

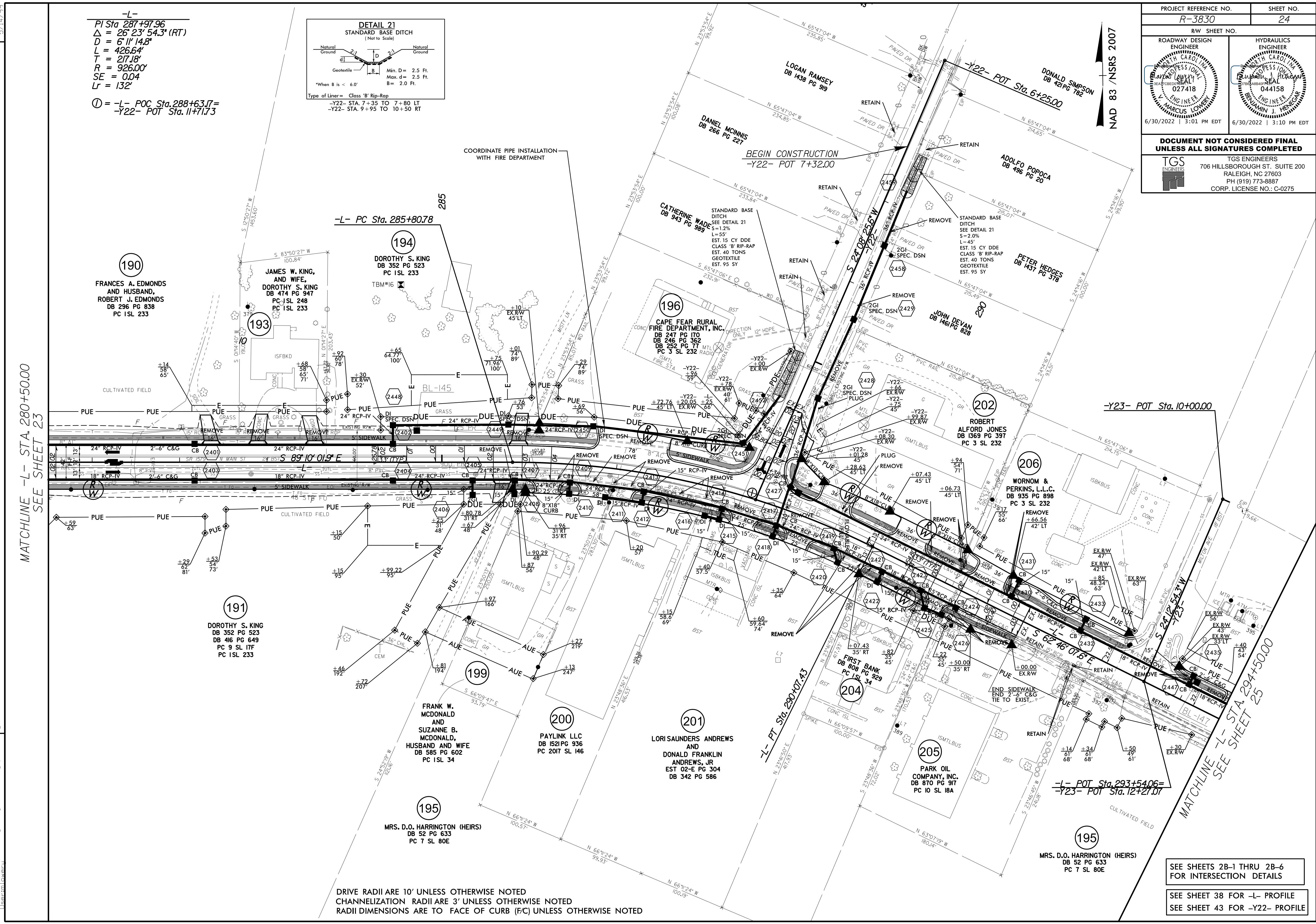
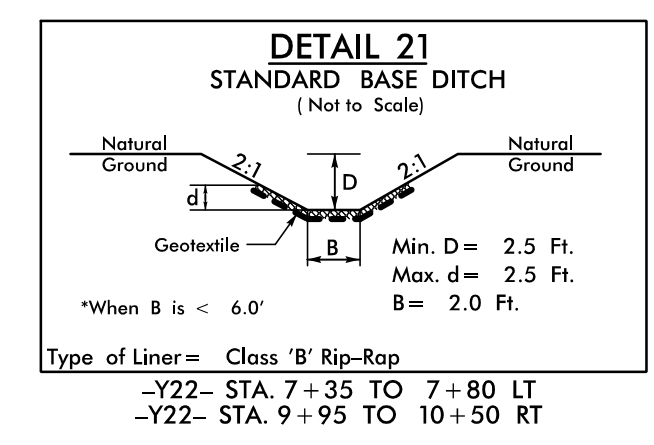
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PROJECT REFERENCE NO. <b>R-3830</b>		SHEET NO. <b>24</b>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER 		HYDRAULICS ENGINEER 	
6/30/2022   3:01 PM EDT		6/30/2022   3:10 PM EDT	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			
		TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

-L-  
 PI Sta 287+97.96  
 $\Delta = 26^\circ 23' 54.3" (RT)$   
 $D = 611' 14.8"$   
 $L = 426.64'$   
 $T = 217.18'$   
 $R = 926.00'$   
 $SE = 0.04$   
 $Lr = 132'$   
 (1) = -L- POC Sta. 288+63.17 =  
 -Y22- POT Sta. 11+71.73



MATCHLINE -L- STA. 280+50.00  
SEE SHEET 23

MATCHLINE -L- STA. 294+50.00  
SEE SHEET 25

DRIVE RADII ARE 10' UNLESS OTHERWISE NOTED  
 CHANNELIZATION RADII ARE 3' UNLESS OTHERWISE NOTED  
 RADII DIMENSIONS ARE TO FACE OF CURB (F/C) UNLESS OTHERWISE NOTED

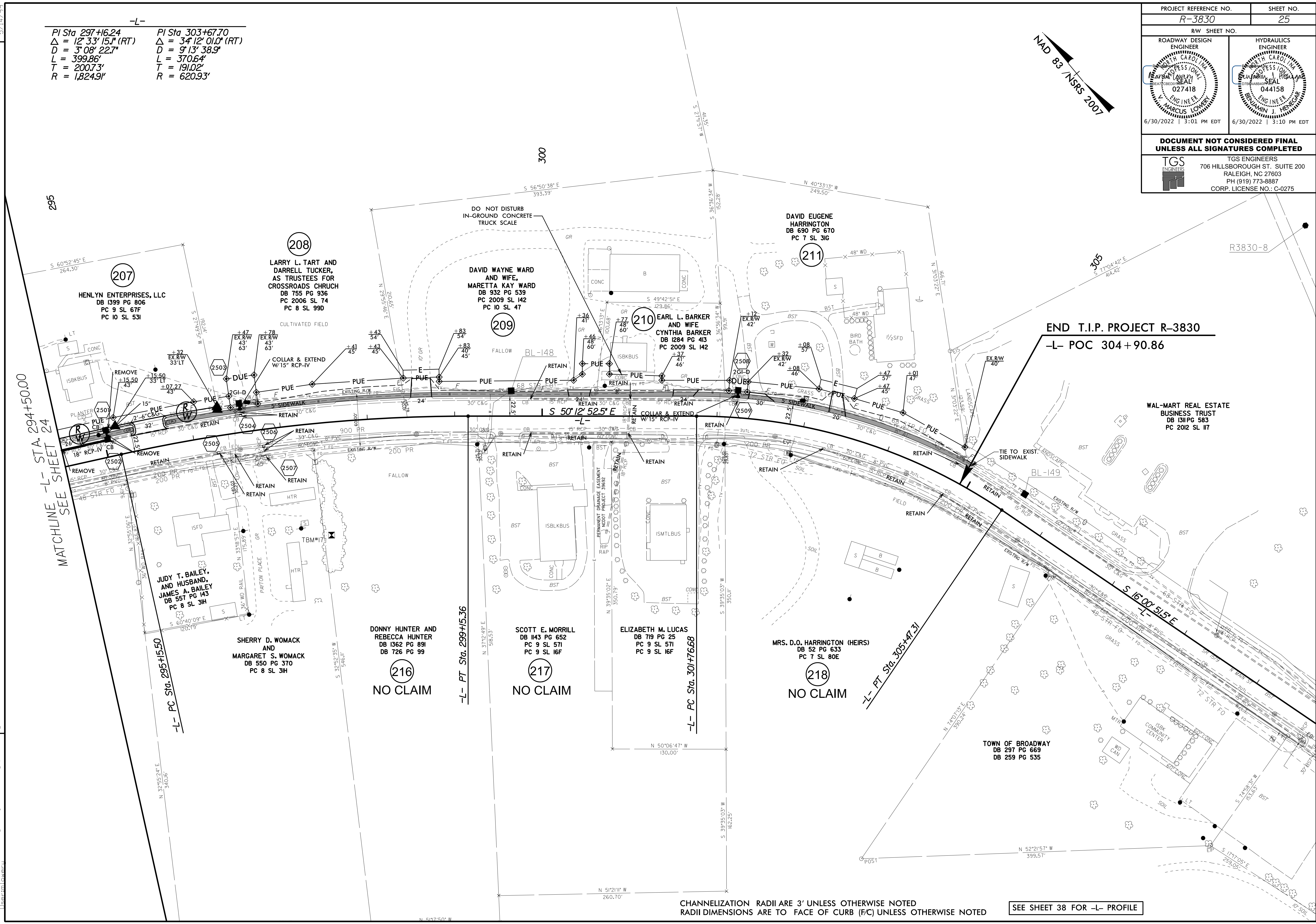
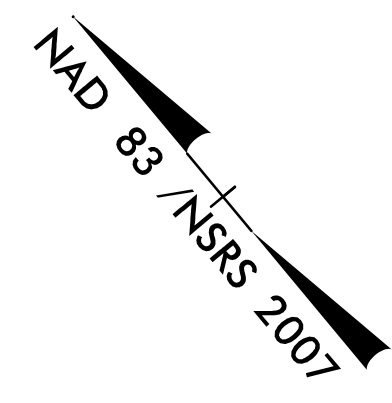
SEE SHEETS 2B-1 THRU 2B-6  
FOR INTERSECTION DETAILS  
 SEE SHEET 38 FOR -L- PROFILE  
 SEE SHEET 43 FOR -Y22- PROFILE

REVISIONS

5/7/14/99  
 1/18/2022  
 J:\Projects\NC000\Roadway\Proje\N-3830\Roadway\Proje\N-3830\_rdy\_psh\_24.dgn  
 User: tmlowery

PROJECT REFERENCE NO. <b>R-3830</b>		SHEET NO. <b>25</b>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER <b>MARCUS LOVRY</b> 027418 6/30/2022   3:01 PM EDT		HYDRAULICS ENGINEER <b>DAMIAN J. HENCHAR</b> 044158 6/30/2022   3:10 PM EDT	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275		TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

-L-  
 PI Sta 297+16.24    PI Sta 303+67.70  
 $\Delta = 12^{\circ} 33' 15.1''$  (RT)     $\Delta = 34^{\circ} 12' 01.0''$  (RT)  
 $D = 3^{\circ} 08' 22.7''$      $D = 9^{\circ} 13' 38.9''$   
 $L = 399.86'$      $L = 370.64'$   
 $T = 200.73'$      $T = 191.02'$   
 $R = 1,824.91'$      $R = 620.93'$



REVISIONS

MATCHLINE -L- STA. 294+50.00  
SEE SHEET 24

-L- PC Sta. 295+15.50

-L- PT Sta. 299+15.36

-L- PC Sta. 301+76.68

-L- PT Sta. 305+47.31

END T.I.P. PROJECT R-3830  
-L- POC 304+90.86

CHANNELIZATION RADII ARE 3' UNLESS OTHERWISE NOTED  
RADII DIMENSIONS ARE TO FACE OF CURB (F/C) UNLESS OTHERWISE NOTED

SEE SHEET 38 FOR -L- PROFILE

5/14/2022  
 C:\Users\mlovr\Documents\Projects\Roadway\Proj\R-3830\_rdy\_psh\_25.dgn  
 User: mlovr

5/14/99

BRITNEY A. ELLIS  
AND HUSBAND,  
TRAVIS ELLIS  
DB 106 PG 197  
PC 4 SL 269

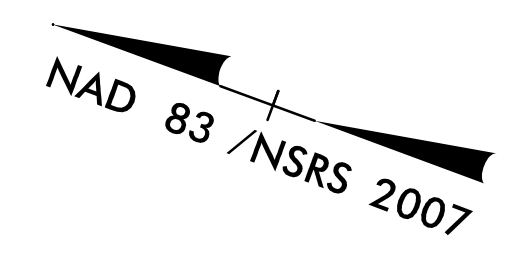
KEEPSAFE  
MINI-STORAGE, LLC  
DB 1258 PG 788  
PC 8 SL 68

N 87°10'18" W  
103.19'

N 87°06'46" W  
235.67'

N 21°25'02" W  
21.93'

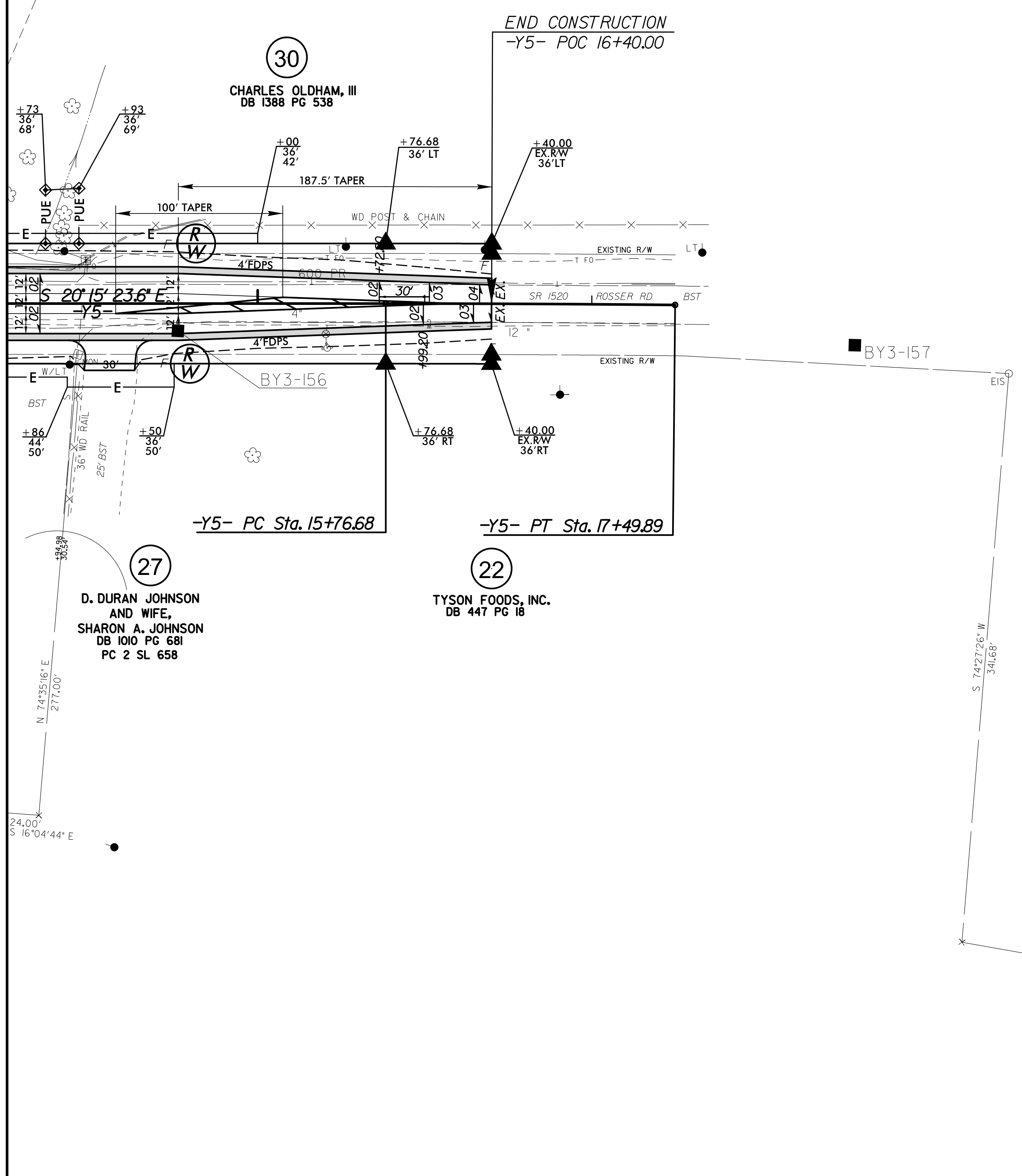
-Y5-  
PI Sta 16+63.28  
Δ = 0° 33' 05.7" (RT)  
D = 0° 19' 06.4"  
L = 173.21'  
T = 86.61'  
R = 17,992.44'  
SE = SEE PLANS



PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>26</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER  6/30/2022   3:01 PM EDT	HYDRAULICS ENGINEER  6/30/2022   3:10 PM EDT
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

REVISIONS

MATCHLINE -Y5- STA.13+50.00  
SEE SHEET 06



BY3-157

S 74°27'26\"/>

SEE SHEET 40 FOR -Y5- PROFILE

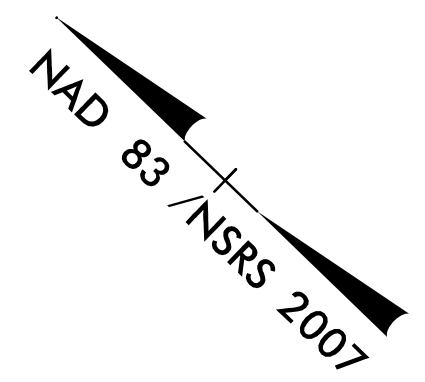
4/8/2022  
C:\Users\mlovey\Documents\Roadway\Proj\3830\Roadway\Proj\3830\rdy\_psh\_26.dgn  
User: mlovey

5/14/2022

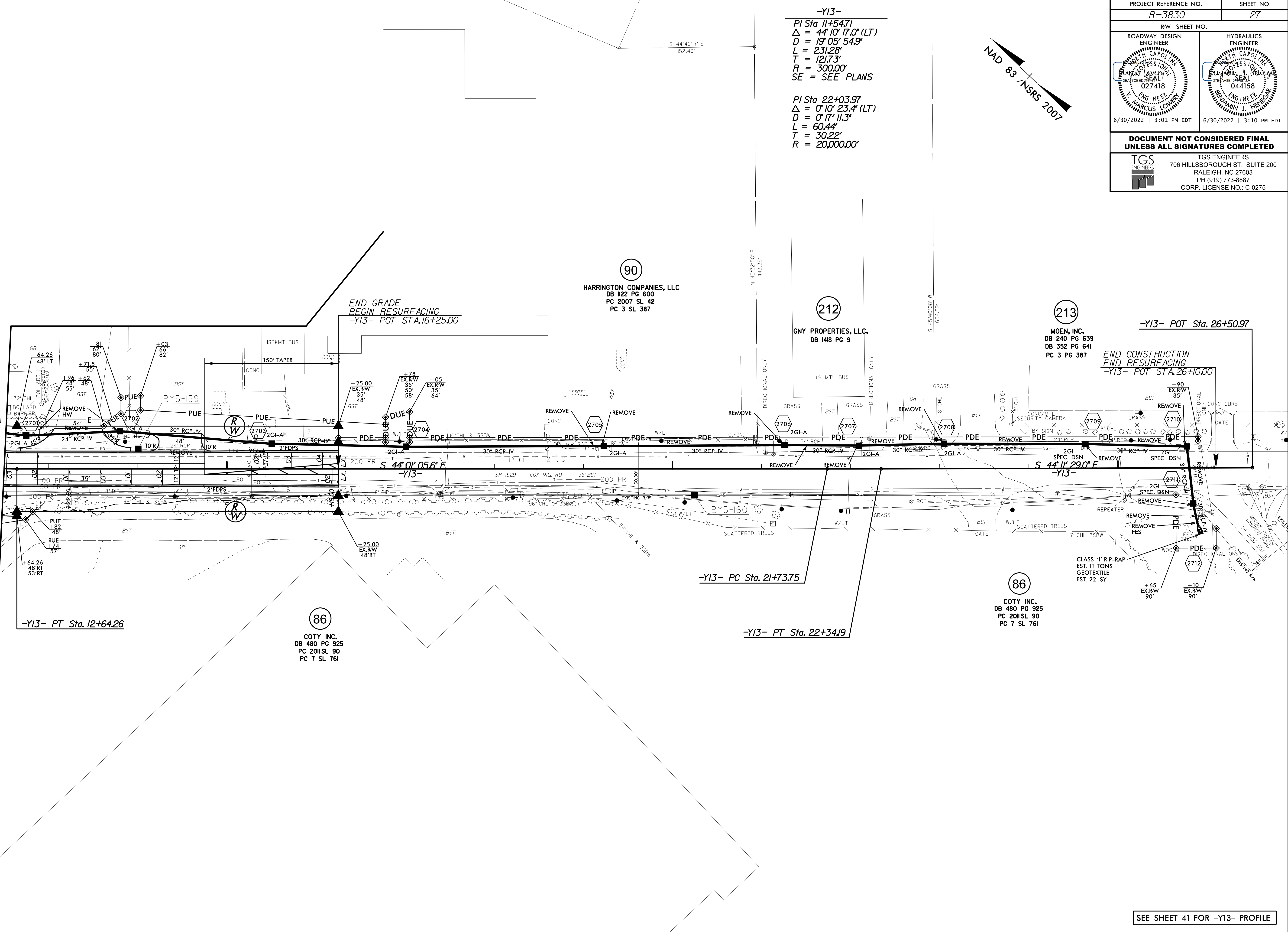
PROJECT REFERENCE NO. <b>R-3830</b>		SHEET NO. <b>27</b>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER <b>MARCUS LOVRY</b> 027418 6/30/2022   3:01 PM EDT		HYDRAULICS ENGINEER <b>DANIEL J. HENDERSON</b> 044158 6/30/2022   3:10 PM EDT	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			
TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275		TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

**-Y13-**  
 PI Sta 11+54.71  
 $\Delta = 44^{\circ} 10' 17.0" (LT)$   
 $D = 19^{\circ} 05' 54.9"$   
 $L = 231.28'$   
 $T = 121.73'$   
 $R = 300.00'$   
 SE = SEE PLANS

PI Sta 22+03.97  
 $\Delta = 0^{\circ} 10' 23.4" (LT)$   
 $D = 0^{\circ} 17' 11.3"$   
 $L = 60.44'$   
 $T = 30.22'$   
 $R = 20,000.00'$



