	0	22	31	-31		
1795+78.75	4	4	0	0	0	0	0	4	0			0	0	4	0	0	0	3	5	-5		
1796+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	19	27	-27		
1796+25.00	29	29	0	0	0	0	0	29	0			0	0	29	0	0	0	23	33	-33		
1796+50.00	41	41	0	0	0	0	0	41	0			0	0	41	0	0	0	24	34	-34		
1796+65.15	25	25	0	0	0	0	0	25	0			0	0	25	0	0	0	15	21	-21		
1796+75.00	12	12	0	0	0	0	0	12	0			0	0	12	0	0	0	10	14	-14		
1797+00.00	32	32	0	0	0	0	0	32	0			0	0	32	0	0	0	25	34	-34		
1797+25.00	34	34	0	0	0	0	0	34	0			0	0	34	0	0	0	25	34	-34		
1797+50.00	36	36	0	0	0	0	0	36	0			0	0	37	0	0	0	25	34	-34		
1797+55.15	8	8	0	0	0	0	0	8	0			0	0	8	0	0	0	5	7	-7		
1797+75.00	31	31	0	0	0	0	0	31	0			0	0	31	0	0	0	19	27	-27		
1798+00.00	41	41	0	0	0	0	0	41	0			0	0	41	0	0	0	25	34	-34		
1798+25.00	36	36	0	0	0	0	0	36	0			0	0	36	0	0	0	25	34	-34		
1798+45.15	15	15	0	0	0	0	0	15	0			0	0	15	0	0	0	20	28	-28		
1798+50.00	5	5	0	0	0	0	0	5	0			0	0	5	0	0	0	5	7	-7		
1798+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1799+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1799+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1799+50.00	47	47	0	0	0	0	0	47	0			0	0	47	0	0	0	25	34	-34		
1799+70.00	41	41	0	0	0	0	0	41	3			3	4	37	0	0	0	20	28	-28		
1799+75.00	11	11	0	0	0	0	0	11	1			1	1	10	0	0	0	5	7	-7		
1800+00.00	56	56	0	0	0	0	0	56	1			1	1	55	0	0	0	25	34	-34		
1800+25.00	55	55	0	0	0	0	0	55	0			0	0	55	0	0	0	25	34	-34		
1800+50.00	55	55	0	0	0	0	0	55	0			0	0	55	0	0	0	25	34	-34		
1800+75.00	55	55	0	0	0	0	0	55	0			0	0	55	0	0	0	25	34	-34		
1801+00.00	55	55	0	0	0	0	0	55	0			0	0	55	0	0	0	25	34	-34		
1801+25.00	56	56	0	0	0	0	0	56	0			0	0	56	0	0	0	25	34	-34		
1801+50.00	57	57	0	0	0	0	0	57	0			0	0	57	0	0	0	25	34	-34		
1801+75.00	57	57	0	0	0	0	0	57	0			0	0	57	0	0	0	25	34	-34		
1802+00.00	56	56	0	0	0	0	0	56	0			0	0	56	0	0	0	25	34	-34		
1802+23.94	56	56	0	0	0	0	0	56	5			5	6	50	0	0	0	24	33	-33		
1802+25.00	3	3	0	0	0	0	0	3	0			0	1	2	0	0	0	1	2	-2		
1802+50.00	61	61	0	0	0	0	0	61	3			3	4	57	0	0	0	25	34	-34		
1802+75.00																						
Subtotals:	2,003	2,003	0	0	0	0	0	2,003	13	0	0	13	17	1,989	0	0	0	1,334	1,870	-1,870		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1802+75.00	61	61	0	0	0	0	0	61	0			0	0	61	0	0	0	25	34	-34		
1803+00.00	60	60	0	0	0	0	0	60	0			0	0	61	0	0	0	25	34	-34		
1803+25.00	60	60	0	0	0	0	0	60	0			0	0	60	0	0	0	25	34	-34		
1803+50.00	59	59	0	0	0	0	0	59	0			0	0	60	0	0	0	25	34	-34		
1803+75.00	46	46	0	0	0	0	0	46	0			0	0	46	0	0	0	25	34	-34		
1804+00.00	45	45	0	0	0	0	0	45	0			0	0	46	0	0	0	25	34	-34		
1804+25.00	58	58	0	0	0	0	0	58	0			0	0	58	0	0	0	25	34	-34		
1804+50.00	58	58	0	0	0	0	0	58	0			0	0	58	0	0	0	25	34	-34		
1804+75.00	57	57	0	0	0	0	0	57	0			0	0	57	0	0	0	25	34	-34		
1805+00.00	57	57	0	0	0	0	0	57	0			0	0	57	0	0	0	25	34	-34		
1805+25.00	56	56	0	0	0	0	0	56	0			0	0	56	0	0	0	25	34	-34		
1805+50.00	55	55	0	0	0	0	0	55	0			0	0	56	0	0	0	25	34	-34		
1805+75.00	55	55	0	0	0	0	0	55	0			0	0	55	0	0	0	25	34	-34		
1806+00.00	54	54	0	0	0	0	0	54	0			0	0	54	0	0	0	25	34	-34		
1806+25.00	54	54	0	0	0	0	0	54	0			0	0	54	0	0	0	25	34	-34		
1806+50.00	53	53	0	0	0	0	0	53	0			0	0	53	0	0	0	25	34	-34		
1806+75.00	53	53	0	0	0	0	0	53	0			0	0	53	0	0	0	25	34	-34		
1807+00.00	31	31	0	0	0	0	0	31	0			0	0	31	0	0	0	25	34	-34		
1807+25.00	30	30	0	0	0	0	0	30	0			0	0	30	0	0	0	25	34	-34		
1807+50.00	51	51	0	0	0	0	0	51	0			0	0	51	0	0	0	25	34	-34		
1807+75.00	51	51	0	0	0	0	0	51	0			0	0	51	0	0	0	25	34	-34		
1808+00.00	51	51	0	0	0	0	0	51	0			0	0	51	0	0	0	25	34	-34		
1808+23.94	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	24	33	-33		
1808+25.00	2	2	0	0	0	0	0	2	0			0	0	2	0	0	0	1	2	-2		
1808+50.00	48	48	0	0	0	0	0	48	0			0	0	48	0	0	0	25	34	-34		
1808+75.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1809+00.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1809+25.00	48	48	0	0	0	0	0	48	0			0	0	48	0	0	0	25	34	-34		
1809+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1809+75.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1810+00.00	47	47	0	0	0	0	0	47	0			0	0	47	0	0	0	25	34	-34		
1810+25.00	47	47	0	0	0	0	0	47	0			0	0	47	0	0	0	25	34	-34		
1810+50.00	47	47	0	0	0	0	0	47	0			0	0	47	0	0	0	25	34	-34		
1810+75.00	47	47	0	0	0	0	0	47	0			0	0	48	0	0	0	25	34	-34		
1811+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1811+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1811+50.00	47	47	0	0	0	0	0	47	0			0	0	48	0	0	0	25	34	-34		
1811+75.00	47	47	0	0	0	0	0	47	0			0	0	47	0	0	0	25	34	-34		
1812+00.00	46	46	0	0	0	0	0	46	0			0	0	46	0	0	0	25	34	-34		
1812+25.00	45	45	0	0	0	0	0	45	0			0	0	46	0	0	0	25	34	-34		
1812+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1812+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1813+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1813+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1813+30.00	8	8	0	0	0	0	0	8	0			0	0	8	0	0	0	5	7	-7		
1813+50.00	30	30	0	0	0	0	0	30	0			0	0	30	0	0	0	20	28	-28		
1813+75.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1814+00.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1814+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1814+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1814+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1815+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1815+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1815+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1815+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1816+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1816+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1816+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1816+75.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1817+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1817+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1817+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1817+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1818+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1818+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1818+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1818+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1819+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1819+25.00																						
Subtotals:	3,066	3,066	0	0	0	0	0	3,066	0	0	0	0	0	3,070	0	0	0	1,621	2,271	-2,271		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1819+25.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1819+50.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1819+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1820+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1820+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1820+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1820+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1821+00.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1821+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1821+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1821+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1822+00.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1822+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1822+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1822+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1823+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1823+25.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1823+50.00	43	43	0	0	0	0	0	43	0			0	0	43	0	0	0	25	34	-34		
1823+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1824+00.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1824+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1824+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1824+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1825+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1825+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1825+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1825+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1826+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1826+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1826+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1826+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1827+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1827+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1827+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1827+75.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1828+00.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1828+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1828+50.00	29	29	0	0	0	0	0	29	0			0	0	29	0	0	0	25	34	-34		
1828+75.00	29	29	0	0	0	0	0	29	0			0	0	29	0	0	0	25	34	-34		
1829+00.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1829+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1829+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1829+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1830+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1830+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1830+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1830+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1831+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1831+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1831+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1831+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1832+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1832+25.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1832+50.00	37	37	0	0	0	0	0	37	0			0	0	37	0	0	0	25	34	-34		
1832+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1833+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1833+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1833+50.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1833+75.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1834+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1834+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1834+50.00	42	42	0	0	0	0	0	42	0			0	0	42	0	0	0	25	34	-34		
1834+75.00	42	42	0	0	0	0	0	42	0			0	0	42	0	0	0	25	34	-34		
1835+00.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1835+25.00	45	45	0	0	0	0	0	45	0			0	0	45	0	0	0	25	34	-34		
1835+50.00	48	45	3	0	0	0	0	45	0			0	0	45	0	0	3	25	34	-32		
1835+75.00	57	45	12	0	0	0	0	45	0			0	0	45	0	0	12	25	34	-23		
1836+00.00	64	45	19	0	0	0	0	45	0			0	0	45	0	0	19	25	34	-15		
1836+25.00																						
Subtotals:	2,928	2,894	34	0	0	0	0	2,894	0	0	0	0	0	2,897	0	0	34	1,670	2,339	-2,306		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1836+25.00	68	45	21	0	0	0	1	45	0			0	0	45	0	0	21	25	34	-13		
1836+50.00	73	45	22	0	0	0	6	45	0			0	0	45	0	0	22	25	34	-13		
1836+75.00	72	37	22	0	0	0	12	37	0			0	0	37	0	0	22	25	34	-12		
1837+00.00	78	37	23	0	0	0	18	37	0			0	0	37	0	0	23	25	34	-12		
1837+25.00	92	45	24	0	0	0	23	45	0			0	0	45	0	0	24	25	34	-11		
1837+50.00	93	43	24	0	0	0	26	43	0			0	0	43	0	0	24	25	34	-10		
1837+75.00	99	43	30	0	0	0	26	43	0			0	0	43	0	0	30	25	34	-4		
1838+00.00	219	152	41	0	0	0	26	152	0			0	0	152	0	0	41	69	96	-55		
1838+25.00	362	283	53	0	0	0	26	283	0	0		0	0	283	0	0	53	111	156	-103		
1838+50.00	251	160	65	0	0	0	26	160	0	0		1	1	159	0	0	65	109	152	-88		
1838+75.00	288	185	77	0	0	0	26	185	1	1		2	3	182	0	0	77	109	153	-76		
1839+00.00	493	379	88	0	0	0	26	379	1	1		2	3	376	0	0	88	113	158	-70		
1839+25.00	373	247	100	0	0	0	26	247	0			0	0	247	0	0	100	115	161	-61		
1839+50.00	252	113	112	0	0	0	26	113	0			0	0	114	0	0	112	115	161	-49		
1839+75.00	454	304	123	0	0	0	26	304	0		0	0	0	304	0	0	123	114	160	-36		
1840+00.00	689	415	248	0	0	0	26	415	49	48	0	97	127	289	0	0	248	113	158	90		
1840+25.00	792	371	395	0	0	0	26	371	303	143		446	580	-209	137	594	395	112	157	238		
1840+50.00	843	395	422	0	0	0	26	395	703	188		892	1,159	-764	432	889	422	111	155	267		
1840+75.00	860	412	420	0	0	0	28	412	885	187		1,072	1,394	-982	387	845	420	109	153	267		
1841+00.00	867	423	409	0	0	0	35	423	852	184		1,036	1,347	-924	313	771	409	108	152	258		
1841+25.00	829	416	350	0	15	0	47	431	798	154		953	1,238	-807	256	712	350	107	151	200		
1841+50.00	775	342	275	0	86	0	72	428	784	146		930	1,209	-782	261	719	275	107	149	126		
1841+75.00	780	215	332	0	174	0	60	388	796	160	0	956	1,243	-855	248	706	332	105	147	185		
1842+00.00	718	129	359	0	204	0	26	333	772	152	3	927	1,205	-872	195	628	359	102	143	217		
1842+23.66	571	96	273	0	184	0	17	281	700	136	7	843	1,095	-815	174	199	273	95	133	141		
1842+25.00	31	5	15	0	10	0	1	15	39	7	1	47	61	-46	0	411	15	5	8	7		
1842+50.00	571	103	287	0	168	0	13	272	698	132	13	844	1,097	-825	64	521	287	100	140	147		
1842+75.00	558	116	300	0	135	0	7	251	658	120	19	797	1,037	-785	1	459	300	99	139	161		
1843+00.00	560	115	332	0	111	0	2	226	623	110	24	757	984	-758	52	302	332	99	138	194		
1843+13.66	317	56	200	0	62	0	0	118	335	62	14	411	534	-416	9	216	200	54	75	124		
1843+25.00	269	41	168	0	60	0	0	101	281	55	12	348	452	-351	0	368	168	45	63	106		
1843+50.00	614	72	382	0	160	0	0	232	618	119	26	763	993	-761	0	446	382	99	138	244		
1843+75.00	627	47	386	0	194	0	0	240	613	118	26	758	985	-744	0	438	386	99	138	248		
1844+00.00	631	29	385	0	216	0	0	245	608	118	26	752	977	-732	127	195	385	98	138	248		
1844+03.66	92	3	56	0	33	0	0	36	90	17	4	111	144	-108	0	312	56	14	20	36		
1844+25.00	540	18	330	0	192	0	0	210	555	106	22	683	888	-678	52	508	330	84	117	213		
1844+50.00	635	22	387	0	226	0	0	248	674	129	26	829	1,078	-830	109	381	387	97	136	251		
1844+64.86	376	10	231	0	135	0	0	145	396	77	15	488	635	-490	62	247	231	57	81	150		
1844+75.00	254	4	157	0	93	0	0	96	272	54	10	336	437	-341	31	489	157	39	55	102		
1845+00.00	619	4	386	0	229	0	0	233	711	148	26	885	1,151	-918	198	655	386	96	134	252		
1845+25.00	616	2	386	0	229	0	0	230	745	160	26	931	1,211	-980	172	256	386	95	133	253		
1845+29.66	116	1	72	0	42	0	0	43	110	30	5	145	188	-145	0	169	72	18	25	48		
1845+50.00	510	3	314	0	191	0	2	195	418	125	19	562	731	-536	0	320	314	72	101	213		
1845+75.00	635	8	384	0	233	0	9	242	511	129	17	657	854	-612	0	217	384	89	125	260		
1846+00.00	634	23	383	0	212	0	16	235	428	114	9	551	716	-481	0	186	383	95	134	249		
1846+25.00	627	32	381	0	193	0	21	225	419	124	4	547	711	-486	0	191	381	97	135	245		
1846+50.00	627	37	379	0	187	0	25	223	412	132	1	545	709	-486	0	191	379	97	135	243		
1846+75.00	624	41	377	0	181	0	26	222	405	139		544	707	-485	0	189	377	97	135	241		
1847+00.00	614	39	375	0	175	0	26	214	395	146		541	703	-489	0	177	375	96	135	240		
1847+25.00	595	30	373	0	167	0	25	196	380	147	0	526	684	-488	0	147	373	96	134	239		
1847+50.00	558	18	371	0	143	0	25	162	356	146	0	502	653	-491	0	117	371	95	133	238		
1847+75.00	517	6	370	0	115	0	25	122	333	146		479	623	-501	0	91	370	94	131	239		
1848+00.00	497	0	369	0	103	0	25	103	314	143		457	595	-492	0	62	369	91	128	241		
1848+25.00	483	0	352	0	107	0	25	107	294	122		416	541	-434	0	13	352	89	125	227		
