Concept Statement - Final

I-80 HMA Widening/Resurfacing and PCC Reconstruction

Dallas County
Project No.: IM-NHS-080-3(282)118--03-25
PIN: 18-25-080-020-01
ROUTE: I-80 from Grand Prairie Parkway to 60th Street

Prepared by HDR
For Iowa Department of Transportation
District 4

Date: June 3, 2020

I. PROJECT DESCRIPTION AND HISTORY

A. Project Description

This project involves replacement of the bridges over the Union Pacific Railroad (UPRR) west of Jordan Creek Parkway. The bridges and approximately 1500 ft. of I-80 will be reconstructed to an 8-lane section to accommodate future capacity expansion projects but will be striped for 6 lanes of traffic. I-80 HMA widening and resurfacing would gap this area.

This project will also include HMA widening and resurfacing I-80 from 4 basic lanes to 6 basic lanes from the east side of the Grand Prairie Parkway interchange to 60th Street. The widening will be accommodated on I-80 to the outside of the existing lanes.

Grand Prairie Parkway, Jordan Creek Parkway, and 60th Street interchanges will be used as constructed, with reconstruction/widening limited to the I-80 ramp connections to accommodate the pavement widening. Acceleration and deceleration lanes at the 3 interchanges will also be provided as part of the HMA widening improvements.

B. Need for Project

Existing I-80 in the project area includes two basic lanes in each direction. The existing dual bridges over the UPRR were built in 1966. The bridges have been overlaid once and a second overlay is not feasible. A deck replacement is not recommended due to the age and condition of the substructures. It is recommended the bridges be replaced as a result of their deteriorating conditions. The existing PCC

pavement was placed in 1988, and the eastbound lanes were overlaid in 2000. Rehabilitation work is proposed to address continuing deterioration of both eastbound and westbound lanes. The project area has rapidly growing traffic demands on I-80 west of Des Moines. Widening to six lanes is recommended to provide interim safety and capacity improvements along this segment until further improvements are constructed in the area in conjunction with the I-80/35/235 southwest systems interchange reconstruction (currently planned to be complete by 2035).

II. EXISTING CONDITIONS

A. Present Facility

This segment of I-80 from Grand Prairie Parkway to 60th Street is 3.75 miles in length (approx. MP 118.66 to MP 122.41)

The existing 11.5 in. PCC pavement was placed in 1988-1989.

From Grand Prairie Parkway to Jordan Creek Parkway the pavement is 26 ft. wide with 6 ft. and 10 ft. wide by 8 in. HMA shoulders, and has a 50 ft. wide median.

From Jordan Creek Parkway to 60th Street the pavement is 24 ft. wide with 12 ft. wide auxiliary lanes, and 6 ft. and 10 ft. wide by 8 in. HMA shoulders, and has a 40 ft. wide median.

The I-80 eastbound Lanes from Grand Prairie Parkway to east of Jordan Creek Parkway were resurfaced with 4 in. HMA in 2000.

The existing dual 160 ft. by 39 ft. continuous welded girder bridges over the UPRR were constructed in 1966.

B. Traffic Estimates

TRAFFIC:

GRAND PRAIRIE PARKWAY TO JORDAN CREEK PARKWAY

2020: 54,100 VPD, 18% trucks

2045: 100,300 VPD, 18% trucks

JORDAN CREEK PARKWAY TO 60TH STREET

2020: 93,700 VPD, 12% trucks

2045: 149,400 VPD, 12% trucks

C. Existing Crash Analysis

Existing crash analysis was performed for the I-80 mainline segments within the area of influence. Crashes were analyzed for the five-year period 2014-2018, using the crash

data obtained from the Iowa DOT Open Data portal, under the crash data segment, and supported with the Iowa Crash Analysis Tool (ICAT).

During the 2014-2018 analysis period, there was a total of 305 crashes. During this period, there were 2 fatal crashes 3 major injury crashes and 26 minor injury crashes along the corridor. In total, about ten percent of all crashes resulted in an injury, with about ninety percent of crashes being either a possible/unknown injury crash, or a property damage only crash. The crashes were almost equally split between a single vehicle and multi-vehicle crashes. Additionally, there was no trend as to the location regarding crash severity.

A summary of mainline segment total crashes and crash rates for the study period is provided in the table below. Two segments exceeded the statewide crash average. These were the segments west of Grand Prairie Parkway and between the Grand Prairie Parkway ramps.

Existing Conditions Mainline Segment Crash Rates

Location	Length (miles)	ADT[1]	Number of Crashes (2014-2018)	Crashes/ 100 MVM[2]	Statewide Average Crashes/100 MVM[3]
West of Grand Prairie Parkway	0.55	44500	56	**125.5**	51 (Rural)
Grand Prairie Parkway Exit to Entry	1.01	40000	64	**86.9**	51 (Rural)
Grand Prairie Parkway to Jordan Creek Parkway	1.89	47200	94	57.6	101 (Municipal)
Jordan Creek Parkway Exit to Entry	0.72	43000	38	67.11	101 (Municipal)
Jordan Creek Parkway to 60th Street	0.25	84200	23	59.42	101 (Municipal)
60th Street Exit to I-35/80/235 West Junction	0.77	80900	30	26.52	101 (Municipal)

Source: HDR, based on crash data within the project area of influence from 2014-2018 provided by Iowa DOT Open Data portal and ICAT, April 7, 2020.

1 Year 2017 Annual Daily Traffic, Iowa DOT, Iowa Traffic Data – Average Traffic Volume.

2 MVM – Million Vehicle Miles. Cells highlighted pink indicate calculated crash rate exceeding the statewide average.

3 Iowa DOT Office of Traffic and Safety, April 7, 2020, Crash Rates and Crash Densities in Iowa by Road System 5- year Averages: 2012-2016, Category: Rural and Municipal Interstate.

A summary of the top five manner of crash and cause of crash for mainline segments within the area of influence are provided in the following tables.

Manner of Crash for Mainline Crashes – Top 5

Manner of Crash	Number of Crashes
Non-collision (single vehicle)	157
Rear-end (front to rear)	77
Sideswipe	50
Not Reported	10
Other (explain in narrative)	7
Total Crashes	**301**

Source: HDR, based on crash data within the project area of influence from 2014-2018 provided by Iowa DOT Open Portal Crash Data, April 7, 2020.

Cause of Crash for Mainline Crashes – Top 5

Cause of Crash	Number of Crashes
Driving too fast for conditions	49
Animal	39
Followed too close	38
Ran off road – straight	31
Ran off road – left	28
Total Crashes	**185**

Source: HDR, based on crash data within the project area of influence from 2014-2018 provided by Iowa DOT Open Portal Crash Data, April 7, 2020.

III. ALTERNATIVE ANALYSIS

A. Design Criteria

Design Criteria Worksheets were developed for I-80 Urban & Rural 6-lane, and Urban 8-lane sections. Worksheets were also developed for the ramps at Grand Prairie Parkway, Jordan Creek Parkway and 60th Street. The existing geometrics of I-80 meet the 70 mph design criteria.

B. Design Aspects NOT Considered in the Alternative

Existing ramp terminal intersections will be used as constructed.
Ashworth Road will be replaced by the City of West Des Moines to span the proposed widened section.

IV. PROPOSED ALTERNATIVE

A. Proposed Alternative

This proposed improvement will increase the existing 4 basic lanes to 6 basic lanes. The additional HMA lanes will be added on the outside along with new full width shoulder. The inside shoulder will be replaced and widened to 12 ft. to accommodate staging traffic. The existing pavement will receive an HMA overlay.

The existing bridges over the UPRR will be replaced with a 264 ft. X 84.5 ft. BTC Beam westbound bridge and a 264 ft. by 78.5 ft. BTC Beam eastbound bridge, with approximately 1500 ft. of PCC approach pavement. The bridges and approximately 1500 ft. of I-80 will be reconstructed to an 8-lane section and striped for 6 lanes of traffic. I-80 HMA widening and resurfacing would gap this area.

Grand Prairie Parkway, Jordan Creek Parkway, and 60th Street interchanges will be used as constructed, with reconstruction/widening limited to the I-80 ramp connections to accommodate the lane widening.

Acceleration and deceleration lanes at the 3 interchanges will also be provided as part of the HMA widening improvements.

Proposed Typical Sections

The typical section from Grand Prairie Parkway to west of the UPRR and east of UPRR to Jordan Creek Parkway, includes 6 lanes with 10 ft. of widening on the outside to provide 3 - 12 ft. wide basic lanes. Also includes 12 ft. inside and outside shoulders and a 50 ft. depressed median. Auxiliary lanes, where provided, will be 12 ft. wide with 6 ft. outside shoulder. Existing pavement will be resurfaced with an HMA overlay.

From Jordan Creek Parkway to 60th Street includes 6 lanes with 12 ft. of widening on the outside to provide 3 12 ft. wide basic lanes. Also includes 12 ft. inside and outside shoulders and a 40 ft. depressed median. Auxiliary lanes where provided will be 12 ft. wide with 6 ft. outside shoulder. Existing pavement will be resurfaced with an HMA overlay.

The typical section at the UPRR includes 8 lanes with 12 ft. inside and outside shoulders and a 34 ft. closed median with concrete barrier rail. Auxiliary lanes where provided will be 12 ft. wide with 6 ft. outside shoulder.

Ramp Improvements

Existing ramp reconstruction will be limited to what is required to meet horizontal and

vertical geometry criteria due to widening on I-80.

Drainage

Existing culverts will be reviewed for condition and capacity with acceptable structures extended. Open ditches will be used for most of project, with storm sewer in the median of the 8 lane section and between the WB lanes and the NB to SB entrance ramp at Jordan Creek Parkway Interchange.

Side Slopes

Proposed side slopes will be placed at 10:1 for 4 ft. then 6:1/3.5:1 barn roof section. Slopes steeper than 3.5:1 within the clear zone will be protected with cable guardrail or concrete barrier rail.

B. Cost Estimate

Item	Price / Unit[1]	Quantity	Unit	Cost
Full Depth Pavement	$102.24	139563	SY	$14,268,921.12
HMA Overlay 3"	$147.88	11579	TON	$1,712,302.52
Subdrain	$5.30	28168	LF	$149,290.40
WB bridge	$3,026,862.00	1	LS	$3,026,862.00
EB bridge	$2,810,989.00	1	LS	$2,810,989.00
Steel Overhead Sign Truss, 90 ft. Span	$79,375.00	2	LS	$158,750.00
Steel Overhead Sign Truss, 80 ft. Span	$77,305.00	1	LS	$77,305.00
Steel Overhead Sign Truss, 70 ft. Span	$72,830.00	1	LS	$72,830.00
Cantilever Truss, 40 ft	$57,214.00	1	LS	$57,214.00
Signs	$100,000	1	LS	$100,000
			Subtotal:	$22,434,464.04
Traffic Control	5%			$1,121,723.20
Staged Construction	10%			$2,243,446.40
Mobilization	10%			$2,243,446.40
Contingency	30%			$6,730,339.21
			Total:	$34,773,419.26
[1]Price based on Bidx/IPDWeb average prices, where applicable.				

C. Staging / Construction Sequence

Two lanes of traffic will be maintained in each direction during construction. The pavement widening areas will be constructed using lane shifts and temporary barrier rail (TBR). For the UPRR bridge and reconstruction area, construction will be phased to construct inside first, then alternate outside construction with lane shifts and TBR. Ramp traffic will be maintained using lane shifts and TBR.

Night work will be required during construction in order to keep two lanes open in each direction during the day.

D. Special Considerations

Utilize existing Right of Way where possible. However, it is anticipated that some Right of Way acquisition will be required.
Agreement with the UPRR will be required.

E. Program Status

Project is being considered for addition to the update of the Statewide Transportation Improvement Program with construction in FY 2023 and 2024.

GRADING AND NEW

IM-NHS-080-3(282)118--03-25

DALLAS Co.

LETTING DATE 11-15-2022

REVISIONS

TOTAL 130
PROJECT IDENTIFICATION NUMBER
18-25-080-020-01
PROJECT NUMBER
IM-NHS-080-3(282)118--03-25
R.O.W. PROJECT NUMBER
IMN-080-3(294)118--0E-25

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

DALLAS COUNTY

HMA WIDENING/RESURFACING AND PCC RECONSTRUCTION

I-80 from Grand Prarie Parkway to 60th St

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

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INDEX OF SHEETS

MILEAGE SUMMARY

Div.	Location	Lin. Ft.	Miles
	Widening:	6,309.11	
	Sta. 1134+00 to Sta. 1197+09.11		
	Full Build:	2,115.89	
	Sta. 1197+09.11 to Sta. 1218+25		
	Deduct for Bridge:	267.43	
	Sta. 1209+27.80 to Sta. 1211+95.23		
	Widening:	7,329.65	
	Sta. 1218+25 to Sta. 1291+54.65		
	Total length of Roadway	15,487.22	2.933
	Total Length of Bridge	267.43	0.051
	Total Length	15,754.65	2.984

DESIGN DATA RURAL

2020	AADT	93,700	V.P.D.
2045	AADT	149,400	V.P.D.
20--	DHV	--	V.P.H.
TRUCKS		18	%
Total Design ESALs		--	

For Project Location Map
Refer to Sheet A.2

PRELIMINARY PLANS

Subject to change by final design.

D2 PLAN - June 8, 2020

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER A.1

4:01:44 PM 6/8/2020 WBEHREND pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_A01.dgn

STA. 1218+25
END FULL BUILD

STA. 1291+54.65
END CONSTRUCTION

STA. 1197+09.11
BEGIN FULL BUILD

STA. 1134+00.00
BEGIN CONSTRUCTION

80

UNION PACIFIC RAILROAD

Fox Creek

15

F68

N

WEST DES MOINES

POP.
63541

LOCATION MAP SCALE
0 0.5 1 1.5
Miles

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER A.2

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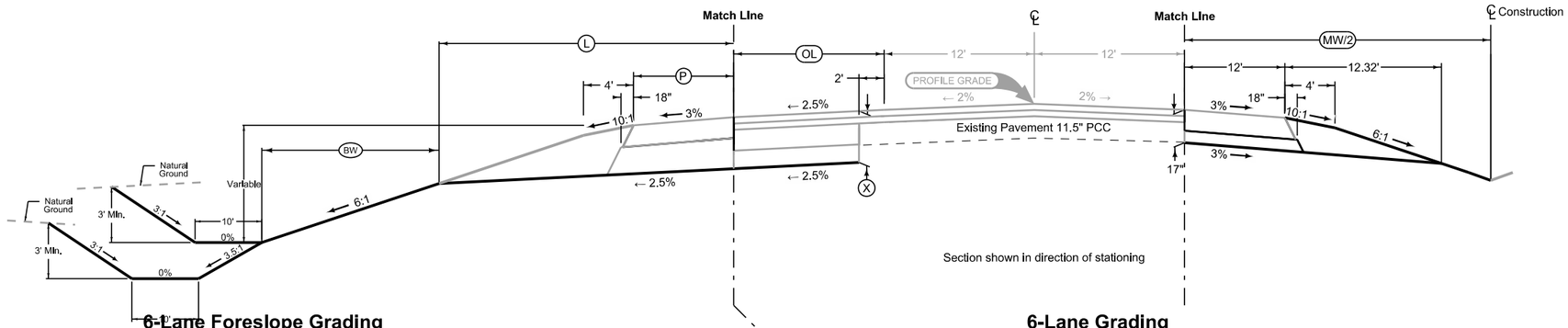
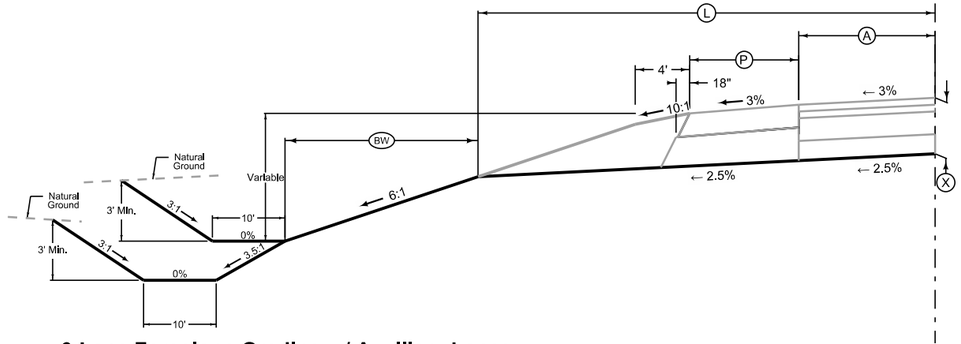


6-Lane Foreslope Grading

LOCATION			(P)	(L)	(BW)
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Feet
I-80 WB	1139+98.99	1197+09.11	12	26.40	3.60
I-80 WB	1233+80.17	1252+33.59	12	26.40	3.60
I-80 WB	1252+33.59	1255+60.27	12	26.40	3.60

6-Lane Grading

LOCATION			(OL)	(X)	(MW/2)
ROAD IDENTIFICATION	STATION TO STATION		Feet	Inches	Feet
I-80 WB	1139+98.99	1197+09.11	12	22	25
I-80 WB	1233+80.17	1252+33.59	12	22	24.87 - 20
I-80 WB	1252+33.59	1255+60.27	12	22	20



6-Lane Foreslope Grading w/ Auxiliary Lanes

LOCATION			(A)	(P)	(L)	(BW)
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Feet	Feet
I-80 WB	1218+25.00	1224+47.88	12	6	32.19	5.81
I-80 WB	1224+47.88	1227+02.41	12 - 24	6	32.19 - 43.76	5.81 - 6.24
I-80 WB	1227+02.41	1233+30.87	24 - 53.20	6	43.76 - 71.93	5.81 - 7.27
I-80 WB	1233+30.87	1233+80.17	56.20 - 56.55	6	71.93 - 75.96	7.27 - 6.59
I-80 WB	1255+60.27	1258+10.43	42.24 - 24	6	61.36 - 43.76	10.88 -10.24
I-80 WB	1258+10.43	1259+01.43	24 - 18.04	6	43.76 - 38.01	10.24 - 10.03
I-80 WB	1259+01.43	1259+90.43	18.04 - 12	6 - 12	38.01 - 37.97	10.03 - 4.03
I-80 WB	1259+90.43	1270+44.25	12	12	37.97	4.03
I-80 WB	1270+44.25	1273+44.31	12 - 18	12 - 6	37.97 - 38.01	4.03 - 9.99
I-80 WB	1273+44.31	1283+25.57	18 -51.73	6	38.01 - 70.51	9.99 - 11.22
I-80 WB	1283+25.57	1289+15.93	12	12	37.97	4.03
I-80 WB	1289+15.93	1291+55.93	12 - 0	12	37.97 - 26.40	4.03 - 3.60

6-Lane Grading w/ Auxiliary Lanes

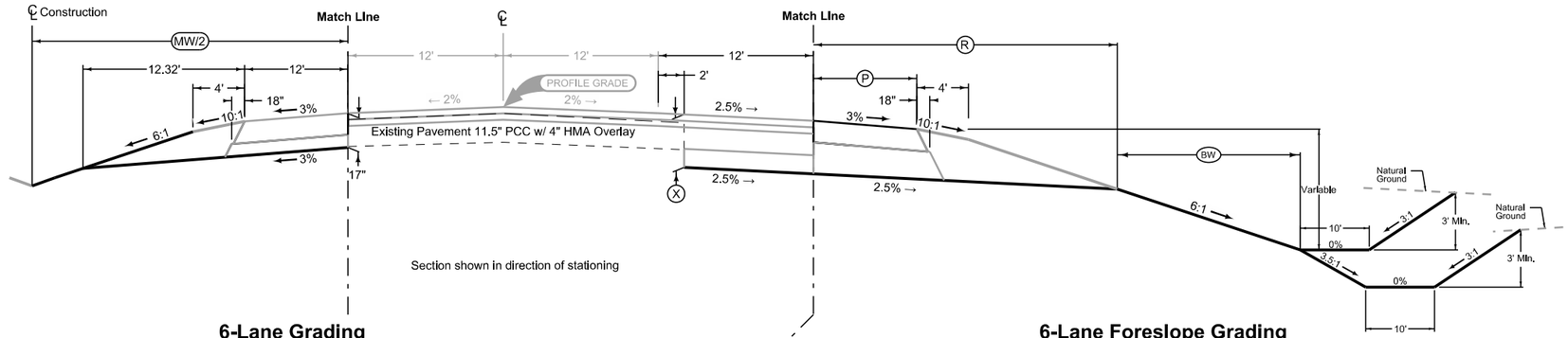
LOCATION			(X)	(MW/2)
ROAD IDENTIFICATION	STATION TO STATION		Inches	Feet
I-80 WB	1218+25.00	1224+47.88	22	25
I-80 WB	1224+47.88	1227+02.41	22	25
I-80 WB	1227+02.41	1233+30.87	22	25
I-80 WB	1233+30.87	1233+80.17	22	25 - 24.87
I-80 WB	1255+60.27	1258+10.43	22	20
I-80 WB	1258+10.43	1259+01.43	22	20
I-80 WB	1259+01.43	1259+90.43	22	20
I-80 WB	1259+90.43	1270+44.25	22	20
I-80 WB	1270+44.25	1273+44.31	22	20
I-80 WB	1273+44.31	1283+25.57	22	20
I-80 WB	1283+25.57	1289+15.93	22	20
I-80 WB	1289+15.93	1291+55.93	22	20

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

See Tab 112-9 for shoulder quantities.

GRADING

WB I-80: 6 LANE SECTION



Section shown in direction of stationing

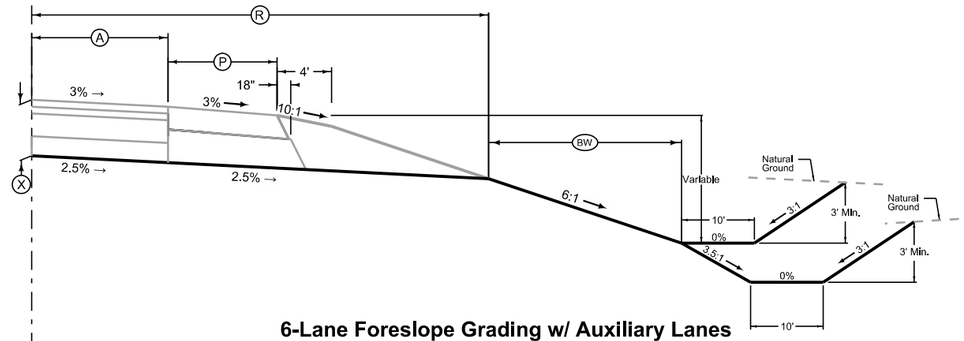
6-Lane Grading

LOCATION			MW/2	X
ROAD IDENTIFICATION	STATION TO STATION		Feet	Inches
I-80 EB	1134+00.00	1139+75.92	25	22
I-80 EB	1139+75.92	1200+50.00	25	22
I-80 EB	1218+25.00	1220+18.39	25	22
I-80 EB	1226+18.39	1233+30.87	25	22
I-80 EB	1233+30.87	1238+76.27	25 - 23.57	22
I-80 EB	1253+40.00	1254+42.68	20	22

6-Lane Foreslope Grading

LOCATION			P	R	BW
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Feet
I-80 EB	1134+00.00	1139+75.92	12	26.40	3.60
I-80 EB	1139+75.92	1200+50.00	12	26.40	3.60
I-80 EB	1218+25.00	1220+18.39	12	26.40	3.60
I-80 EB	1226+18.39	1233+30.87	12	26.40	3.60
I-80 EB	1233+30.87	1238+76.27	12	26.40	3.60
I-80 EB	1252+97.53	1253+97.53	12	26.40	3.60

I-80 EB	1134+00.00	1197+09.11	12
I-80 EB	1218+25.00	1219+92.19	12
I-80 EB	1225+91.26	1238+87.43	12
I-80 EB	1252+97.63	1253+97.63	12
I-80 EB	1253+97.63	1257+07.78	0



6-Lane Grading w/ Auxiliary Lanes

LOCATION			MW/2	X
ROAD IDENTIFICATION	STATION TO STATION		Feet	Inches
I-80 EB	1220+18.39	1221+08.19	25	22
I-80 EB	1221+08.19	1226+18.39	25	22
I-80 EB	1238+76.27	1243+80.48	23.57 - 22.24	22
I-80 EB	1243+80.48	1250+27.00	22.24 - 20.54	22
I-80 EB	1250+27.00	1251+90.89	20.54 - 20.11	22
I-80 EB	1251+90.89	1252+33.59	20.11 - 20	22
I-80 EB	1252+33.59	1253+40.00	20	22
I-80 EB	1254+42.68	1258+17.80	20	22
I-80 EB	1258+17.80	1261+17.86	20	22
I-80 EB	1261+17.86	1264+17.56	20	22

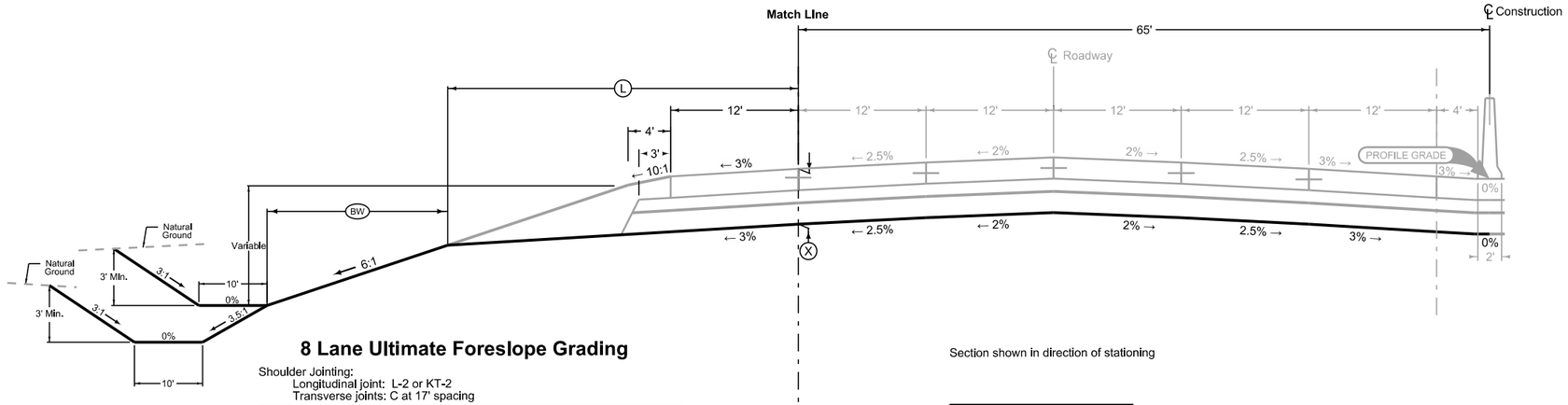
6-Lane Foreslope Grading w/ Auxiliary Lanes

LOCATION			A	P	R	BW
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Feet	Feet
I-80 EB	1220+18.39	1221+08.19	0 - 6	12 - 6	26.40	0.40 - 5.60
I-80 EB	1221+08.19	1226+18.39	6 - 39.96	6	26.40 - 59.16	5.60 - 6.80
I-80 EB	1238+76.27	1243+80.48	37.21 - 12	6	56.51 - 32.19	6.70 - 5.81
I-80 EB	1243+80.48	1250+27.00	12	6	32.19	5.81
I-80 EB	1250+27.00	1251+90.89	12 - 5.86	6	32.19- 26.27	5.81 - 5.59
I-80 EB	1251+90.89	1252+97.53	5.86 - 0	6 - 12	26.27 - 26.39	5.59 - 3.87
I-80 EB	1257+07.78	1263+94.23	12	12	37.98	4.02

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

See Tab 112-9 for shoulder quantities.

GRADING
EB I-80: 6 LANE SECTION



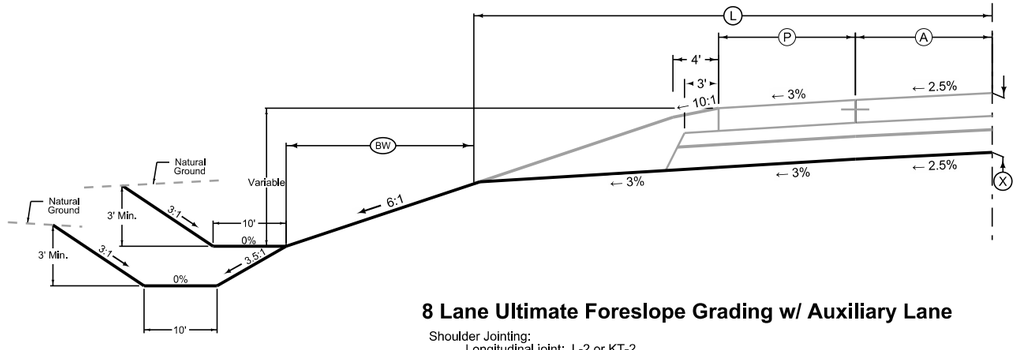
8 Lane Ultimate Foreslope Grading

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

					6D_Closed_P_FullPCC_ 04-21-20
BEGIN STATION	END STATION	(P) Feet	(X) Inches	(L) Feet	(BW) Feet
1197+09.11	1199+89.11	6	29	37.63	4.37

Section shown in direction of stationing

	8DP_Closed_ 04-21-20
BEGIN STATION	END STATION
1197+09.11	1209+27.80
1211+95.23	1218+25.00



8 Lane Ultimate Foreslope Grading w/ Auxiliary Lane

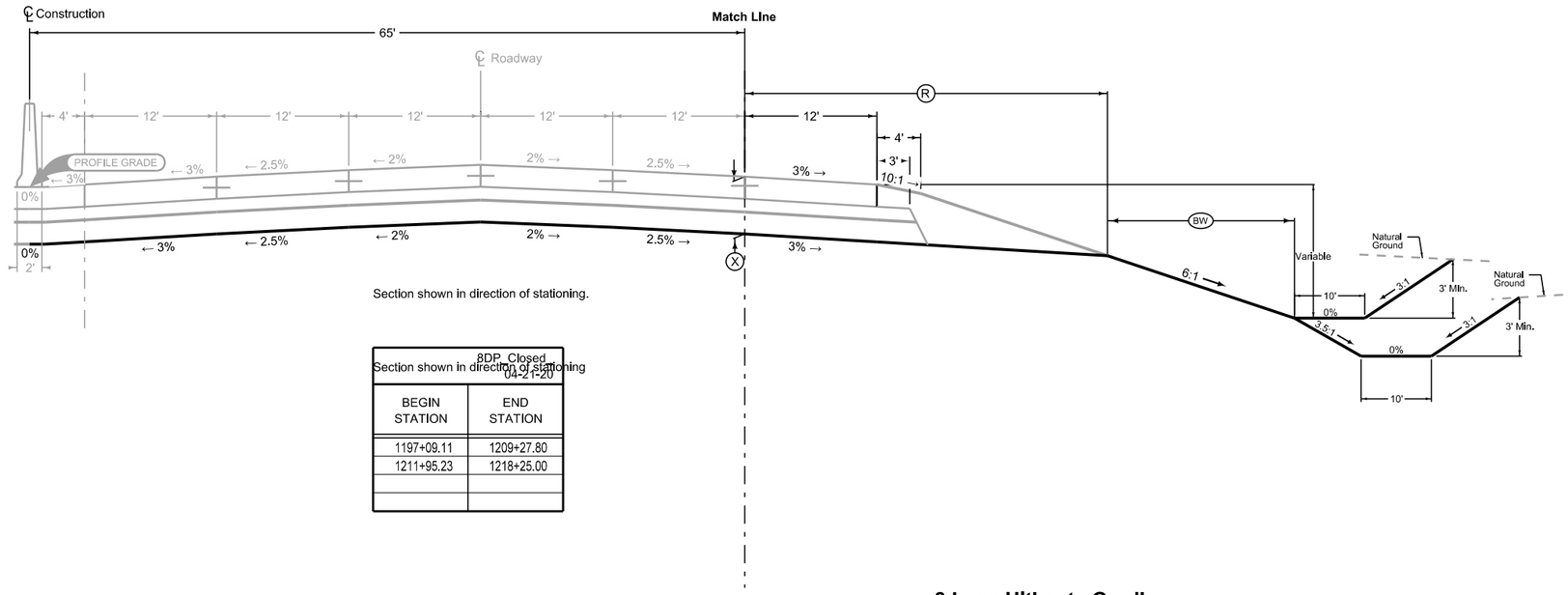
Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

							6D_Closed_P_FullPCC_ 04-21-20
BEGIN STATION	END STATION	(A) Feet	(P) Feet	(X) Inches	(L) Feet	(BW) Feet
1199+89.11	1209+29.89	12	6	29	37.63	4.37
1211+95.23	1218+25.00	12	6	29	37.63	4.37

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

See Tab 112-9 for shoulder quantities.

GRADING
WB I-80: 8 LANE ULTIMATE SECTION



Section shown in direction of stationing.

Section shown in direction of stationing

8DP_Closed 04-21-20	
BEGIN STATION	END STATION
1197+09.11	1209+27.80
1211+95.23	1218+25.00

8 Lane Ultimate Grading

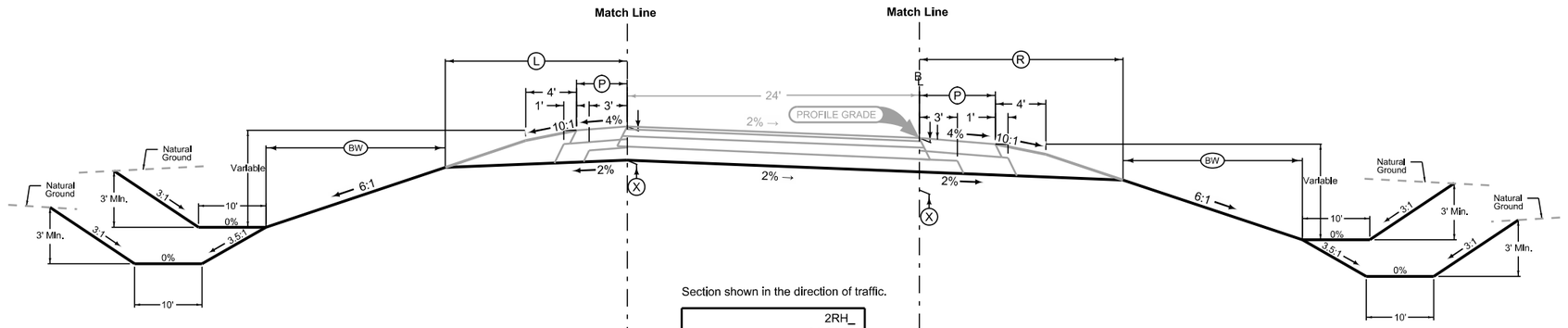
Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

6D_Closed_P_FullPCC_ 04-21-20				
BEGIN STATION	END STATION	(X) Inches	(R) Feet	(BW) Feet
1197+09.11	1209+27.80	29	30.94	0
1211+95.23	1218+25.00	29	30.94	0

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

See Tab 112-9 for shoulder quantities.

GRADING
EB I-80: 8 LANE ULTIMATE SECTION



Section shown in the direction of traffic.

	2RH_ 04-21-20
BEGIN STATION	END STATION
1252+57.52	1255+60.27

RAMP A JORDAN CREEK FORESLOPE GRADING

Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(L) Feet	(BW) Feet	(P) Feet
1252+57.52	1255+60.27	22	17.77	12.23	4

RAMP A JORDAN CREEK FORESLOPE GRADING

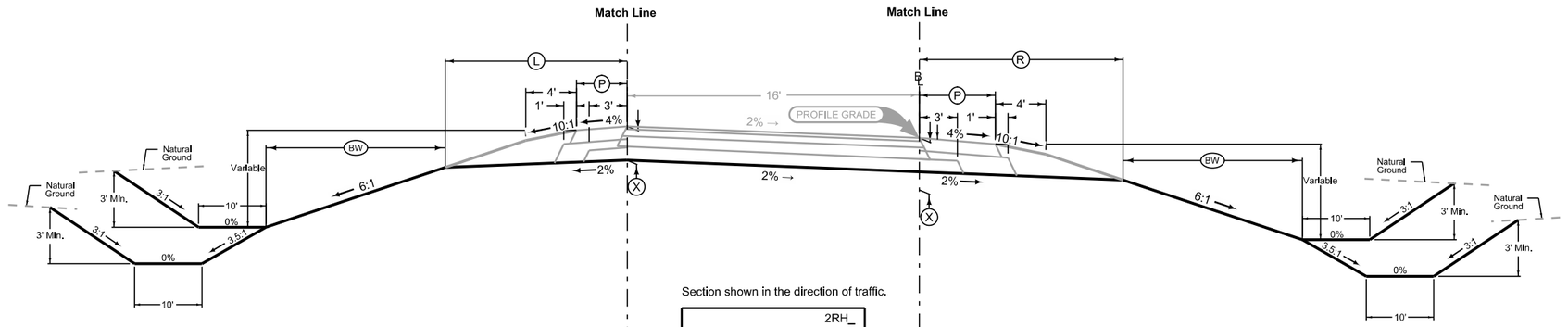
Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(R) Feet	(BW) Feet	(P) Feet
1252+57.52	1255+60.27	22	19.50	10.50	7.58

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

See Tab 112-9 for shoulder quantities.

GRADING
RAMP A JORDAN CREEK



Section shown in the direction of traffic.

	2RH_ 04-21-20
BEGIN STATION	END STATION
2225+92.19	2231+86.70

RAMP B JORDAN CREEK FORESLOPE GRADING

Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	X Inches	L Feet	BW Feet	P Feet
2225+92.19	2231+86.70	22	17.77	8.23	4

RAMP B JORDAN CREEK FORESLOPE GRADING

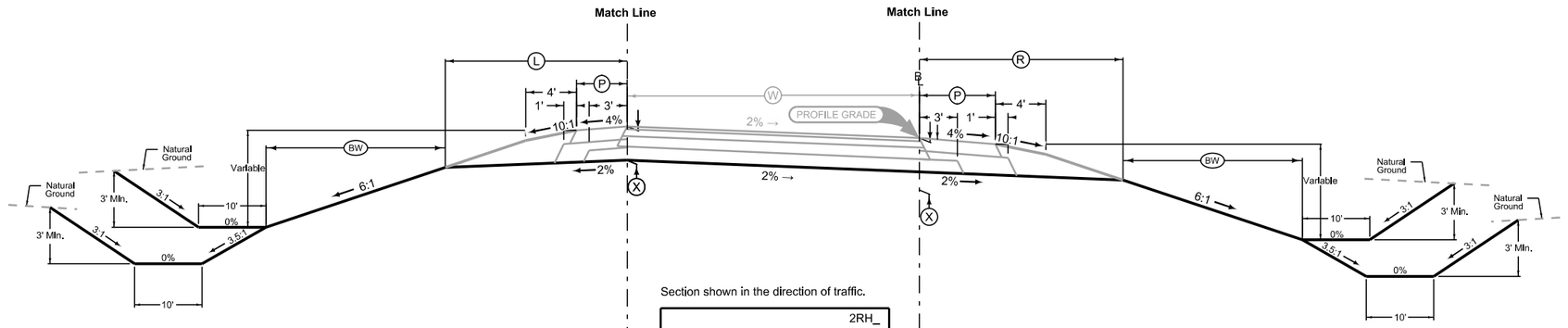
Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	X Inches	R Feet	BW Feet	P Feet
2225+92.19	2231+86.70	22	19.50	6.50	6

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

See Tab 112-9 for shoulder quantities.

GRADING
RAMP B JORDAN CREEK



Section shown in the direction of traffic.

		2RH_ 04-21-20
BEGIN STATION	END STATION	(W) Feet
3224+00.27	3231+59.55	12 - 16
3231+59.55	3237+69.23	16

RAMP C JORDAN CREEK FORESLOPE GRADING

Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(L) Feet	(BW) Feet	(P) Feet
3224+00.27	3235+13.18	22	0	0	
3235+13.18	3237+69.23	22	17.77	8.23	

RAMP C JORDAN CREEK FORESLOPE GRADING

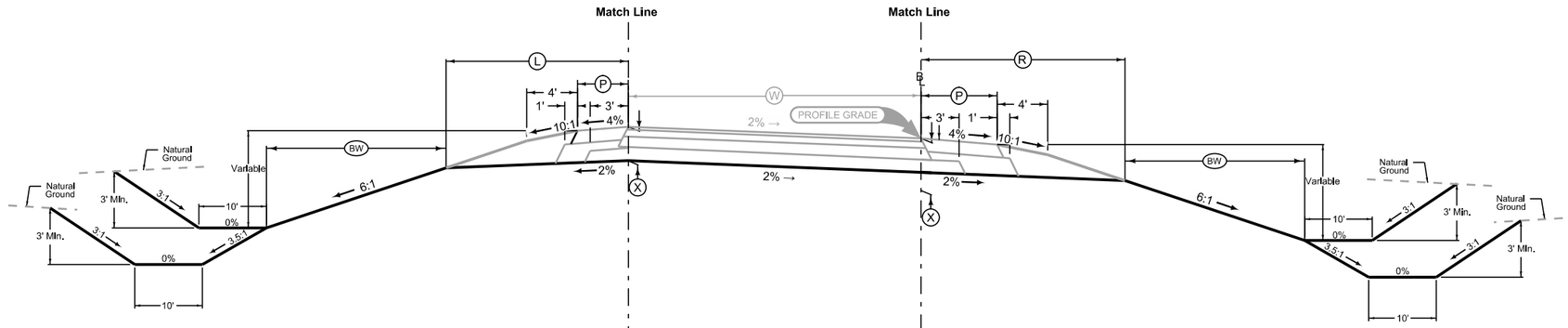
Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(R) Feet	(BW) Feet	(P) Feet
3224+00.27	3237+69.23	22	19.50	6.50	6

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

See Tab 112-9 for shoulder quantities.

GRADING
RAMP C JORDAN CREEK



RAMP D JORDAN CREEK FORESLOPE GRADING

Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(L) Feet	(BW) Feet	(P) Feet
4246+43.63	4253+99.48	22	17.77	12.23	4

Section shown in the direction of traffic.

	2RH_ 04-21-20	
BEGIN STATION	END STATION	(W) Feet
4246+43.63	4251+23.63	25 - 16
4251+26.63	4257+07.78	16

RAMP D JORDAN CREEK FORESLOPE GRADING

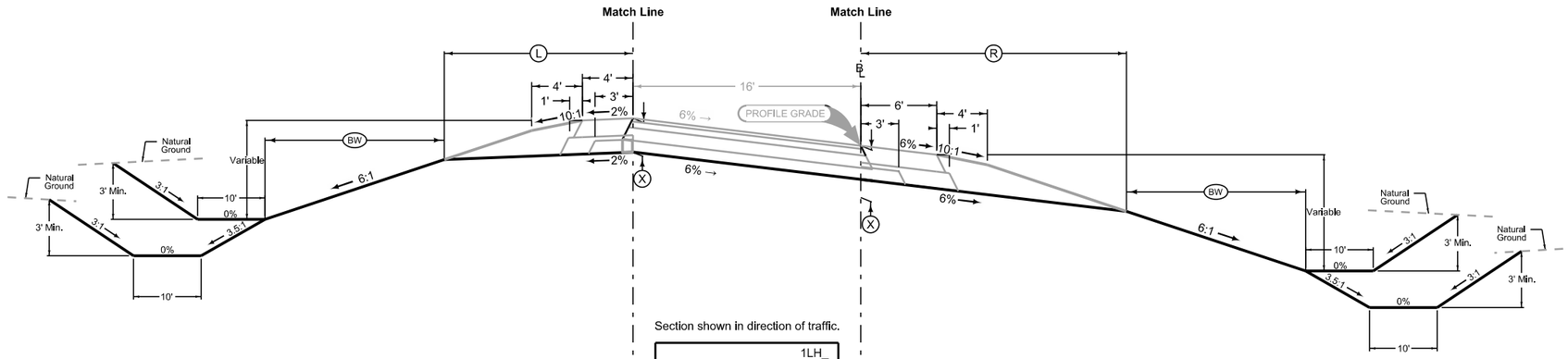
Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(R) Feet	(BW) Feet	(P) Feet
4246+43.63	4255+52.59	22	19.50	10.50	6
4255+52.59	4257+07.78	22	10.50 - 24.68	10.50 - 5.32	6 - 12

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

See Tab 112-9 for shoulder quantities.

PAVING
RAMP D JORDAN CREEK



Section shown in direction of traffic.

	1LH_ 04-19-11
BEGIN STATION	END STATION
5224+00.27	5236+78.88

LOOP E JORDAN CREEK FORESLOPE GRADING

Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(L) Feet	(BW) Feet
5224+00.27	5236+78.88	22	18.32	0

LOOP E JORDAN CREEK FORESLOPE GRADING

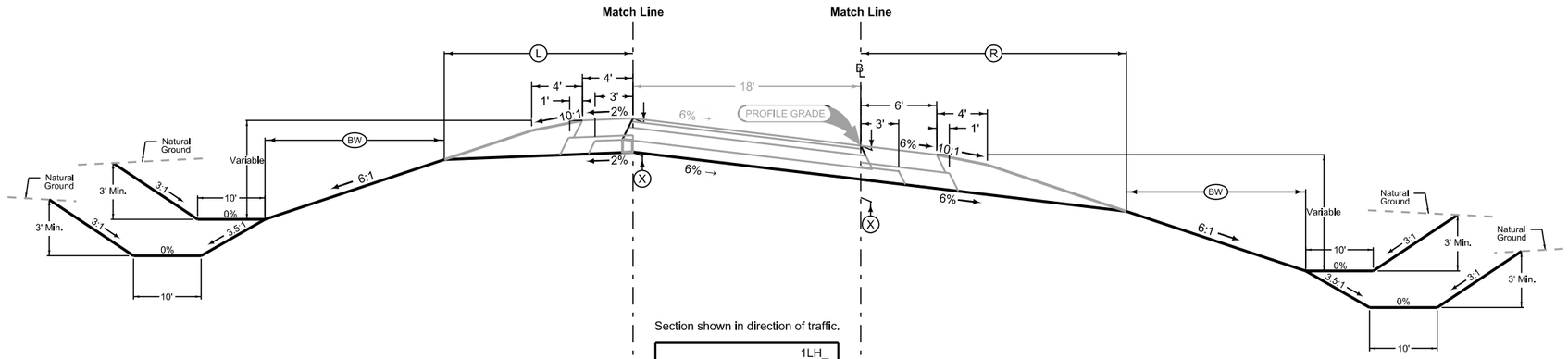
Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(R) Feet	(BW) Feet
5224+00.27	5236+78.88	22	25.69	0

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

See Tab 112-9 for shoulder quantities.

GRADING
LOOP E JORDAN CREEK



Section shown in direction of traffic.

	1LH_ 04-19-11
BEGIN STATION	END STATION
6237+18.33	6238+87.43

LOOP F JORDAN CREEK FORESLOPE GRADING

Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(L) Feet	(BW) Feet
6237+18.33	6238+87.43	22	18.32	0

LOOP F JORDAN CREEK FORESLOPE GRADING

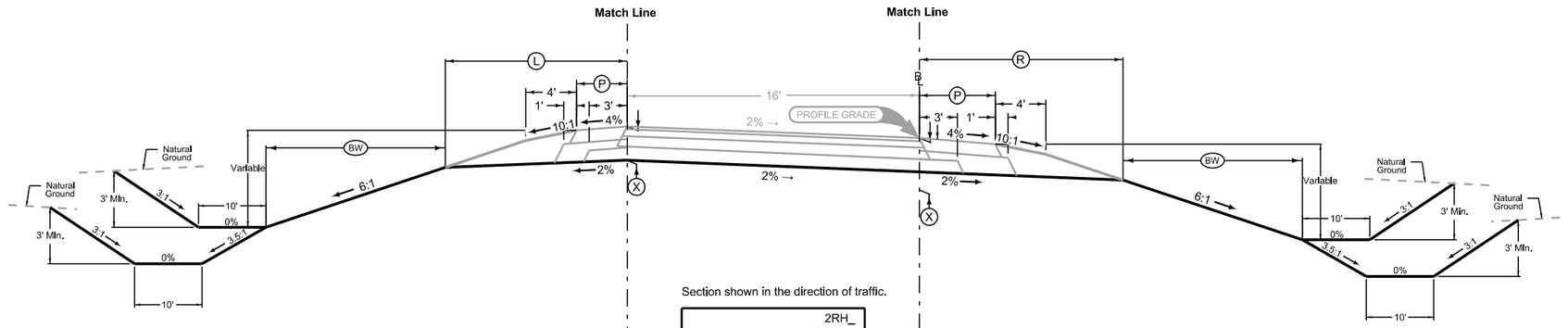
Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(R) Feet	(BW) Feet
6237+18.33	6238+87.43	22	25.69	0

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

See Tab 112-9 for shoulder quantities.

GRADING
LOOP F JORDAN CREEK



Section shown in the direction of traffic.

