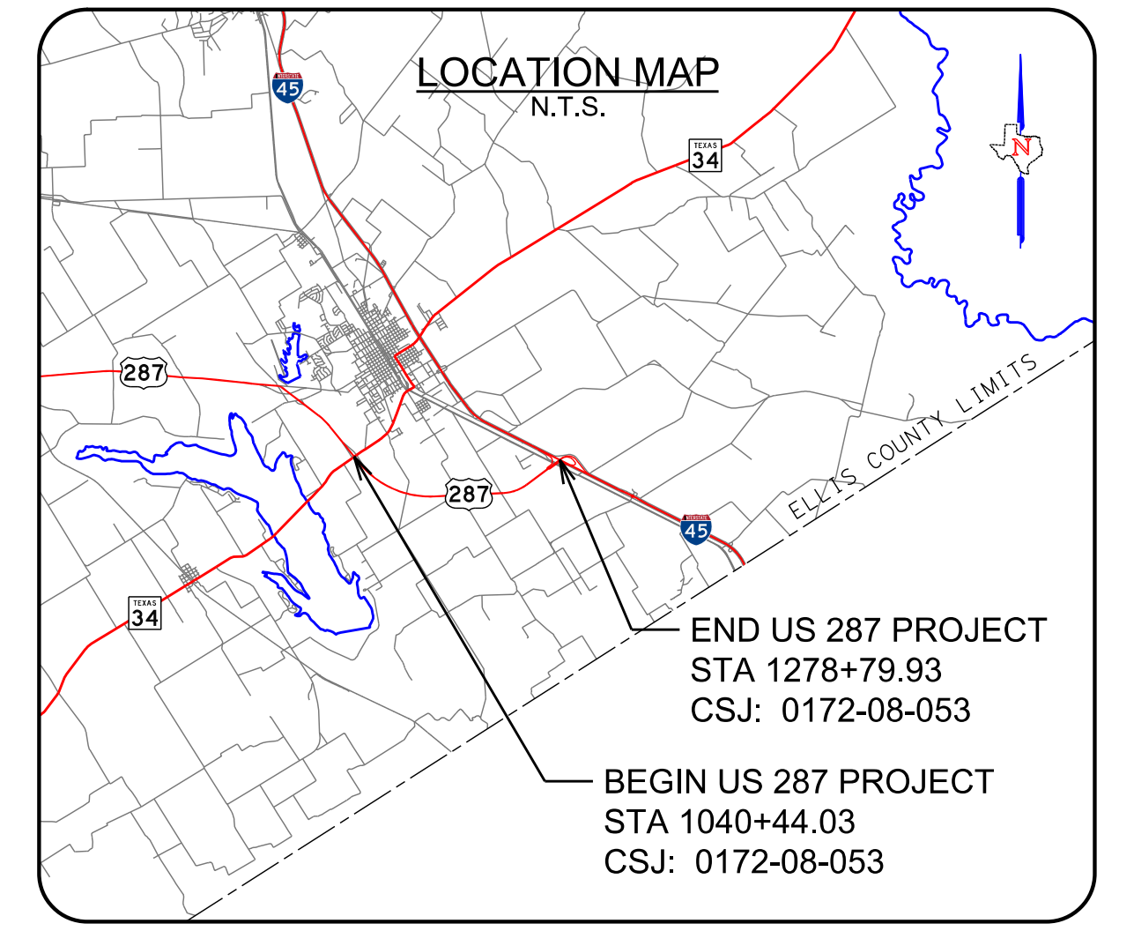
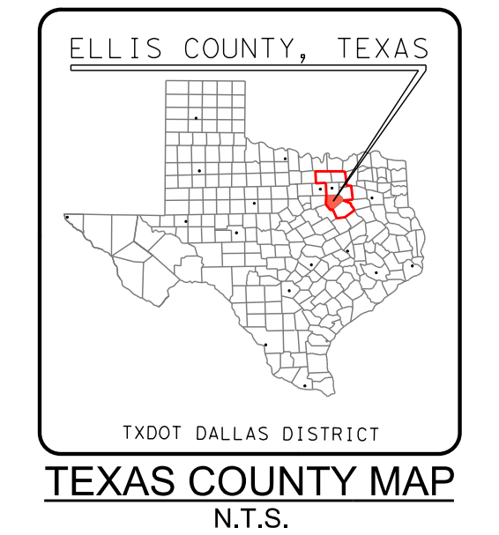
TEXAS DEPARTMENT OF TRANSPORTATION
DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

# US 287 DESIGN SCHEMATIC
FROM SH 34 TO IH 45
ELLIS COUNTY, TEXAS
CSJ 0172-08-053

MARCH 2014
ROLL 5 OF 5

PROJECT LENGTH:	4.51 MILES
FUNCTIONAL CLASSIFICATION:	URBAN FREEWAY
AVERAGE DAILY TRAFFIC:	12,300 (2018) 17,800 (2038)
DESIGN SPEED	
MAIN LANES:	70 MPH
RAMPS:	40 MPH
FRONTAGE ROADS:	40 MPH
CROSS STREETS:	30 MPH


LOCATION MAP
N.T.S.
34
287
287
34
45
ELLIS COUNTY LIMITS
END US 287 PROJECT
STA 1278+79.93
CSJ: 0172-08-053
BEGIN US 287 PROJECT
STA 1040+44.03
CSJ: 0172-08-053


ELLIS COUNTY, TEXAS
TXDOT DALLAS DISTRICT
TEXAS COUNTY MAP
N.T.S.

PRELIMINARY
FOR INTERIM REVIEW ONLY
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JEREMY W. MCGAHAN 103650 03/25/2014
NAME P.E. NO. DATE
HALFF ASSOCIATES, INC.
TBPE FIRM #F-312

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1201 NORTH BOWSER ROAD
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0 10 20 30 40
VERTICAL SCALE:
0 100 200 300 400
HORIZONTAL SCALE:

DATE SUBMITTED: MARCH 25, 2014
DATE APPROVED: APRIL 30, 2014

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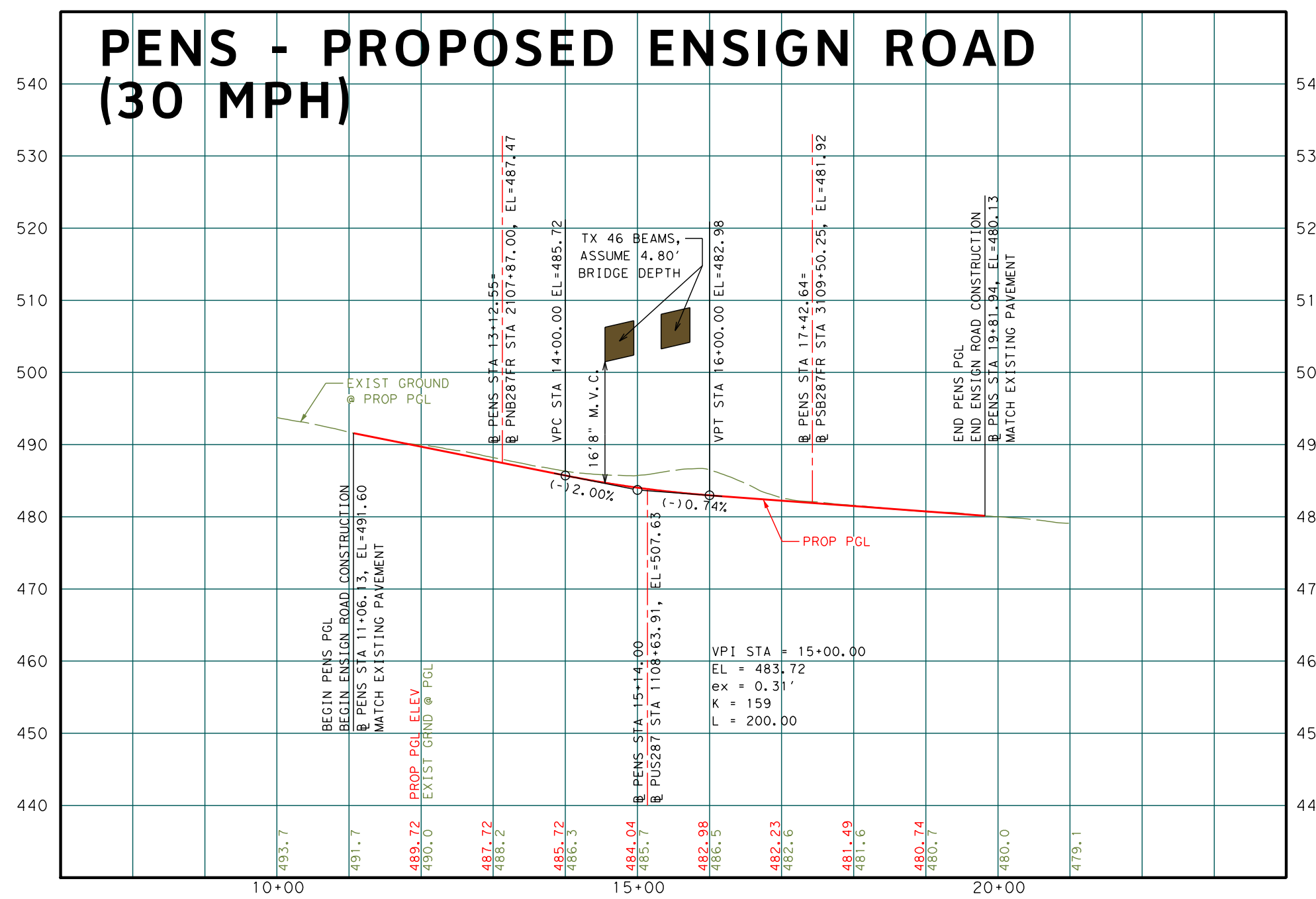
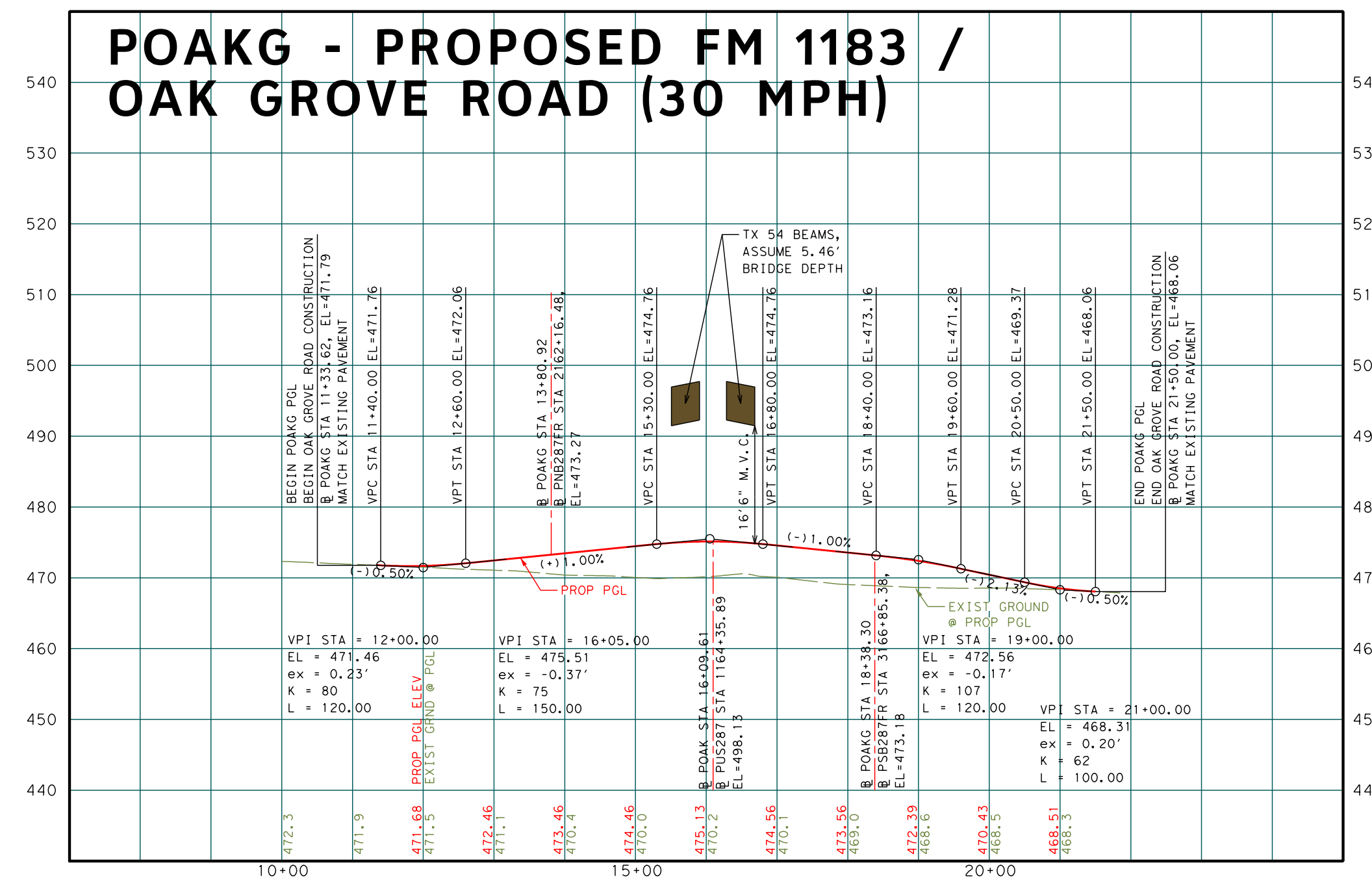
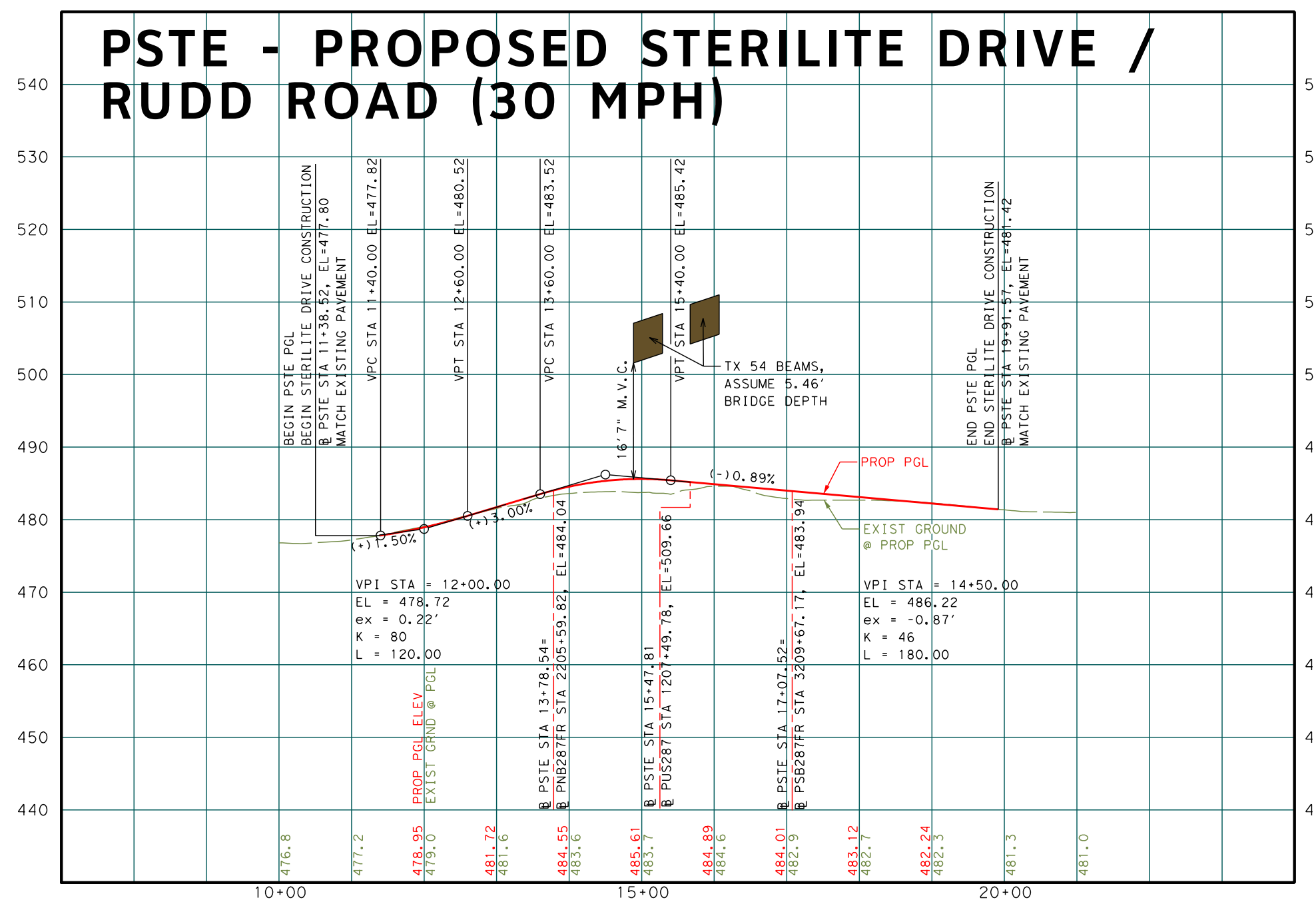
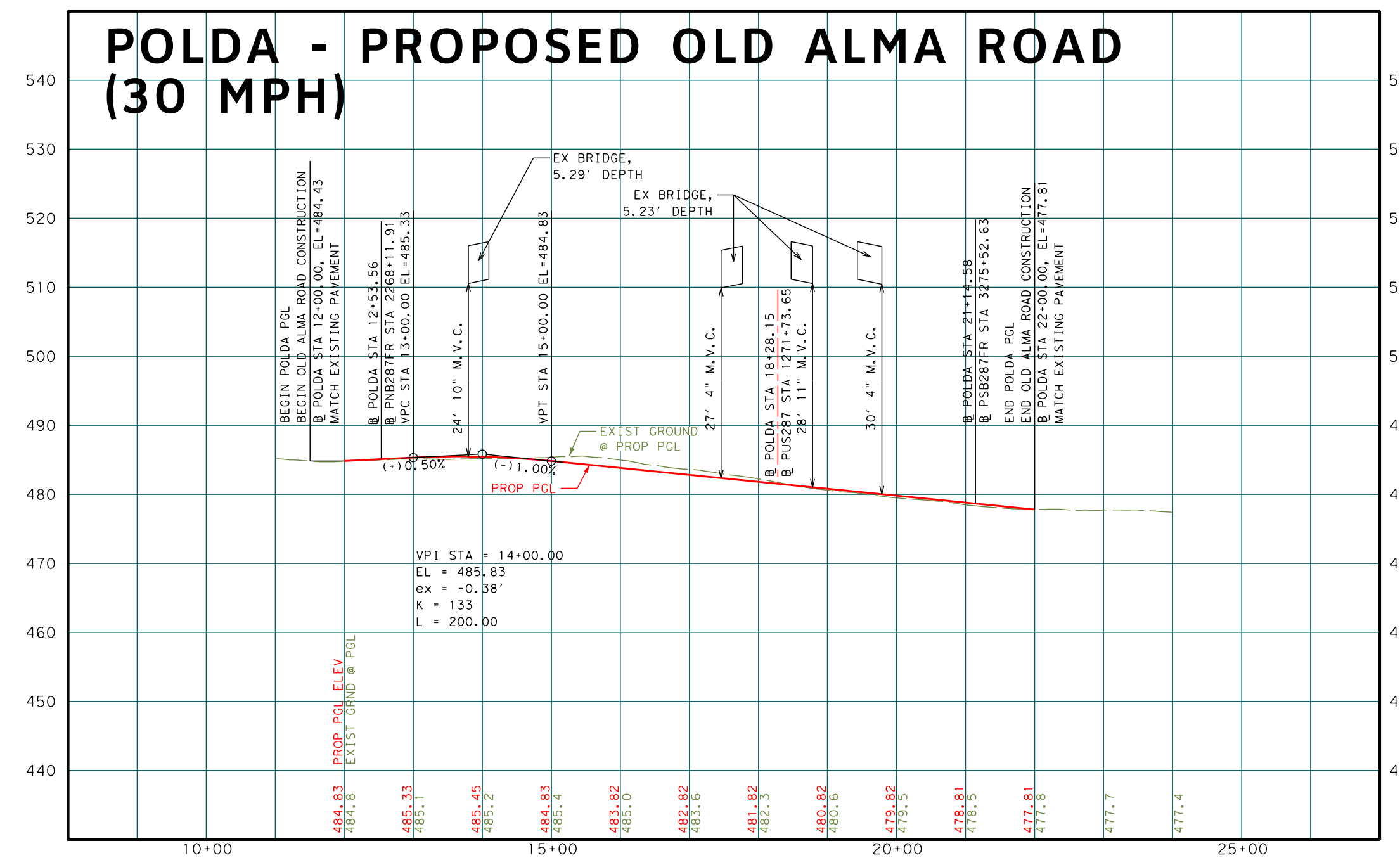
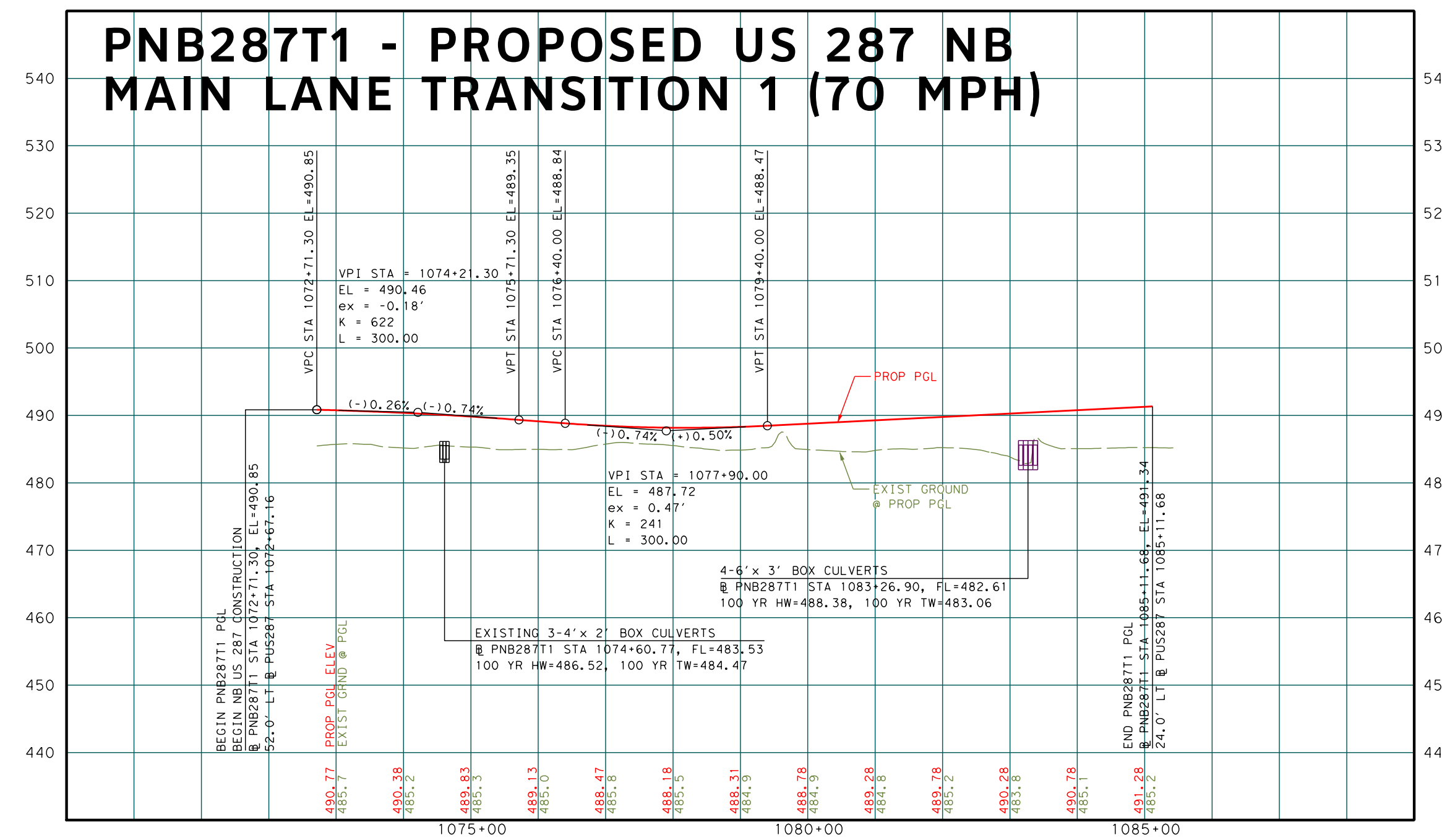
ROLL 5 OF 5, PROFILES