1848+50.00	487	0	351	0	111	0	25	111	277	117		395	513	-402	0	0	351	89	125	226		
1848+75.00	472	0	336	0	110	0	25	110	267	133		400	520	-410	0	0	336	89	125	212		
1849+00.00	470	0	337	0	108	0	25	108	255	131		386	502	-394	0	0	337	88	124	213		
1849+25.00	497	0	367	0	105	0	25	105	241	128		370	481	-376	74	139	367	87	122	245		
1849+28.51	69	0	52	0	14	0	3	14	33	18		51	67	-52	0	0	52	12	17	35		
1849+50.00	429	0	316	0	91	0	21	91	199	110		310	403	-311	0	0	316	74	103	213		
1849+75.00	502	0	369	0	109	0	25	109	221	126		347	451	-342	0	0	369	85	118	250		
1850+00.00	527	0	393	0	109	0	25	109	212	124		335	436	-327	0	0	393	83	117	276		
1850+25.00	527	0	392	0	110	0	25	110	207	123		330	430	-320	0	0	392	82	115	277		
1850+50.00	501	0	368	0	108	0	25	108	208	125		333	433	-325	0	0	368	81	114	254		
1850+75.00	468	0	336	0	106	0	25	107	207	123		330	429	-323	0	0	336	80	113	224		
1851+00.00	466	0	337	0	104	0	25	104	206	121		327	426	-321	0	0	337	80	112	225		
1851+25.00	496	0	369	0	102	0	25	103	207	121		328	426	-324	0	0	369	80	112	257		
1851+50.00	499	0	370	0	104	0	25	104	204	120		324	422	-318	0	0	370	80	112	258		
1851+75.00																						
Subtotals:	31,743	6,220	17,887	0	6,358	0	1,278	12,578	22,281	6,298	355	28,934	37,618	-25,042	3,355	14,476	17,887	5,491	7,690	10,199		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
1851+75.00	503	2	370	0	105	0	25	107	203	121		324	422	-315	0	0	370	80	112	259		
1852+00.00	505	2	372	0	106	0	25	109	207	124		332	431	-323	0	0	372	80	112	259		
1852+25.00	475	2	340	0	109	0	25	111	211	125		336	437	-327	0	0	340	81	113	226		
1852+50.00	479	3	341	0	111	0	25	114	213	124		336	437	-323	0	0	341	81	114	227		
1852+75.00	514	3	375	0	112	0	25	115	224	125		348	453	-339	0	0	375	82	115	260		
1853+00.00	515	3	375	0	112	0	25	115	242	128		370	482	-366	0	0	375	83	116	260		
1853+25.00	518	5	376	0	112	0	25	117	257	130		387	504	-387	0	26	376	83	117	259		
1853+50.00	514	5	377	0	107	0	25	112	279	133		412	536	-424	0	85	377	84	118	260		
1853+75.00	513	11	378	0	100	0	25	110	321	143		463	603	-492	0	168	378	84	118	260		
1854+00.00	504	11	379	0	90	0	25	100	375	151		527	685	-584	0	261	379	85	119	260		
1854+25.00	491	4	381	0	81	0	25	86	439	155		594	772	-687	0	359	381	86	120	261		
1854+50.00	487	3	382	0	77	0	25	80	510	160		670	871	-791	0	438	382	87	121	261		
1854+75.00	479	0	383	0	70	0	25	70	566	165		731	950	-880	178	260	383	87	122	261		
1854+79.52	83	0	66	0	12	0	4	12	107	27		134	174	-162	0	260	66	16	22	44		
1855+00.00	325	0	252	0	53	0	20	53	492	124		615	800	-747	0	454	252	72	101	151		
1855+25.00	344	0	256	0	63	0	25	63	615	173		788	1,025	-962	101	455	256	89	125	132		
1855+44.32	258	0	192	0	47	0	19	47	478	137		615	800	-753	140	244	192	70	98	95		
1855+50.00	76	0	57	0	13	0	6	13	140	40		179	233	-220	0	328	57	21	29	28		
1855+75.00	329	0	250	0	55	0	25	55	601	172		773	1,006	-951	42	499	250	91	128	122		
1856+00.00	330	0	250	0	55	0	25	55	601	171		772	1,003	-948	185	286	250	92	129	121		
1856+05.52	74	0	55	0	13	0	5	13	136	38		174	226	-213	0	283	55	21	29	27		
1856+25.00	262	0	196	0	47	0	19	47	484	136		619	805	-758	30	488	196	73	102	94		
1856+50.00	335	0	252	0	58	0	25	59	628	173		802	1,043	-984	96	554	252	93	131	121		
1856+75.00	333	0	253	0	54	0	25	55	642	171		813	1,056	-1,002	126	501	253	93	131	122		
1856+95.52	274	0	208	0	45	0	20	45	534	140		674	877	-832	161	243	208	77	107	101		
1857+00.00	60	0	45	0	10	0	4	10	117	30		148	192	-182	0	395	45	17	24	22		
1857+25.00	332	0	253	0	54	0	25	54	663	172		835	1,086	-1,032	159	616	253	94	131	122		
1857+50.00	332	0	255	0	52	0	25	52	691	173		864	1,124	-1,072	185	642	255	94	132	124		
1857+75.00	333	1	256	0	52	0	25	52	710	176		886	1,152	-1,100	211	403	256	95	133	123		
1857+85.52	140	0	108	0	22	0	10	22	298	75		373	485	-463	0	179	108	40	56	52		
1858+00.00	203	25	149	0	15	0	14	40	289	81		369	480	-441	0	0	149	50	70	79		
1858+25.00	354	200	128	0	0	0	25	200	145	51		196	255	-54	0	0	128	104	146	-18		
1858+50.00																						
ML061_N																						
Totals:	51,014	14,467	26,235	0	8,367	0	1,947	22,833	34,713	10,342	356	45,410	59,038	-36,199	4,969	22,903	26,235	12,500	17,510	8,728		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
RPAH38																						
21785+05.02	373	123	243	0	8	0	0	130	118	80		198	257	-127	293	358	243	0	0	243		
21785+18.68	302	83	210	0	9	0	0	92	54	47		101	131	-39	86	380	210	0	0	210		
21785+50.00	261	69	189	0	3	0	0	72	23	23		46	60	12	0	0	189	0	0	190		
21785+75.00	223	49	173	0	1	0	0	50	117	46		163	212	-162	0	0	173	0	0	173		
21786+00.00	13	2	11	0	0	0	0	2	15	5		20	26	-24	0	0	11	0	0	11		
21786+25.00	104	14	91	0	0	0	0	14	86	41		127	165	-151	0	0	91	0	0	91		
21786+48.45	58	4	54	0	0	0	0	4	17	15		32	42	-37	9	23	54	0	0	54		
21786+50.00	43	0	43	0	0	0	0	0	5			5	7	-7	0	0	43	0	0	43		
21786+63.60	0	0	0	0	0	0	0	0	5			5	7	-7	0	0	0	0	0	0		
21786+75.00	0	0	0	0	0	0	0	0	6			6	7	-7	0	0	0	0	0	0		
21787+00.00	0	0	0	0	0	0	0	0	5			5	6	-6	0	0	0	0	0	0		
21787+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21787+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21787+73.45	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21787+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21788+00.00	1	1	0	0	0	0	0	1	0			0	0	1	0	0	0	0	0	0		
21788+25.00	1	1	0	0	0	0	0	1	0			0	0	1	0	0	0	0	0	0		
21788+29.05	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21788+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21788+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21788+79.45	0	0	0	0	0	0	0	0	1			1	1	-1	0	0	0	0	0	0		
21789+00.00	0	0	0	0	0	0	0	0	1			1	1	-1	0	0	0	0	0	0		
21789+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21789+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21789+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21790+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21790+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21790+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21790+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21791+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21791+25.00	0	0	0	0	0	0	0	0	3			3	4	-4	0	0	0	0	0	0		
21791+50.00	0	0	0	0	0	0	0	0	3			3	5	-5	0	0	0	0	0	0		
21791+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21792+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21792+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21792+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21792+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21793+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21793+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21793+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21793+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21794+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21794+25.00	0	0	0	0	0	0	0	0	0			0	1	-1	0	0	0	0	0	0		
21794+36.59	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21794+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21794+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21794+86.99	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21795+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21795+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21795+42.59	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21795+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21795+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21796+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21796+04.59	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21796+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21796+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21796+66.59	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21796+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21797+00.00	1	1	0	0	0	0	0	1	0			0	0	0	0	0	0	0	0	0		
21797+12.07	1	1	0	0	0	0	0	1	0			0	0	1	0	0	0	0	0	0		
21797+25.00	1	1	0	0	0	0	0	1	0			0	0	1	0	0	0	0	0	0		
21797+50.00	5	5	0	0	0	0	0	5	0			0	1	5	0	0	0	0	0	0		
21797+63.47	3	3	0	0	0	0	0	3	0			0	0	3	0	0	0	0	0	0		
21797+75.00	4	4	0	0	0	0	0	4	0			0	0	4	0	0	0	0	0	0		
21798+00.00	8	8	0	0	0	0	0	8	0			0	0	8	0	0	0	0	0	0		
21798+12.07	9	9	0	0	0	0	0	9	0			0	0	9	0	0	0	0	0	0		
21798+25.00	10	10	0	0	0	0	0	10	0			0	0	11	0	0	0	0	0	0		
21798+50.00																						
Subtotals:	1,424	389	1,015	0	21	0	0	409	460	257	0	718	936	-527	387	761	1,015	0	0	1,015		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
21798+50.00	11	11	0	0	0	0	0	11	0			0	0	11	0	0	0	0	0	0		
21798+75.00	12	12	0	0	0	0	0	12	0			0	0	12	0	0	0	0	0	0		
21799+00.00	13	13	0	0	0	0	0	13	0			0	0	13	0	0	0	0	0	0		
21799+25.00	14	14	0	0	0	0	0	14	0			0	0	14	0	0	0	0	0	0		
21799+50.00	16	16	0	0	0	0	0	16	0			0	0	16	0	0	0	0	0	0		
21799+75.00	17	17	0	0	0	0	0	17	0			0	0	18	0	0	0	0	0	0		
21800+00.00	1	1	0	0	0	0	0	1	0			0	0	1	0	0	0	0	0	0		
21800+25.00	21	21	0	0	0	0	0	21	0			0	0	20	0	0	0	0	0	0		
21800+48.49	19	19	0	0	0	0	0	19	0			0	0	19	0	0	0	0	0	0		
21800+50.00	3	3	0	0	0	0	0	3	0			0	0	3	0	0	0	0	0	0		
21800+75.00	15	15	0	0	0	0	0	15	0			0	0	16	0	0	0	0	0	0		
21800+97.09	7	7	0	0	0	0	0	7	0			0	0	8	0	0	0	0	0	0		
21801+00.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	0	0	0		
21801+17.03	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	0	0	0		
21801+25.00	18	18	0	0	0	0	0	18	0			0	0	18	0	0	0	0	0	0		
21801+50.00	5	5	0	0	0	0	0	5	0			0	0	6	0	0	0	0	0	0		
21801+75.00	27	27	0	0	0	0	0	27	0			0	0	27	0	0	0	0	0	0		
21801+94.39	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21802+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
21802+25.00																						
RPAH38																						
Totals:	1,671	636	1,015	0	21	0	0	657	461	258	0	719	938	-280	388	761	1,015	0	0	1,015		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
RPBH38																						
31769+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31770+00.00	22	22	0	0	0	0	0	22	0			0	0	22	0	0	0	0	0	0		
31770+25.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	0	0	0		
31770+50.00	20	20	0	0	0	0	0	20	0			0	0	20	0	0	0	0	0	0		
31770+75.00	19	19	0	0	0	0	0	19	0			0	0	19	0	0	0	0	0	0		
31770+87.02	9	9	0	0	0	0	0	9	0			0	0	9	0	0	0	0	0	0		
31771+00.00	9	9	0	0	0	0	0	9	0			0	0	9	0	0	0	0	0	0		
31771+06.96	5	5	0	0	0	0	0	5	0			0	0	5	0	0	0	0	0	0		
31771+25.00	12	12	0	0	0	0	0	12	0			0	0	12	0	0	0	0	0	0		
31771+50.00	14	14	0	0	0	0	0	14	0			0	0	14	0	0	0	0	0	0		
31771+55.56	3	3	0	0	0	0	0	3	0			0	0	3	0	0	0	0	0	0		
31771+75.00	10	10	0	0	0	0	0	10	0			0	0	10	0	0	0	0	0	0		
31772+00.00	12	12	0	0	0	0	0	12	0			0	0	12	0	0	0	0	0	0		
31772+25.00	12	12	0	0	0	0	0	12	0			0	0	12	0	0	0	0	0	0		
31772+50.00	13	13	0	0	0	0	0	13	0			0	0	13	0	0	0	0	0	0		
31772+75.00	14	14	0	0	0	0	0	14	0			0	0	15	0	0	0	0	0	0		
31773+00.00	14	14	0	0	0	0	0	14	0			0	0	14	0	0	0	0	0	0		
31773+25.00	11	11	0	0	0	0	0	11	0			0	0	11	0	0	0	0	0	0		
31773+50.00	8	8	0	0	0	0	0	8	0			0	0	8	0	0	0	0	0	0		
31773+75.00	7	7	0	0	0	0	0	7	0			0	0	7	0	0	0	0	0	0		
31774+00.00	5	6	0	0	0	0	0	6	0			0	0	6	0	0	0	0	0	0		
31774+25.00	3	4	0	0	0	0	0	4	0			0	0	4	0	0	0	0	0	0		
31774+50.00	0	3	0	0	0	0	0	3	0			0	0	3	0	0	0	0	0	0		
31774+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31775+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31775+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31775+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31775+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31776+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31776+25.00	0	10	0	0	0	0	0	10	0			0	0	10	0	0	0	0	0	0		
31776+40.58	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31776+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31776+75.00	4	4	0	0	0	0	0	4	0			0	0	4	0	0	0	0	0	0		
31776+89.18	2	2	0	0	0	0	0	2	0			0	0	2	0	0	0	0	0	0		
31777+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31777+12.73	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31777+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31777+40.58	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31777+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31777+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31778+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31778+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31778+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31778+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31778+92.73	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31779+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31779+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31779+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31779+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31780+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31780+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31780+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31780+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31781+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31781+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31781+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31781+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
31782+00.00	0	23	0	0	0	0	0	23	0			0	0	23	0	0	0	0	0	0		
31782+25.00	0	23	0	0	0	0	0	23	0			0	0	23	0	0	0	0	0	0		
31782+50.00	0	0	0	0	0	0	0	0	11			11	14	-14	0	0	0	0	0	0		
31782+75.00	0	1	0	0	0	0	0	1	21			21	28	-27	0	0	0	0	0	0		
31783+00.00	0	98	0	23	216	88	0	425	11			11	14	411	0	0	0	0	0	0		
31783+25.00	0	166	0	7	215	25	0	413	0			0	1	412	0	0	0	0	0	0		
31783+46.90	85	48	85	99	340	257	0	743	40	35		75	98	646	7	36	85	23	32	53		
31783+50.00	25	25	24	155	372	330	0	881	15	11		26	34	848	0	0	24	7	9	15		
31783+75.00	513	333	258	109	447	347	0	1,235	99	65		163	213	1,023	0	0	258	99	138	120		
31784+00.00	1,040	1,206	330	26	526	340	0	2,098	34	29		62	81	2,017	0	0	330	155	217	113		
31784+25.00																						
Subtotals:	1,913	2,188	697	418	2,115	1,386	0	6,108	231	139	0	369	481	5,629	7	36	697	283	397	301		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
31784+25.00	904	733	347	0	386	117	0	1,236	80	32		112	145	1,091	66	302	347	109	152	195		
31784+50.00	440	95	340	0	6	0	0	101	376	107		484	629	-528	0	0	340	26	37	303		
31784+59.90																						
RPBH38																						
Totals:	3,257	3,017	1,384	418	2,508	1,503	0	7,445	687	279	0	965	1,255	6,192	73	338	1,384	418	586	799		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
RPCH38																						
41770+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41770+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41770+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41770+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41771+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41771+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41771+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41771+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41772+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41772+25.00	12	12	0	0	0	0	0	12	0			0	0	13	0	0	0	0	0	0		