	2RH_ 04-21-20
BEGIN STATION	END STATION
7282+72.92	7286+29.70

RAMP A JORDAN CREEK FORESLOPE GRADING

Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(L) Feet	(BW) Feet	(P) Feet
7282+72.92	7286+29.70	22	17.77	12.23	4

RAMP A JORDAN CREEK FORESLOPE GRADING

Shoulder Jointing:
Longitudinal joint: B

BEGIN STATION	END STATION	(X) Inches	(R) Feet	(BW) Feet	(P) Feet
7282+72.92	7286+29.70	22	19.50	10.50	6

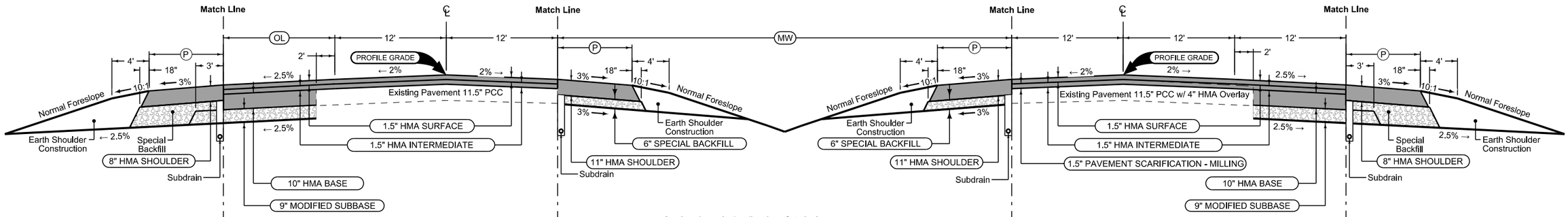
See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

GRADING
RAMP C 60TH ST

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER B.11

9:48:41 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_2508028ZZ08_B01.dgn



HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

6_P_HMA_MOD			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
I-80 WB	1139+98.99	1197+09.11	12
I-80 WB	1233+80.17	1255+60.27	12

Full Depth HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

2_P_FullHMA_04-21-20		
STATION TO STATION		(P) Feet
1139+98.99	1197+09.11	12
1218+25.00	1291+54.65	12

Section shown in the direction of stationing.

Mainline Jointing:
Transverse joints: CD at 20' spacing (Existing PCC)

6DP_Dprs_04-21-20				
Direction of Travel	BEGIN STATION	END STATION	(MW) Feet	(OL) Feet
I-80 WB	1139+98.99	1197+09.11	50	12
I-80 EB	1139+75.92	1197+09.11	50	12
I-80 WB	1218+25.00	1233+30.87	50	12
I-80 EB	1218+25.00	1233+30.87	50	12
I-80 WB	1233+30.87	1252+33.59	50-40	12
I-80 EB	1233+30.87	1252+33.59	50-40	12
I-80 WB	1252+33.59	1291.54.65	40	12
I-80 EB	1252+33.59	1263+94.23	40	12

Full Depth HMA Shoulder

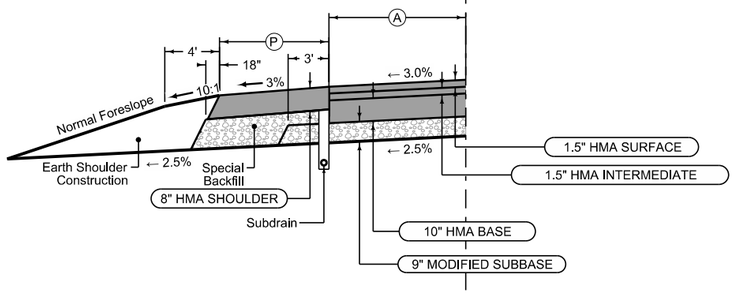
Shoulder Jointing:
Longitudinal joint: B

2_P_FullHMA_04-21-20		
STATION TO STATION		(P) Feet
1139+75.92	1197+09.11	12
1218+25.00	1263+94.23	12

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

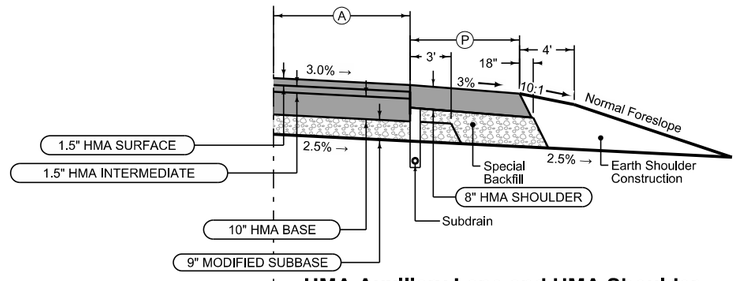
6_P_HMA_MOD			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
I-80 EB	1134+00.00	1197+09.11	12
I-80 EB	1218+25.00	1219+92.19	12
I-80 EB	1225+91.26	1238+87.43	12
I-80 EB	1252+97.63	1253+97.63	12
I-80 EB	1253+97.63	1257+07.78	0



HMA Auxiliary Lane and HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

6_P_HMA_MOD				
Direction of Travel	BEGIN STATION	END STATION	(A) Feet	(P) Feet
I-80 WB	1218+25.00	1224+00.27	12	6
I-80 WB	1224+00.27	1226+82.30	12 - 24	6
I-80 WB	1226+82.30	1233+80.17	24 - 36.04	6
I-80 WB	1255+60.27	1258+10.43	47.14 - 24	6
I-80 WB	1258+10.43	1259+01.43	24 - 18.04	6
I-80 WB	1259+01.43	1260+74.07	18.04 - 12	6 - 12
I-80 WB	1260+74.07	1270+44.25	12	12
I-80 WB	1270.44.25	1273+44.19	12 - 18	12 - 6
I-80 WB	1273+44.19	1282+72.42	18 - 45.06	6
I-80 WB	1282+72.42	1289+74.65	12	12
I-80 WB	1289+74.65	1291+54.65	12 - 0	12



HMA Auxiliary Lane and HMA Shoulder

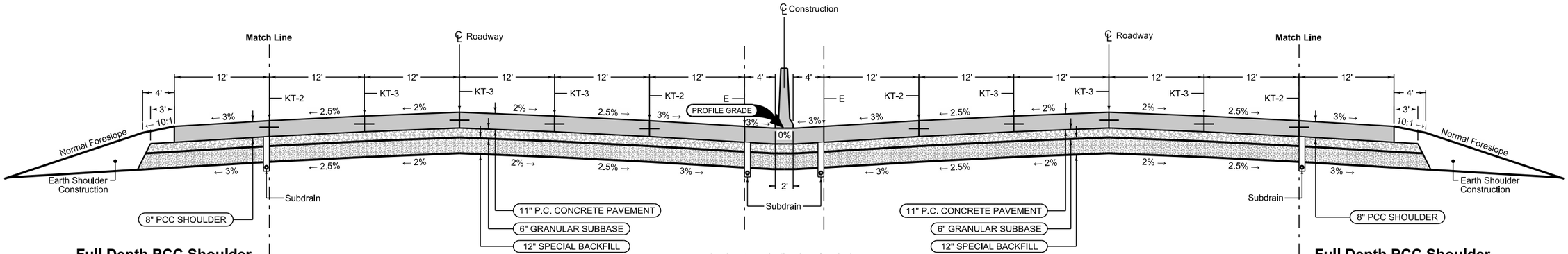
Shoulder Jointing:
Longitudinal joint: B

6_P_HMA_MOD				
Direction of Travel	BEGIN STATION	END STATION	(A) Feet	(P) Feet
I-80 EB	1219+92.19	1220+81.99	0 - 6	12 - 6
I-80 EB	1220+81.99	1225+91.26	6 - 39.96	6
I-80 EB	1238+87.43	1243+72.42	37.21 - 12	6
I-80 EB	1243+72.42	1249+97.63	12	6
I-80 EB	1249+97.63	1251+90.89	12 - 5.86	6
I-80 EB	1251+90.89	1252+97.53	5.86 - 0	6 - 12
I-80 EB	1257+07.78	1263+94.23	12	12

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

See Tab 112-9 for shoulder quantities.

PAVING
I-80: 6 Lane Widening Section



Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

6D_Closed_P_FullPCC_ 04-21-20	
BEGIN STATION	END STATION
1197+09.11	1199+89.11

Section shown in direction of stationing.

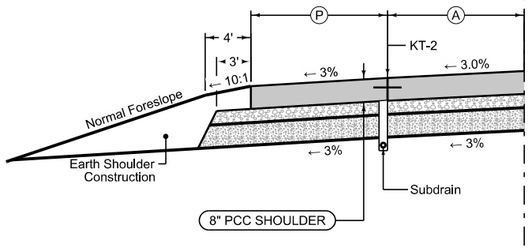
Mainline Jointing:
Transverse joints: CD at 17' spacing

8DP_Closed_ 04-21-20	
BEGIN STATION	END STATION
1197+09.11	1209+27.80
1211+95.23	1218+25.00

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

6D_Closed_P_FullPCC_ 04-21-20	
BEGIN STATION	END STATION
1200+50.00	1209+27.80
1211+95.23	1218+25.00



Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

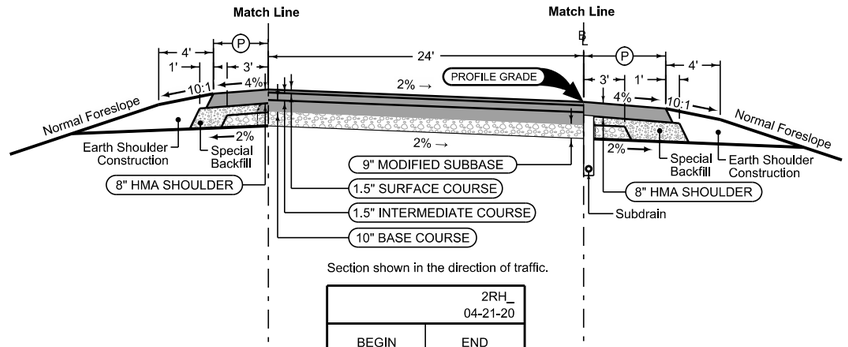
6D_Closed_P_FullPCC_ 04-21-20			
BEGIN STATION	END STATION	Ⓐ Feet	Ⓟ Feet
1199+89.11	1204+09.06	0 - 6	12 - 6
1204+09.06	1208+29.11	12 - 6	6
1208+29.11	1209+21.80	12	6
1211+95.23	1218+25	12	6

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

See Tab 112-9 for shoulder quantities.

PAVING

I-80: 8 Lane Ultimate Section



Section shown in the direction of traffic.

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
1254+57.52	1255+60.27	4

2RH_ 04-21-20	
BEGIN STATION	END STATION
1252+57.52	1255+60.27

HMA Shoulder

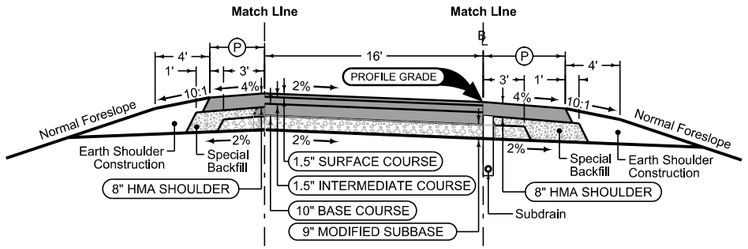
Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
1254+57.52	1255+60.27	6

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

See Tab 112-9 for shoulder quantities.

PAVING
RAMP A JORDAN CREEK



Section shown in direction of traffic.

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
2225+92.19	2231+86.70	4

1RH_ 04-19-11	
BEGIN STATION	END STATION
2225+92.19	2231+86.70

HMA Shoulder

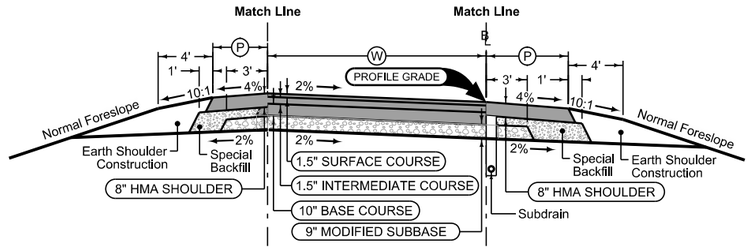
Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
2225+92.19	2231+86.70	6

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

See Tab 112-9 for shoulder quantities.

PAVING
RAMP B JORDAN CREEK



Section shown in direction of traffic.

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	Ⓟ Feet
3224+00.27	3235+13.18	0
3235+13.18	3237+69.23	4

2RH_ 04-21-20		
BEGIN STATION	END STATION	Ⓦ Feet
3224+00.27	3231+59.55	12 - 16
3231+59.55	3237+69.23	16

HMA Shoulder

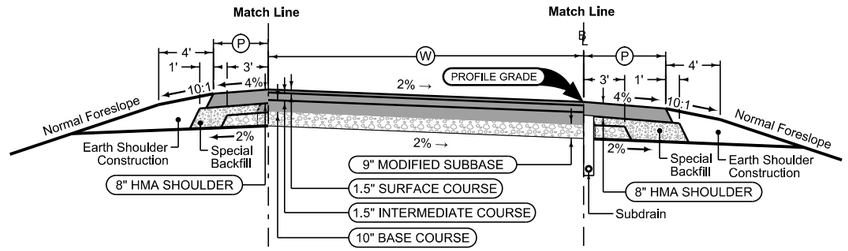
Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	Ⓟ Feet
3224+00.27	3237+69.23	6

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

See Tab 112-9 for shoulder quantities.

PAVING
RAMP C JORDAN CREEK



Section shown in the direction of traffic.

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
4246+43.63	4253+99.48	4

2RH_ 04-21-20		
BEGIN STATION	END STATION	(W) Feet
4246+43.63	4251+23.63	25 - 16
4251+26.63	4257+07.78	16

HMA Shoulder

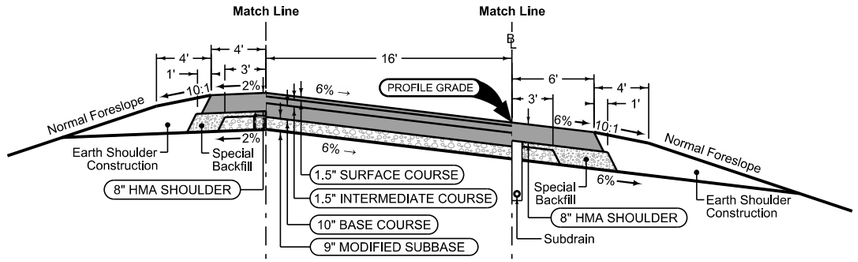
Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
4246+43.63	4255+52.59	6
4255+52.59	4257+07.78	6 - 12

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

See Tab 112-9 for shoulder quantities.

PAVING
RAMP D JORDAN CREEK



Section shown in direction of traffic.

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

	1L_P_HMA_ 04-21-20
BEGIN STATION	END STATION
5224+00.27	5236+78.88

	1LH_ 04-19-11
BEGIN STATION	END STATION
5224+00.27	5236+78.88

HMA Shoulder

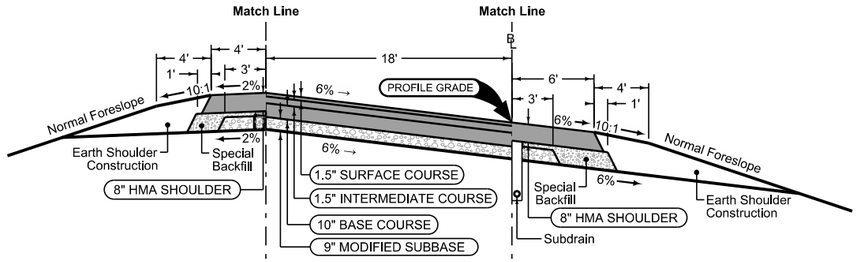
Shoulder Jointing:
Longitudinal joint: B

	1L_P_HMA_ 04-21-20
BEGIN STATION	END STATION
5224+00.27	5236+78.88

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

See Tab 112-9 for shoulder quantities.

PAVING
LOOP E JORDAN CREEK



Section shown in direction of traffic.

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

	1L_P_HMA_ 04-21-20
BEGIN STATION	END STATION
6237+18.33	6238+87.43

	1LH_ 04-19-11
BEGIN STATION	END STATION
6237+18.33	6238+87.43

HMA Shoulder

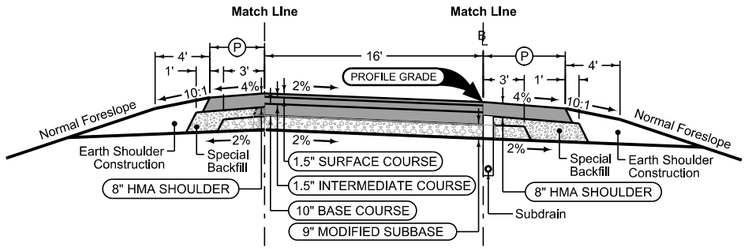
Shoulder Jointing:
Longitudinal joint: B

	1L_P_HMA_ 04-21-20
BEGIN STATION	END STATION
6237+18.33	6238+87.43

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

See Tab 112-9 for shoulder quantities.

PAVING
LOOP F JORDAN CREEK



Section shown in direction of traffic.

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
7282+72.92	7286+29.70	4

1RH_ 04-19-11	
BEGIN STATION	END STATION
7282+72.92	7286+29.70

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

1R_P_HMA_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
7282+72.92	7286+29.70	6

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

See Tab 112-9 for shoulder quantities.

PAVING
RAMP C 60TH ST

SURVEY SYMBOLS

- RET Retaining Walls
- MH Utility Access (Manhole)
- SIGN SI Sign
- LUM Luminaire
- TSG Traffic Signal
- IN Storm Sewer Intake
- WV WV Water Valve
- FHD Fire Hydrants
- GPR Guard Post (4 or More Posts)
- Flg FLG Flag Poles
- GP GP Guard Post (Less Than 4 Posts)
- UST UST Underground Tank
- STP Stump
- LP LP L.P. Tank
- TV Satelite TV Dish
- TDC Tree Deciduous
- OUT Tile Outlet
- TGP Telegraph Pole
- TP TPD Telephone Pedestal
- PR Electic Riser Pole
- EB EB Electrical Box
- PPA Power Pole Co. 1
- MM MM Mile Marker Post
- SIGN SL Speed Limit Sign
- TVP TVP TV Pedestal
- TSL Traffic Signal and Luminare
- GV GV Gas Valve
- WEL Well
- TPA Telephone Pole Co. 1
- INB Storm Sewer Beehive Intake
- HT Electrical Highline Tower
- TCB TCB Traffic Signal Box
- RRB RRB Railroad Signal Box
- TSB TSB Telephone Switch Box
- SIGN SI Sign
- TEV Evergeen Tree
- BB BB Billboard
- FP FP Filler Pipe
- TR Telephone Riser Pole
- SHR Shrub
- RRF Railroad Frog
- RR Centerline of Railroad Tracks
- PPB Power Pole Co. 2
- D Centerline Draw or Stream (Down)
- FCL Chain Link and Security Fence
- EW Edge of Water
- FW Wire Fence
- FWD Wood Fence
- GDL Guard Rail Steel
- DIK Centerline of Dike or Dam
- UB UB Utility Box
- TLNL Tree Line Left
- TLNR Tree Line Right
- RRW Railroad Switch
- D Centerline Draw or Stream (Down)
- RRS Railroad Signal
- WHU WHU RV Water Hook Up
- AST AST Above Ground Storage Tank
- HDG Hedge Row
- RIP Rip-Rap
- Tile TIL Tile Line
- BB BB Billboard
- WH WHD Water Hydrant

UTILITY LEGEND

— San. —
- San.(C) —

City of Council Bluffs - Sanitary Sewer
Dave Vermillion
City of Council Bluffs Public Works
209 Pearl Street
Council Bluffs, IA 51503
712.328.4635 ex 3153#
dvermillion@councilbluffs-ia.gov

— St.S.(C) —
— E2(B) —
— E2(C) —

DOT/State of Iowa
Chris Haynes
Supervisor
2501 N. 25th Street
Council Bluffs, IA 51501
712.322.7543
christopher.haynes@iowadot.us

—St.S.2(C)—
—St.S.2—
— St.S. —

City of Council Bluffs - Storm Sewer
Dave Vermillion
City of Council Bluffs Public Works
209 Pearl Street
Council Bluffs, IA 51503
712.328.4635 ex 3153#
dvermillion@councilbluffs-ia.gov

— W(B) —
— W —

Council Bluffs Water Works
Brian T. Cady, PE
2000 N. 25th Street
P.O. Box 309
Council Bluffs, IA 51502
712.328.1006 ext. 1039
bcady@cbwaterworks.com

—F02(B)—
—F02(C)—
— F10 —
— F02 —

DOT/State of Iowa
Jason Dale
Traffic Operations
800 Lincoln Way
Ames, IA 50010
515.239.1995
jason.dale@iowadot.us

— F07 —
— T(B) —
— T1 —

CenturyLink
Sean Hostetter
210 S 3rd St.
Ames, IA 50010
515.233.6404
sean.hostetter@centurylink.com

— F08 —
—F08(B)—
— TV —
— T2 —

Cox Communications
Andrew Aschenbrener
3031 N. 120th Street
Omaha, NE 68154
402.934.0395
andrew.aschenbrener@cox.com

—F13(B)—

Google
Scott Hanley
Global Network Planning & Acquisition
Google Inc.
1600 Amphitheatre Parkway
Mountain View, CA 94043
650.204.0445
shanley@google.com

— F03 —

Sprint
Michael Chebul
810 S 7th Street
Omaha, NE 68108
402.522.2607
michael.j.chebul@sprint.com

— G(B) —
— G-HP —
— G-HP(B) —
—G2-HP—
— G2 —

Black Hills Energy
Chris Dewey
P.O. Box 68
Council Bluffs, IA 51501
1102 East First Street
Papillion, NE 68046-7641
712.325.3022
chris.dewey@blackhillscorp.com

— E1 —
— E(C) —
— E(B) —
— E —

MidAmerican Energy
Adam Fritz
Council Bluffs Service Center
3003 South 11th Street
Council Bluffs, IA 51501
712.366.5627
acfritz@midamerican.com

— E4(B) —

BNSF RAILROAD
Mike Schaefer
201 N 7th St.
Lincoln, NE. 68508
Office 402-458-7379
Cell 402-304-1437

— San.4 —

Iowa Interstate Railroad
Greg Mitchell
5900 6th Street SW
Cedar Rapids, IA 52404
319.298.5424
gdmitchell@iaisrr.com

— F15 —

Unite Private Networks
Shanon Morris
402.575.1239
shanon.morris@upnfiber.com

Indicates Utility As Abandoned

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 HMA Overlay Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

- Reference Point / Station — Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

- Centerline of Levee
- Levee Critical Zone
- Direction of Pipe Flow

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER D.1

9:50:10 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/LGD_25080282Z08.sht

TRAFFIC	
LOCATION	I-80 MAINLINE: UNDER GPP
ADT	59,600
DAILY TRUCK %	25%
PEAK HOUR	5,705

BOONE TWP.
T-78N R-26W
SEC. 10

TRAFFIC	
LOCATION	GPP RAMP FROM I-80 WB
ADT	13,900
DAILY TRUCK %	2%
PEAK HOUR	1,365

BOONE TWP.
T-78N R-26W
SEC. 10

TRAFFIC	
LOCATION	I-80 MAINLINE: GPP-JCP
ADT	87,300
DAILY TRUCK %	18%
PEAK HOUR	7,885

Sta. 1134+19
Skew 75°RT AH
10.0' X 8.0' X 334.0' RCB
D.A.= 670.0 A-R (PLANS)
(U.A.C.)

15" X 219.3'
C.M.P.
(U.A.C.)

Sta. 1144+31
30" X 131.0' RCP
D.A.= NOT LISTED (PLANS)
Extend Lt 27', Rt 25
With 30" RCP
Lt. 1002.12
F.L. = Rt. 1001.17

15" X 35.5'
C.M.P.
(U.A.C.)

STA. 1139+98.99
BEGIN WIDENING AND OVERLAY WB

1130 1135 1140 1145 1150 1155 1160

ML080

WB I-80

EB I-80

1134+00.00
BEGIN SHOULDER

STA. 1139+75.92
BEGIN WIDENING AND OVERLAY EB

15" X 40.2'
C.M.P.
(U.A.C.)

24" X 12.2'
Conc. Pipe
(U.A.C.)

36" X 108.3'
Conc. Pipe
(U.A.C.)

15" X 28.7'
C.M.P.
(U.A.C.)

Sta. 1144+31 153' RT
30" X 50.8' RCP
(U.A.C.)

TRAFFIC	
LOCATION	GPP RAMP TO I-80 EB
ADT	13,800
DAILY TRUCK %	2%
PEAK HOUR	1,555

BOONE TWP.
T-78N R-26W
SEC. 10

0 100
FEET

BOONE TWP.
T-78N R-26W
SEC. 10

MAINLINE I-80

1040 1030 1020 1010 1000 990 980 970

VPI +00.000
Elv 1,025.61
Len 1,200.00 ft
K = 387
DS = 80 mph

+2.000% -1.100%

VPI +00.000
Elv 1,025.40
Len 1,200.00 ft
K = 387
DS = 80 mph

Sta. 1139+75.92
Begin Widening & Overlay East Bound
Elev. = 997.13

Eastbound Lanes
(ML080_6_EB_P)

985.81

Westbound Lanes
(ML080_6LANE_P)

Sta. 1139+98.99
Begin Widening & Overlay West Bound
Elev. = 997.38

Lt
Med
Rt

5' Ditch
2' Median Ditch
5' Ditch
Vari.
No Ditch
5' Ditch

997.40 999.40 1,001.40 1,003.40 1,005.40 1,007.40 1,009.40 1,011.40 1,013.40 1,015.28 1,016.89 1,018.24 1,019.34 1,020.18 1,020.76 1,021.08 1,021.14 1,020.95 1,020.49 1,019.78 1,018.81

1130 1135 1140 1145 1150 1155 1160

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER D.2

10:35:24 AM 6/10/2020 WWEGNER pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_D01.dgn

TRAFFIC	
LOCATION	I-80 MAINLINE: GPP-JCP
ADT	87,300
DAILY TRUCK %	18%
PEAK HOUR	7,885

MAINLINE I-80

FILE NO.	ENGLISH	DESIGN TEAM **Iowa DOT \ HDR**	**DALLAS** COUNTY	PROJECT NUMBER **IM-NHS-080-3(282)118--03-25**	SHEET NUMBER **D.3**

10:35:48 AM 6/10/2020 WWEGNER pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_D01.dgn

TRAFFIC	
LOCATION	I-80 MAINLINE: GPP-JCP
ADT	87,300
DAILY TRUCK %	18%
PEAK HOUR	7,885

MAINLINE I-80

FILE NO.	ENGLISH	DESIGN TEAM **Iowa DOT \ HDR**	**DALLAS** COUNTY	PROJECT NUMBER **IM-NHS-080-3(282)118--03-25**	SHEET NUMBER **D.4**

10:36:18 AM 6/10/2020 WWEGNER pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_D01.dgn

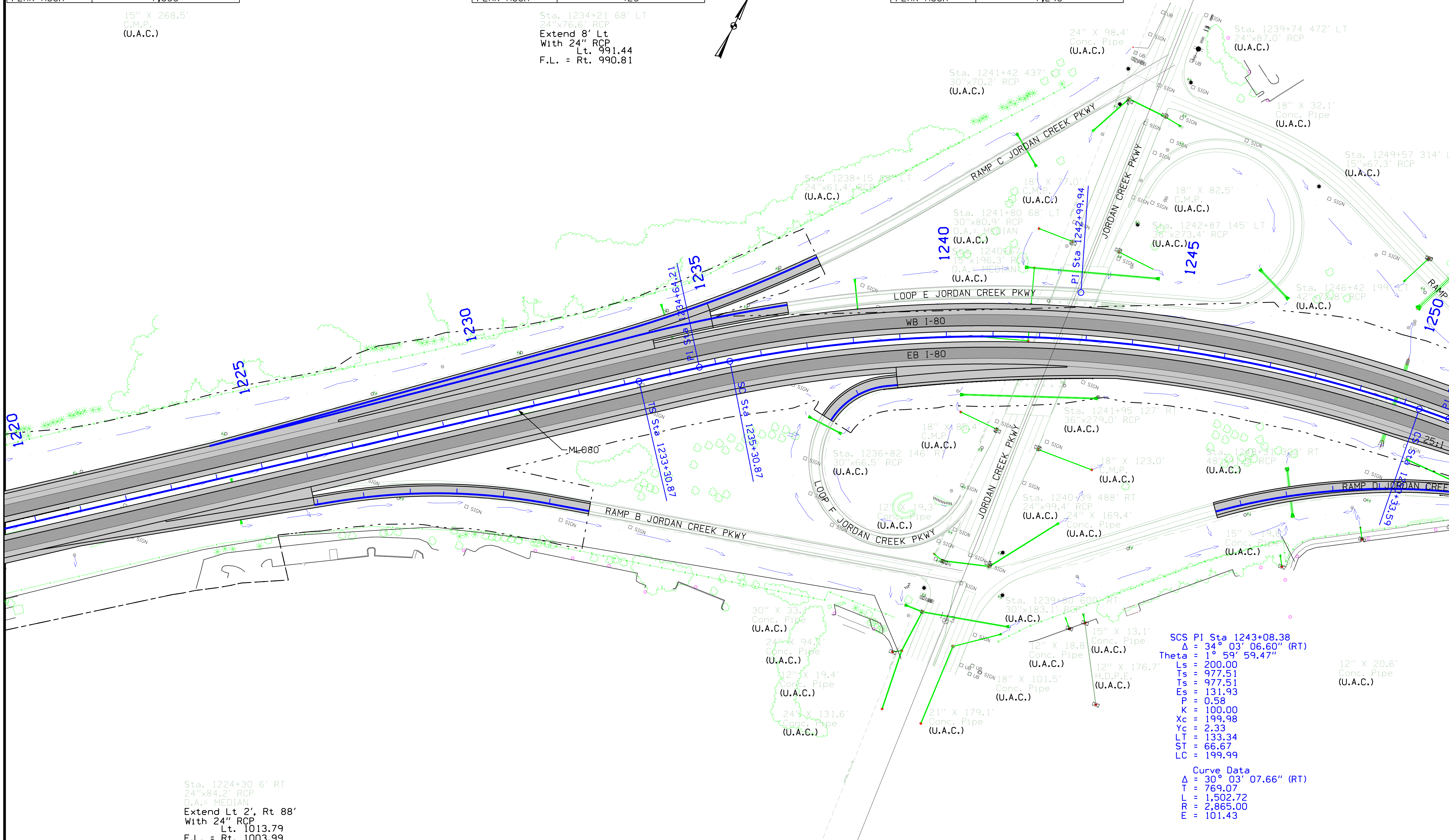
TRAFFIC	
LOCATION	I-80 MAINLINE: GPP-JCP
ADT	87,300
DAILY TRUCK %	18%
PEAK HOUR	7,885

BOONE TWP.
T-78N R-26W
SEC. 2

TRAFFIC	
LOCATION	JCP RAMP TO I-80 WB
ADT	3,400
DAILY TRUCK %	1%
PEAK HOUR	425

TRAFFIC	
LOCATION	I-80 MAINLINE: UNDER JCP
ADT	80,600
DAILY TRUCK %	19%
PEAK HOUR	7,295

BOONE TWP.
T-78N R-26W
SEC. 1



SCS PI Sta 1243+08.38
Δ = 34° 03' 06.60" (RT)
Theta = 1° 59' 59.47"
Ls = 200.00
Ts = 977.51
Ts = 977.51
Es = 131.93
P = 0.58
K = 100.00
Xc = 199.98
Yc = 2.33
LT = 133.34
ST = 66.67
LC = 199.99

Curve Data
Δ = 30° 03' 07.66" (RT)
T = 769.07
L = 1,502.72
R = 2,865.00
E = 101.43

BOONE TWP.
T-78N R-26W
SEC. 2

TRAFFIC	
LOCATION	JCP RAMP FROM I-80 WB
ADT	26,700
DAILY TRUCK %	1%
PEAK HOUR	2,865

0 FEET 100

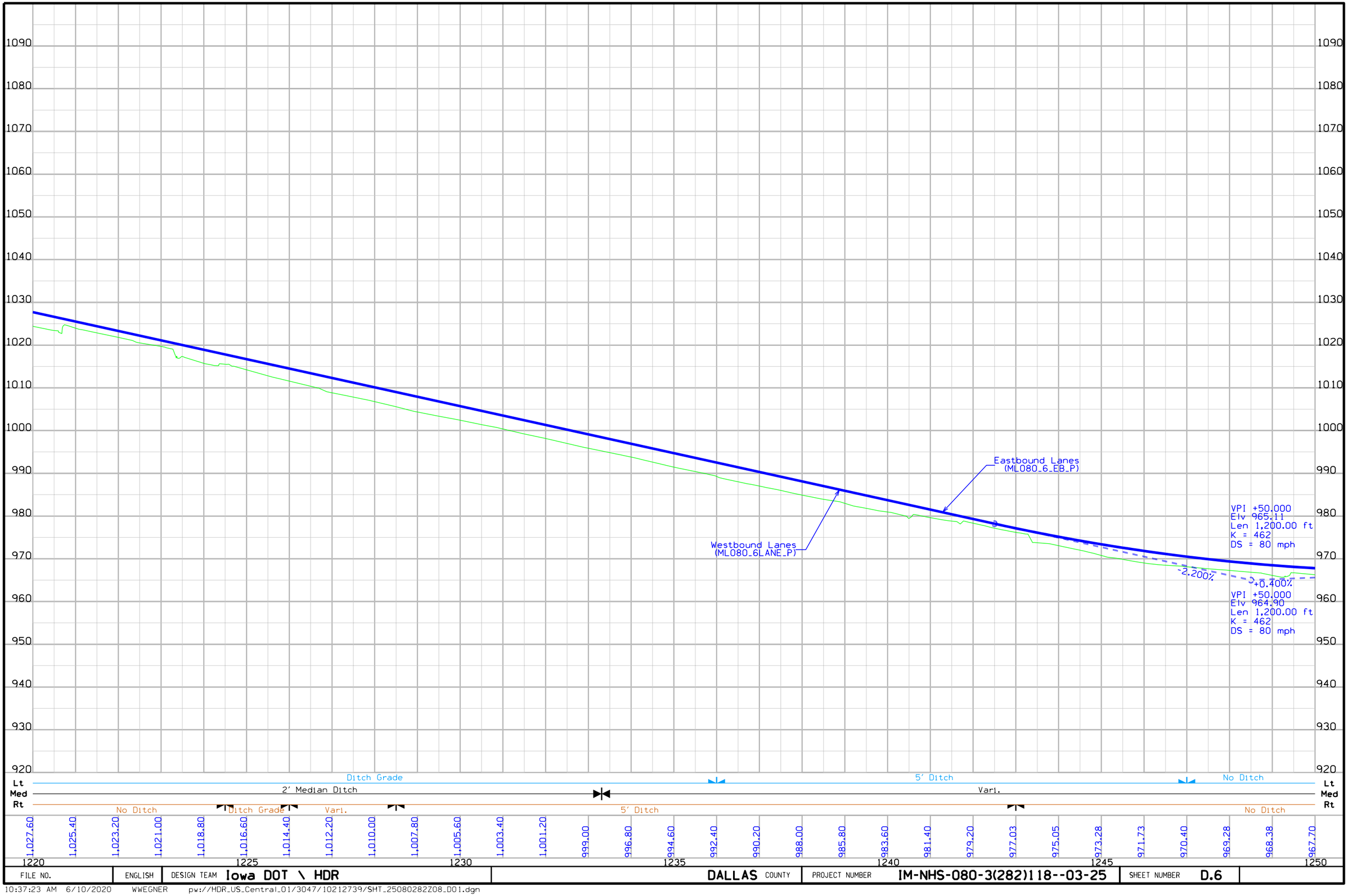
TRAFFIC	
LOCATION	JCP SB LOOP TO I-80 EB
ADT	8,800
DAILY TRUCK %	1%
PEAK HOUR	870

BOONE TWP.
T-78N R-26W
SEC. 1

MAINLINE I-80

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER D.5

10:36:44 AM 6/10/2020 WWEGNER pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_D01.dgn



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER D.6

10:37:23 AM 6/10/2020 WWEGNER pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_D01.dgn

TRAFFIC	
LOCATION	JCP RAMP FROM I-80 WB
ADT	26,700
DAILY TRUCK %	1%
PEAK HOUR	2,865

TRAFFIC	
LOCATION	I-80 MAINLINE: JCP-60TH
ADT	133,800
DAILY TRUCK %	12%
PEAK HOUR	12,135

TRAFFIC	
LOCATION	JCP NB RAMP TO I-80 EB
ADT	17,700
DAILY TRUCK %	1%
PEAK HOUR	1,855

MAINLINE I-80

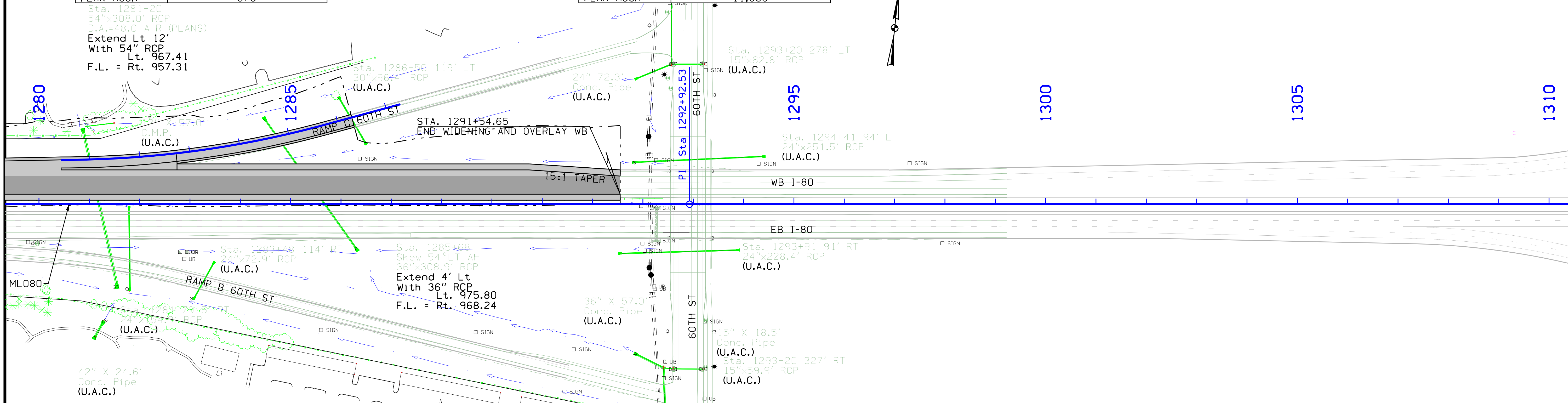
FILE NO.	ENGLISH	DESIGN TEAM **Iowa DOT \ HDR**	**DALLAS** COUNTY	PROJECT NUMBER **IM-NHS-080-3(282)118--03-25**	SHEET NUMBER **D.7**

TRAFFIC	
LOCATION	60TH ST RAMP TO I-80 WB
ADT	2,700
DAILY TRUCK %	1%
PEAK HOUR	370

TRAFFIC	
LOCATION	I-80 MAINLINE: UNDER 60TH
ADT	128,500
DAILY TRUCK %	12%
PEAK HOUR	11,635

BOONE TWP.
T-78N R-26W
SEC. 1

WALNUT TWP.
T-78N R-25W
SEC. 6



N
Sta. 1281+20
54"x308.0' RCP
D.A.=48.0 A-R (PLANS)
Extend Lt 12'
With 54" RCP
Lt. 967.41
F.L. = Rt. 957.31
Sta. 1286+50 119' LT
30"x96.4' RCP
(U.A.C.)
C.M.P.
(U.A.C.)
RAMP C 60TH ST
STA. 1291+54.65
END WIDENING AND OVERLAY WB
15:1 TAPER
24" 72.3'
Conc. Pipe
(U.A.C.)
Sta 1292+92.53
PI
60TH ST
Sta. 1293+20 278' LT
15"x62.8' RCP
(U.A.C.)
Sta. 1294+41 94' LT
24"x251.5' RCP
(U.A.C.)
WB I-80
EB I-80
1280
1285
1295
1300
1305
1310
ML080
Sta. 1283+40 114' RT
24"x72.9' RCP
(U.A.C.)
RAMP B 60TH ST
Sta. 1285+68
Skew 54° LT AH
36"x308.9' RCP
Extend 4' Lt
With 36" RCP
Lt. 975.80
F.L. = Rt. 968.24
24"x64' RCP
(U.A.C.)
36" X 57.0'
Conc. Pipe
(U.A.C.)
Sta. 1293+91 91' RT
24"x228.4' RCP
(U.A.C.)
15" X 18.5'
Conc. Pipe
(U.A.C.)
Sta. 1293+20 327' RT
15"x59.9' RCP
(U.A.C.)
42" X 24.6'
Conc. Pipe
(U.A.C.)
SIGN

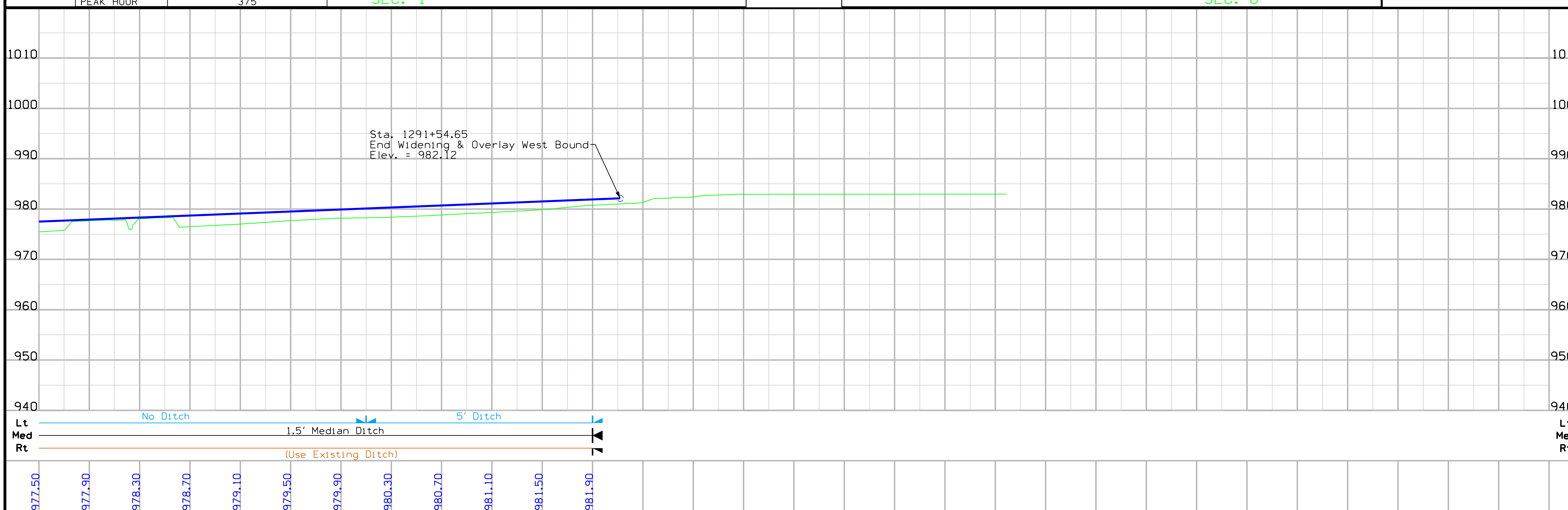
TRAFFIC	
LOCATION	60TH ST RAMP FROM I-80 EB
ADT	2,600
DAILY TRUCK %	1%
PEAK HOUR	375

BOONE TWP.
T-78N R-26W
SEC. 1

0 100
FEET

WALNUT TWP.
T-78N R-25W
SEC. 6

MAINLINE I-80



1010
1000
990
980
970
960
950
940
Sta. 1291+54.65
End Widening & Overlay West Bound
Elev. = 982.12
Lt
Med
Rt
No Ditch
5' Ditch
1.5' Median Ditch
(Use Existing Ditch)
977.50
977.90
978.30
978.70
979.10
979.50
979.90
980.30
980.70
981.10
981.50
981.90
1280
1285
1290
1295
1300
1305
1310

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER D.8

10:38:16 AM 6/10/2020 WWEGNER pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_D01.dgn

Survey Information

Dallas County
IM-080-3(245)113—13-25
W of the US 6/US 169 Interchange to
E of Jordan Creek Pkwy in West Des Moines
PIN 18-25-080-020

Party Personnel

Jody Budde - PLS
Wes Shimp - PLS
Dave Overman - Party Chief
Aaron Paulsen - Party Chief
Lee Budde - Party Chief
Katerina Wyatt - Party Chief
Jason Flaherty - Assistant Survey Party Chief
Logan Hook - Assistant Survey Party Chief
Scott Dillavou - Assistant Survey Party Chief

Date(s) of Survey

Begin Date	11/19/2018
End Date	03/16/2020

General Information

Measurement units for this survey are US survey feet. This survey is for the preliminary design for the section of I-80 from west of the US 6/US 169 Interchange to east of Jordan Creek Pkwy in West Des Moines. Project datum and control information is provided by Design Survey Office. This project is a Partial DTM with Photo control. This survey request was for the I-80 corridor only. Project horizontal datum is NAD83 (2011), Iowa RCS Zone 8 (Ames – Des Moines).

Vertical Control

Vertical datum for this survey is relative to NAVD88 (computed using Geoid12B for the 2019 new FENOs, FENO 1-8, and in 2020 Geoid18 used for FENOs 9-10 for derived orthometric elevations listed). This survey consisted of observing 10 new FENO 1-meter rod monuments using minimum 2hr initial static observations along with data from 3 Iowa RTN CORS sites: Des Moines (IADM), De Soto (IADS), and Martensdale (IAMD).

Additionally, 10 local existing GPS monuments with published NAVD88 elevations were observed and used that are located in proximity to the I-80 corridor area: Dallas County GPS points G104, G114, G115, and G116; City of West Des Moines Benchmark point 032; Three existing FENOs supplied by the DOT (set by others) and NGS BM A162:

Dallas County GPS Pt G104 has a published Elv of: 915.493 usft
Survey Elv = 915.49 usft

Dallas County GPS Pt G114 has a published Elv of 959.402 usft
Survey Elv = 959.40 usft

Dallas County GPS Pt G115 has a published Elv of 1017.98 usft
Survey Elv = 1017.98 usft

Dallas County GPS Pt G116 has a published Elv of 875.76 usft
Survey Elv = 875.64 usft

GPS Pt A162 has a published Elv of 1095.82 usft
Survey Elv = 1095.82 usft

GPS Pt 25002 has a published Elv of 957.79 usft
Survey Elv = 957.79 usft

GPS Pt 25003 has a published Elv of 925.96 usft
Survey Elv = 925.96 usft

GPS Pt 25005 has a published Elv of 1007.86 usft
Survey Elv = 1007.86 usft

GPS Pt GPS9 has a published Elv of 938.993 usft
Survey Elv = 938.91 usft

City of West Des Moines BM WDM032 has a published Elv of 996.30 usft
Survey Elv = 996.30 usft

The final vertical adjustment results show standard deviations were less than 0.02 ft. at 95% confidence level (2 sigma) for the new FENO monuments.

Horizontal Control

The project coordinate system for this survey is NAD83 (2011) Iowa RCS Zone 8 (Ames – Des Moines) US survey feet. This survey control is relative to IaRTN reference stations. IaRTN Reference Station coordinates are relative to the National Reference Station network datum: NAD83 (2011) for Epoch 2010.00. Coordinates were determined by observing each mark for 120 minutes minimum for the first observation and 35 minutes minimum for the second observation with appropriate time spans between each session.

For the February 2020 survey portion which added FENO monuments FENO9 and FENO10, the same three IaRTN CORS stations were utilized as well as HARN station GPS 9. FENO8 was re-observed as part of the establishment of the two new FENO markers to complete out the survey project control network.

The horizontal standard deviation of these adjusted observations was less than 0.02 ft. at 95% confidence level (2 sigma).

Alignment Information

The horizontal alignment for this survey is a retrace of As-built Plans No. I-80-3(14)109, I-80-3(15)113, I-80-3(20)121. Survey stationing was equated to the plan PI at STA 606+22.0 and run back and ahead throughout the survey.