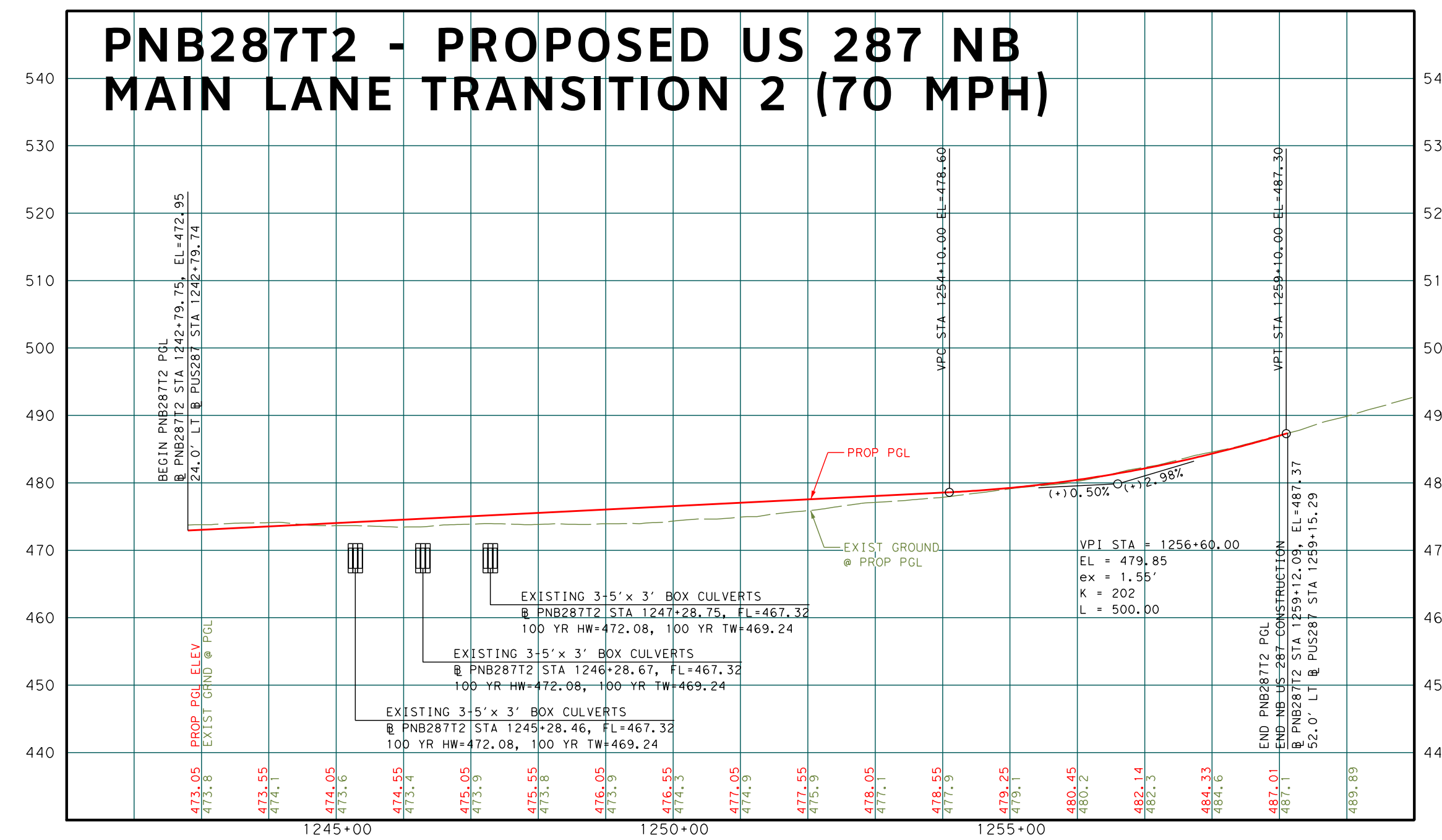

PENS - PROPOSED ENSIGN ROAD (30 MPH)
EXIST GROUND @ PROP PGL
BEGIN PENS PGL
BEGIN ENSIGN ROAD CONSTRUCTION
@ PENS STA 11+06.13, EL=491.60
MATCH EXISTING PAVEMENT
@ PENS STA 13+12.55=@ PNB287FR STA 2107+87.00, EL=487.47
VPC STA 14+00.00 EL=485.72
TX 46 BEAMS, ASSUME 4.80' BRIDGE DEPTH
16'8" M.V.C.
(-)2.00%
(-)0.74%
@ PENS STA 15+14.00=@ PUS287 STA 1108+63.91, EL=507.63
VPT STA 16+00.00 EL=482.98
@ PENS STA 17+42.64=@ PSB287FR STA 3109+50.25, EL=481.92
PROP PGL
END PENS PGL
END ENSIGN ROAD CONSTRUCTION
@ PENS STA 19+81.94, EL=480.13
MATCH EXISTING PAVEMENT
VPI STA = 15+00.00
EL = 483.72
ex = 0.31'
K = 159
L = 200.00
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00