MATCHLINE -Y13- STA.12+50.00  
 SEE SHEET 12



**90**  
 HARRINGTON COMPANIES, LLC  
 DB 1122 PG 600  
 PC 2007 SL 42  
 PC 3 SL 387

**212**  
 GNY PROPERTIES, LLC.  
 DB 1418 PG 9  
 15 MTL BUS

**213**  
 MOEN, INC.  
 DB 240 PG 639  
 DB 352 PG 641  
 PC 3 PG 387

**86**  
 COTY INC.  
 DB 480 PG 925  
 PC 2011 SL 90  
 PC 7 SL 761

**86**  
 COTY INC.  
 DB 480 PG 925  
 PC 2011 SL 90  
 PC 7 SL 761

CLASS 1' RIP-RAP  
 EST. 11 TONS  
 GEOTEXTILE  
 EST. 22 SY

END CONSTRUCTION  
 END RESURFACING  
 -Y13- POT STA. 26+10.00

END GRADE  
 BEGIN RESURFACING  
 -Y13- POT STA. 16+25.00

-Y13- PC Sta. 21+73.75

-Y13- PT Sta. 22+34.19

-Y13- PT Sta. 12+64.26

REVISIONS

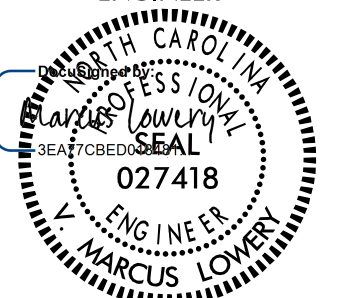
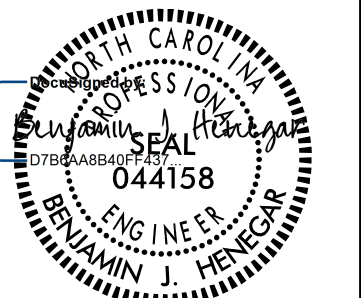
SEE SHEET 41 FOR -Y13- PROFILE

4/8/2022 10:38:30 Roadway\Proj\N-3830\_rdy\_psh\_27.dgn  
 User: jmlower

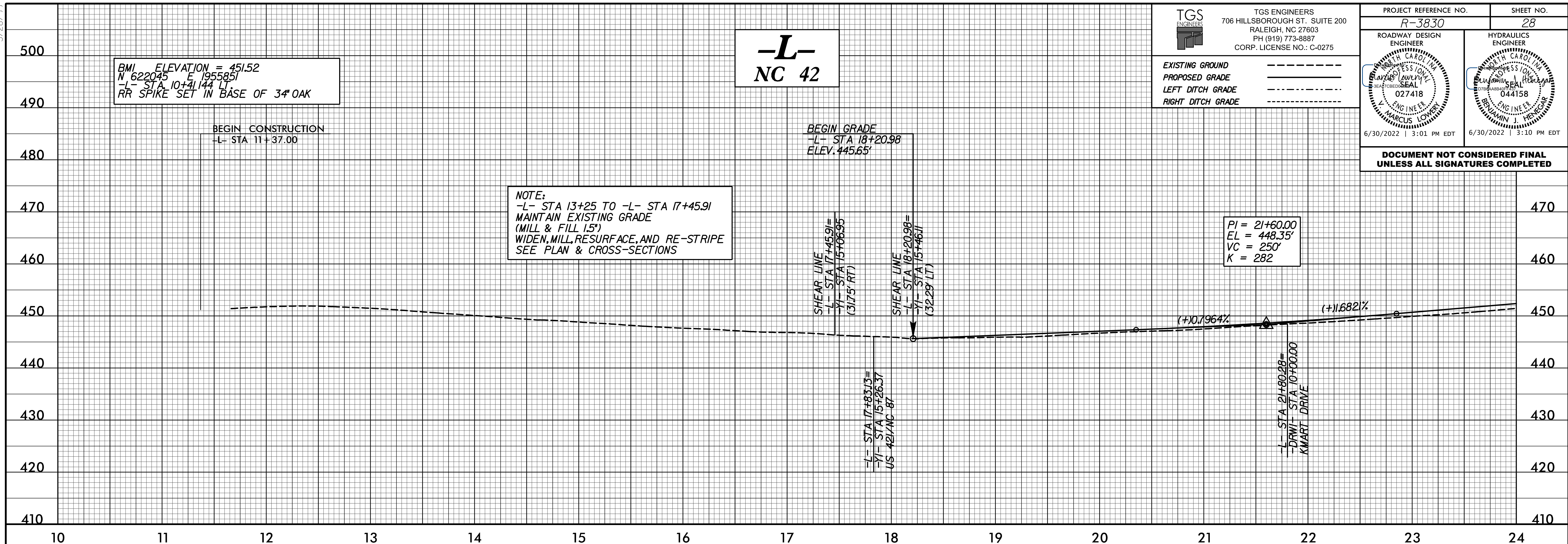
5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

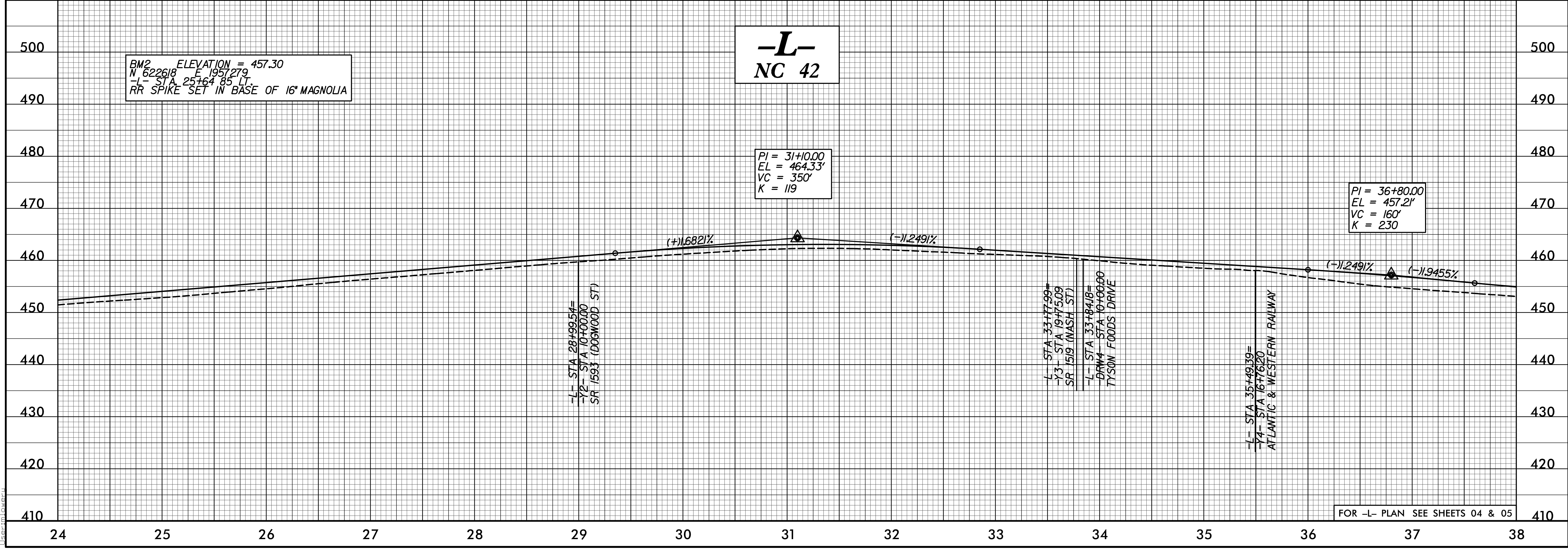
EXISTING GROUND - - - - -  
 PROPOSED GRADE - - - - -  
 LEFT DITCH GRADE - - - - -  
 RIGHT DITCH GRADE - - - - -

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>28</b>
ROADWAY DESIGN ENGINEER  <b>027418</b> V. MARCUS LOWREY 6/30/2022   3:01 PM EDT	HYDRAULICS ENGINEER  <b>044158</b> J. HEICK 6/30/2022   3:10 PM EDT

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4/8/2022  
 C:\Users\jlowrey\OneDrive\Documents\Roadway\Proj\R-3830\rdj\pfl\_28.dgn  
 User: jlowrey



FOR -L- PLAN SEE SHEETS 04 & 05

5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND

PROPOSED GRADE

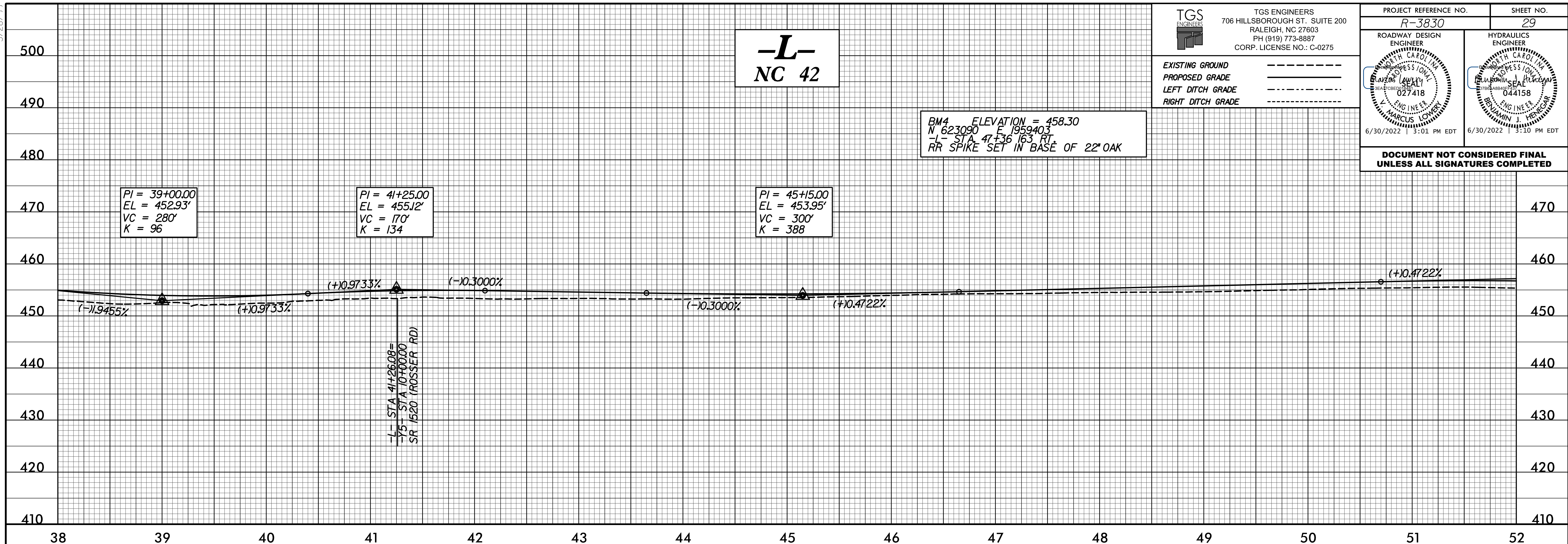
LEFT DITCH GRADE

RIGHT DITCH GRADE

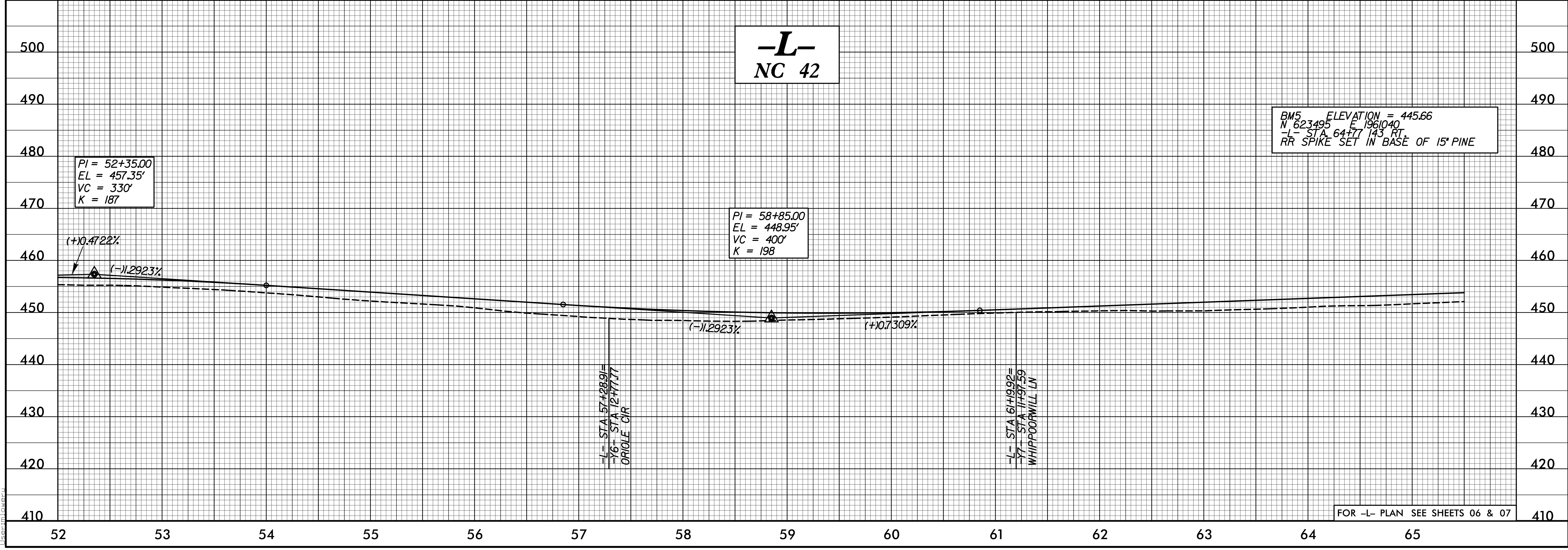
PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>29</b>
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
6/30/2022   3:01 PM EDT	6/30/2022   3:10 PM EDT

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UNLESS ALL SIGNATURES COMPLETED**

BM4 ELEVATION = 458.30  
N 623090 E 1959403  
-L- STA 47+36.163 RT.  
RR SPIKE SET IN BASE OF 22" OAK



BM5 ELEVATION = 445.66  
N 623495 E 1961040  
-L- STA 64+77.143 RT.  
RR SPIKE SET IN BASE OF 15" PINE




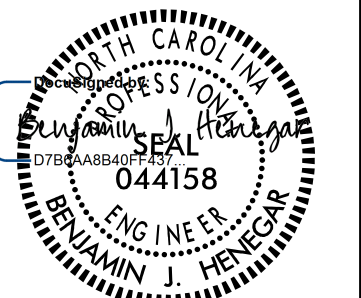
FOR -L- PLAN SEE SHEETS 06 & 07

4/8/2022  
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User: mlowrey

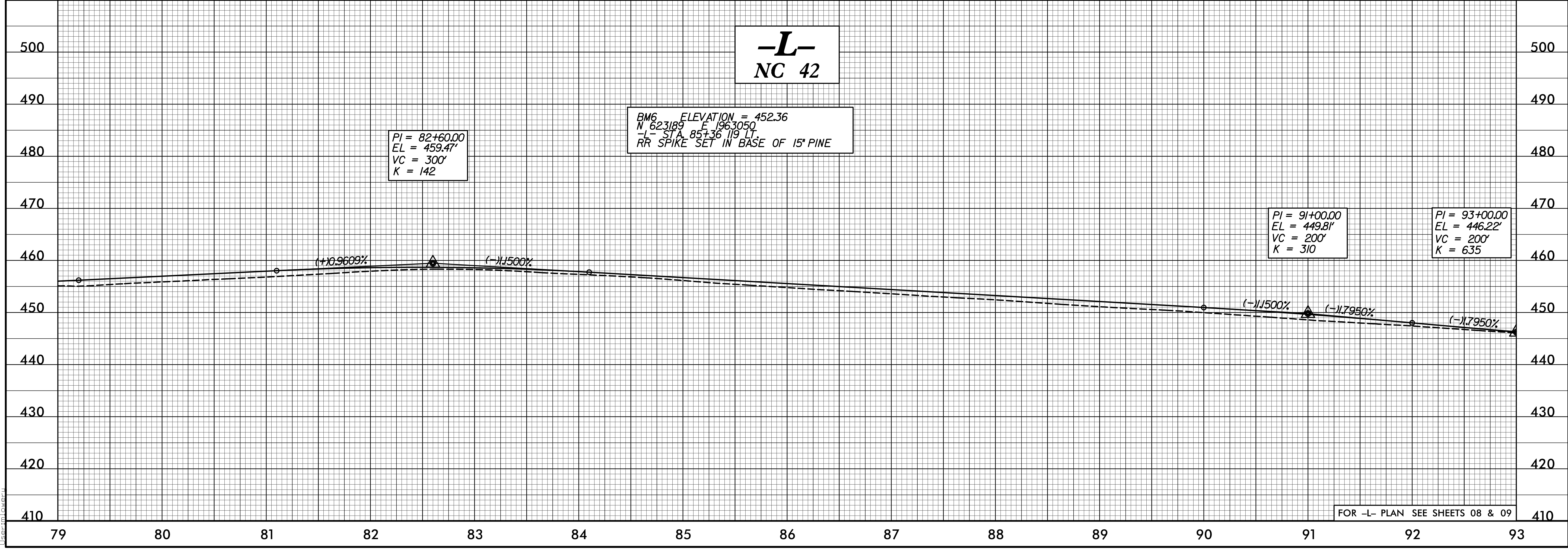
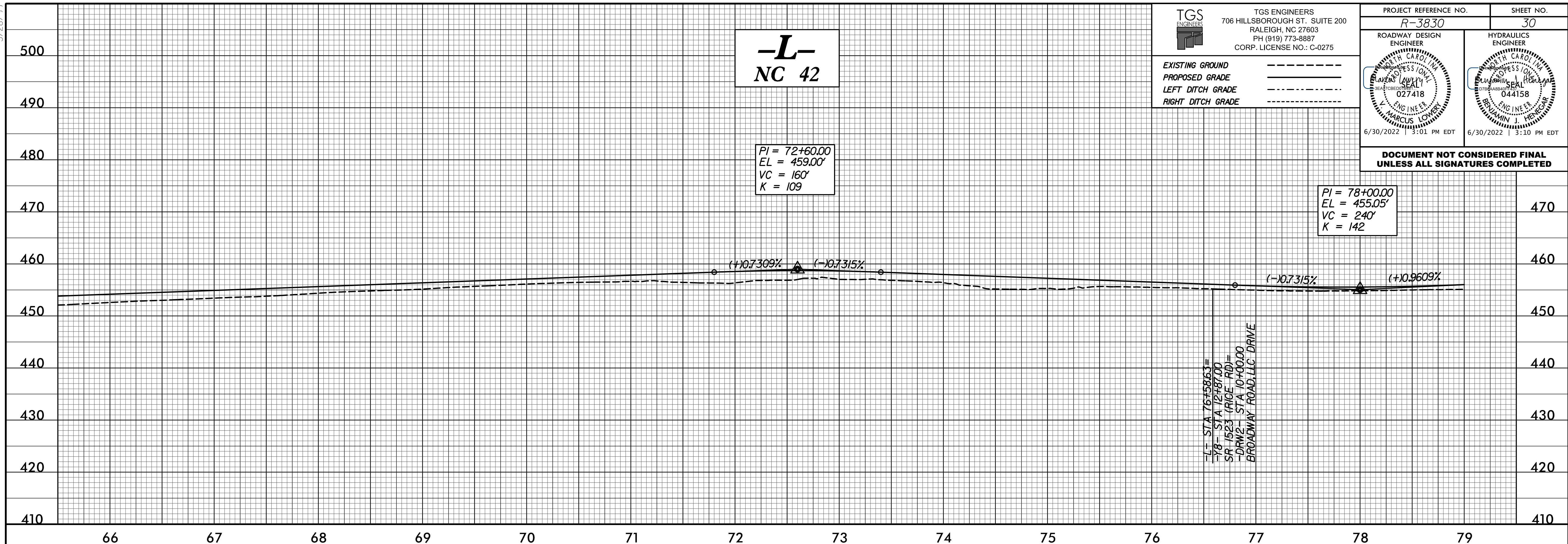
5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND -----  
 PROPOSED GRADE -----  
 LEFT DITCH GRADE -----  
 RIGHT DITCH GRADE -----

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>30</b>
ROADWAY DESIGN ENGINEER  <b>V. MARCUS LOWREY</b> ENGINEER 6/30/2022   3:01 PM EDT	HYDRAULICS ENGINEER  <b>BENJAMIN J. HENEGAR</b> ENGINEER 6/30/2022   3:10 PM EDT

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FOR -L- PLAN SEE SHEETS 08 & 09

4/8/2022  
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 User: lowrey



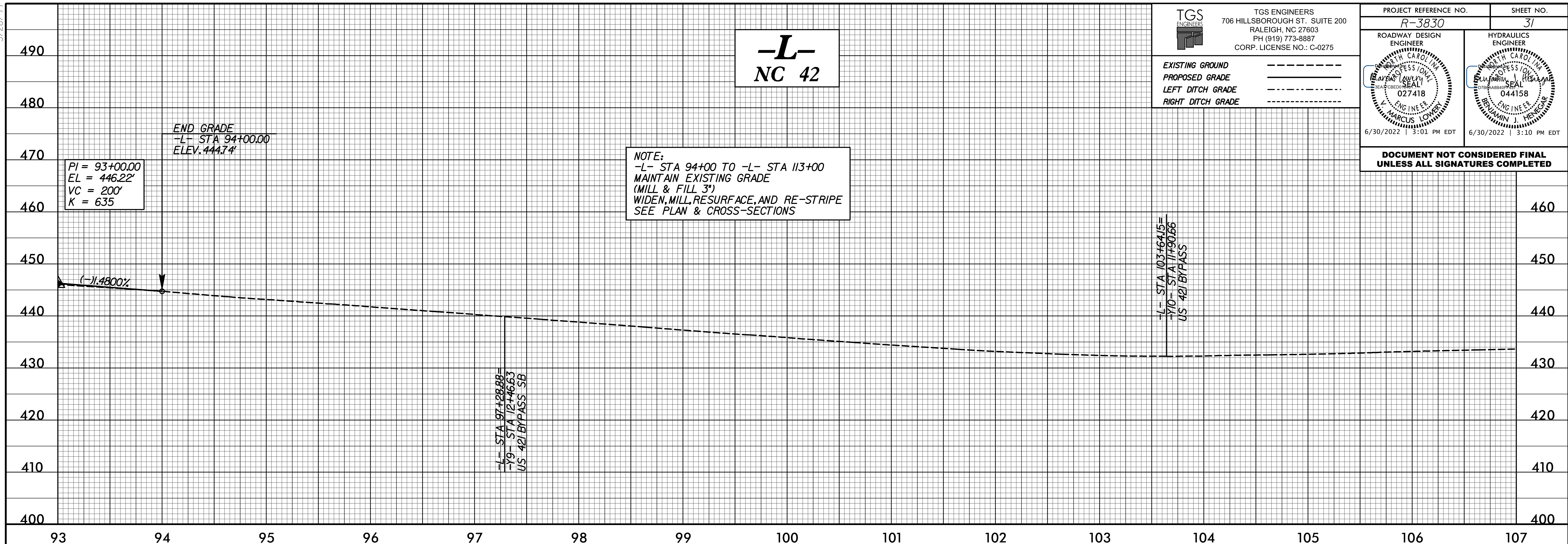
5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND -----  
 PROPOSED GRADE \_\_\_\_\_  
 LEFT DITCH GRADE - - - - -  
 RIGHT DITCH GRADE - - - - -

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>31</b>
ROADWAY DESIGN ENGINEER MARCUS LOWERY 027418 6/30/2022   3:01 PM EDT	HYDRAULICS ENGINEER JAMIN J. HEBBARD 044158 6/30/2022   3:10 PM EDT

