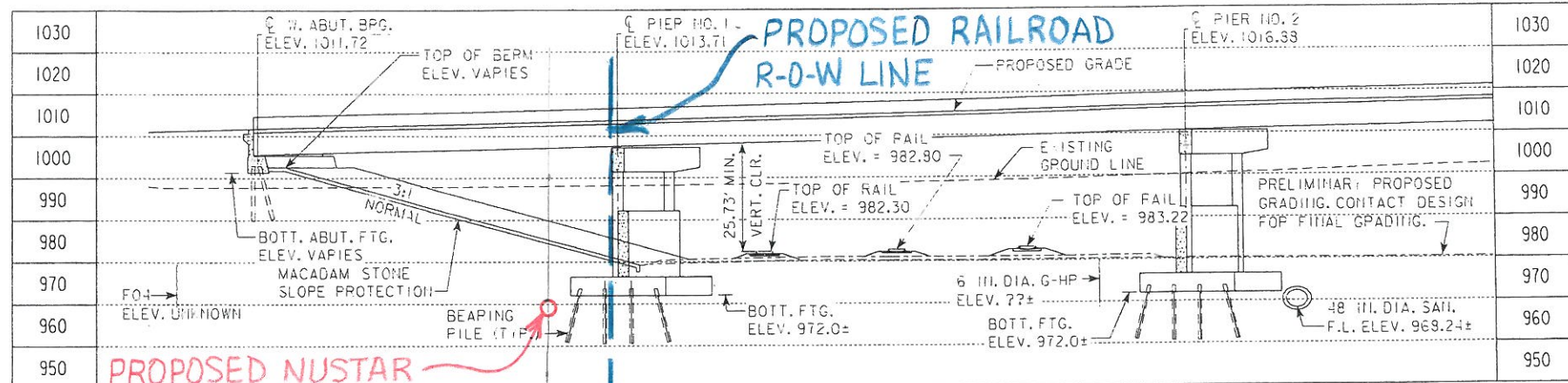


**UTILITY LEGEND**

- E2 BURIED ELECTRIC, IOWA DOT, TO BE RELOCATED.
- F04 FIBER OPTIC, IOWA COMM. NETWORK, TO BE RELOCATED.
- G-HP 6" STEEL, HIGH PRESSURE GAS, MUSTAR ENERGY, TO BE RELOCATED.
- SA11 48" SANITARY, CITY OF COUNCIL BLUFFS, DO NOT DISTURB.



**MIN. VERT. CLEARANCE (PT. A)**

OVERHEAD STA. = 80139+73.80, 46'-0" LT.  
 OVERHEAD ELEVATION = 1014.19  
 TOP OF RAIL ELEVATION = 992.30  
 DEPTH OF SUPERSTRUCTURE = 6.17  
 (SLAB, HAUNCH & BEAM)  
 MIN. VERT. CLEARANCE = 25.73

**LOCATION**

U.S. 275 (I.A. 92) W.B. OVER MOSQUITO CREEK & RELOCATED RAILROADS T-74N R-43W SECTION 7 LEWIS TOWNSHIP POTTAWATTAMIE COUNTY 41.223409° LATITUDE -95.029368° LONGITUDE FHWA NO. \_\_\_\_\_ BRIDGE MAINT. NO. \_\_\_\_\_