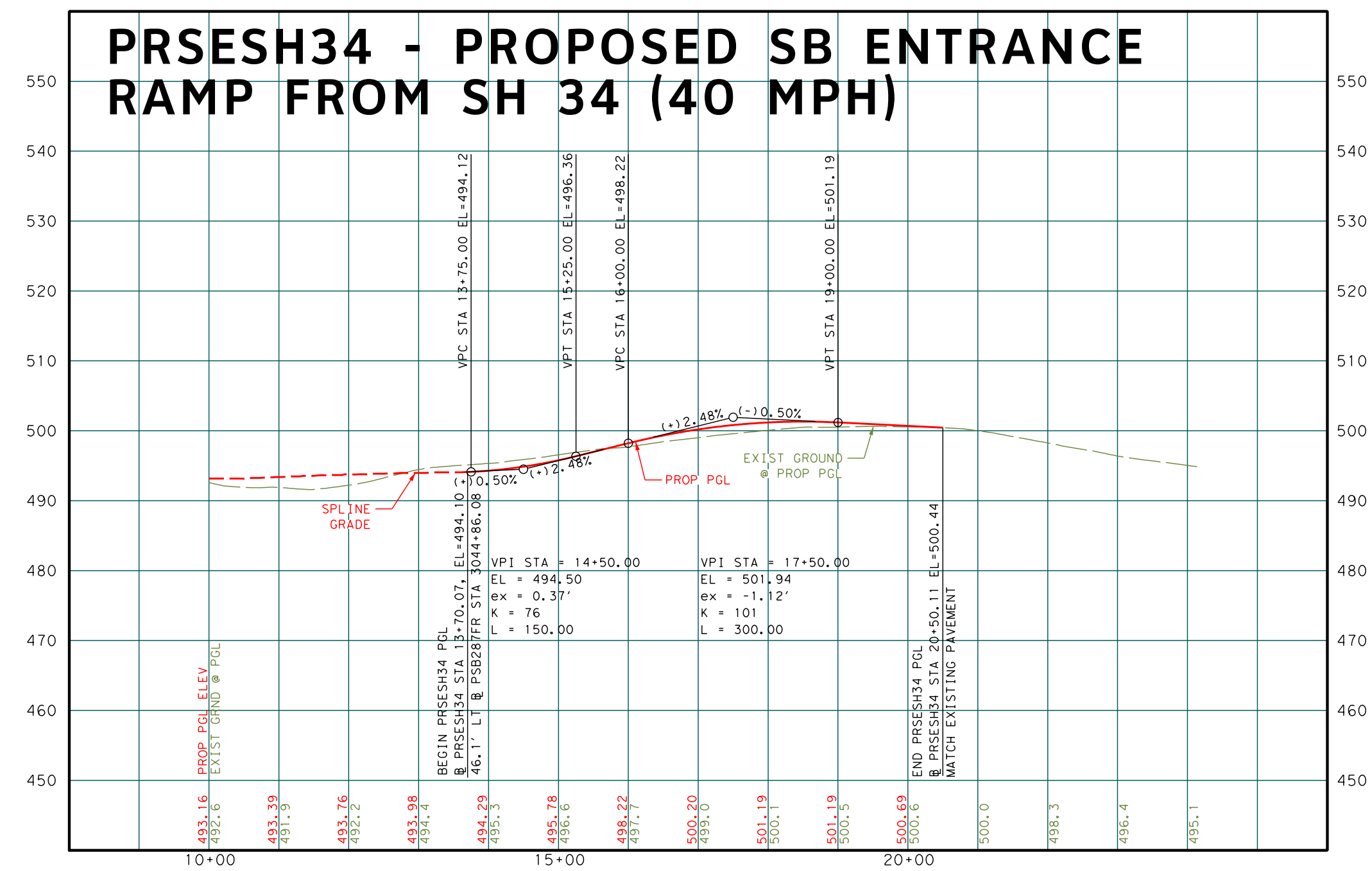

POAKG - PROPOSED FM 1183 / OAK GROVE ROAD (30 MPH)
BEGIN POAKG PGL
BEGIN OAK GROVE ROAD CONSTRUCTION
@ POAKG STA 11+33.62, EL=471.79
MATCH EXISTING PAVEMENT
VPC STA 11+40.00 EL=471.76
VPT STA 12+60.00 EL=472.06
@ POAKG STA 13+80.92 = @ PNB287FR STA 2162+16.48, EL=473.27
VPC STA 15+30.00 EL=474.76
TX 54 BEAMS, ASSUME 5.46' BRIDGE DEPTH
16'6" M.V.C.
VPT STA 16+80.00 EL=474.76
VPC STA 18+40.00 EL=473.16
VPT STA 19+60.00 EL=471.28
VPC STA 20+50.00 EL=469.37
VPT STA 21+50.00 EL=468.06
END POAKG PGL
END OAK GROVE ROAD CONSTRUCTION
@ POAKG STA 21+50.00, EL=468.06
MATCH EXISTING PAVEMENT
(-)0.50%
(+)1.00%
(-)1.00%
(-)2.13%
(-)0.50%
PROP PGL
EXIST GROUND @ PROP PGL
@ POAKG STA 16+09.61 = @ PUS287 STA 1164+35.89 EL=498.13
@ POAKG STA 18+38.30 = @ PSB287FR STA 3166+85.38 EL=473.18
VPI STA = 12+00.00
EL = 471.46
ex = 0.23'
K = 80
L = 120.00
VPI STA = 16+05.00
EL = 475.51
ex = -0.37'
K = 75
L = 150.00
VPI STA = 19+00.00
EL = 472.56
ex = -0.17'
K = 107
L = 120.00
VPI STA = 21+00.00
EL = 468.31
ex = 0.20'
K = 62
L = 100.00
10+00
15+00
20+00

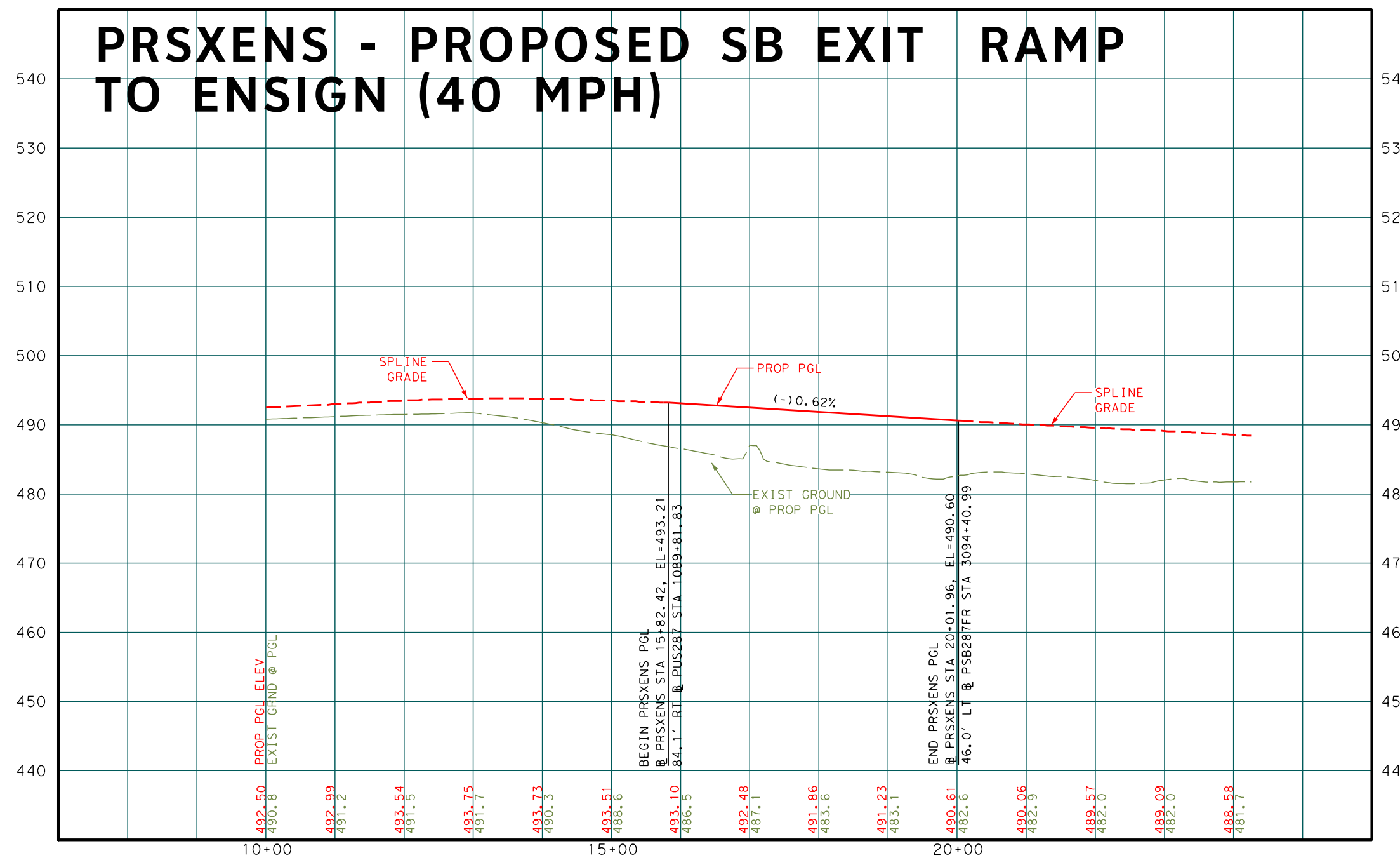

PSTE - PROPOSED STERILITE DRIVE / RUDD ROAD (30 MPH)
BEGIN PSTE PGL
BEGIN STERILITE DRIVE CONSTRUCTION
@ PSTE STA 11+38.52, EL=477.80
MATCH EXISTING PAVEMENT
VPC STA 11+40.00 EL=477.82
VPT STA 12+60.00 EL=480.52
VPC STA 13+60.00 EL=483.52
VPT STA 15+40.00 EL=485.42
TX 54 BEAMS, ASSUME 5.46' BRIDGE DEPTH
16'7" M.V.C.
(+)2.50%
(+)3.00%
(-)0.89%
PROP PGL
EXIST GROUND @ PROP PGL
END PSTE PGL
END STERILITE DRIVE CONSTRUCTION
@ PSTE STA 19+19.97, EL=481.42
MATCH EXISTING PAVEMENT
VPI STA = 12+00.00
EL = 478.72
ex = 0.22'
K = 80
L = 120.00
VPI STA = 14+50.00
EL = 486.22
ex = -0.87'
K = 46
L = 180.00
@ PSTE STA 13+78.54= @ PNB287FR STA 2205+59.62, EL=484.04
@ PSTE STA 15+47.81 @ PUS287 STA 1205+49.78, EL=509.66
@ PSTE STA 17+01.52= @ PSB287FR STA 3209+67.71, EL=483.04
10+00
15+00
20+00