41772+50.00	23	23	0	0	0	0	0	23	0			0	0	23	0	0	0	0	0	0		
41772+75.00	10	10	0	0	0	0	0	10	0			0	0	10	0	0	0	0	0	0		
41772+86.81	11	11	0	0	0	0	0	11	0			0	0	11	0	0	0	0	0	0		
41773+00.00	19	19	0	0	0	0	0	19	0			0	0	19	0	0	0	0	0	0		
41773+25.00	9	9	0	0	0	0	0	9	0			0	0	9	0	0	0	0	0	0		
41773+37.21	8	8	0	0	0	0	0	8	0			0	0	8	0	0	0	0	0	0		
41773+50.00	16	16	0	0	0	0	0	16	0			0	0	16	0	0	0	0	0	0		
41773+75.00	11	11	0	0	0	0	0	11	0			0	0	11	0	0	0	0	0	0		
41773+92.81	4	4	0	0	0	0	0	4	0			0	0	4	0	0	0	0	0	0		
41774+00.00	12	12	0	0	0	0	0	12	0			0	0	13	0	0	0	0	0	0		
41774+25.00	9	9	0	0	0	0	0	9	0			0	0	9	0	0	0	0	0	0		
41774+50.00	7	7	0	0	0	0	0	7	0			0	0	7	0	0	0	0	0	0		
41774+75.00	5	5	0	0	0	0	0	5	0			0	0	5	0	0	0	0	0	0		
41775+00.00	3	3	0	0	0	0	0	3	0			0	0	3	0	0	0	0	0	0		
41775+25.00	1	1	0	0	0	0	0	1	0			0	0	1	0	0	0	0	0	0		
41775+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41775+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41776+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41776+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41776+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41776+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41776+95.96	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41777+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41777+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41777+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41777+57.96	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41777+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41778+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41778+19.96	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41778+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41778+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41778+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41778+75.56	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41779+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41779+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41779+25.96	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41779+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41779+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41780+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41780+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41780+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41780+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41781+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41781+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41781+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41781+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41782+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41782+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41782+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41782+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41783+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41783+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41783+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41783+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41784+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41784+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41784+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
41784+75.00	0	31	0	0	126	58	0	216	0			0	0	216	0	0	0	0	0	0		
Subtotals:	163	196	0	0	126	58	0	380	1	0	0	1	4	377	0	0	0	0	0	0		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
41784+75.00	58	76	58	0	157	26	0	259	15	11		26	34	226	0	0	58	0	0	58		
41785+00.00	26	85	26	0	197	132	0	414	10	7		17	22	392	0	0	26	0	0	26		
41785+04.87	163	42	132	0	217	31	0	290	52	35		88	114	176	0	0	132	22	31	102		
41785+25.00	47	27	31	0	209	152	0	388	6	4		11	14	375	0	0	31	9	13	18		
41785+29.24	247	54	152	0	264	185	0	502	8	8		17	22	480	0	0	152	45	63	90		
41785+50.00	317	62	185	0	291	34	0	387	7	7		13	18	370	0	0	185	55	78	107		
41785+75.00	61	26	34	0	220	151	0	397	1	1		3	4	394	0	0	34	11	15	20		
41785+79.64	275	55	151	0	292	188	0	534	6	6		11	14	520	0	0	151	49	68	83		
41786+00.00	356	98	188	0	304	78	0	480	9	9		18	23	457	0	0	188	66	92	96		
41786+25.00	151	90	78	0	248	116	0	455	6	6		12	16	438	0	0	78	28	40	38		
41786+35.24	222	242	116	0	282	217	0	742	17	17		34	44	698	0	0	116	42	59	57		
41786+50.00	346	568	217	0	299	211	0	1,078	86	79		165	215	863	0	0	217	58	82	136		
41786+75.00	249	498	211	0	280	8	0	787	234	110		344	448	339	49	251	211	27	39	173		
41786+96.44	9	0	8	0	0	213	0	213	13	4		18	23	190	8	14	8	1	1	8		
41786+97.24	220	7	213	0	0	0	0	7	340	110		450	586	-579	0	0	213	16	22	191		
41787+38.24																						
RPCH38																						
Totals:	2,909	2,127	1,801	0	3,387	1,801	0	7,314	812	417	0	1,229	1,600	5,716	58	266	1,801	429	601	1,201		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
RPDH38																						
51786+71.93																						
51787+00.00	438	84	291	0	63	0	0	147	140	74		213	277	-130	13	144	291	46	64	227		
51787+25.00	521	150	234	0	137	0	0	287	39	18		57	74	214	0	0	234	63	89	146		
51787+50.00	502	131	203	0	169	0	0	299	122	41		163	212	88	0	0	203	65	90	112		
51787+75.00	449	81	194	0	174	0	0	255	92	32		124	161	93	0	0	194	62	87	107		
51788+00.00	325	35	192	0	99	0	0	134	145	45		190	247	-114	0	0	192	60	84	108		
51788+20.28	172	6	154	0	11	0	0	17	136	55		192	249	-232	0	39	154	44	61	93		
51788+25.00	23	0	23	0	0	0	0	0	6	6		11	15	-15	0	5	23	5	7	17		
51788+50.00	28	0	28	0	0	0	0	0	0			0	0	0	0	0	28	0	0	28		
51788+75.00	0	0	0	0	0	0	0	0	1			1	1	-1	0	0	0	0	0	0		
51789+00.00	0	0	0	0	0	0	0	0	1			1	1	-1	0	0	0	0	0	0		
51789+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51789+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51789+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51790+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51790+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51790+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51790+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51791+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51791+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51791+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51791+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51792+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51792+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51792+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51792+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51793+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51793+24.34	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51793+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51793+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51793+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51794+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51794+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51794+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51794+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51795+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51795+14.31	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51795+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51795+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51795+69.91	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51795+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51796+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51796+20.31	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51796+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51796+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51796+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51797+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51797+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51797+50.00	2	2	0	0	0	0	0	2	0			0	0	1	0	0	0	0	0	0		
51797+75.00	5	5	0	0	0	0	0	5	0			0	0	5	0	0	0	0	0	0		
51798+00.00	8	8	0	0	0	0	0	8	0			0	0	9	0	0	0	0	0	0		
51798+25.00	10	10	0	0	0	0	0	10	0			0	0	10	0	0	0	0	0	0		
51798+50.00	13	13	0	0	0	0	0	13	0			0	0	14	0	0	0	0	0	0		
51798+75.00	17	17	0	0	0	0	0	17	0			0	0	17	0	0	0	0	0	0		
51799+00.00	19	19	0	0	0	0	0	19	0			0	0	19	0	0	0	0	0	0		
51799+25.00	21	21	0	0	0	0	0	21	0			0	0	22	0	0	0	0	0	0		
51799+50.00	11	11	0	0	0	0	0	11	0			0	0	12	0	0	0	0	0	0		
51799+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51800+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51800+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51800+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51800+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51801+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51801+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51801+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51801+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
51802+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
RPDH38																						
Totals:	2,568	597	1,320	0	652	0	0	1,249	683	270	0	953	1,240	12	13	189	1,320	345	483	838		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
SR210																						
11703+10.66	194	0	194	0	0	0	0	0	257	97		354	460	-460	445	478	194	0	0	195		
11703+25.00	128	0	128	0	0	0	0	0	127	63		190	247	-247	150	270	128	0	0	128		
11703+50.00	64	0	64	0	0	0	0	0	127	62		189	246	-246	69	148	64	0	0	64		
11703+66.66	194	0	194	0	0	0	0	0	374	187		562	730	-730	320	360	194	39	54	140		
11703+75.00	194	0	194	0	0	0	0	0	316	191		507	660	-660	471	590	194	81	114	81		
11704+00.00	182	8	172	0	2	0	0	10	204	159		363	472	-462	352	472	172	76	106	66		
11704+25.00	150	9	135	0	6	0	0	15	114	105		219	285	-270	137	257	135	57	79	56		
11704+50.00	120	1	115	0	4	0	0	5	73	72		146	189	-184	0	98	115	42	59	56		
11704+75.00	107	0	107	0	0	0	0	0	58	57		115	150	-150	0	25	107	36	50	56		
11705+00.00	102	0	102	0	0	0	0	0	51	51		103	133	-133	0	0	102	33	46	56		
11705+25.00	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0		
11705+50.00	98	0	98	0	0	0	0	0	25	25		50	65	-65	31	31	98	16	22	75		
11705+50.03	132	0	132	0	0	0	0	0	0			0	0	0	0	0	132	0	0	132		
11705+75.00	128	0	128	0	0	0	0	0	0			0	0	0	0	0	128	0	0	128		
11706+00.00	86	0	86	0	0	0	0	0	0			0	0	0	0	0	86	0	0	86		
11706+25.00	83	0	83	0	0	0	0	0	0			0	0	0	0	0	83	0	0	83		
11706+50.00	80	0	80	0	0	0	0	0	0			0	0	0	0	0	80	0	0	80		
11706+75.00	78	0	78	0	0	0	0	0	0			0	0	0	0	0	78	0	0	78		
11707+00.00	77	0	77	0	0	0	0	0	0			0	0	0	0	0	77	0	0	77		
11707+25.00	75	0	75	0	0	0	0	0	0			0	0	0	0	0	75	0	0	75		
11707+50.00	73	0	73	0	0	0	0	0	0			0	0	0	0	0	73	0	0	73		
11707+75.00	36	0	36	0	0	0	0	0	0			0	0	0	0	0	36	0	0	36		
11708+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
11708+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
11708+43.52																						
SR210																						
Totals:	2,382	19	2,351	0	14	0	0	32	1,727	1,071	0	2,798	3,637	-3,606	1,974	2,730	2,351	380	532	1,821		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
SRHAWK																						
11729+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
11729+25.00	234	2	232	0	0	0	0	2	83	32		116	150	-149	0	0	232	0	0	232		
11729+50.00	234	2	232	0	0	0	0	2	7	7		14	18	-16	0	0	232	0	0	232		
11729+75.00	232	0	232	0	0	0	0	0	24	20		44	57	-57	0	0	232	0	0	232		
11730+00.00	232	0	232	0	0	0	0	0	33	27		61	79	-79	59	129	232	0	0	232		
11730+14.52	135	0	135	0	0	0	0	0	136	53		190	247	-247	182	233	135	0	0	135		
11730+25.00	97	0	97	0	0	0	0	0	173	61		234	304	-304	211	332	97	0	0	97		
11730+50.00	235	0	232	0	3	0	0	3	305	115		420	546	-543	192	294	232	5	7	226		
11730+71.00	201	2	195	0	4	0	0	6	205	89		294	383	-377	121	140	195	15	21	174		
11730+75.00	40	2	37	0	1	0	0	3	37	17		54	71	-68	0	27	37	5	7	30		
11731+00.00	283	66	208	0	9	0	0	75	116	61		176	230	-155	0	0	208	66	92	116		
11731+25.00	445	258	181	0	6	0	0	264	20	18		39	50	214	0	0	181	94	132	50		
11731+50.00	576	399	177	0	0	0	0	399	7	7		14	18	381	0	0	177	88	123	54		
11731+75.00	565	391	173	0	0	0	0	391	3	3		7	9	383	0	0	173	85	118	55		
11732+00.00	499	404	95	0	0	0	0	404	2	2		4	5	398	0	0	95	84	118	-22		
11732+25.00	520	425	95	0	0	0	0	425	2	2		4	5	420	0	0	95	85	119	-24		
11732+50.00	603	432	171	0	0	0	0	432	2	2		5	6	426	0	0	171	86	120	51		
11732+75.00	529	432	96	0	0	0	0	432	3	3		6	8	424	0	0	96	86	121	-25		
11733+00.00	447	422	24	0	0	0	0	422	4	4		8	10	413	0	0	24	87	121	-97		
11733+25.00	501	403	98	0	0	0	0	403	5	5		9	12	391	0	0	98	86	120	-23		
11733+50.00	501	378	123	0	0	0	0	378	5	5		11	14	364	0	0	123	85	119	4		
11733+75.00	462	341	121	0	0	0	0	341	6	6		11	15	326	0	0	121	83	116	5		
11734+00.00	390	292	98	0	0	0	0	292	6	6		13	17	276	0	0	98	81	113	-15		
11734+25.00	336	242	94	0	0	0	0	242	8	8		16	21	221	0	0	94	78	110	-16		
11734+50.00	348	191	157	0	0	0	0	191	11	10		21	28	163	0	0	157	76	106	51		
11734+75.00	299	148	151	0	0	0	0	148	18	17		35	46	102	0	0	151	71	100	52		
11735+00.00	275	129	147	0	0	0	0	129	21	21		42	55	74	0	0	147	68	96	51		
11735+21.00	246	114	132	0	0	0	0	114	16	16		31	41	73	0	1	132	57	80	53		
11735+25.00	50	22	27	0	0	0	0	22	3	3		6	8	14	0	0	27	11	15	13		
11735+50.00	277	117	160	0	0	0	0	117	29	29		57	75	43	0	0	160	64	89	71		
11735+75.00	215	82	133	0	0	0	0	82	42	39		82	107	-25	0	0	133	59	83	50		
11736+00.00	183	67	116	0	0	0	0	67	42	37		78	102	-34	0	0	116	60	84	31		
11736+25.00	183	74	108	0	0	0	0	74	36	30		65	85	-11	0	0	108	63	88	21		
11736+50.00	186	85	101	0	0	0	0	85	37	26		63	82	3	0	0	101	65	91	10		
11736+75.00	133	59	75	0	0	0	0	59	51	25		77	100	-41	0	0	75	42	60	15		
11737+00.00	78	30	49	0	0	0	0	30	61	24		85	110	-81	30	31	49	17	24	25		
11737+00.01	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0		
11737+25.00	71	28	43	0	0	0	0	28	51	19		70	91	-63	0	0	43	17	24	19		
11737+50.00	63	24	39	0	0	0	0	24	39	16		56	72	-48	0	0	39	16	23	16		
11737+75.00	55	20	35	0	0	0	0	20	29	14		43	57	-36	0	0	35	16	22	13		
11738+00.00	49	17	33	0	0	0	0	17	22	13		34	45	-28	0	0	33	15	21	12		
11738+25.00	45	14	31	0	0	0	0	14	17	12		29	38	-24	0	0	31	15	21	11		
11738+50.00	42	12	30	0	0	0	0	12	14	12		26	34	-22	0	0	30	15	21	10		
11738+75.00	21	6	15	0	0	0	0	6	7	6		12	16	-11	0	0	15	7	10	5		
SRHAWK Totals:	11,116	6,134	4,960	0	23	0	0	6,156	1,740	923	0	2,663	3,463	2,693	795	1,187	4,960	1,951	2,733	2,229		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
SRH38																						
11770+60.55	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
11770+75.00	11	0	0	0	0	0	11	0	0			0	0	0	0	0	0	0	0	0		
11771+00.00	19	0	0	0	0	0	19	0	0			0	0	0	0	0	0	0	0	0		
11771+25.00	39	0	20	0	0	0	19	0	0			0	0	0	0	0	20	0	0	20		
11771+50.00	59	0	40	0	0	0	19	0	0			0	0	0	0	0	40	0	0	40		
11771+75.00	59	0	40	0	0	0	19	0	0			0	0	0	0	0	40	0	0	40		
11772+00.00	44	3	22	0	0	0	19	3	3	2		5	7	-4	0	0	22	0	0	22		