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**-L-  
NC 42**

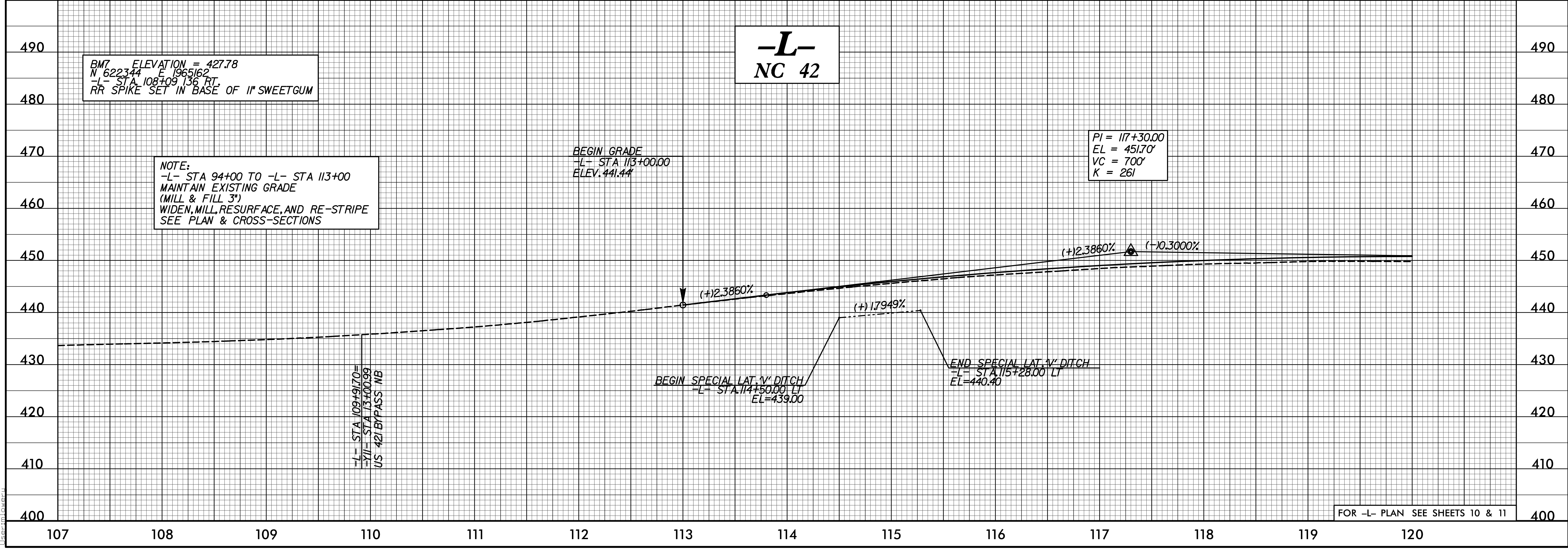
**NOTE:**  
-L- STA 94+00 TO -L- STA 113+00  
MAINTAIN EXISTING GRADE  
(MILL & FILL 3")  
WIDEN, MILL, RESURFACE, AND RE-STRIPE  
SEE PLAN & CROSS-SECTIONS

PI = 93+00.00  
EL = 446.22'  
VC = 200'  
K = 635

END GRADE  
-L- STA 94+00.00  
ELEV. 444.74'

-L- STA 97+28.88  
-Y9- STA 12+46.63  
US 421 BYPASS SB

-L- STA 103+64.15=  
-Y10- STA 119+00.66  
US 421 BYPASS



**-L-  
NC 42**

**NOTE:**  
-L- STA 94+00 TO -L- STA 113+00  
MAINTAIN EXISTING GRADE  
(MILL & FILL 3")  
WIDEN, MILL, RESURFACE, AND RE-STRIPE  
SEE PLAN & CROSS-SECTIONS

BM7 ELEVATION = 427.78  
N 622344 E 1965162  
-L- STA 108+09.136 RT  
RR SPIKE SET IN BASE OF 1" SWEETGUM

BEGIN GRADE  
-L- STA 113+00.00  
ELEV. 441.44'

PI = 117+30.00  
EL = 451.70'  
VC = 700'  
K = 261

-L- STA 109+91.70=  
-Y11- STA 113+00.99  
US 421 BYPASS NB

BEGIN SPECIAL LAT. V. DITCH  
-L- STA 114+50.00 LT  
EL = 439.00

END SPECIAL LAT. V. DITCH  
-L- STA 115+28.00 LT  
EL = 440.40

FOR -L- PLAN SEE SHEETS 10 & 11

4/8/2022  
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User: jlowery

5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND

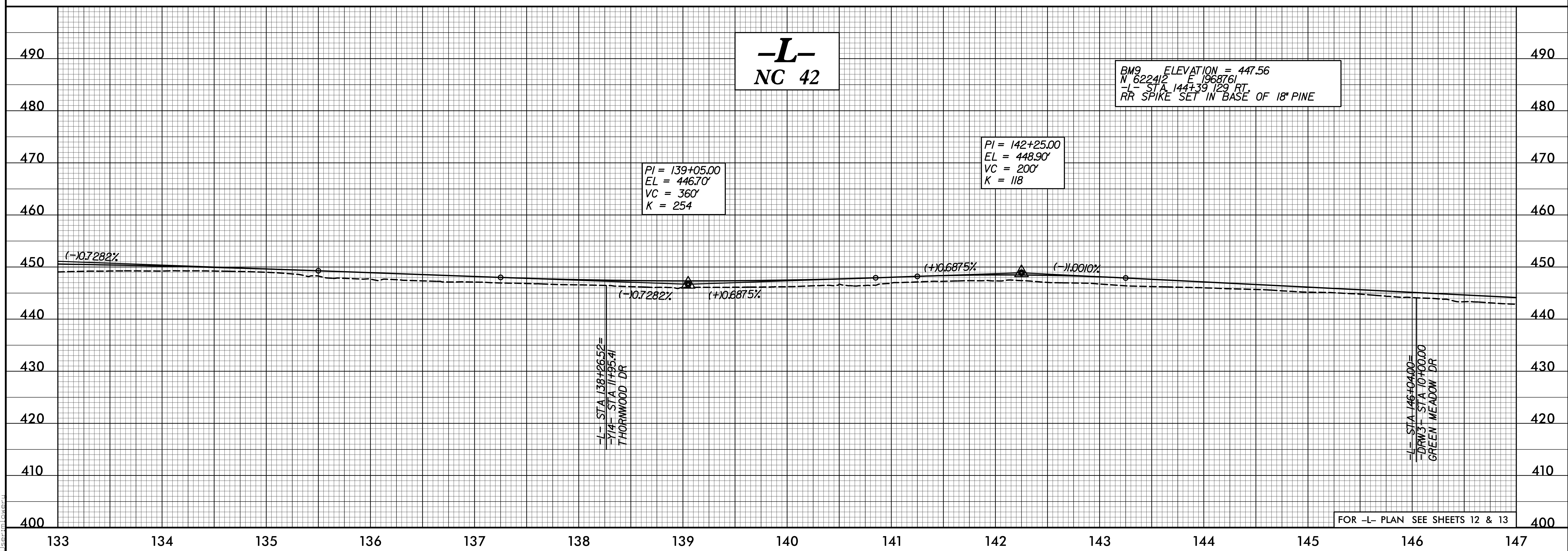
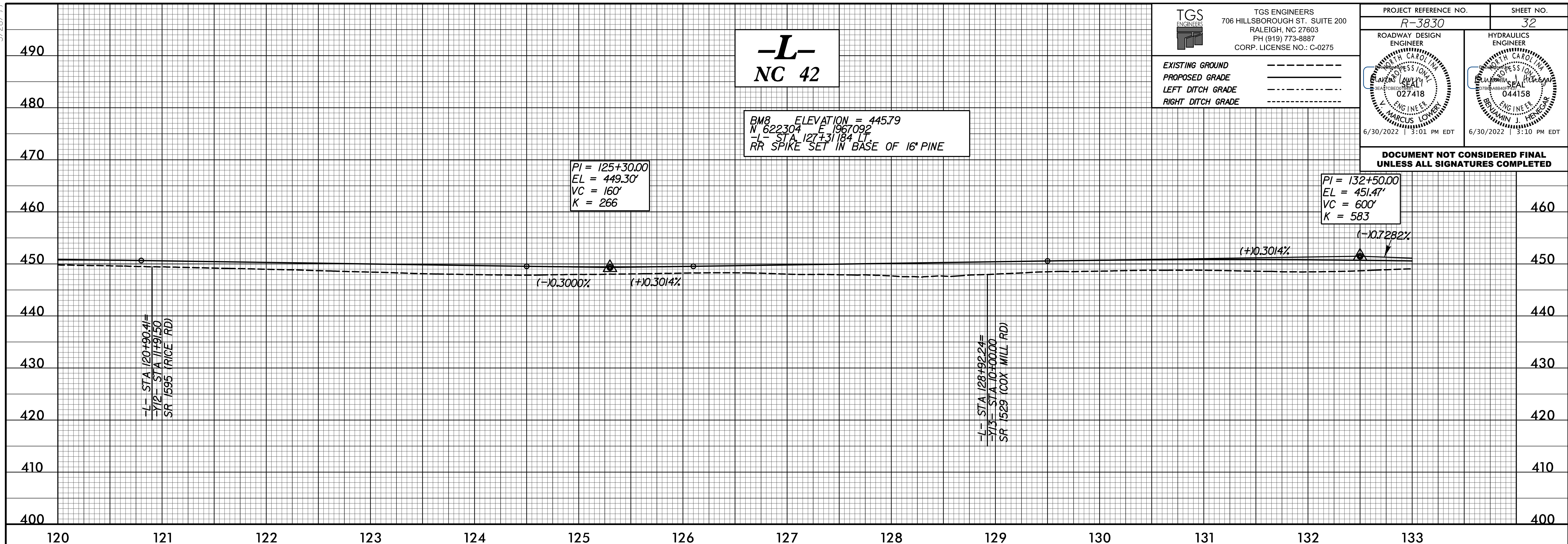
PROPOSED GRADE

LEFT DITCH GRADE

RIGHT DITCH GRADE

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>32</b>
ROADWAY DESIGN ENGINEER  <b>V. MARCUS LOWER</b> ENGINEER 6/30/2022   3:01 PM EDT	HYDRAULICS ENGINEER  <b>BENJAMIN J. HENEGAR</b> ENGINEER 6/30/2022   3:10 PM EDT

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FOR -L- PLAN SEE SHEETS 12 & 13

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 6/30/2022 3:01 PM  
 User: jlowe

5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

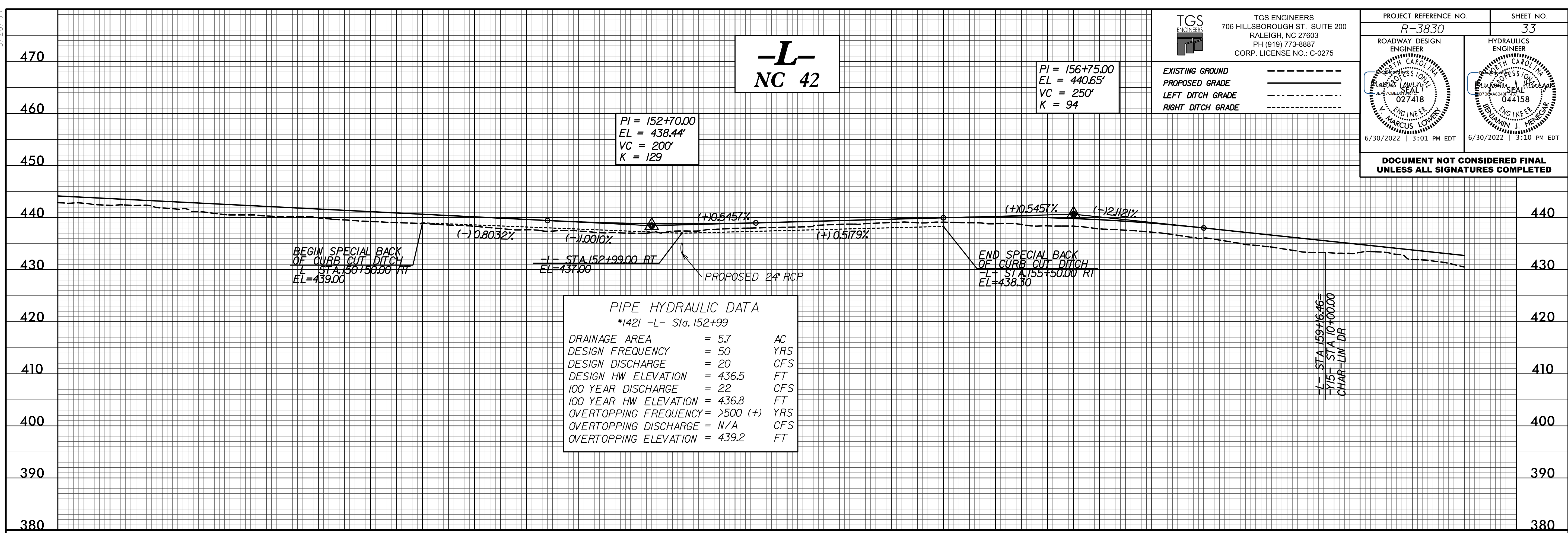
EXISTING GROUND -----  
 PROPOSED GRADE -----  
 LEFT DITCH GRADE -----  
 RIGHT DITCH GRADE -----

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>33</b>
ROADWAY DESIGN ENGINEER MARCUS LOWERY LICENSE NO. 027418 6/30/2022   3:01 PM EDT	HYDRAULICS ENGINEER BENJAMIN J. HENEGAR LICENSE NO. 044158 6/30/2022   3:10 PM EDT

# -L- NC 42

PI = 156+75.00  
 EL = 440.65'  
 VC = 250'  
 K = 94

PI = 152+70.00  
 EL = 438.44'  
 VC = 200'  
 K = 129



**PIPE HYDRAULIC DATA**  
 \*142I -L- Sta. 152+99

DRAINAGE AREA	= 5.7	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 20	CFS
DESIGN HW ELEVATION	= 436.5	FT
100 YEAR DISCHARGE	= 22	CFS
100 YEAR HW ELEVATION	= 436.8	FT
OVERTOPPING FREQUENCY	= >500 (+)	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= 439.2	FT

# -L- NC 42

BM10 ELEVATION = 418.37  
 N 623263 E 1971051  
 -L- STA 168+50.294 RT.  
 RR SPIKE SET IN BASE OF 14" PINE

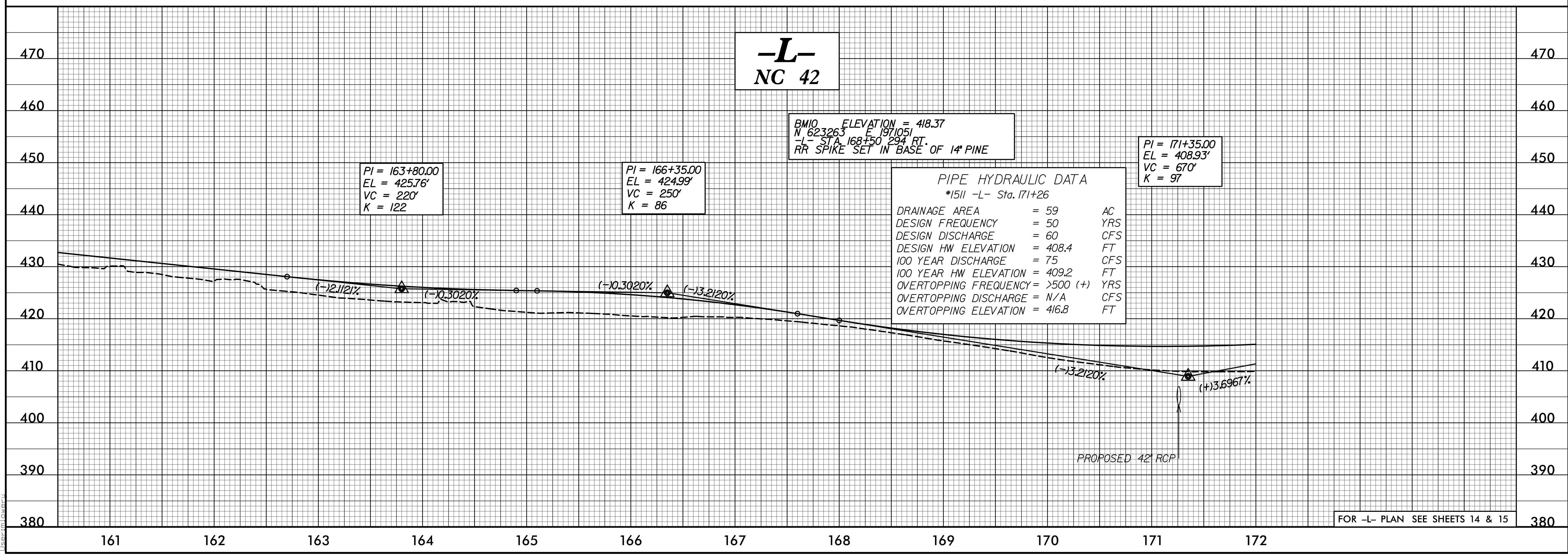
PI = 171+35.00  
 EL = 408.93'  
 VC = 670'  
 K = 97

PI = 166+35.00  
 EL = 424.99'  
 VC = 250'  
 K = 86

PI = 163+80.00  
 EL = 425.76'  
 VC = 220'  
 K = 122

**PIPE HYDRAULIC DATA**  
 \*151I -L- Sta. 171+26

DRAINAGE AREA	= 59	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 60	CFS
DESIGN HW ELEVATION	= 408.4	FT
100 YEAR DISCHARGE	= 75	CFS
100 YEAR HW ELEVATION	= 409.2	FT
OVERTOPPING FREQUENCY	= >500 (+)	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= 416.8	FT



FOR -L- PLAN SEE SHEETS 14 & 15

4/8/2022  
C:\Users\mloveyr\OneDrive\Documents\Roadway\Proj\R-3830\Roadway\Profile\133.dgn

5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND

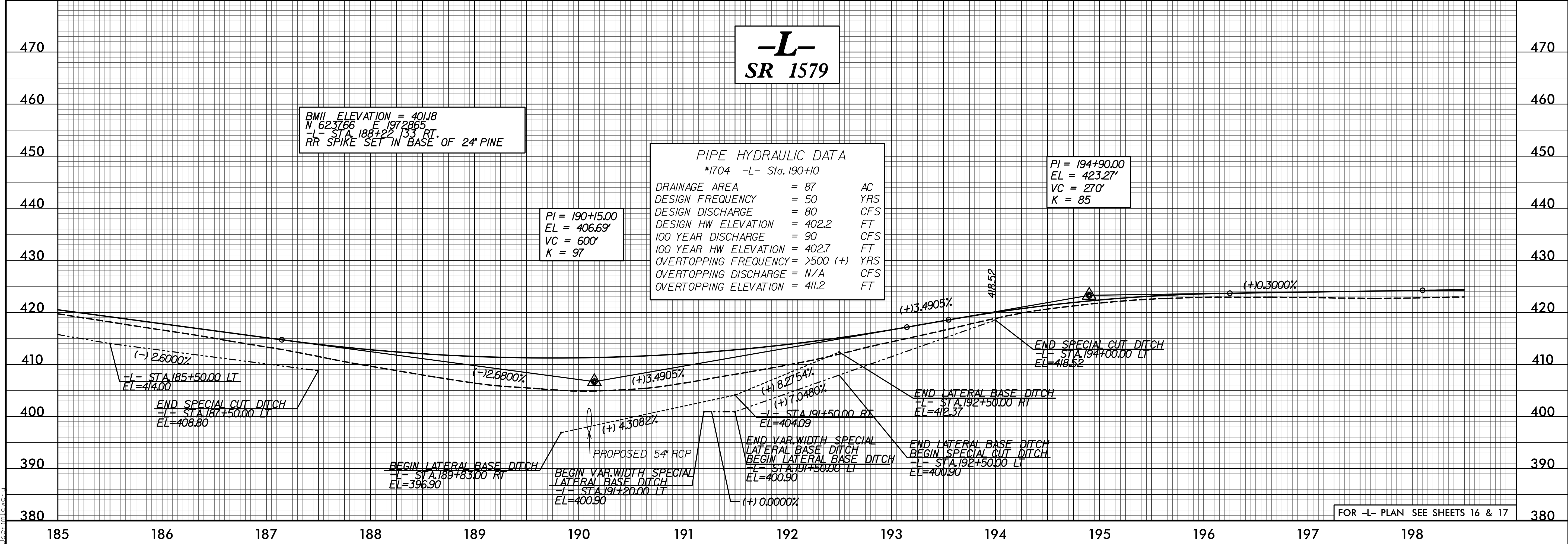
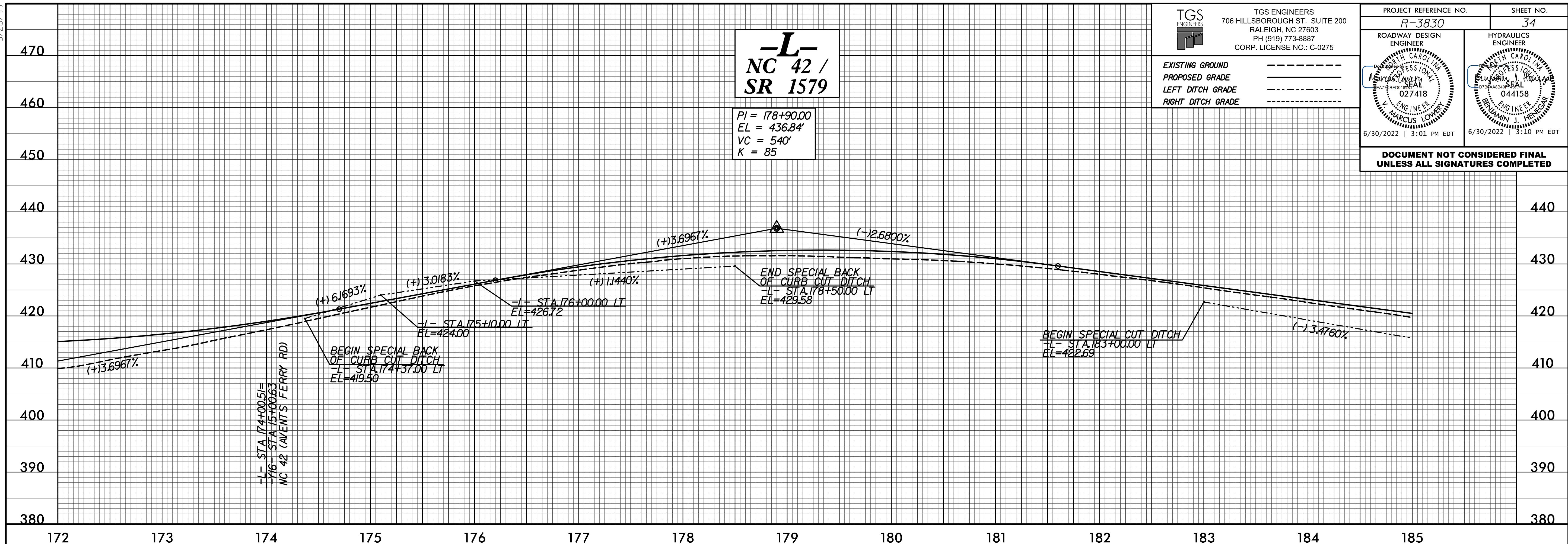
PROPOSED GRADE