**TRAFFIC ESTIMATE**

ON U.S. 275		
2000 AADT	15,400	V.P.D.
2030 AADT	34,200	V.P.D.
2030 DHV	3,770	V.P.H.
TRUCKS	10	
TOTAL DESIGN ESALS		

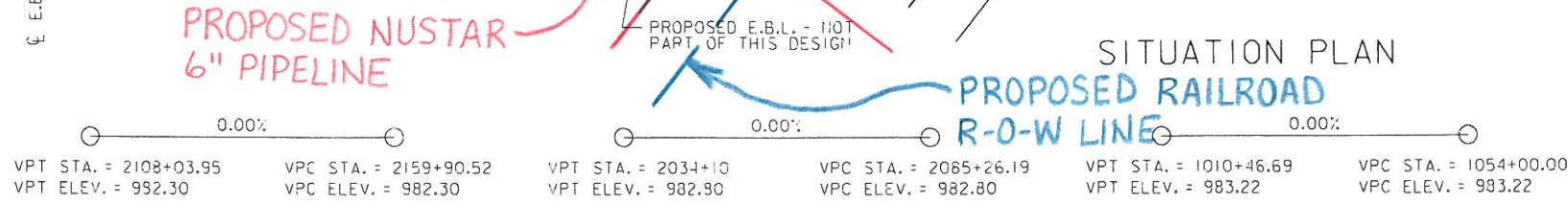
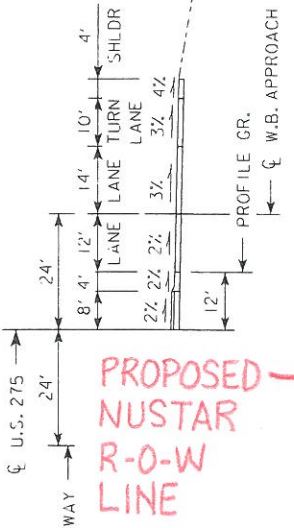
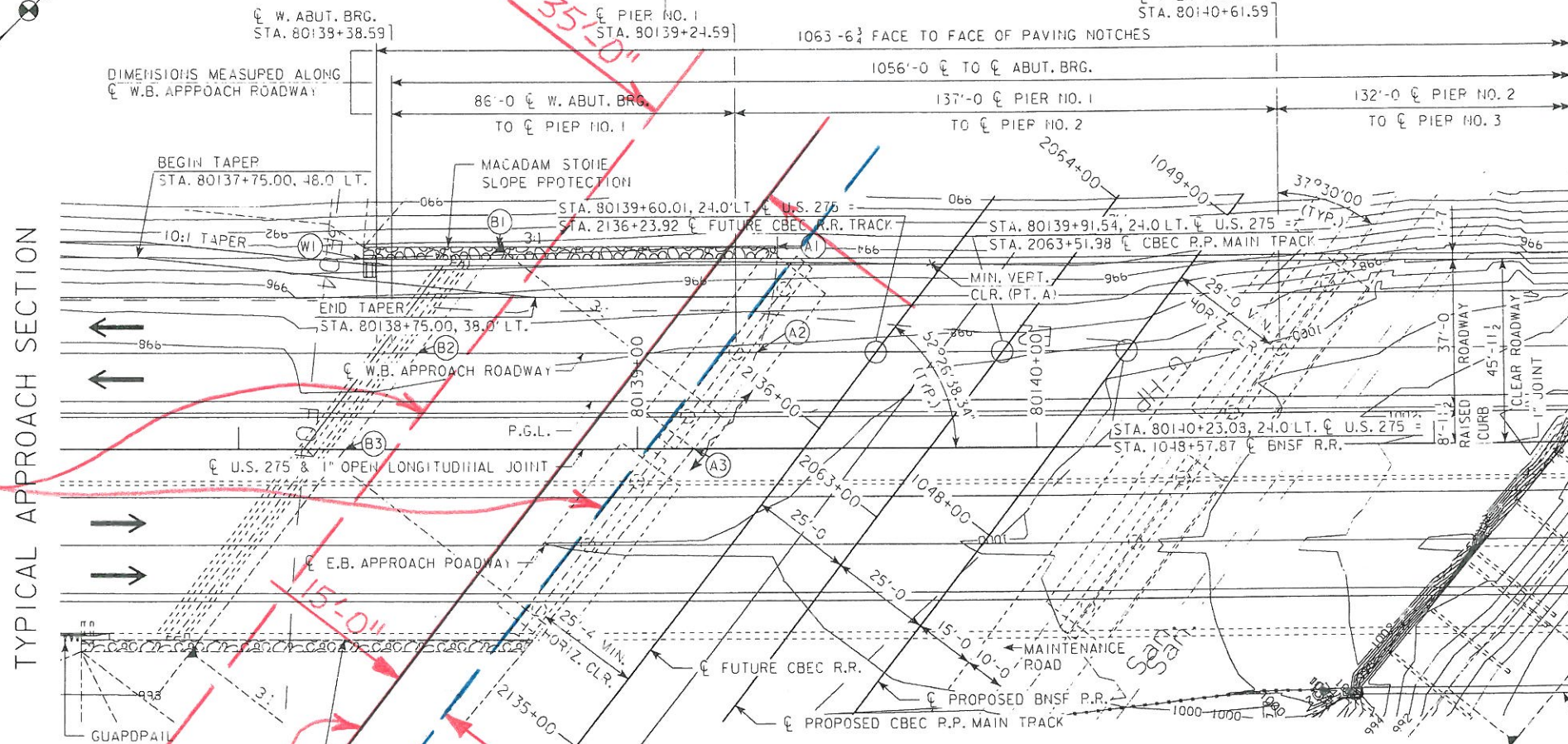
**BERM SLOPE LOCATION TABLE**

	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1	80139+35.11	50.58' LT.	979.30	80148+28.64	50.58' LT.	987.00
A2	80139+30.05	24.00' LT.	979.30	80147+73.99	24.00' LT.	978.00
A3	80139+14.76	0.00'	979.30	80147+61.86	0.00'	980.30
B1	80138+64.97	50.58' LT.	1002.73	80149+09.00	50.58' LT.	1007.82
B2	80138+44.57	24.00' LT.	1002.73	80148+88.60	24.00' LT.	1008.11
B3	80138+26.16	0.00'	1002.73	80148+70.18	0.00'	1008.38

**END OF BRIDGE WING TABLE**

POINT	WEST ABUTMENT		EAST ABUTMENT		
	STATION	OFFSET	POINT	STATION	OFFSET
W1	80138+31.47	47.58' LT.	W3	80149+33.47	47.58' LT.