Survey stationing relates to as built plan stationing as follows:

PI STA 606+22.0 As-built Plans Project No. I-80-3(14)109
Survey PI STA 606+22.0

PI STA 783+24.4 As-built Plans Project No. I-80-3(15)113
Survey PI STA 783+23.03

PI STA 833+66.1 As-built Plans Project No. I-80-3(15)113
Survey PI STA 833+59.82

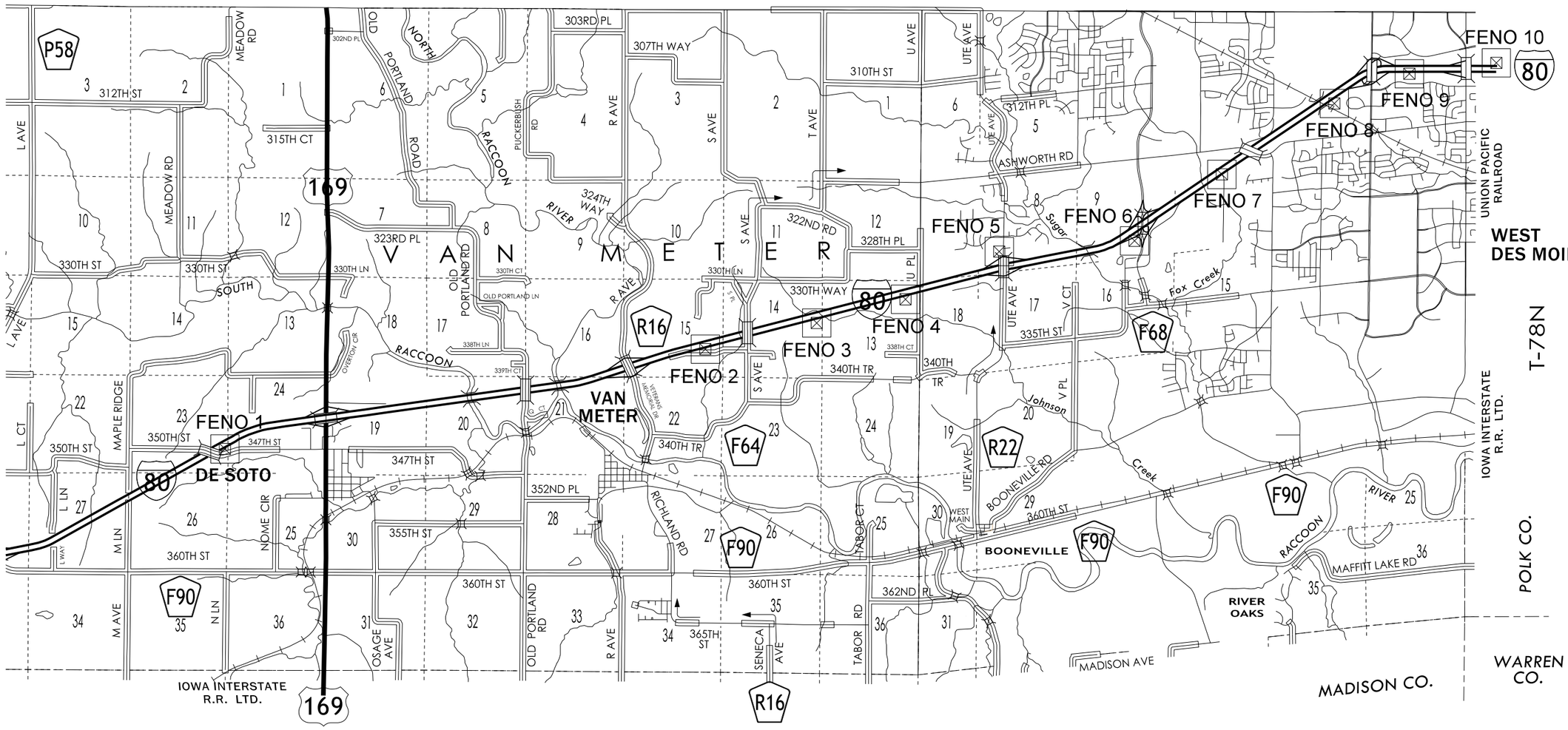
PI STA 1016+72.0 As-built Plans Project No. I-80-3(15)113
Survey PI STA 1016+58.94

PI STA 1074+13.1 As-built Plans Project No. I-80-3(20)121
Survey PI STA 1073+94.23

PI STA 1243+30.0 As-built Plans Project No. I-80-3(20)121
Survey PI STA 1242+99.94

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points
Primary control is for use with RTK base stations and for RTN validation.
Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00
VERT. DATUM: NAVD88
Ia. Regional Coordinate System Zone 8

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

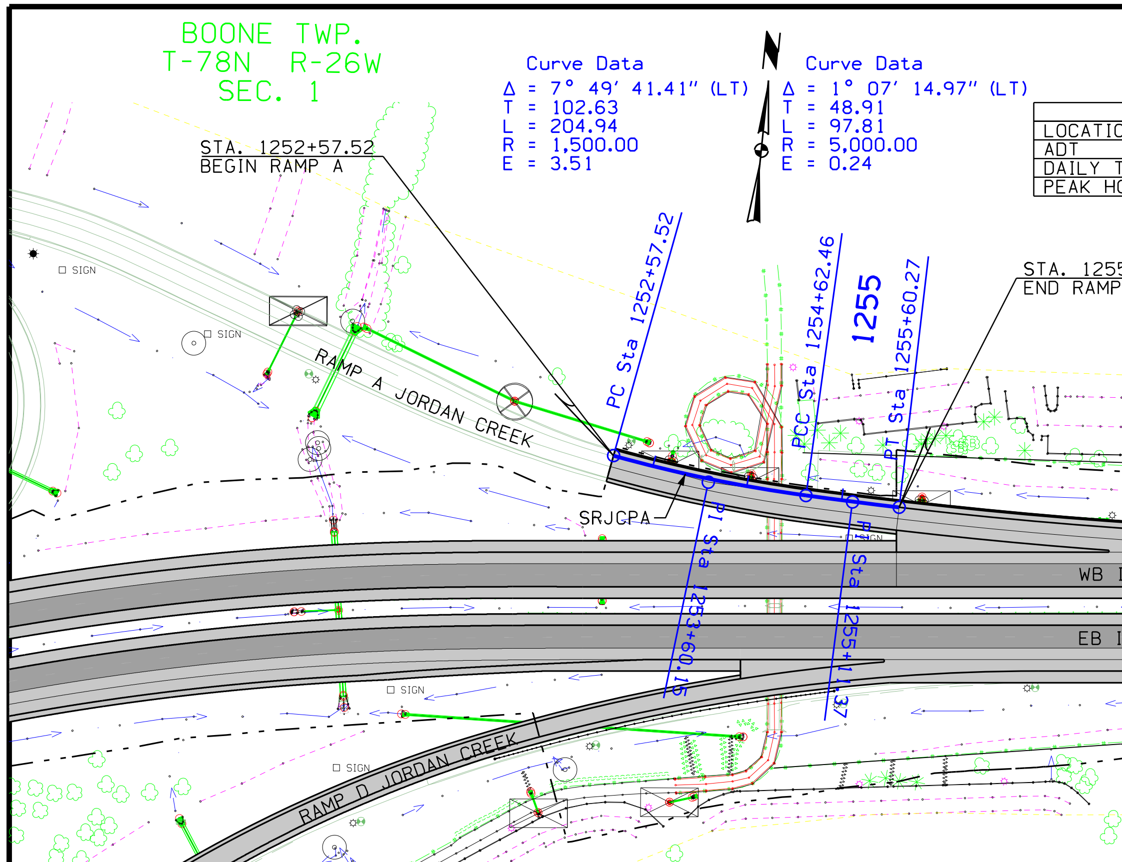
HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 8

Point ID	Northing(sft)	Easting(sft)	Elev (sft)	Description
25002	7470971.24	18422177	957.79	FENO EXISTING JEO
25003	7471429.88	18428282.04	925.96	FENO EXISTING JEO
25005	7470137.41	18417327.09	1007.86	FENO EXISTING JEO
FENO1	7468376.54	18413068.82	1019.46	FENO FOTH SET
FENO2	7474164.86	18439441.53	989.79	FENO FOTH SET
FENO3	7475282.36	18445058.65	999.34	FENO FOTH SET
FENO4	7476856.55	18450086.15	968.57	FENO FOTH SET
FENO5	7479233.68	18455057.76	999.53	FENO FOTH SET
FENO6	7479877.63	18462182.05	981.09	FENO FOTH SET
FENO7	7483298.16	18466546.88	1003.75	FENO FOTH SET
FENO8	7487283.68	18472431.59	1015.73	FENO FOTH SET
FENO9	7488897.18	18476761.16	964.37	FENO FOTH SET
FENO10	7489182.34	18481417.43	973.17	FENO FOTH SET
WDM032	7485410.9	18469228.11	996.3	CP City WDM BM



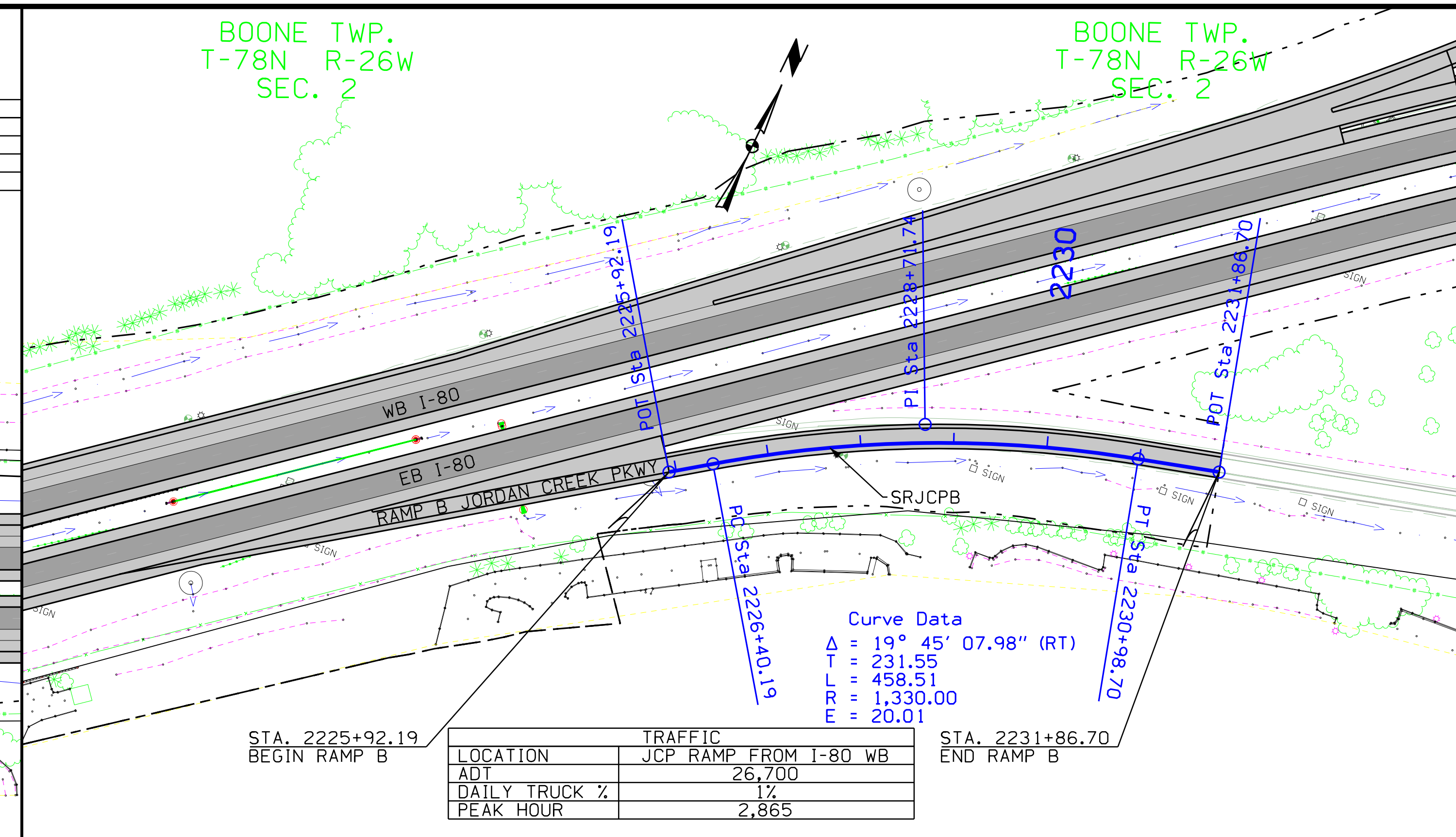
TRAFFIC	
LOCATION	JCP RAMP FROM I-80 WB
ADT	26,700
DAILY TRUCK %	1%
PEAK HOUR	2,865

BOONE TWP.
T-78N R-26W
SEC. 1

0 FEET 100

BOONE TWP.
T-78N R-26W
SEC. 1

JORDAN CREEK PKWY RAMP A



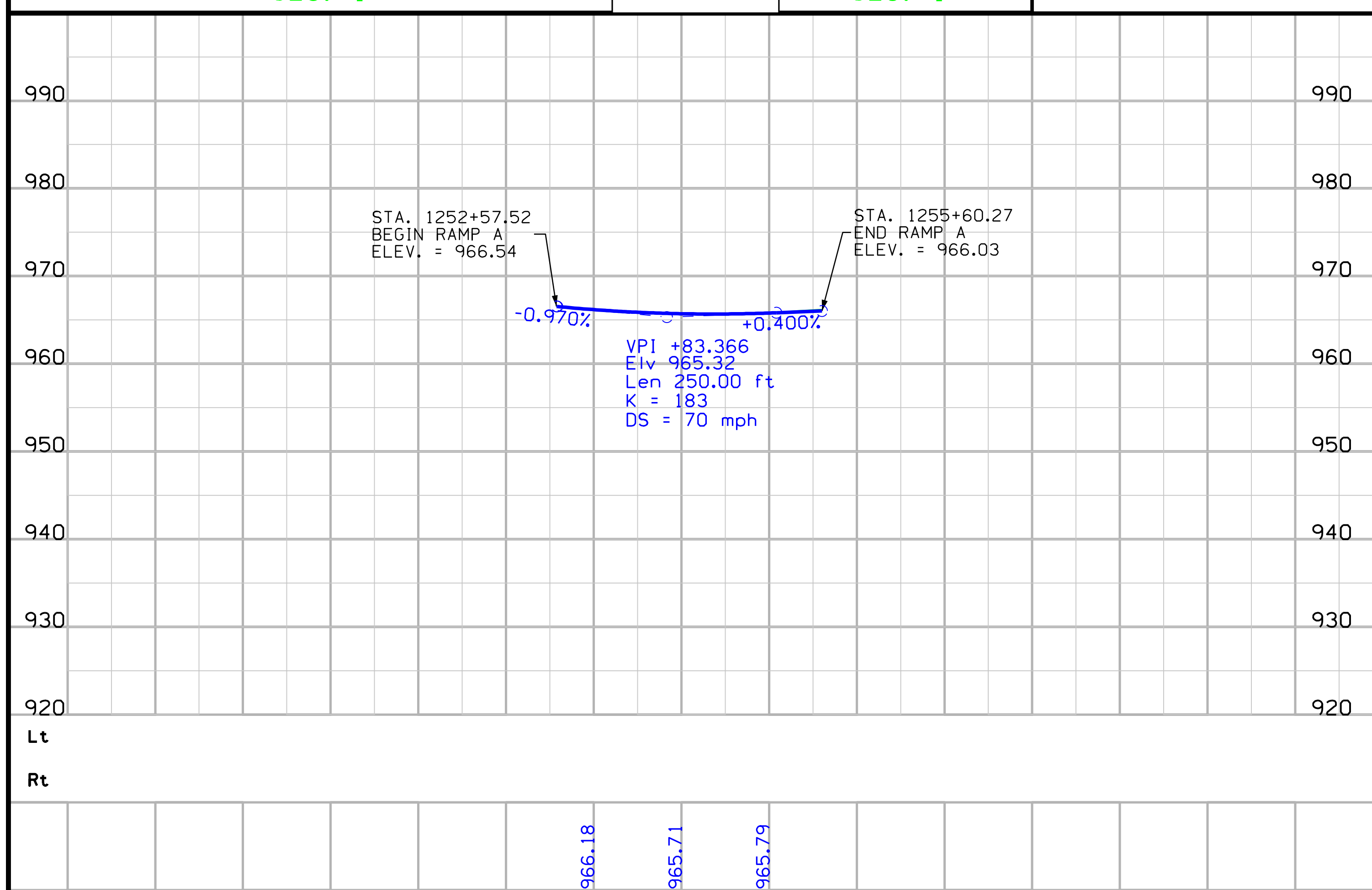
TRAFFIC	
LOCATION	JCP RAMP FROM I-80 WB
ADT	26,700
DAILY TRUCK %	1%
PEAK HOUR	2,865

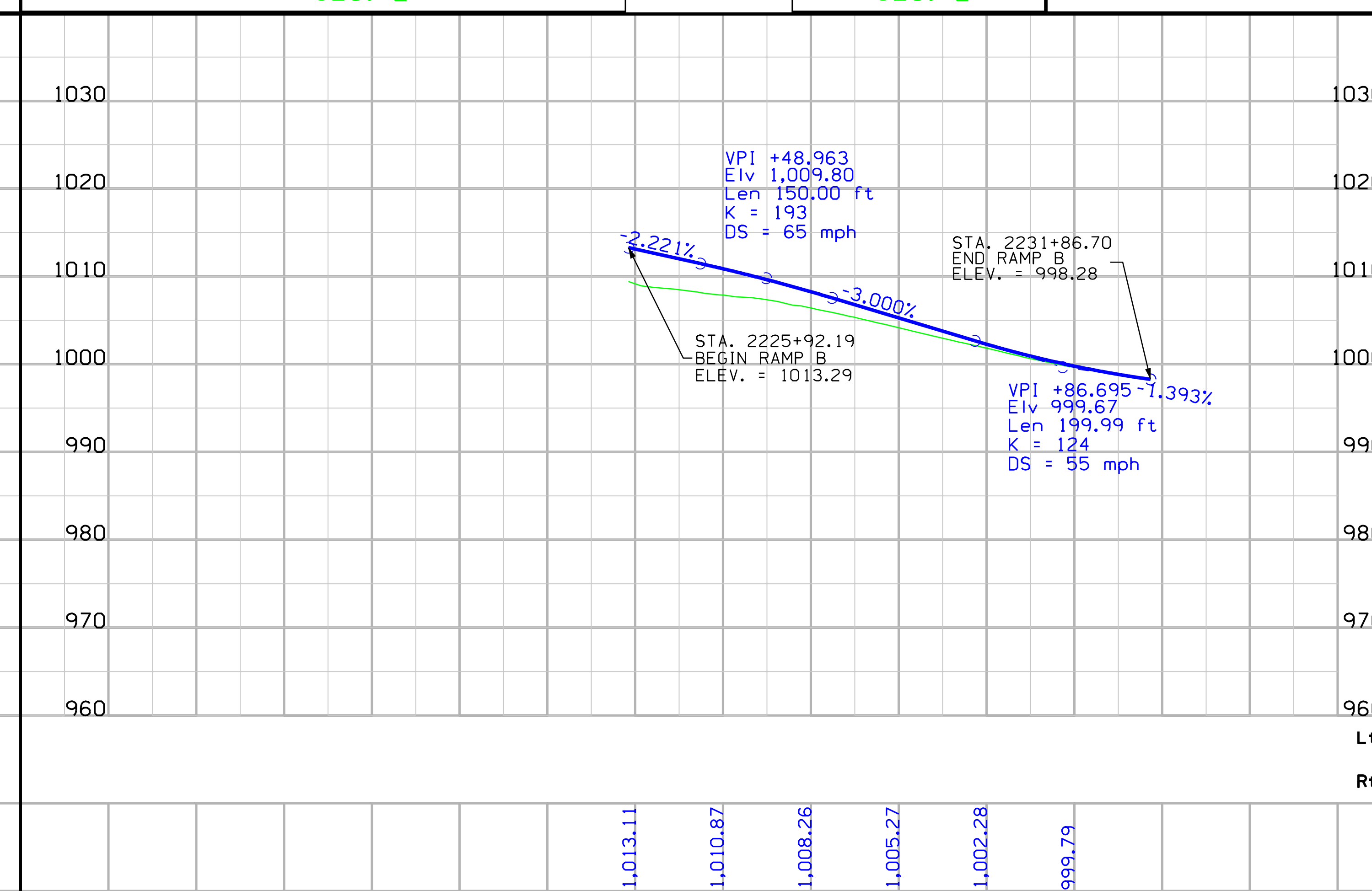
BOONE TWP.
T-78N R-26W
SEC. 2

0 FEET 100

BOONE TWP.
T-78N R-26W
SEC. 2

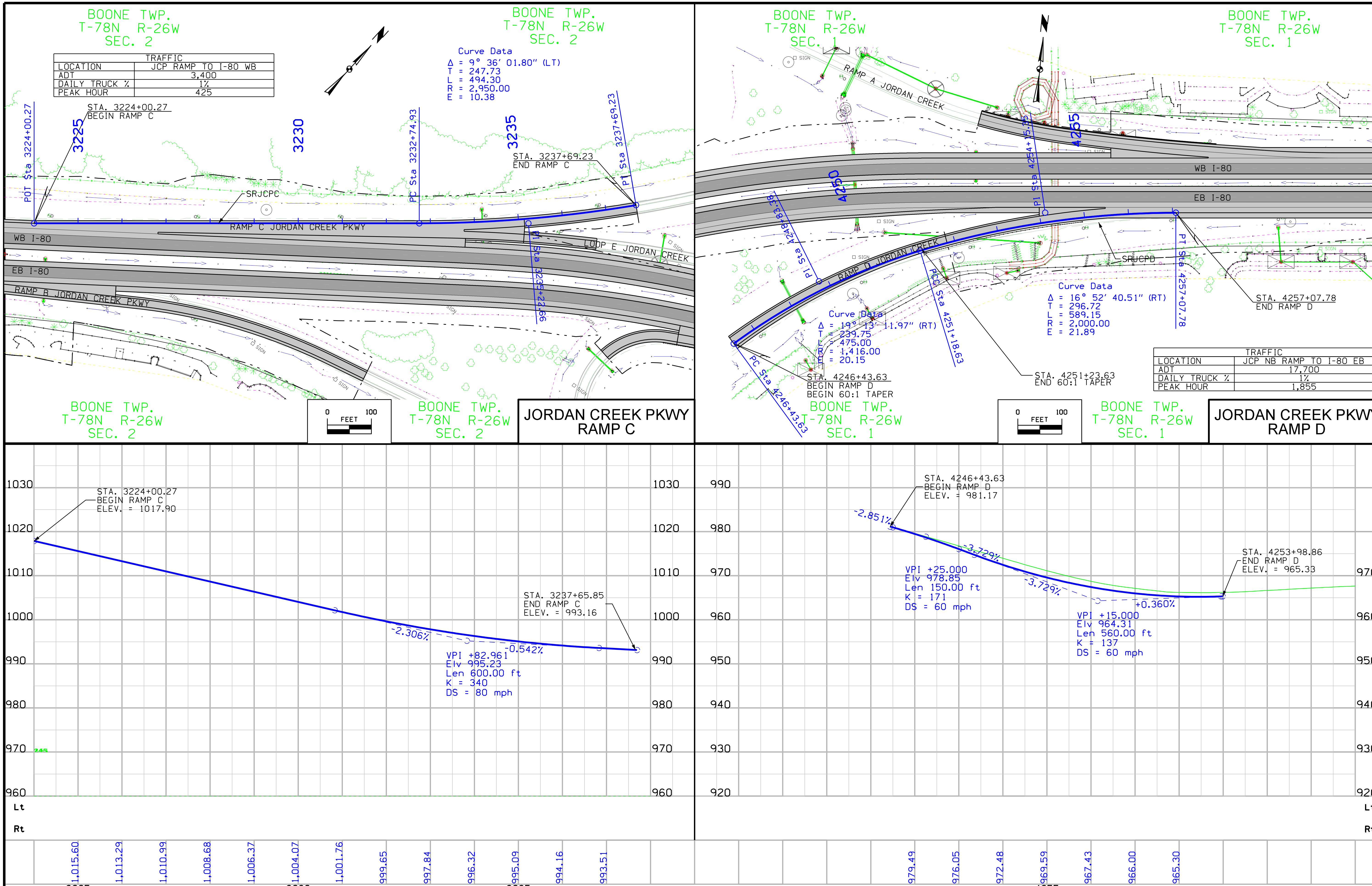
JORDAN CREEK PKWY RAMP B





FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER K.1

11:15:27 AM 6/10/2020 WWEGNER pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_K01.dgn


BOONE TWP.
T-78N R-26W
SEC. 2
Curve Data
Δ = 9° 36' 01.80" (LT)
T = 247.73
L = 494.30
R = 2,950.00
E = 10.38
STA. 3224+00.27
BEGIN RAMP C
POT Sta 3224+00.27
3225
3230
PC Sta 3232+74.93
3235
STA. 3237+69.23
END RAMP C
PT Sta 3237+69.23
SRJCPC
RAMP C JORDAN CREEK PKWY
WB I-80
EB I-80
LOOP E JORDAN CREEK
PI Sta 3235+22.66
RAMP B JORDAN CREEK PKWY
SIGN
FEET
0
100
JORDAN CREEK PKWY
RAMP C
BOONE TWP.
T-78N R-26W
SEC. 1
RAMP A JORDAN CREEK
4255
PI Sta 4254+15.35
WB I-80
EB I-80
4250
PI Sta 4248+83.38
RAMP D JORDAN CREEK
PCC Sta 4251+18.63
SRJCPD
Curve Data
Δ = 16° 52' 40.51" (RT)
T = 296.72
L = 589.15
R = 2,000.00
E = 21.89
PT Sta 4257+07.78
STA. 4257+07.78
END RAMP D
Curve Data
Δ = 19° 13' 11.97" (RT)
T = 239.75
L = 475.00
R = 1,416.00
E = 20.15
STA. 4246+43.63
BEGIN RAMP D
BEGIN 60:1 TAPER
STA. 4251+23.63
END 60:1 TAPER
PC Sta 4246+43.63
JORDAN CREEK PKWY
RAMP D
1030
1020
1010
1000
990
980
970
960
STA. 3224+00.27
BEGIN RAMP C
ELEV. = 1017.90
STA. 3237+65.85
END RAMP C
ELEV. = 993.16
-2.306%
-0.542%
VPI +82.961
Elv 995.23
Len 600.00 ft
K = 340
DS = 80 mph
Lt
Rt
1,015.60
1,013.29
1,010.99
1,008.68
1,006.37
1,004.07
1,001.76
999.65
997.84
996.32
995.09
994.16
993.51
3225
3230
3235
990
980
970
960
950
940
930
920
STA. 4246+43.63
BEGIN RAMP D
ELEV. = 981.17
-2.851%
-3.729%
-3.729%
+0.360%
VPI +25.000
Elv 978.85
Len 150.00 ft
K = 171
DS = 60 mph
VPI +15.000
Elv 964.31
Len 560.00 ft
K = 137
DS = 60 mph
STA. 4253+98.86
END RAMP D
ELEV. = 965.33
979.49
976.05
972.48
969.59
967.43
966.00
965.30
4255

TRAFFIC	
LOCATION	JCP RAMP TO I-80 WB
ADT	3,400
DAILY TRUCK %	1%
PEAK HOUR	425

TRAFFIC	
LOCATION	JCP NB RAMP TO I-80 EB
ADT	17,700
DAILY TRUCK %	1%
PEAK HOUR	1,855

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER K.2

11:16:13 AM 6/10/2020 WWEGNER pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_K01.dgn

BOONE TWP.
T-78N R-26W
SEC. 2

BOONE TWP.
T-78N R-26W
SEC. 2

TRAFFIC	
LOCATION	JCP RAMP TO I-80 WB
ADT	3,400
DAILY TRUCK %	1%
PEAK HOUR	425

POT Sta 5224+00.27

STA. 5236+78.88
END LOOP E

5225

5230

5235

SRJCPE

RAMP C JORDAN CREEK PKWY

LOOP E JORDAN CREEK PKWY

PCI Sta 5233+33.90

PT Sta 5235+78.88

Curve Data
Δ = 5° 37' 18.02" (RT)
T = 172.63
L = 344.98
R = 3,516.00
E = 4.24

STA. 5224+00.27
BEGIN LOOP E

RAMP B JORDAN CREEK PKWY

BOONE TWP.
T-78N R-26W
SEC. 2

BOONE TWP.
T-78N R-26W
SEC. 2

0 100 FEET

JORDAN CREEK PKWY
LOOP E

BOONE TWP.
T-78N R-26W
SEC. 2

BOONE TWP.
T-78N R-26W
SEC. 2

POT Sta 6237+78.33

PCI Sta 6238+06.31

PT Sta 6238+61.39

POT Sta 6238+87.43

SRJCPF

STA. 6237+18.33
BEGIN LOOP F

LOOP F JORDAN CREEK PKWY

WB I-80

EB I-80

LOOP E JORDAN CREEK PKWY

JORDAN CREEK PKWY

TRAFFIC	
LOCATION	JCP SB LOOP TO I-80 EB
ADT	8,800
DAILY TRUCK %	1%
PEAK HOUR	870

STA. 6238+87.43
END LOOP F

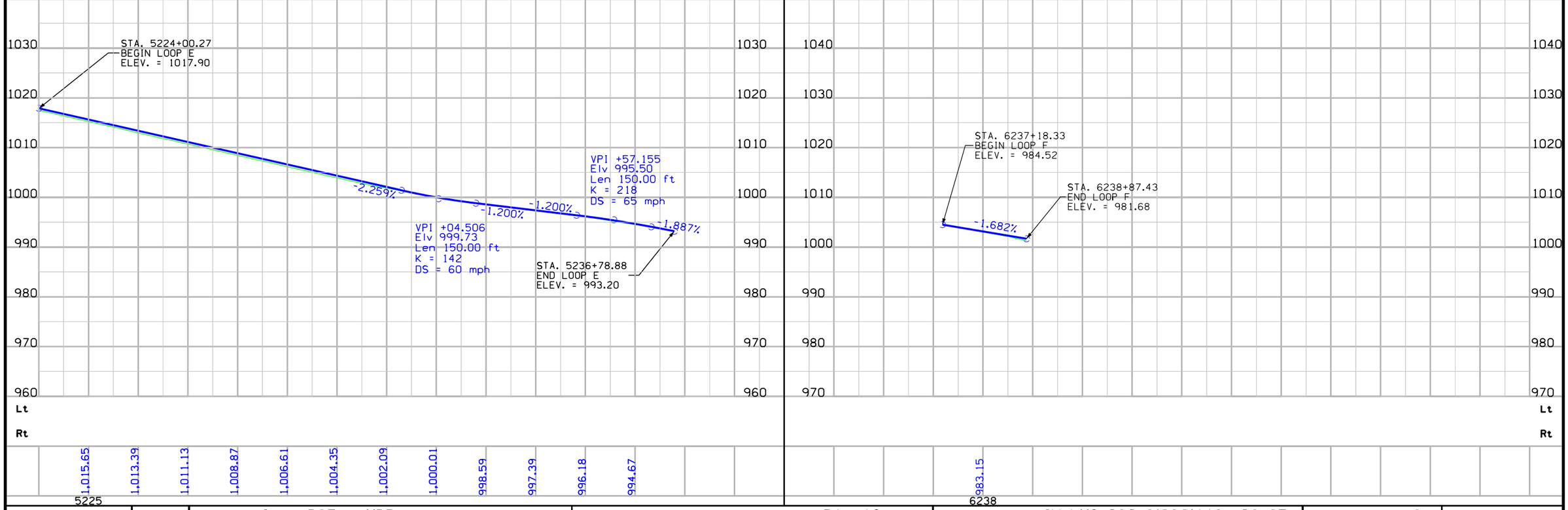
Curve Data
Δ = 51° 25' 30.37" (RT)
T = 77.05
L = 143.61
R = 160.00
E = 17.58

BOONE TWP.
T-78N R-26W
SEC. 2

BOONE TWP.
T-78N R-26W
SEC. 1

0 100 FEET

JORDAN CREEK PKWY
LOOP F



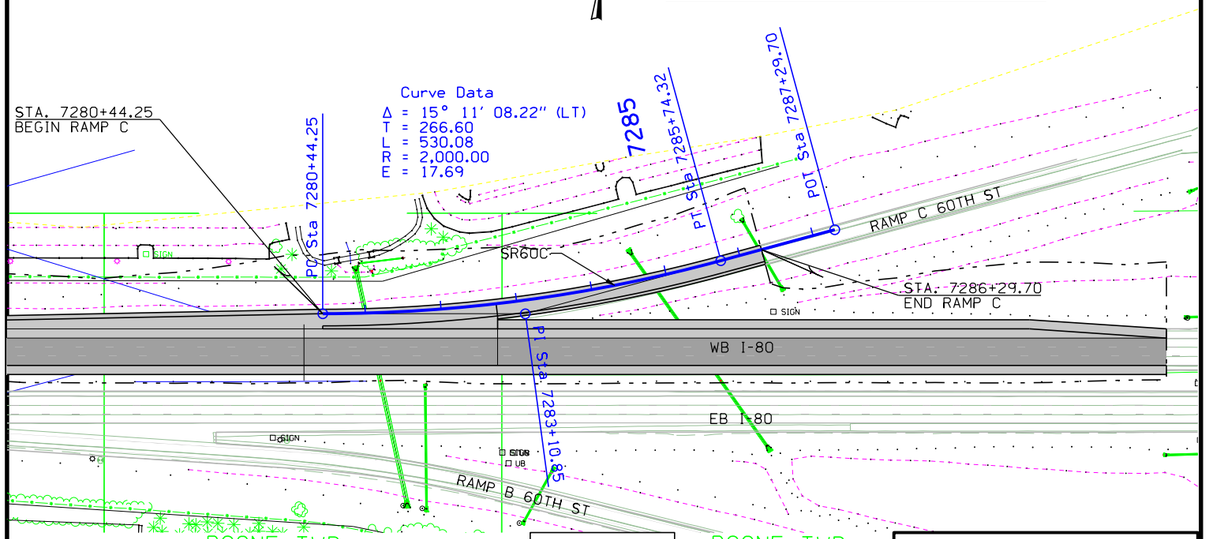
FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER K.3

4:04:22 PM 6/8/2020 WBEHREND pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_K01.dgn

BOONE TWP.
T-78N R-26W
SEC. 1

BOONE TWP.
T-78N R-26W
SEC. 1

TRAFFIC	
LOCATION	60TH ST RAMP TO I-80 WB
ADT	2,700
DAILY TRUCK %	1%
PEAK HOUR	370

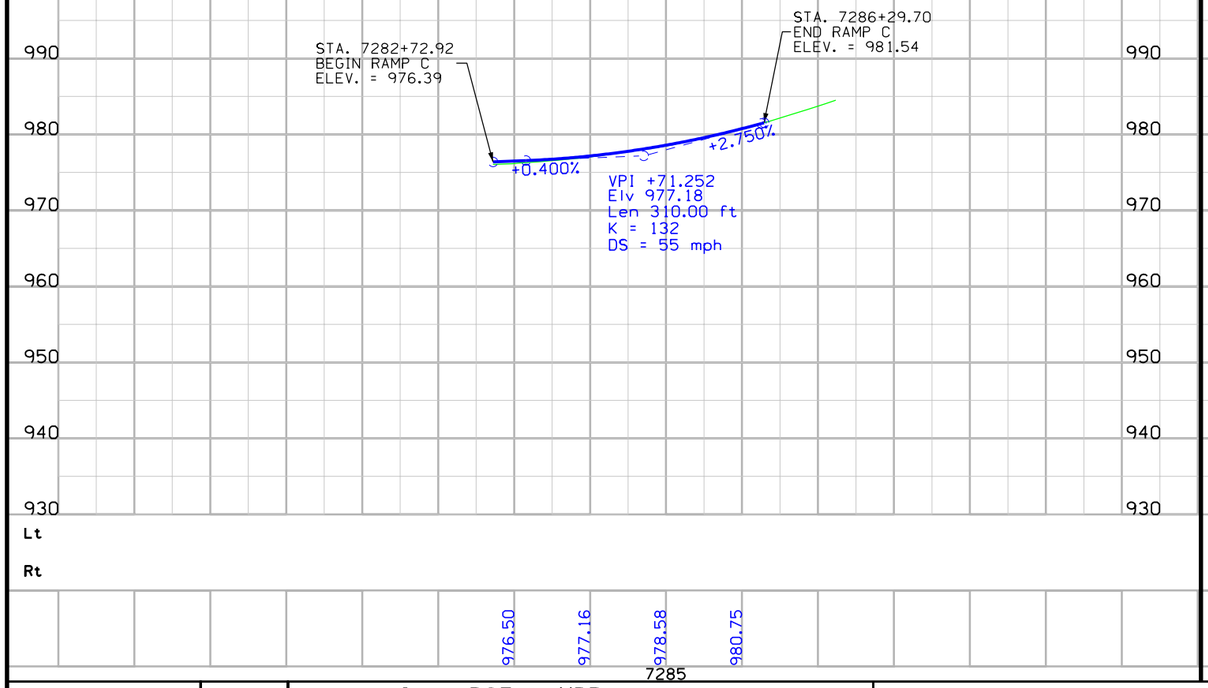


BOONE TWP.
T-78N R-26W
SEC. 1

0 100
FEET

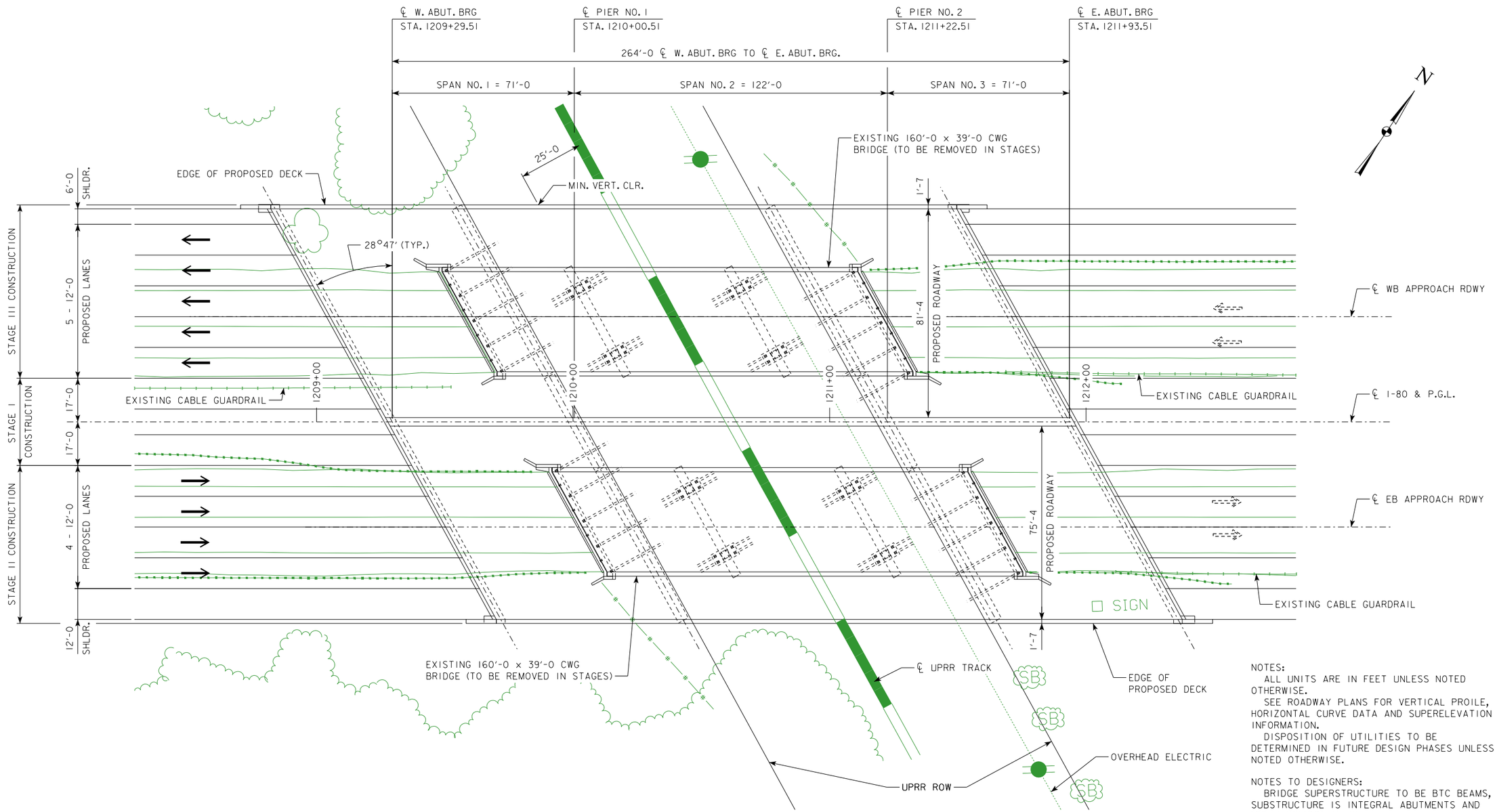
BOONE TWP.
T-78N R-26W
SEC. 1

SR60 RAMP C



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER K.4

4:04:33 PM 6/8/2020 WBEHREND pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_K01.dgn



NOTES:
ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
SEE ROADWAY PLANS FOR VERTICAL PROILE, HORIZONTAL CURVE DATA AND SUPERELEVATION INFORMATION.
DISPOSITION OF UTILITIES TO BE DETERMINED IN FUTURE DESIGN PHASES UNLESS NOTED OTHERWISE.

NOTES TO DESIGNERS:
BRIDGE SUPERSTRUCTURE TO BE BTC BEAMS, SUBSTRUCTURE IS INTEGRAL ABUTMENTS AND MULTI-COLUMN PIERS.
BRIDGES TO BE CONSTRUCTED IN STAGES.

BRIDGE PLAN - I-80 EB & WB OVER U.P.R.R.

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION = 1209+86.51, OFFSET 84'-7 LT.
OVERHEAD ELEVATION = 1041.44
DEPTH OF SUPERSTRUCTURE = 4'-11
UNDERPASS ELEVATION = 1012.72
MINIMUM VERTICAL CLEARANCE = 23'-9

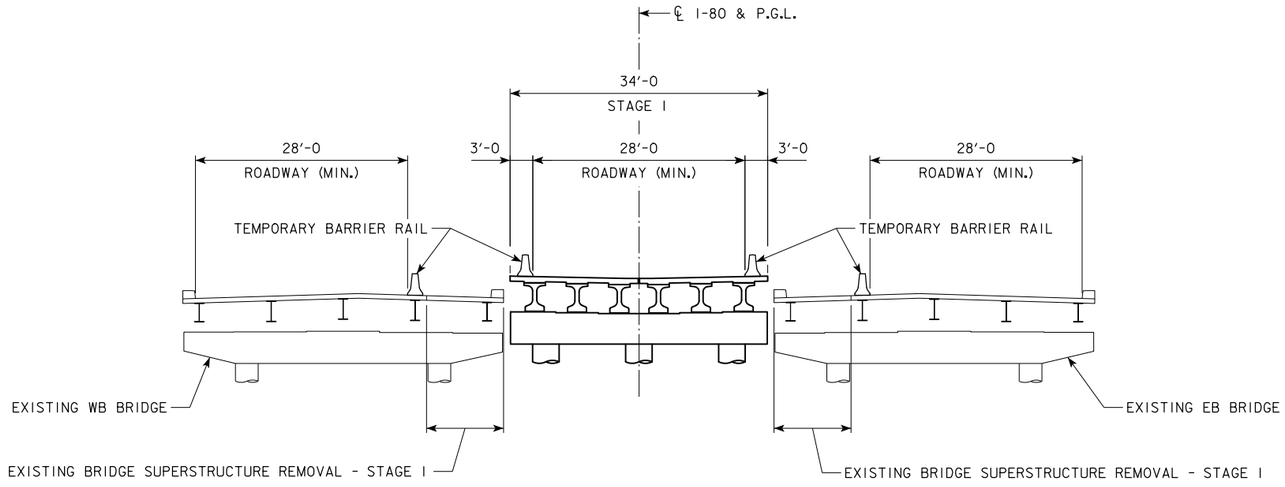
0 ENGLISH 40
SCALE IN FEET

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

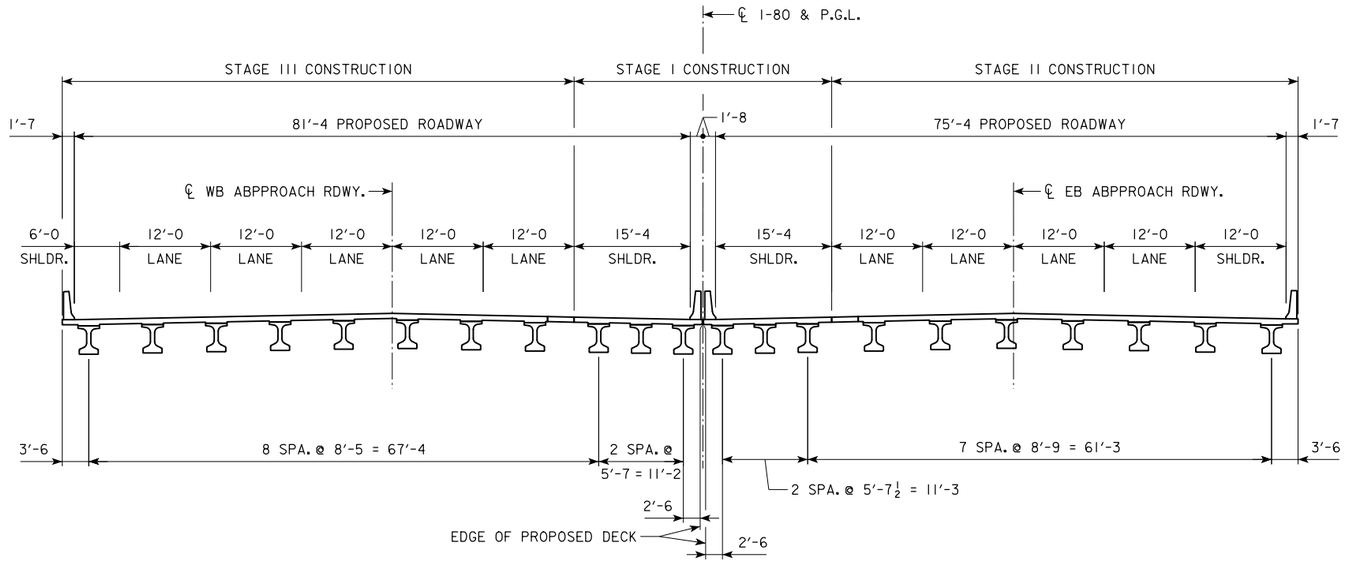
264'-0 X 75'-4 (EB), 264'-0 X 81'-4 (WB)
PPCB BRIDGES
BRIDGE PLAN
I-80 E.B. & W.B. OVER UPRR
DALLAS COUNTY
JUNE 2020
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN TEAM HDR | DALLAS COUNTY | SHEET NUMBER V.1

8:20:55 AM ESORENS c:\pwworking\central01\d1611090\STR_25080PPP_HDR_Z08.dgn



PROPOSED STAGE I - TYPICAL SECTION



PROPOSED ULTIMATE TYPICAL SECTION

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

264'-0 X 75'-4 (EB), 264'-0 X 81'-4 (WB) PPCB BRIDGES
BRIDGE SECTIONS
I-80 E.B. & W.B. OVER UPRR
DALLAS COUNTY

JUNE 2020

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

LINE STYLE LEGEND OF CROSS SECTION SHEETS (ROAD)

- Theoretical Levee Protection
- Existing Ground Line
- Proposed Template
- Proposed Topsoil Placement
- Additional Topsoil Removal
- Subgrade Treatment
- Granular Shoulder
- Pavement
- Existing Pipe\RCB
- Proposed Pipe\RCB
- Proposed Dike
- All Elements Associated with Proposed Entrances

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

- TS — Topsoil (Class 10)
- SLOPE DRESSING — Slope Dressing Only
- CL 10 — Class 10 Materials
- SEL LO — Select Loams And Clay-Loams
- SEL SA — Select Sand
- UNS A — Unsuitable Type A Disposal
- UNS B — Unsuitable Type B Disposal
- UNS C — Unsuitable Type C Disposal
- SHALE — Shale
- WASTE — Waste
- B&W LS — Broken and Weathered Rock
- ROCK — Solid Rock
- BLDRS — Boulders

Note: All layer lines and descriptions identify layers above the line.

Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

SYMBOL LEGEND OF CROSS SECTION SHEETS

Existing ROW — Existing Right-of-Way Limit

Proposed ROW — Proposed Right-of-Way Limit

Temporary ROW — Temporary Right-of-Way Limit

CROSS SECTION LEGEND AND SYMBOL INFORMATION SHEET

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

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1010
1000
990

Existing ROW
1006.97
-134.49
996.36
-102.67
996.36
-97.67
998.27
-91.00
998.87
-87.40
999.53
-61.00
1001.66
-49.00
999.83
-49.00
1001.90
-37.00
999.61
-1.26

1142+00.00

1010
1000
990

Existing ROW
1004.37
-132.78
994.34
-102.67
994.34
-97.67
996.25
-91.00
996.85
-87.40
997.51
-61.00
999.64
-49.00
997.81
-49.00
999.88
-37.00
997.61
-1.40

1141+00.00

1010
1000
990
980

Existing ROW
997.37
-117.80
992.33
-102.67
992.33
-97.67
994.24
-91.00
994.84
-87.40
995.50
-61.00
997.63
-49.00
995.80
-49.00
997.87
-37.00
995.61
-1.45

1140+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.2

9:57:37 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1020
1010
1000

Existing ROW

1146+00.00

1014.55
-133.31
1004.34
-102.67
1004.34
-97.67
1006.25
-41.00
1006.85
-87.40
1007.51
-61.00
1009.64
-49.00
1007.81
-49.00
1009.88
-37.00
1007.61
-1.39

1014.03
-137.82
1002.32
-102.67
1002.32
-97.67
1004.22
-41.00
1004.82
-87.40
1005.48
-61.00
1007.62
-49.00
1005.78
-49.00
1007.86
-37.00
1005.61
-1.53

1145+00.00

1011.55
-136.48
1000.28
-102.67
1000.28
-97.67
1002.19
-41.00
1002.79
-87.40
1003.45
-61.00
1005.58
-49.00
1003.75
-49.00
1005.82
-37.00
1003.61
-1.74

1144+00.00

1009.25
-135.44
998.32
-102.67
998.32
-97.67
1000.23
-41.00
1000.83
-87.40
1001.49
-61.00
1003.62
-49.00
1001.79
-49.00
1003.86
-37.00
1001.61
-1.49

1143+00.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.3

9:57:37 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1020
1010

Existing ROW

1019.24
-130.43
1011.66
-107.67
1011.66
-9.76
1013.56
41.00
1014.16
87.40
1014.82
-61.00
1015.12
-49.00
1016.96
49.00
1017.20
37.00
1015.10
-2.39

1150+00.00

Existing ROW

1017.56
-129.94
1010.14
-107.67
1010.14
-9.76
1012.05
41.00
1012.65
87.40
1013.31
-61.00
1013.61
-49.00
1015.44
49.00
1015.68
37.00
1013.48
-1.81

1149+00.00

Existing ROW

1016.94
-128.31
1008.39
-102.87
1008.39
-9.67
1010.30
41.00
1010.90
87.40
1011.56
-61.00
1011.86
-49.00
1013.69
49.00
1013.93
37.00
1011.61
-1.07

1148+00.00

Existing ROW

1016.31
-132.45
1006.39
-102.87
1006.39
-9.67
1008.30
41.00
1008.90
87.40
1009.56
-61.00
1009.86
-49.00
1011.69
49.00
1011.93
37.00
1009.61
-1.08

1147+00.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.4

9:57:38 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1030 1020 1010

Existing ROW

1025.42 -137.88 | 1015.32 -107.67 | 1015.32 -97.67 | 1017.22 -91.00 | 1017.82 -87.40 | 1018.48 -61.00 | 1020.62 -49.00 | 1018.78 -48.00 | 1020.86 -37.00 | 1018.96 -3.64

1154+00.00

Existing ROW

1025.21 -138.49 | 1014.77 -107.67 | 1014.77 -97.67 | 1016.67 -91.00 | 1017.27 -87.40 | 1017.93 -61.00 | 1020.07 -49.00 | 1018.23 -48.00 | 1020.31 -37.00 | 1018.38 -3.45

1153+00.00

Existing ROW

1023.22 -135.32 | 1014.01 -107.67 | 1014.01 -97.67 | 1015.91 -91.00 | 1016.51 -87.40 | 1017.17 -61.00 | 1019.31 -49.00 | 1017.47 -48.00 | 1019.55 -37.00 | 1017.55 -3.00

1152+00.00

Existing ROW

1020.94 -131.73 | 1012.92 -107.67 | 1012.92 -97.67 | 1014.83 -91.00 | 1015.43 -87.40 | 1016.09 -61.00 | 1018.22 -49.00 | 1016.39 -48.00 | 1018.46 -37.00 | 1016.45 -2.93

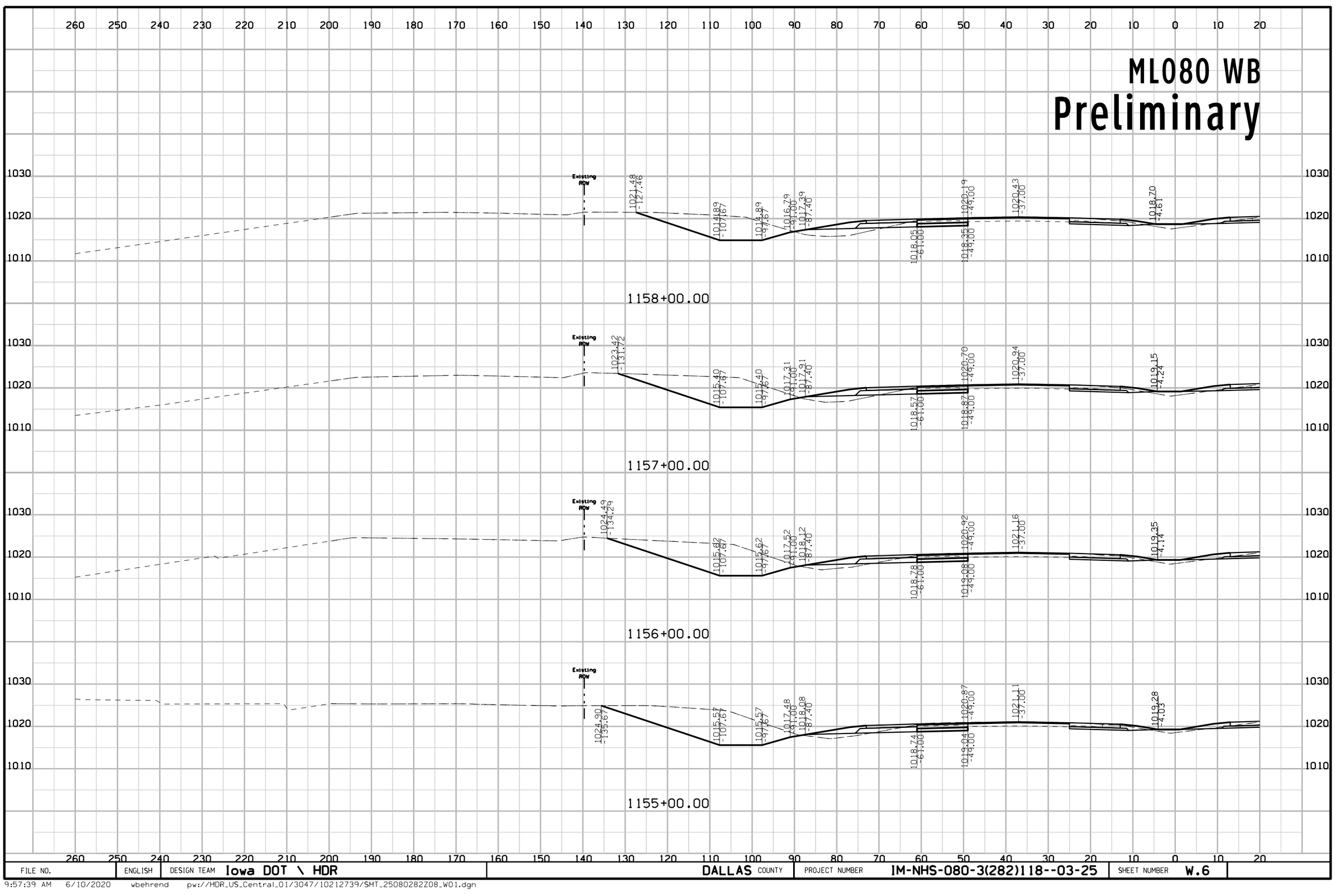
1151+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.5

9:57:38 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

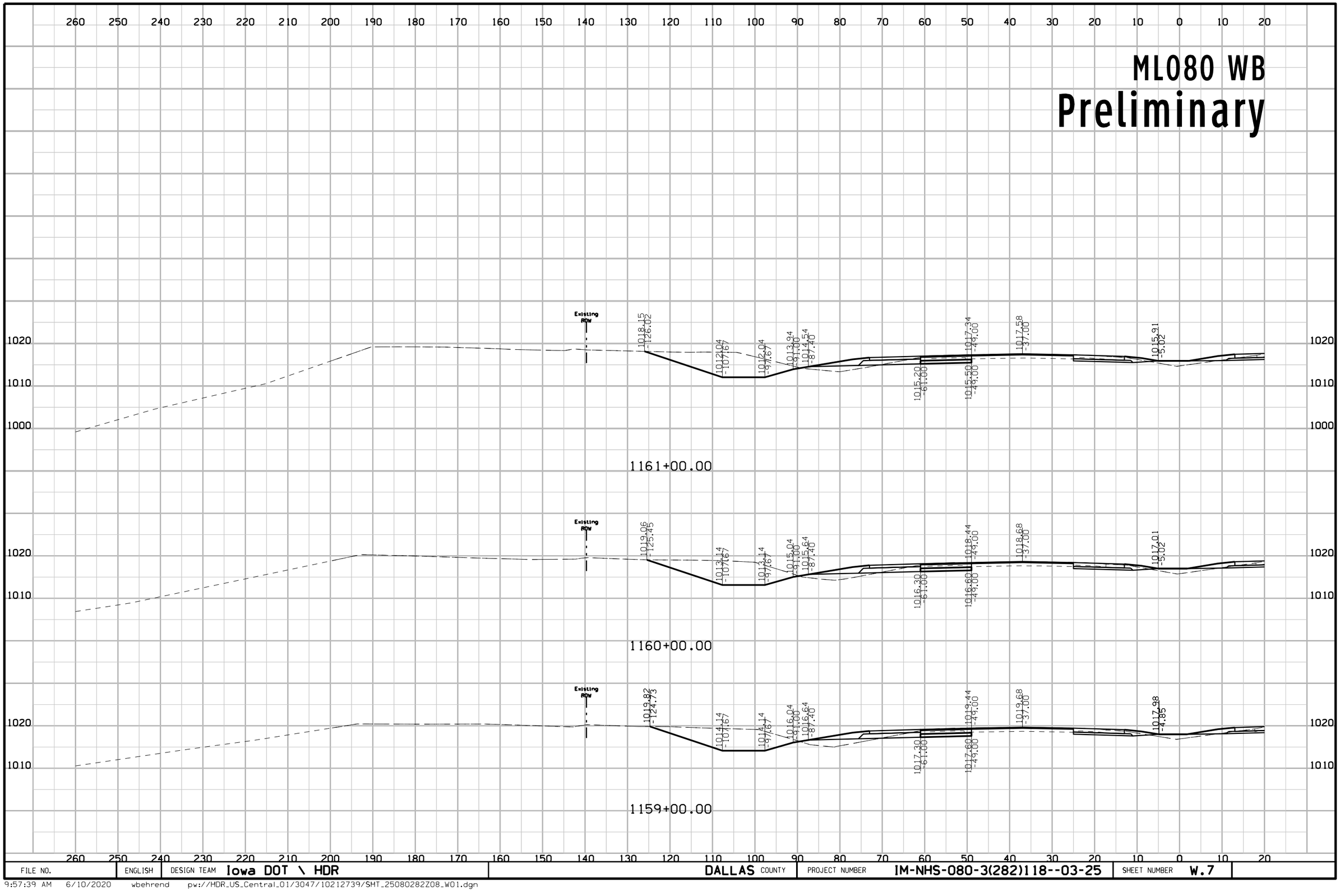
ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.6

9:57:39 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.7

9:57:39 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1030
1020
1010

1030.02
-171.37

1008.79
-107.67

1008.79
-97.67

1010.70
-91.00

1011.30
-87.40

1011.96
-61.00

1012.26
-49.00

1014.09
-49.00

1014.33
-37.00

1012.61
-4.69

1164+00.00

1030
1020
1010

1018.33
-133.06

1009.87
-107.67

1009.87
-97.67

1011.77
-91.00

1012.37
-87.40

1013.03
-61.00

1013.33
-49.00

1015.17
-49.00

1015.41
-37.00

1013.71
-4.83

1163+00.00

1020
1010
1000
990

Existing ROW

1017.29
-126.75

1010.93
-107.67

1010.93
-97.67

1012.83
-91.00

1013.43
-87.40

1014.09
-61.00

1014.39
-49.00

1016.23
-49.00

1016.47
-37.00

1014.81
-5.07

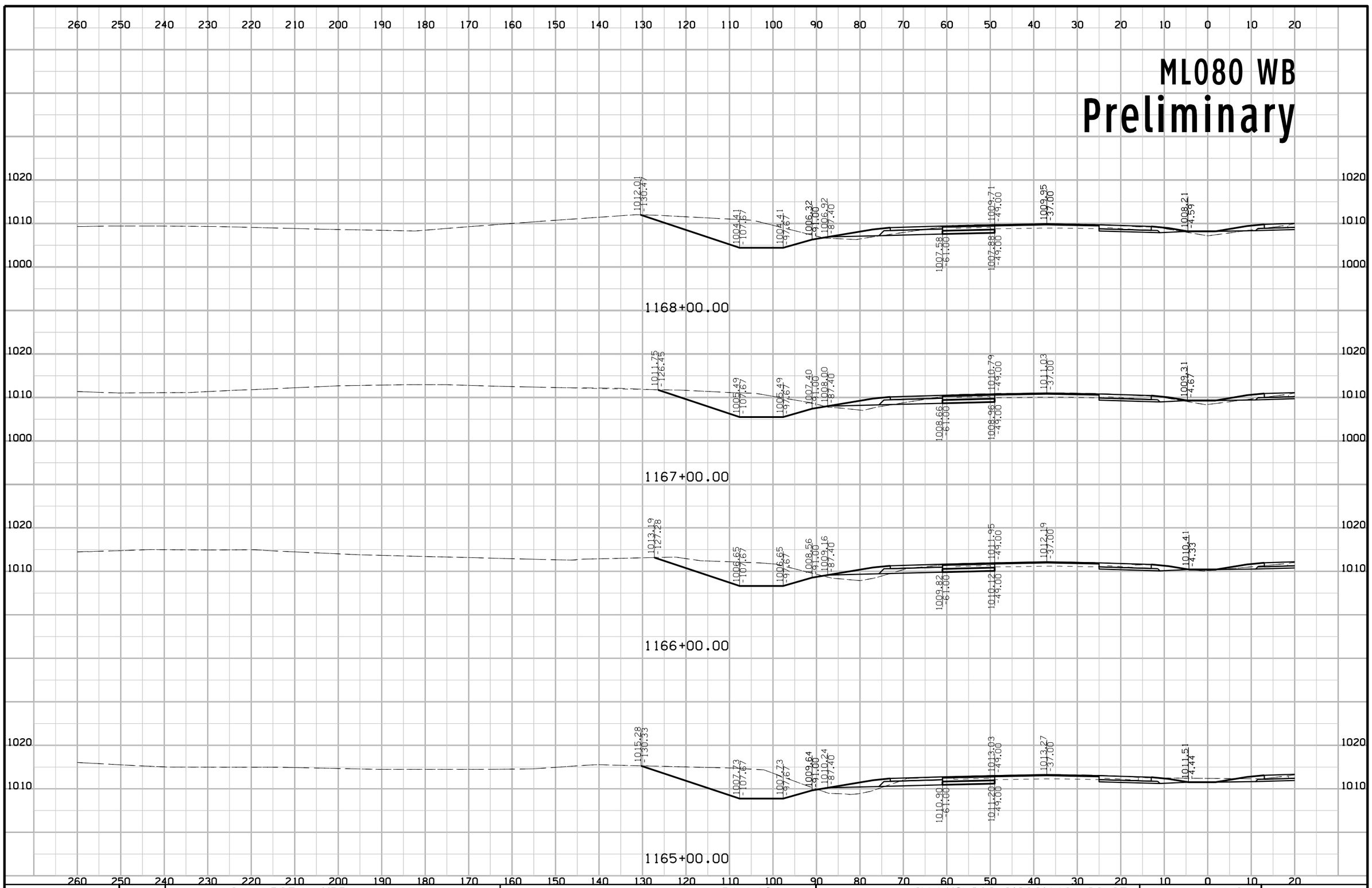
1162+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.8

9:57:40 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.9

9:57:40 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1010
1000

1002.78
-115.96
1000.91
-107.67
1000.91
-97.67
1001.92
-91.00
1002.52
-87.40
1003.18
-61.00
1003.48
-49.00
1005.31
-49.00
1005.55
-37.00
1003.81
-4.56

1172+00.00

1003.92
-116.00
1001.14
-107.67
1001.14
-97.67
1003.05
-91.00
1003.65
-87.40
1004.31
-61.00
1004.61
-49.00
1006.44
-49.00
1006.68
-37.00
1004.91
-4.38

1171+00.00

1004.97
-115.87
1002.24
-107.67
1002.24
-97.67
1004.14
-91.00
1004.74
-87.40
1005.40
-61.00
1005.70
-49.00
1007.54
-49.00
1007.78
-37.00
1006.01
-4.42

1170+00.00

1008.46
-123.10
1003.32
-107.67
1003.32
-97.67
1005.23
-91.00
1005.83
-87.40
1006.49
-61.00
1006.79
-49.00
1008.62
-49.00
1008.86
-37.00
1007.11
-4.51

1169+00.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.10

9:57:41 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1010
1000
990

999.15
-118.18
995.65
-107.67
995.65
-97.67
997.55
-91.00
998.15
-87.40
998.81
-61.00
999.11
-49.00
1000.95
-49.00
1001.19
-37.00
999.41
-4.35

1176+00.00

1010
1000

1001.14
-126.81
996.76
-107.67
996.76
-97.67
998.66
-91.00
999.26
-87.40
999.92
-61.00
1000.22
-49.00
1002.06
-49.00
1002.30
-37.00
1000.51
-4.30

1175+00.00

1010
1000

1002.26
-126.75
997.90
-107.67
997.90
-97.67
999.81
-91.00
1000.41
-87.40
1001.07
-61.00
1001.37
-49.00
1003.20
-49.00
1003.44
-37.00
1001.61
-4.02

1174+00.00

1010
1000

1002.20
-117.41
998.96
-107.67
998.96
-97.67
1000.86
-91.00
1001.46
-87.40
1002.12
-61.00
1002.42
-49.00
1004.26
-49.00
1004.50
-37.00
1002.71
-4.24

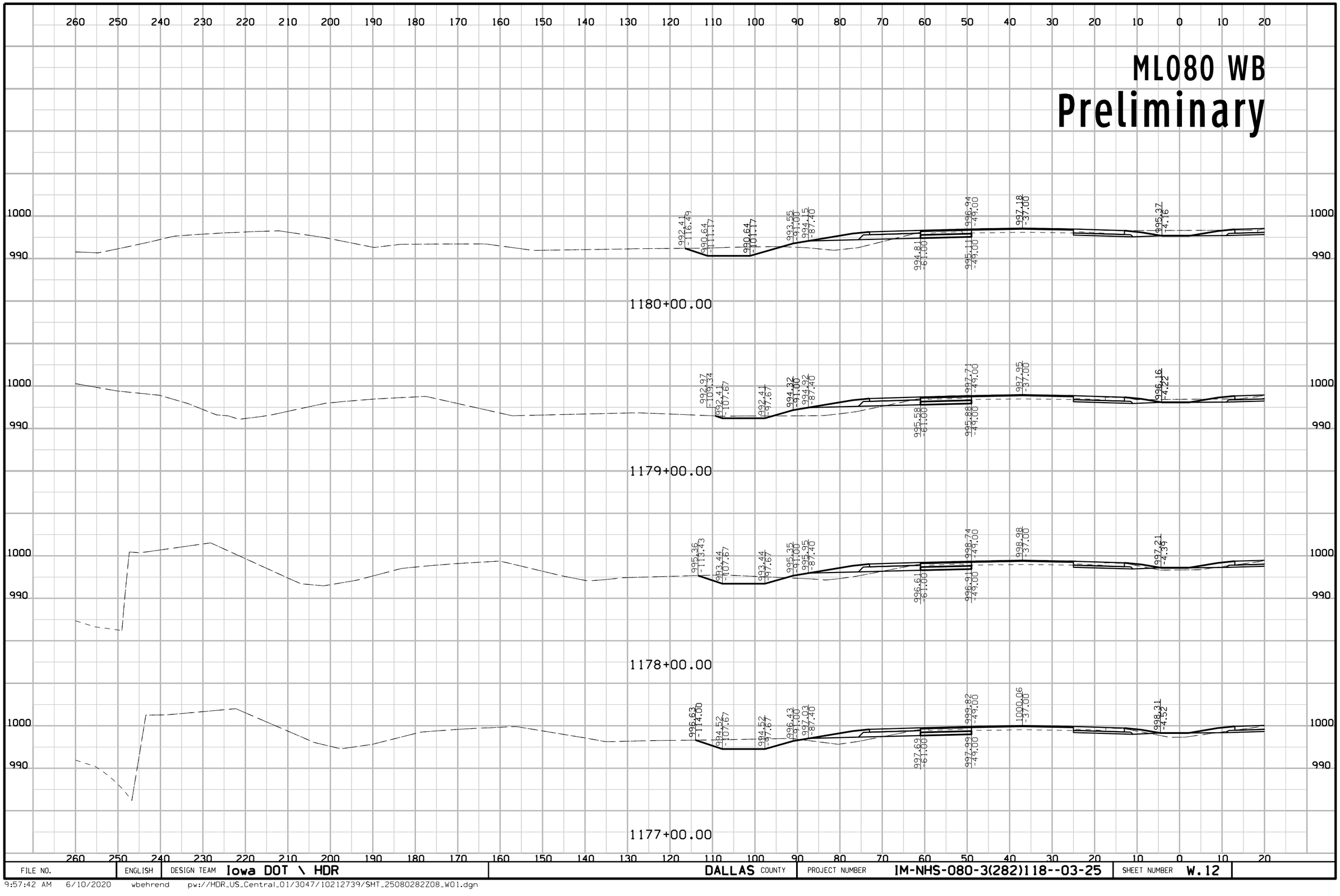
1173+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.11

9:57:41 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.12

9:57:42 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1000
990

997.54
-122.87
992.54
-107.67
992.54
-97.67
994.45
-91.00
995.05
-87.40
995.71
-61.00
996.01
-49.00
997.84
-49.00
998.08
-37.00
995.95
-2.19

1185+00.00

993.85
-113.89
991.78
-107.67
991.78
-97.67
993.69
-91.00
994.29
-87.40
994.95
-61.00
995.25
-49.00
997.08
-49.00
997.32
-37.00
995.23
-2.47

1184+00.00

991.72
-115.36
990.32
-111.17
990.32
-101.17
993.23
-91.00
993.83
-87.40
994.49
-61.00
994.79
-49.00
996.62
-49.00
996.86
-37.00
994.82
-2.75

1183+00.00

990.86
-113.33
990.14
-111.17
990.14
-101.17
993.05
-91.00
993.65
-87.40
994.31
-61.00
994.61
-49.00
996.44
-49.00
996.68
-37.00
994.70
-3.12

1182+00.00

991.28
-114.21
990.27
-111.17
990.27
-101.17
993.18
-91.00
993.78
-87.40
994.44
-61.00
994.74
-49.00
996.57
-49.00
996.81
-37.00
994.89
-3.47

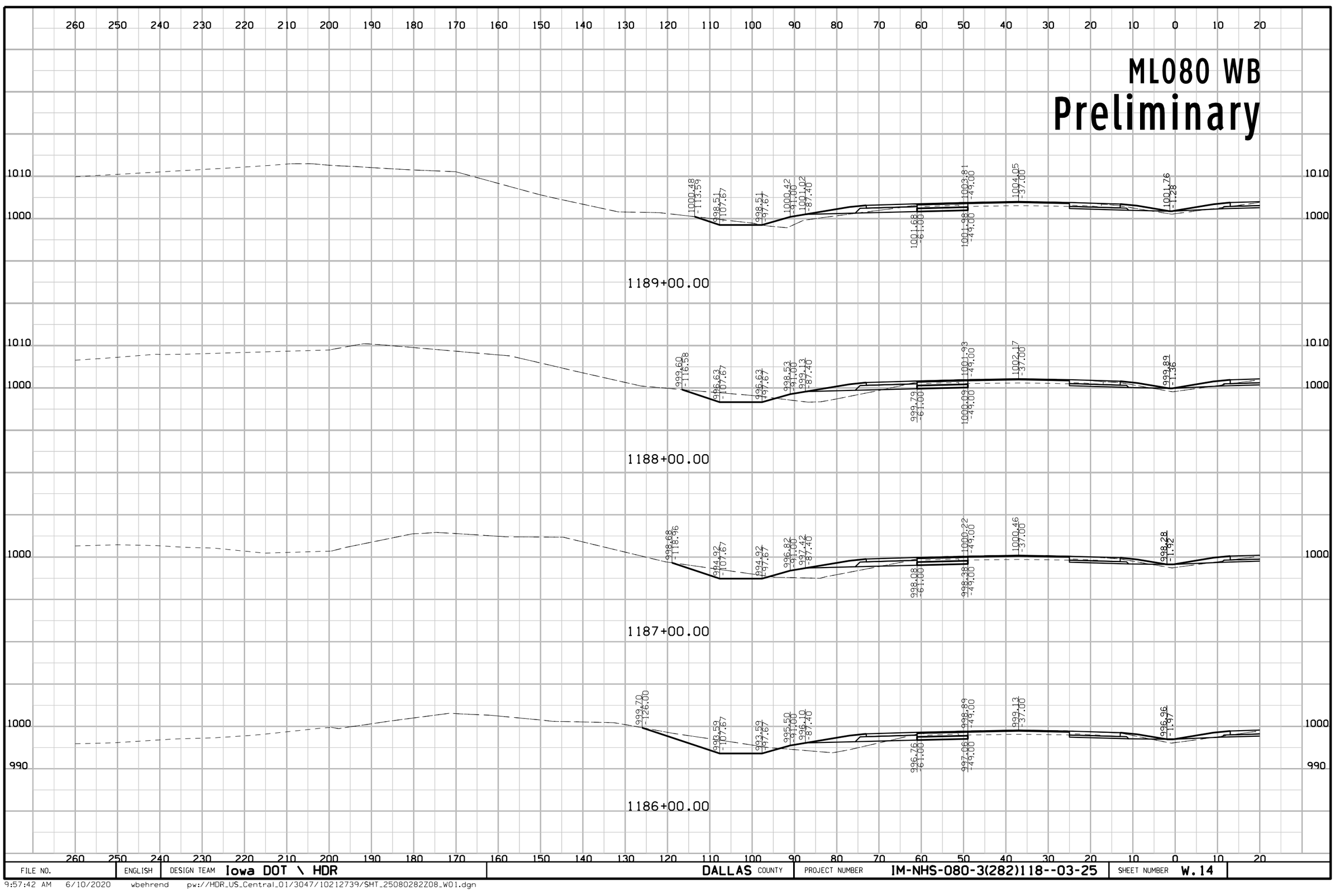
1181+00.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.13

9:57:42 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.14

9:57:42 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1020
1010
1000

1004.47
-125.38
1001.60
-116.76
1001.60
-106.76
1006.10
-91.00
1005.70
-87.40
1007.36
-61.00
1009.49
-49.00
1009.73
-37.00
1007.46
-1.38

1192+00.00

1010
1000

1002.58
-119.73
1000.57
-113.73
1000.57
-103.73
1004.21
-91.00
1004.81
-87.40
1005.47
-61.00
1007.61
-49.00
1007.85
-37.00
1005.56
-1.31

1191+00.00

1010
1000

1001.65
-116.99
999.56
-110.70
999.56
-100.70
1002.33
-91.00
1002.93
-87.40
1003.59
-61.00
1005.72
-49.00
1005.96
-37.00
1003.66
-1.21

1190+00.00

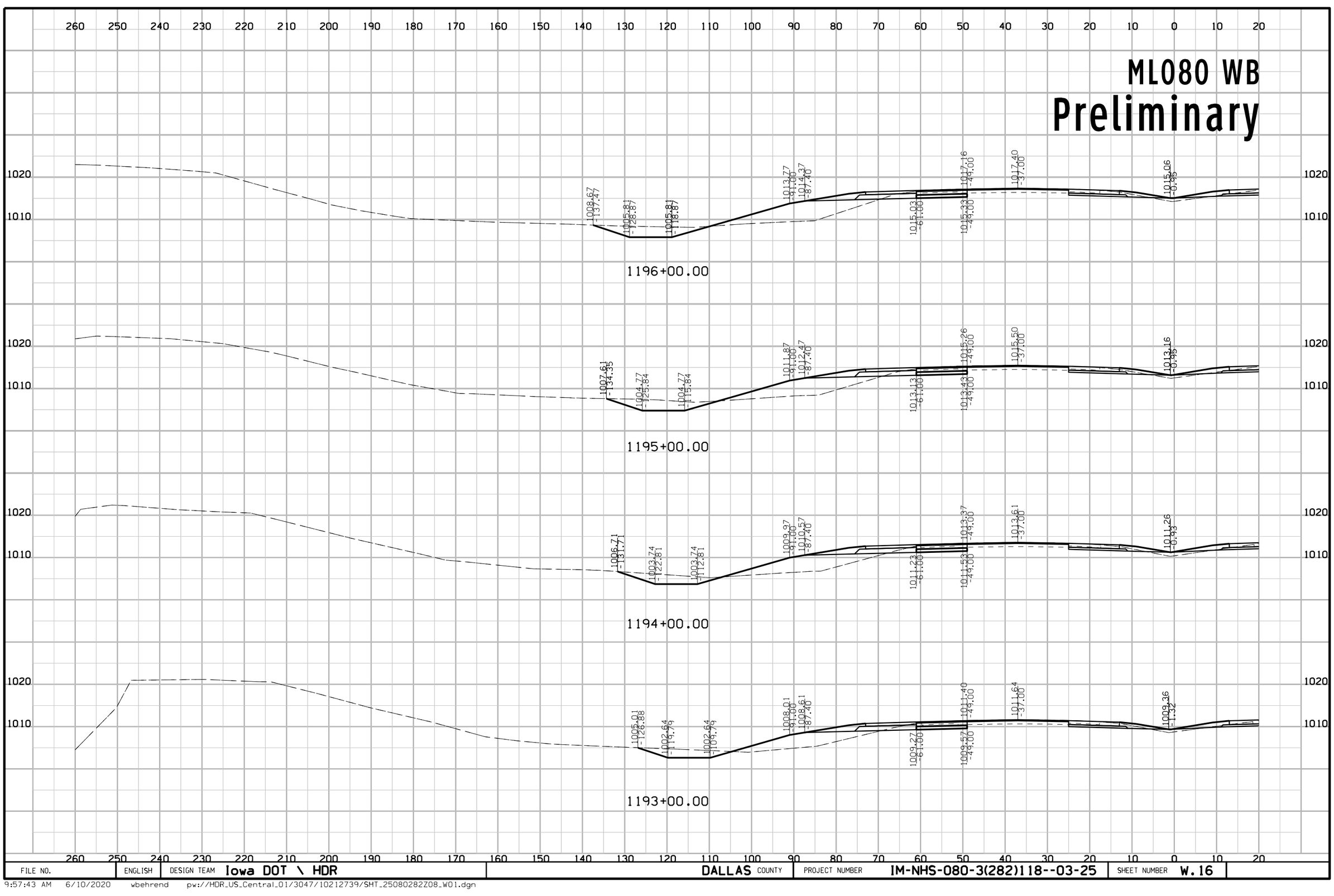
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.15

9:57:43 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.16

9:57:43 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1030 1020 1010 1000

1017.87 -174.33 | 1008.43 -146.02 | 1008.43 -136.02 | 1017.29 -105.00 | 1018.69 -96.63 | 1019.64 -65.00 | 1022.59 -41.00 | 1020.18 -41.00 | 1019.64 -17.00

1199+00.00

1020 1010

1011.74 -149.30 | 1008.43 -139.38 | 1008.43 -129.38 | 1015.39 -105.00 | 1016.79 -96.63 | 1017.74 -65.00 | 1020.69 -41.00 | 1018.28 -41.00 | 1017.74 -17.00

1198+00.00

1020 1010

1010.37 -142.32 | 1006.89 -131.90 | 1006.89 -121.90 | 1015.72 -91.00 | 1016.32 -87.40 | 1016.98 -61.00 | 1019.12 -49.00 | 1017.28 -49.00 | 1019.36 -37.00 | 1016.96 -0.64

1197+00.00

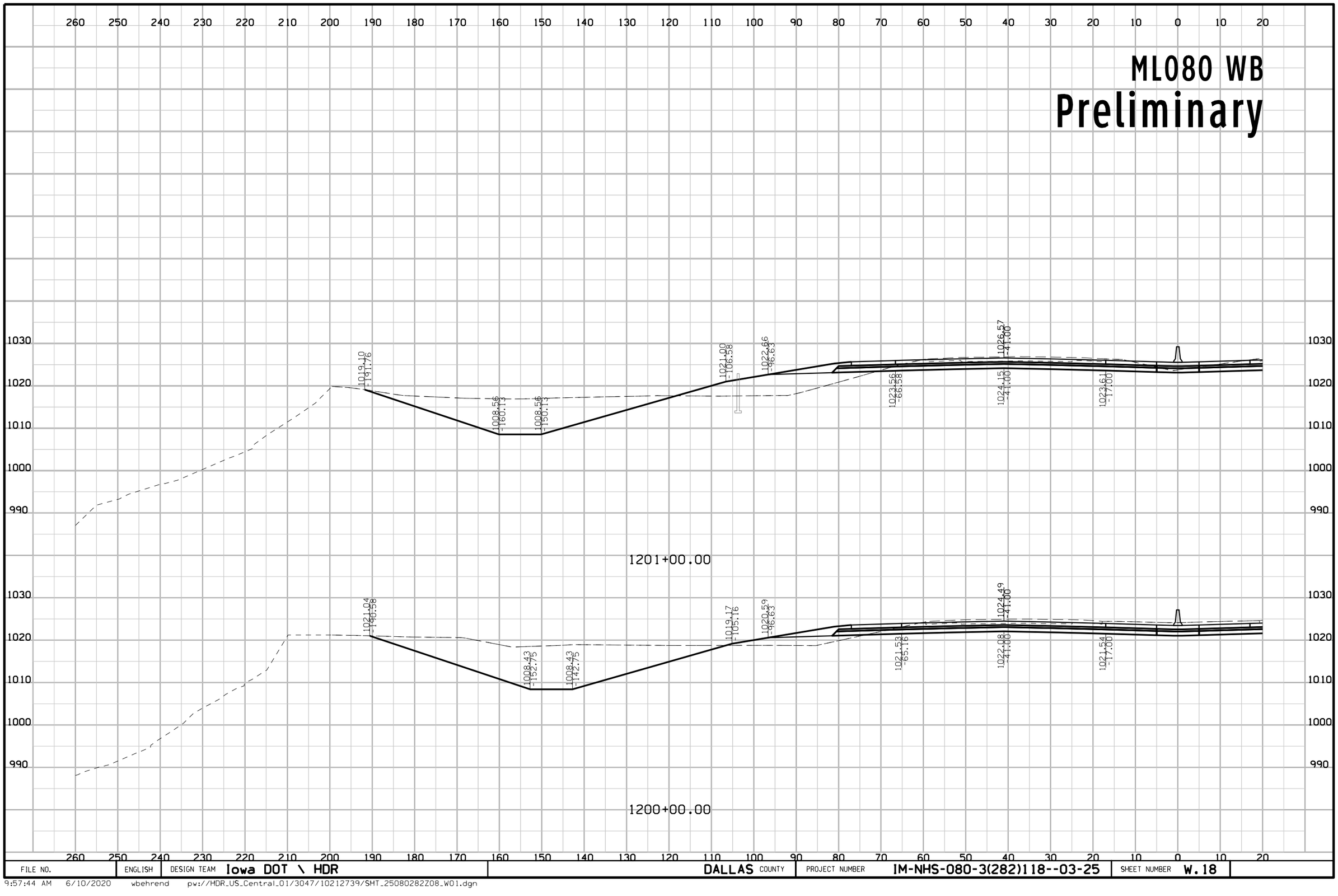
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.17

9:57:44 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary

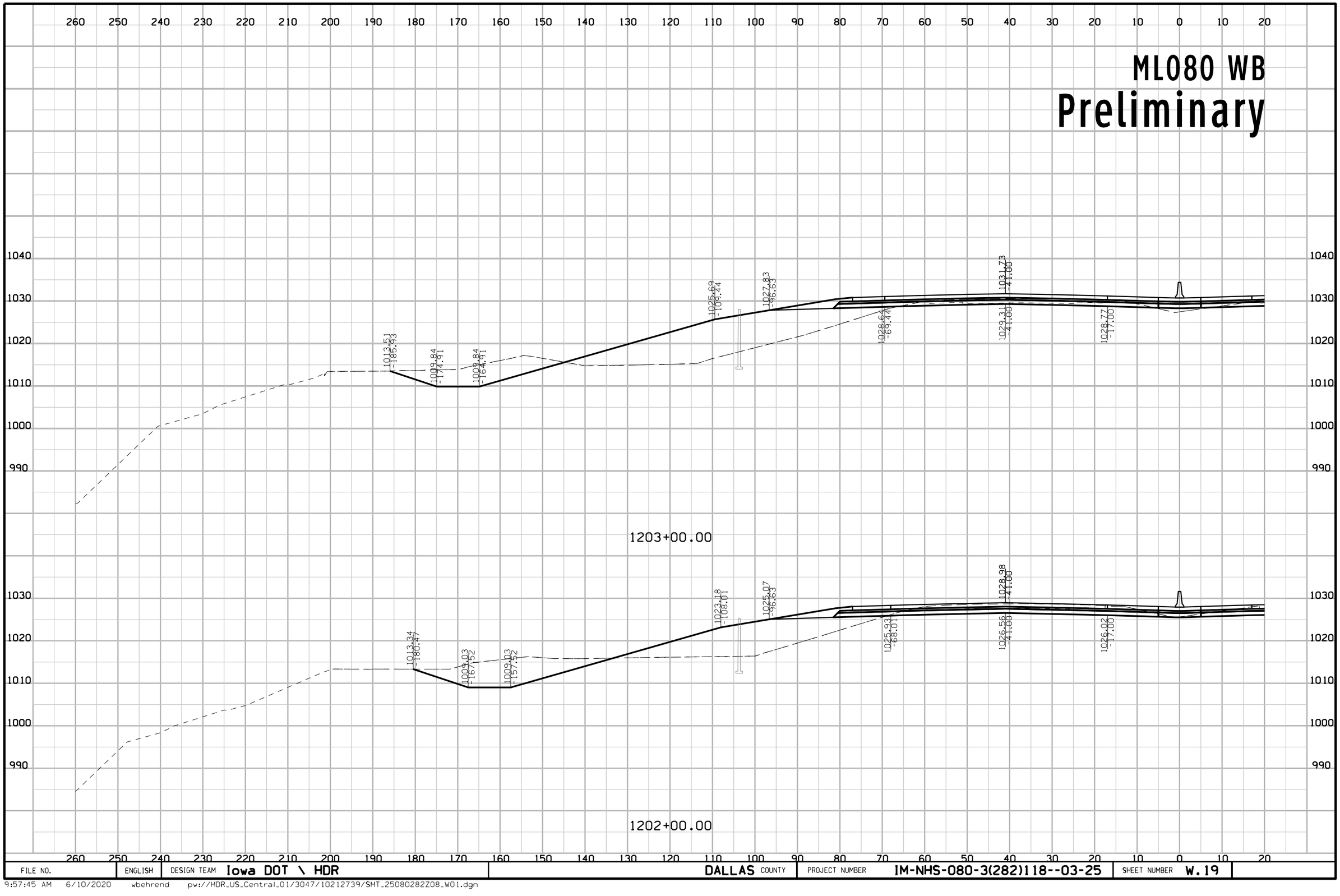


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.18

9:57:44 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.19

9:57:45 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1040 1030 1020 1010 1000 990

1012.03
-193.38
1011.02
-190.31

1011.02
-180.31

1030.45
-112.30

1032.85
-97.93

1033.62
-72.50

1036.79
-41.00

1034.38
-41.00

1033.84
-17.00

1205+00.00

1040 1030 1020 1010 1000 990

1013.63
-181.30

1010.63
-182.30

1010.63
-172.30

1028.18
-110.87

1030.55
-96.63

1031.33
-76.87

1034.46
-41.00

1032.04
-41.00

1031.50
-17.00

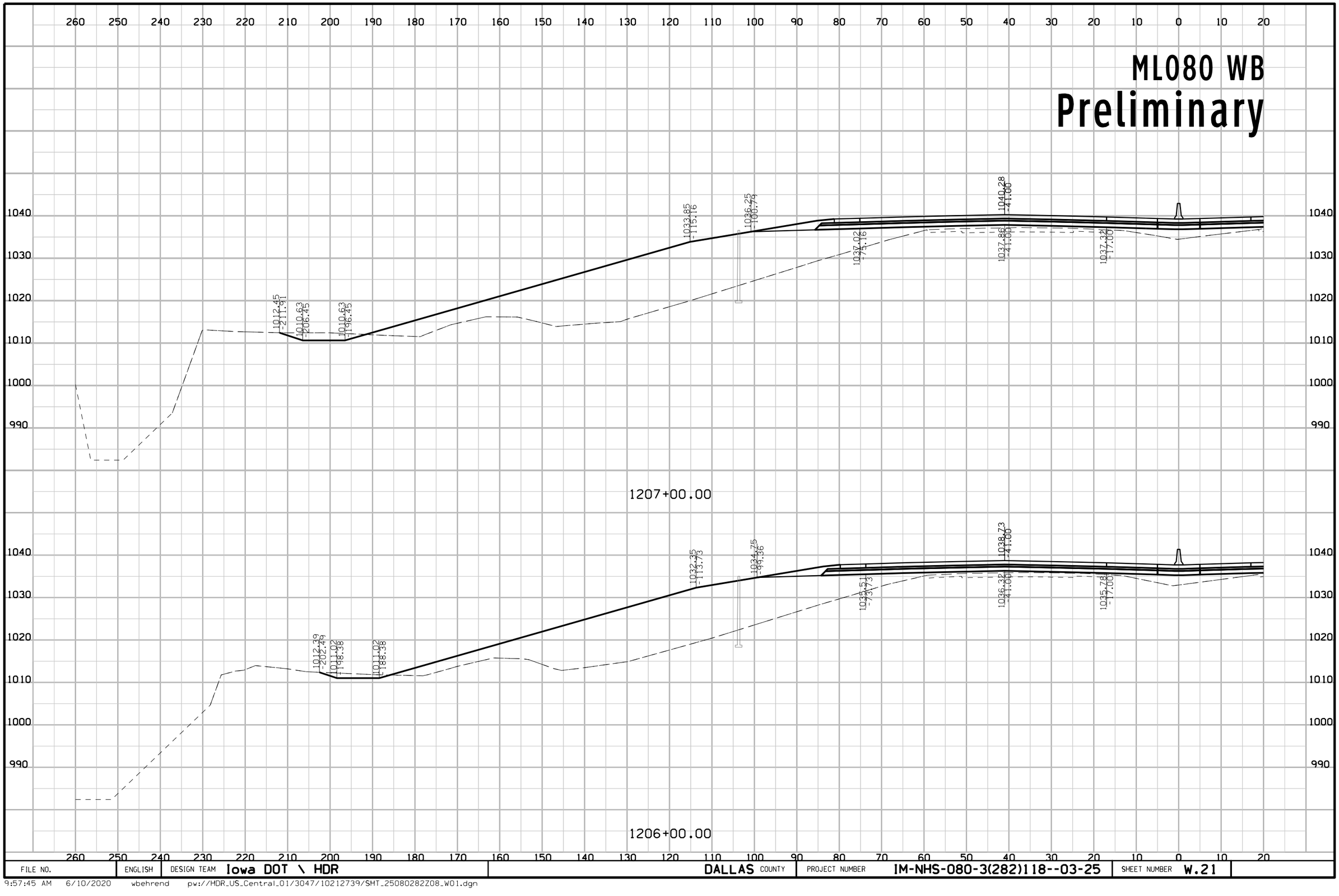
1204+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.20

9:57:45 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.21

9:57:45 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1050 1040 1030 1020 1010 1000 990

1042.19
-41.00

1209+00.00

1034.96
-116.58

1037.36
-102.22

1041.43
-41.00

1038.12
-76.58

1039.01
-41.00

1038.42
-17.00

1016.35
-234.07

1009.84
-214.53

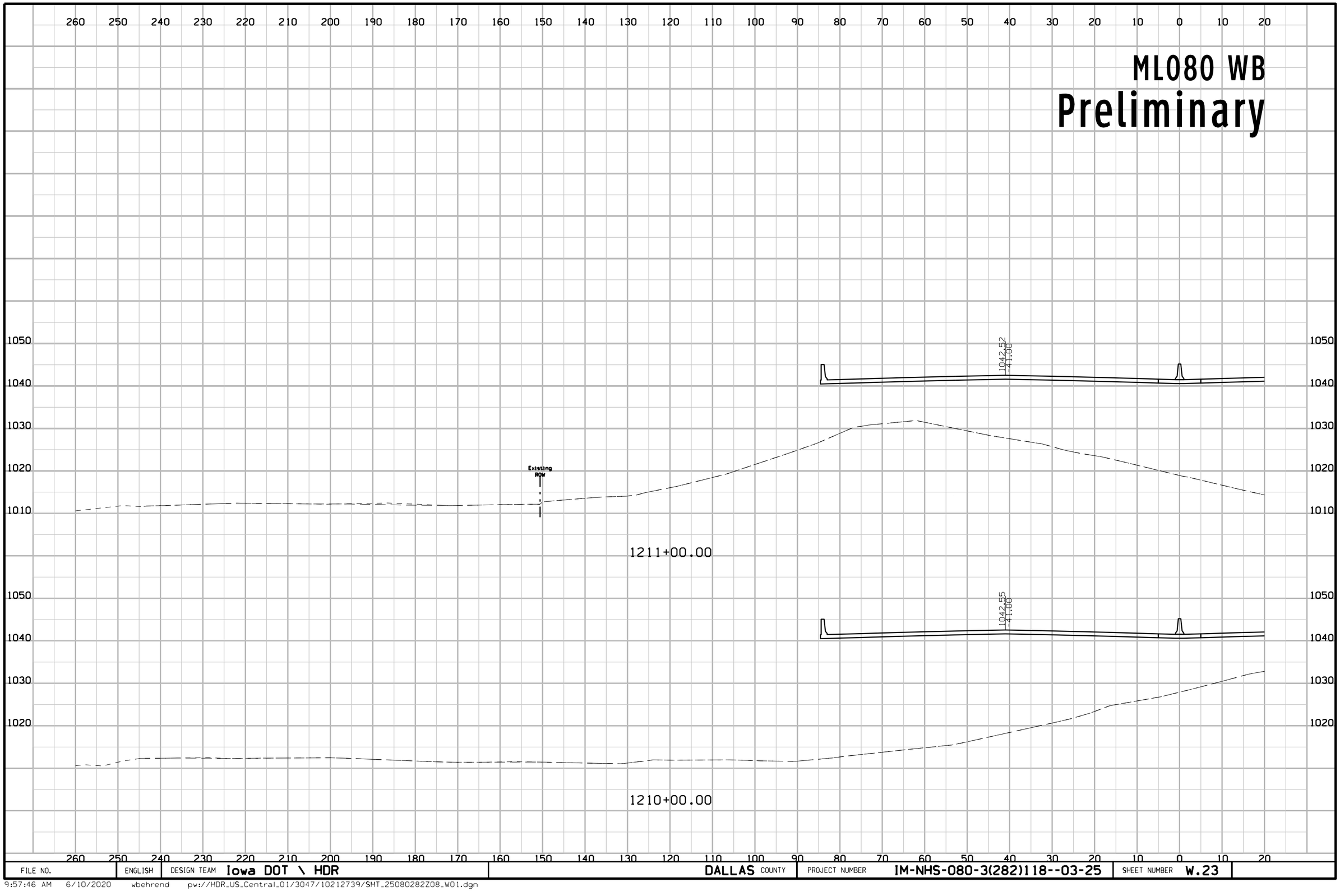
1009.84
-204.53

1208+00.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.22

9:57:46 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

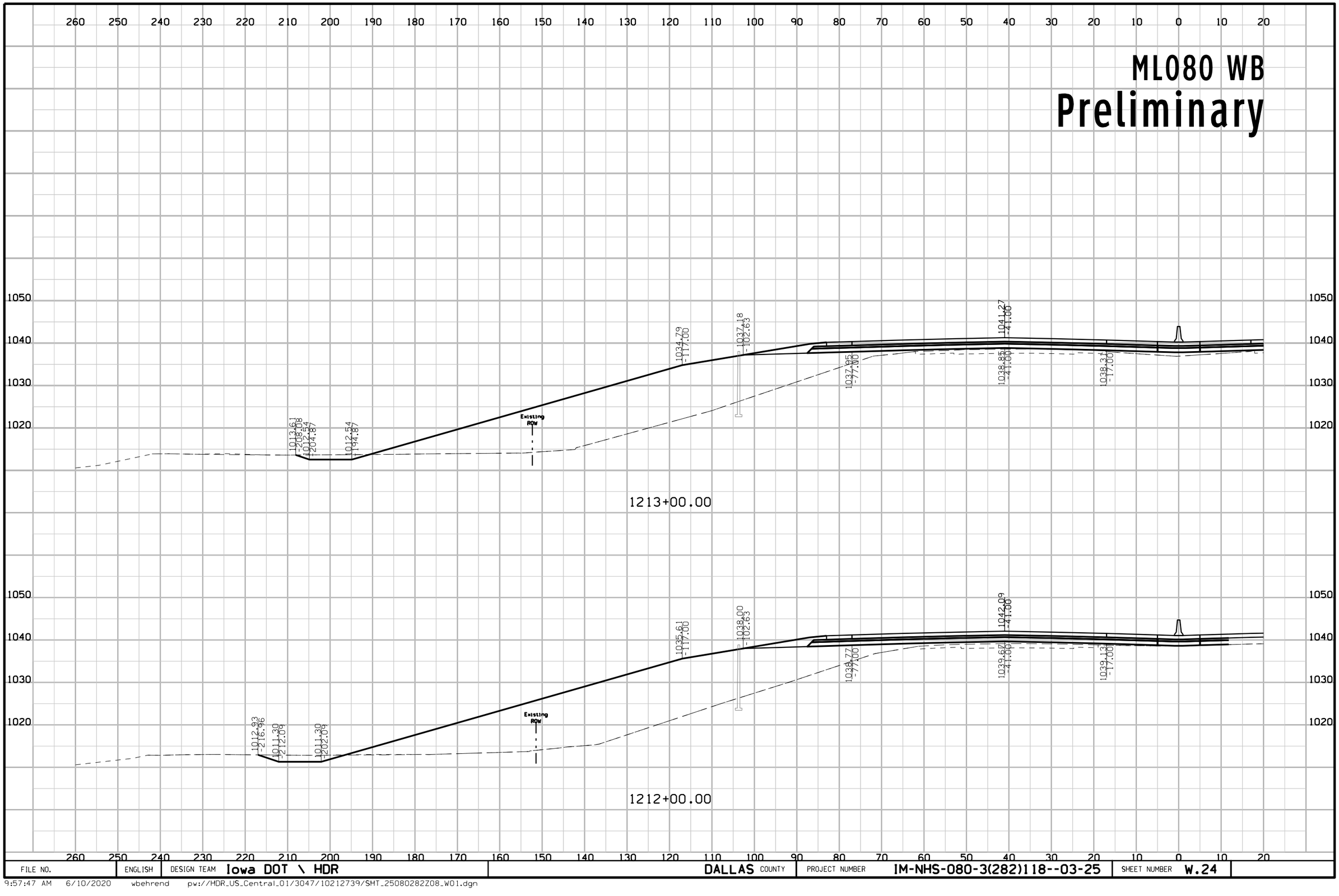


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.23

9:57:46 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary

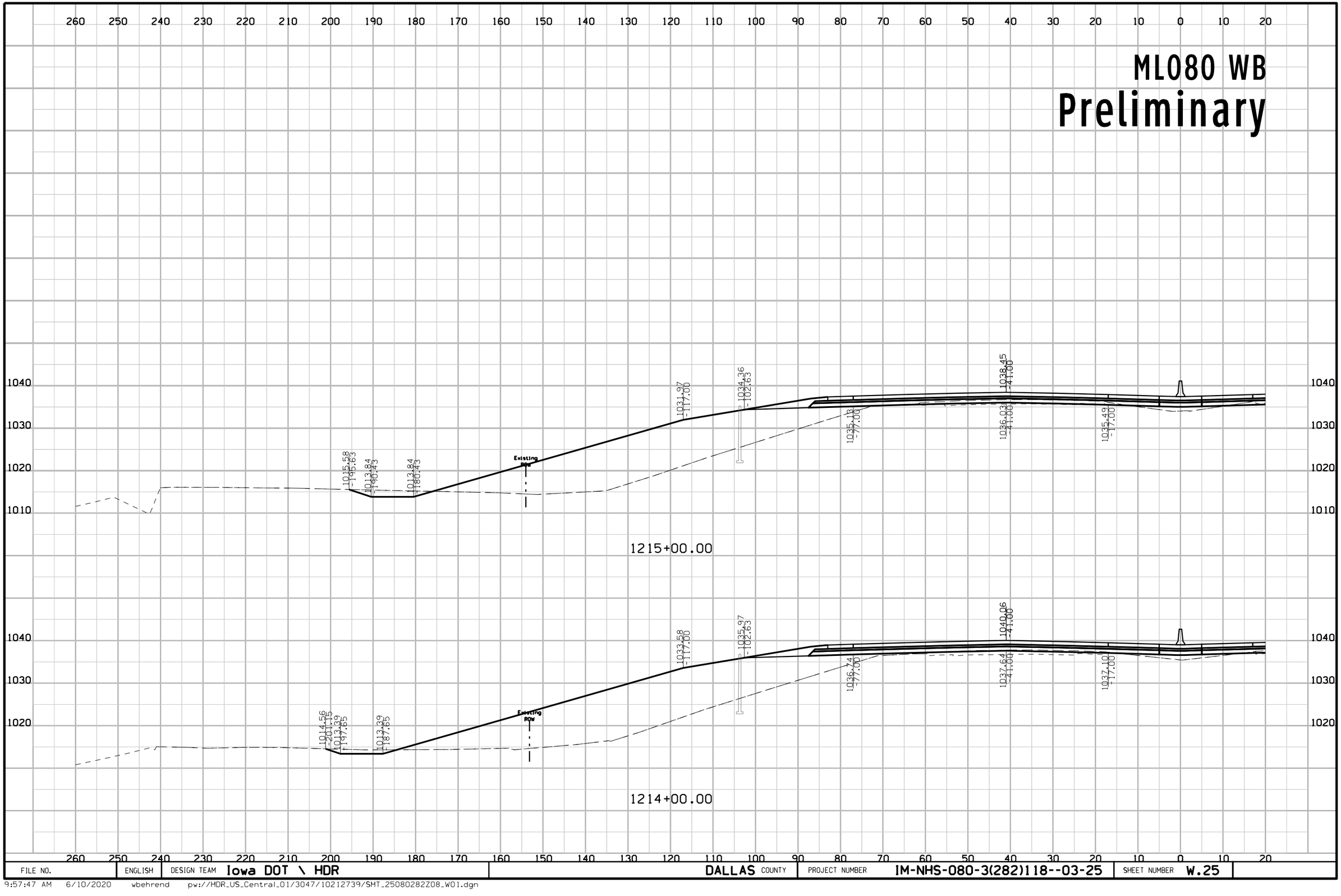


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.24

9:57:47 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.25

9:57:47 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1040
1030
1020
1010

1022.30
-201.61
1013.77
-175.99
1013.77
-165.99
Existing ROW
1027.76
-117.00
1030.16
-102.63
1030.93
-77.00
1034.24
-41.00
1031.83
-41.00
1031.29
-17.00