LEFT DITCH GRADE

RIGHT DITCH GRADE

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>34</b>
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
6/30/2022   3:01 PM EDT	6/30/2022   3:10 PM EDT

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



BM11 ELEVATION = 401.8  
 N 623766 E 1972865  
 -L- STA 188+22.33 RT.  
 RR SPIKE SET IN BASE OF 2" PINE

**PIPE HYDRAULIC DATA**  
 \*1704 -L- Sta. 190+10

DRAINAGE AREA	= 87	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 80	CFS
DESIGN HW ELEVATION	= 402.2	FT
100 YEAR DISCHARGE	= 90	CFS
100 YEAR HW ELEVATION	= 402.7	FT
OVERTOPPING FREQUENCY	= >500 (+)	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= 411.2	FT

PI = 190+15.00  
 EL = 406.69'  
 VC = 600'  
 K = 97

PI = 194+90.00  
 EL = 423.27'  
 VC = 270'  
 K = 85

FOR -L- PLAN SEE SHEETS 16 & 17

4/8/2022 1:54:23 PM C:\Users\mlovey\OneDrive\Documents\Roadway\Proj\R-3830\Roadway\rdj\pfl\_34.dgn

5/28/2022

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND

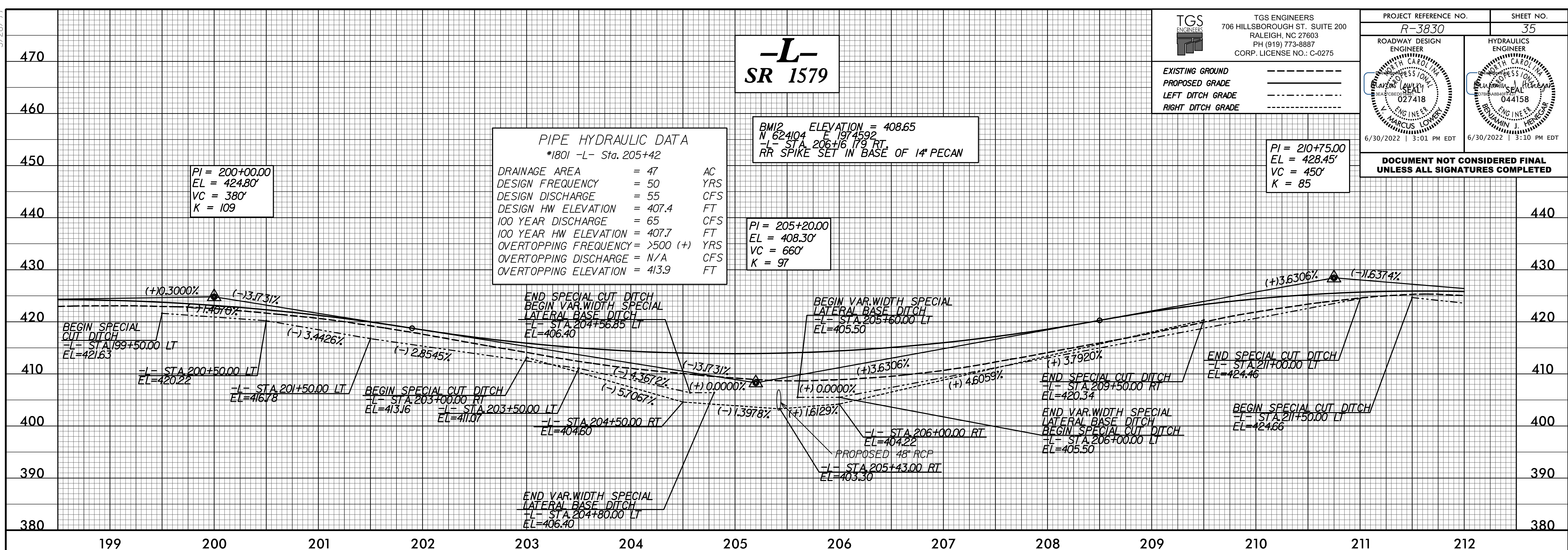
PROPOSED GRADE

LEFT DITCH GRADE

RIGHT DITCH GRADE

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>35</b>
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
6/30/2022   3:01 PM EDT	6/30/2022   3:10 PM EDT

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



**PIPE HYDRAULIC DATA**  
 \*1801 -L- Sta. 205+42

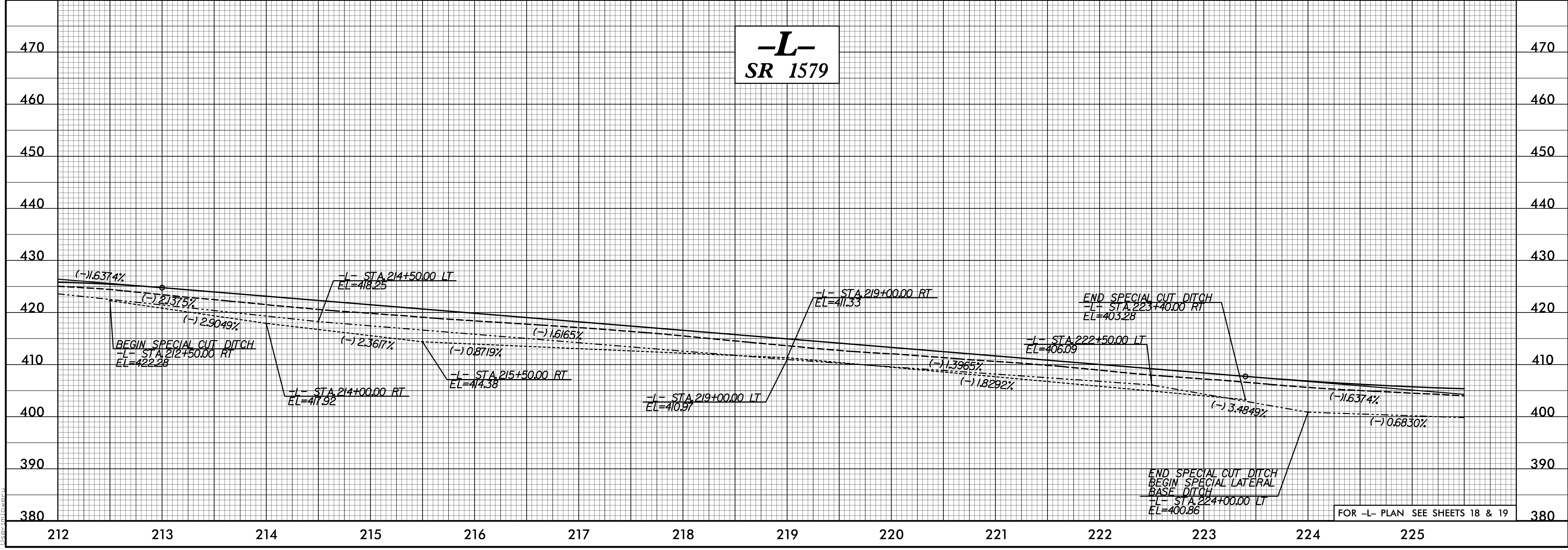
DRAINAGE AREA	= 47	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 55	CFS
DESIGN HW ELEVATION	= 407.4	FT
100 YEAR DISCHARGE	= 65	CFS
100 YEAR HW ELEVATION	= 407.7	FT
OVERTOPPING FREQUENCY	= >500 (+)	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= 413.9	FT

BM12 ELEVATION = 408.65  
 N 624104 E 1974592  
 -L- STA 206+16.179 RT  
 RR SPIKE SET IN BASE OF 1" PECAN

PI = 200+00.00  
 EL = 424.80'  
 VC = 380'  
 K = 109

PI = 205+20.00  
 EL = 408.30'  
 VC = 660'  
 K = 97

PI = 210+75.00  
 EL = 428.45'  
 VC = 450'  
 K = 85



**-L-**  
**SR 1579**

FOR -L- PLAN SEE SHEETS 18 & 19

C:\Users\lmc\OneDrive\Documents\Projects\3830\Roadway\Proj\3830\_L\_rdy.plt.L\_35.dgn  
6/30/2022 3:01 PM L. Marcus Loyer

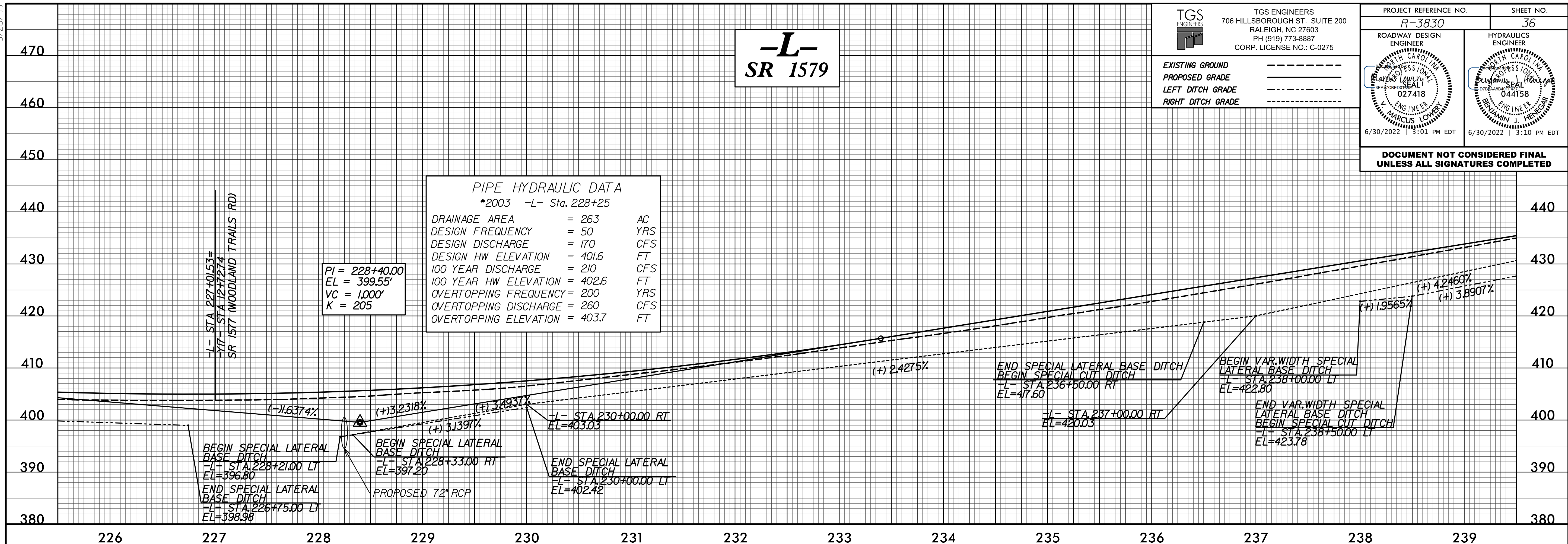
5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND -----  
 PROPOSED GRADE -----  
 LEFT DITCH GRADE -----  
 RIGHT DITCH GRADE -----

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>36</b>
ROADWAY DESIGN ENGINEER  <b>027418</b> ENGINEER J. MARCUS LOWERY	HYDRAULICS ENGINEER  <b>044158</b> ENGINEER BENJAMIN J. HENNEAR
6/30/2022   3:01 PM EDT	6/30/2022   3:10 PM EDT

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



**PIPE HYDRAULIC DATA**  
 \*2003 -L- Sta. 228+25

DRAINAGE AREA	= 263	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 170	CFS
DESIGN HW ELEVATION	= 401.6	FT
100 YEAR DISCHARGE	= 210	CFS
100 YEAR HW ELEVATION	= 402.6	FT
OVERTOPPING FREQUENCY	= 200	YRS
OVERTOPPING DISCHARGE	= 260	CFS
OVERTOPPING ELEVATION	= 403.7	FT

PI = 228+40.00  
 EL = 399.55'  
 VC = 1,000'  
 K = 205

-L- STA 227+40.53 =  
 -RT- STA 12+72.74  
 SR 1577 WOODLAND TRAILS (RD)

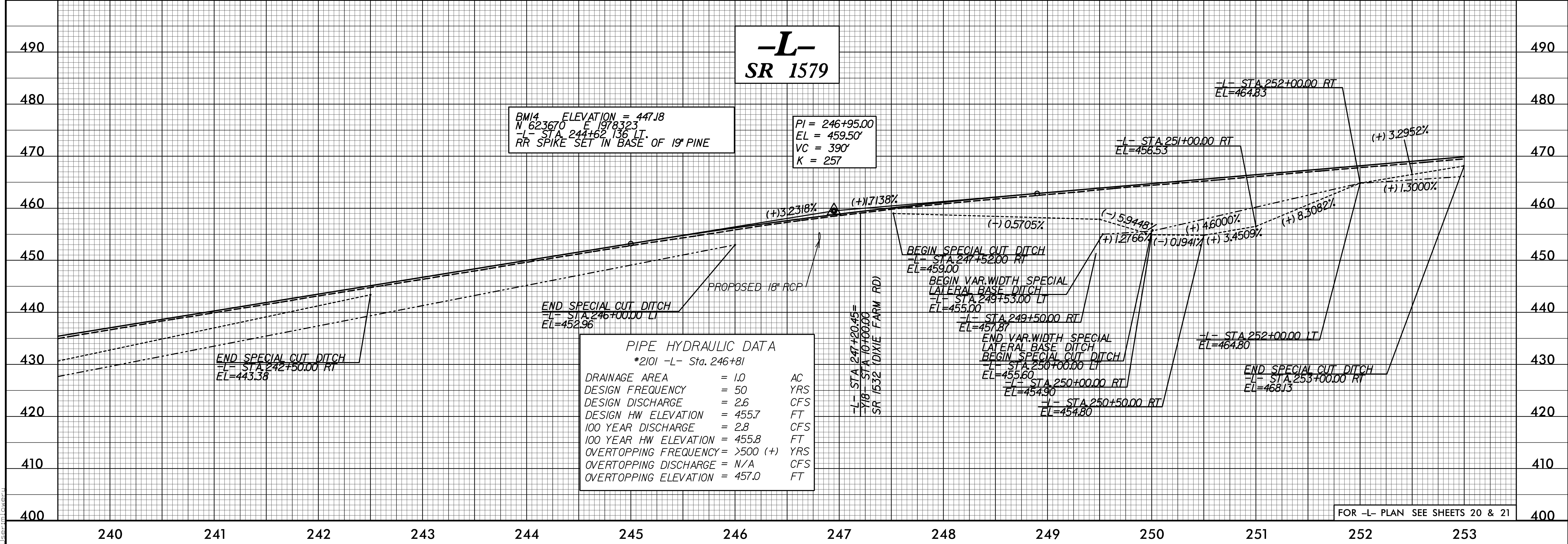
BEGIN SPECIAL LATERAL BASE DITCH  
 -L- STA 228+21.00 LT  
 EL=396.80  
 END SPECIAL LATERAL BASE DITCH  
 -L- STA 226+75.00 LT  
 EL=398.98

BEGIN SPECIAL LATERAL BASE DITCH  
 -L- STA 228+33.00 RT  
 EL=397.20  
 PROPOSED 72" RCP

END SPECIAL LATERAL BASE DITCH  
 -L- STA 230+00.00 LT  
 EL=402.42

END SPECIAL LATERAL BASE DITCH  
 BEGIN SPECIAL CUT DITCH  
 -L- STA 236+50.00 RT  
 EL=417.60  
 -L- STA 237+00.00 RT  
 EL=420.05

BEGIN VAR.WIDTH SPECIAL LATERAL BASE DITCH  
 -L- STA 238+00.00 LT  
 EL=422.80  
 END VAR.WIDTH SPECIAL LATERAL BASE DITCH  
 BEGIN SPECIAL CUT DITCH  
 -L- STA 238+50.00 LT  
 EL=423.78



BMI4 ELEVATION = 447.18  
 N 623670 E 1978323  
 -L- STA 244+62.136 LT.  
 RR SPIKE SET IN BASE OF 19" PINE

PI = 246+95.00  
 EL = 459.50'  
 VC = 390'  
 K = 257

-L- STA 247+20.45 =  
 -RT- STA 10+00.00  
 SR 1532 DIXIE FARM RD

**PIPE HYDRAULIC DATA**  
 \*2101 -L- Sta. 246+81

DRAINAGE AREA	= 1.0	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 2.6	CFS
DESIGN HW ELEVATION	= 455.7	FT
100 YEAR DISCHARGE	= 2.8	CFS
100 YEAR HW ELEVATION	= 455.8	FT
OVERTOPPING FREQUENCY	= >500 (+)	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= 457.0	FT

END SPECIAL CUT DITCH  
 -L- STA 242+50.00 RT  
 EL=443.38

END SPECIAL CUT DITCH  
 -L- STA 246+00.00 LT  
 EL=452.96

PROPOSED 18" RCP

BEGIN SPECIAL CUT DITCH  
 -L- STA 247+52.00 RT  
 EL=459.00  
 BEGIN VAR.WIDTH SPECIAL LATERAL BASE DITCH  
 -L- STA 249+53.00 LT  
 EL=455.00

END VAR.WIDTH SPECIAL LATERAL BASE DITCH  
 BEGIN SPECIAL CUT DITCH  
 -L- STA 250+00.00 LT  
 EL=455.60  
 -L- STA 250+00.00 RT  
 EL=454.90

-L- STA 249+50.00 RT  
 EL=457.87  
 -L- STA 251+00.00 RT  
 EL=458.53

-L- STA 252+00.00 LT  
 EL=464.80

END SPECIAL CUT DITCH  
 -L- STA 253+00.00 RT  
 EL=468.13

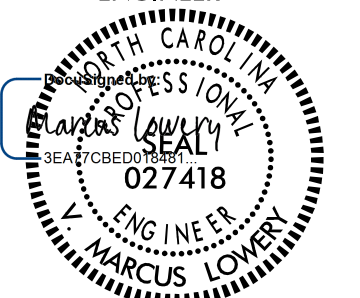
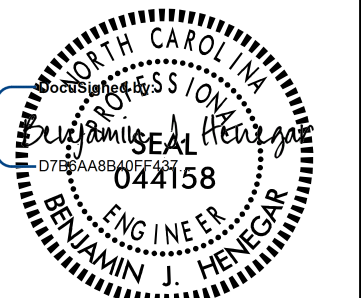
FOR -L- PLAN SEE SHEETS 20 & 21

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5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

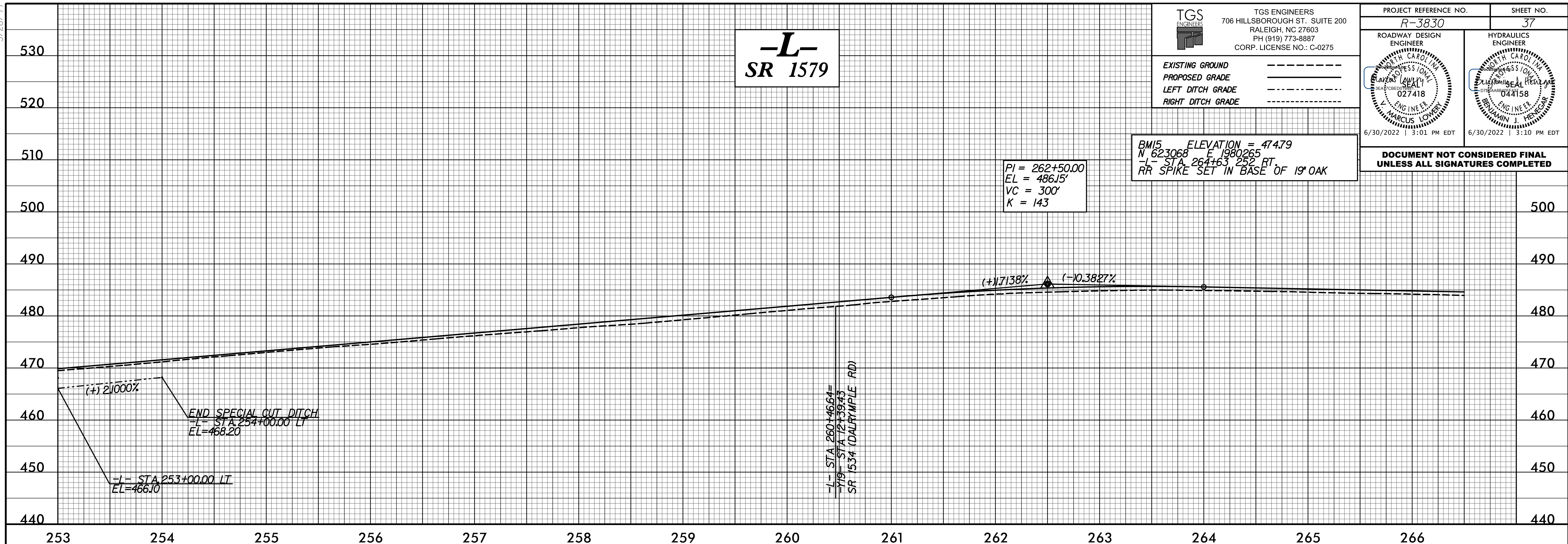
EXISTING GROUND -----  
 PROPOSED GRADE -----  
 LEFT DITCH GRADE -----  
 RIGHT DITCH GRADE -----

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>37</b>
ROADWAY DESIGN ENGINEER  J. MARCUS LOWER 027418 6/30/2022   3:01 PM EDT	HYDRAULICS ENGINEER  BENJAMIN J. HENEGAR 044158 6/30/2022   3:10 PM EDT