EXISTING 802 X VARIABLE WIDTH CONTINUOUS WELDED PLATE GIRDER AND STEEL BEAM BRIDGES, DESIGN NO. 865; W.B.L. TO BE REMOVED BY OTHERS.

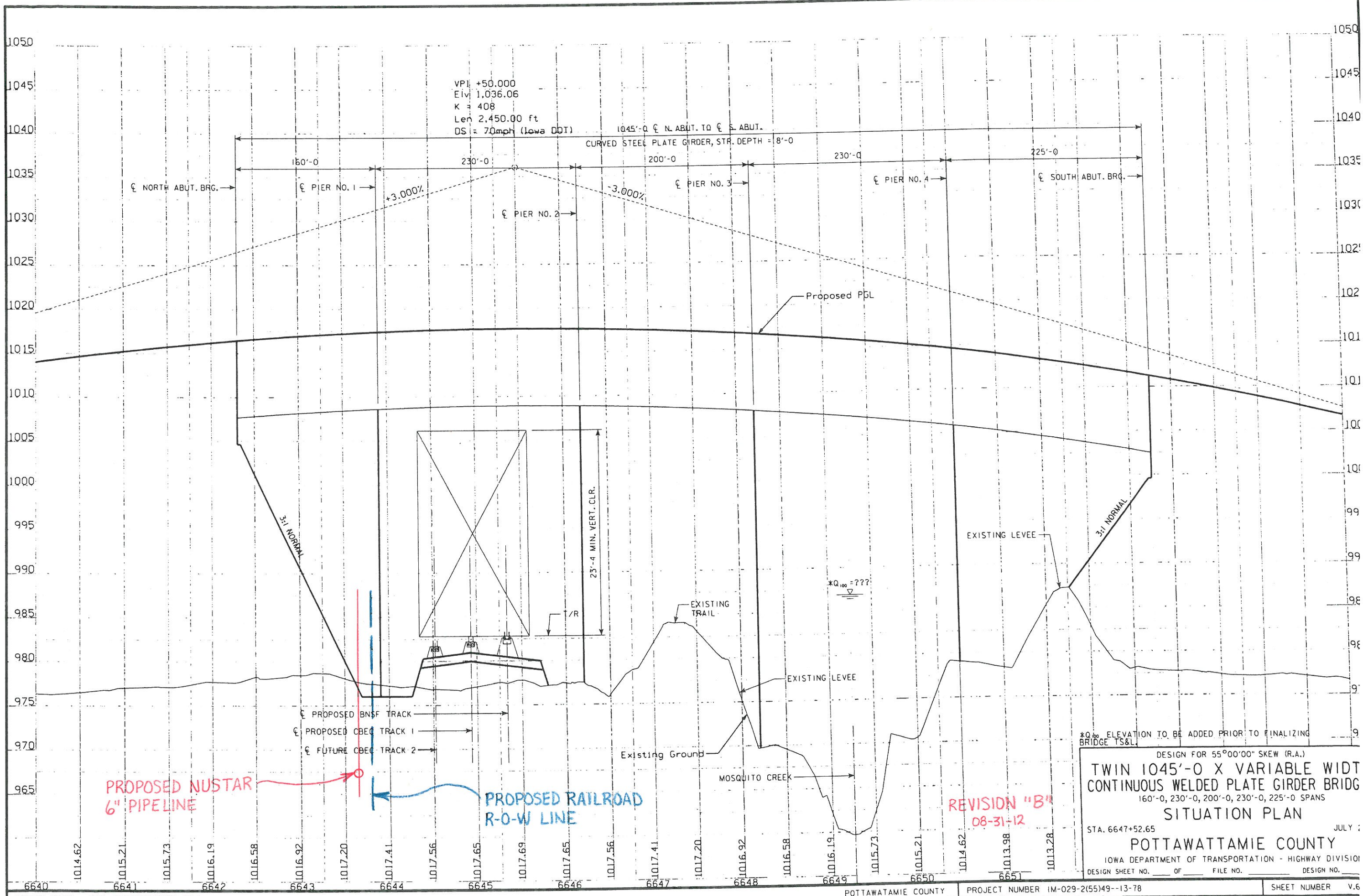


NOTES:  
 ALL UNITS IN FEET UNLESS NOTED OTHERWISE.  
 TOP OF BRIDGE DECK AT CENTERLINE E.B. OR W.B. APPROACH ROADWAY IS 0.24 BELOW THE PROFILE GRADE TO ACCOUNT FOR DECK CROSS SLOPE.  
 FOR PROFILE OF U.S. 275, SEE DESIGN SHEET 4 OF 8.