1217+00.00

1040
1030
1020
1010

1015.70
-188.59
1013.90
-183.21
1013.90
-173.21
Existing ROW
1029.96
-117.00
1032.36
-102.63
1033.13
-77.00
1036.44
-41.00
1034.03
-41.00
1033.49
-17.00

1216+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.26

9:57:48 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1030 1020 1010 1000 990

1022.33 -203.84

1010.07 -164.05

Existing ROW

1024.65 -103.00

1026.16 -93.98

1026.73 -73.00

1027.39 -49.00

1029.23 -46.00

1029.47 -37.00

1028.01 -7.41

1219+00.00

1017.92 -181.64

1013.63 -168.77

1013.63 -158.77

Existing ROW

1025.56 -117.00

1027.96 -102.63

1028.73 -77.00

1029.63 -41.00

1032.04 -41.00

1029.09 -17.00

1218+00.00

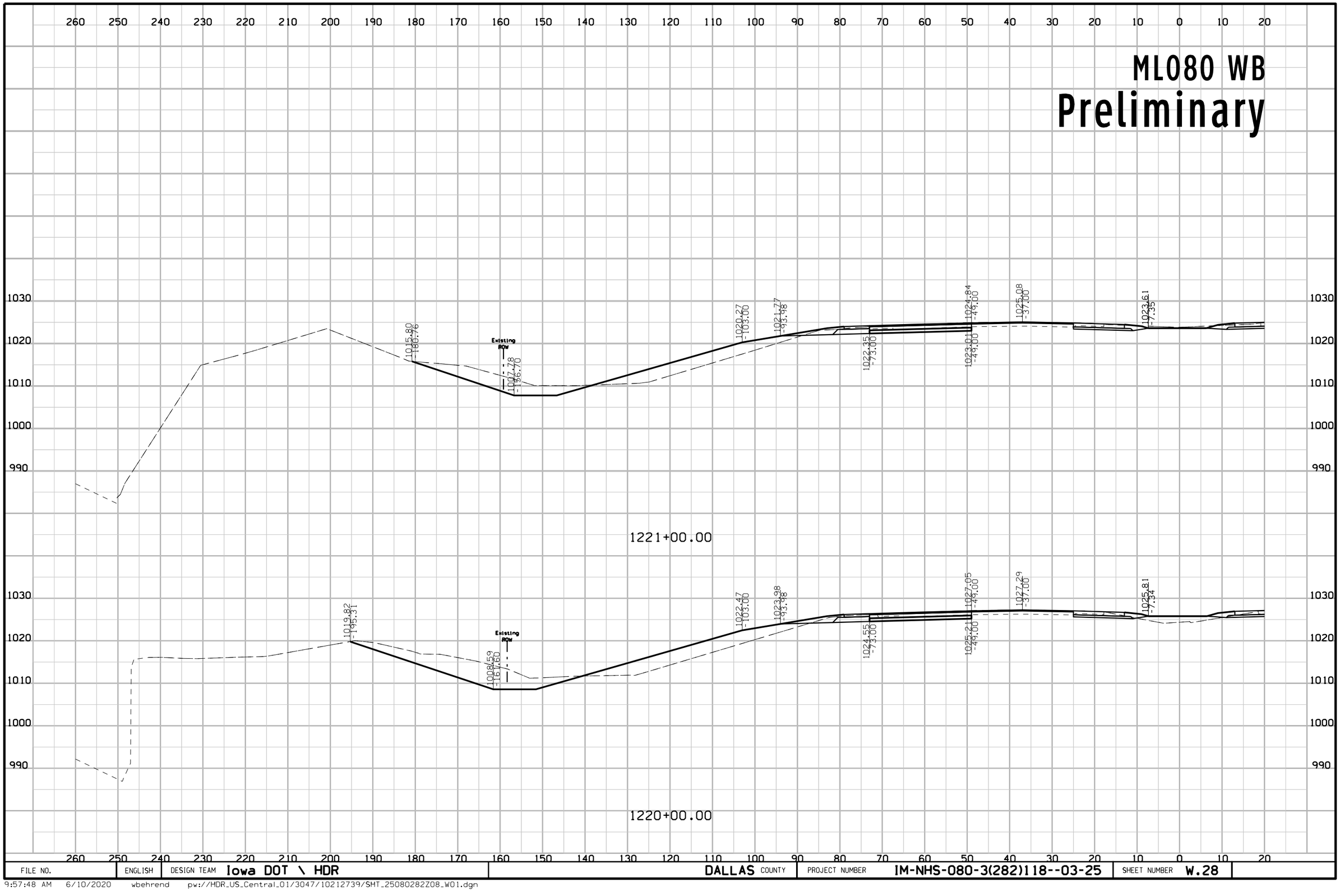
1040 1030 1020 1010 1000

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.27

9:57:48 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.28

9:57:48 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1020
1010
1000
990

1012.43
-174.76

Existing ROW

1004.78
-151.80

1015.87
-103.00

1017.37
-93.98

1017.95
-73.00

1020.44
-49.00

1018.61
-48.00

1020.68
-37.00

1019.21
-7.36

1223+00.00

1030
1020
1010
1000
990

1014.85
-175.45

Existing ROW

1006.97
-151.80

1018.06
-103.00

1019.56
-93.98

1020.14
-73.00

1022.63
-49.00

1020.80
-48.00

1022.87
-37.00

1021.41
-7.38

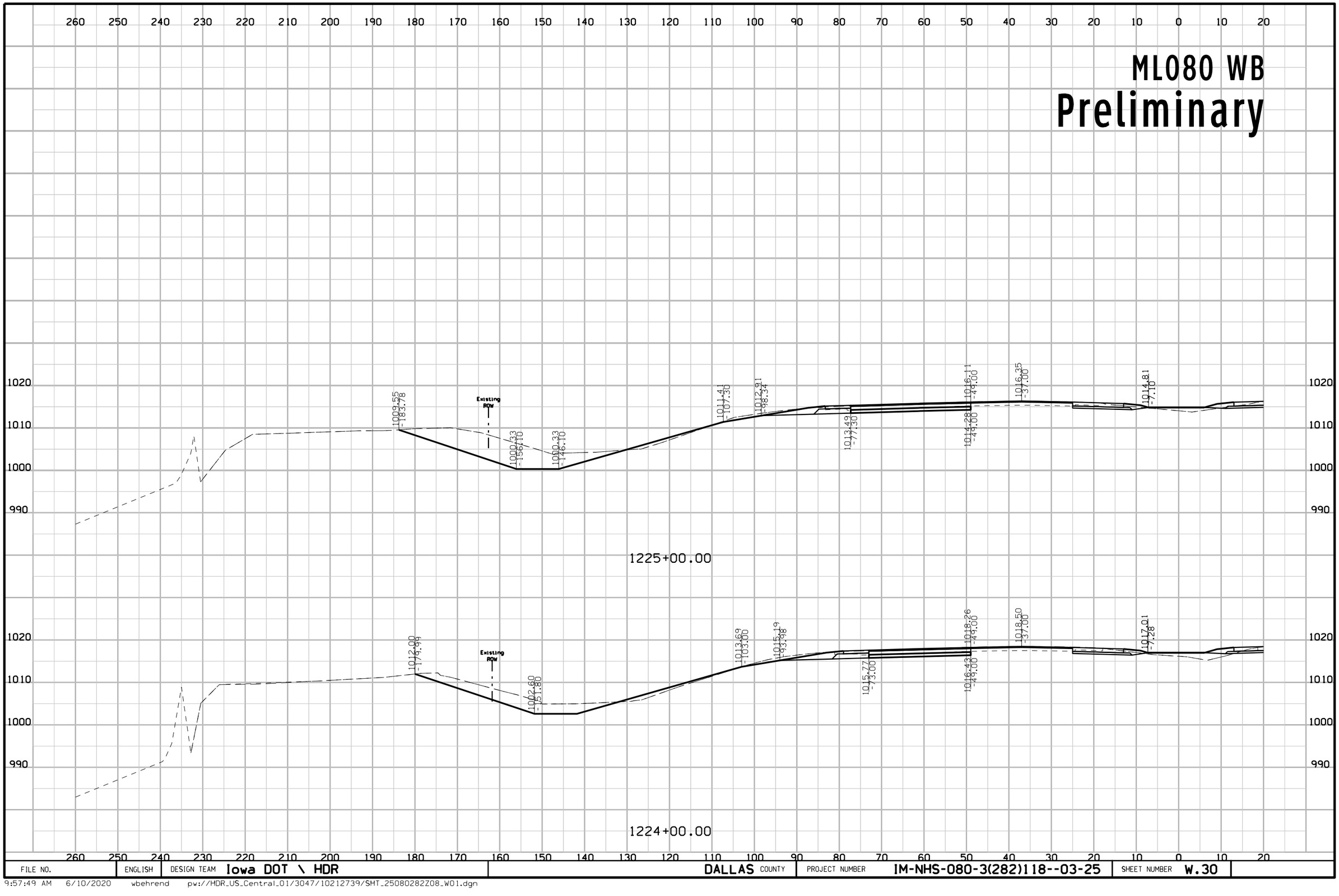
1222+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.29

9:57:49 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.30

9:57:49 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1020
1010
1000

1014.30
-200.91

Existing ROW

998.07
-132.23

998.07
-142.23

1004.36
-120.23

1005.84
-111.37

1006.44
-90.23

1007.62
-49.00

1009.45
-49.00

1009.69
-37.00

1008.21
-7.32

1228+00.00

1006.13
-175.63

Existing ROW

998.77
-152.52

998.77
-143.52

1006.65
-115.92

1008.13
-107.04

1008.73
-85.92

1009.78
-49.00

1011.61
-49.00

1011.85
-37.00

1010.41
-7.45

1227+00.00

1007.40
-178.19

Existing ROW

999.60
-154.81

999.60
-144.81

1009.09
-111.61

1010.58
-102.69

1011.17
-81.61

1012.09
-49.00

1013.92
-49.00

1014.16
-37.00

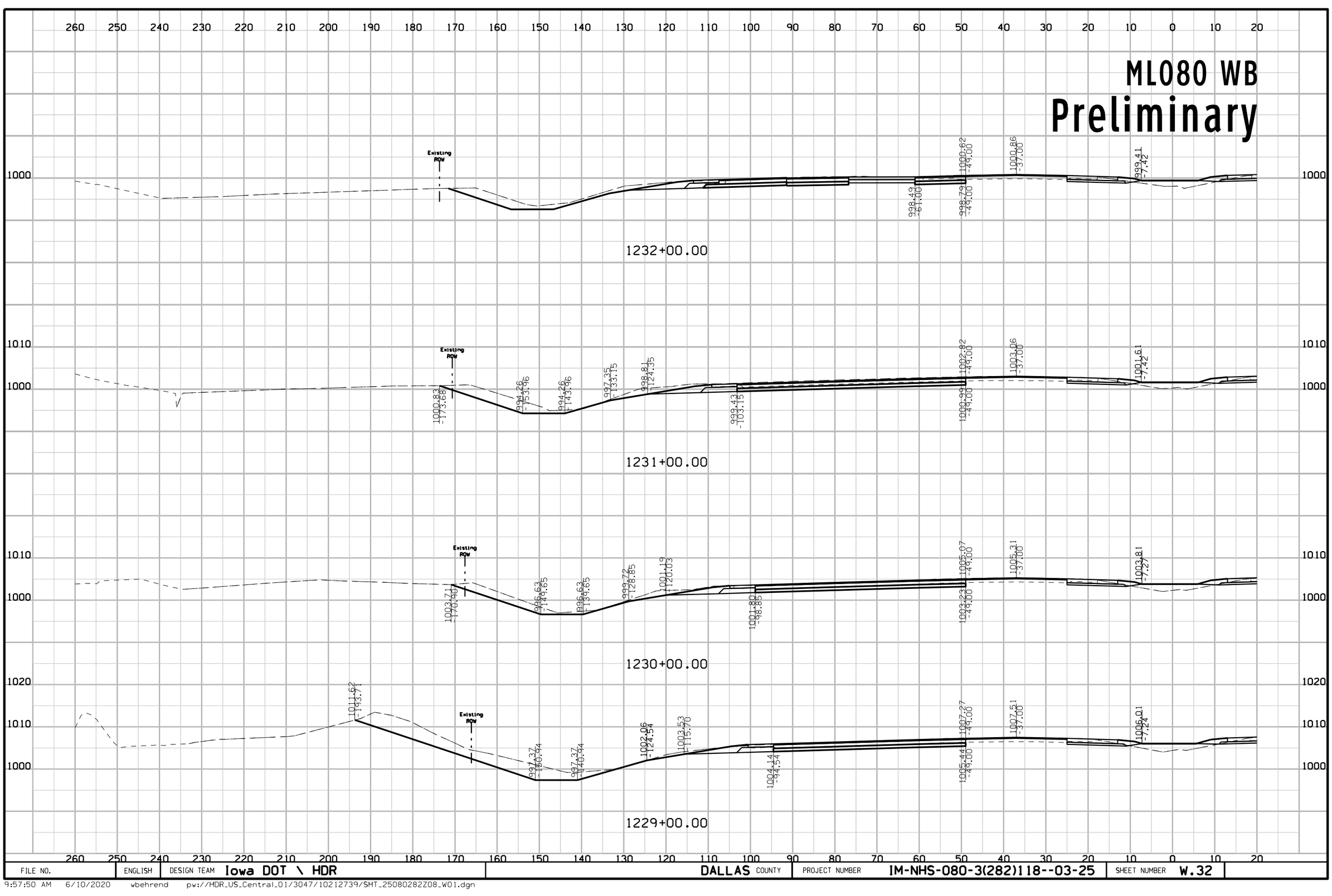
1012.61
-7.67

1226+00.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.31

9:57:50 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.32

9:57:50 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1000
990

Existing ROW

992.51
-60.29

991.75
-48.29

993.59
-48.29

992.84
-36.29

990.61
-7.17

1236+00.00

Existing ROW

994.07
-60.56

993.60
-48.56

995.44
-48.56

994.97
-36.56

992.81
-5.64

1235+00.00

Existing ROW

995.09
-60.82

994.90
-48.82

996.74
-48.82

996.55
-36.82

995.01
-6.94

1234+00.00

Existing ROW

996.72
-61.00

996.79
-49.00

998.62
-49.00

998.68
-37.00

997.21
-7.36

1233+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.33

9:57:50 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

990
980

985.05
-80.34
983.69
-59.24
984.74
-47.24
982.91
-47.24
983.96
-35.24
981.81
-6.58

1240+00.00

990
980

987.35
-80.14
985.91
-59.50
986.96
-47.50
985.13
-47.50
986.18
-35.50
984.01
-6.77

990
980

1239+00.00

989.53
-78.55
988.11
-59.77
989.17
-47.77
987.33
-47.77
988.39
-35.77
986.21
-7.01

1238+00.00

1000
990

Existing ROW

991.81
-78.55
990.31
-60.03
991.37
-48.03
989.53
-48.03
990.59
-36.03
988.41
-7.28

1237+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.34

9:57:51 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1000
990
980
970

978.74
-78.28
977.17
-58.45
978.22
-46.45
976.39
-46.45
977.44
-34.45
975.24
-5.82

1243+00.00

990
980

980.63
-79.78
979.27
-58.72
980.32
-46.72
978.49
-46.72
979.54
-34.72
977.41
-6.14

1242+00.00

990
980

982.87
-80.04
981.50
-58.98
982.56
-46.98
980.72
-46.98
981.78
-34.98
979.61
-6.26

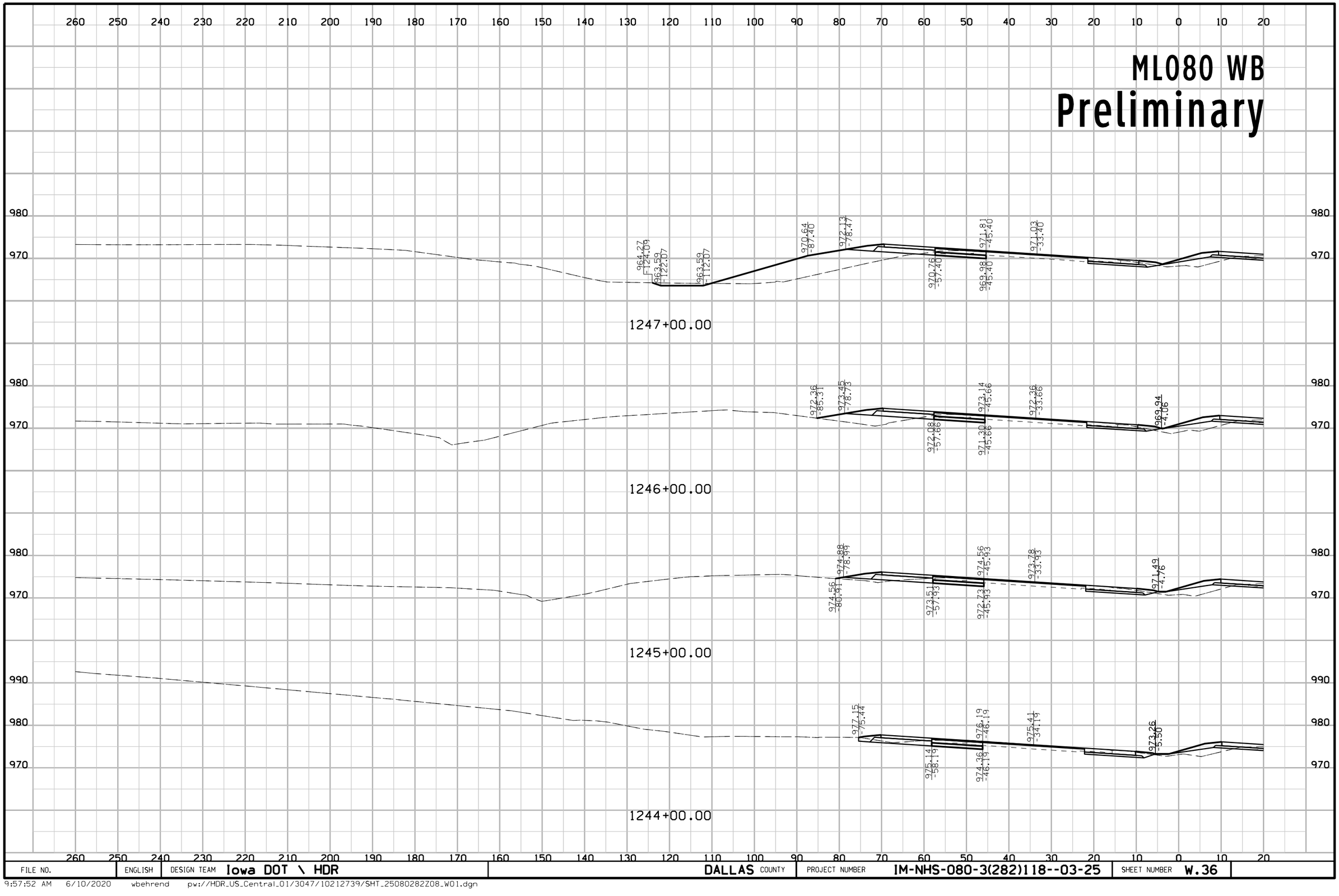
1241+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.35

9:57:51 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

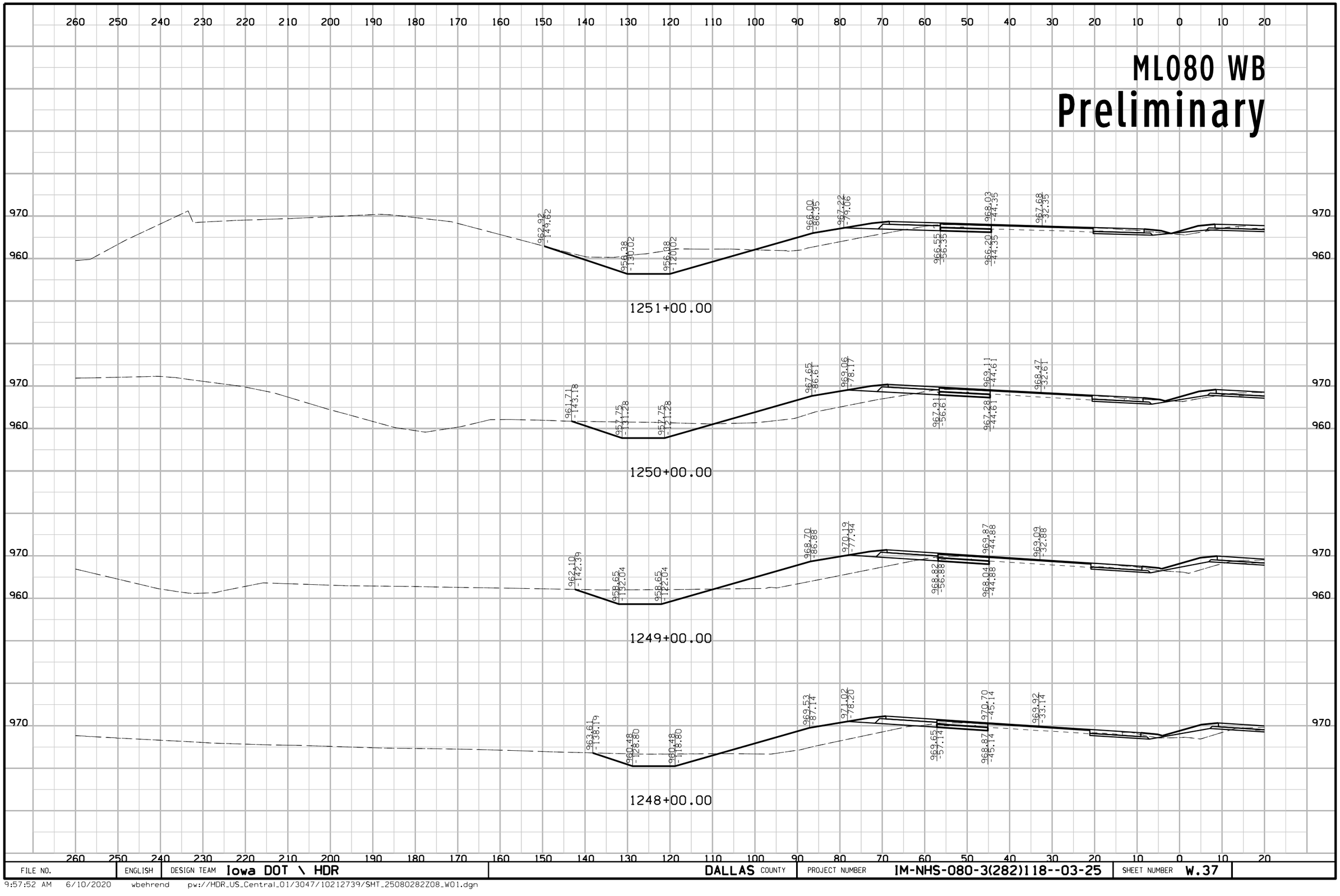
ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.36

9:57:52 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.37

9:57:52 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

980
970
960

Existing ROW

967.66
-44.00
967.90
-32.00
965.53
-56.00
965.83
-44.00

1255+00.00

970
960

Existing ROW

967.22
-44.00
967.46
-32.00
965.08
-56.00
965.38
-44.00

1254+00.00

970
960

Existing ROW

963.93
-86.00
964.65
-81.73
967.00
-44.00
967.16
-32.00
965.00
-56.00
965.16
-44.00

1253+00.00

970
960

Existing ROW

964.82
-122.32
960.71
-108.98
960.71
-99.98
964.68
-86.09
965.67
-80.15
967.24
-44.09
967.15
-32.09
965.49
-56.09
965.40
-44.09

1252+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.38

9:57:52 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

970
960

Existing ROW
968.11 -131.80
963.47 -117.89
963.47 -107.89
964.56 -104.08
966.13 -94.71
966.64 -74.08
967.39 -44.00
969.23 -44.00
969.47 -32.00

1259+00.00

Existing ROW
968.06 -139.93
962.94 -121.57
962.94 -114.57
964.03 -110.76
965.59 -101.39
966.11 -80.76
967.03 -44.00
968.86 -44.00
969.10 -32.00

1258+00.00

Existing ROW
962.36 -132.50
962.36 -142.50
963.45 -118.68
965.01 -109.32
965.52 -88.68
966.64 -44.00
968.47 -44.00
968.71 -32.00
67.47
147.84

1257+00.00

Existing ROW
961.68 -144.45
961.68 -132.45
962.77 -128.63
964.33 -119.27
964.84 -98.63
966.21 -44.00
968.04 -44.00
968.28 -32.00
967.09 -158.69

1256+00.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.39

9:57:53 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

970

Existing ROW

966.55 -118.62
965.23 -114.67
965.23 -104.67
967.14 -98.00
967.74 -94.40
968.40 -68.00
970.83 -44.00
971.07 -32.00

970

1263+00.00

970

Existing ROW

966.69 -120.27
964.82 -114.67
964.82 -104.67
966.73 -98.00
967.33 -94.40
967.99 -68.00
968.59 -44.00
970.42 -44.00
970.66 -32.00

970

1262+00.00

970

Existing ROW

967.88 -125.08
964.41 -114.67
964.41 -104.67
966.32 -98.00
966.92 -94.40
967.58 -68.00
968.18 -44.00
970.01 -44.00
970.25 -32.00

970

1261+00.00

970
960

Existing ROW

968.32 -128.24
964.99 -115.25
964.99 -105.25
965.75 -99.10
966.52 -94.44
967.16 -69.10
967.78 -44.00
969.62 -44.00
969.86 -32.00

970
960

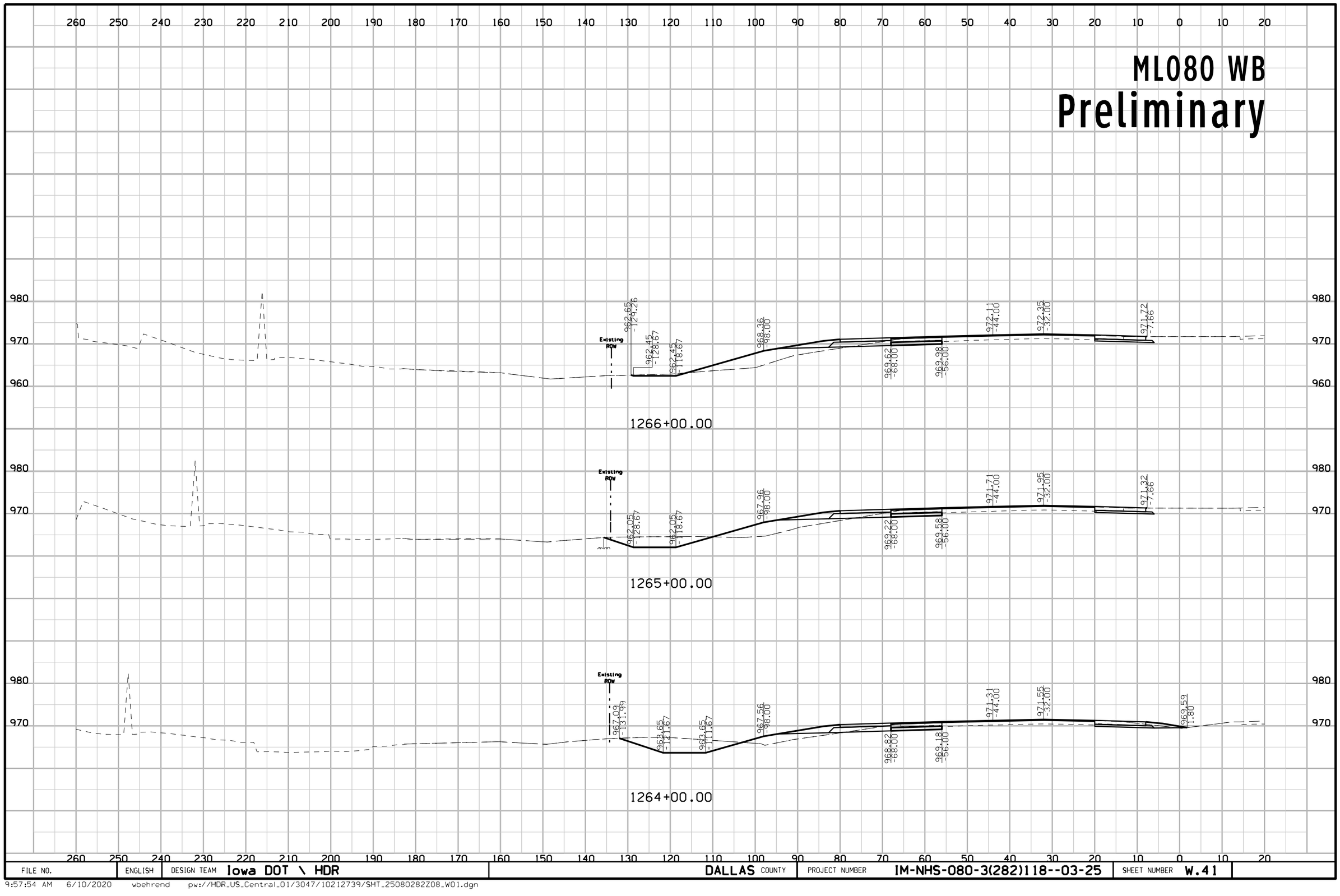
1260+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.40

9:57:53 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

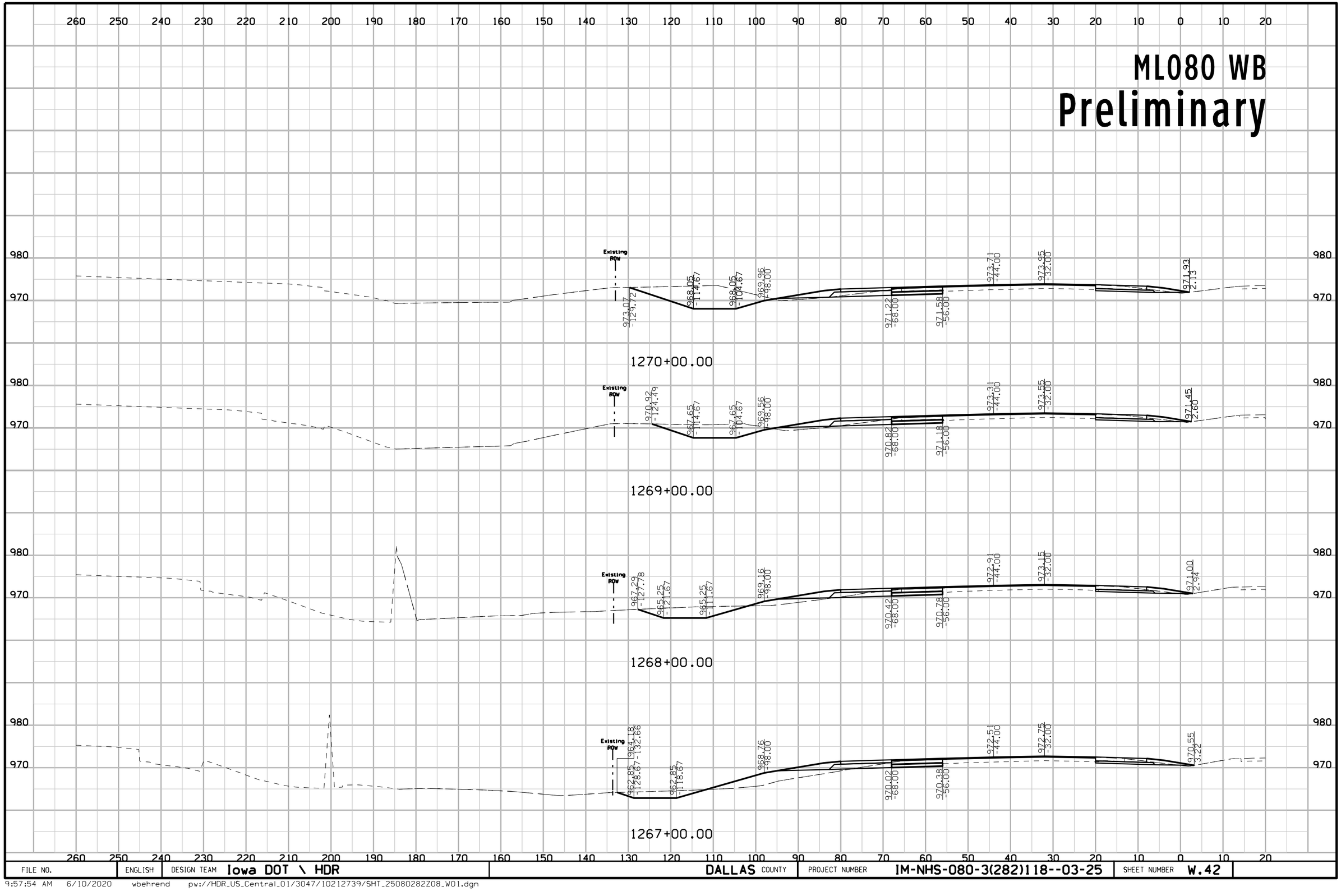
ML080 WB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.41

9:57:54 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

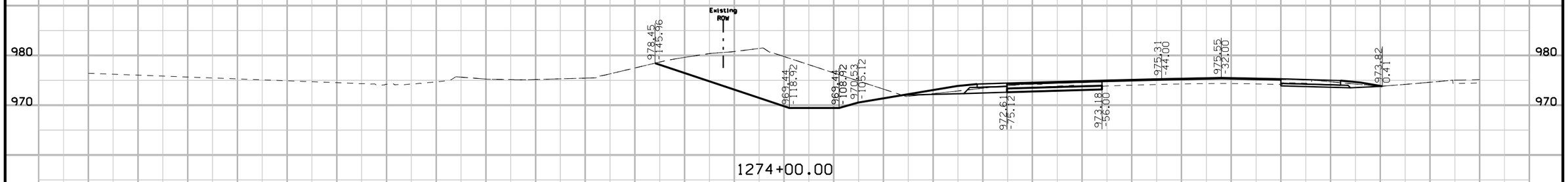


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.42

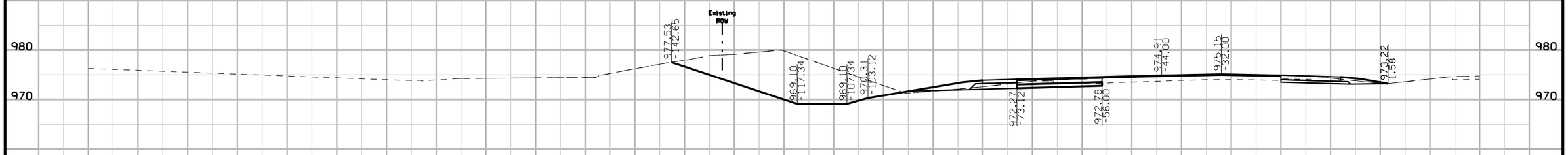
9:57:54 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

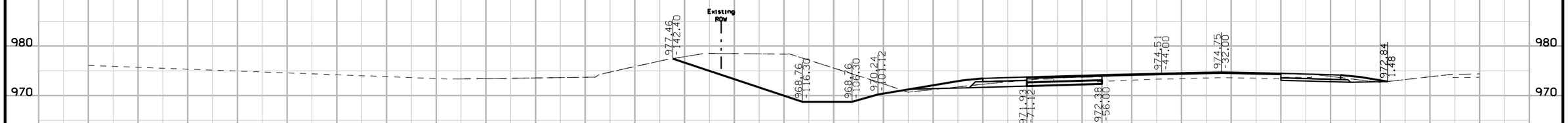
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20



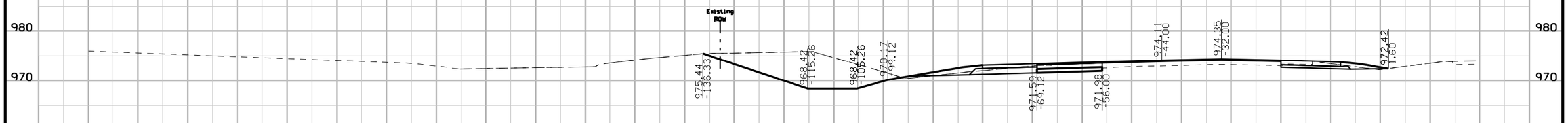
1274+00.00



1273+00.00



1272+00.00



1271+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.43

9:57:55 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

980
970

Existing ROW

970.41 -138.76
968.80 -133.92
968.80 -123.92
971.89 -113.12
973.97 -83.12
974.78 -56.00
976.91 -44.00
977.15 -32.00
974.99 2.95

1278+00.00

980
970

Existing ROW

974.64 -137.45
970.46 -124.92
970.46 -114.92
971.55 -111.12
973.63 -81.12
974.38 -56.00
976.51 -44.00
976.75 -32.00
974.61 2.84

1277+00.00

980
970

Existing ROW

976.56 -142.24
970.12 -122.92
970.12 -112.92
971.21 -109.12
973.29 -79.12
973.98 -56.00
976.11 -44.00
976.35 -32.00
974.77 -0.50

1276+00.00

990
980
970

Existing ROW

978.59 -147.36
969.78 -120.92
969.78 -110.92
970.87 -107.12
972.95 -77.12
973.58 -56.00
975.71 -44.00
975.95 -32.00
974.07 1.28

1275+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.44

9:57:55 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

980
970
960

961.07
-175.84
960.00
-172.62
960.00
-162.62
Existing ROW
972.53
-118.78
974.67
-88.78
975.38
-56.00
978.11
-44.00
978.35
-32.00
976.74
-0.32

1281+00.00

964.87
-165.25
963.15
-160.09
963.15
-150.09
Existing ROW
972.57
-117.12
974.65
-87.12
975.58
-56.00
977.71
-44.00
977.95
-32.00
975.78
3.01

1280+00.00

966.41
-148.33
965.97
-147.00
965.97
-137.00
Existing ROW
972.23
-115.12
974.31
-85.12
975.18
-56.00
977.31
-44.00
977.55
-32.00
975.43
2.72

1279+00.00

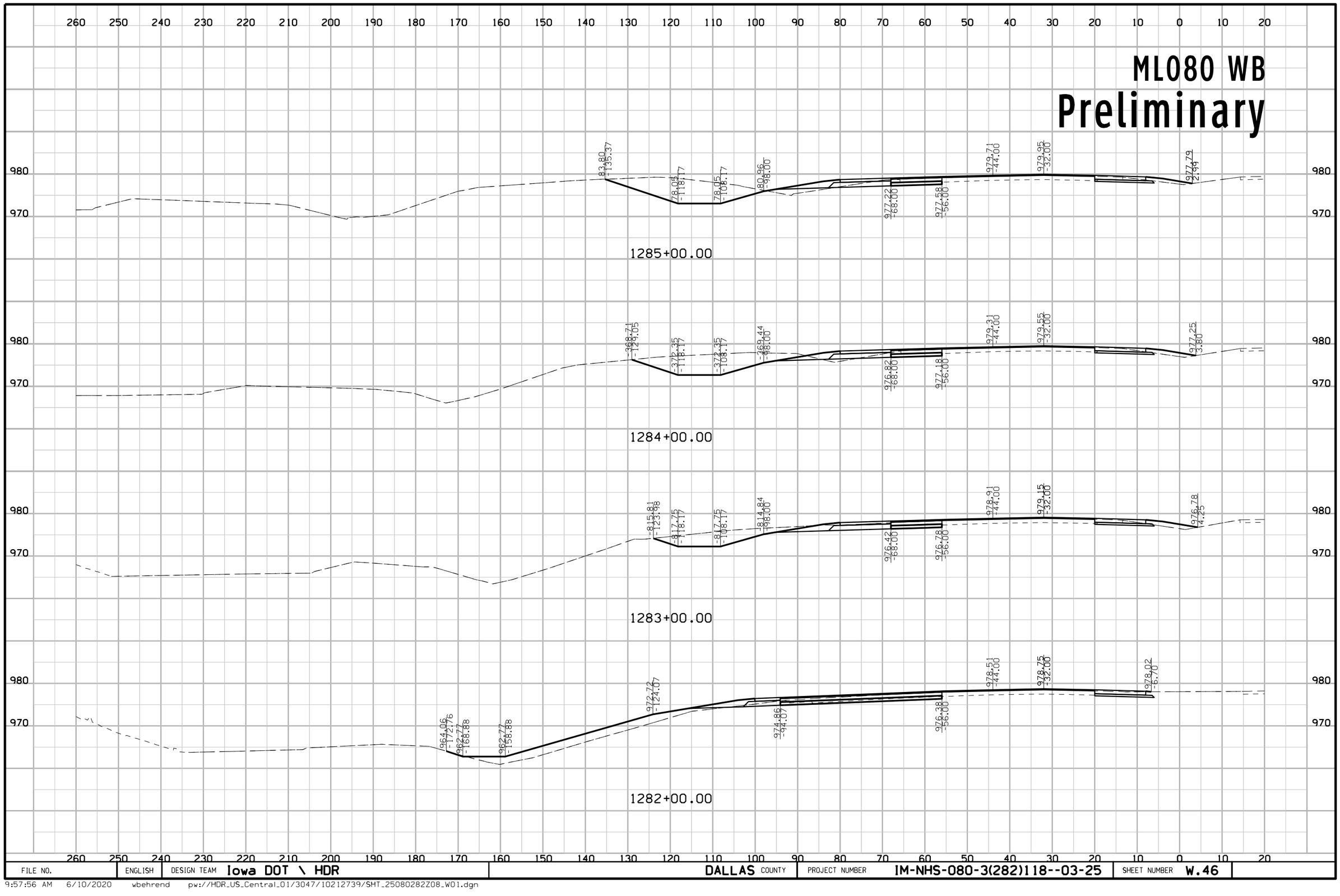
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.45

9:57:56 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.46

9:57:56 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

990
980

982.12
-135.27
975.25
-114.67
975.25
-104.67
977.16
-98.00
978.42
-68.00
978.78
-56.00
980.91
-44.00
981.15
-32.00
978.96
3.16

1288+00.00

980

975.06
-121.78
973.85
-118.17
973.85
-108.17
976.76
-98.00
978.02
-68.00
978.38
-56.00
980.51
-44.00
980.75
-32.00
978.61
2.86

1287+00.00

980

530.32
-138.73
528.45
-118.17
523.45
-108.17
526.36
-98.00
977.62
-68.00
977.98
-56.00
980.11
-44.00
980.35
-32.00
978.26
2.56

1286+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.47

9:57:57 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 WB
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

1000
990
980

992.13
-152.58
976.70
-106.31
976.70
-96.31
978.61
-89.64
979.87
-59.64
979.98
-59.00
982.11
-44.00
982.35
-32.00
980.72
-0.81

1291+00.00

990.43
-155.96
976.10
-112.96
976.10
-102.96
978.01
-96.29
979.27
-66.29
979.58
-56.00
981.71
-44.00
981.95
-32.00
979.89
2.38

1290+00.00

987.17
-149.23
975.65
-114.67
975.65
-104.67
977.56
-98.00
978.82
-68.00
979.18
-56.00
981.31
-44.00
981.55
-32.00
979.39
2.98