11772+25.00	26	4	4	0	0	0	19	4	6	4		10	13	-9	0	0	4	0	0	4		
11772+37.34	12	2	2	0	0	0	9	2	2	2		4	5	-4	0	0	2	0	0	2		
11772+50.00	13	2	1	0	0	0	9	2	2	1		4	5	-3	0	0	1	0	0	2		
11772+75.00	23	2	2	0	0	0	19	2	2	1		3	4	-2	0	0	2	0	0	2		
11773+00.00	40	1	20	0	0	0	19	1	22	18		40	52	-50	0	0	20	0	0	21		
11773+25.00	90	18	54	0	0	0	19	18	47	40		87	113	-96	0	0	54	11	15	38		
11773+50.00	126	39	69	0	0	0	19	39	41	38		78	102	-64	0	0	69	24	33	36		
11773+75.00	136	38	79	0	0	0	19	38	35	32		68	88	-50	0	0	79	21	30	50		
11773+95.00	85	24	46	0	0	0	15	24	36	25		61	79	-55	0	16	46	7	10	37		
11774+00.00	14	5	5	0	0	0	4	5	10	5		16	20	-15	0	0	5	0	0	6		
11774+17.92	48	18	17	0	0	0	13	18	21	11		31	41	-23	0	0	17	0	0	17		
11774+25.00	16	6	5	0	0	0	5	6	3	1		4	5	2	0	0	5	0	0	5		
11774+50.00	70	23	28	0	0	0	19	23	41	21		62	81	-58	0	0	28	10	14	14		
11774+75.00	89	31	41	0	0	0	18	31	63	37		100	130	-99	0	0	41	21	30	11		
11775+00.00	79	19	42	0	0	0	18	19	46	32		78	102	-82	0	0	42	12	17	25		
11775+25.00	92	2	72	0	0	0	18	2	62	49		111	144	-142	0	5	72	23	33	39		
11775+50.00	134	20	96	0	0	0	18	20	66	57		123	160	-140	0	0	96	42	59	37		
11775+75.00	116	26	72	0	0	0	18	26	33	33		66	86	-60	0	0	72	39	55	18		
11776+00.00	79	12	49	0	0	0	18	12	22	22		44	57	-46	0	0	49	38	54	-5		
11776+25.00	73	10	45	0	0	0	18	10	24	23		48	62	-52	30	30	45	36	51	-6		
11776+25.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
11776+50.00	165	26	120	0	0	0	19	26	84	64		148	192	-166	0	49	120	61	85	35		
11776+75.00	153	21	113	0	0	0	19	21	85	58		144	187	-165	0	40	113	58	81	32		
11777+00.00	154	25	111	0	0	0	19	25	84	57		141	184	-159	0	46	111	58	82	29		
11777+25.00	164	30	115	0	0	0	19	30	89	59		148	193	-163	0	60	115	61	86	30		
11777+50.00	175	36	120	0	0	0	19	36	99	60		159	207	-171	0	61	120	64	89	31		
11777+75.00	181	39	123	0	0	0	19	39	98	59		158	205	-166	0	62	123	65	91	31		
11778+00.00	184	40	125	0	0	0	19	40	100	61		161	210	-170	0	82	125	66	93	33		
11778+25.00	190	41	130	0	0	0	18	41	114	63		177	230	-189	0	91	130	67	94	36		
11778+50.00	197	44	134	0	0	0	18	44	118	64		182	237	-193	0	98	134	68	95	40		
11778+75.00	209	51	139	0	0	0	18	51	122	65		187	243	-192	0	108	139	68	96	44		
11779+00.00	224	61	144	0	0	0	18	61	130	68		197	257	-196	74	91	144	69	97	47		
11779+03.49	33	9	21	0	0	0	3	9	19	10		28	37	-28	0	43	21	10	14	7		
11779+25.00	209	63	130	0	0	0	16	63	120	58		178	231	-168	0	126	130	61	85	45		
11779+50.00	265	84	163	0	0	0	18	84	150	70		220	286	-202	20	146	163	72	101	63		
11779+75.00	292	92	181	0	0	0	18	92	154	73		227	296	-204	0	107	181	73	102	80		
11780+00.00	241	82	141	0	0	0	18	82	120	58		178	232	-150	0	46	141	60	84	57		
11780+25.00	183	71	94	0	0	0	18	71	89	42		131	170	-100	0	27	94	48	68	27		
11780+50.00	189	75	95	0	0	0	18	75	91	42		133	173	-98	0	34	95	49	69	27		
11780+75.00	194	79	97	0	0	0	18	79	95	43		138	179	-100	0	46	97	50	70	27		
11781+00.00	205	85	103	0	0	0	18	85	104	45		148	193	-108	0	0	103	54	76	27		
11781+25.00	141	63	59	0	0	0	18	63	60	28		88	114	-51	0	0	59	29	41	19		
11781+38.07	35	19	6	0	0	0	9	19	5	4		9	12	8	0	0	6	0	0	6		
11781+50.00	32	18	5	0	0	0	9	18	5	4		9	12	6	0	0	5	0	0	5		
11781+75.00	68	39	12	0	0	0	18	39	9	8		18	23	16	0	0	12	0	0	12		
11781+90.73	44	25	8	0	0	0	11	25	4	4		7	10	16	0	0	8	0	0	8		
11782+00.00	26	15	5	0	0	0	7	15	2	2		4	5	10	0	0	5	0	0	5		
11782+25.00	72	41	13	0	0	0	18	41	7	6		14	18	23	0	0	13	0	0	13		
11782+50.00	73	41	14	0	0	0	18	41	10	8		18	23	18	0	0	14	0	0	14		
11782+75.00	95	45	32	0	0	0	18	45	45	25		70	91	-46	0	44	32	3	4	28		
11783+00.00	242	84	140	0	0	0	18	84	121	61		182	237	-153	20	146	140	27	38	102		
11783+25.00	442	131	286	0	7	0	18	138	162	82		244	318	-180	39	165	286	57	80	206		
11783+50.00	517	139	342	0	18	0	18	157	156	85		241	314	-157	108	112	342	64	90	252		
11783+50.74	15	4	10	0	1	0	1	5	4	3		7	9	-5	0	52	10	2	3	8		
11783+75.00	498	122	332	0	27	0	18	149	145	83		228	297	-148	21	147	332	61	85	247		
11784+00.00	506	109	342	0	37	0	18	146	142	82		224	291	-146	0	121	342	62	86	256		
11784+25.00	497	93	343	0	43	0	18	137	122	74		196	255	-118	0	90	343	58	82	261		
11784+50.00	547	75	416	0	37	0	18	113	107	66		172	224	-112	0	78	416	47	66	350		
11784+75.00	513	64	416	0	15	0	18	79	106	66		172	224	-145	0	82	416	32	45	372		
11785+00.00	495	65	411	0	0	0	18	65	108	67		175	228	-163	0	85	411	22	32	380		
11785+25.00																						
Subtotals:	10,256	2,552	6,465	0	184	0	1,056	2,736	3,972	2,334	0	6,306	8,200	-5,467	311	2,532	6,465	1,932	2,707	3,761		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
11785+25.00	495	66	411	0	0	0	18	66	110	67		176	229	-164	0	85	411	16	22	389		
11785+50.00	490	65	406	0	0	0	18	65	110	65		176	229	-164	0	90	406	12	17	390		
11785+75.00	488	64	406	0	0	0	18	64	115	67		182	237	-174	0	122	406	12	17	390		
11786+00.00	482	62	402	0	0	0	19	62	138	81		220	286	-224	39	165	402	12	17	385		
11786+25.00	480	59	403	0	0	0	19	59	158	94		251	326	-268	68	195	403	15	21	382		
11786+50.00	477	58	400	0	0	0	19	58	168	95		263	342	-284	74	200	400	16	22	377		
11786+75.00	477	58	401	0	0	0	19	58	170	93		264	343	-285	65	191	401	22	31	370		
11787+00.00	434	71	344	0	0	0	19	71	165	90		255	331	-260	69	195	344	39	55	290		
11787+25.00	465	102	344	0	0	0	19	102	172	92		264	343	-241	107	233	344	56	79	265		
11787+50.00	463	100	345	0	0	0	19	100	199	111		310	403	-303	196	324	345	64	90	255		
11787+75.00	472	109	344	0	0	0	19	109	249	130		379	493	-384	265	381	344	65	91	254		
11787+97.99	466	133	316	0	0	0	17	133	265	127		392	510	-378	174	185	316	62	86	230		
11788+00.00	42	12	28	0	0	0	2	12	24	12		36	46	-34	129	255	28	6	8	20		
11788+25.00	536	173	344	0	0	0	19	173	296	143		439	570	-397	225	351	344	88	123	221		
11788+50.00	625	264	343	0	0	0	19	264	239	120		359	467	-203	116	242	343	111	155	188		
11788+75.00	476	198	259	0	0	0	19	198	178	89		267	348	-150	74	202	259	57	80	179		
11789+00.00	253	60	175	0	0	0	18	60	177	85		262	341	-281	65	191	175	0	0	175		
11789+25.00	263	62	175	0	8	0	18	70	173	80		253	329	-259	47	174	175	0	0	175		
11789+50.00	352	63	175	0	96	0	18	159	165	70		235	306	-146	60	187	175	28	39	136		
11789+75.00	341	54	175	0	95	0	18	148	186	87		272	354	-206	90	217	175	47	66	109		
11790+00.00	231	46	148	0	20	0	18	66	192	94		286	372	-306	55	181	148	38	53	95		
11790+25.00	205	49	113	0	25	0	18	74	157	72		229	298	-224	0	125	113	35	49	64		
11790+50.00	220	91	100	0	11	0	18	102	135	61		196	255	-153	0	116	100	33	46	55		
11790+75.00	233	122	94	0	0	0	18	122	140	63		203	263	-142	0	121	94	32	45	49		
11791+00.00	215	108	89	0	0	0	18	108	142	64		206	268	-159	0	127	89	30	42	47		
11791+25.00	202	99	85	0	0	0	18	99	145	64		209	272	-173	10	138	85	29	40	45		
11791+50.00	296	155	123	0	0	0	18	155	153	71		225	292	-137	27	153	123	44	62	61		
11791+75.00	384	210	155	0	0	0	18	210	158	78		237	308	-97	26	153	155	58	82	74		
11792+00.00	360	198	143	0	0	0	18	198	151	74		225	293	-94	0	118	143	55	77	66		
11792+25.00	348	192	138	0	0	0	19	192	129	59		188	244	-52	0	83	138	51	72	66		
11792+50.00	332	180	133	0	0	0	19	180	116	47		164	213	-33	0	72	133	48	67	66		
11792+75.00	299	152	128	0	0	0	19	152	119	49		168	218	-66	0	74	128	41	57	71		
11793+00.00	290	148	123	0	0	0	19	148	120	48		167	218	-69	0	73	123	40	56	67		
11793+25.00	285	145	122	0	0	0	19	145	119	46		165	215	-71	14	65	122	40	56	66		
11793+35.12	110	52	50	0	0	0	7	52	49	19		68	89	-37	0	35	50	15	21	30		
11793+50.00	158	73	74	0	0	0	11	73	74	30		104	136	-63	0	52	74	22	31	42		
11793+75.00	258	118	122	0	0	0	18	118	121	52		173	224	-107	0	55	122	40	57	66		
11794+00.00	244	107	119	0	0	0	18	107	102	47		148	193	-87	0	33	119	43	60	59		
11794+25.00	249	113	118	0	0	0	18	113	90	46		135	176	-63	0	44	118	45	63	55		
11794+50.00	276	137	121	0	0	0	18	137	100	45		146	189	-52	0	55	121	47	66	56		
11794+75.00	289	147	123	0	0	0	18	147	109	43		152	198	-51	0	48	123	48	67	56		
11795+00.00	286	145	123	0	0	0	18	145	105	43		148	193	-48	0	83	123	49	69	54		
11795+25.00	286	110	131	0	0	0	44	110	133	67		200	260	-150	77	95	131	38	53	79		
11795+28.47	40	11	19	0	0	0	9	11	22	12		34	45	-33	0	43	19	3	5	15		
11795+50.00	223	79	110	0	0	0	35	79	117	66		183	238	-159	0	81	110	32	45	65		
11795+75.00	230	98	113	0	0	0	19	98	108	56		164	214	-116	0	61	113	46	65	49		
11796+00.00	218	91	108	0	0	0	19	91	102	50		152	198	-107	0	68	108	43	60	49		
11796+25.00	192	68	105	0	0	0	19	68	113	58		171	222	-154	62	189	105	43	60	45		
11796+50.00	178	39	120	0	0	0	19	39	199	97	0	296	384	-345	127	130	120	22	30	90		
11796+50.51	4	1	3	0	0	0	0	1	6	3	0	8	11	-11	0	108	3	0	0	3		
11796+75.00	168	34	115	0	0	0	18	34	189	93	0	282	367	-333	0	109	115	20	29	87		
11797+00.00	179	63	97	0	0	0	19	63	103	58		161	209	-146	0	61	97	42	59	38		
11797+22.19	175	75	83	0	0	0	16	75	89	51		139	181	-106	49	64	83	38	54	29		
11797+25.00	22	10	10	0	0	0	2	10	11	6		18	23	-14	0	0	10	5	7	4		
11797+50.00	194	83	92	0	0	0	19	83	98	58		157	204	-121	0	56	92	43	61	32		
11797+75.00	192	80	92	0	0	0	19	80	96	60		156	203	-122	0	57	92	43	60	33		
11798+00.00	188	77	93	0	0	0	19	77	96	60		155	202	-125	0	34	93	42	59	34		
11798+25.00	187	77	92	0	0	0	19	77	77	51		128	167	-90	0	0	92	41	57	34		
11798+50.00	179	66	95	0	0	0	19	66	59	46		105	137	-71	0	0	95	42	59	36		
11798+72.00	147	35	70	0	0	0	42	35	51	40	1	91	118	-83	27	43	70	25	35	35		
11798+75.00	19	3	7	0	0	0	9	3	7	5	0	12	15	-12	0	0	7	2	2	5		
11799+00.00	151	27	75	0	0	0	48	27	61	45	2	108	141	-113	0	0	75	14	19	56		
11799+25.00	126	37	67	0	0	0	21	37	66	43		109	142	-105	0	38	67	7	10	57		
11799+33.00	37	16	14	0	0	0	7	16	21	13		34	45	-28	0	0	14	0	0	15		
11799+50.00	71	37	18	0	0	0	15	37	24	16		41	53	-16	0	0	18	0	0	18		
11799+55.00	17	11	1	0	0	0	5	11	1	1		2	2	9	0	0	1	0	0	1		
11799+75.00	97	31	46	0	0	0	20	31	28	25		53	69	-38	0	16	46	17	24	23		
11799+80.80	38	7	26	0	0	0	5	7	14	12		26	34	-26	0	0	26	9	13	13		
11800+00.00																						
Subtotals:	17,904	5,887	10,543	0	254	0	1,219	6,142	8,075	4,105	3	12,184	15,842	-9,703	2,337	7,437	10,543	2,227	3,121	7,425		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
11800+00.00	135	39	79	0	0	0	17	39	35	32		67	87	-48	0	0	79	28	39	40		
11800+25.00	155	38	97	0	0	0	20	38	48	43		91	119	-80	0	0	97	17	24	73		
11800+50.00	138	19	99	0	0	0	20	19	50	44		94	123	-104	0	0	99	0	0	99		
11800+75.00	151	51	78	0	0	0	22	51	28	24		52	68	-17	0	0	78	0	0	78		
11801+00.00	176	87	66	0	0	0	24	87	14	12		25	33	54	0	0	66	0	0	66		
11801+12.00	87	33	42	0	0	0	12	33	12	11		22	29	4	0	0	42	0	0	42		
11801+18.00	45	14	24	0	0	0	6	14	11	9		20	26	-12	0	0	24	0	0	25		
11801+25.00	63	26	29	0	0	0	7	26	20	13		33	43	-16	0	0	29	0	0	29		
11801+50.00	225	83	103	0	0	0	39	83	87	60		147	191	-108	0	0	103	0	0	103		
11802+00.00	338	58	99	0	0	0	181	58	87	72		160	207	-150	0	0	99	0	0	99		
11802+50.00	148	0	0	0	0	0	148	0	0			0	0	0	0	0	0	0	0	0		
11803+00.00	36	0	0	0	0	0	36	0	0			0	0	0	0	0	0	0	0	0		
11803+50.00	36	0	0	0	0	0	36	0	0			0	0	0	0	0	0	0	0	0		
11803+99.68	19	0	0	0	0	0	19	0	0			0	0	0	0	0	0	0	0	0		
SRH38																						
Totals:	29,912	8,889	17,725	0	439	0	2,861	9,327	12,439	6,760	3	19,201	24,968	-15,647	2,649	9,970	17,725	4,204	5,891	11,841		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
DET1																						
61732+50.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
61732+75.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
61733+00.00	1	1	0	0	0	0	0	1	0			0	0	1	0	0	0	0	0	0		
61733+01.39	31	31	0	0	0	0	0	31	0			0	0	32	0	0	0	0	0	0		
61733+25.00	54	54	0	0	0	0	0	54	0			0	0	54	0	0	0	0	0	0		
61733+50.00	44	44	0	0	0	0	0	44	0			0	0	44	0	0	0	0	0	0		
61733+75.00	27	27	0	0	0	0	0	27	0			0	0	27	0	0	0	0	0	0		
61734+00.00	29	29	0	0	0	0	0	29	0			0	0	29	0	0	0	0	0	0		
61734+25.00	34	34	0	0	0	0	0	34	0			0	0	34	0	0	0	0	0	0		
61734+50.00	36	36	0	0	0	0	0	36	1			1	1	36	0	0	0	0	0	0		
61734+75.00	36	36	0	0	0	0	0	36	3			3	4	33	0	0	0	0	0	0		
61735+00.00	36	36	0	0	0	0	0	36	6			6	7	29	0	0	0	0	0	0		
61735+25.00	39	39	0	0	0	0	0	39	9			9	11	28	0	0	0	0	0	0		
61735+50.00	43	43	0	0	0	0	0	43	12			12	15	28	0	0	0	0	0	0		
61735+75.00	47	47	0	0	0	0	0	47	14			14	19	29	0	0	0	0	0	0		
61736+00.00	50	50	0	0	0	0	0	50	16			16	21	30	0	0	0	0	0	0		
61736+25.00	53	53	0	0	0	0	0	53	16			16	21	32	0	0	0	0	0	0		
61736+50.00	20	20	0	0	0	0	0	20	6			6	8	13	0	0	0	0	0	0		
61736+68.66	9	9	0	0	0	0	0	9	2			2	2	7	0	0	0	0	0	0		
61736+75.00	68	68	0	0	0	0	0	68	14			14	18	49	0	0	0	0	0	0		
61737+00.00	63	63	0	0	0	0	0	63	16			16	20	43	0	0	0	0	0	0		
61737+25.00	53	53	0	0	0	0	0	53	18			18	23	30	0	0	0	0	0	0		
61737+50.00	41	41	0	0	0	0	0	41	22			22	28	13	0	0	0	0	0	0		
61737+75.00	32	32	0	0	0	0	0	32	29			29	37	-5	0	0	0	0	0	0		
61738+00.00	28	28	0	0	0	0	0	28	36			36	47	-20	0	0	0	0	0	0		
61738+25.00	22	22	0	0	0	0	0	22	48			48	62	-40	0	0	0	0	0	0		
61738+50.00	13	13	0	0	0	0	0	13	67			67	87	-75	0	0	0	0	0	0		
61738+75.00	6	6	0	0	0	0	0	6	89			89	115	-109	0	0	0	0	0	0		
61739+00.00	4	4	0	0	0	0	0	4	126			126	164	-160	0	0	0	0	0	0		
61739+25.00	5	5	0	0	0	0	0	5	182			182	236	-231	0	0	0	0	0	0		
61739+50.00	7	7	0	0	0	0	0	7	240			240	312	-304	0	0	0	0	0	0		
61739+75.00	10	10	0	0	0	0	0	10	269			269	350	-340	0	0	0	0	0	0		
61740+00.00	15	15	0	0	0	0	0	15	283			283	369	-354	0	0	0	0	0	0		
61740+25.00	20	20	0	0	0	0	0	20	300			300	390	-369	0	0	0	0	0	0		
61740+50.00	25	25	0	0	0	0	0	25	314			314	408	-382	0	0	0	0	0	0		
61740+75.00	31	31	0	0	0	0	0	31	333			333	433	-402	0	0	0	0	0	0		
61741+00.00	39	39	0	0	0	0	0	39	351			351	456	-417	0	0	0	0	0	0		
61741+25.00	48	48	0	0	0	0	0	48	373			373	485	-437	0	0	0	0	0	0		
61741+50.00	58	58	0	0	0	0	0	58	399			399	519	-461	0	0	0	0	0	0		
61741+75.00	67	67	0	0	0	0	0	67	429			429	558	-491	0	0	0	0	0	0		
61742+00.00	62	62	0	0	0	0	0	62	384			384	499	-437	0	0	0	0	0	0		
61742+20.86	13	13	0	0	0	0	0	13	79			79	103	-90	0	0	0	0	0	0		
61742+25.00	82	82	0	0	0	0	0	82	503			503	655	-573	0	0	0	0	0	0		
61742+50.00	89	89	0	0	0	0	0	89	549			549	714	-626	0	0	0	0	0	0		
61742+75.00	94	94	0	0	0	0	0	94	606			606	787	-693	0	0	0	0	0	0		
61743+00.00	102	102	0	0	0	0	0	102	667			667	867	-765	0	0	0	0	0	0		
61743+25.00	77	77	0	0	0	0	0	77	749			749	974	-897	746	0	0	0	0	0		
61743+50.00	44	44	0	0	0	0	0	44	834			834	1,084	-1,040	746	0	0	0	0	0		
61743+75.00	172	172	0	0	0	0	0	172	810			810	1,054	-882	746	0	0	0	0	0		
61744+00.00	497	497	0	0	0	0	0	497	720			720	936	-439	0	0	0	0	0	0		
61744+25.00	691	691	0	0	0	0	0	691	705			705	916	-225	0	0	0	0	0	0		
61744+50.00	701	701	0	0	0	0	0	701	729			729	948	-247	0	0	0	0	0	0		
61744+75.00	719	719	0	0	0	0	0	719	733			733	953	-234	0	0	0	0	0	0		
61745+00.00	737	737	0	0	0	0	0	737	723			723	940	-203	0	0	0	0	0	0		
61745+25.00	754	754	0	0	0	0	0	754	566			566	735	19	0	0	0	0	0	0		
61745+50.00	776	776	0	0	0	0	0	776	248			248	323	454	0	0	0	0	0	0		
61745+75.00	174	174	0	0	0	0	0	174	17			17	23	151	0	0	0	0	0	0		
61745+86.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
61746+00.00	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0		
61746+38.12																						
DET1 Totals:	7,030	7,030	0	0	0	0	0	7,030	13,642	0	0	13,642	17,736	-10,707	2,239	0	0	0	0	0		