NOTE TO FINAL DESIGNER:  
 DESIGN OF MULTI-COLUMN PIERS SHALL CONSIDER FUTURE 12' WIDENING OF E.B. & W.B. APPROACH ROADWAYS. USE TL-5 BARRIER RAIL. NO AESTHETIC TREATMENTS REQUIRED. NON-STANDARD WING LENGTHS REQUIRED AT BOTH ABUTMENTS. CONFIRM STATUS OF UTILITIES WITH ERIC KEINER (712)323-6125. FOOTING SIZE/DEPTH INFORMATION IS REQUIRED FOR THE SECTION 208 LEVEE PERMITTING. FORWARD THIS INFORMATION TO WILL SHARP OF HDR AS SOON AS IT IS AVAILABLE. (402) 399-1074

PRELIMINARY  
 DESIGN FOR 37°30' SKEW (L.A.)  
**1056'-0" X 45'-11 1/2" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE (BTE)**  
 86'-0", 137'-0", 132'-0", 92'-0", 152'-0", 142'-0", 117'-0", 122'-0", 76'-0" SPANS  
**SITUATION PLAN (W.B.)**  
 STA 80143+66.59, 24.0' LT. (E U.S. 275) JULY 2011  
**POTTAWATTAMIE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_ FILE NO. 30169 DESIGN NO. 213

REVISION "B" 08-31-12



VPI +50.000  
 Elev 1,036.06  
 K = 408  
 Len 2,450.00 ft  
 DS = 70mph (Iowa DOT)

1045'-0"  $\phi$  N. ABUT. TO  $\phi$  S. ABUT.  
 CURVED STEEL PLATE GIRDER, STR. DEPTH = 8'-0"

$\phi$  NORTH ABUT. BRG.

$\phi$  PIER NO. 1

$\phi$  PIER NO. 2

$\phi$  PIER NO. 3

$\phi$  PIER NO. 4

$\phi$  SOUTH ABUT. BRG.

Proposed PGL

3:1 NORMAL

EXISTING LEVEL

3:1 NORMAL

23'-4" MIN. VERT. CLR.