1289+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.48

9:57:57 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W01.dgn

ML080 EB
Preliminary

20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

1000
990

988.58 87.40 987.98 91.00 986.07 97.67 986.07 107.67 986.43 108.74

Existing ROW

1137+00.00

990

986.58 87.40 985.98 91.00 982.41 103.51 982.41 113.51 983.42 116.55

Existing ROW

1136+00.00

990
980

984.58 87.40 983.98 91.00 978.74 108.34 978.74 119.34 979.03 120.22

Existing ROW

1135+00.00

990
980
970

982.78 87.40 982.18 91.00 975.27 116.17 975.27 125.17 976.49 128.83

Existing ROW

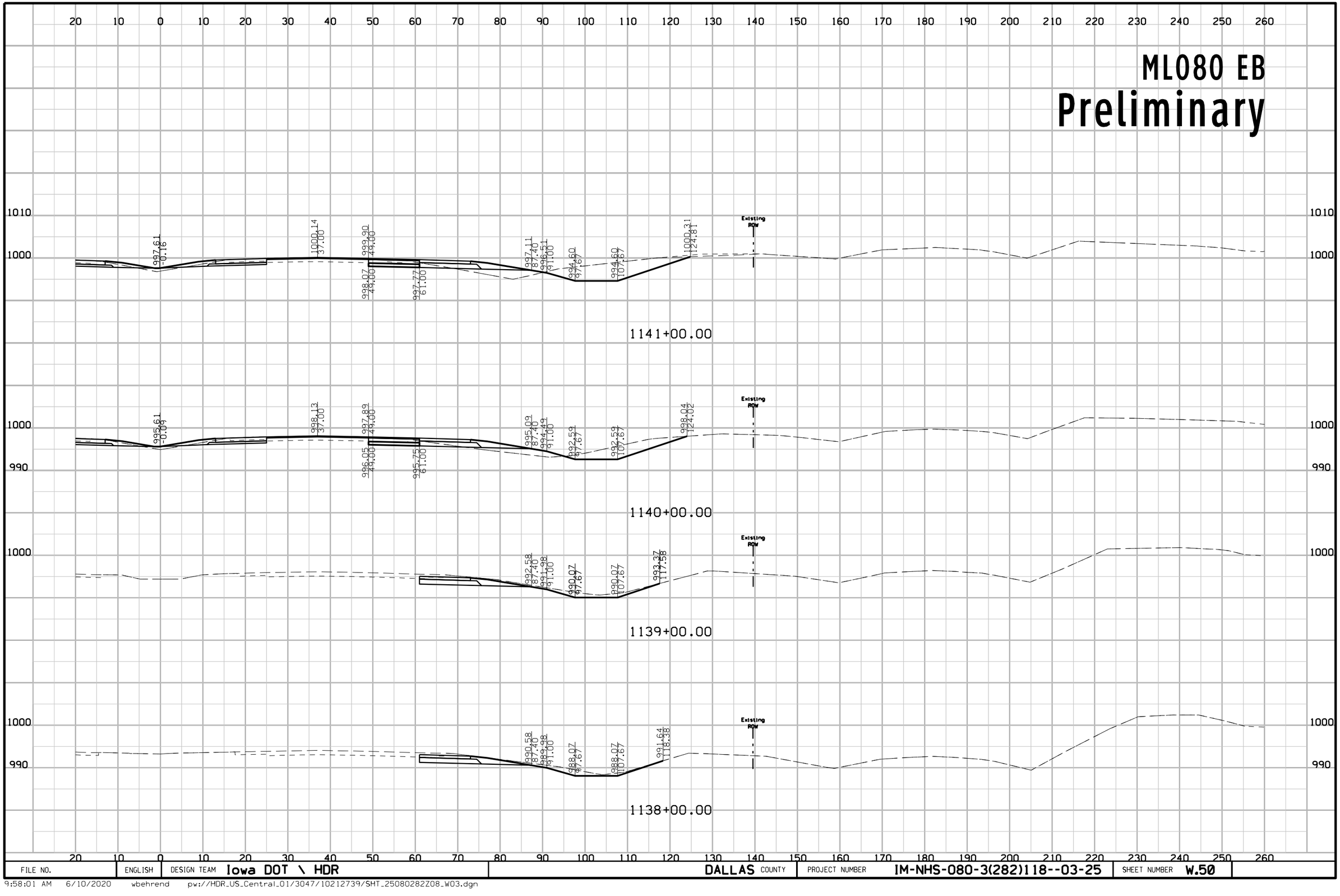
1134+00.00

20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.49

9:58:01 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

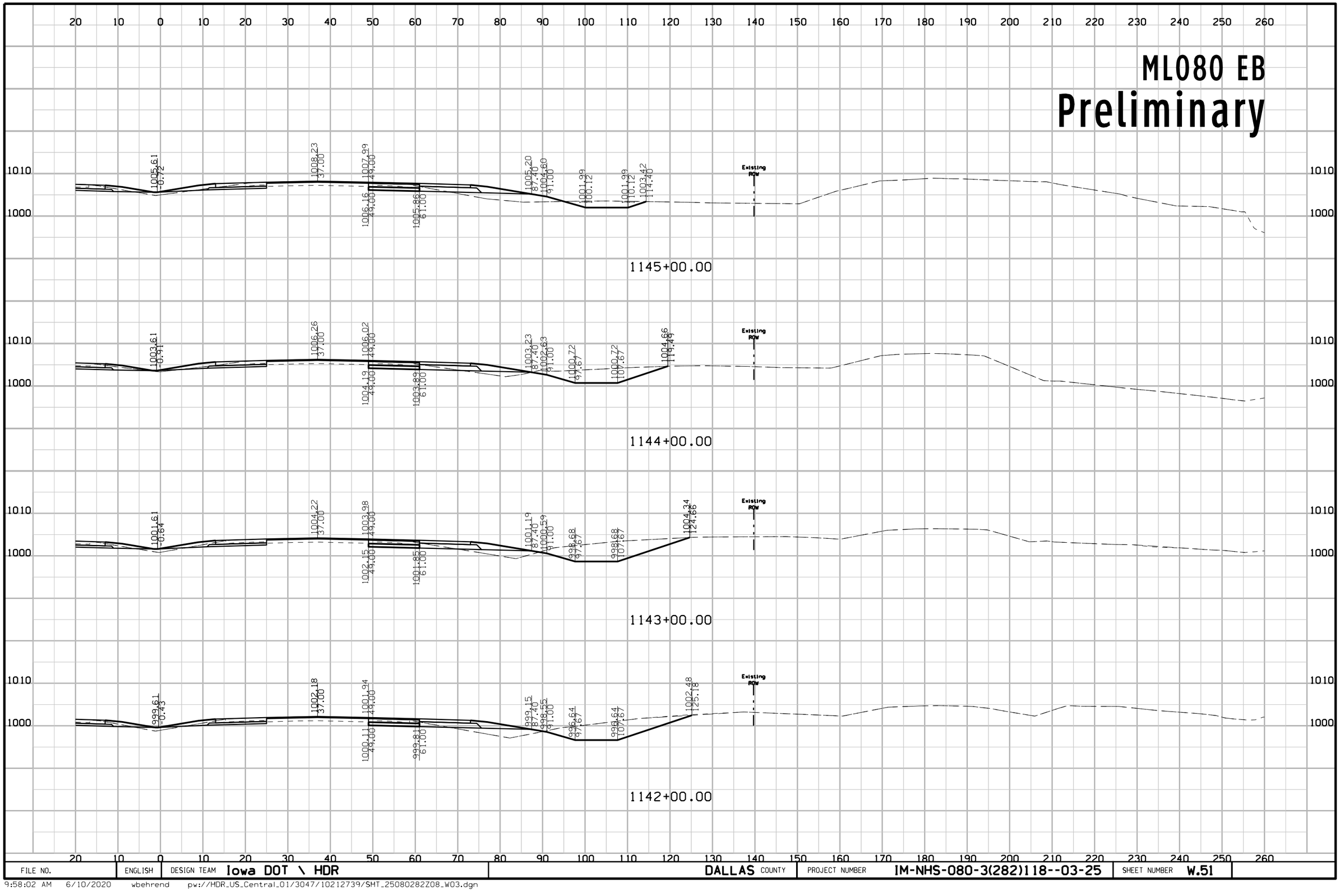
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.50

9:58:01 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

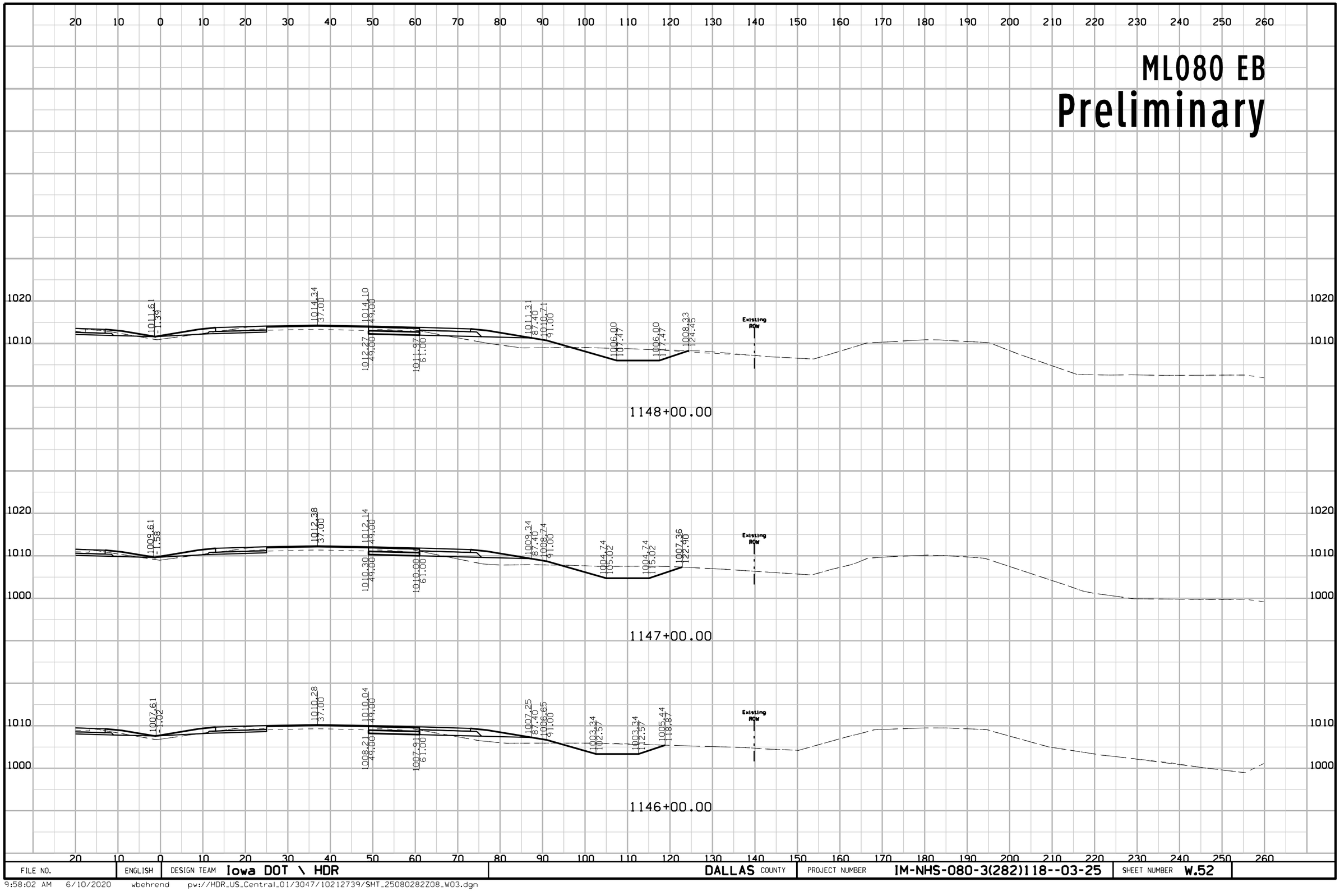
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.51

9:58:02 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

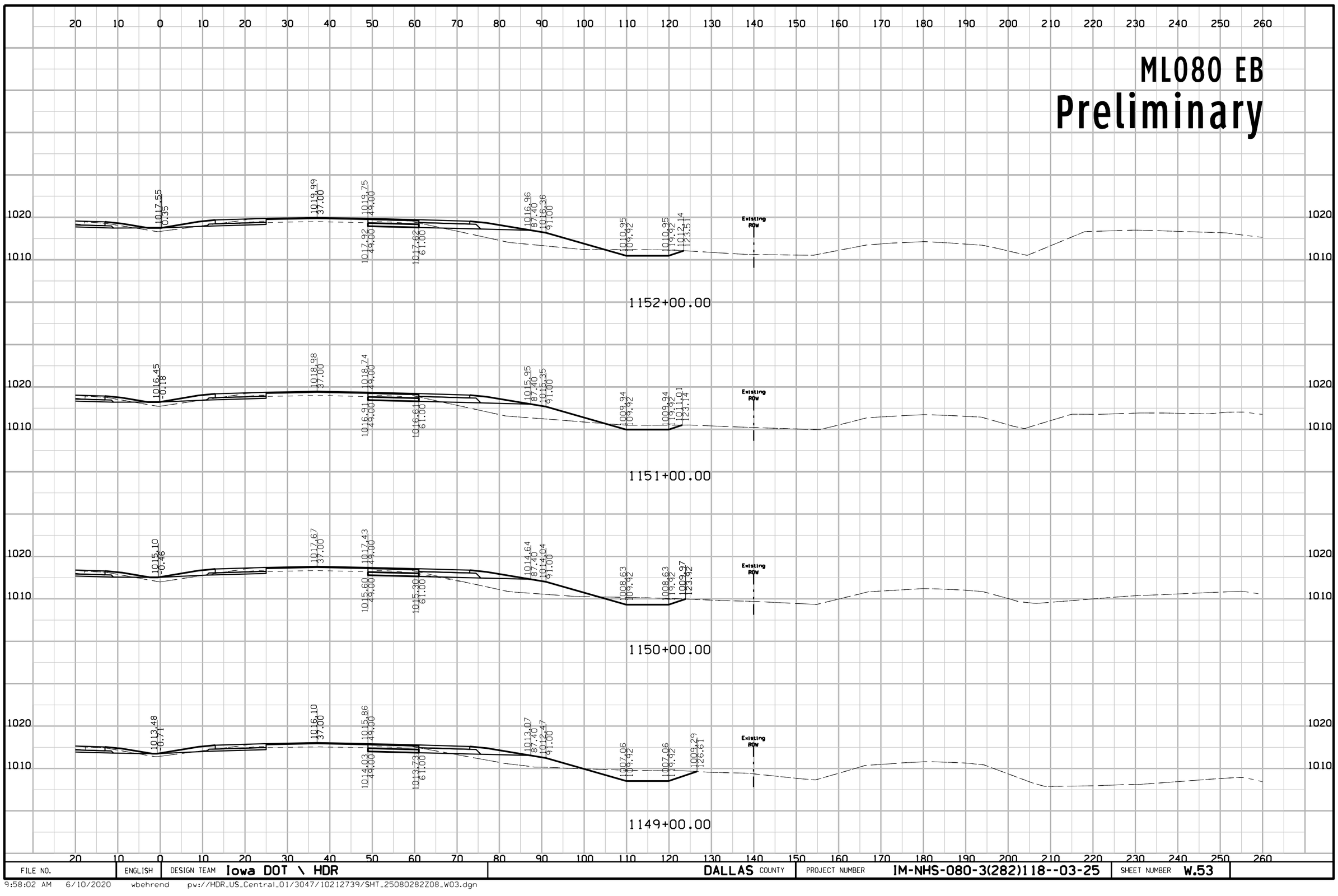
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.52

9:58:02 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

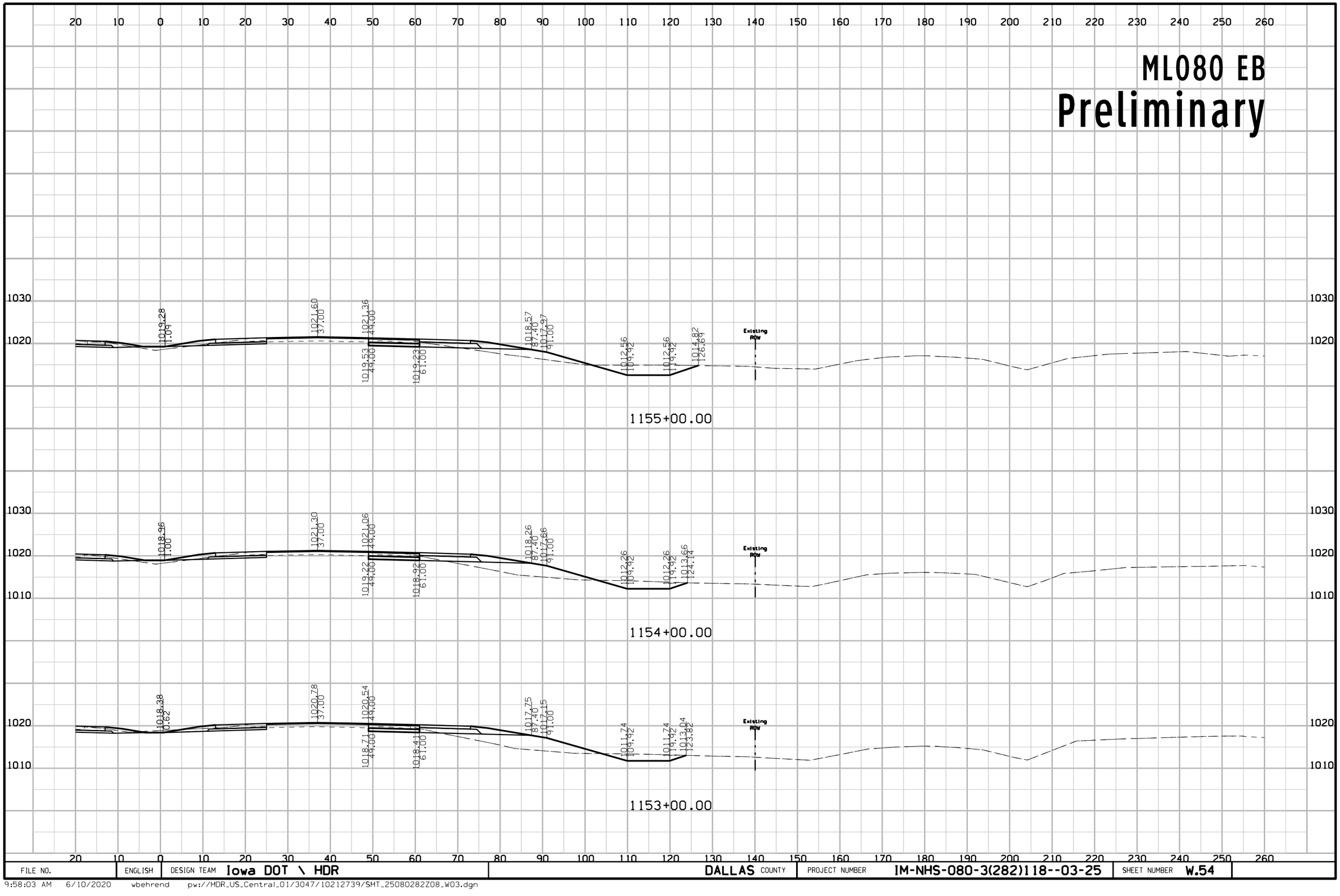
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.53

9:58:02 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

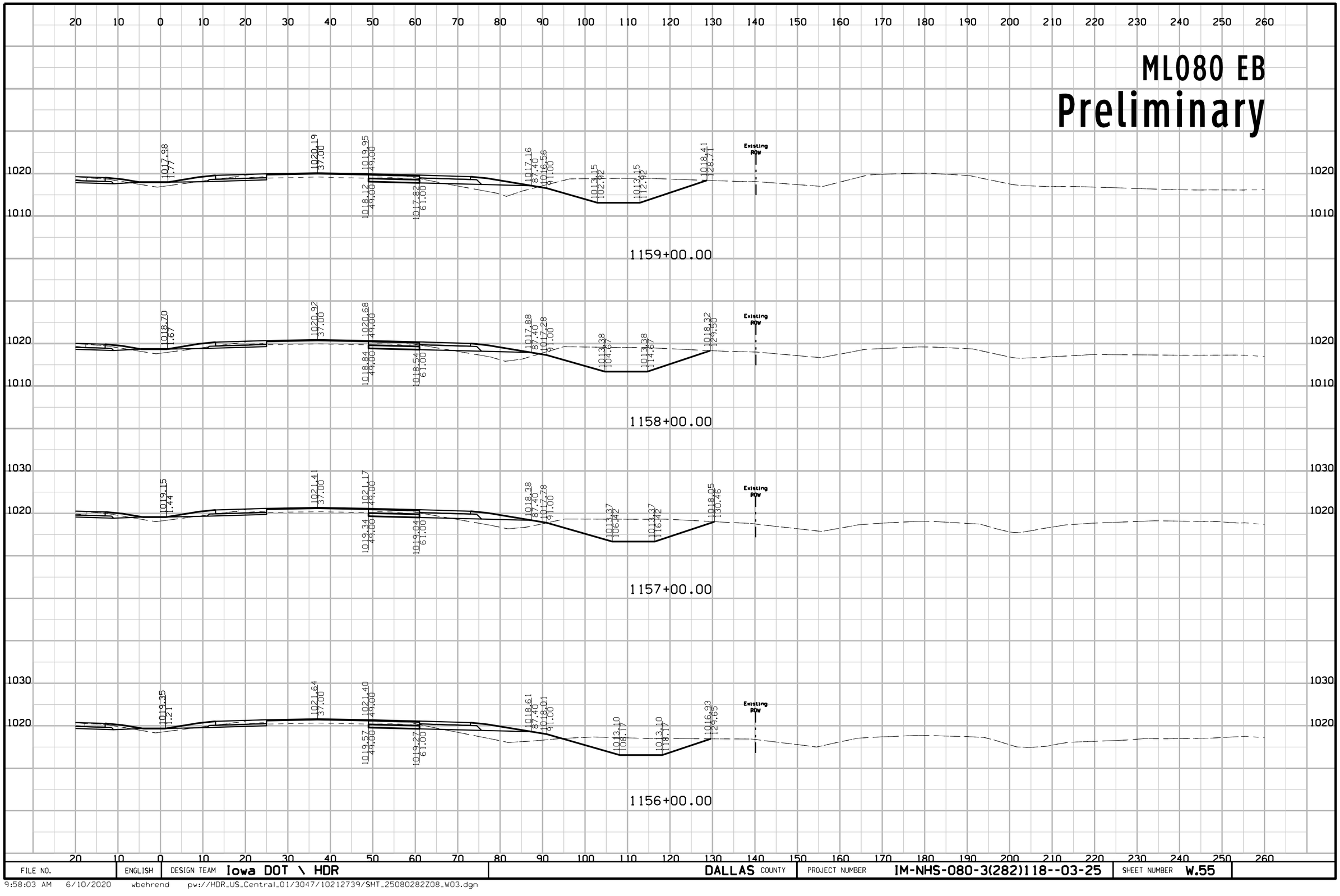
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.54

9:58:03 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

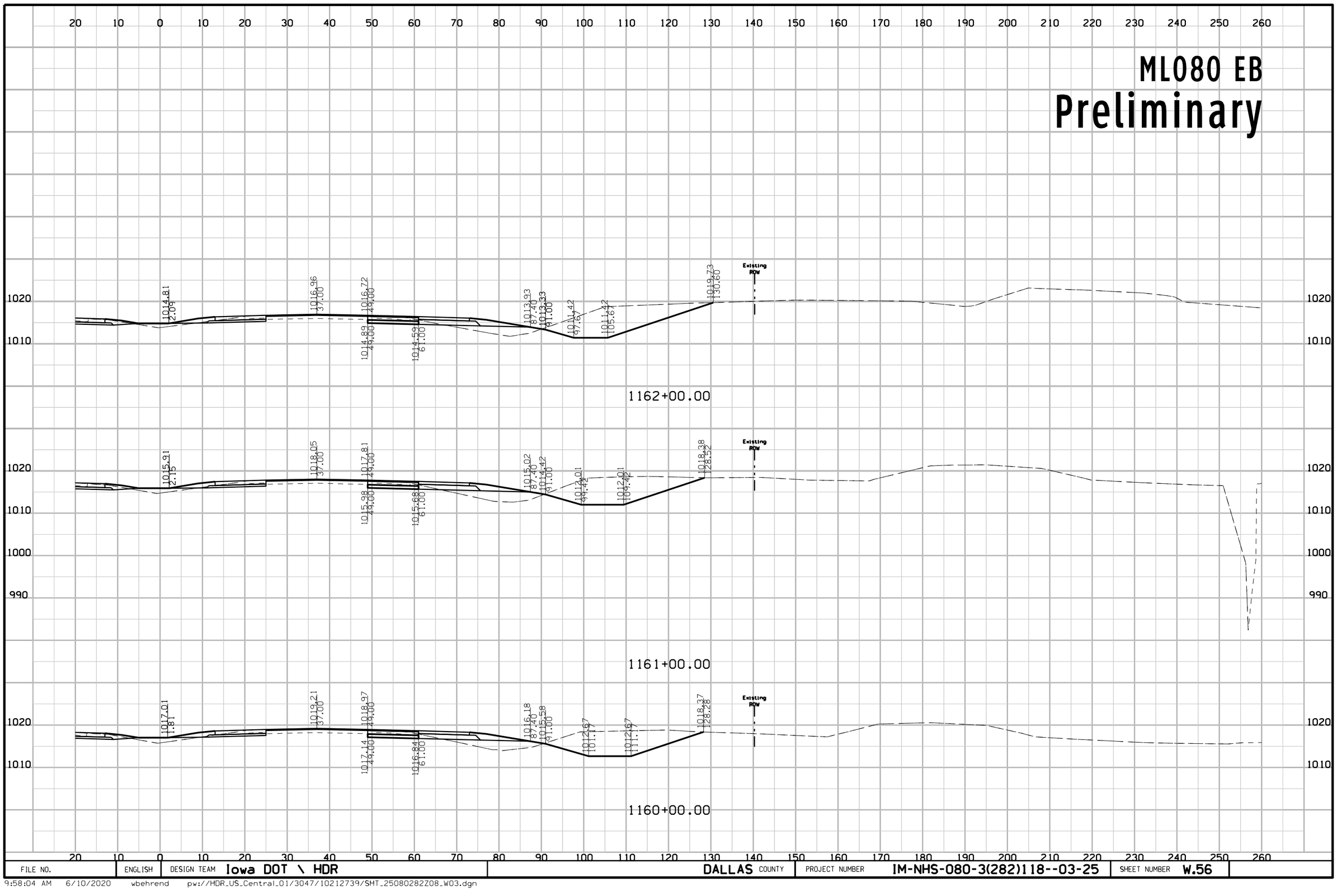
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.55

9:58:03 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

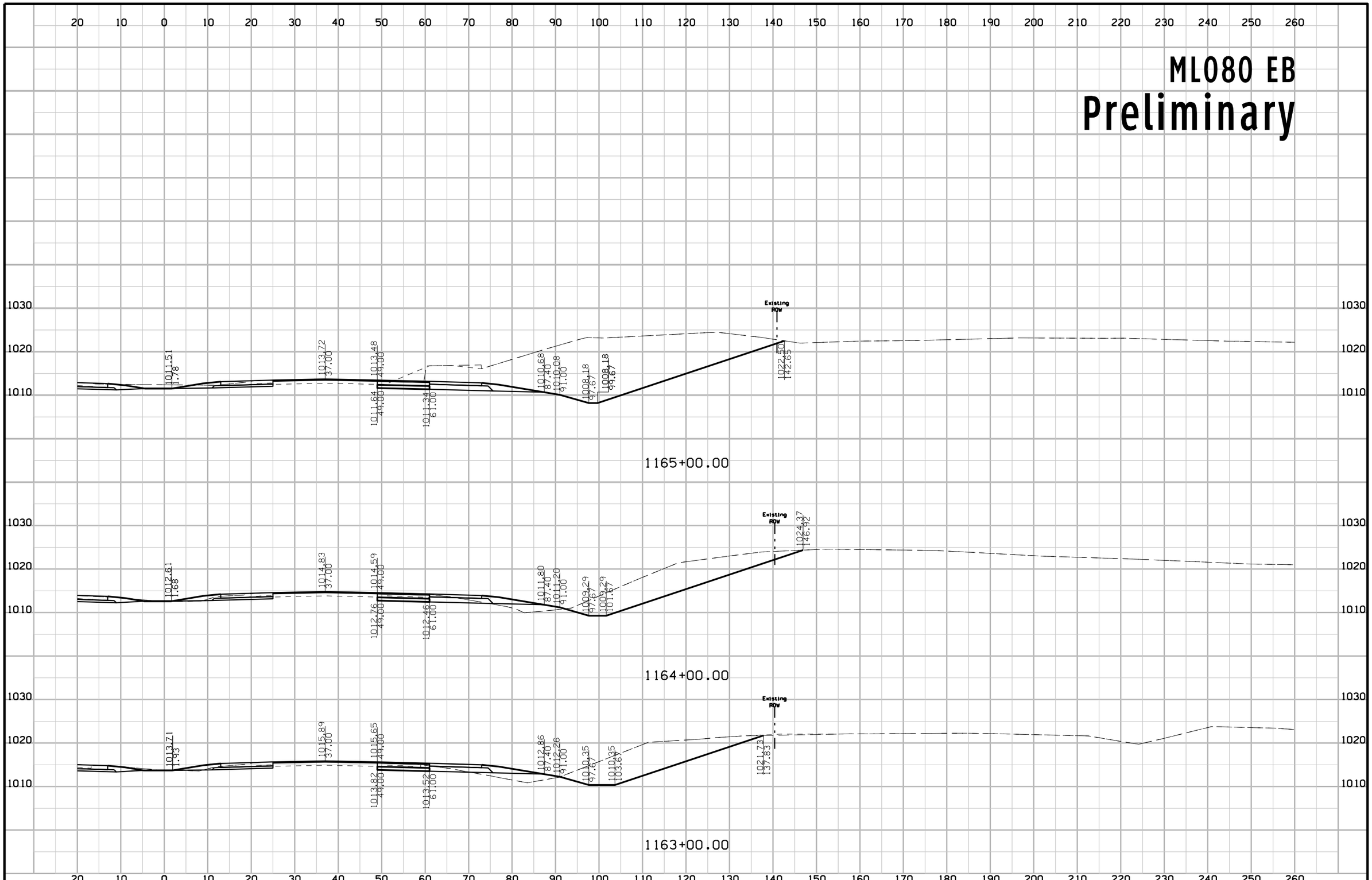
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.56

9:58:04 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

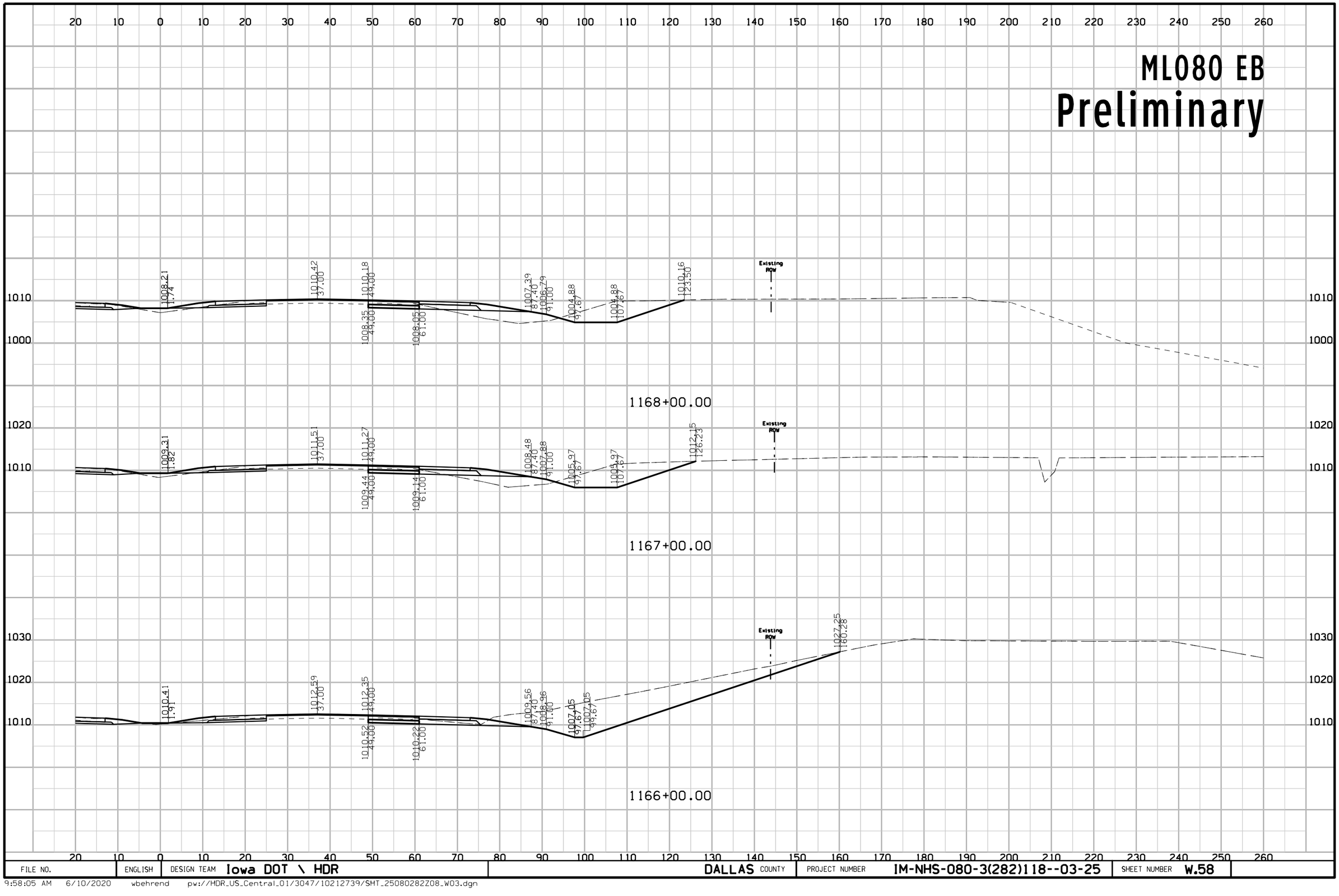
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.57

9:58:04 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

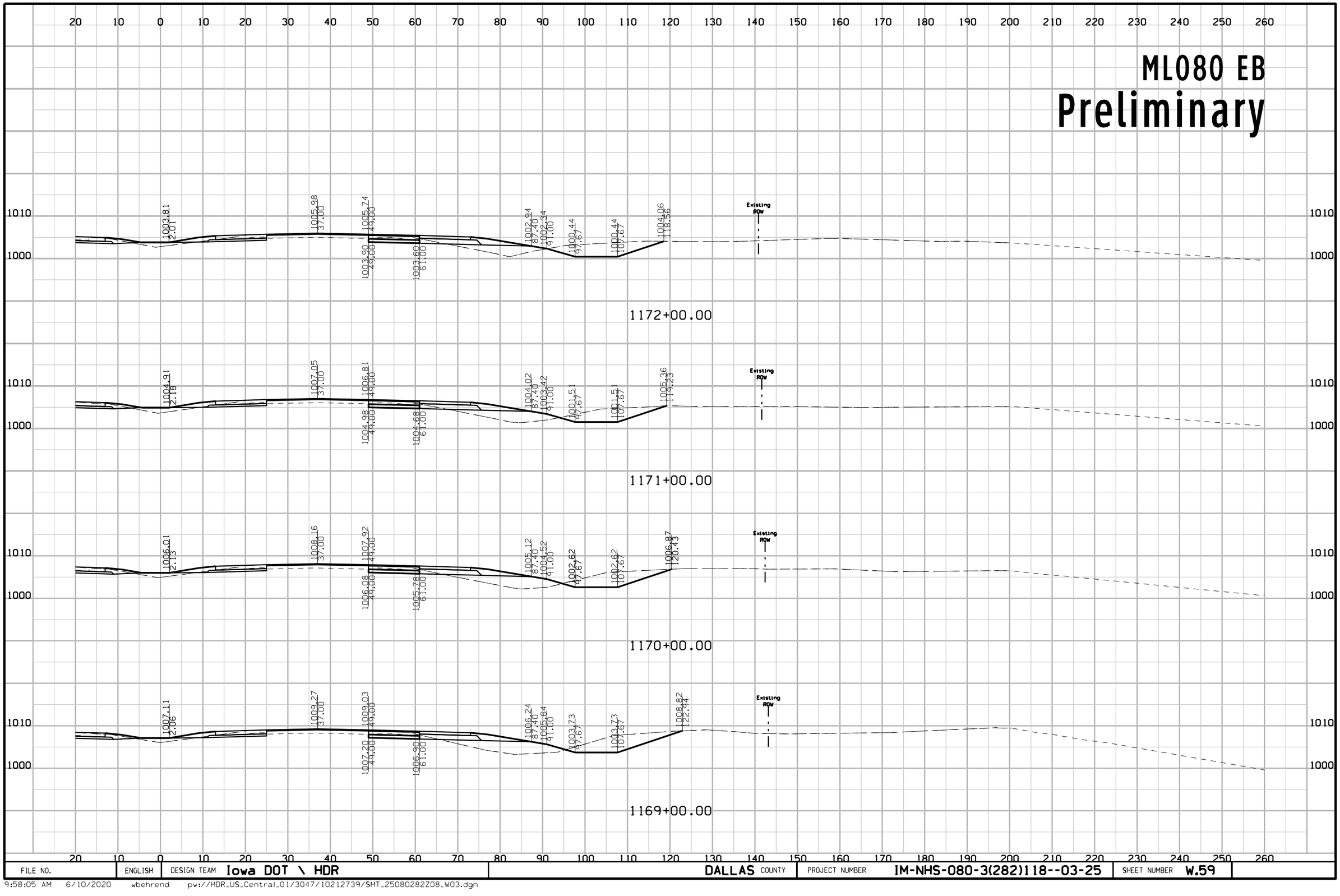
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.58

9:58:05 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.59

9:58:05 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB
Preliminary

20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

1010
1000

1000.51
1.82
1002.71
37.00
1002.47
49.00
1000.64
49.00
1000.34
61.00
999.68
87.40
999.08
91.00
996.42
100.36
996.42
110.30
998.63
116.83
Existing ROW

1175+00.00

1001.61
1.90
1003.80
37.00
1003.56
49.00
1001.72
49.00
1001.42
61.00
1000.76
87.40
1000.16
91.00
998.26
97.67
998.26
107.67
1002.27
121.23
Existing ROW

1174+00.00

1002.71
1.83
1004.91
37.00
1004.67
49.00
1002.83
49.00
1002.53
61.00
1001.87
87.40
1001.27
91.00
999.37
97.67
999.37
107.67
1005.89
127.25
Existing ROW

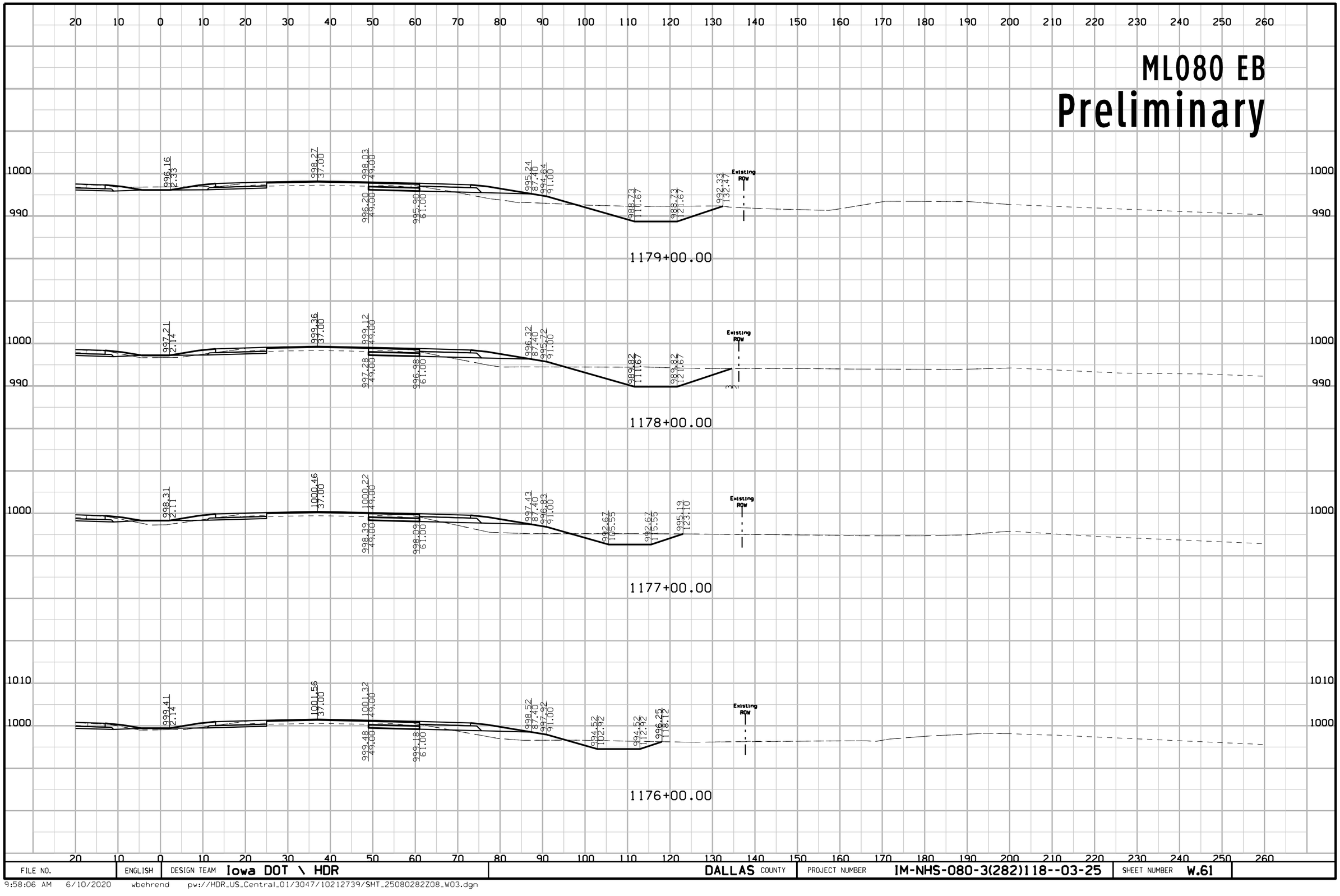
1173+00.00

20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.60

9:58:06 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

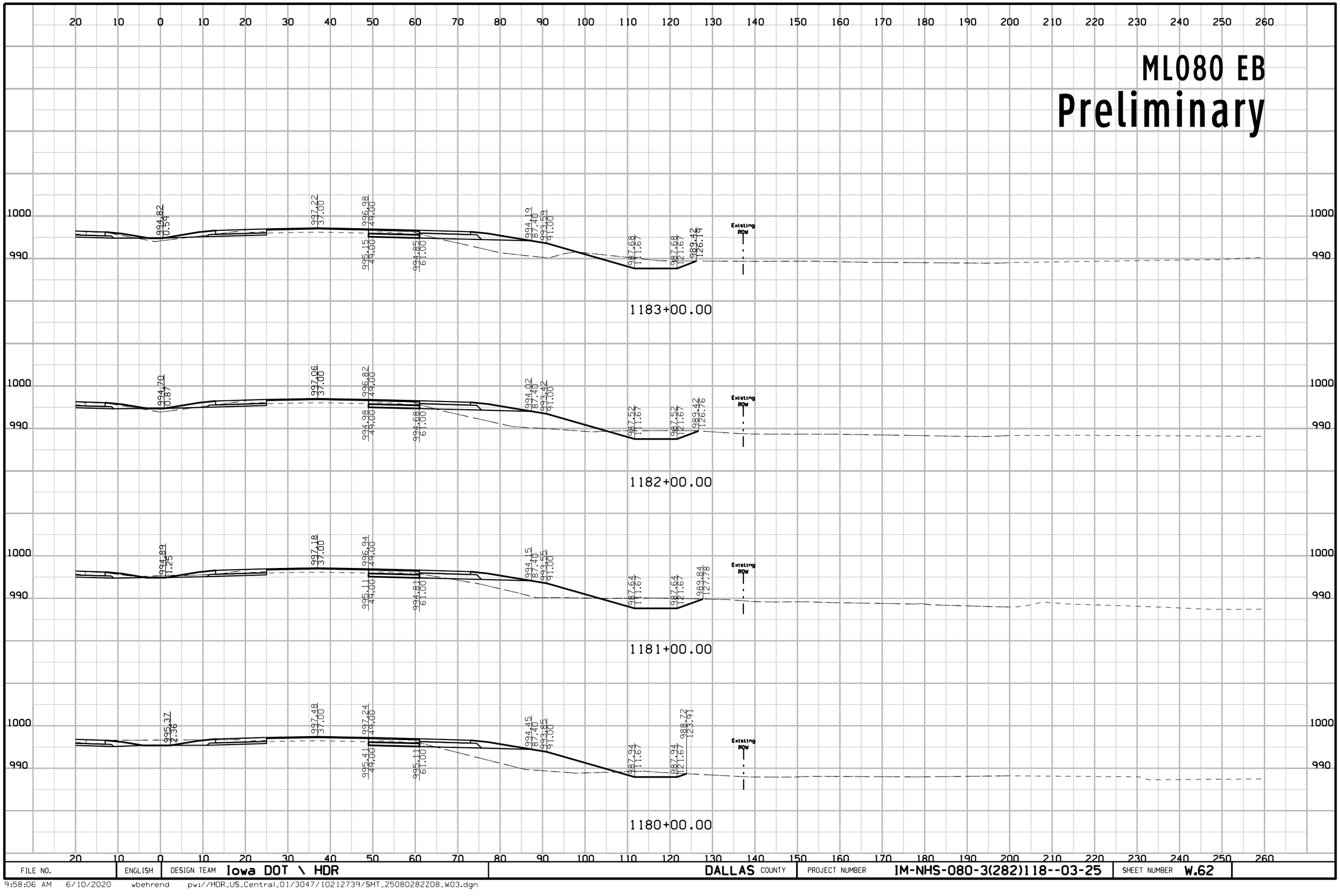
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.61

9:58:06 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

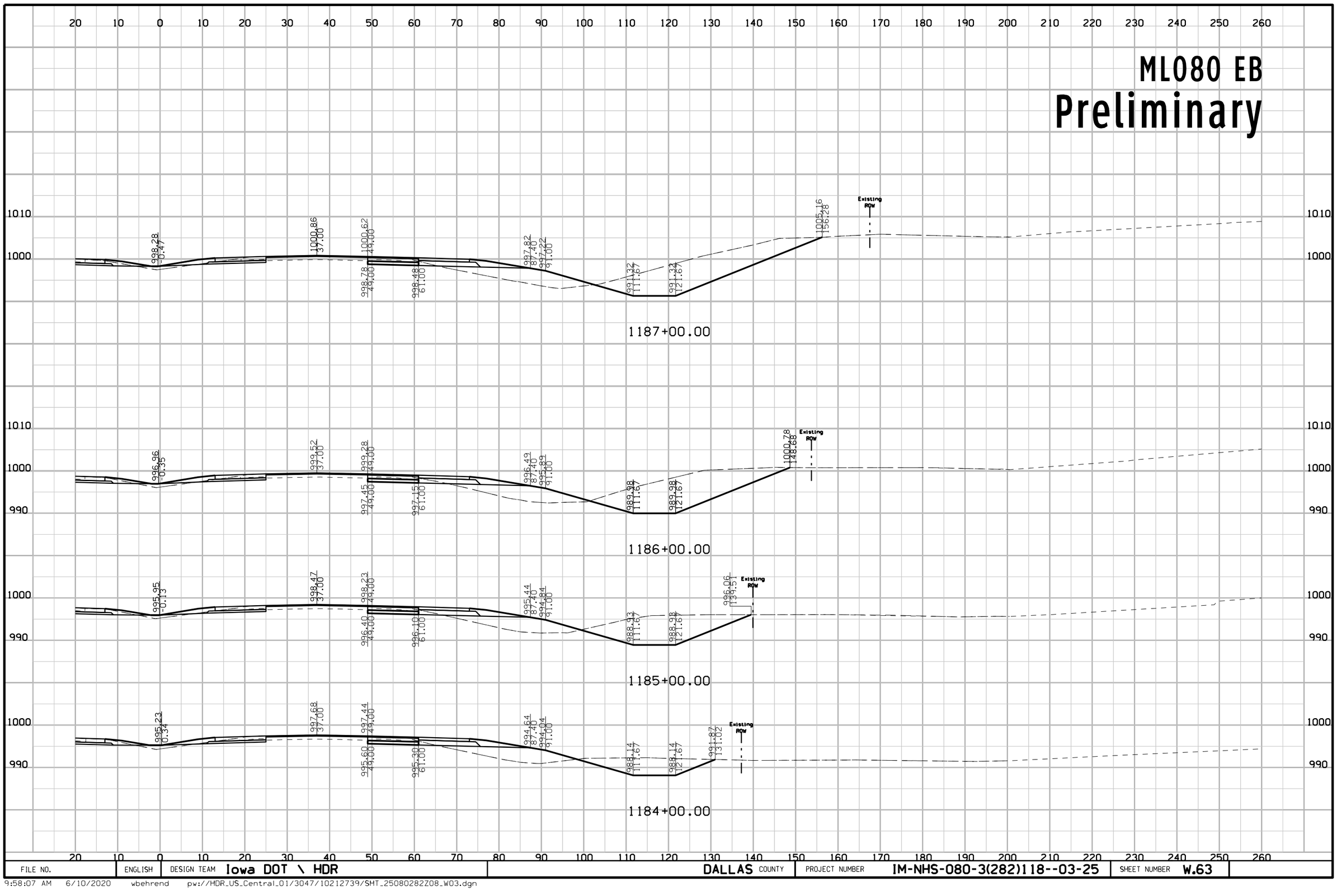
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.62