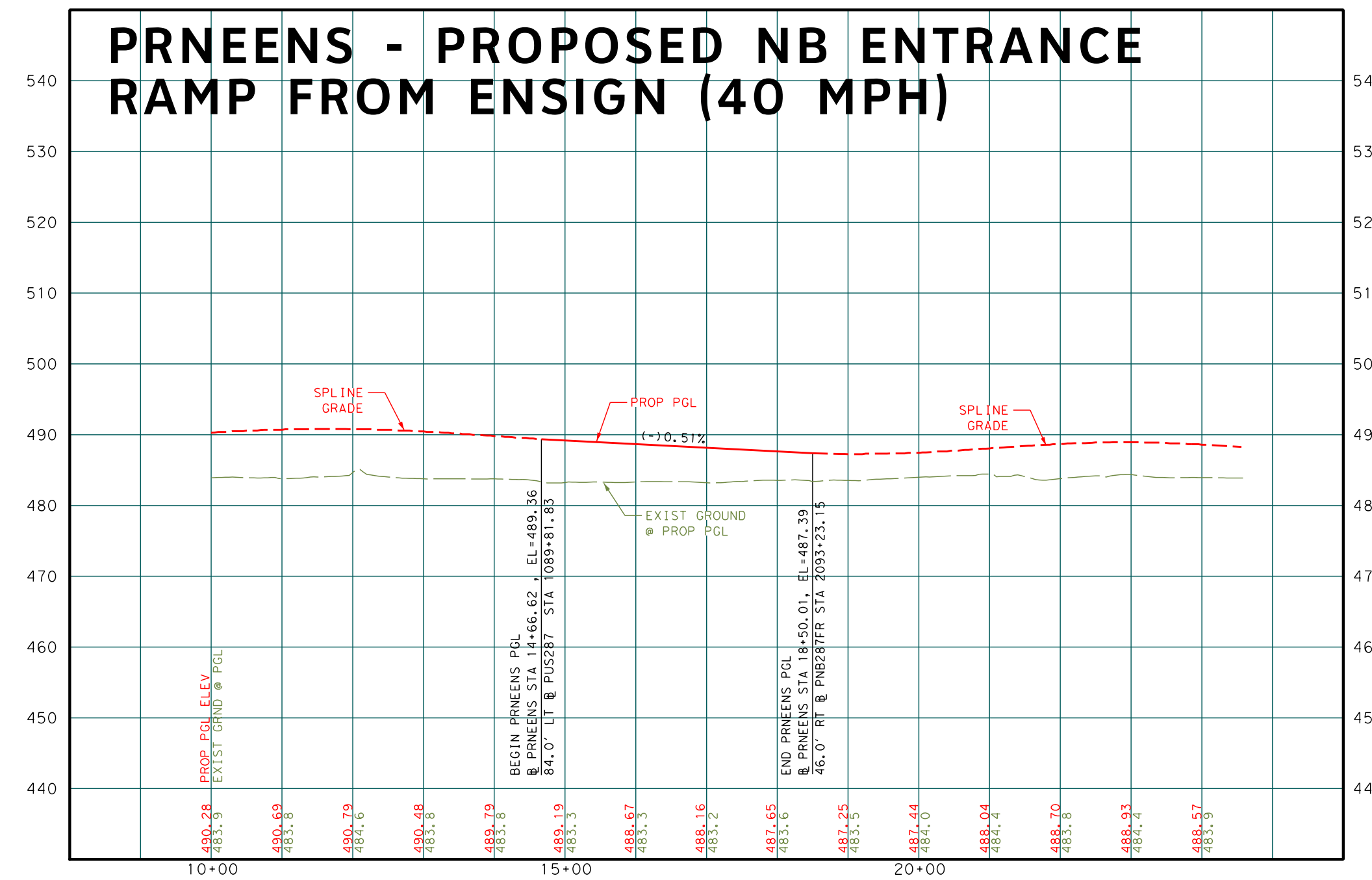

POLDA - PROPOSED OLD ALMA ROAD (30 MPH)
BEGIN POLDA PGL
BEGIN OLD ALMA ROAD CONSTRUCTION
@ POLDA STA 12+00.00, EL=484.43
MATCH EXISTING PAVEMENT
@ POLDA STA 12+51.56 @ PNB287FR STA 2268+11.91
VPC STA 13+00.00 EL=485.33
EX BRIDGE, 5.29' DEPTH
EX BRIDGE, 5.23' DEPTH
24' 10" M.V.C.
VPT STA 15+00.00 EL=484.83
27' 4" M.V.C.
@ POLDA STA 18+28.15 @ PUS287 STA 1271+73.65
28' 11" M.V.C.
30' 4" M.V.C.
@ POLDA STA 21+14.58 @ PSB287FR STA 3275+52.63
END POLDA PGL
END OLD ALMA ROAD CONSTRUCTION
@ POLDA STA 22+00.00, EL=477.81
MATCH EXISTING PAVEMENT
(+)0.50%
(-)1.00%
PROP PGL
EXIST GROUND @ PROP PGL
VPI STA = 14+00.00
EL = 485.83
ex = -0.38'
K = 133
L = 200.00
10+00
15+00
20+00
25+00

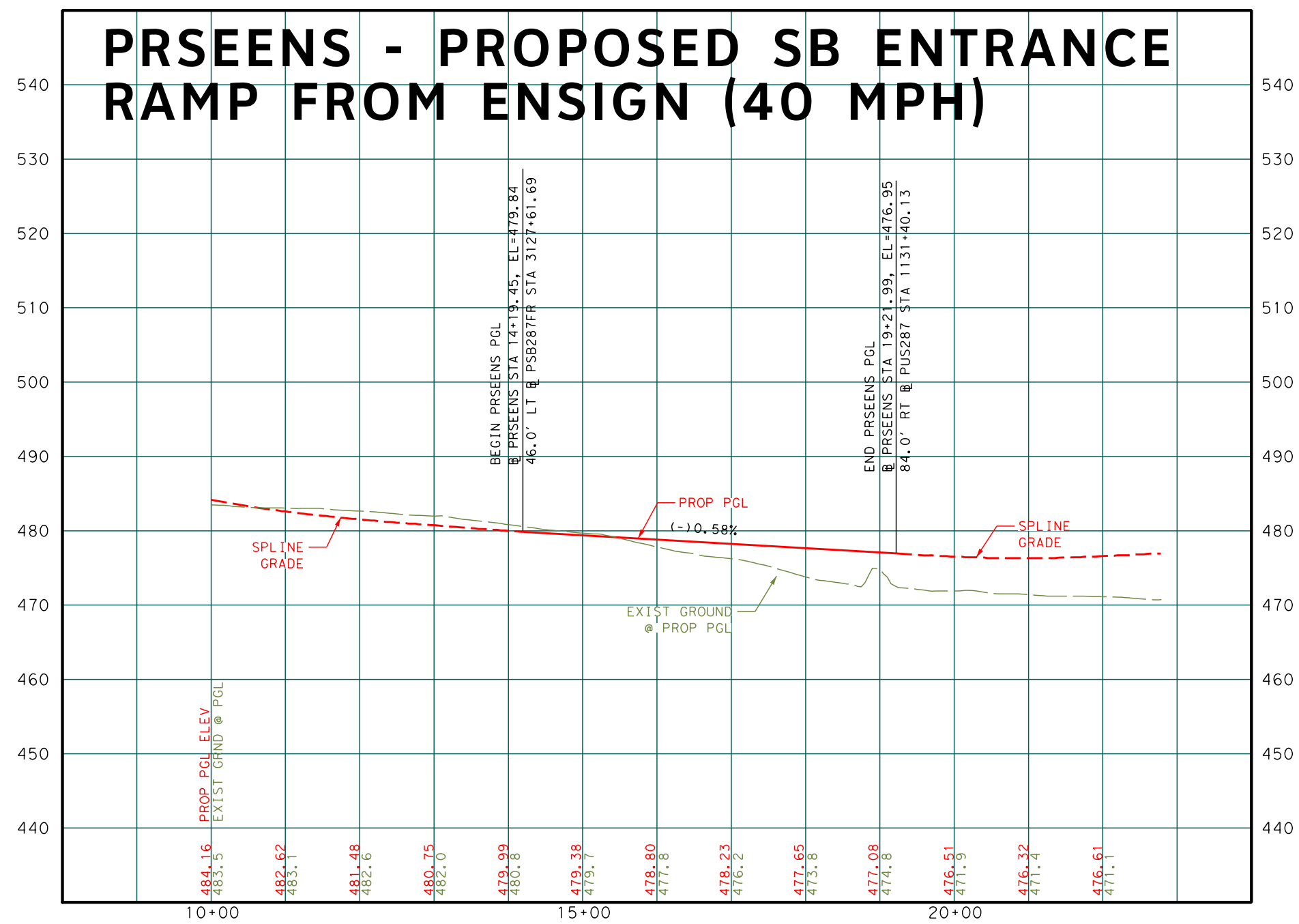

PNB287T1 - PROPOSED US 287 NB MAIN LANE TRANSITION 1 (70 MPH)
VPC STA 1072+71.30 EL=490.85
VPI STA = 1074+21.30
EL = 490.46
ex = -0.18'
K = 622
L = 300.00
VPT STA 1075+71.30 EL=489.35
VPC STA 1076+40.00 EL=488.84
VPT STA 1079+40.00 EL=488.47
(-)0.26%
(-)0.74%
(-)0.74%
(+)0.50%
PROP PGL
EXIST GROUND @ PROP PGL
VPI STA = 1077+90.00
EL = 487.72
ex = 0.47'
K = 241
L = 300.00
4-6'x 3' BOX CULVERTS
@ PNB287T1 STA 1083+26.90, FL=482.61
100 YR HW=488.38, 100 YR TW=483.06
EXISTING 3-4'x 2' BOX CULVERTS
@ PNB287T1 STA 1074+60.77, FL=483.53
100 YR HW=486.52, 100 YR TW=484.47
BEGIN PNB287T1 PGL
BEGIN NB US 287 CONSTRUCTION
@ PNB287T1 STA 1072+71.30, EL=490.85
52.0' LT @ PUS287 STA 1072+67.16
END PNB287T1 PGL
@ PNB287T1 STA 1085+11.68, EL=491.34
24.0' LT @ PUS287 STA 1085+11.68
PROP PGL ELEV
EXIST GRND @ PGL
1075+00
1080+00
1085+00