EXISTING TRAIL

EXISTING LEVEL

Existing Ground

MOSQUITO CREEK

$\phi$  PROPOSED BNSF TRACK  
 $\phi$  PROPOSED CB&Q TRACK 1  
 $\phi$  FUTURE CB&Q TRACK 2

PROPOSED NUSTAR  
 6" PIPELINE

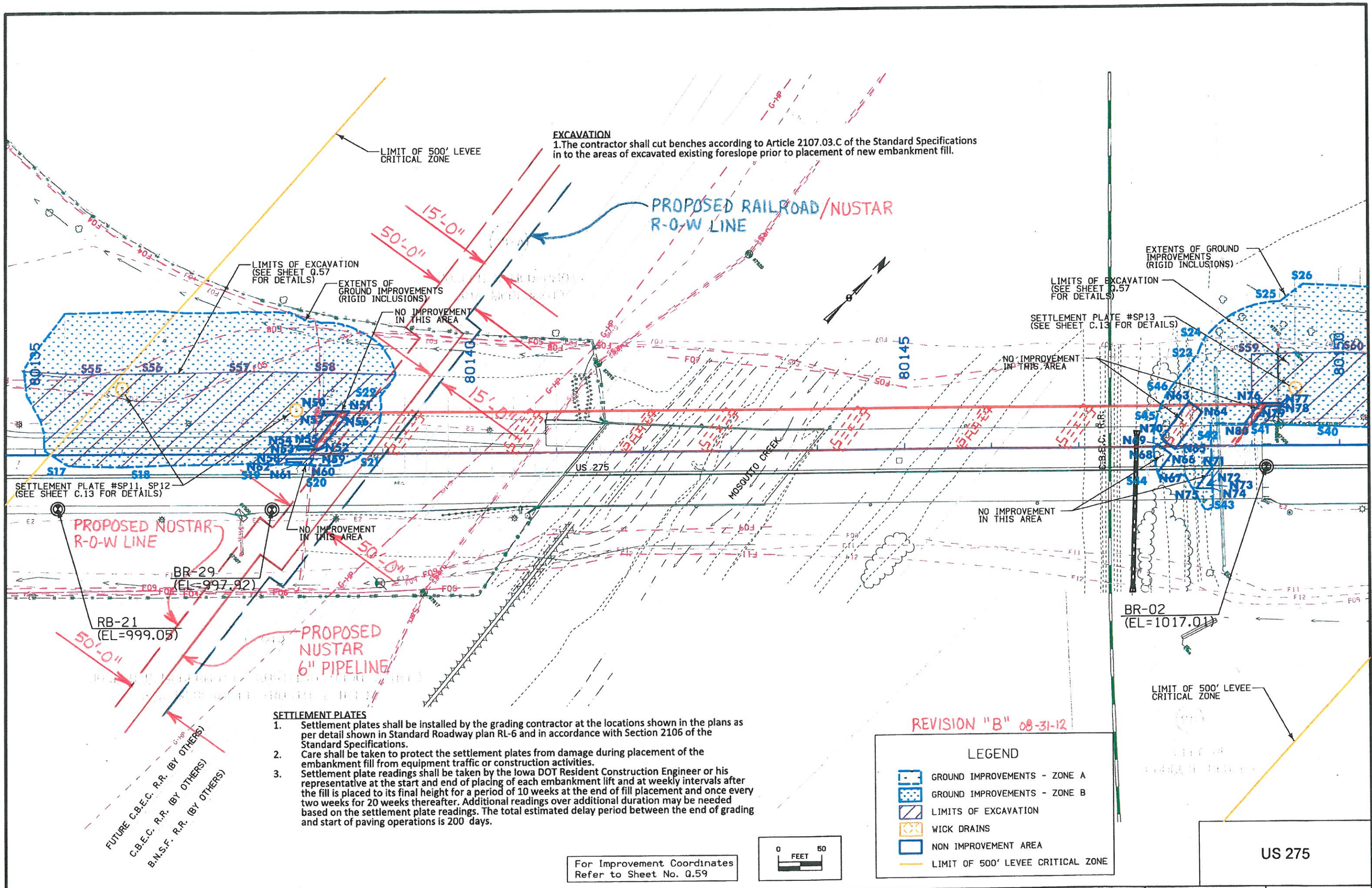
PROPOSED RAILROAD  
 R-O-W LINE

\*Q<sub>100</sub> = ???

\*Q<sub>100</sub> ELEVATION TO BE ADDED PRIOR TO FINALIZING  
 BRIDGE TS&L

DESIGN FOR 55°00'00" SKEW (R.A.)  
**TWIN 1045'-0" X VARIABLE WIDT  
 CONTINUOUS WELDED PLATE GIRDER BRIDGE**  
 160'-0", 230'-0", 200'-0", 230'-0", 225'-0" SPANS  
**SITUATION PLAN**

STA. 6647+52.65 JULY 2010  
**POTTAWATTAMIE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_ FILE NO. \_\_\_\_\_ DESIGN NO. \_\_\_\_\_



**EXCAVATION**  
 1. The contractor shall cut benches according to Article 2107.03.C of the Standard Specifications in to the areas of excavated existing foreslope prior to placement of new embankment fill.

LIMITS OF EXCAVATION  
 (SEE SHEET Q.57 FOR DETAILS)

LIMITS OF EXCAVATION  
 (SEE SHEET Q.57 FOR DETAILS)

SETTLEMENT PLATE #SP11, SP12  
 (SEE SHEET C.13 FOR DETAILS)

SETTLEMENT PLATE #SP13  
 (SEE SHEET C.13 FOR DETAILS)

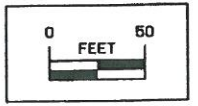
- SETTLEMENT PLATES**
1. Settlement plates shall be installed by the grading contractor at the locations shown in the plans as per detail shown in Standard Roadway plan RL-6 and in accordance with Section 2106 of the Standard Specifications.
  2. Care shall be taken to protect the settlement plates from damage during placement of the embankment fill from equipment traffic or construction activities.
  3. Settlement plate readings shall be taken by the Iowa DOT Resident Construction Engineer or his representative at the start and end of placing of each embankment lift and at weekly intervals after the fill is placed to its final height for a period of 10 weeks at the end of fill placement and once every two weeks for 20 weeks thereafter. Additional readings over additional duration may be needed based on the settlement plate readings. The total estimated delay period between the end of grading and start of paving operations is 200 days.

REVISION "B" 08-31-12

**LEGEND**

	GROUND IMPROVEMENTS - ZONE A
	GROUND IMPROVEMENTS - ZONE B
	LIMITS OF EXCAVATION
	WICK DRAINS
	NON IMPROVEMENT AREA
	LIMIT OF 500' LEVEE CRITICAL ZONE