Preliminary 08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
DET2																						
61839+39.32	2	2	0	0	0	0	0	2	0			0	0	2	0	0	0	0	0	0		
61839+50.00	8	8	0	0	0	0	0	8	0			0	0	8	0	0	0	0	0	0		
61840+00.00	8	8	0	0	0	0	0	8	0			0	0	8	0	0	0	0	0	0		
61840+50.00	9	9	0	0	0	0	0	9	0			0	0	9	0	0	0	0	0	0		
61841+00.00	10	10	0	0	0	0	0	10	0			0	0	10	0	0	0	0	0	0		
61841+50.00	11	11	0	0	0	0	0	11	0			0	0	11	0	0	0	0	0	0		
61842+00.00	17	17	0	0	0	0	0	17	1			1	1	16	0	0	0	0	0	0		
61842+50.00	22	22	0	0	0	0	0	22	6			6	9	13	0	0	0	0	0	0		
61843+00.00	122	122	0	0	0	0	0	122	7			7	9	114	0	0	0	0	0	0		
61843+50.00	296	296	0	0	0	0	0	296	4			4	6	291	0	0	0	0	0	0		
61844+00.00	419	419	0	0	0	0	0	419	19			19	24	395	0	0	0	0	0	0		
61844+50.00	200	200	0	0	0	0	0	200	13			13	17	184	0	0	0	0	0	0		
61844+67.33	378	378	0	0	0	0	0	378	113			113	146	232	0	0	0	0	0	0		
61845+00.00	439	439	0	0	0	0	0	439	310			310	404	36	0	0	0	0	0	0		
61845+50.00	388	388	0	0	0	0	0	388	264			264	344	44	0	0	0	0	0	0		
61846+00.00	337	337	0	0	0	0	0	337	175			175	228	109	0	0	0	0	0	0		
61846+50.00	278	278	0	0	0	0	0	278	102			102	132	146	0	0	0	0	0	0		
61847+00.00	237	237	0	0	0	0	0	237	41			41	54	183	0	0	0	0	0	0		
61847+50.00	220	220	0	0	0	0	0	220	12			12	16	204	0	0	0	0	0	0		
61848+00.00	211	211	0	0	0	0	0	211	2			2	3	208	0	0	0	0	0	0		
61848+50.00	204	204	0	0	0	0	0	204	0			0	0	204	0	0	0	0	0	0		
61849+00.00	58	58	0	0	0	0	0	58	0			0	0	58	0	0	0	0	0	0		
61849+15.84	103	103	0	0	0	0	0	103	1			1	1	102	0	0	0	0	0	0		
61849+50.00	131	131	0	0	0	0	0	131	6			6	7	124	0	0	0	0	0	0		
61850+00.00	117	117	0	0	0	0	0	117	6			6	7	110	0	0	0	0	0	0		
61850+50.00	106	106	0	0	0	0	0	106	1			1	2	104	0	0	0	0	0	0		
61851+00.00	96	96	0	0	0	0	0	96	0			0	0	96	0	0	0	0	0	0		
61851+50.00	86	86	0	0	0	0	0	86	0			0	0	86	0	0	0	0	0	0		
61852+00.00	76	76	0	0	0	0	0	76	0			0	0	76	0	0	0	0	0	0		
61852+50.00	65	65	0	0	0	0	0	65	0			0	0	65	0	0	0	0	0	0		
61853+00.00	57	57	0	0	0	0	0	57	0			0	0	57	0	0	0	0	0	0		
61853+50.00	53	53	0	0	0	0	0	53	0			0	0	53	0	0	0	0	0	0		
61854+00.00	47	47	0	0	0	0	0	47	0			0	0	47	0	0	0	0	0	0		
61854+48.79	1	1	0	0	0	0	0	1	0			0	0	1	0	0	0	0	0	0		
61854+50.00																						
DET2 Totals:	4,809	4,809	0	0	0	0	0	4,809	1,082	0	0	1,082	1,408	3,403	0	0	0	0	0	0		