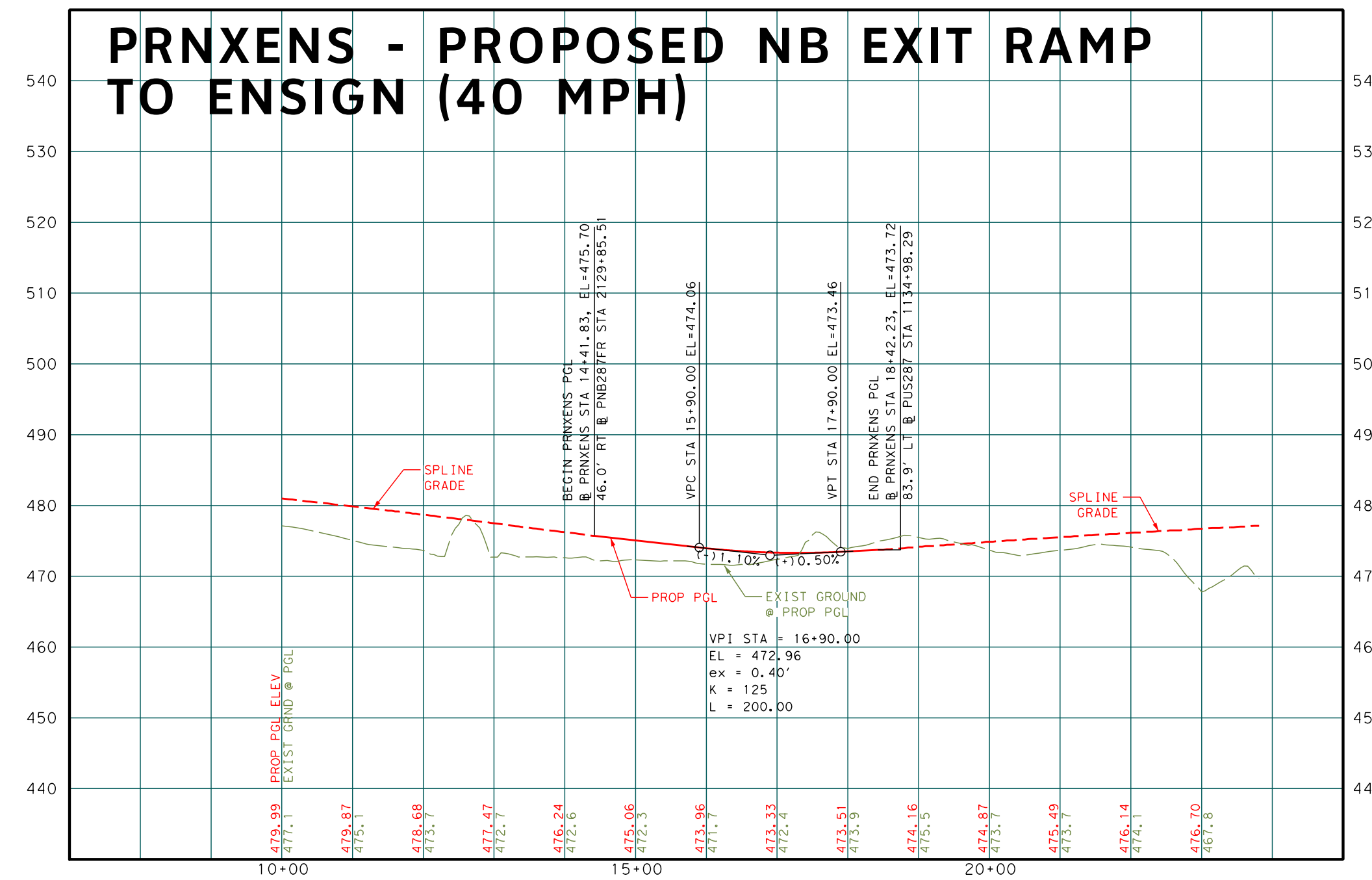

PNB287T2 - PROPOSED US 287 NB MAIN LANE TRANSITION 2 (70 MPH)
BEGIN PNB287T2 PGL
@ PNB287T2 STA 1242+79.75, EL=472.95
24.0' LT @ PUS287 STA 1242+79.74
VPC STA 1254+10.00 EL=478.60
VPT STA 1259+10.00 EL=487.30
PROP PGL
EXIST GROUND @ PROP PGL
(+)0.50%
(+)2.98%
VPI STA = 1256+60.00
EL = 479.85
ex = 1.55'
K = 202
L = 500.00
EXISTING 3-5'x 3' BOX CULVERTS
@ PNB287T2 STA 1247+28.75, FL=467.32
100 YR HW=472.08, 100 YR TW=469.24
EXISTING 3-5'x 3' BOX CULVERTS
@ PNB287T2 STA 1246+28.67, FL=467.32
100 YR HW=472.08, 100 YR TW=469.24
EXISTING 3-5'x 3' BOX CULVERTS
@ PNB287T2 STA 1245+28.46, FL=467.32
100 YR HW=472.08, 100 YR TW=469.24
END PNB287T2 PGL
END NB US 287 CONSTRUCTION
@ PNB287T2 STA 1259+12.09, EL=487.37
52.0' LT @ PUS287 STA 1259+15.29
PROP PGL ELEV
EXIST GRND @ PGL
1245+00
1250+00
1255+00

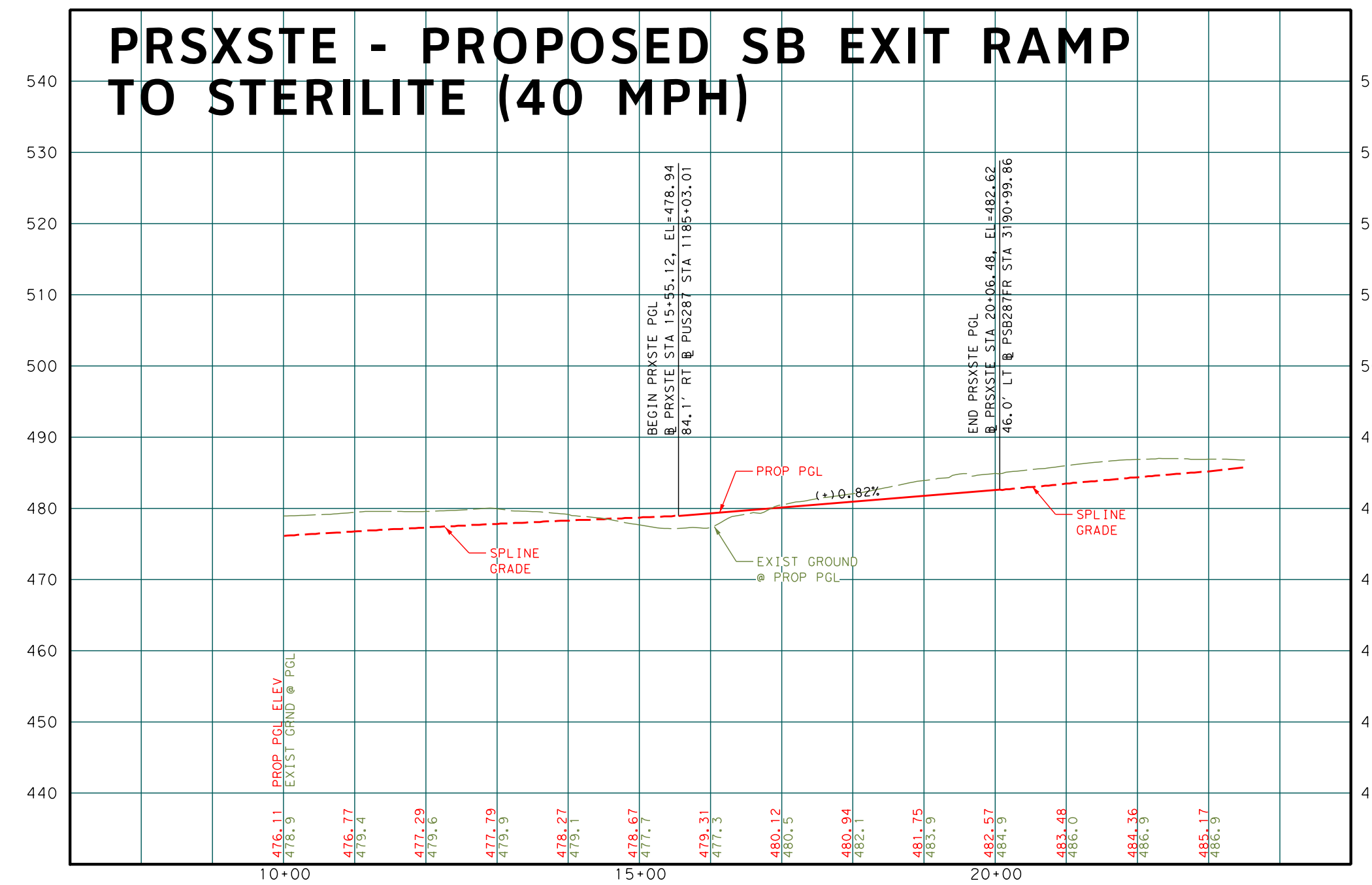

PRSESH34 - PROPOSED SB ENTRANCE RAMP FROM SH 34 (40 MPH)
VPC STA 13+75.00 EL=494.12
VPT STA 15+25.00 EL=496.36
VPC STA 16+00.00 EL=498.22
VPT STA 19+00.00 EL=501.19
SPLINE GRADE
(+)0.50%
(+)2.48%
(+)2.48%
(-)0.50%
PROP PGL
EXIST GROUND @ PROP PGL
BEGIN PRSESH34 PGL
@ PRSESH34 STA 13+70.07, EL=494.10
46.1' LT @ PSB287FR STA 3044+86.08
VPI STA = 14+50.00
EL = 494.50
ex = 0.37'
K = 76
L = 150.00
VPI STA = 17+50.00
EL = 501.94
ex = -1.12'
K = 101
L = 300.00
END PRSESH34 PGL
@ PRSESH34 STA 20+50.11 EL=500.44
MATCH EXISTING PAVEMENT
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00