For Improvement Coordinates  
 Refer to Sheet No. Q.59

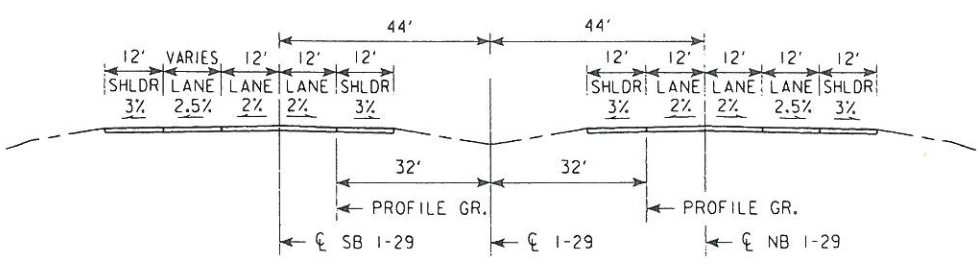
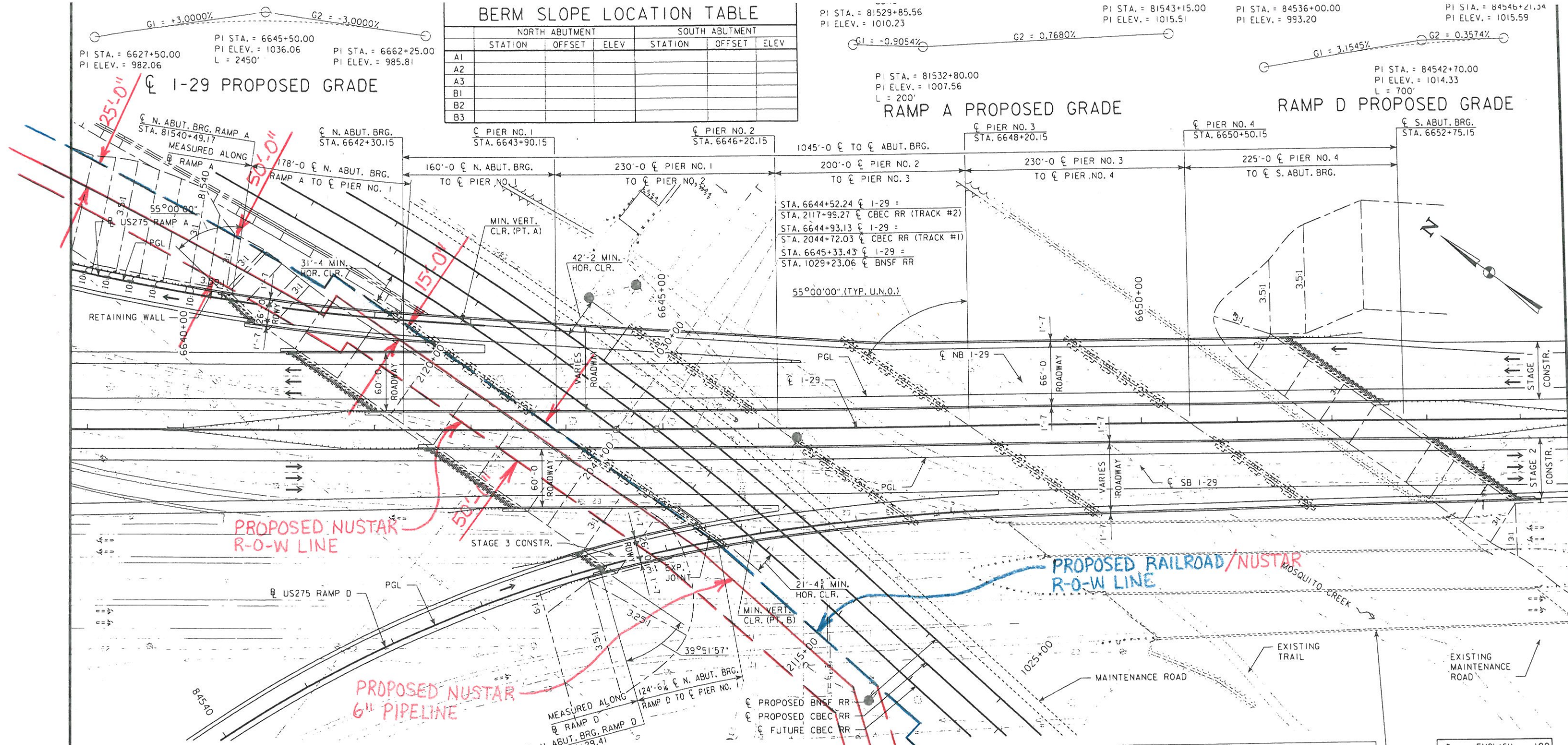


$G1 = +3.0000\%$      $G2 = -3.0000\%$   
 PI STA. = 6627+50.00    PI STA. = 6645+50.00    PI STA. = 6662+25.00  
 PI ELEV. = 982.06    PI ELEV. = 1036.06    PI ELEV. = 985.81  
 L = 2450'

BERM SLOPE LOCATION TABLE						
	NORTH ABUTMENT			SOUTH ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1						
A2						
A3						
B1						
B2						
B3						

PI STA. = 81529+85.56    PI STA. = 81543+15.00  
 PI ELEV. = 1010.23    PI ELEV. = 1015.51  
 $G1 = -0.9054\%$      $G2 = 0.7680\%$   
 PI STA. = 81532+80.00    PI STA. = 84543+15.00  
 PI ELEV. = 1007.56    PI ELEV. = 1015.51  
 L = 200'  
**RAMP A PROPOSED GRADE**