Preliminary
08-02-2023

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut								Fill						Checks (EW-102)		Topsoil					
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
								[2]+[4]+[5]+[6]+ [7]				[9]+[10]	[12]*1.31	[8]+[13]					[18]*1.4	[17]-[20]		
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Unsuitable Type A Volume	Template Unsuitable Type B Volume	Template Unsuitable Type C Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.31 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink		
Summary:																						
ML061_S	72,807	42,386	22,273	0	168	0	7,981	42,554	116,587	11,874	3,085	131,545	171,027	-128,484	50,231	74,285	22,273	24,273	34,004	-11,737		
ML061_N	51,014	14,467	26,235	0	8,367	0	1,947	22,833	34,713	10,342	356	45,410	59,038	-36,199	4,969	22,903	26,235	12,500	17,510	8,728		
RPAH38	1,671	636	1,015	0	21	0	0	657	461	258	0	719	938	-280	388	761	1,015	0	0	1,015		
RPBH38	3,257	3,017	1,384	418	2,508	1,503	0	7,445	687	279	0	965	1,255	6,192	73	338	1,384	418	586	799		
RPCH38	2,909	2,127	1,801	0	3,387	1,801	0	7,314	812	417	0	1,229	1,600	5,716	58	266	1,801	429	601	1,201		
RPDH38	2,568	597	1,320	0	652	0	0	1,249	683	270	0	953	1,240	12	13	189	1,320	345	483	838		
SR210	2,382	19	2,351	0	14	0	0	32	1,727	1,071	0	2,798	3,637	-3,606	1,974	2,730	2,351	380	532	1,821		
SRHAWK	11,116	6,134	4,960	0	23	0	0	6,156	1,740	923	0	2,663	3,463	2,693	795	1,187	4,960	1,951	2,733	2,229		
SRH38	29,912	8,889	17,725	0	439	0	2,861	9,327	12,439	6,760	3	19,201	24,968	-15,647	2,649	9,970	17,725	4,204	5,891	11,841		
DET1	7,030	7,030	0	0	0	0	0	7,030	13,642	0	0	13,642	17,736	-10,707	2,239	0	0	0	0	0		
DET2	4,809	4,809	0	0	0	0	0	4,809	1,082	0	0	1,082	1,408	3,403	0	0	0	0	0	0		
Project Totals:	189,475	90,111	79,064	418	15,579	3,304	12,789	109,406	184,573	32,194	3,444	220,207	286,310	-176,907	63,389	112,629	79,064	44,500	62,340	16,735		

Excavation, Class 10, Roadway & Borrow
[8] 109,406

Embankment In Place, Contractor Furnished
176,907 / 1.31 = 135,043
[14]/[Avg. Shrink Factor]

Compaction with Mositure Control
[13] 286,310

Topsoil, Strip, Salvage & Spread
[19] 62,340

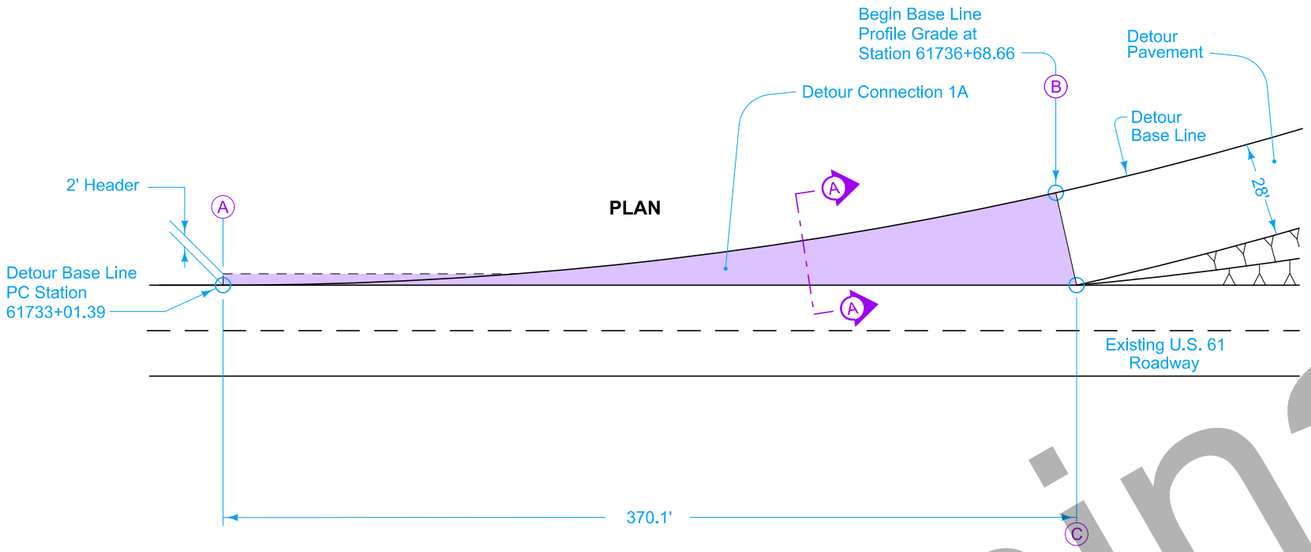
Topsoil, Strip & Stockpile
[20] 16,735

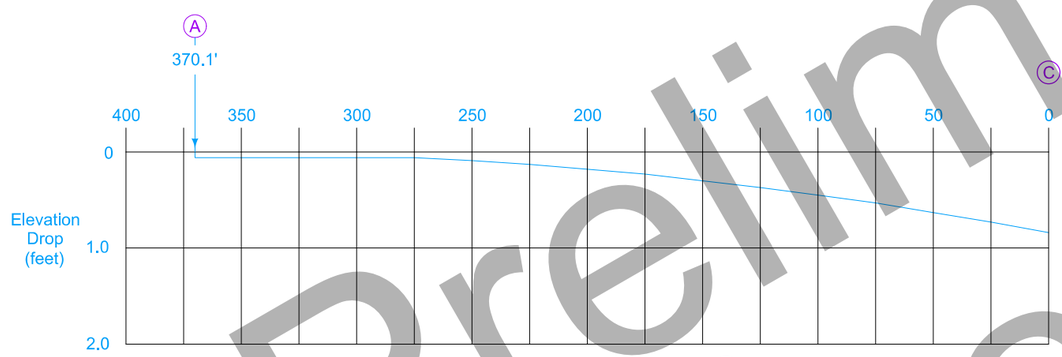
Preliminary
08-02-2023

Construct detour connection pavement and subbase the same thickness as detour pavement and subbase.

Detour connection pavement shown by shaded area is 390 square yards, which includes the 2' Header.

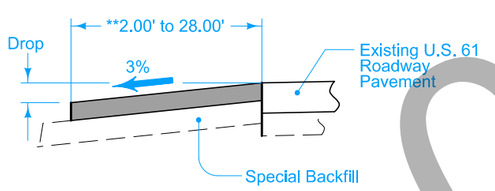
For joint details, see PV-101





NOTE: The algebraic difference between profile grade for Detour Base Line at (B) and relative profile grade of Existing U.S. 61 at (C) is 0.44%.

PROFILE



SECTION A-A

** Width includes Header.

TABLE OF OFFSETS AND DROPS FOR DETOUR PAVEMENT

DISTANCE (Ft.)	370.1	350	325	300	275	250	225	200	175	150	125	100	75	50	25	0
OFFSET (Ft.)	2.00	2.00	2.00	2.00	2.00	2.98	4.32	5.93	7.79	9.91	12.29	14.92	17.81	20.95	24.35	28.00
DROP (Ft.)	0.06	0.06	0.06	0.06	0.06	0.09	0.13	0.18	0.23	0.30	0.37	0.45	0.53	0.63	0.73	0.84

NOTE: The elevations are established by a constant 3% slope across the appropriate detour widths based on a radius of 2,400.00'. Drop = (0.03) x (Offset).

Preliminary
08-02-2023

MODIFIED STANDARD ROAD PLAN

REVISION	
1	10-21-14

PV-428

SHEET 1 of 1

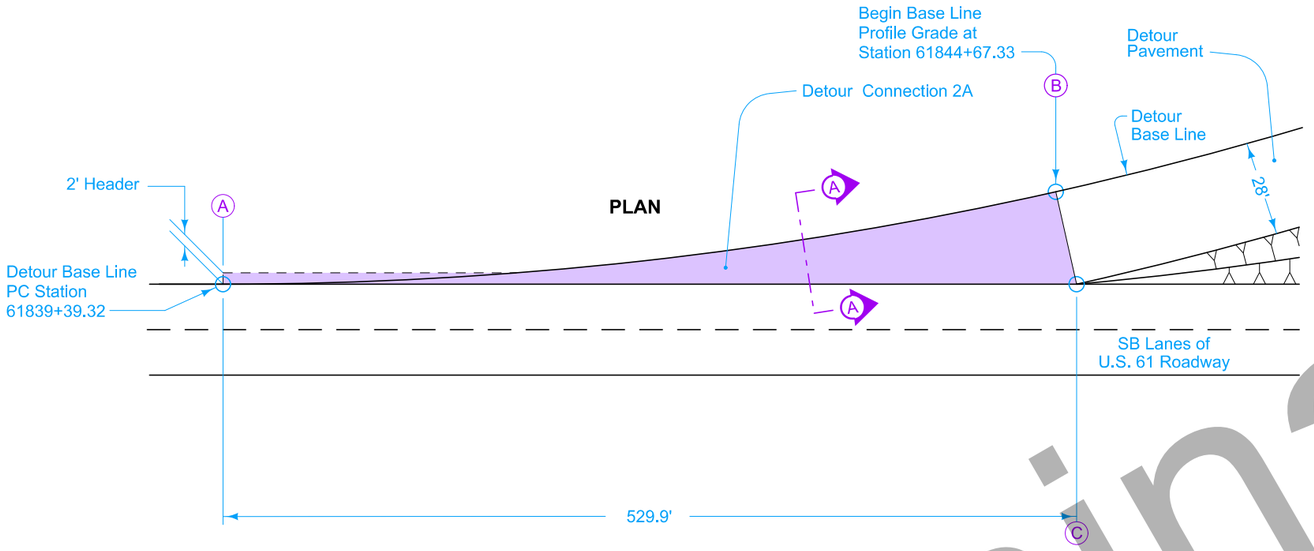
MODIFICATIONS: Changed radius to 2,400 ft for increased design speed.

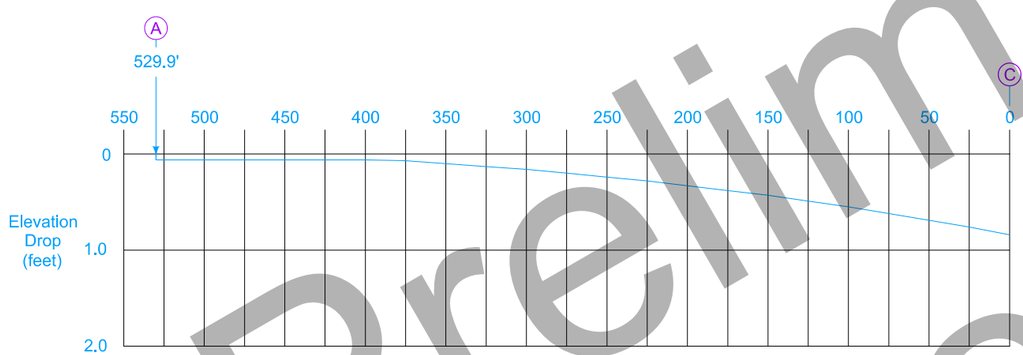
TWO-LANE DETOUR CONNECTION 1A

Construct detour connection pavement and subbase the same thickness as detour pavement and subbase.

Detour connection pavement shown by shaded area is 569 square yards, which includes the 2' Header.

For joint details, see PV-101





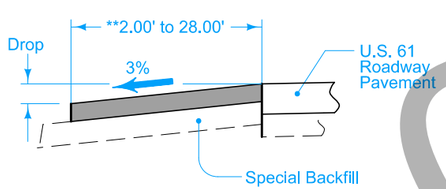
NOTE: The algebraic difference between profile grade for Detour Base Line at (B) and relative profile grade of U.S. 61 at (C) is 0.32%.

PROFILE

TABLE OF OFFSETS AND DROPS FOR DETOUR PAVEMENT												
DISTANCE (Ft.)	529.9	525	500	475	450	425	400	375	350	325	300	275
OFFSET (Ft.)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.40	3.24	4.20	5.28	6.49
DROP (Ft.)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.10	0.13	0.16	0.20

TABLE OF OFFSETS AND DROPS FOR DETOUR PAVEMENT											
DISTANCE (Ft.)	250	225	200	175	150	125	100	75	50	25	0
OFFSET (Ft.)	7.83	9.29	10.87	12.58	14.41	16.37	18.45	20.65	22.98	25.43	28.00
DROP (Ft.)	0.24	0.28	0.33	0.38	0.43	0.49	0.55	0.62	0.69	0.76	0.84

NOTE: The elevations are established by a constant 3% slope across the appropriate detour widths based on a radius of 5,000.00'. Drop = (0.03) x (Offset).



SECTION A-A

** Width includes Header.

MODIFIED STANDARD ROAD PLAN

REVISION	
1	10-21-14

PV-428

SHEET 1 of 1

MODIFICATIONS: Changed radius to 5,000 ft for increased design speed.