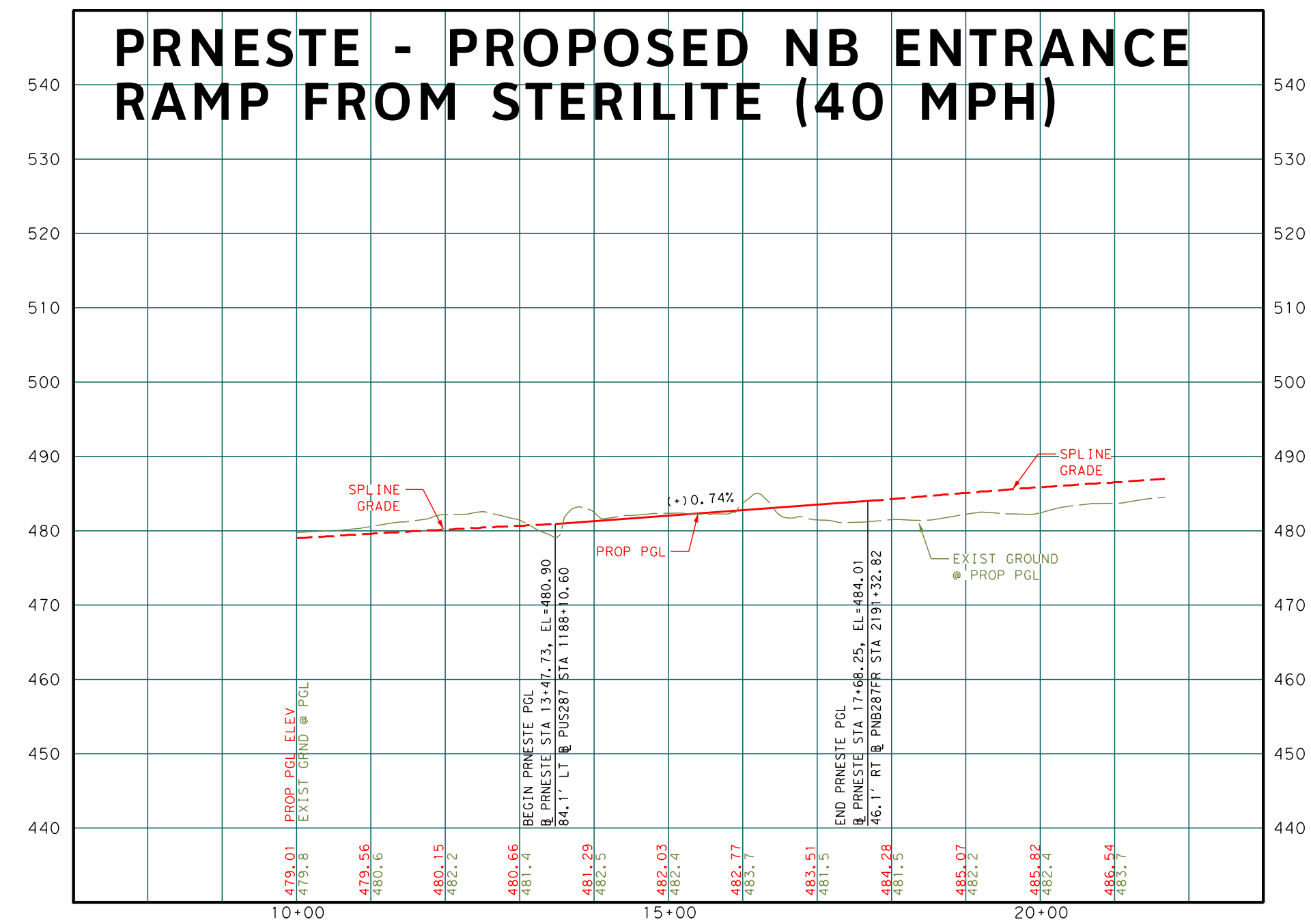

PRSXENS - PROPOSED SB EXIT RAMP TO ENSIGN (40 MPH)
SPLINE GRADE
PROP PGL
(-)0.62%
SPLINE GRADE
EXIST GROUND @ PROP PGL
BEGIN PRSXENS PGL
@ PRSXENS STA 15+82.42, EL=493.21
84.1' RT @ PUS287 STA 1089+81.83
END PRSXENS PGL
@ PRSXENS STA 20+01.96, EL=490.60
46.0' LT @ PSB287FR STA 3094+40.99
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00

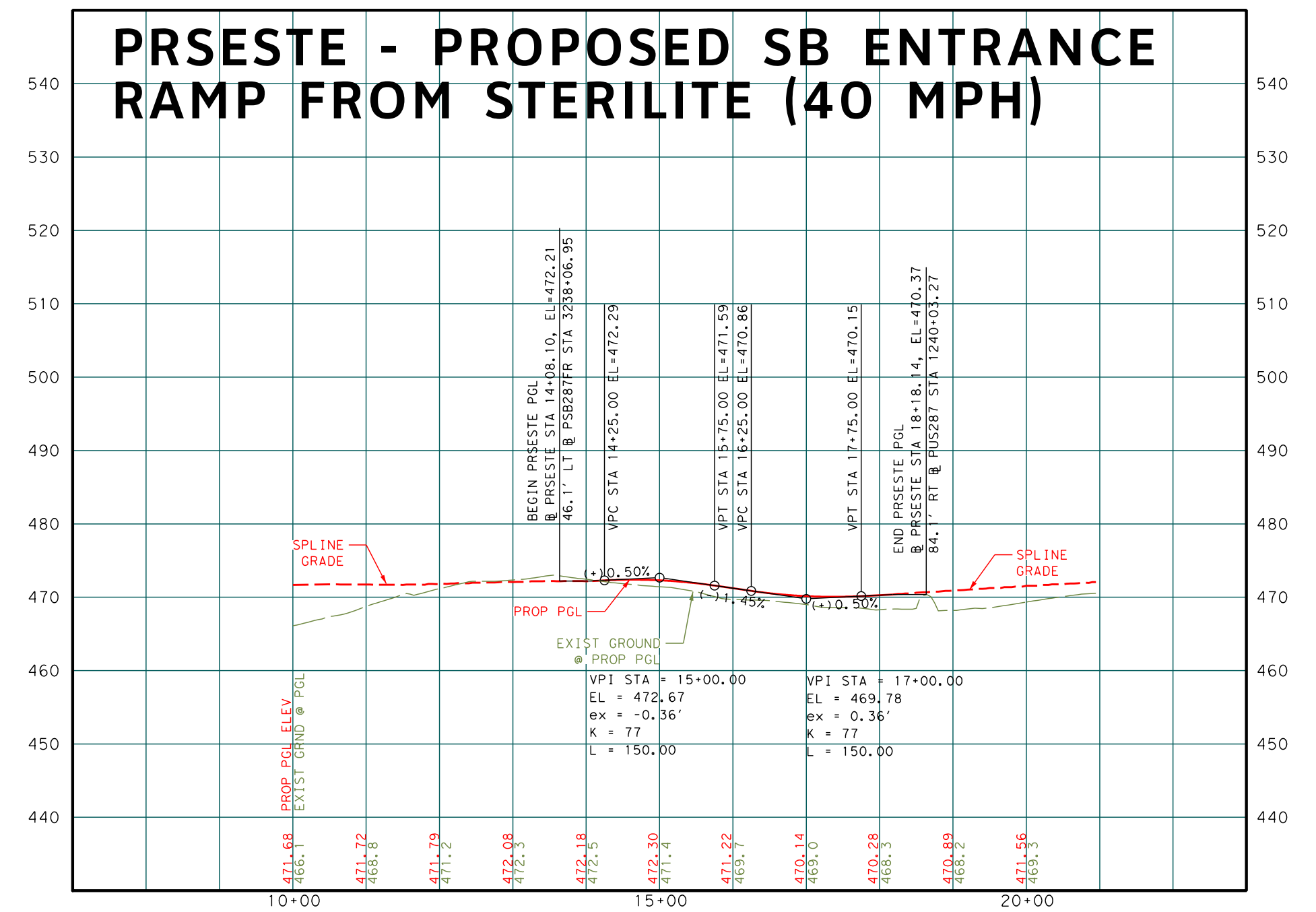

PRNEENS - PROPOSED NB ENTRANCE RAMP FROM ENSIGN (40 MPH)
SPLINE GRADE
PROP PGL
(-)0.51%
SPLINE GRADE
EXIST GROUND @ PROP PGL
BEGIN PRNEENS PGL
@ PRNEENS STA 14+66.62, EL=489.36
84.0' LT @ PUS287 STA 1089+81.83
END PRNEENS PGL
@ PRNEENS STA 18+50.01, EL=487.39
46.0' RT @ PNB287FR STA 2093+23.15
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00