PI STA. = 84536+00.00    PI STA. = 84546+21.34  
 PI ELEV. = 993.20    PI ELEV. = 1015.59  
 $G1 = 3.1545\%$      $G2 = 0.3574\%$   
 PI STA. = 84542+70.00    PI STA. = 84542+70.00  
 PI ELEV. = 1014.33    PI ELEV. = 1014.33  
 L = 700'  
**RAMP D PROPOSED GRADE**



**MIN. VERT. CLEARANCE (PT. A)**  
 OVERHEAD STA. = 81542+80.98 (RAMP A), 4'-7" LT.  
 OVERHEAD ELEVATION = 1015.19'  
 TOP OF RAIL ELEVATION = 982.30'  
 DEPTH OF SUPERSTRUCTURE = 8.75'  
 (SLAB, HAUNCH & BEAM)  
 MIN. VERT. CLEARANCE = 24.14'

**MIN. VERT. CLEARANCE (PT. B)**  
 OVERHEAD STA. = 84545+90.76 (RAMP D), 4'-7" RT.  
 OVERHEAD ELEVATION = 1015.22'  
 TOP OF RAIL ELEVATION = 982.30'  
 DEPTH OF SUPERSTRUCTURE = 8.75'  
 (SLAB, HAUNCH & BEAM)  
 MIN. VERT. CLEARANCE = 24.17'

**SITUATION PLAN**  
**TRAFFIC ESTIMATE LOCATION**  
 200. AADT — V.P.D.  
 202. AADT — V.P.D.  
 202. DHV — V.P.H.  
 TRUCKS — %  
 TOTAL DESIGN ESALS —

**PROPOSED NUSTAR R-O-W LINE**  
**REVISION "B" 08-31-12**

EXISTING DUAL 45'-0" X 32'-0" AND VARIABLE WIDTH CONTINUOUS WELDED PLATE GIRDER BRIDGES, DESIGN NO. 28-65, TO BE REMOVED IN STAGES.

PRELIMINARY  
 DESIGN FOR 55°00'00" SKEW (R.A.)  
**TWIN 1045'-0" X VARIABLE WIDTH CONTINUOUS WELDED PLATE GIRDER BRIDGES**  
 160'-0", 230'-0", 200'-0", 230'-0", 225'-0" SPANS  
**SITUATION PLAN**  
 STA 6647+52.65    JULY 2010  
**POTTAWATTAMIE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. \_\_\_ OF \_\_\_ FILE NO. \_\_\_ DESIGN NO. \_\_\_

PROPOSED NUSTAR 6" PIPELINE

PROPOSED NUSTAR R-O-W LINE

Lewis TWP.  
T-74N R-43W  
SEC. 18

SINGLE TEST ELEMENT  
(SEE SHEET Q.55  
FOR DETAILS)  
SEE SHEET Q.55 FOR  
DETAILS OF GRID SPACING

PROPOSED  
RAILROAD/NUSTAR  
R-O-W LINE

25'-0"

EXTENTS OF  
GROUND IMPROVEMENTS  
(RIGID INCLUSIONS)

ZONE B

GAS LINE  
(TO BE RELOCATED)

ZONE A

LIMITS OF  
EXCAVATION

LS-48  
(EL=976.69)

SB-17  
(EL=976.71)

RB-13  
(EL=977.38)

BR-27  
(EL=1001.47)

LS-46  
(EL=976.95)







NORTHBOUND I-29

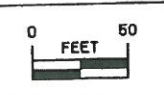
SOUTHBOUND I-29

US 275 LOOP B

LIMIT OF 500' LEVEE  
CRITICAL ZONE

LEGEND

-  GROUND IMPROVEMENTS - ZONE A
-  GROUND IMPROVEMENTS - ZONE B
-  LIMITS OF EXCAVATION
-  WICK DRAINS
-  NON IMPROVEMENT AREA
-  LIMIT OF 500' LEVEE CRITICAL ZONE