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

BMI5 ELEVATION = 474.79  
 N 623068 E 1980265  
 -L- STA 264+63.252 RT  
 RR SPIKE SET IN BASE OF 19" OAK

PI = 262+50.00  
 EL = 486.15'  
 VC = 300'  
 K = 143



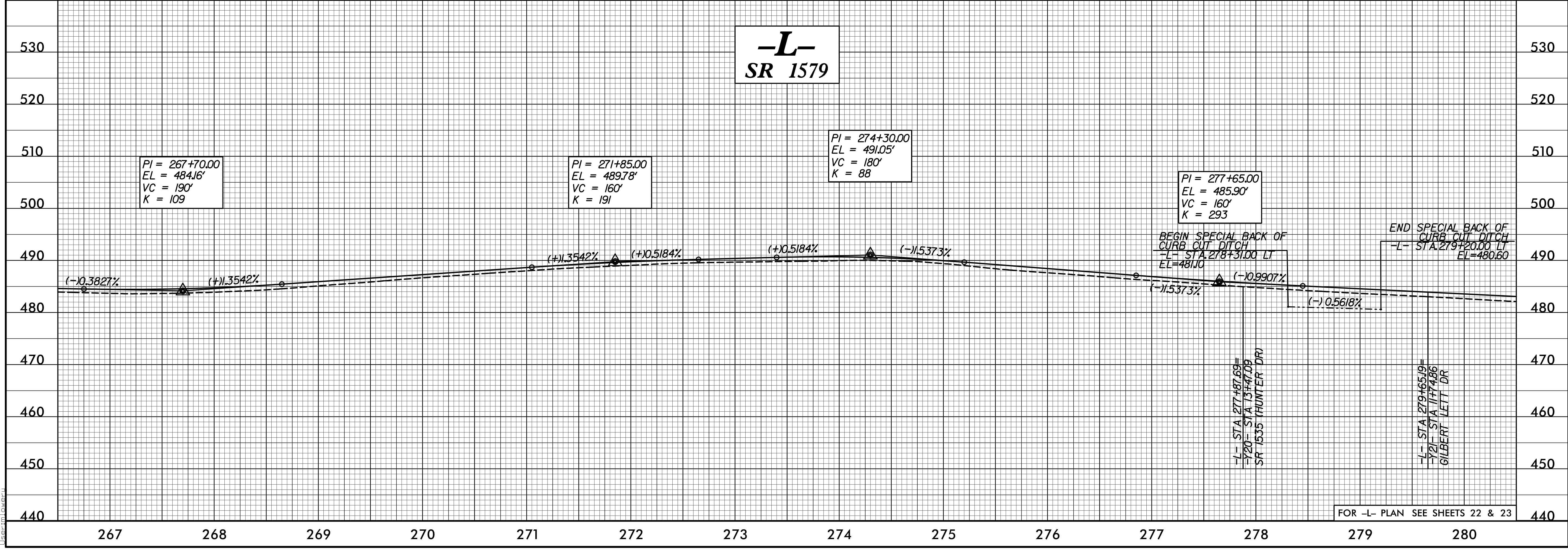
**-L- SR 1579**

PI = 274+30.00  
 EL = 491.05'  
 VC = 180'  
 K = 88

PI = 271+85.00  
 EL = 489.78'  
 VC = 160'  
 K = 191

PI = 267+70.00  
 EL = 484.16'  
 VC = 190'  
 K = 109

PI = 277+65.00  
 EL = 485.90'  
 VC = 160'  
 K = 293



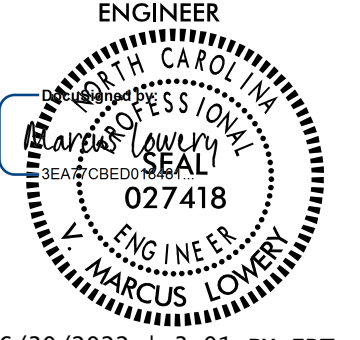
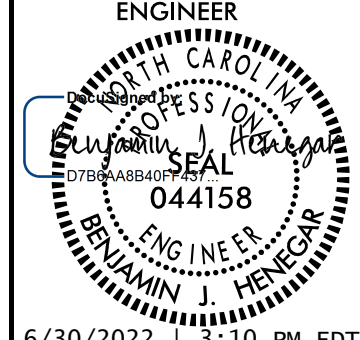
FOR -L- PLAN SEE SHEETS 22 & 23

4/8/2022  
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 User: jlowe

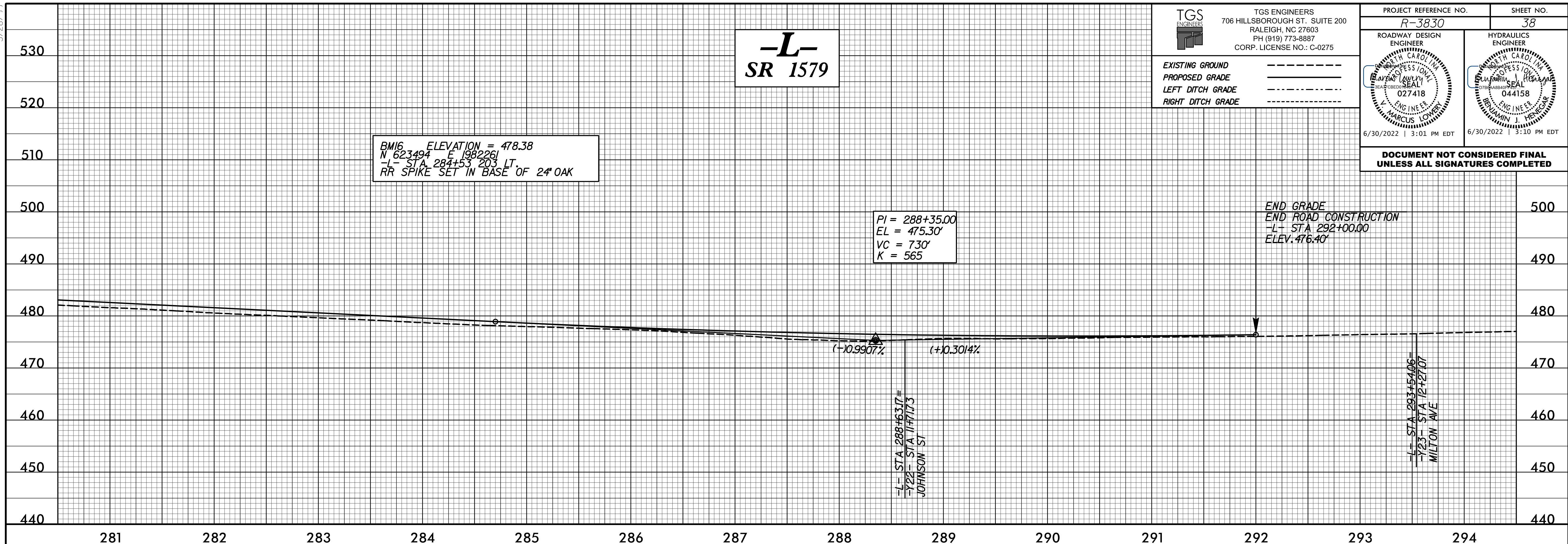
5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND -----  
 PROPOSED GRADE -----  
 LEFT DITCH GRADE -----  
 RIGHT DITCH GRADE -----

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>38</b>
ROADWAY DESIGN ENGINEER  <b>J. MARCUS LOWE</b> ENGINEER 027418 6/30/2022   3:01 PM EDT	HYDRAULICS ENGINEER  <b>BENJAMIN J. HENEGAR</b> ENGINEER 044158 6/30/2022   3:10 PM EDT

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



**-L- SR 1579**

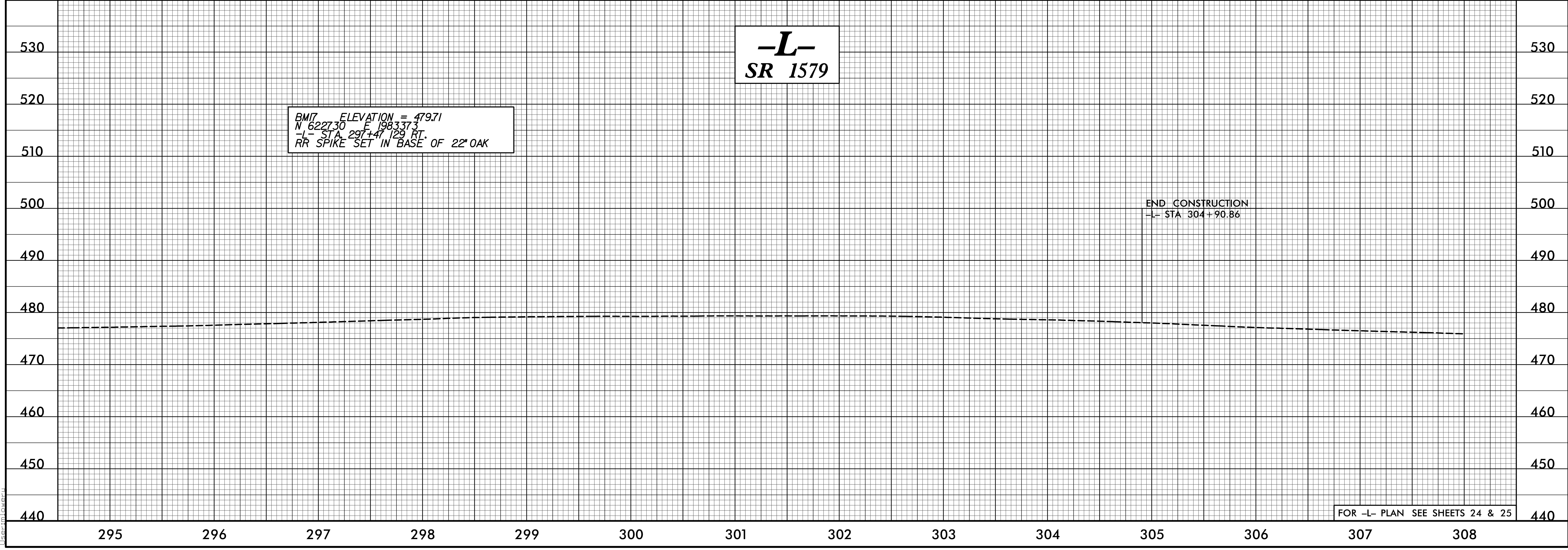
BM16 ELEVATION = 478.38  
 N 623494 E 198226  
 -L- STA 284+53.203 LT  
 RR SPIKE SET IN BASE OF 24\"/>

PI = 288+35.00  
 EL = 475.30'  
 VC = 730'  
 K = 565

END GRADE  
 END ROAD CONSTRUCTION  
 -L- STA 292+00.00  
 ELEV. 476.40'

-L- STA 288+63.17 =  
 Y22 - STA 1177173  
 JOHNSON ST

-L- STA 293+49.07 =  
 Y23 - STA 12+2107  
 MILTON AVE



**-L- SR 1579**

BM17 ELEVATION = 479.71  
 N 622730 E 1983373  
 -L- STA 297+47.129 RT  
 RR SPIKE SET IN BASE OF 22\"/>

END CONSTRUCTION  
 -L- STA 304+90.86

FOR -L- PLAN SEE SHEETS 24 & 25

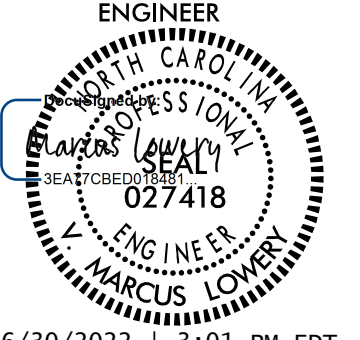
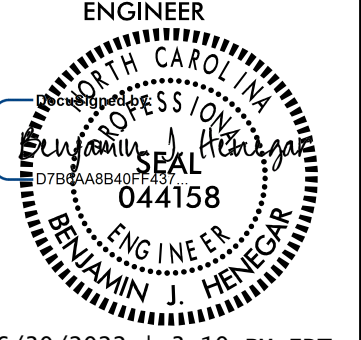
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5/28/22

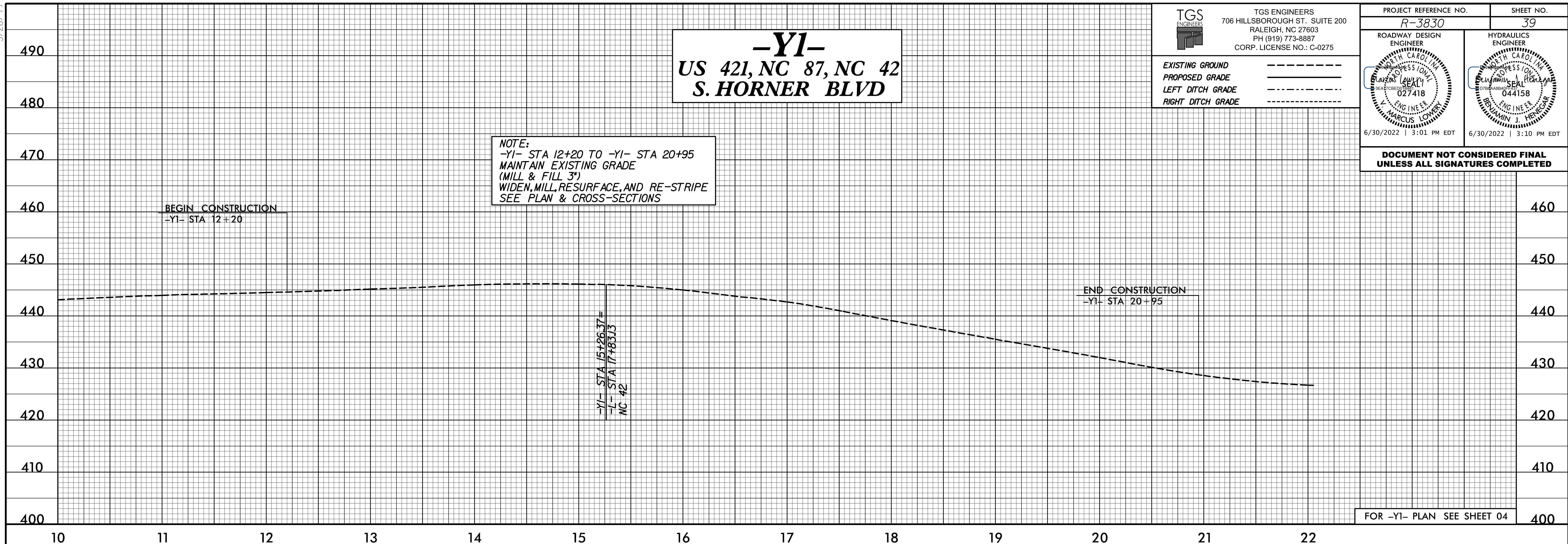
**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND -----  
 PROPOSED GRADE -----  
 LEFT DITCH GRADE -----  
 RIGHT DITCH GRADE -----

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>39</b>
ROADWAY DESIGN ENGINEER  <b>J. MARCUS LOWE</b> ENGINEER 6/30/2022   3:01 PM EDT	HYDRAULICS ENGINEER  <b>BENJAMIN J. HENDRICK</b> ENGINEER 6/30/2022   3:10 PM EDT

**-Y1-**  
**US 421, NC 87, NC 42**  
**S. HORNER BLVD**

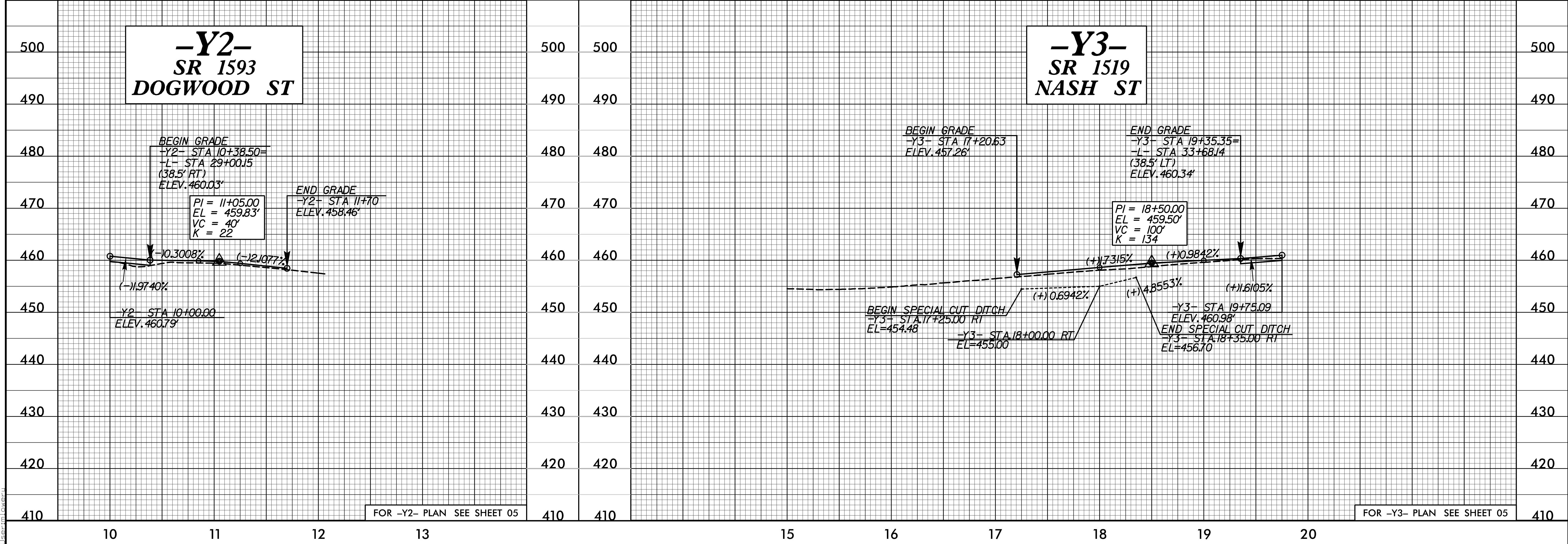
**NOTE:**  
 -Y1- STA 12+20 TO -Y1- STA 20+95  
 MAINTAIN EXISTING GRADE  
 (MILL & FILL 3')  
 WIDEN, MILL, RESURFACE, AND RE-STRIPE  
 SEE PLAN & CROSS-SECTIONS



FOR -Y1- PLAN SEE SHEET 04

**-Y2-**  
**SR 1593**  
**DOGWOOD ST**

**-Y3-**  
**SR 1519**  
**NASH ST**



FOR -Y2- PLAN SEE SHEET 05

FOR -Y3- PLAN SEE SHEET 05

4/8/2022  
 C:\Users\jlowe\OneDrive\Documents\Roadway\Proj\3830\Y2\Y2\_P1\_39.dgn  
 User: jlowe

5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST. SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND

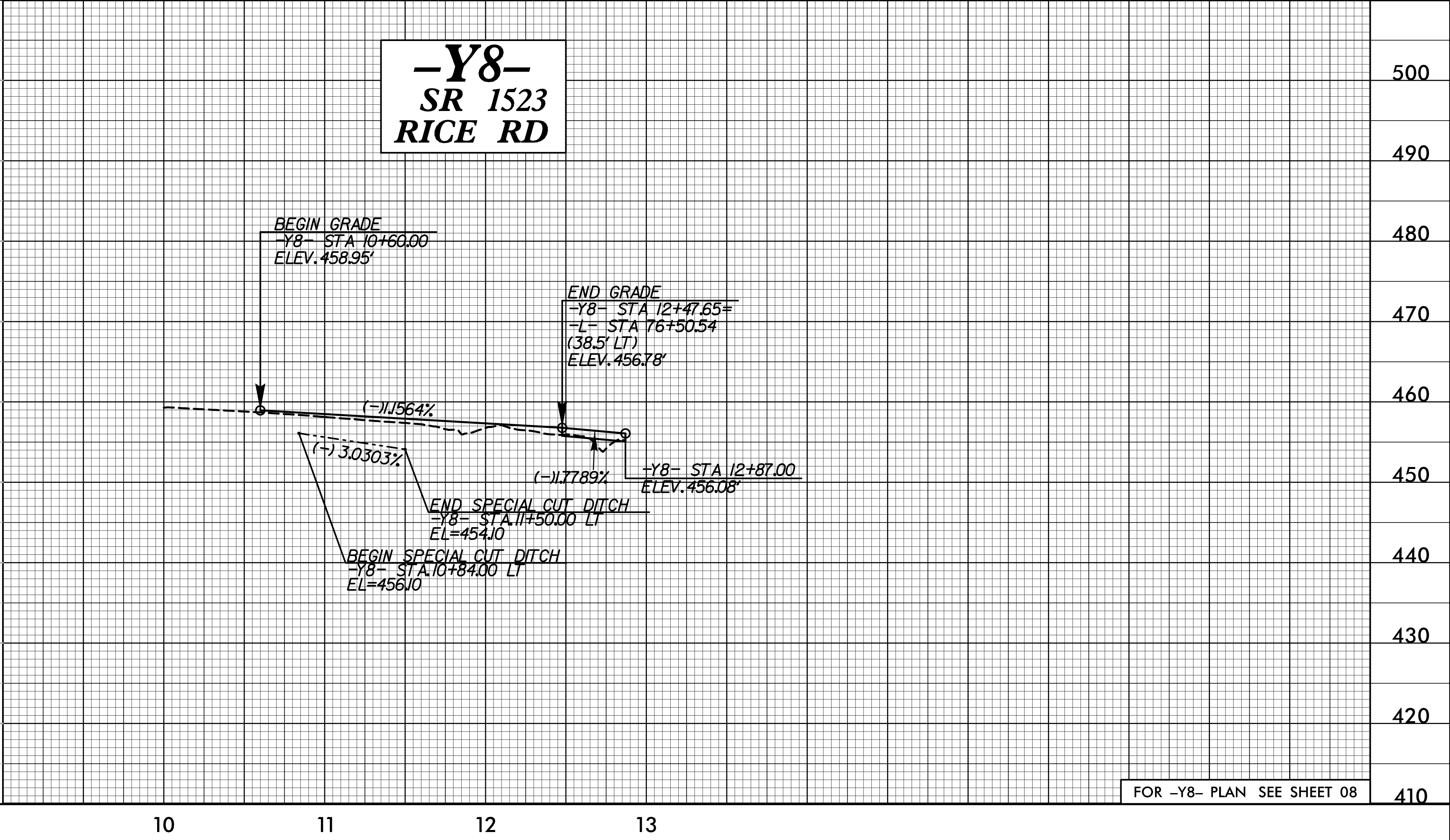
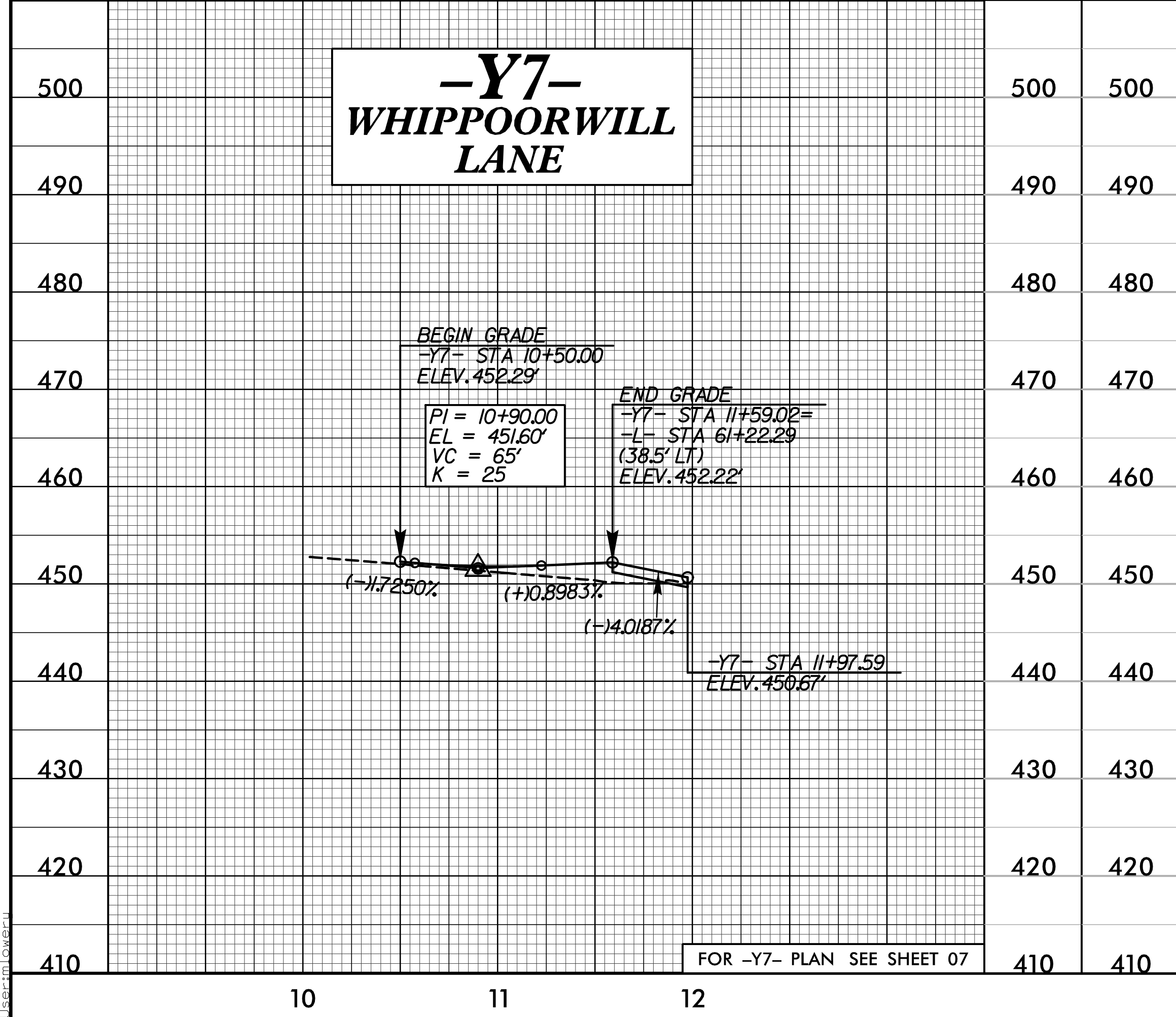
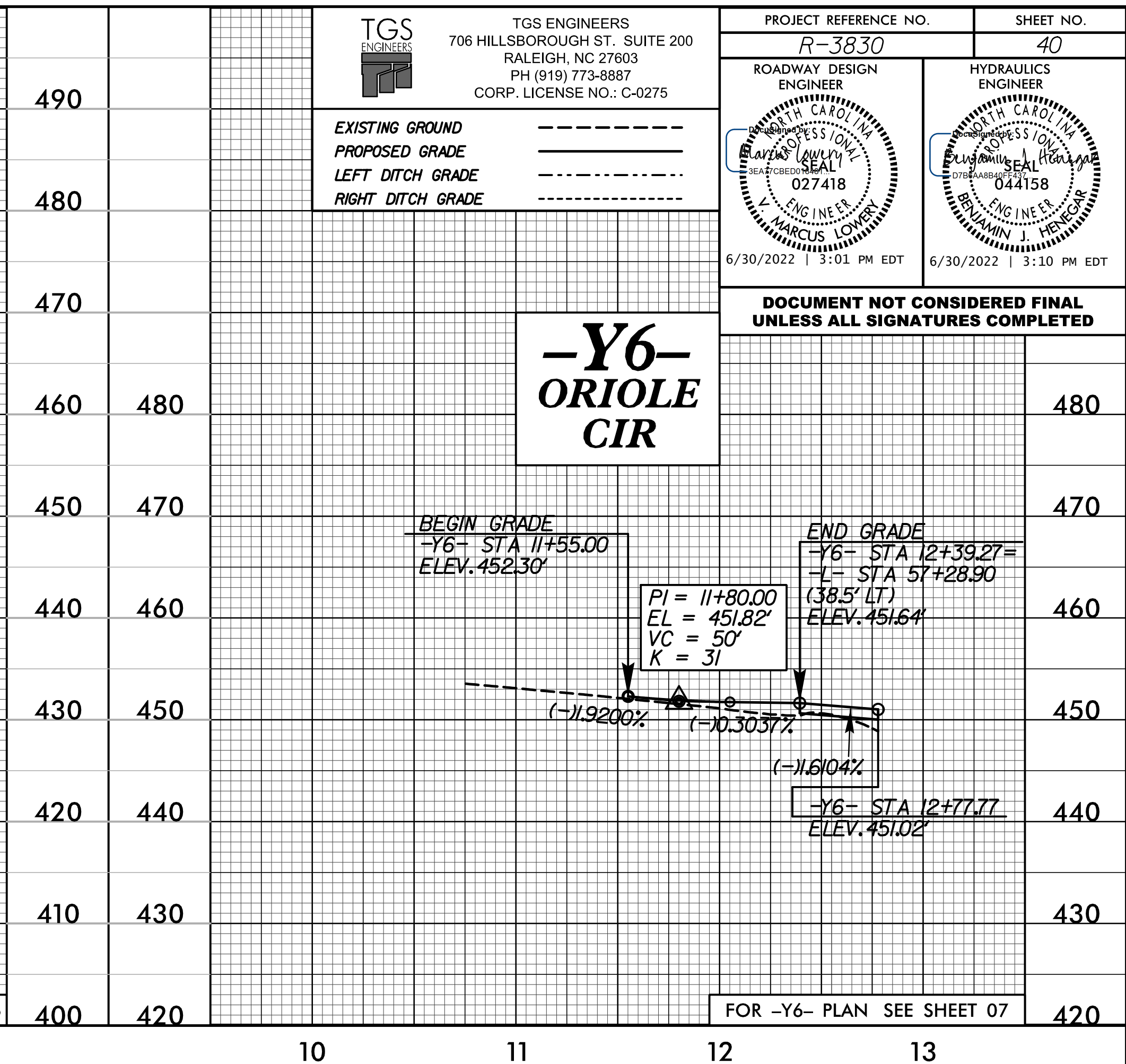
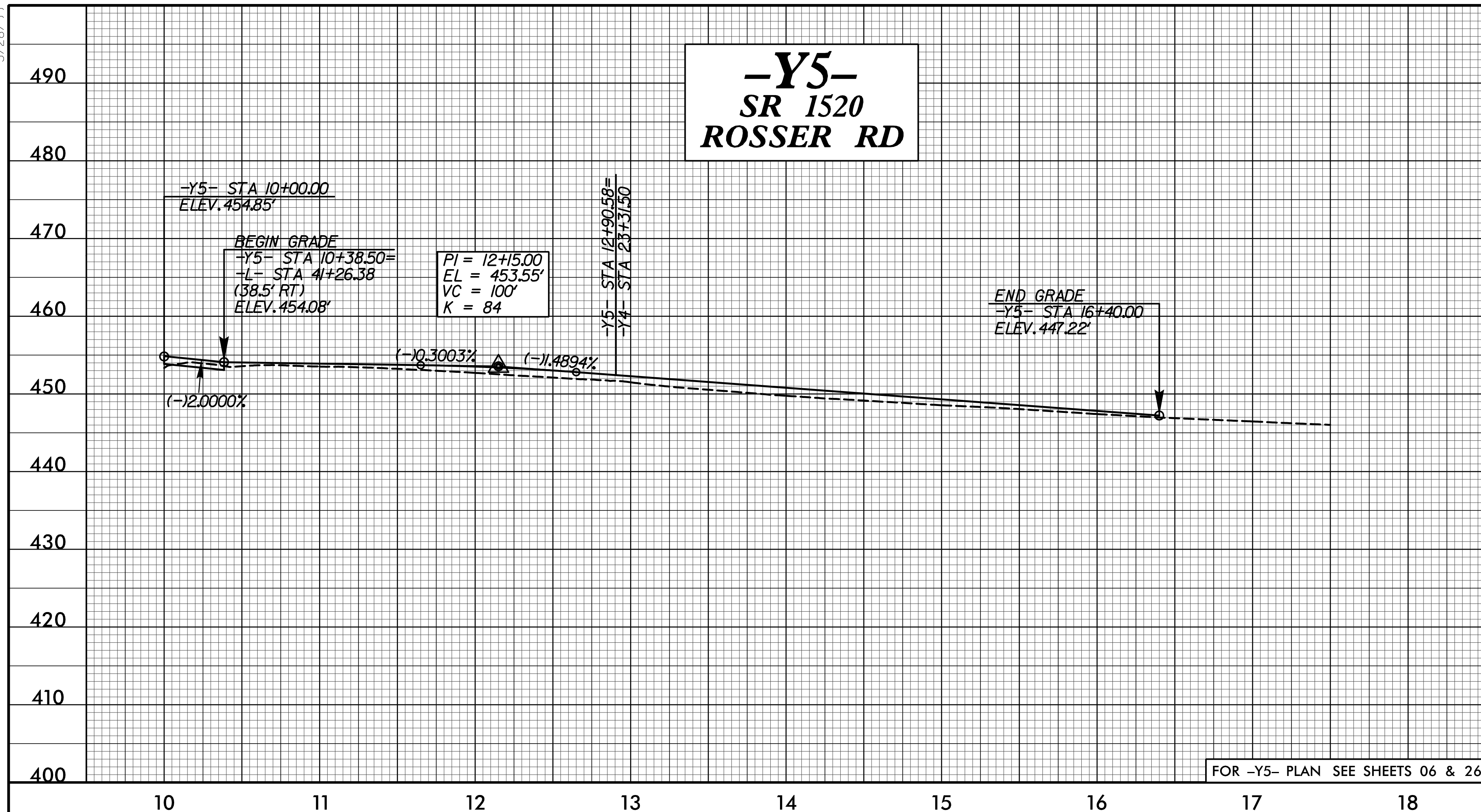
PROPOSED GRADE

LEFT DITCH GRADE

RIGHT DITCH GRADE

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>40</b>
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
6/30/2022   3:01 PM EDT	6/30/2022   3:10 PM EDT

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



C:\Users\lowrey\OneDrive\Documents\Projects\3830\Roadway\Proc\Y-3830\_L\_rdy.plt\_40.dgn  
6/30/2022 3:01 PM V. Marcus Lowrey

5/28/2022

**TGS ENGINEERS**  
706 HILLSBOROUGH ST. SUITE 200  
RALEIGH, NC 27603  
PH (919) 773-8887  
CORP. LICENSE NO.: C-0275

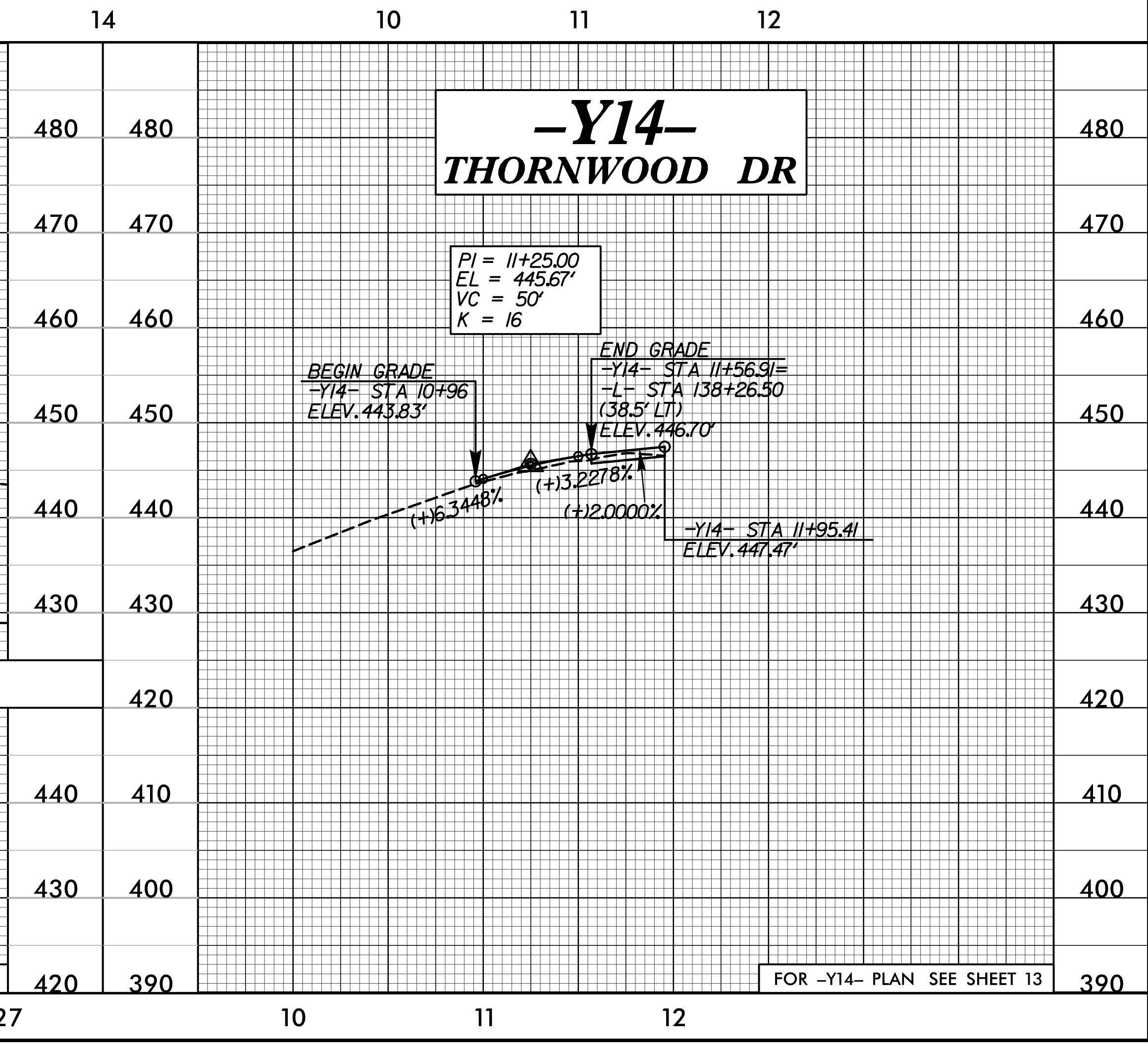
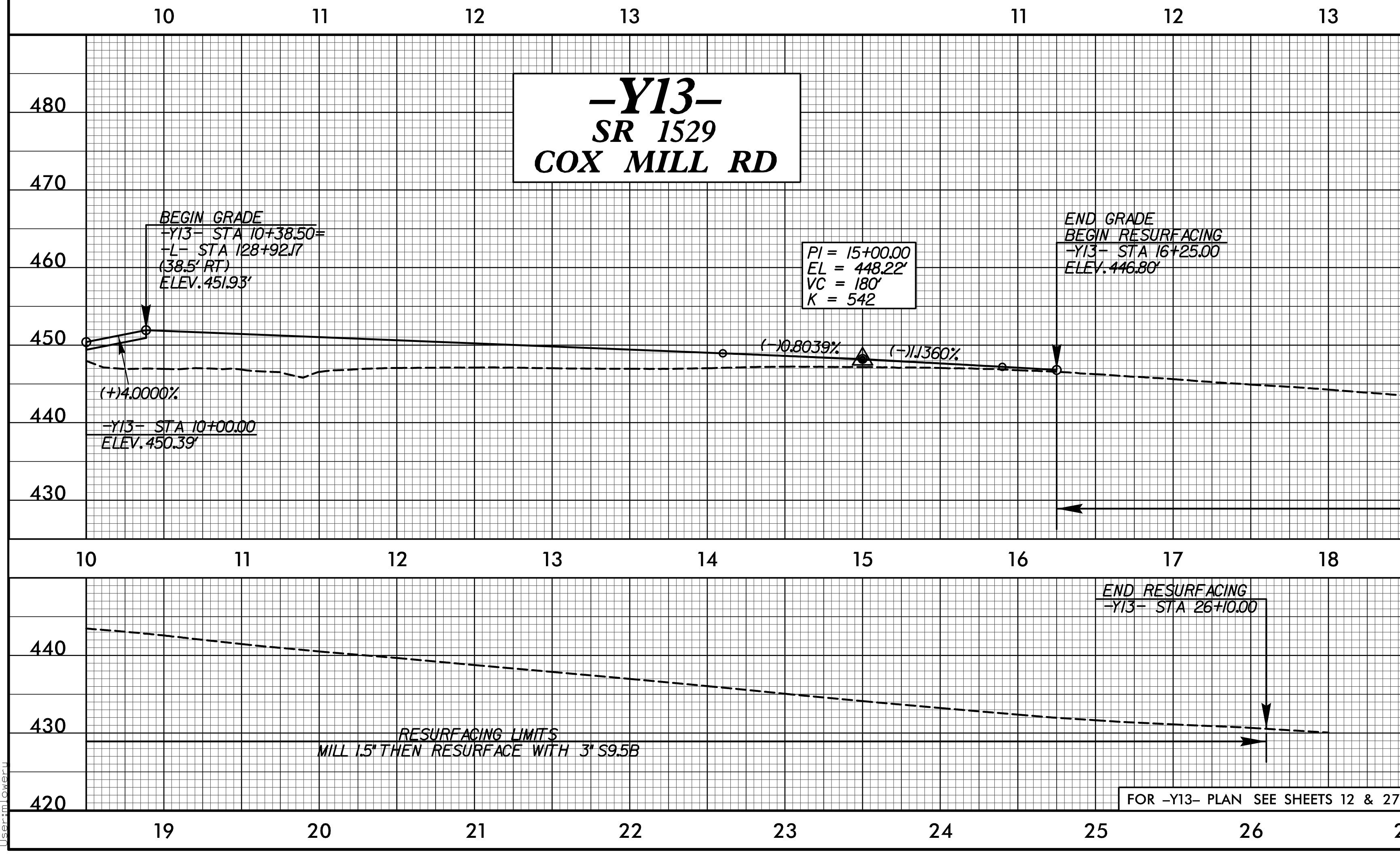
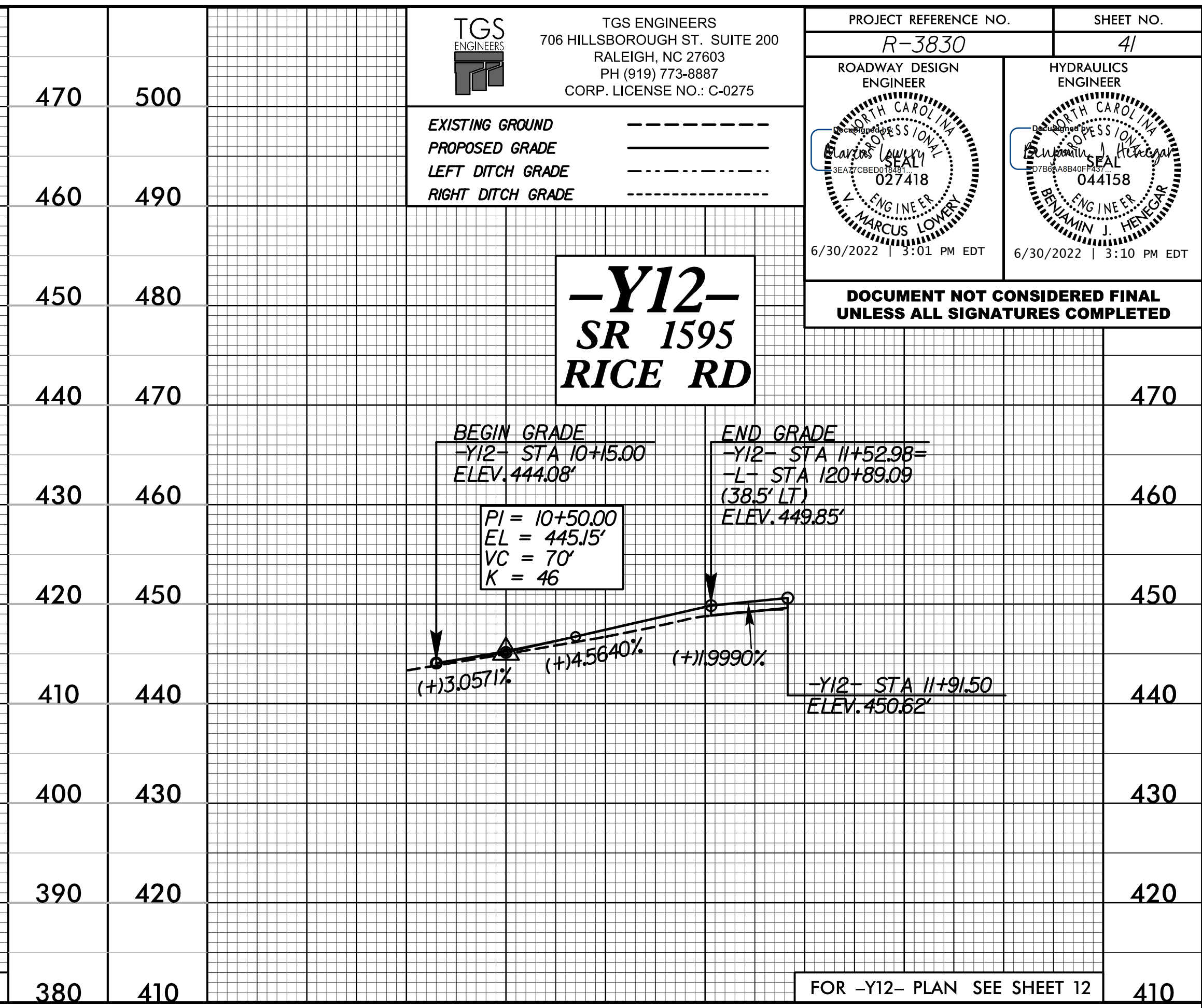
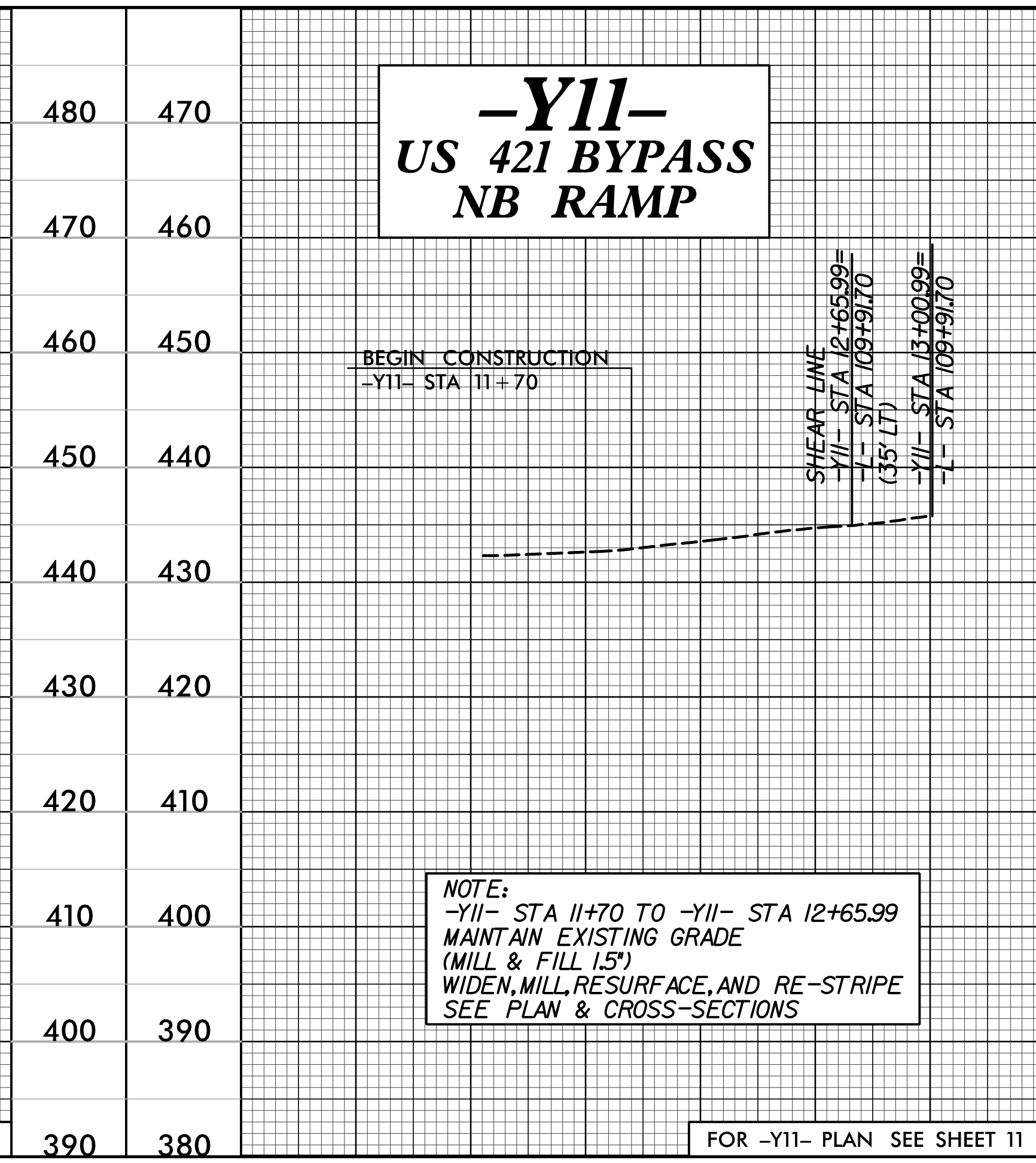
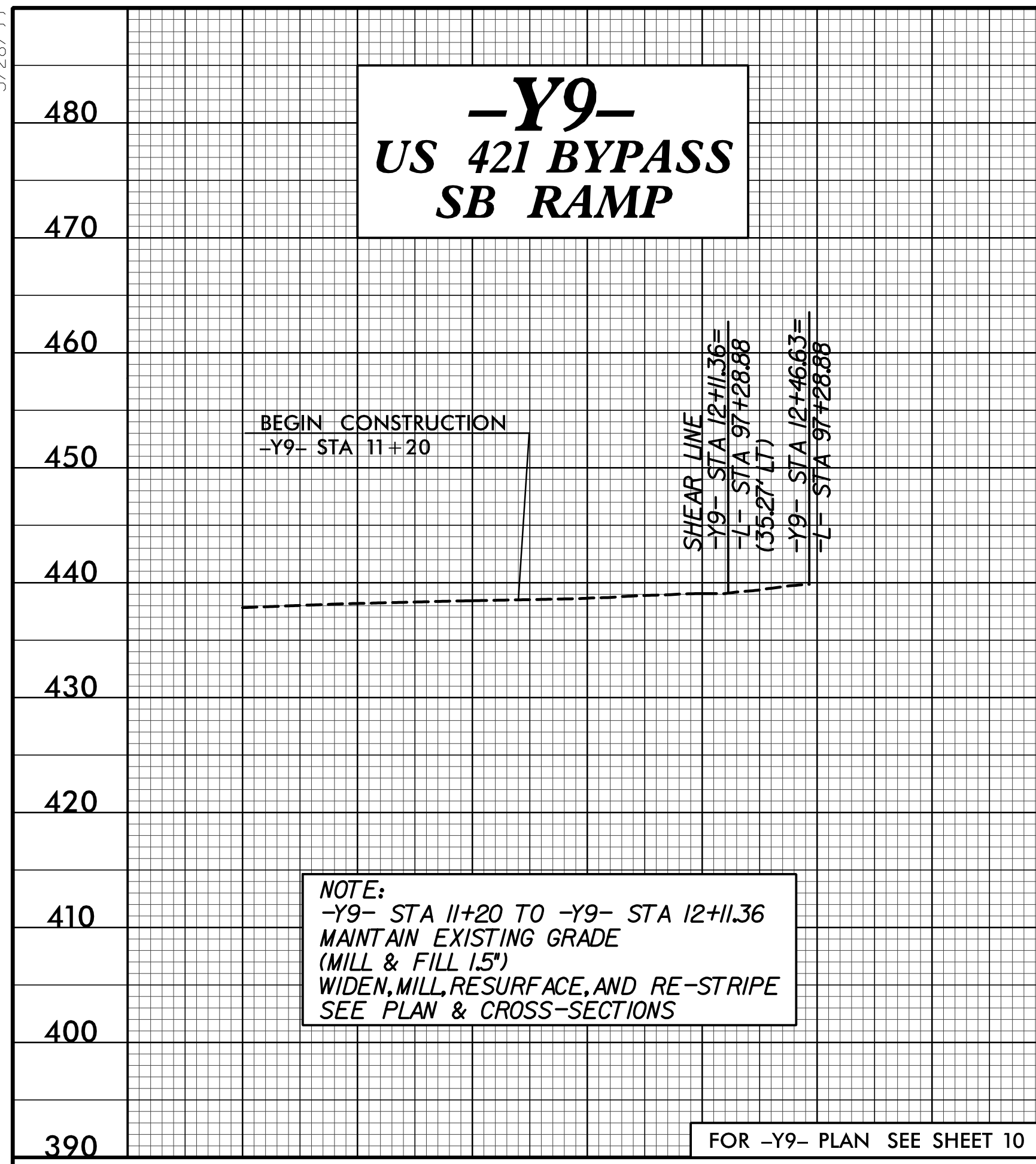
PROJECT REFERENCE NO. **R-3830** SHEET NO. **41**