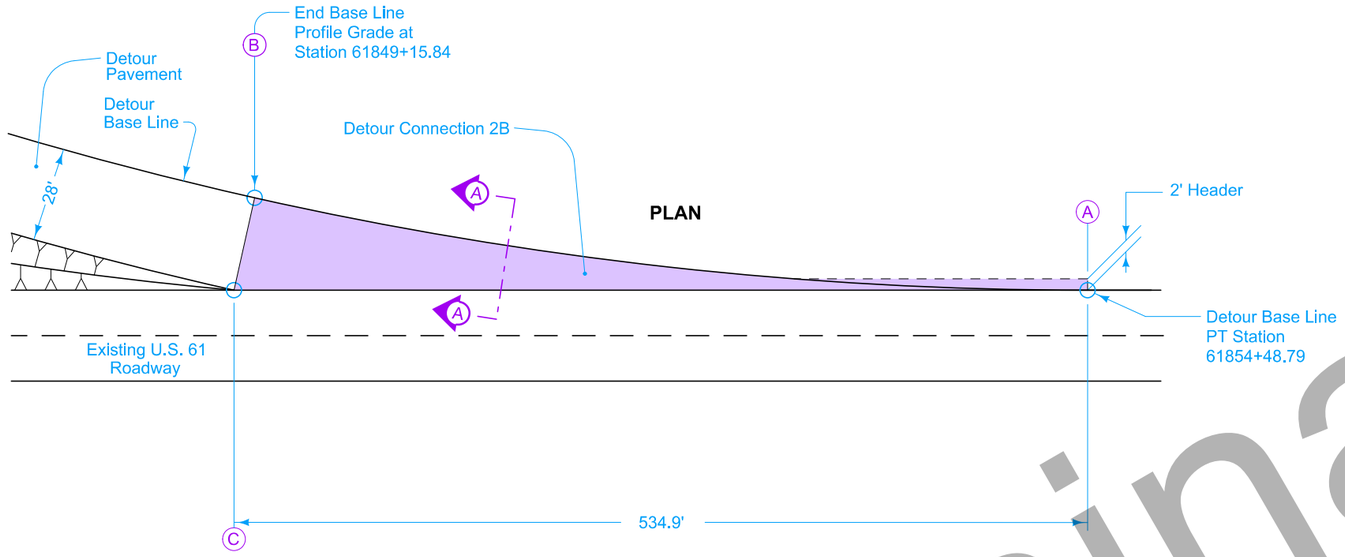
TWO-LANE DETOUR CONNECTION 2A

Preliminary
08-02-2023

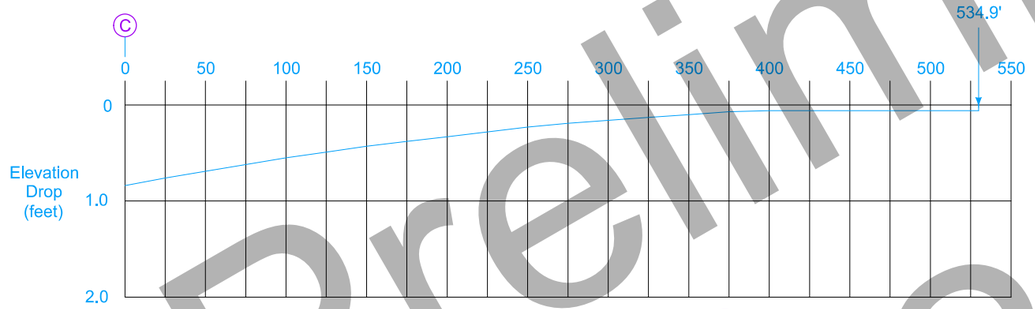
Construct detour connection pavement and subbase the same thickness as detour pavement and subbase.

Detour connection pavement shown by shaded area is 569 square yards, which includes the 2' Header.

For joint details, see PV-101



PLAN



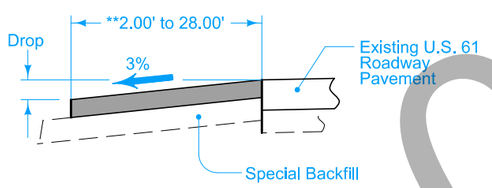
NOTE: The algebraic difference between profile grade for Detour Base Line at (B) and relative profile grade of U.S. 61 at (C) is 0.32%.

PROFILE

TABLE OF OFFSETS AND DROPS FOR DETOUR PAVEMENT												
DISTANCE (Ft.)	0	25	50	75	100	125	150	175	200	225	250	275
OFFSET (Ft.)	28.00	25.37	22.90	20.56	18.39	16.36	14.42	12.56	10.82	9.18	7.71	6.44
DROP (Ft.)	0.84	0.76	0.69	0.62	0.55	0.49	0.43	0.38	0.32	0.28	0.23	0.19

TABLE OF OFFSETS AND DROPS FOR DETOUR PAVEMENT											
DISTANCE (Ft.)	300	325	350	375	400	425	450	475	500	525	534.9
OFFSET (Ft.)	5.29	4.24	3.31	2.51	2.00	2.00	2.00	2.00	2.00	2.00	2.00
DROP (Ft.)	0.16	0.13	0.10	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06

NOTE: The elevations are established by a constant 3% slope across the appropriate detour widths based on a radius of 5,000.00'. Drop = (0.03) x (Offset).



SECTION A-A

** Width includes Header.

Preliminary
08-02-2023

MODIFIED STANDARD ROAD PLAN

REVISION
1 10-21-14

PV-428

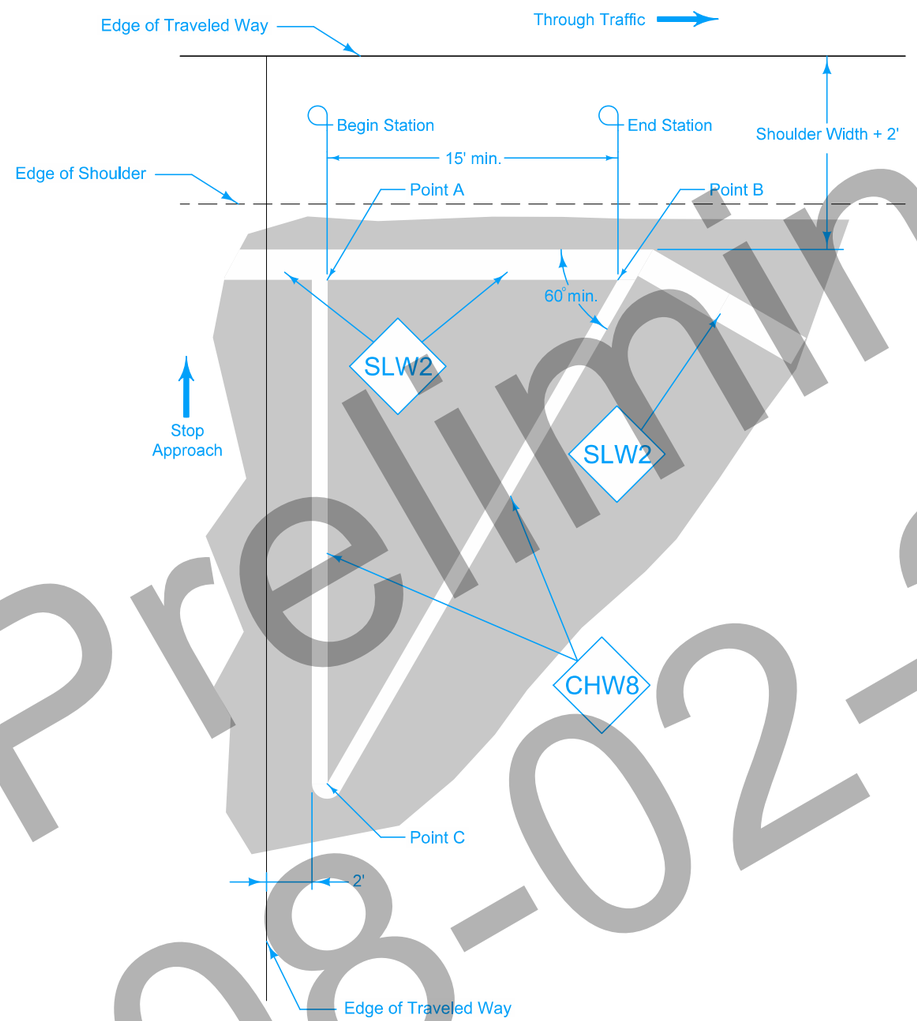
SHEET 1 of 1

MODIFICATIONS: Changed radius to 5,000 ft for increased design speed.

TWO-LANE DETOUR CONNECTION 2B

For pavement marking line types, see PM-110.

For stop line information, see PM-120.



Possible Contract Item:
Pavement Marking Line Items

Possible Tabulations:
101-10
108-22

IOWA DOT

REVISION
1 10-19-21

ROAD DESIGN DETAIL

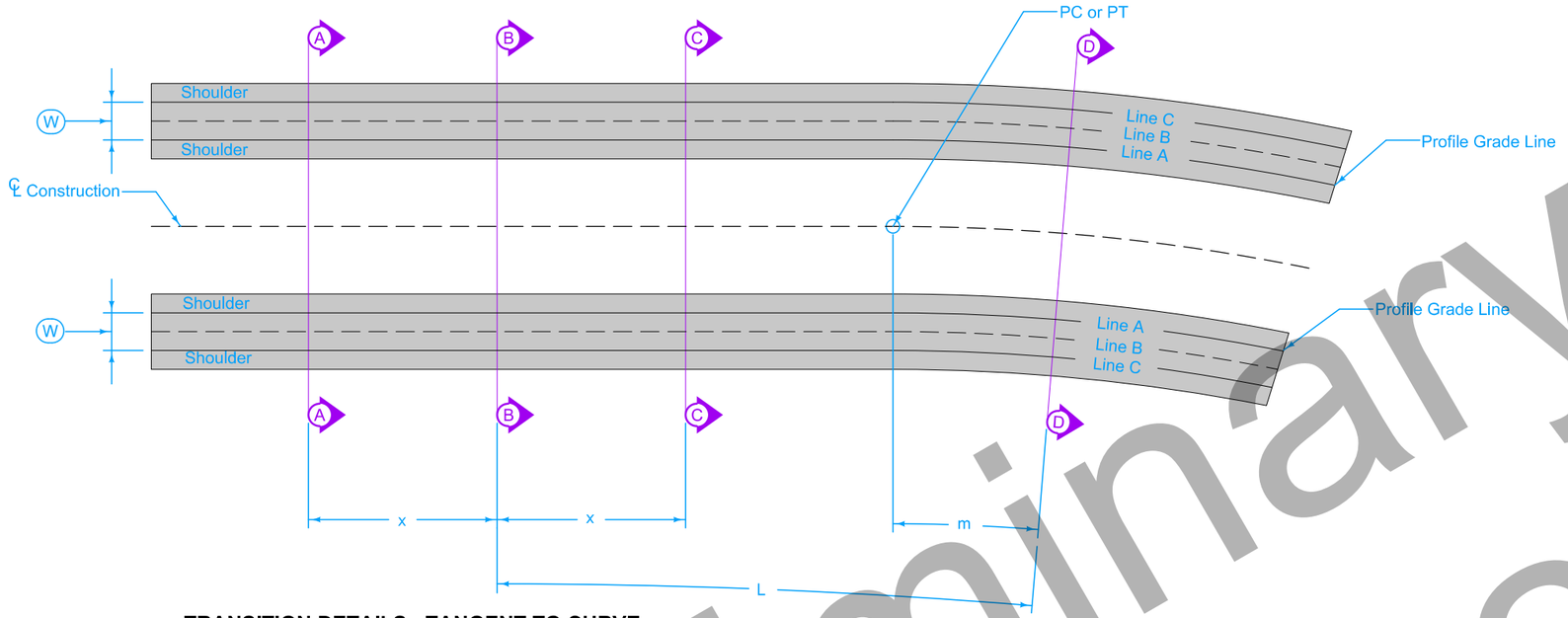
560-5

SHEET 1 of 1

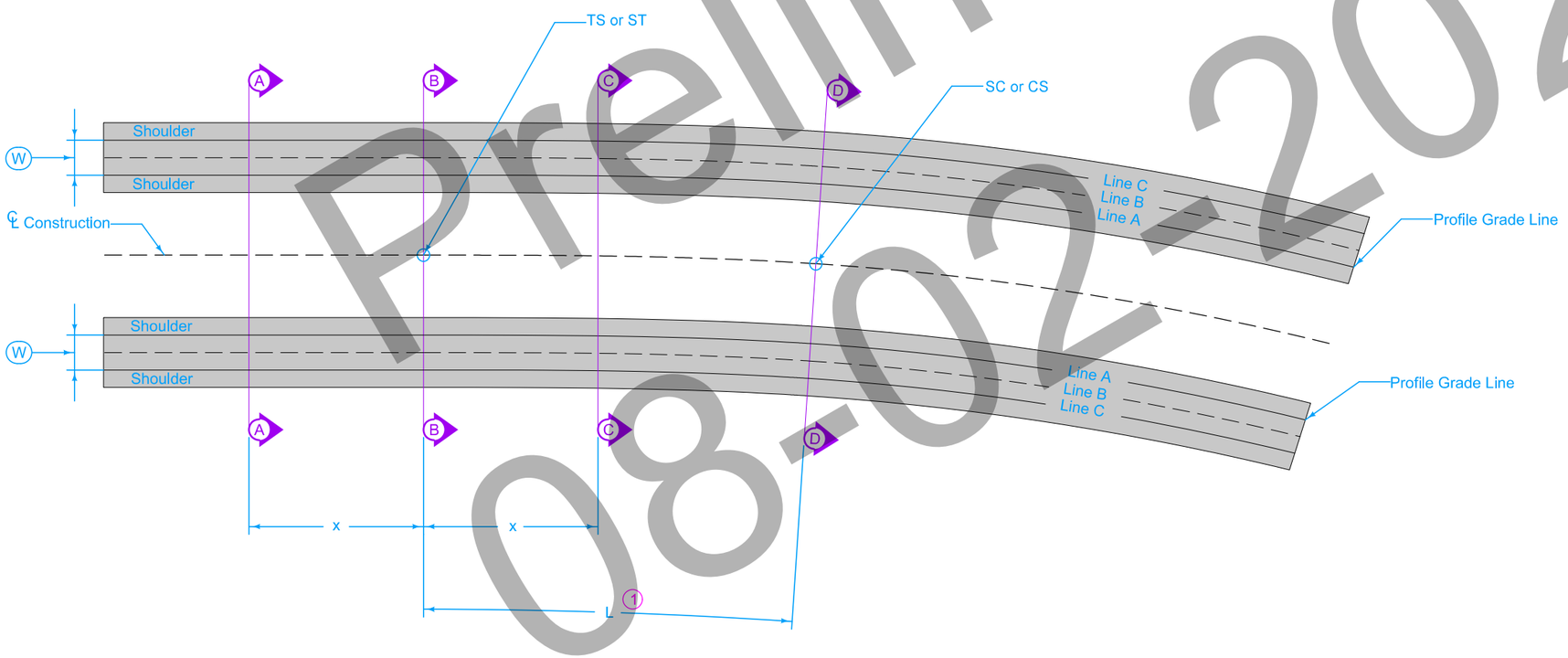
Changed yield line to stop line.