For Improvement Coordinates  
Refer to Sheet No. Q.59

REVISION "B" 08-31-12

MAINLINE I-29

Lewis TWP.  
T-74N R-43W  
SEC. 7

ENGLISH IOWA DOT DESIGN TEAM Skogerboe\Ryan\Hamsk1\CH2MHILL

POTTAWATTAMIE COUNTY

PROJECT NUMBER

IM-NHS-29-3(97)48--03-78

SHEET NUMBER

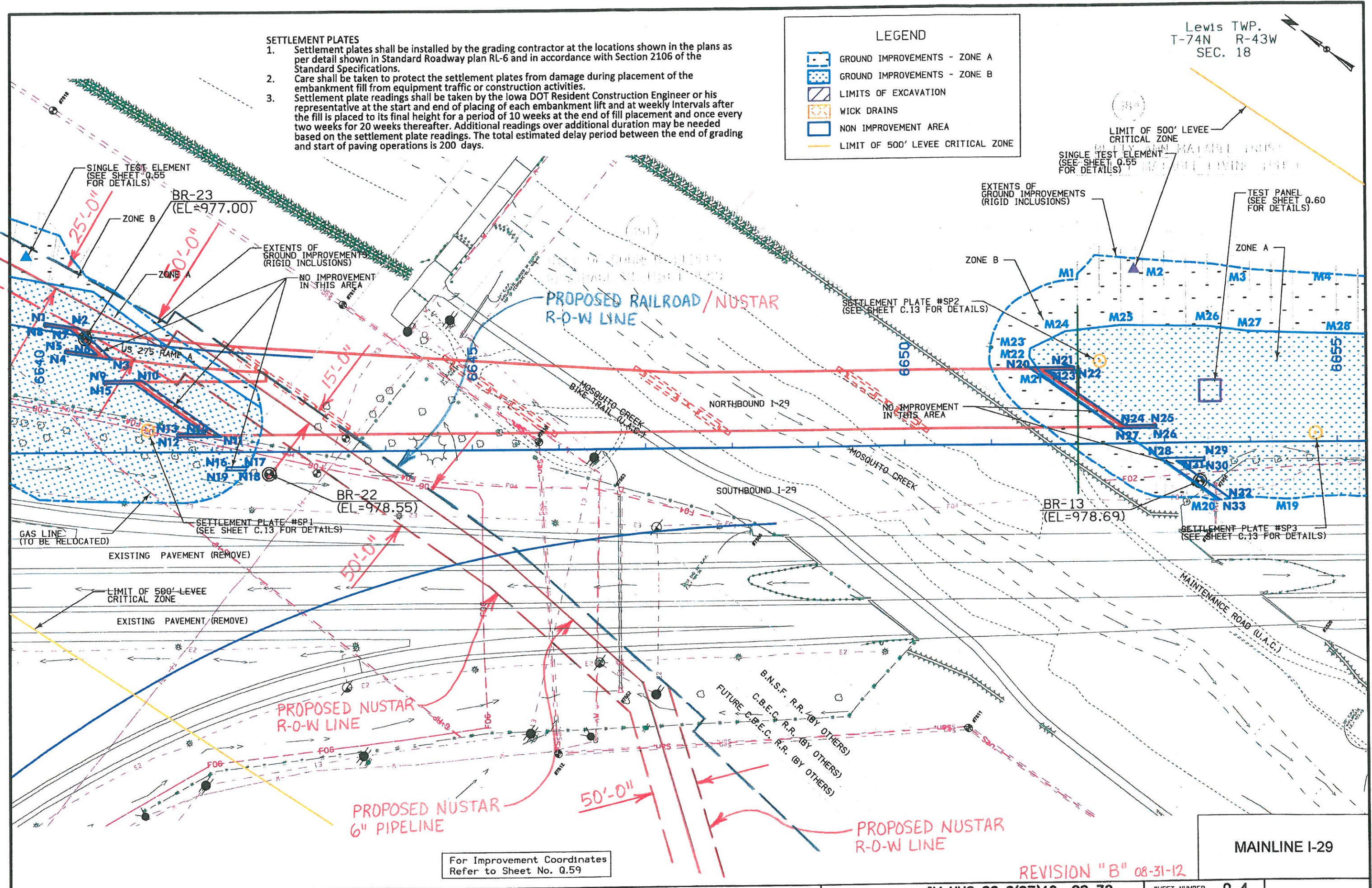
Q.1

Lewis TWP.  
T-74N R-43W  
SEC. 18

- SETTLEMENT PLATES**
1. Settlement plates shall be installed by the grading contractor at the locations shown in the plans as per detail shown in Standard Roadway plan RL-6 and in accordance with Section 2106 of the Standard Specifications.
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  3. Settlement plate readings shall be taken by the Iowa DOT Resident Construction Engineer or his representative at the start and end of placing of each embankment lift and at weekly intervals after the fill is placed to its final height for a period of 10 weeks at the end of fill placement and once every two weeks for 20 weeks thereafter. Additional readings over additional duration may be needed based on the settlement plate readings. The total estimated delay period between the end of grading and start of paving operations is 200 days.

**LEGEND**

- GROUND IMPROVEMENTS - ZONE A
- GROUND IMPROVEMENTS - ZONE B
- LIMITS OF EXCAVATION
- WICK DRAINS
- NON IMPROVEMENT AREA
- LIMIT OF 500' LEVEE CRITICAL ZONE



For Improvement Coordinates  
Refer to Sheet No. Q.59

REVISION "B" 08-31-12

MAINLINE I-29