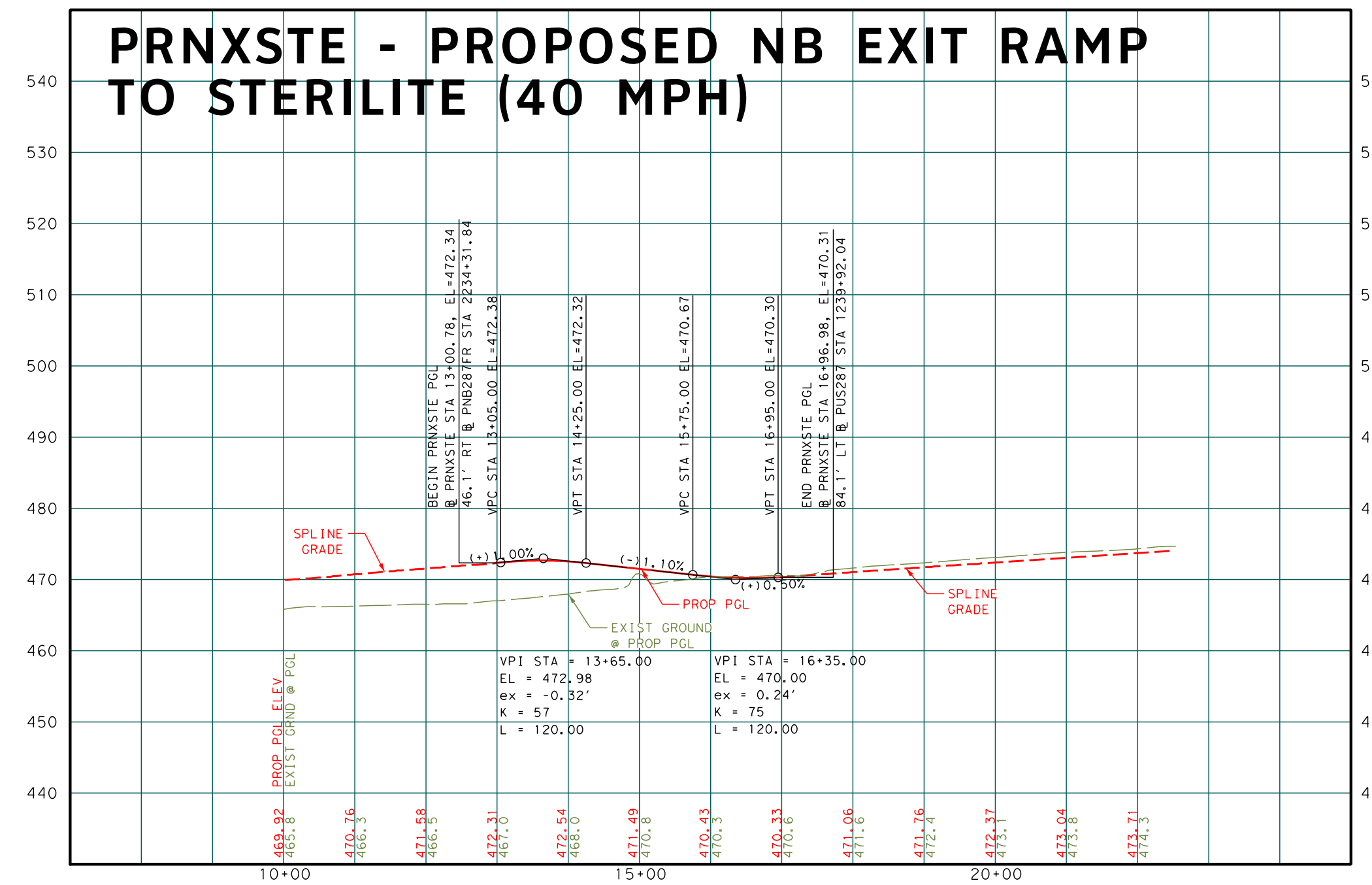

PRSEENS - PROPOSED SB ENTRANCE RAMP FROM ENSIGN (40 MPH)
BEGIN PRSEENS PGL
@ PRSEENS STA 14+19.45, EL=479.84
46.0' LT @ PSB287FR STA 3127+61.69
END PRSEENS PGL
@ PRSEENS STA 19+23.99, EL=476.95
84.0' RT @ PUS287 STA 1131+40.13
PROP PGL
(-)0.58%
SPLINE GRADE
SPLINE GRADE
EXIST GROUND @ PROP PGL
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00


PRNXENS - PROPOSED NB EXIT RAMP TO ENSIGN (40 MPH)
BEGIN PRNXENS PGL
@ PRNXENS STA 14+41.83, EL=475.70
46.0' RT @ PNB287FR STA 2129+85.35
VPC STA 15+90.00 EL=474.06
VPT STA 17+90.00 EL=473.46
END PRNXENS PGL
@ PRNXENS STA 18+42.23, EL=473.72
83.9' LT @ PUS287 STA 1134+98.29
SPLINE GRADE
SPLINE GRADE
(-)1.10%
(+)0.50%
PROP PGL
EXIST GROUND @ PROP PGL
VPI STA = 16+90.00
EL = 472.96
ex = 0.40'
K = 125
L = 200.00
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00


PRSXSTE - PROPOSED SB EXIT RAMP TO STERILITE (40 MPH)
BEGIN PRSXSTE PGL
@ PRSXSTE STA 15+55.12, EL=478.94
84.1' RT @ PUS287 STA 1180+03.01
END PRSXSTE PGL
@ PRSXSTE STA 20+06.48, EL=482.62
46.0' LT @ PSB287FR STA 3190+99.86
PROP PGL
(+)0.82%
SPLINE GRADE
SPLINE GRADE
EXIST GROUND @ PROP PGL
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00


PRNESTE - PROPOSED NB ENTRANCE RAMP FROM STERILITE (40 MPH)
SPLINE GRADE
(+)0.74%
PROP PGL
SPLINE GRADE
EXIST GROUND @ PROP PGL
BEGIN PRNESTE PGL
@ PRNESTE STA 13+47.73, EL=480.90
84.1' LT @ PUS287 STA 1188+10.60
END PRNESTE PGL
@ PRNESTE STA 17+68.25, EL=484.01
46.1' RT @ PNB287FR STA 2191+32.82
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00


PRSESTE - PROPOSED SB ENTRANCE RAMP FROM STERILITE (40 MPH)
BEGIN PRSESTE PGL
@ PRSESTE STA 14+08.10, EL=472.21
46.1' LT @ PSB287FR STA 3238+06.95
VPC STA 14+25.00 EL=472.29
VPT STA 15+75.00 EL=471.59
VPC STA 16+25.00 EL=470.86
VPT STA 17+75.00 EL=470.15
END PRSESTE PGL
@ PRSESTE STA 18+18.14, EL=470.37
84.1' RT @ PUS287 STA 1240+03.27
SPLINE GRADE
SPLINE GRADE
(+)0.50%
(-)1.45%
(+)0.50%
PROP PGL
EXIST GROUND @ PROP PGL
VPI STA = 15+00.00
EL = 472.67
ex = -0.36'
K = 77
L = 150.00
VPI STA = 17+00.00
EL = 469.78
ex = 0.36'
K = 77
L = 150.00
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00


PRNXSTE - PROPOSED NB EXIT RAMP TO STERILITE (40 MPH)
BEGIN PRNXSTE PGL
@ PRNXSTE STA 13+00.78, EL=472.34
46.1' RT @ PNB287FR STA 2234+31.84
VPC STA 13+05.00 EL=472.38
VPT STA 14+25.00 EL=472.32
VPC STA 15+75.00 EL=470.67
VPT STA 16+95.00 EL=470.30
END PRNXSTE PGL
@ PRNXSTE STA 16+96.98, EL=470.31
84.1' LT @ PUS287 STA 1239+92.04
SPLINE GRADE
SPLINE GRADE
(+)1.00%
(-)1.10%
(+)0.50%
PROP PGL
EXIST GROUND @ PROP PGL
VPI STA = 13+65.00
EL = 472.98
ex = -0.32'
K = 57
L = 120.00
VPI STA = 16+35.00
EL = 470.00
ex = 0.24'
K = 75
L = 120.00
PROP PGL ELEV
EXIST GRND @ PGL
10+00
15+00
20+00

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DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

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FROM SH 34 TO IH 45
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CSJ 0172-08-053

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ROLL 5 OF 5

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RAMPS: 40 MPH
FRONTAGE ROADS: 40 MPH
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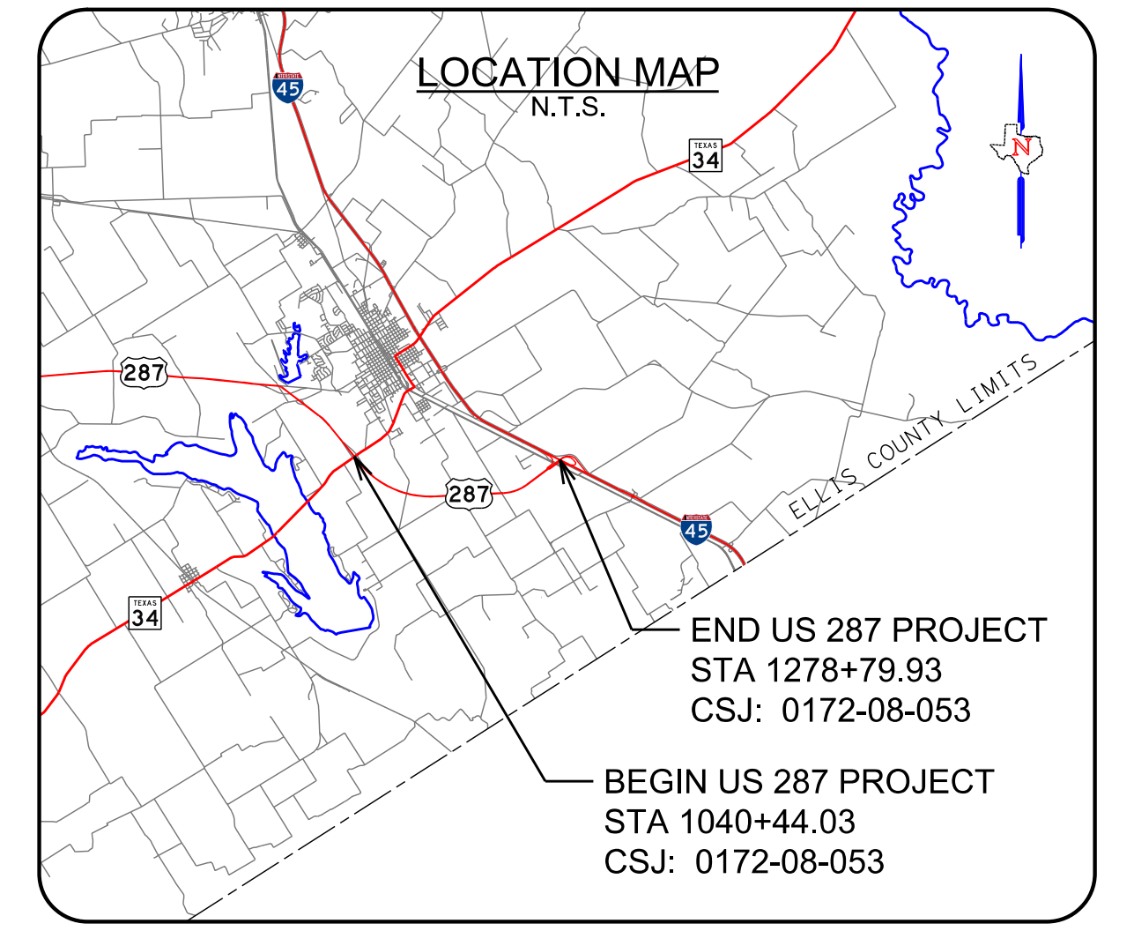
LOCATION MAP
N.T.S.
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STA 1040+44.03
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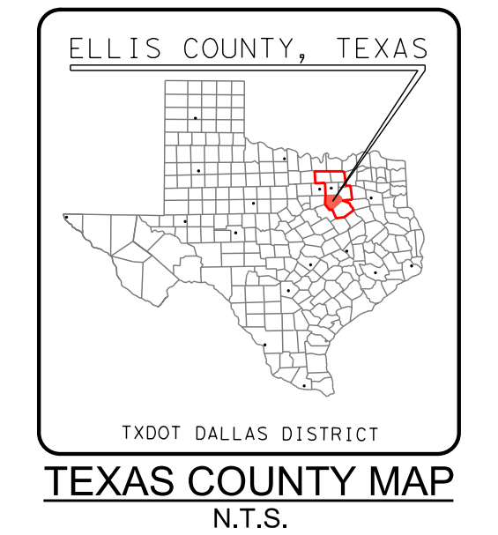
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TXDOT DALLAS DISTRICT

TEXAS COUNTY MAP
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