ROADWAY DESIGN ENGINEER  
J. MARCUS LOWERY  
027418  
6/30/2022 3:01 PM EDT

HYDRAULICS ENGINEER  
BENJAMIN J. HENNINGER  
044158  
6/30/2022 3:10 PM EDT

EXISTING GROUND \_\_\_\_\_  
PROPOSED GRADE \_\_\_\_\_  
LEFT DITCH GRADE \_\_\_\_\_  
RIGHT DITCH GRADE \_\_\_\_\_

**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**

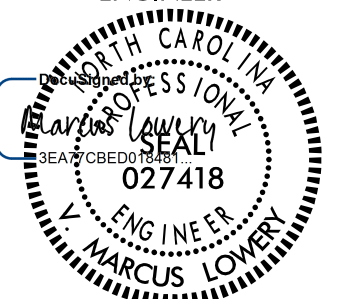
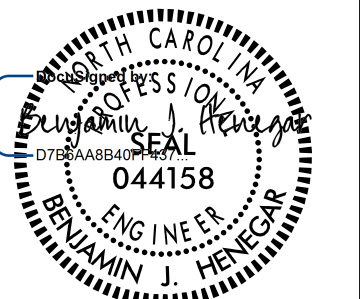


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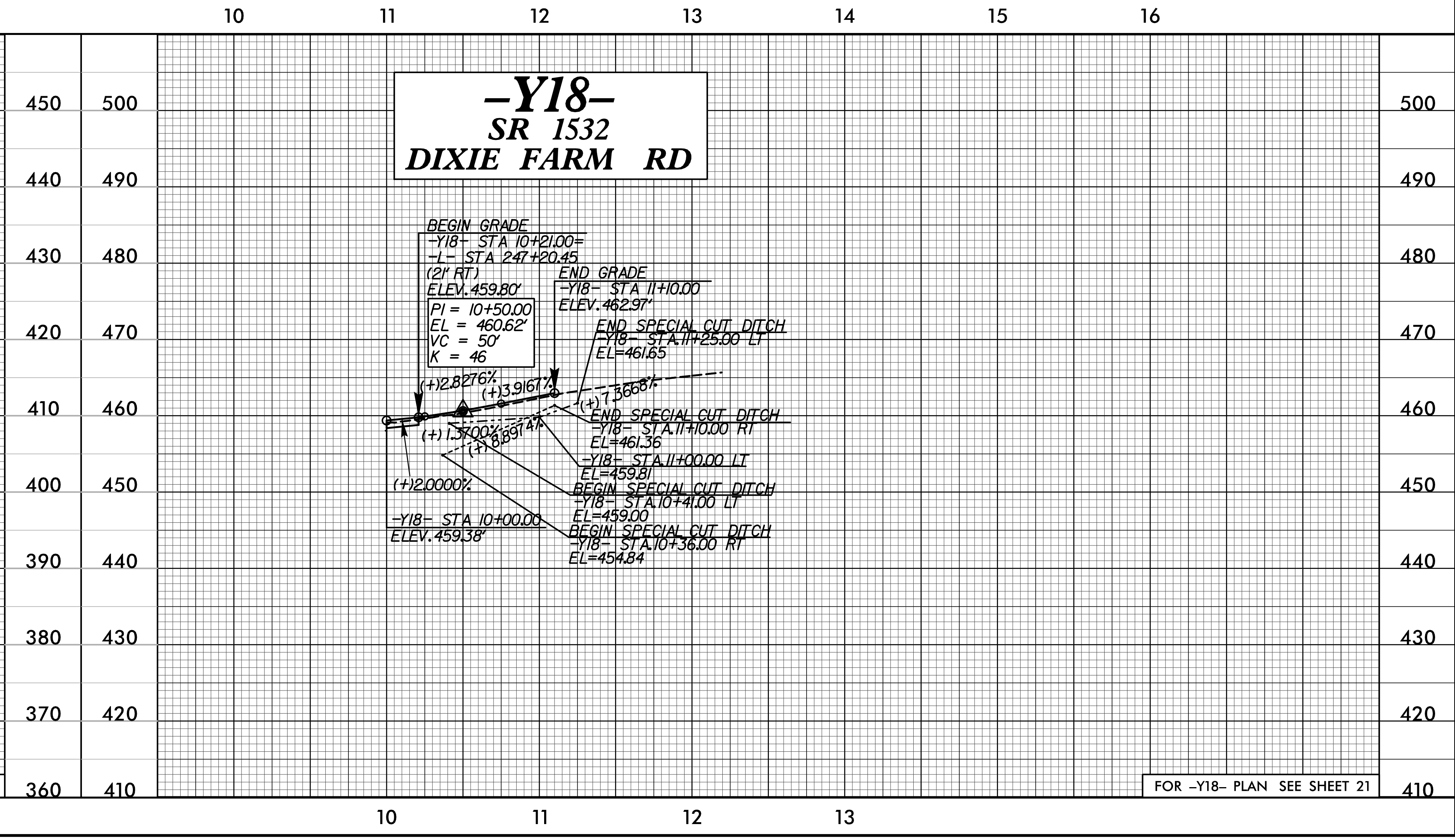
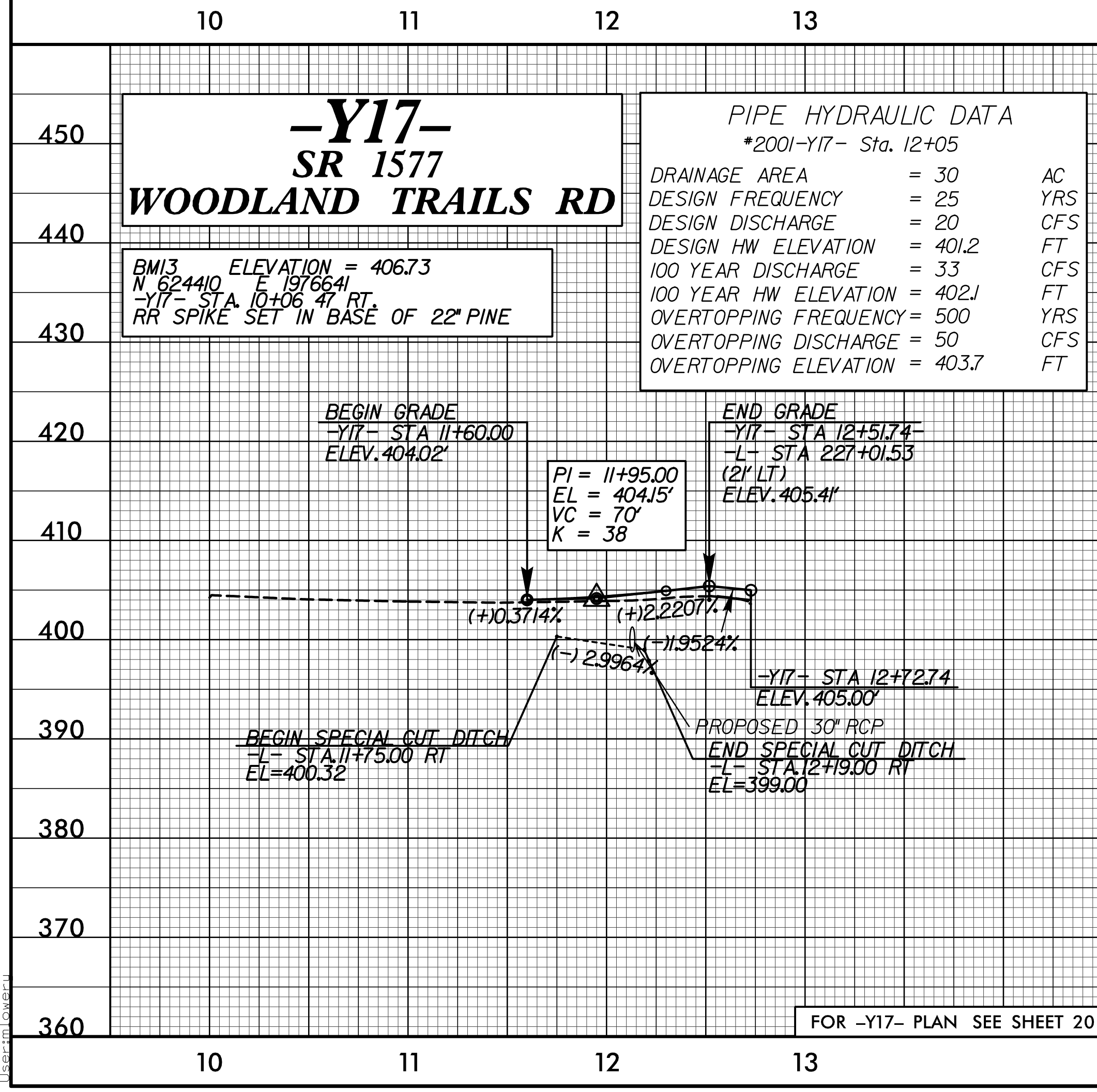
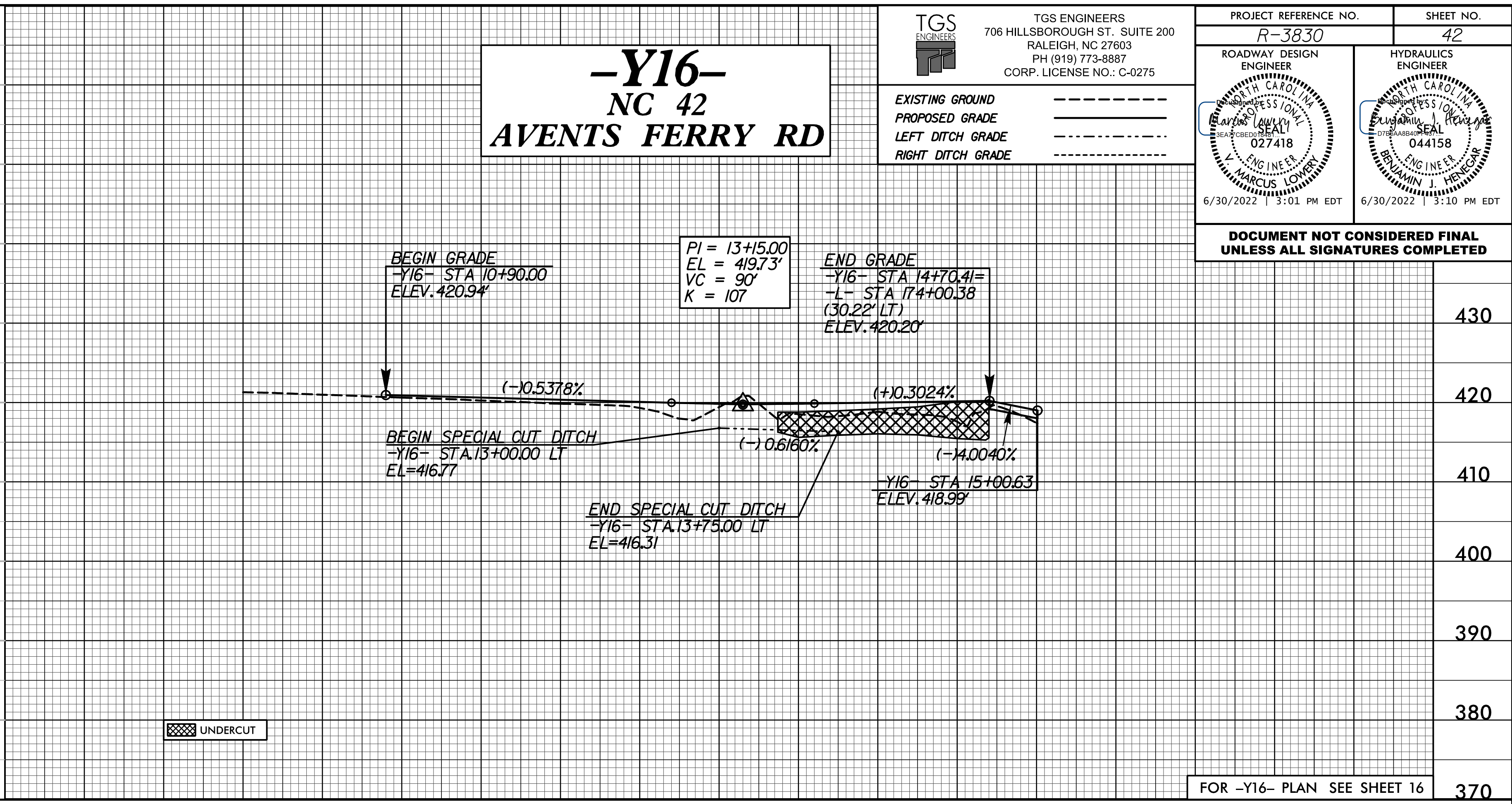
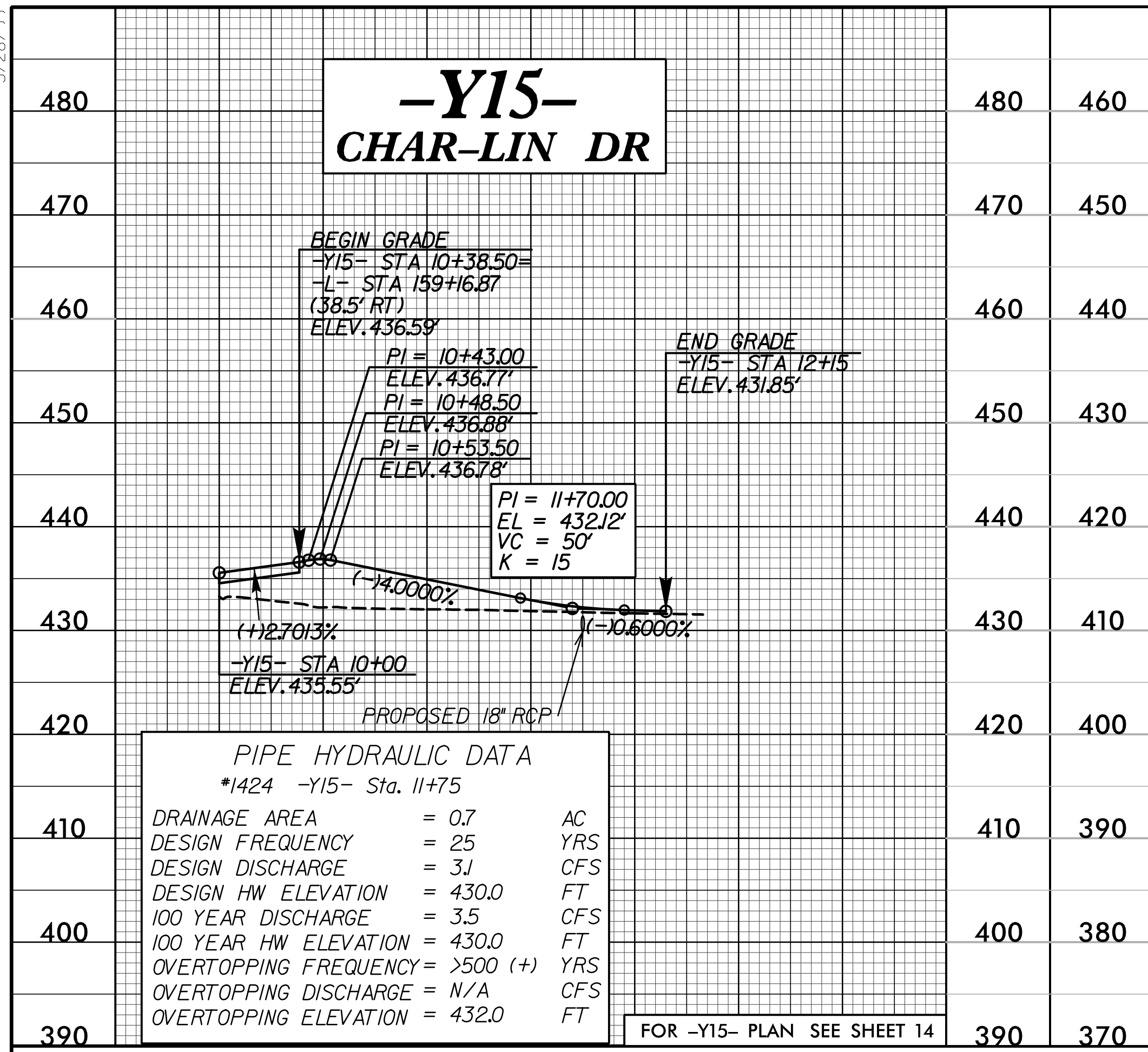
5/28/24

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST., SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