9:58:06 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

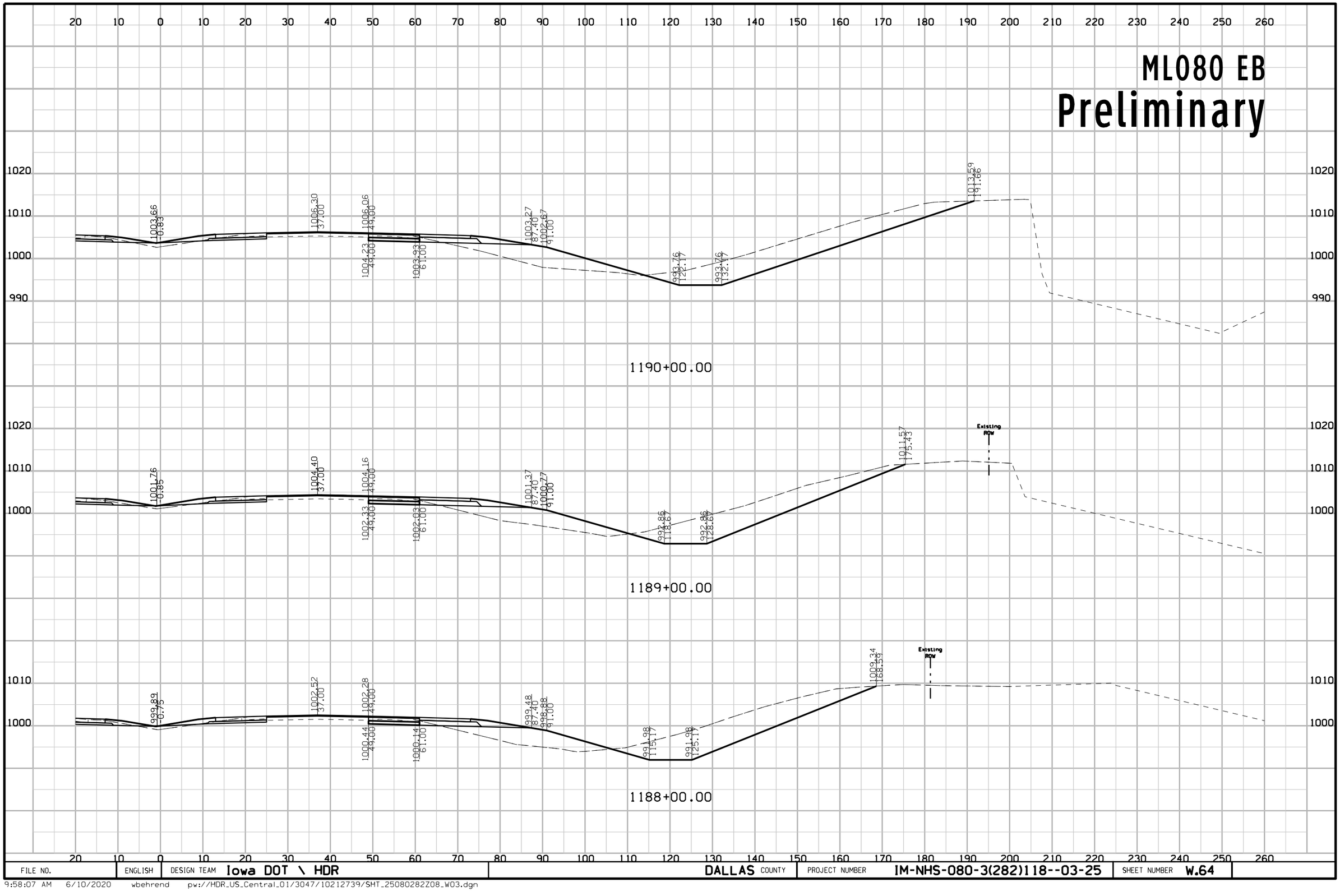
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.63

9:58:07 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

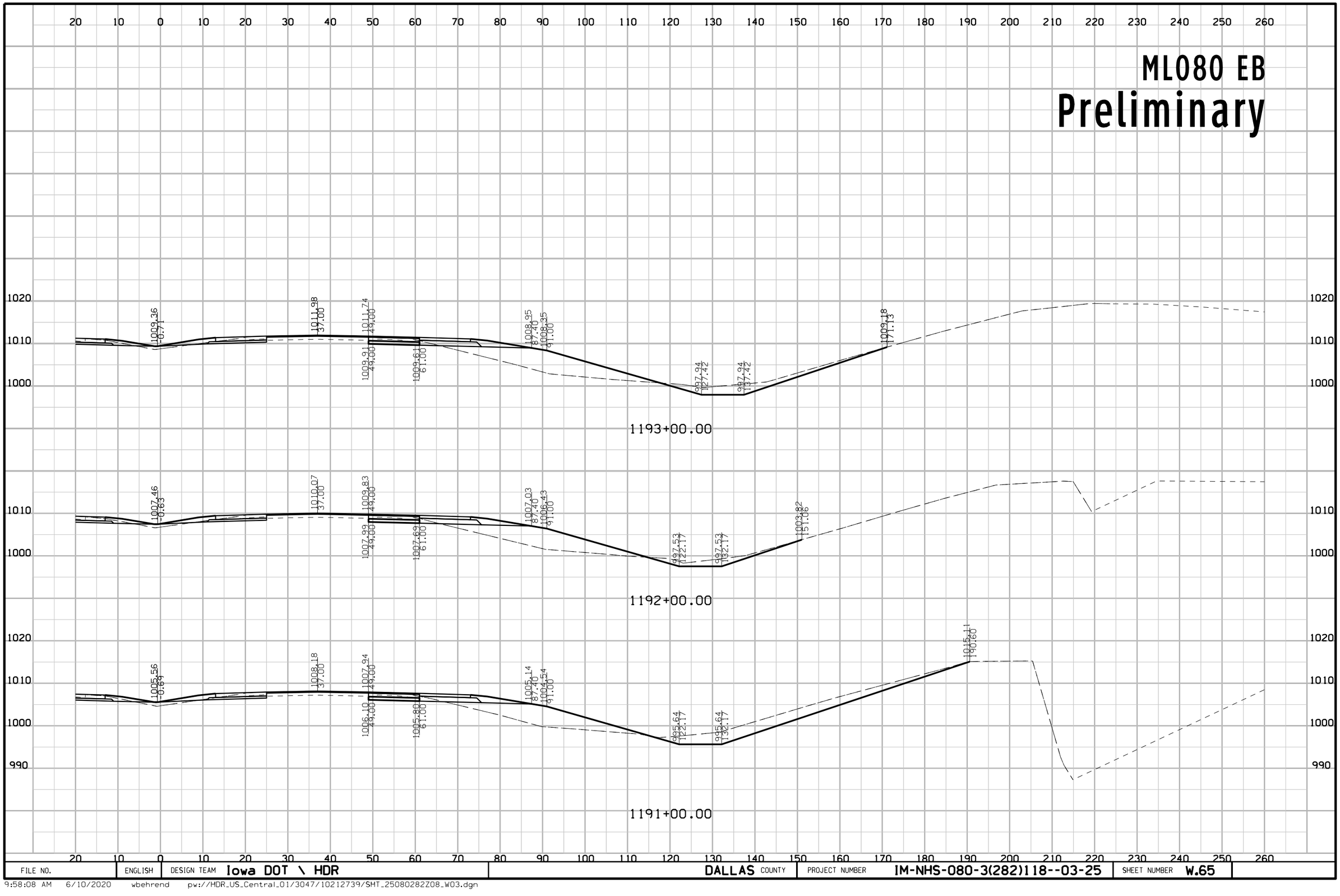
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.64

9:58:07 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB
Preliminary

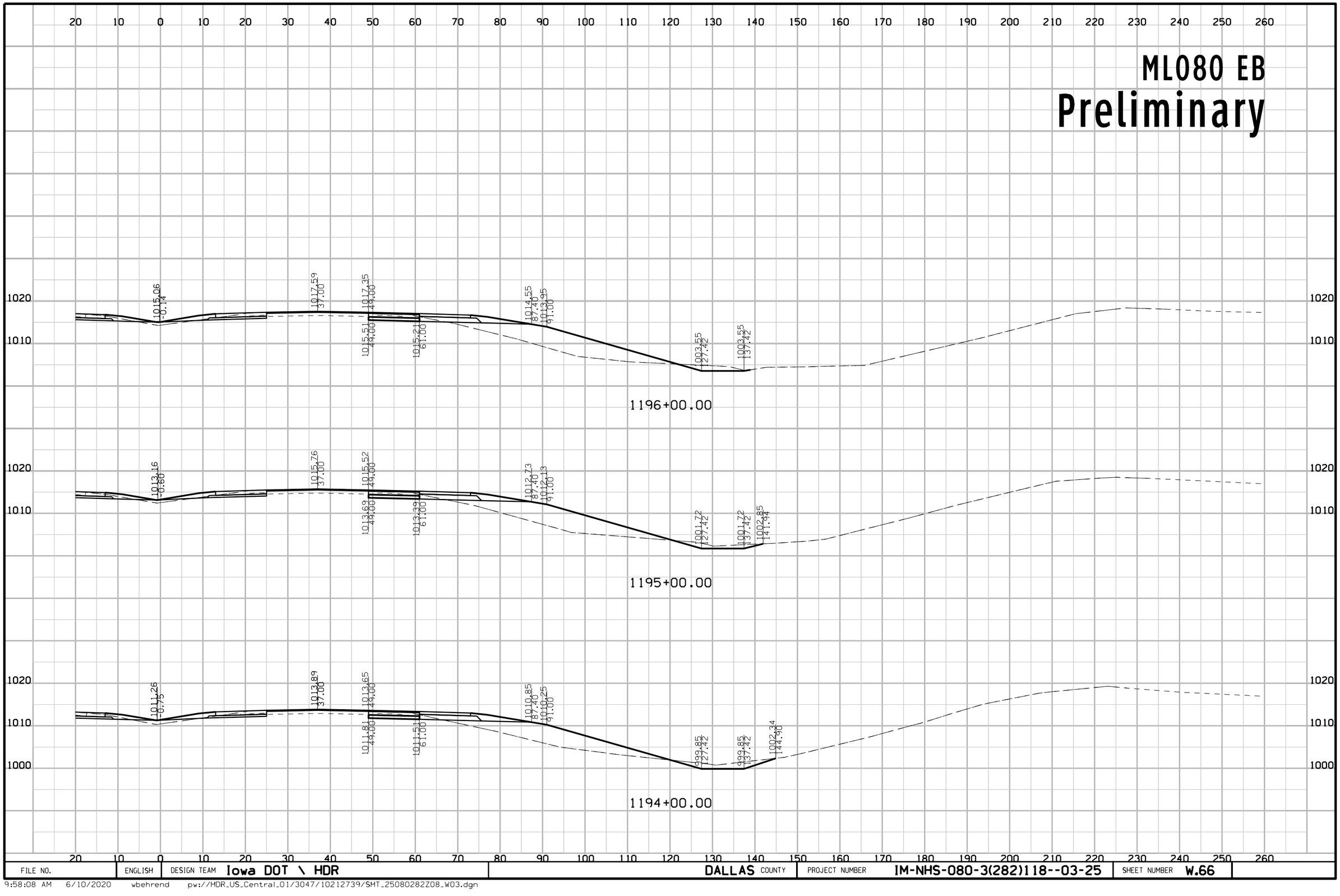


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.65

9:58:08 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB

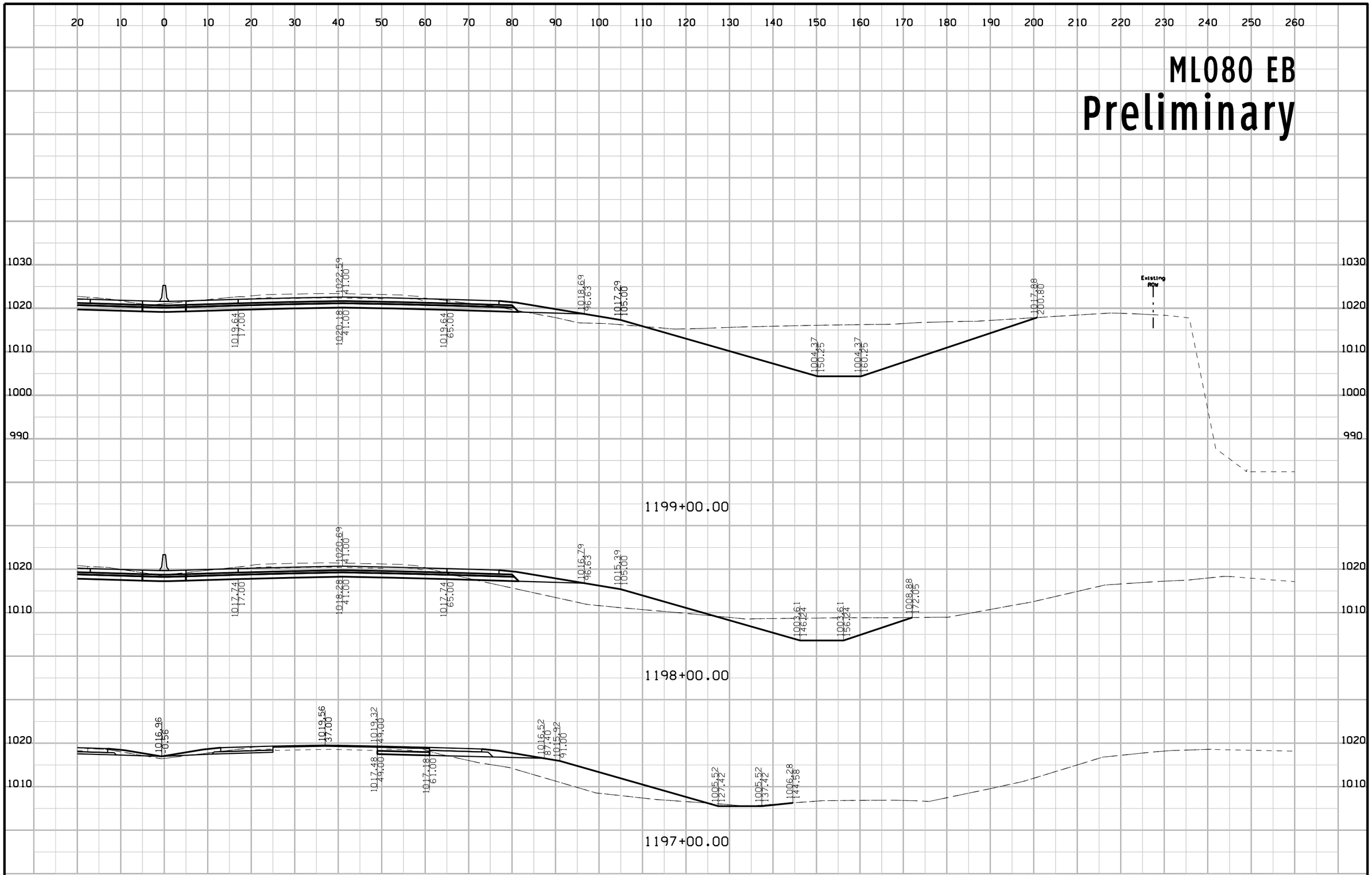
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.66

9:58:08 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

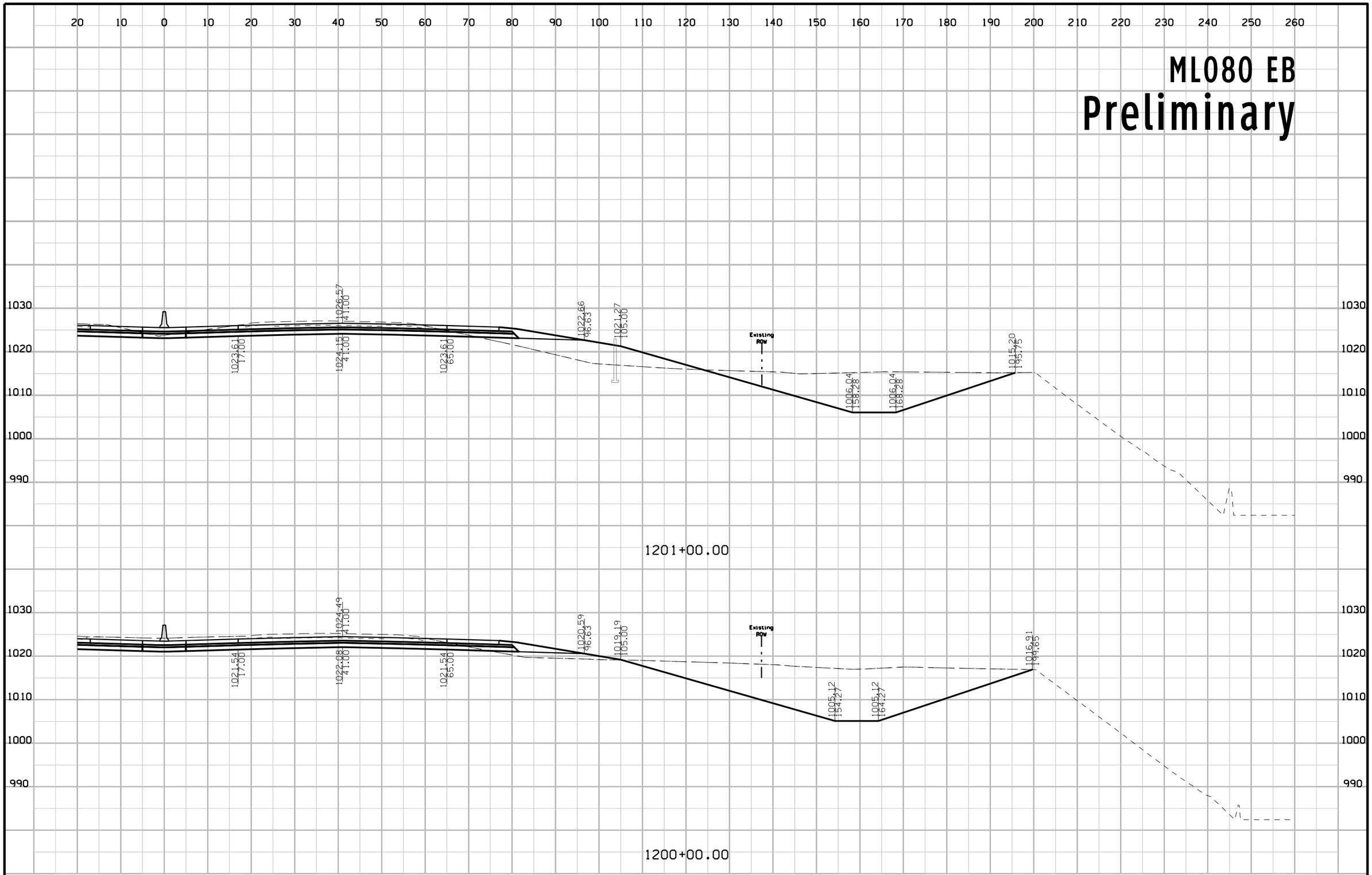
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.67

9:58:08 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

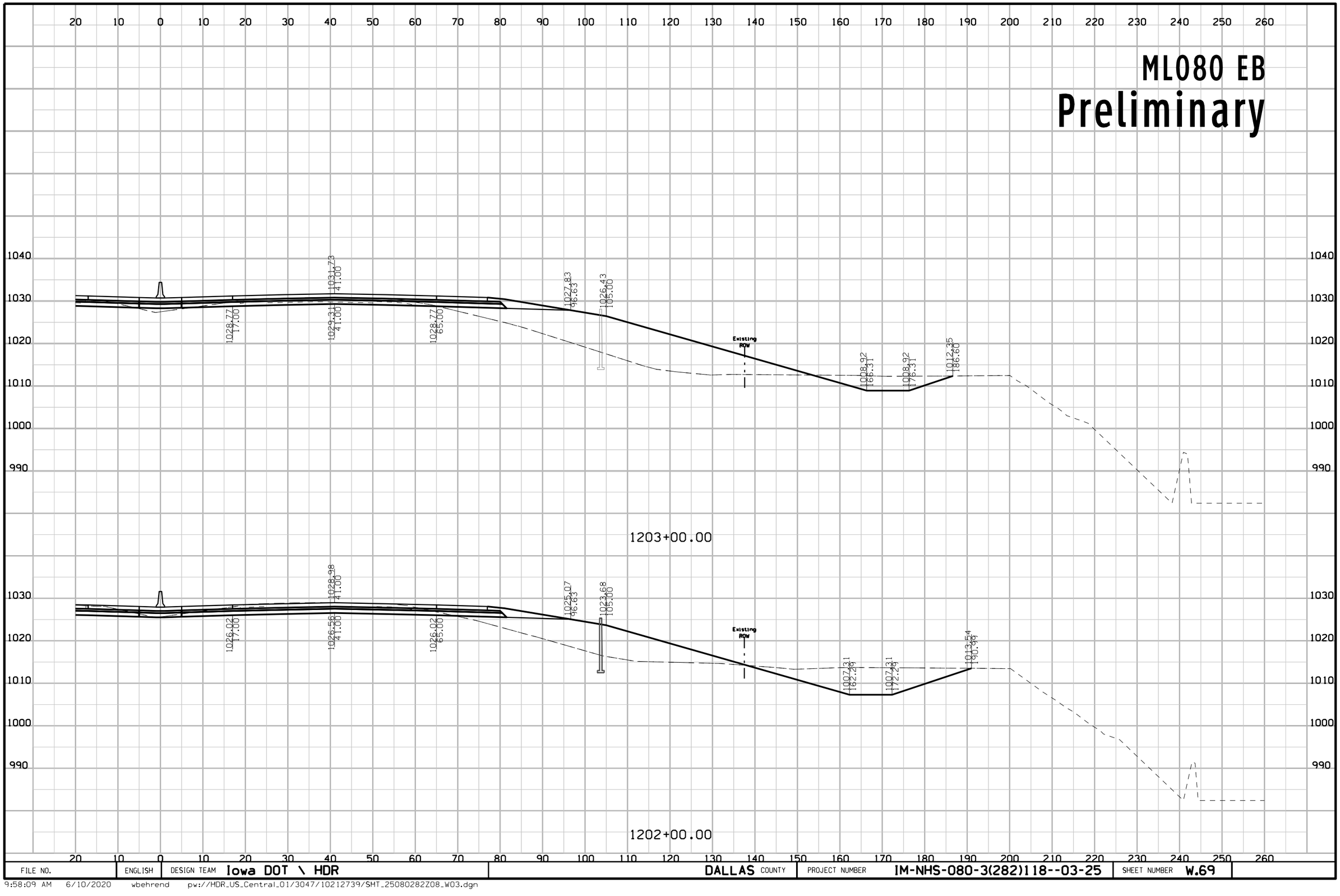
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.68

9:58:09 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

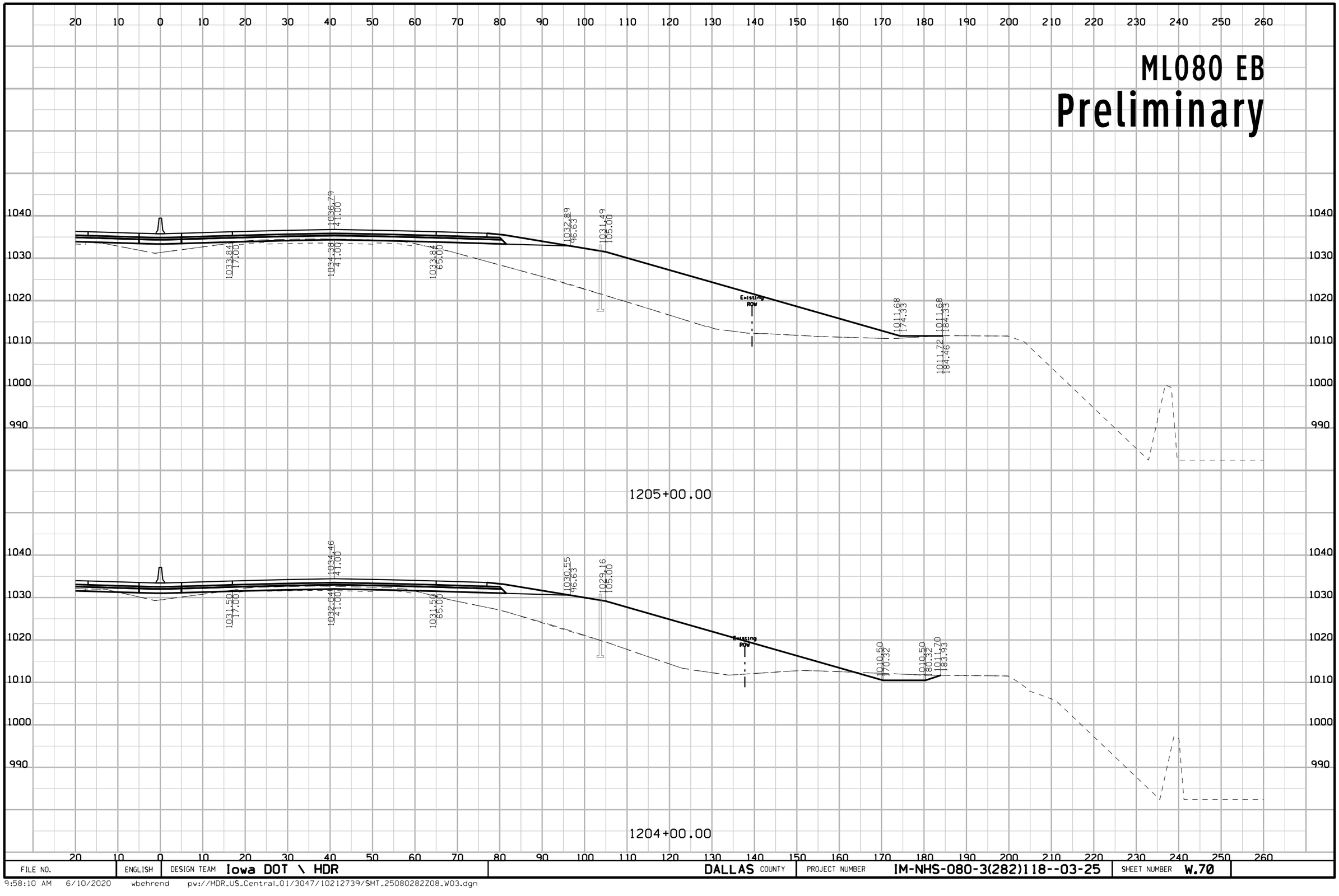
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.69

9:58:09 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

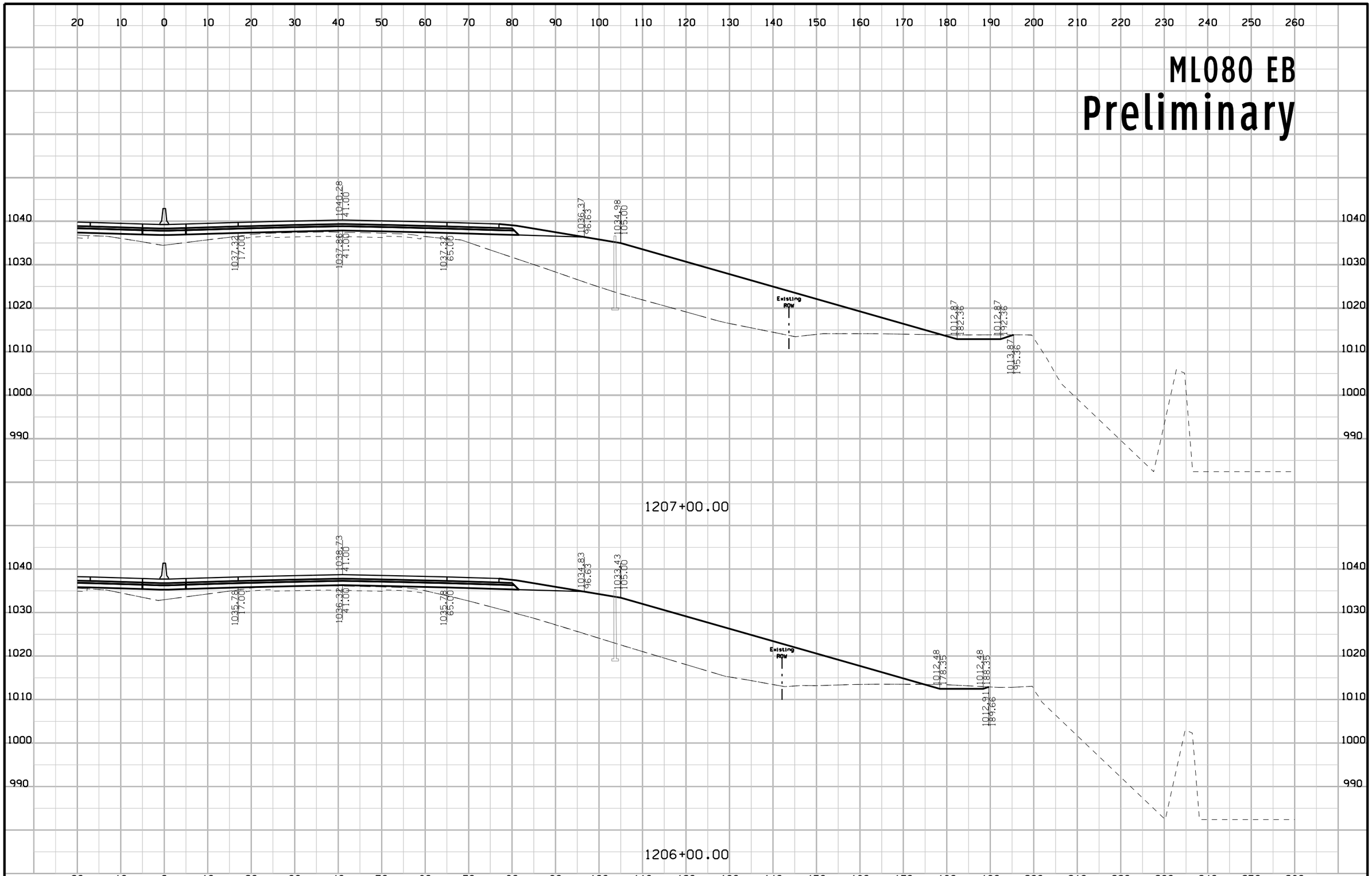
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.70

9:58:10 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

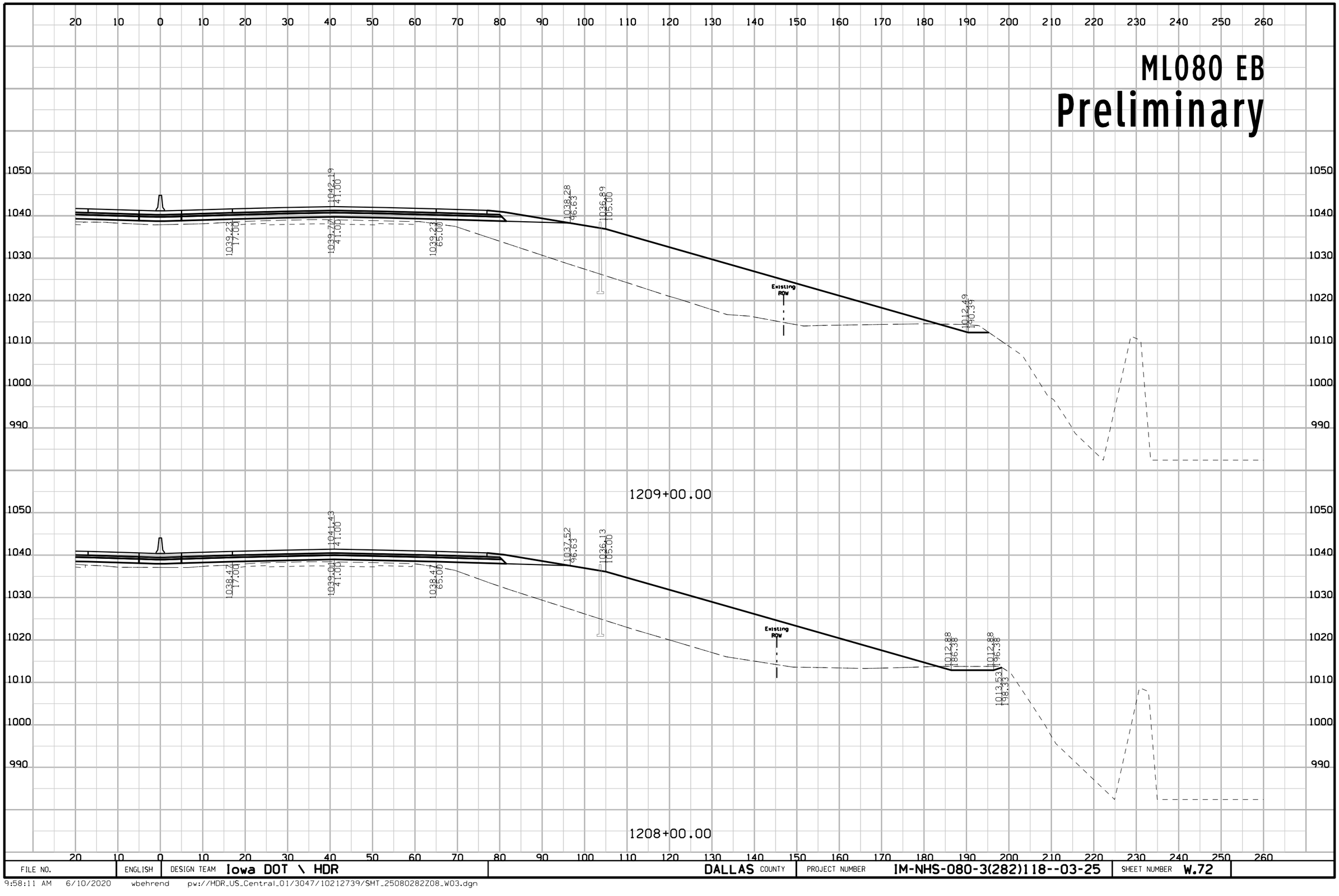
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.71

9:58:10 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.72

9:58:11 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB
Preliminary

20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

1040
1030
1020
1010
1000
990

1211+00.00

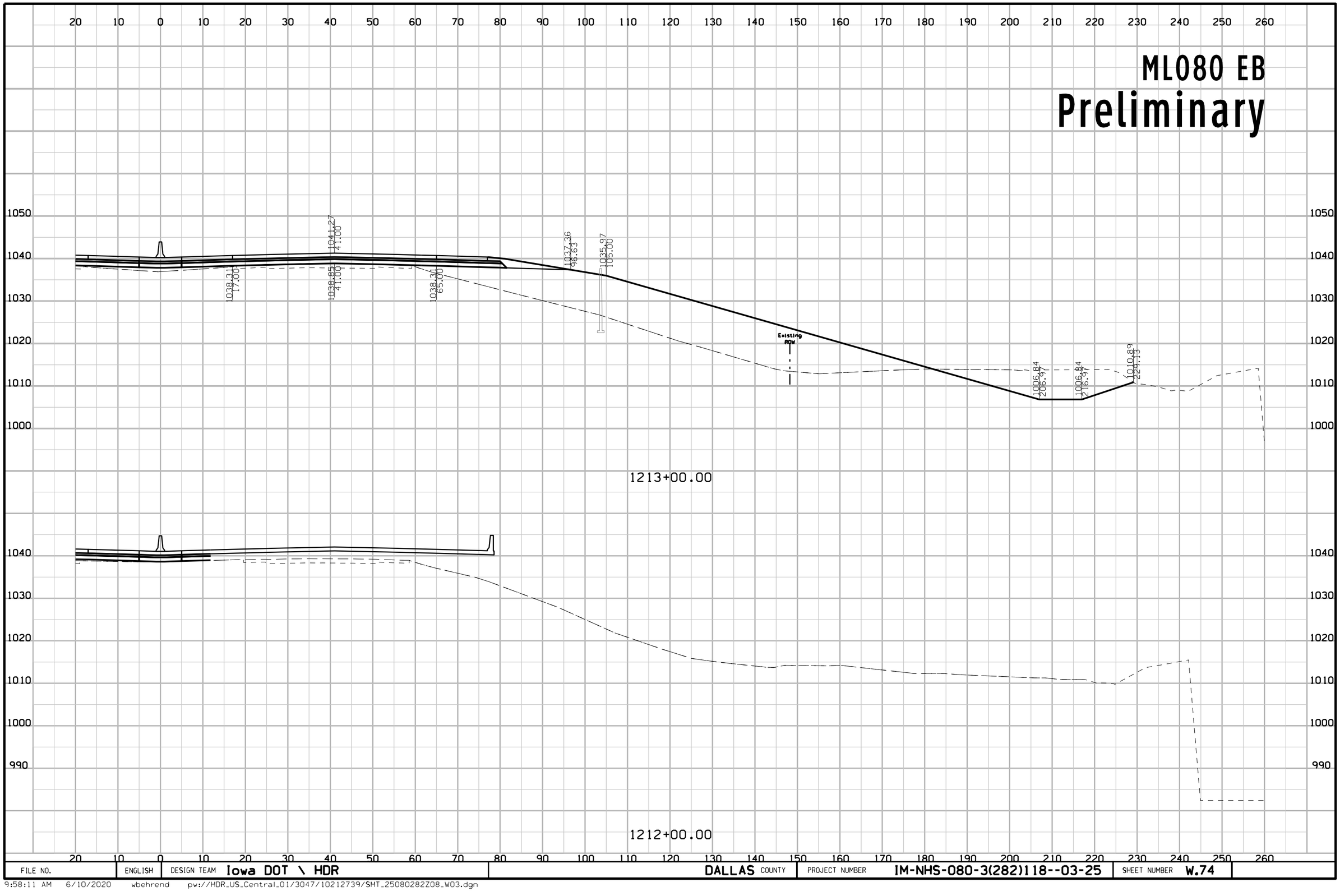
Existing ROW

1210+00.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.73

9:58:11 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

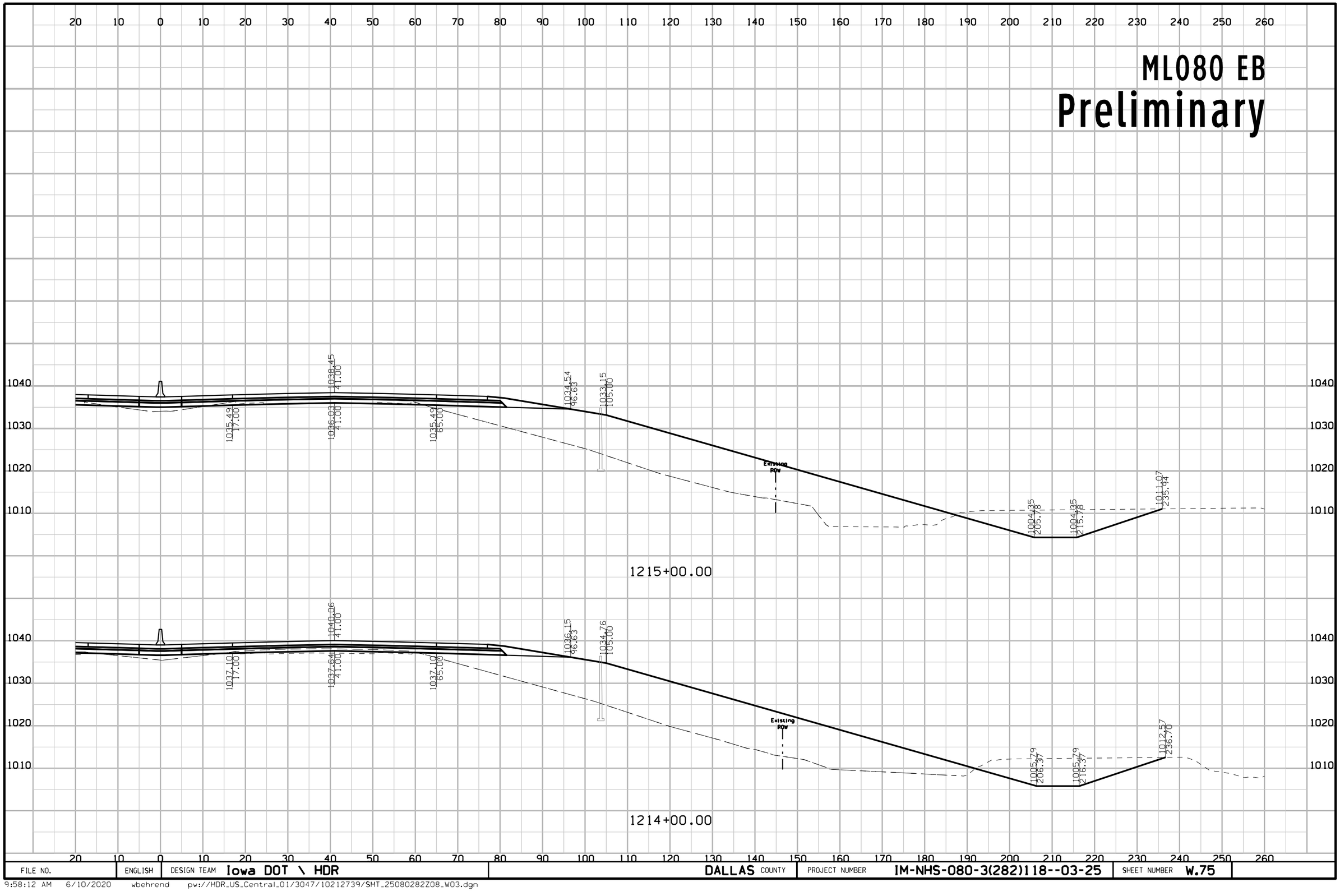
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.74	

9:58:11 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

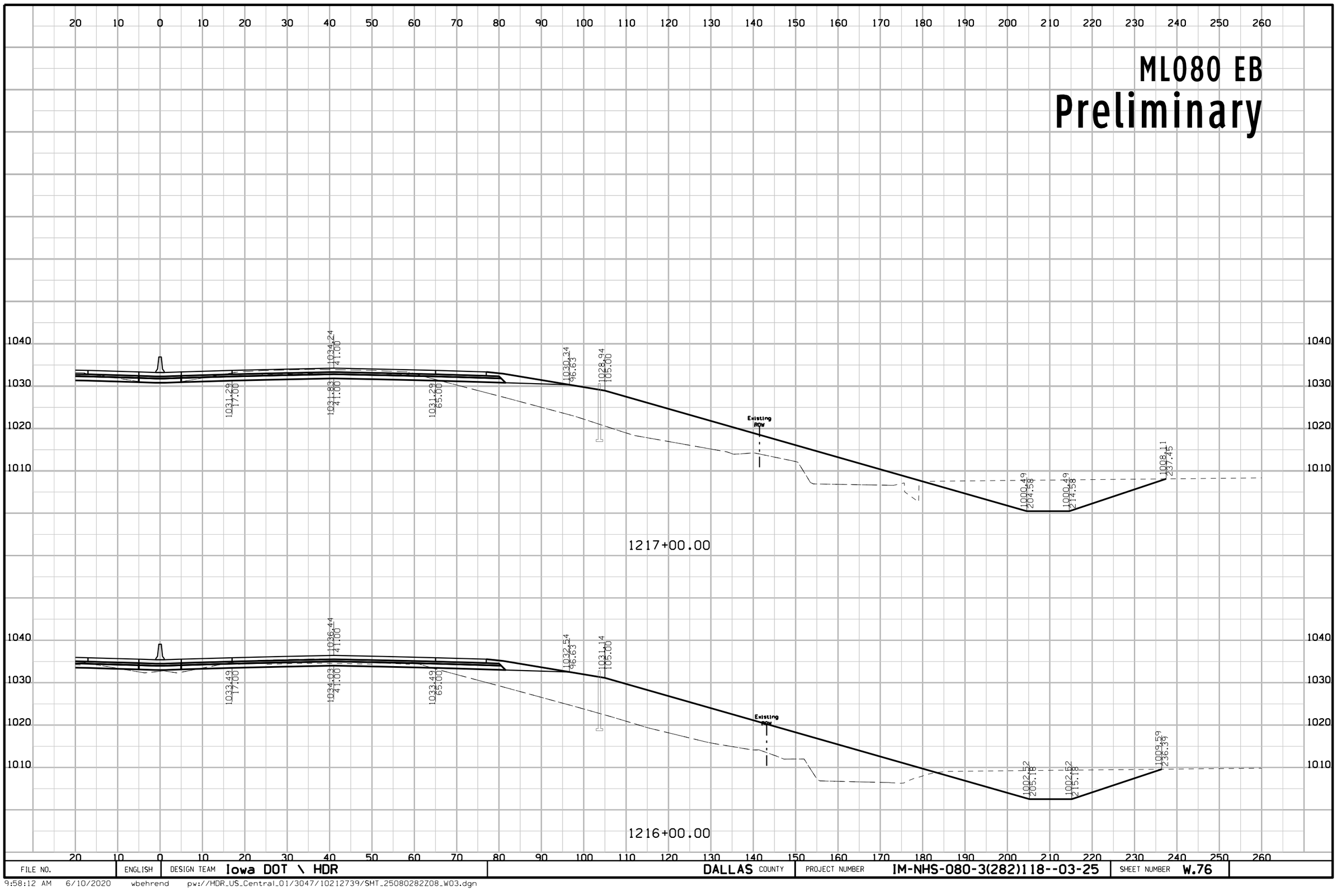
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.75

9:58:12 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

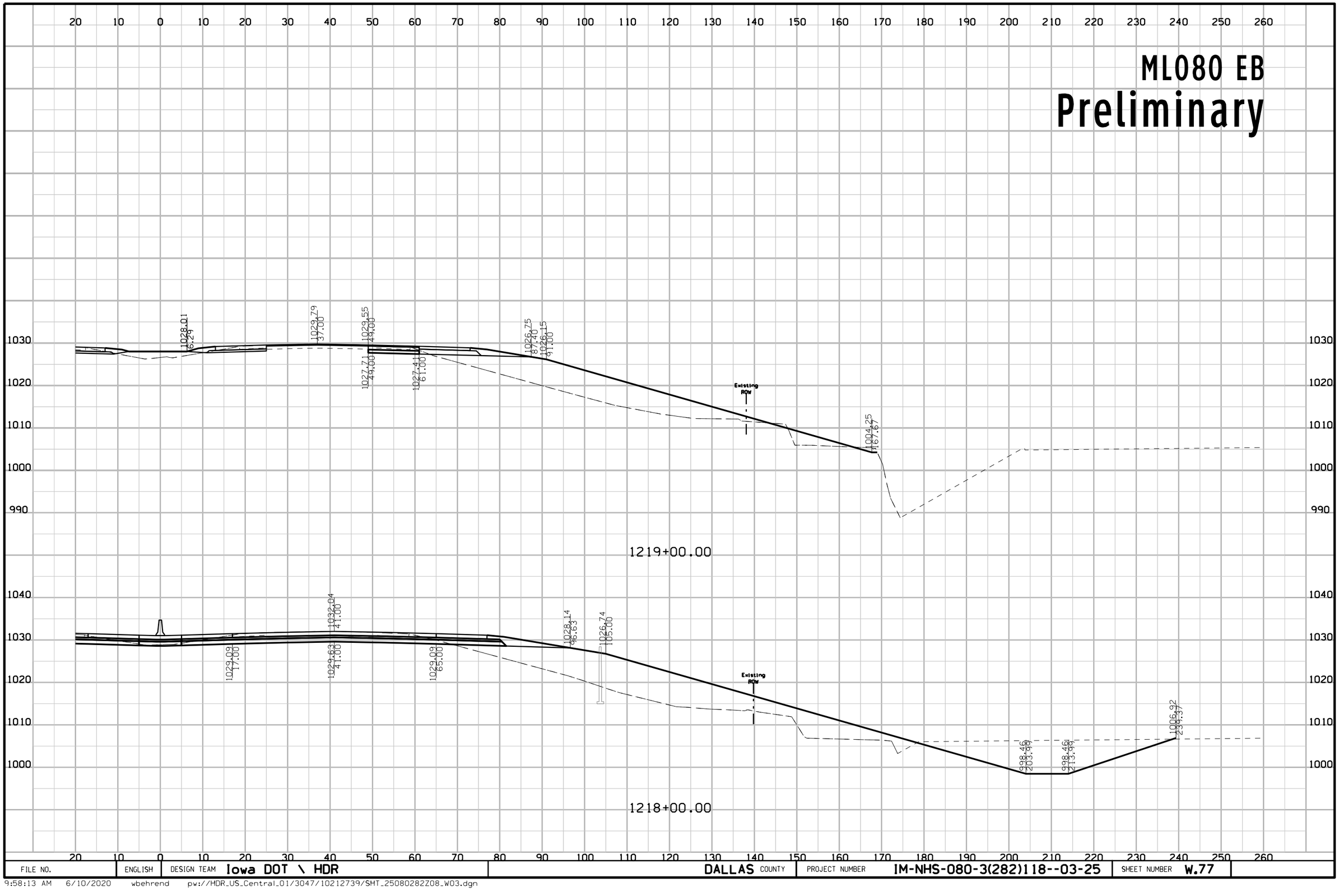
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.76