PAINTED ISLANDS

Preliminary
08-02-2023



TRANSITION DETAILS - TANGENT TO CURVE



TRANSITION DETAILS - SPIRAL CURVE

Refer to specific curve data contained in project plans for tangent runout length (x), runoff length (L) and full superelevation (e).

When spiral curve transitions are not required:
Place 70% of full superelevation at the PC and PT
Place 30% of the runoff length within the curve.

Unless otherwise specified, all lengths are measured along the centerline of construction.

Superelevations on this standard are shown for curves to the right. Curves to the left are a mirror image of what is shown.

Smooth curves should be established at the time of construction at sections A-D along the profile edges of lines A-C.

Axis of rotation coincides with profile grade location.

m = 30% of Runoff Length (L)

W = 24' Regardless of Pavement Width

g = Normal Cross Slope (2%)

L = Distance to Change Cross Slope from 0% to e

e = Supereleavtion Rate

x = Distance to Change Cross Slope from 0% to 2%

s = Normal Shoulder Slope

1 Spiral curve length coincides with runoff length (L)

Possible Tabulation:
101-18

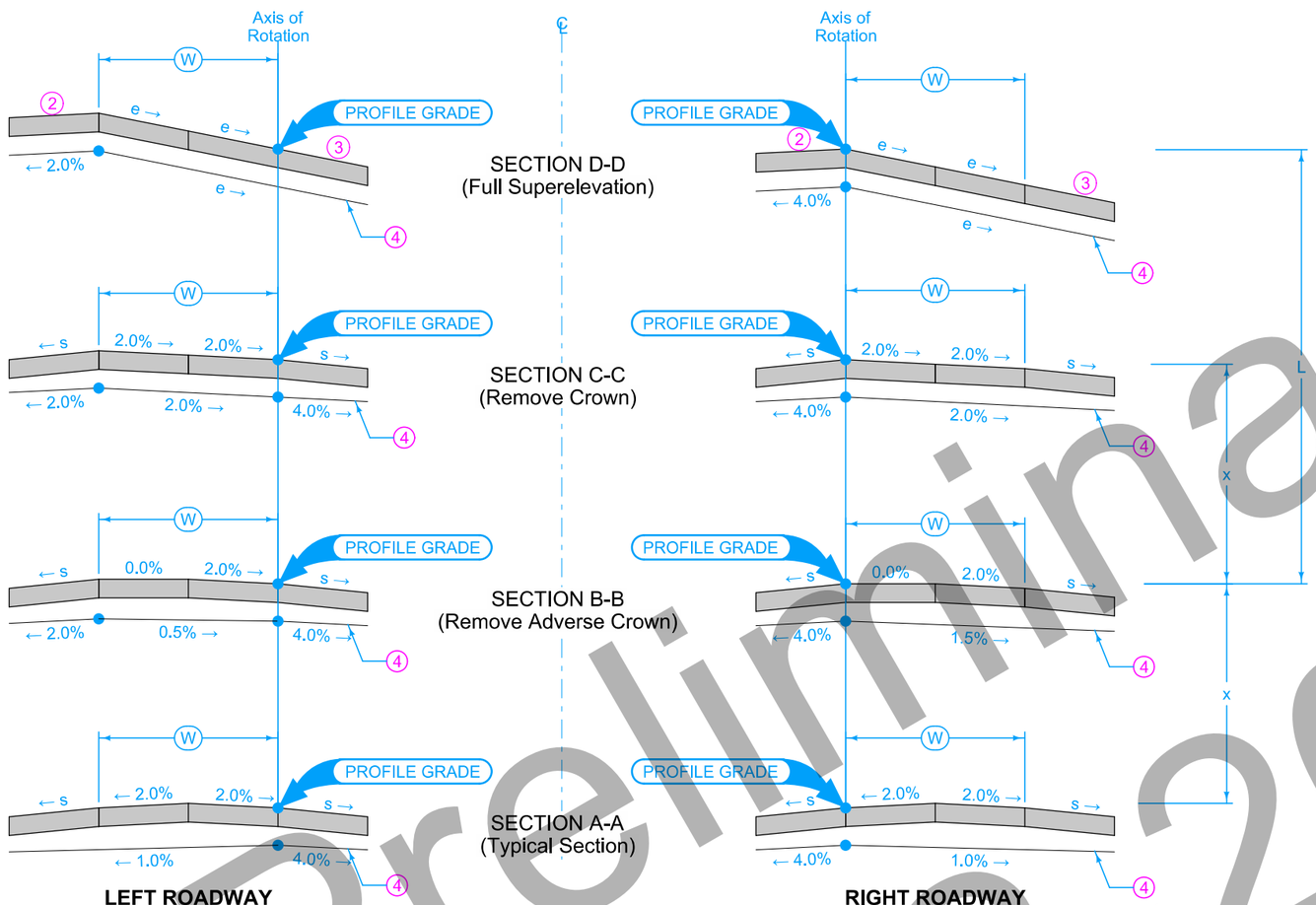
Preliminary
08-02-2023

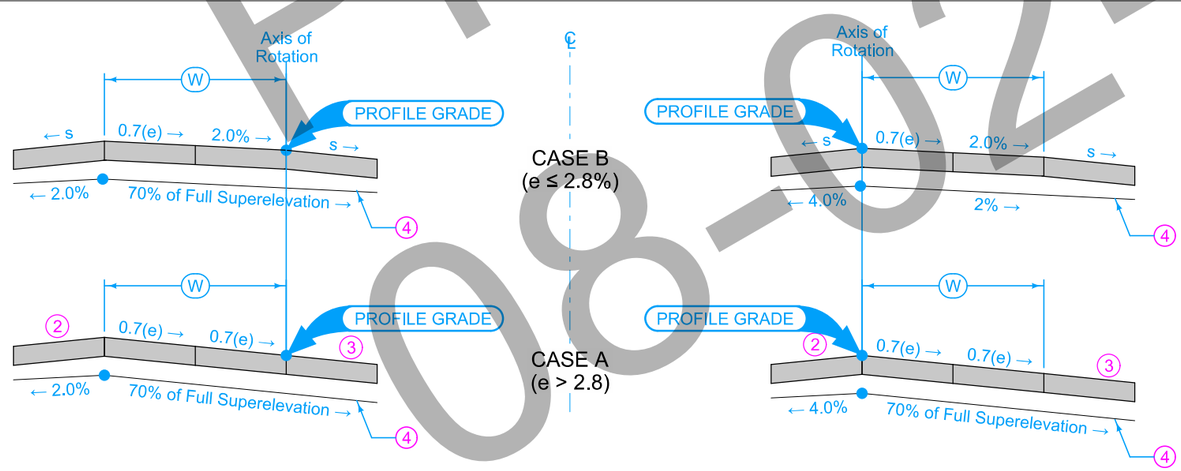
MODIFIED STANDARD ROAD PLAN	REVISION 2 04-21-20
	PV-302
	SHEET 1 of 3

MODIFICATIONS: Inside subgrade slope from 2% to 4% to match Typical 2101.

APPROVED BY DESIGN METHODS ENGINEER

SUPERELEVATION DETAILS
FOUR LANE ROADWAY
DEPRESSED MEDIAN





2 High Side Shoulder: Maintain normal shoulder cross slope (s), until the cross slope break with the adjacent pavement reaches 8.0%. Maintain 8% breakover until superelevation rate reaches 7%. If superelevation rate exceeds 7.0%, maintain a 1% shoulder cross slope away from the adjacent pavement.

3 Low Side Shoulder: Maintain normal shoulder cross slope (s) until the adjacent pavement slope equals s, then slope the shoulder at the same cross slope as the adjacent pavement.

4 Subgrade Surface

Preliminary
08-02-2023

MODIFIED

STANDARD ROAD PLAN

REVISION	
2	04-21-20

PV-302

SHEET 2 of 3

MODIFICATIONS: Inside subgrade slope from 2% to 4% to match Typical 2101.

APPROVED BY DESIGN METHODS ENGINEER

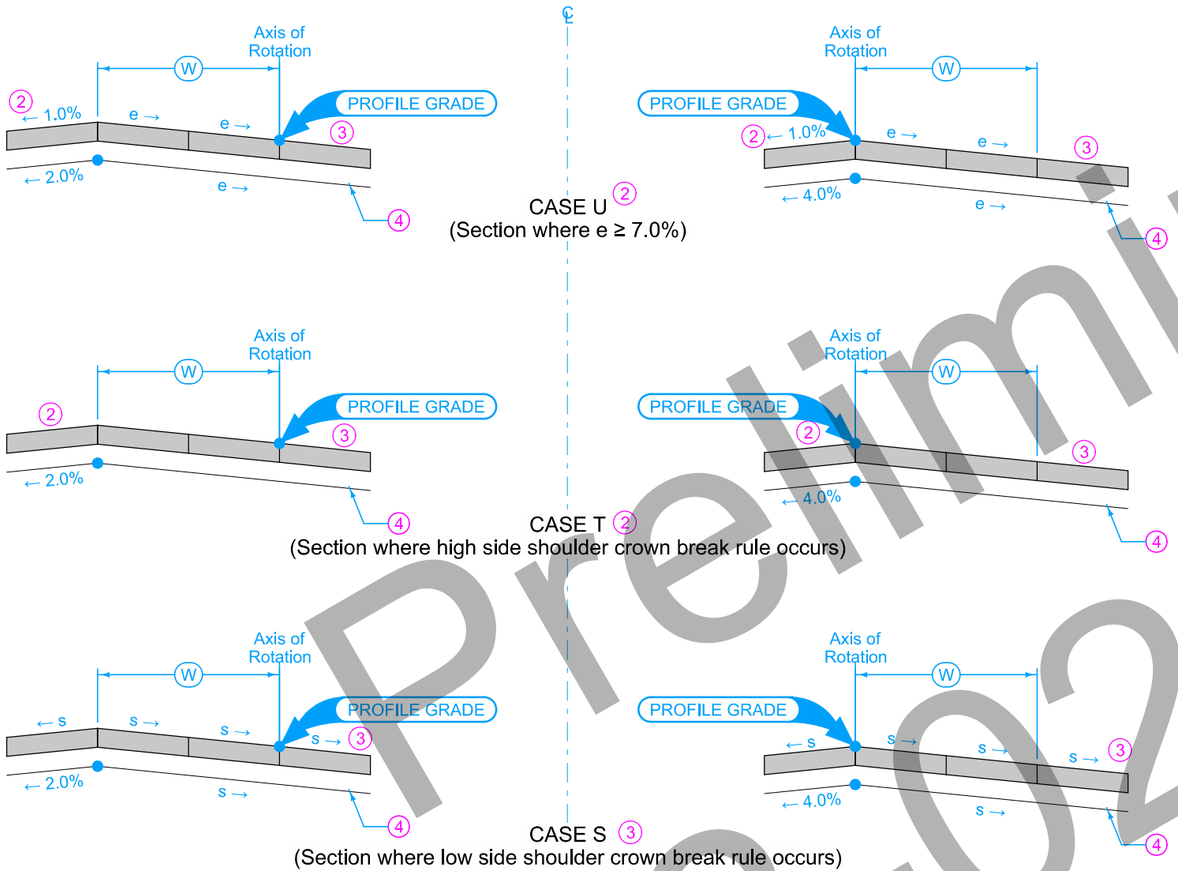
SUPERELEVATION DETAILS
FOUR LANE ROADWAY
DEPRESSED MEDIAN

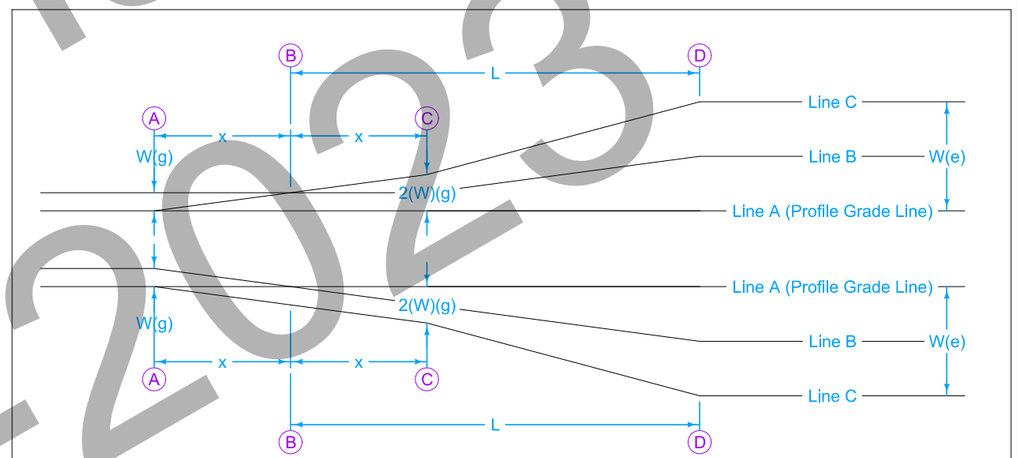
FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER U.6

(2) High Side Shoulder: Maintain normal shoulder cross slope (s), until the cross slope break with the adjacent pavement reaches 8.0%. Maintain 8% breakover until superelevation rate reaches 7%. If superelevation rate exceeds 7.0%, maintain a 1% shoulder cross slope away from the adjacent pavement.

(3) Low Side Shoulder: Maintain normal shoulder cross slope (s) until the adjacent pavement slope equals s, then slope the shoulder at the same cross slope as the adjacent pavement.

(4) Subgrade Surface





DIAGRAMMATIC PROFILES OF THE PAVEMENT EDGE LINES

Preliminary 08-02-2023

MODIFIED STANDARD ROAD PLAN

REVISION 2 04-21-20

PV-302

SHEET 3 of 3

MODIFICATIONS: Inside subgrade slope from 2% to 4% to match Typical 2101.

APPROVED BY DESIGN METHODS ENGINEER

SUPERELEVATION DETAILS FOUR LANE ROADWAY DEPRESSED MEDIAN

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER NHSX-061-2(106)--3H-29	SHEET NUMBER U.7