9:58:12 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

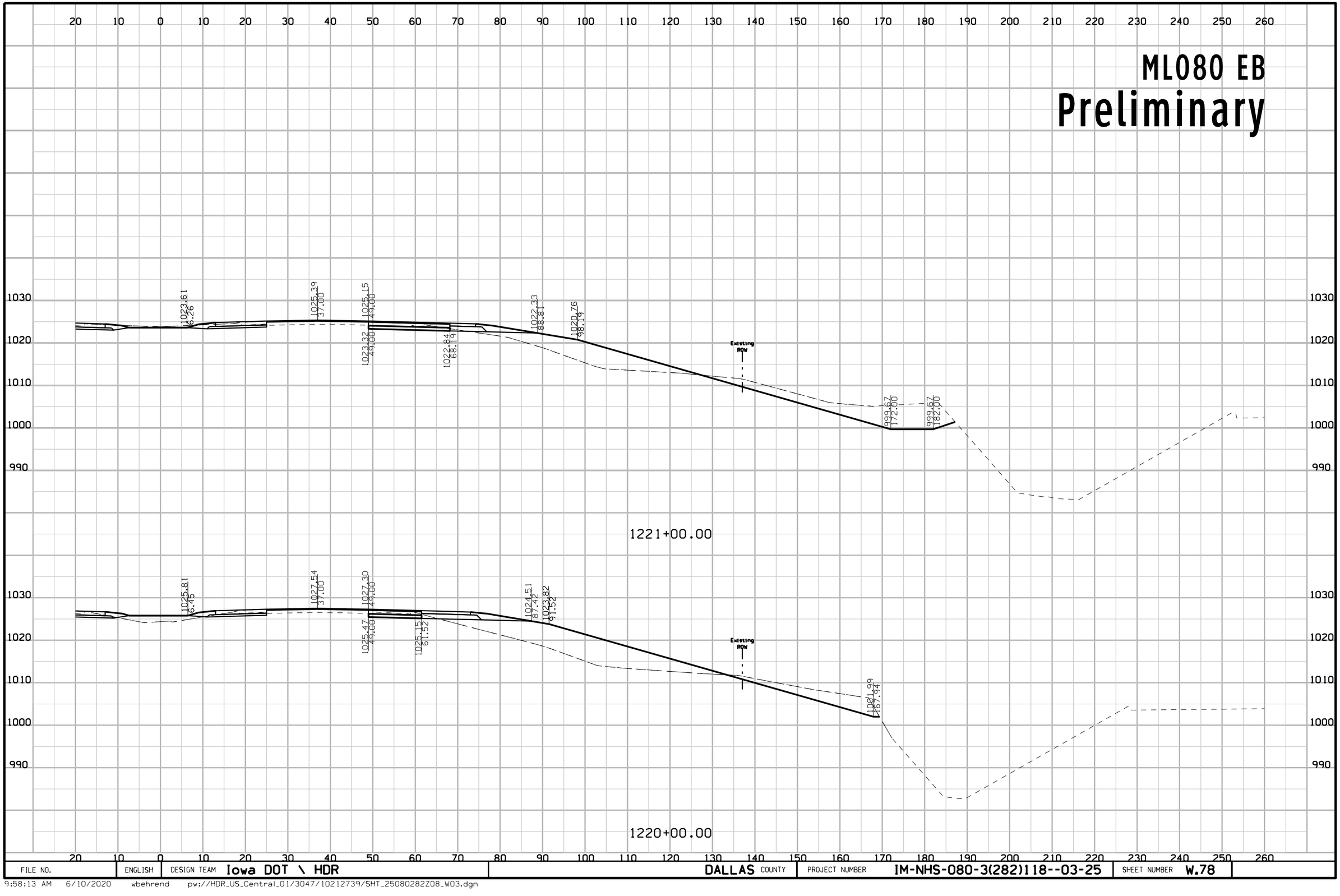
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.77

9:58:13 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

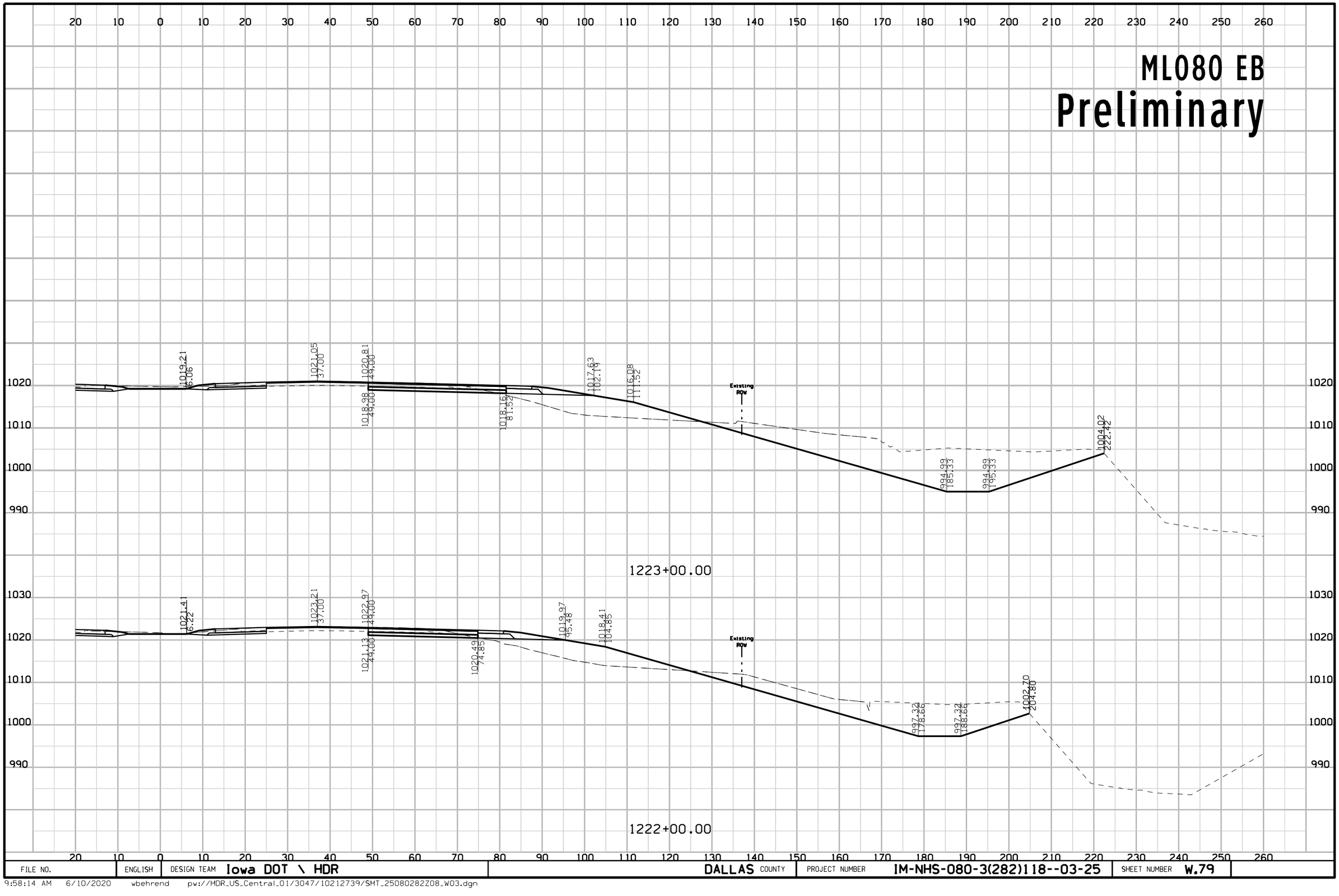
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.78

9:58:13 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

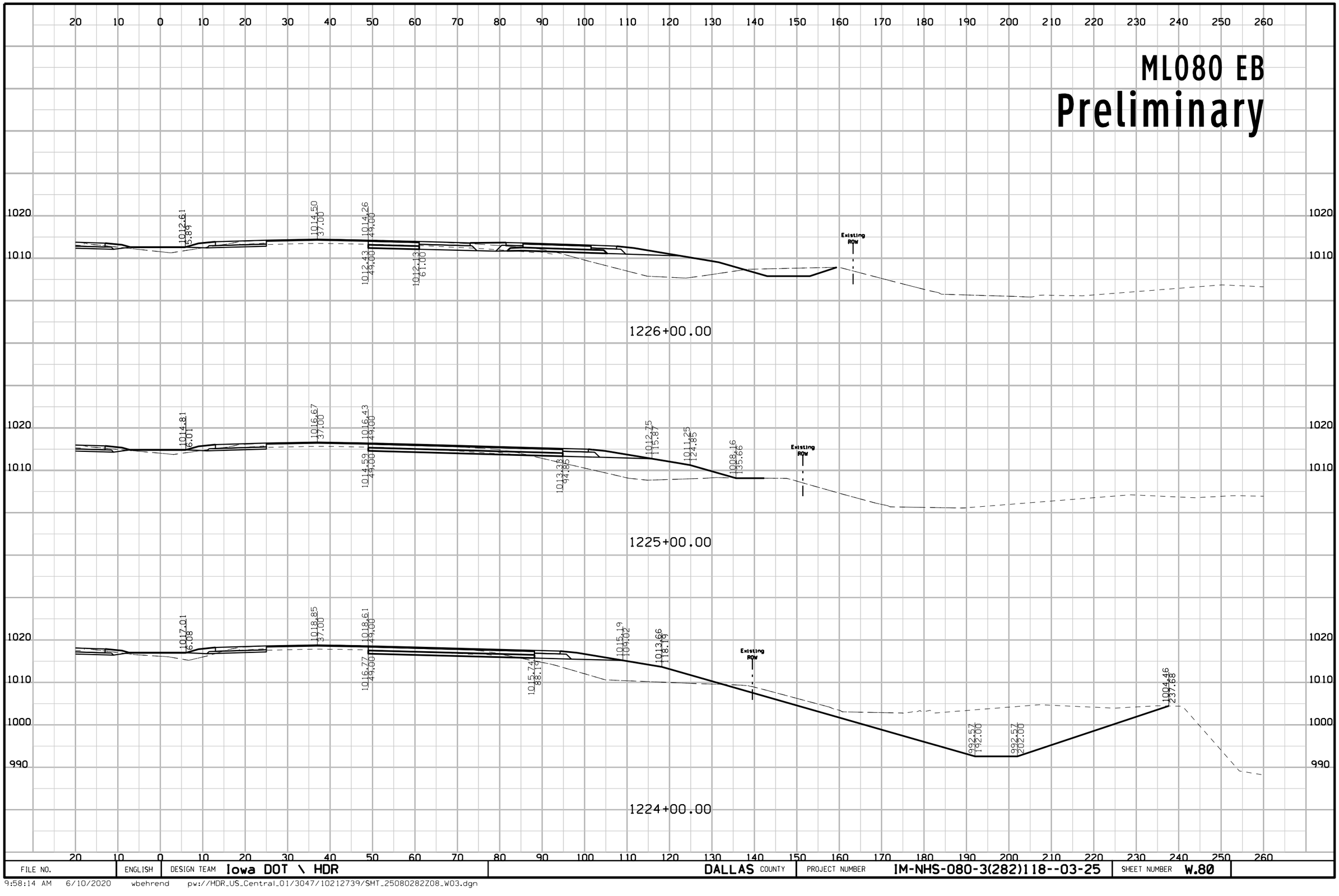
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.79

9:58:14 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.80

9:58:14 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB
Preliminary

20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

1010
1000

1003.81
5.82
1005.69
37.00
1005.45
49.00
1003.62
49.00
1003.32
61.00
1002.66
87.40
1002.06
91.00

1230+00.00

1010
1000

1006.01
5.66
1007.97
37.00
1007.73
49.00
1005.89
49.00
1005.59
61.00
1004.93
87.40
1004.33
91.00
Existing ROW

1229+00.00

1010
1000

1008.21
5.54
1010.20
37.00
1009.96
49.00
1008.13
49.00
1007.83
61.00
Existing ROW

1228+00.00

1020
1010

1010.41
5.65
1012.37
37.00
1012.13
49.00
1010.30
49.00
1010.00
61.00
Existing ROW

1227+00.00

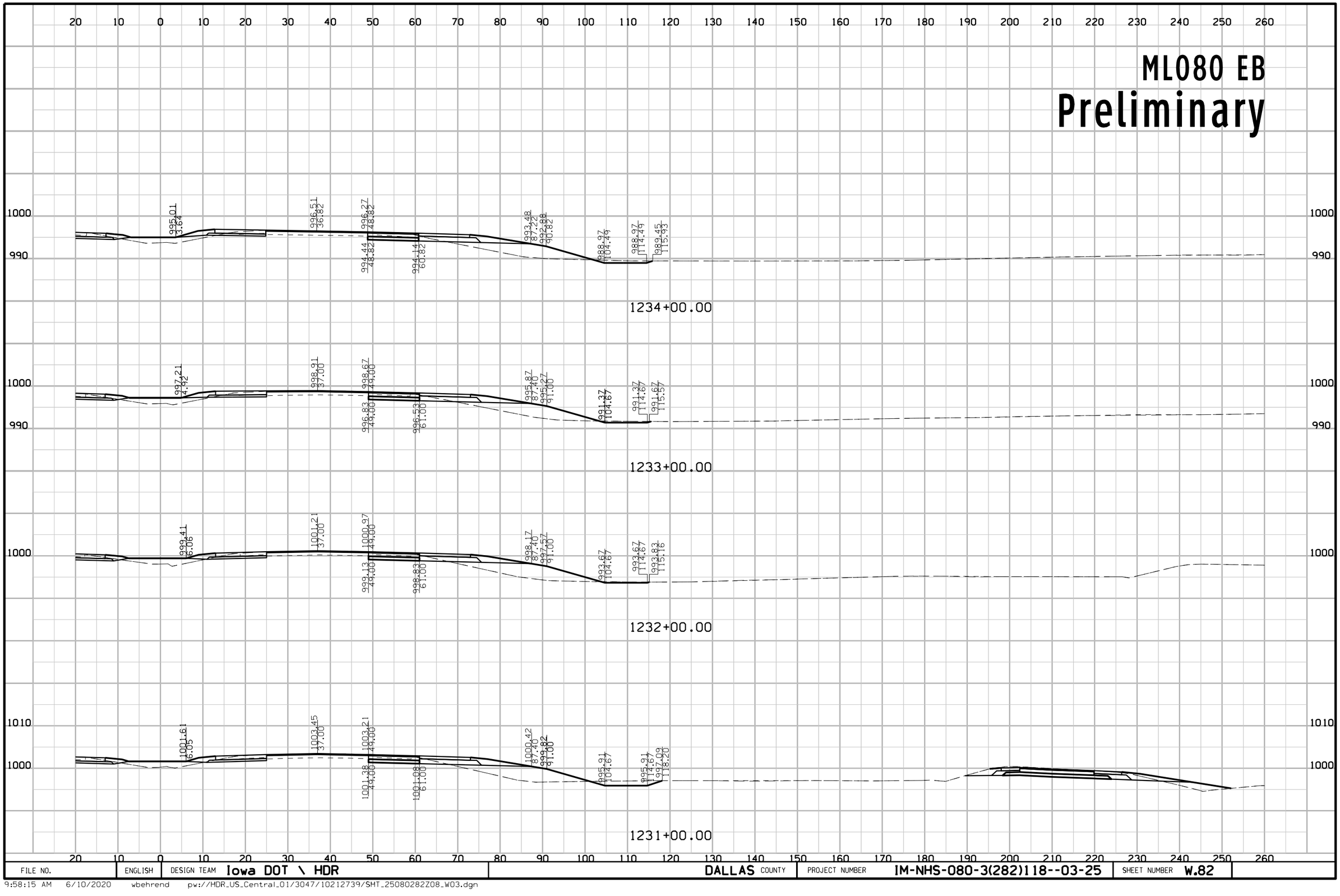
20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.81

9:58:15 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB

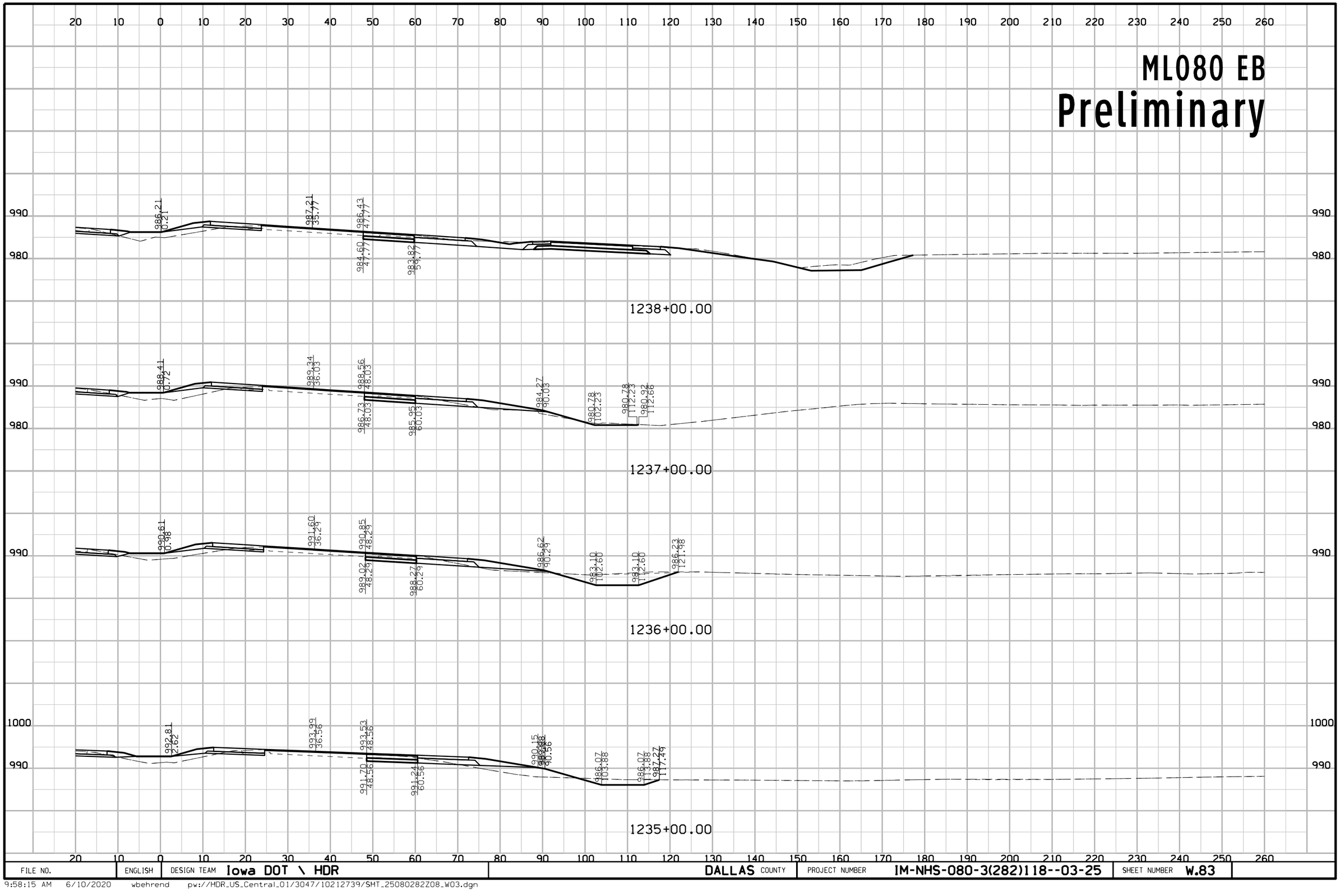
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.82

9:58:15 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB
Preliminary

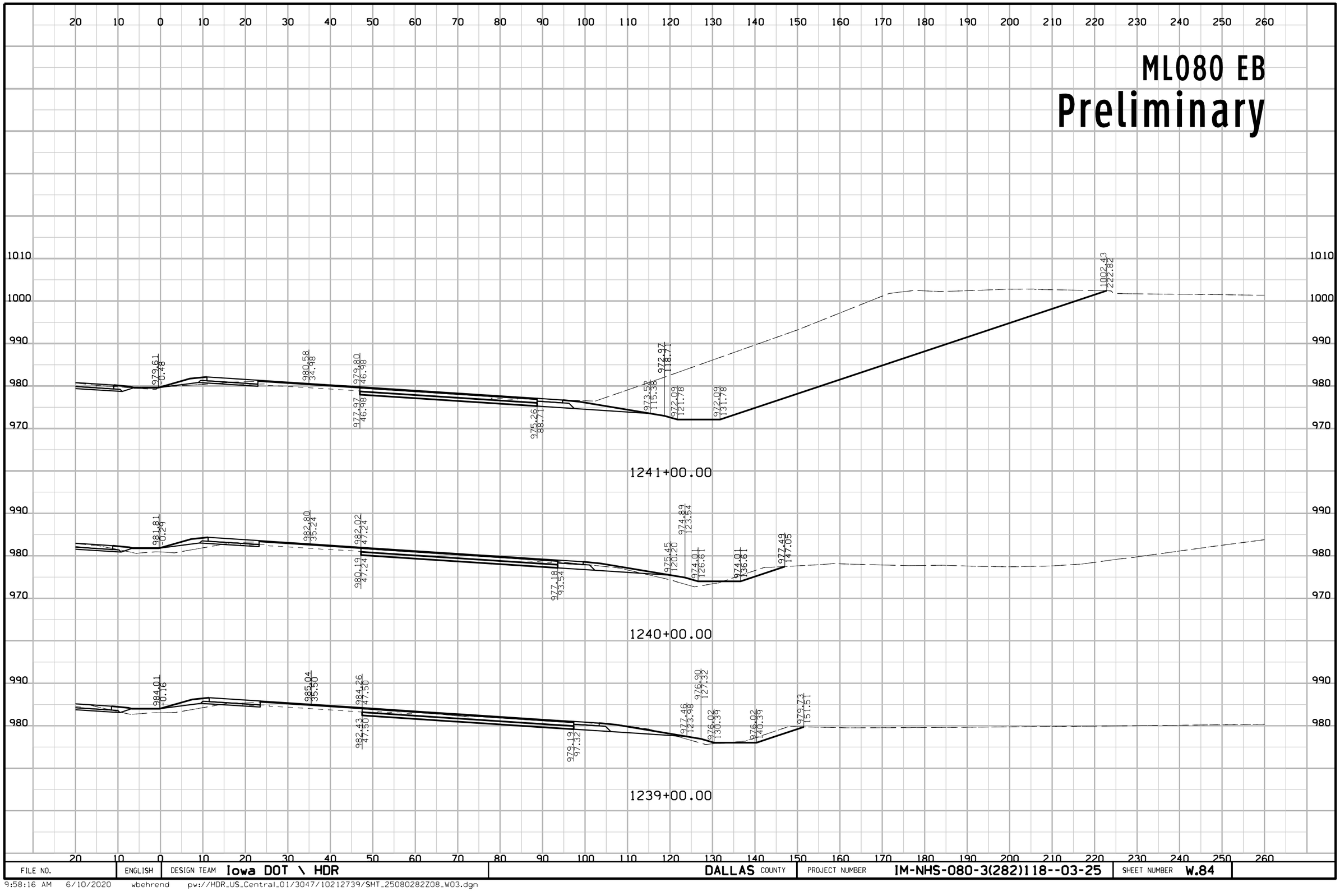


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.83

9:58:15 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB

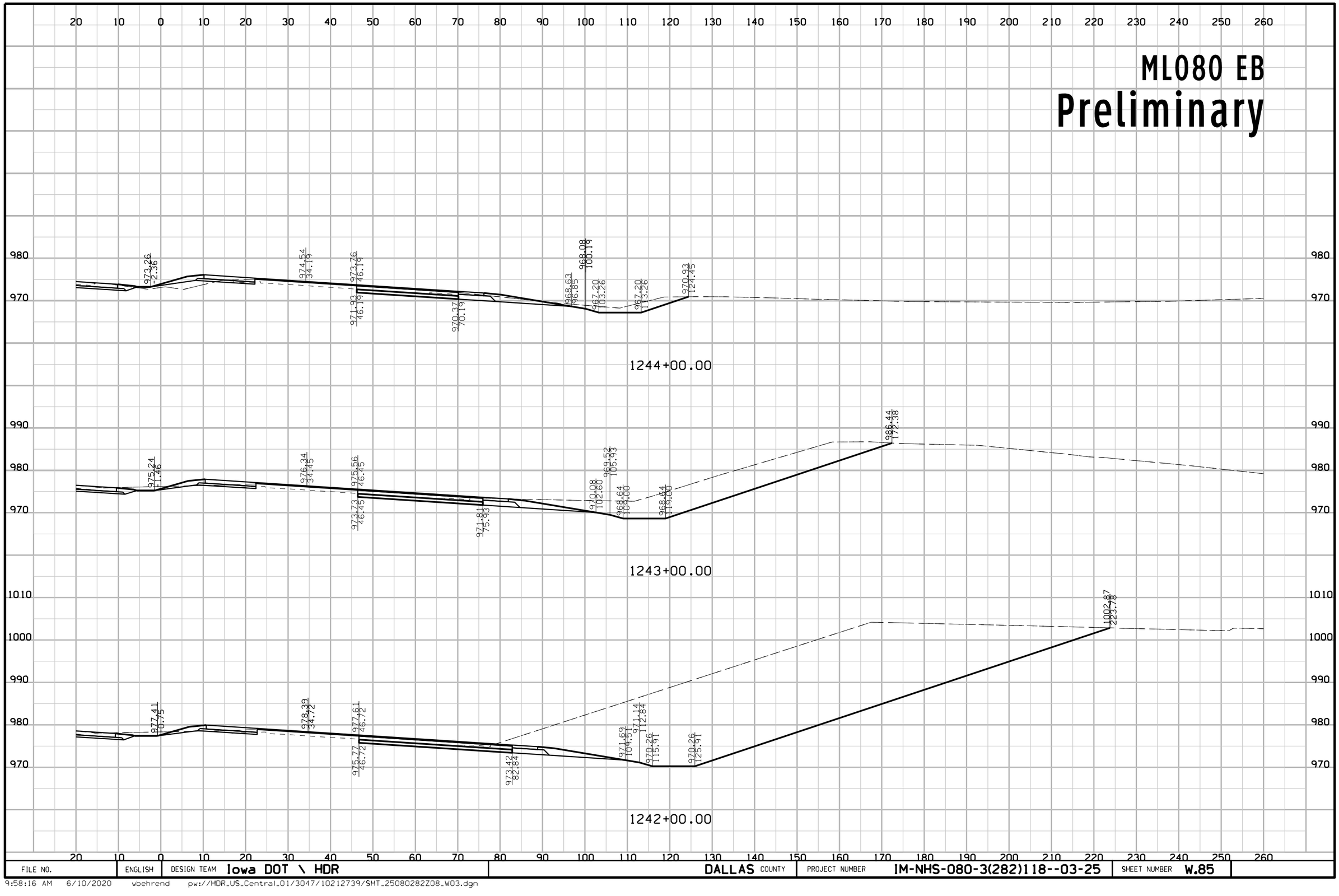
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.84

9:58:16 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

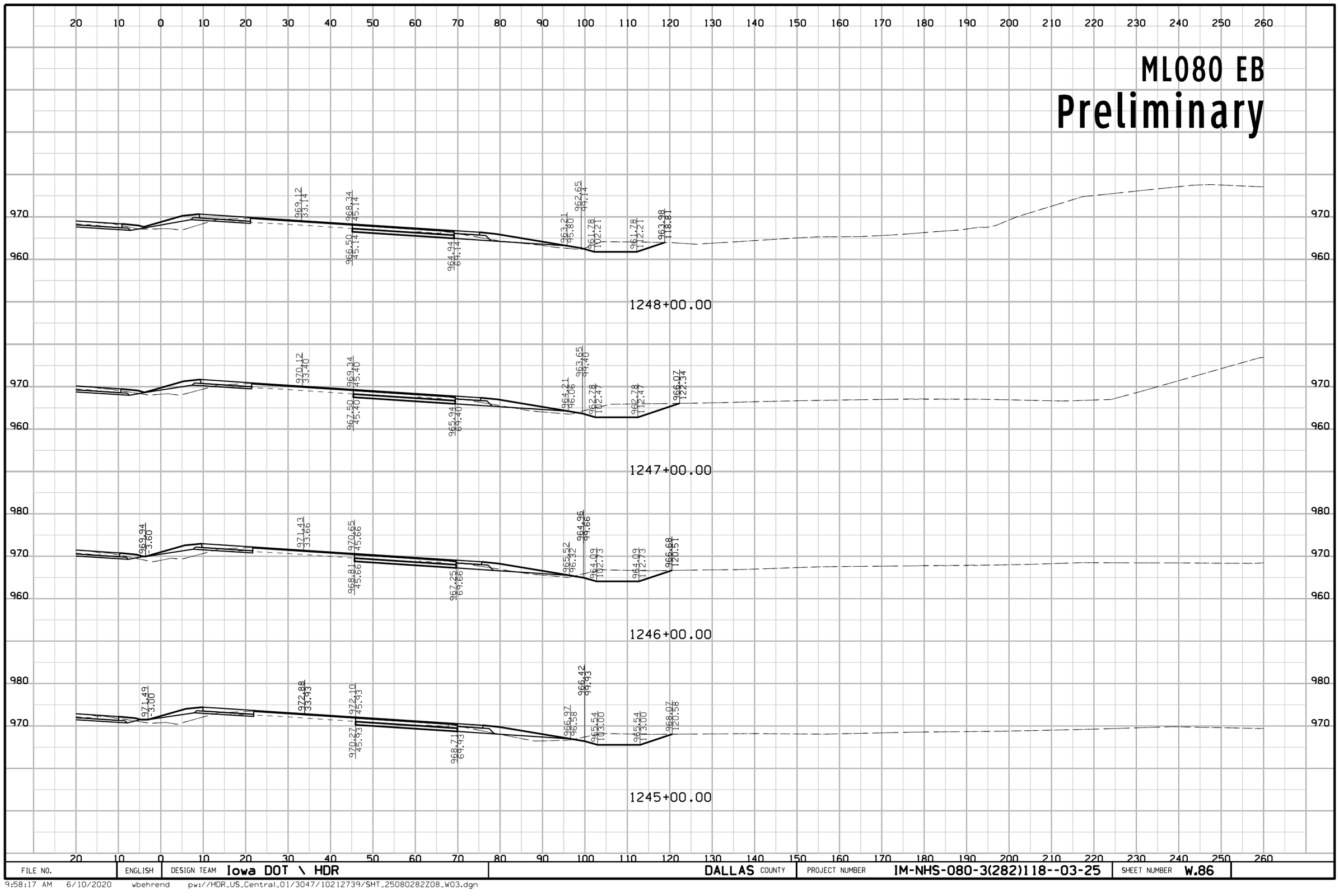
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER	IM-NHS-080-3(282)118--03-25	SHEET NUMBER	W.85

9:58:16 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

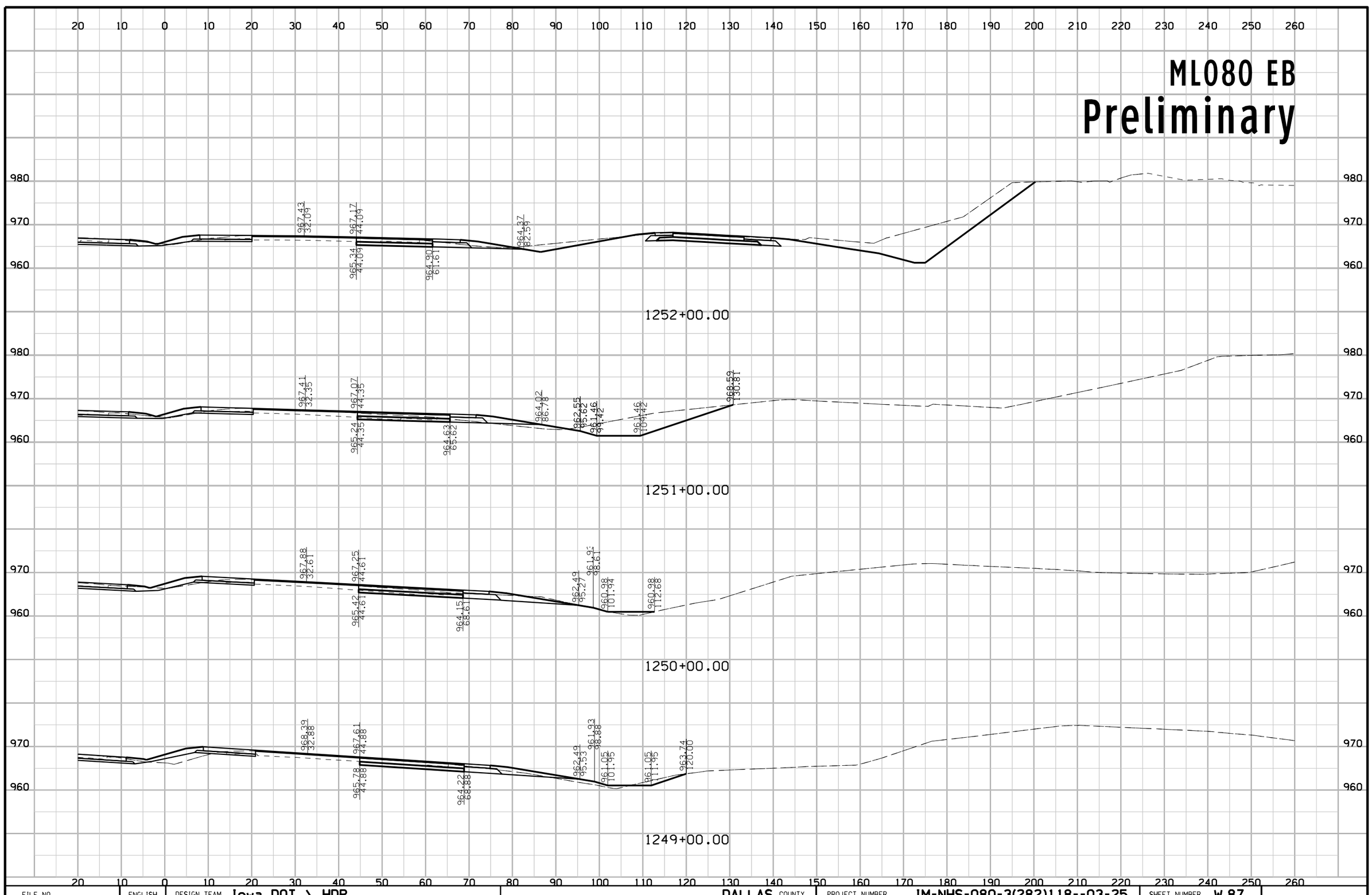
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.86

9:58:17 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

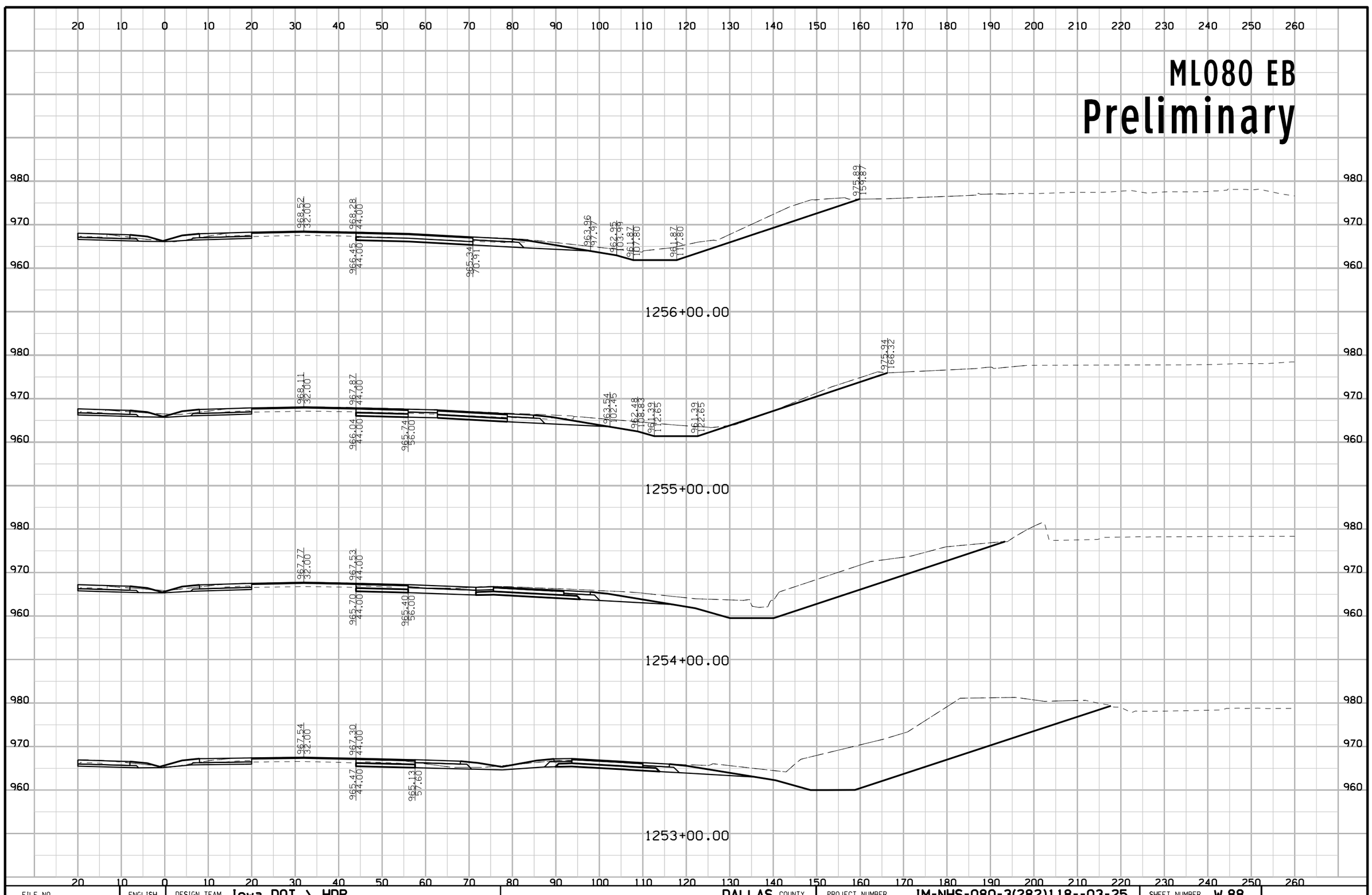
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.87

9:58:17 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

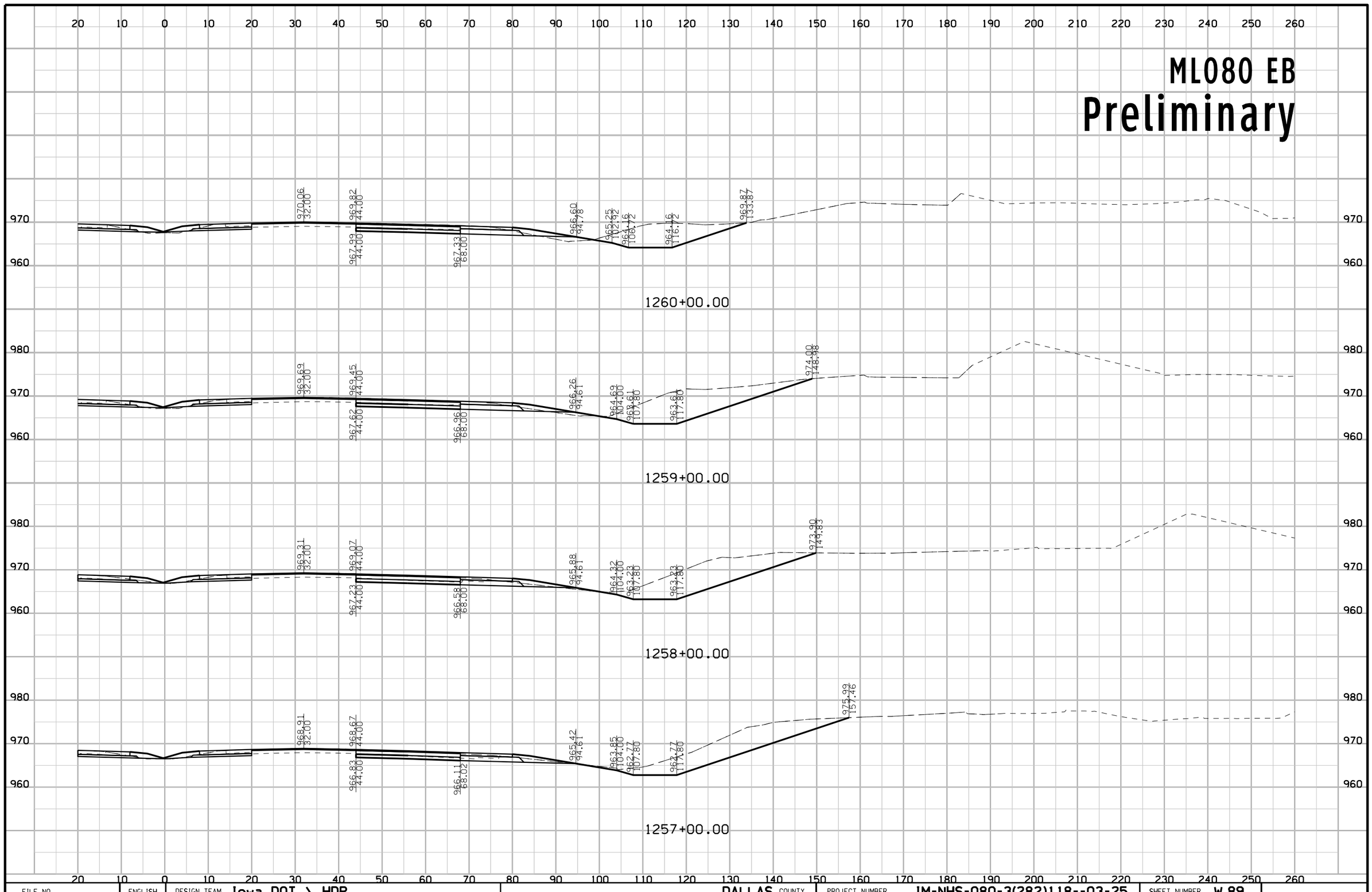
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.88

9:58:18 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

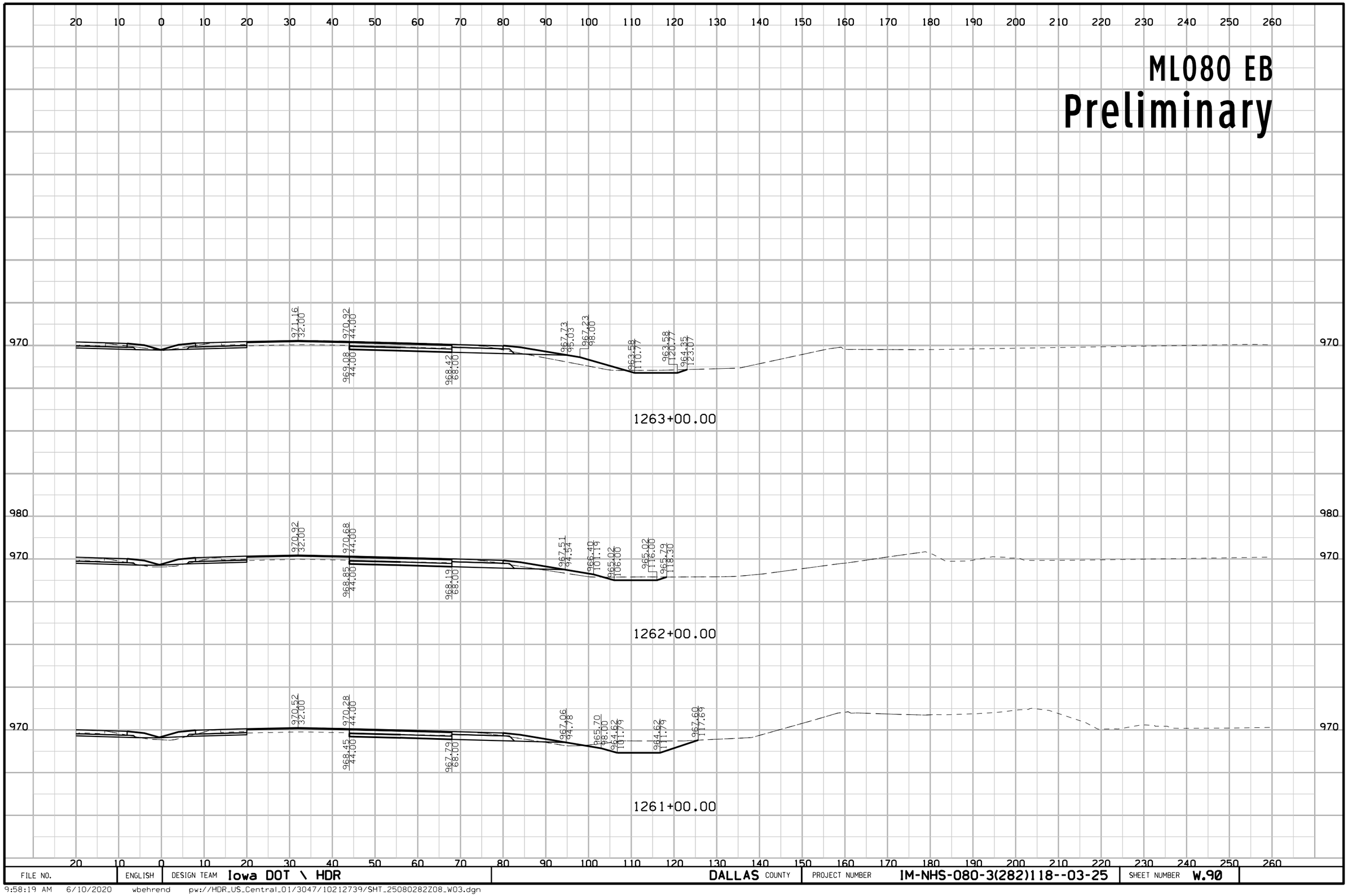
ML080 EB
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.89

9:58:18 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB
Preliminary

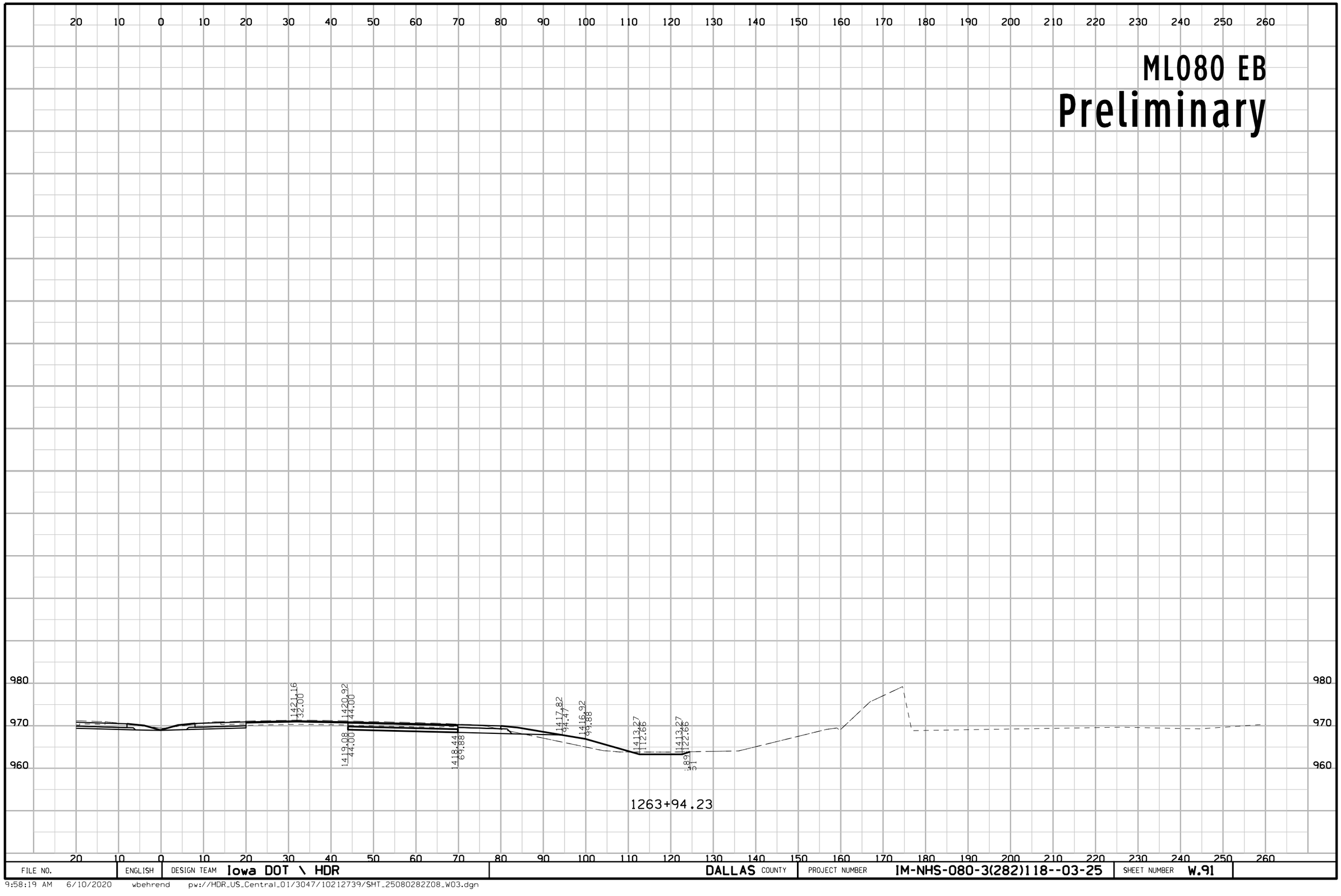


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.90

9:58:19 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn

ML080 EB

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	DALLAS COUNTY	PROJECT NUMBER IM-NHS-080-3(282)118--03-25	SHEET NUMBER W.91

9:58:19 AM 6/10/2020 wbehrend pw://HDR_US_Central_01/3047/10212739/SHT_25080282Z08_W03.dgn