EXISTING GROUND -----  
 PROPOSED GRADE -----  
 LEFT DITCH GRADE -----  
 RIGHT DITCH GRADE -----

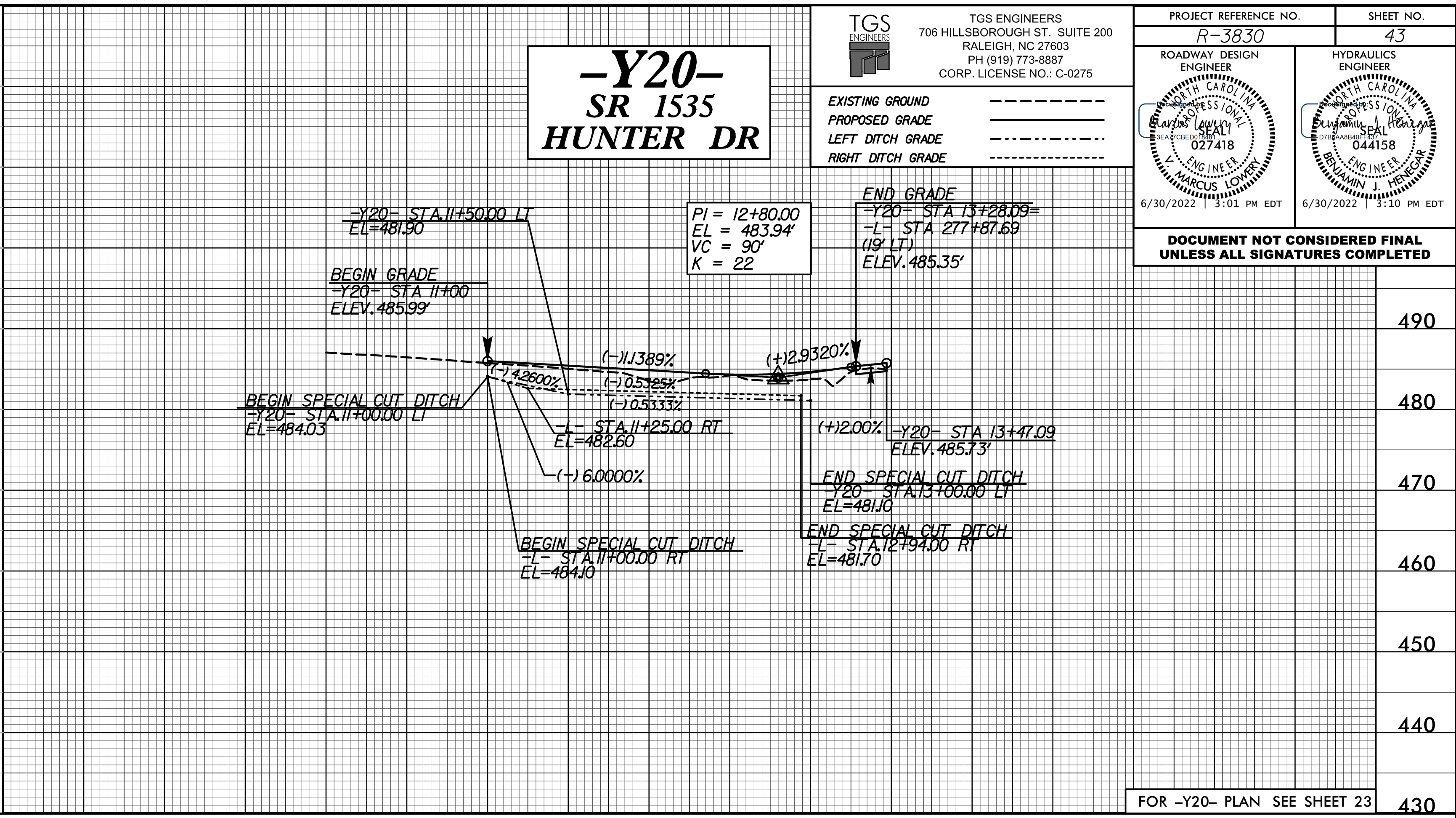
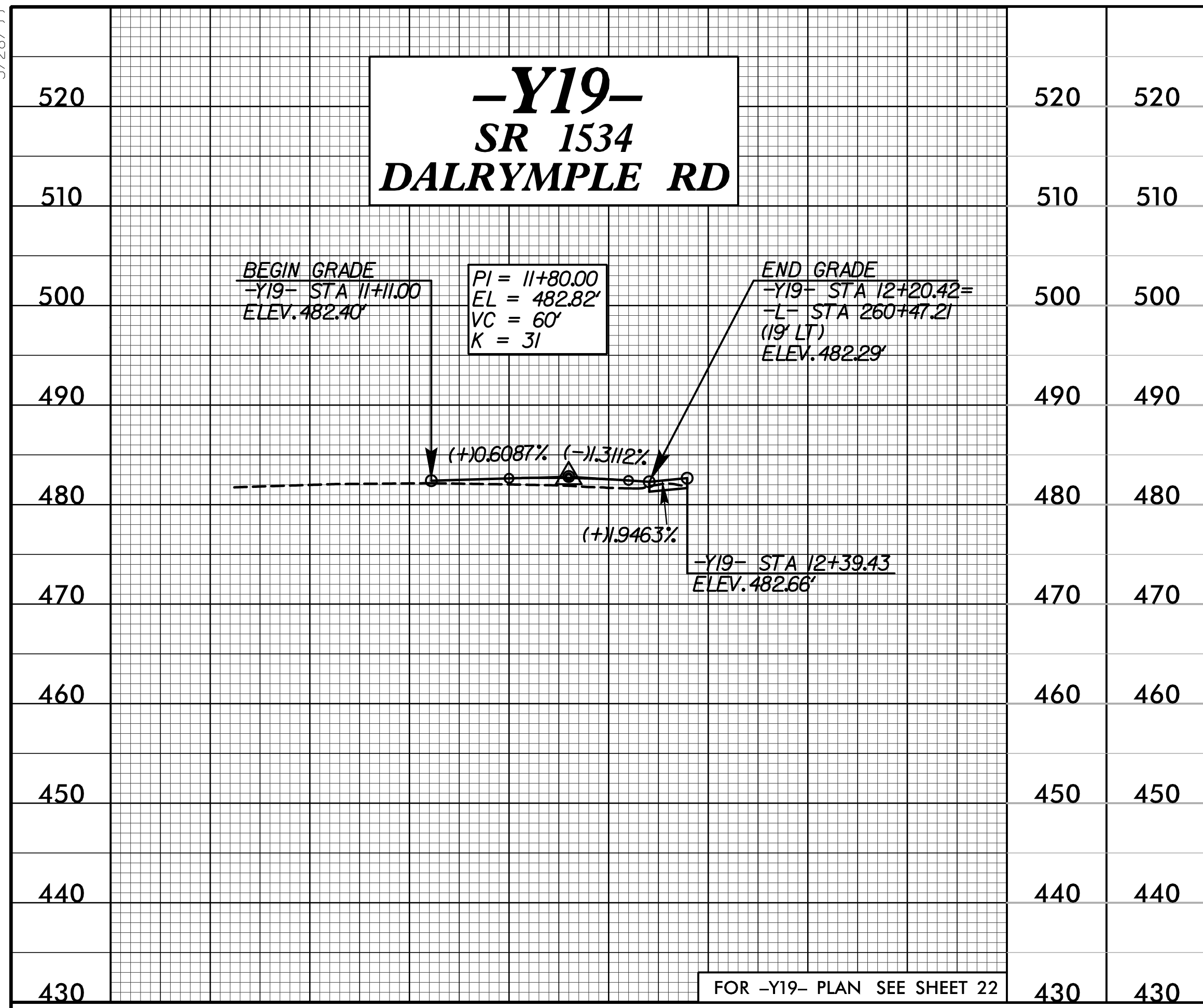
PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>42</b>
ROADWAY DESIGN ENGINEER  <b>027418</b> V. MARCUS LOWER 6/30/2022 3:01 PM EDT	HYDRAULICS ENGINEER  <b>044158</b> BENJAMIN J. HENEKAR 6/30/2022 3:10 PM EDT

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



4/8/2022 1:42:02 PM C:\Users\m\OneDrive\Documents\Roadway\Proc\3830\rdy\pfl\_42.dgn User: mlower

5/28/22



TGS ENGINEERS  
706 HILLSBOROUGH ST. SUITE 200  
RALEIGH, NC 27603  
PH (919) 773-8887  
CORP. LICENSE NO.: C-0275

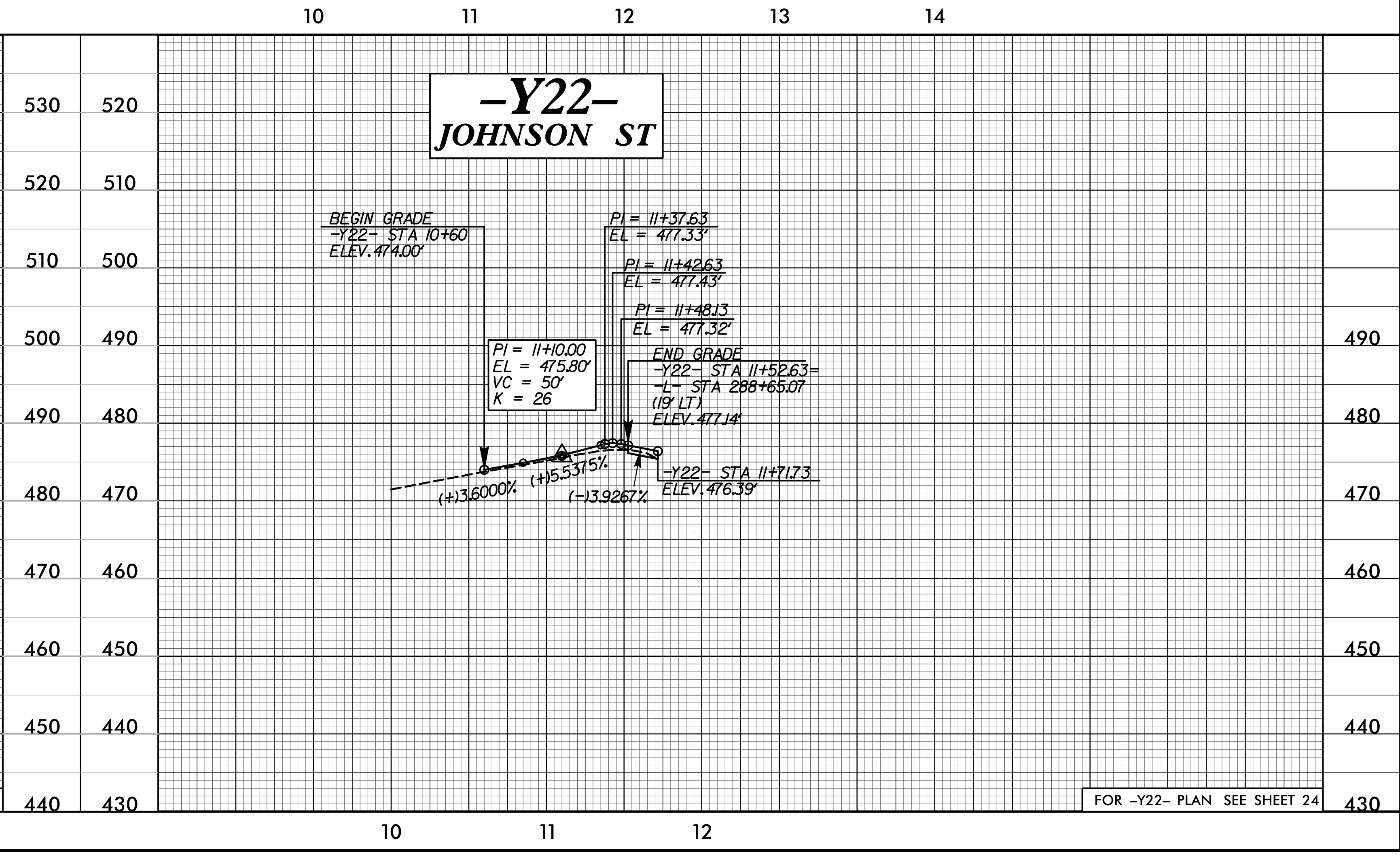
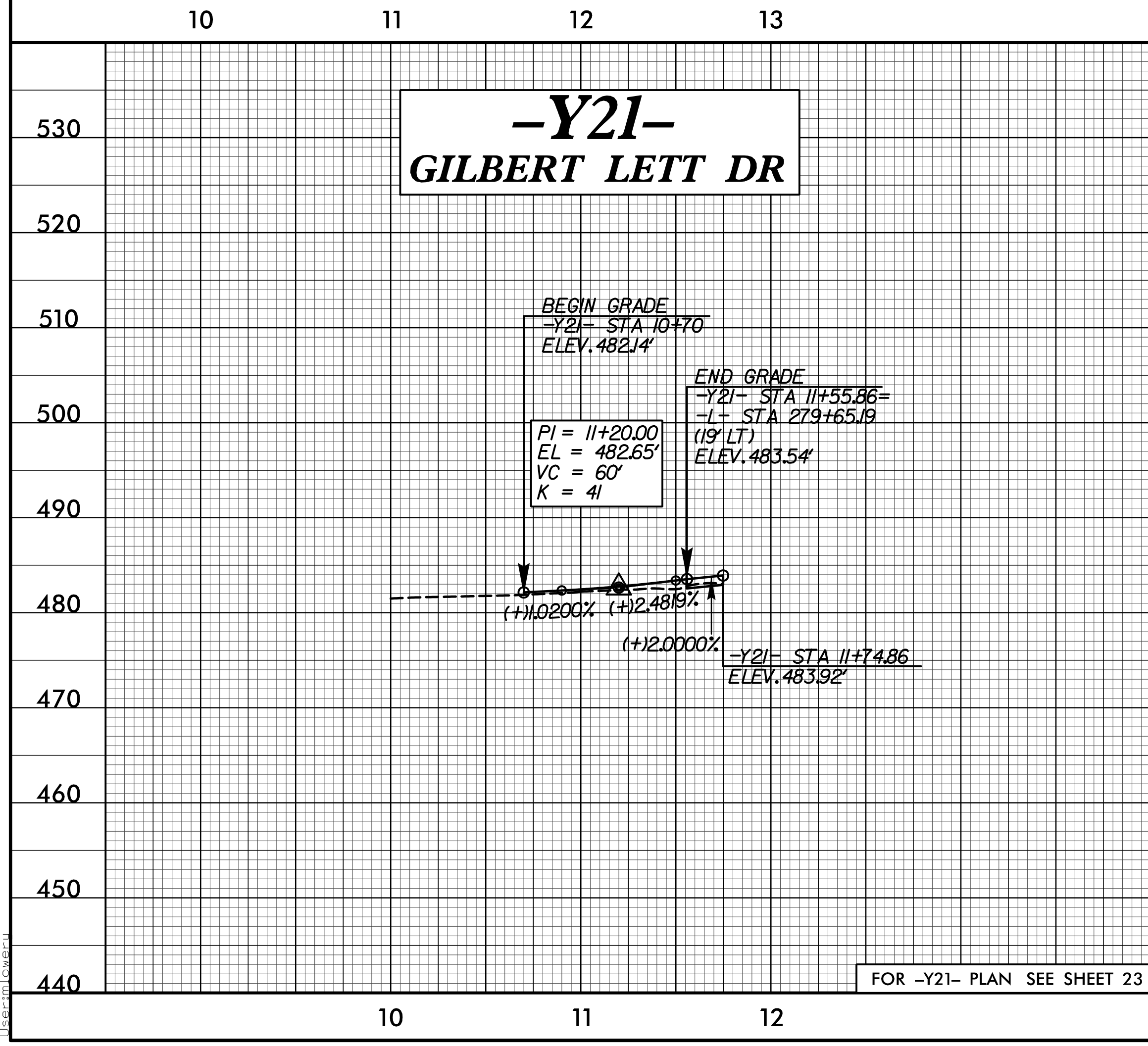
EXISTING GROUND  
PROPOSED GRADE  
LEFT DITCH GRADE  
RIGHT DITCH GRADE

PROJECT REFERENCE NO. R-3830  
SHEET NO. 43

ROADWAY DESIGN ENGINEER  
MARCUS LOWERY  
027418  
6/30/2022 3:01 PM EDT

HYDRAULICS ENGINEER  
MINIMIN J. HENNEAR  
044158  
6/30/2022 3:10 PM EDT

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

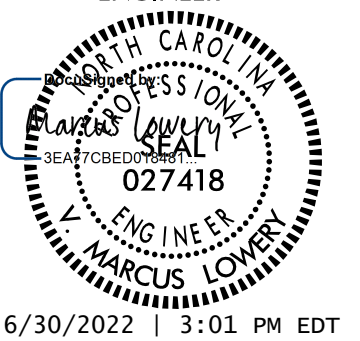
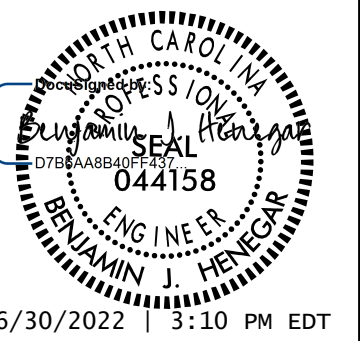


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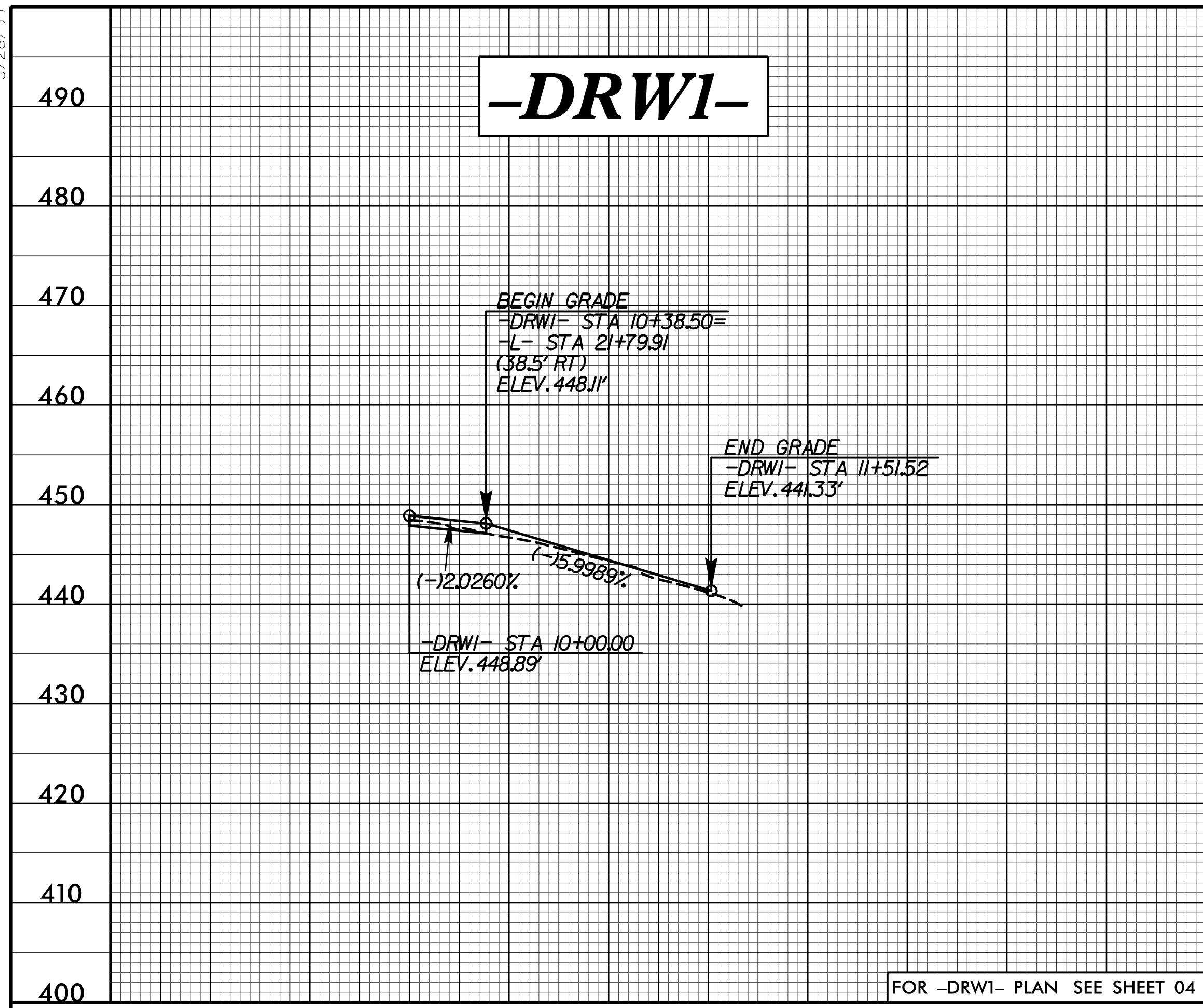
5/28/22

**TGS ENGINEERS**  
 706 HILLSBOROUGH ST., SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

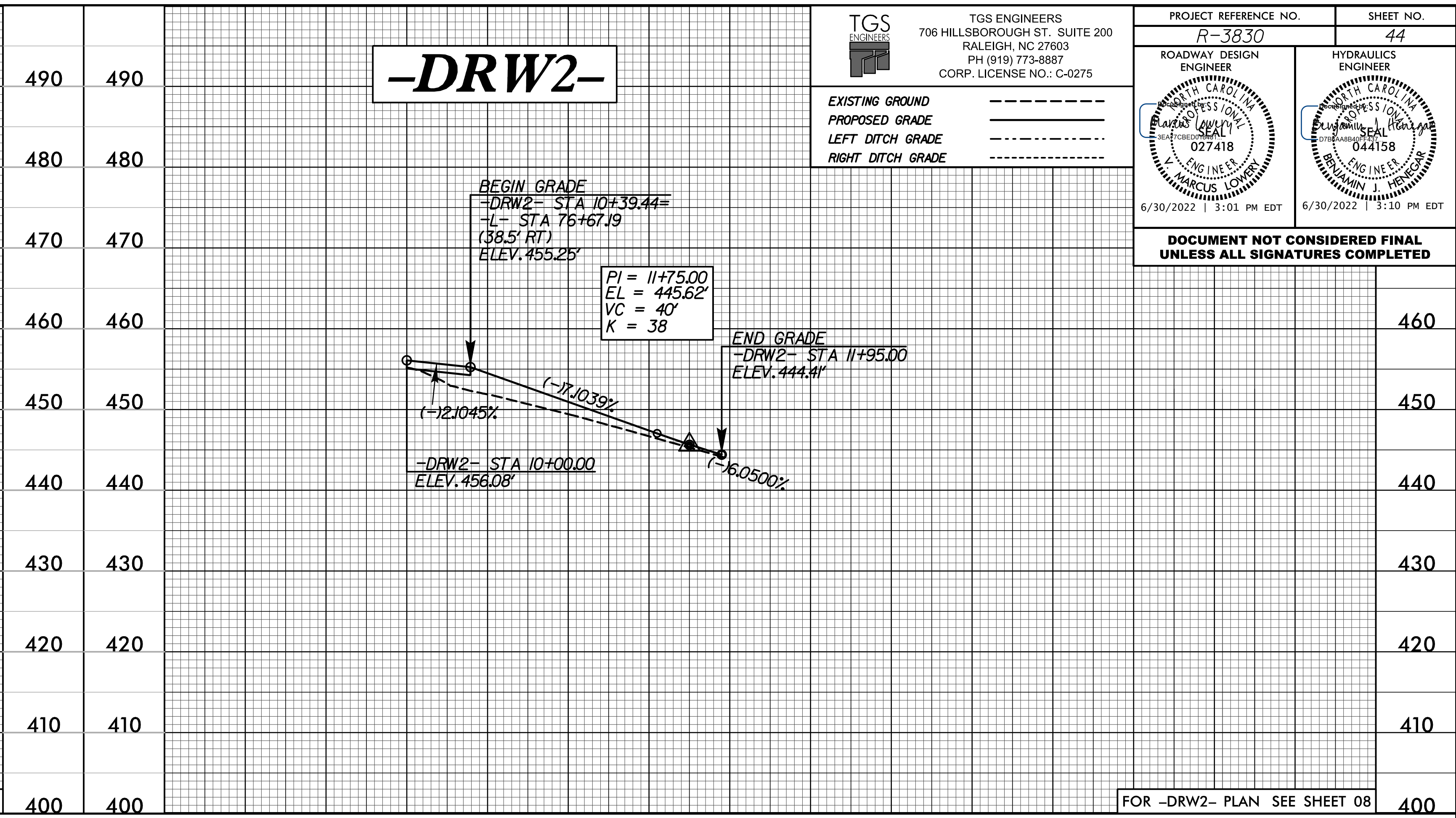
EXISTING GROUND -----  
 PROPOSED GRADE -----  
 LEFT DITCH GRADE -----  
 RIGHT DITCH GRADE -----

PROJECT REFERENCE NO. <b>R-3830</b>	SHEET NO. <b>44</b>
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
6/30/2022   3:01 PM EDT	6/30/2022   3:10 PM EDT

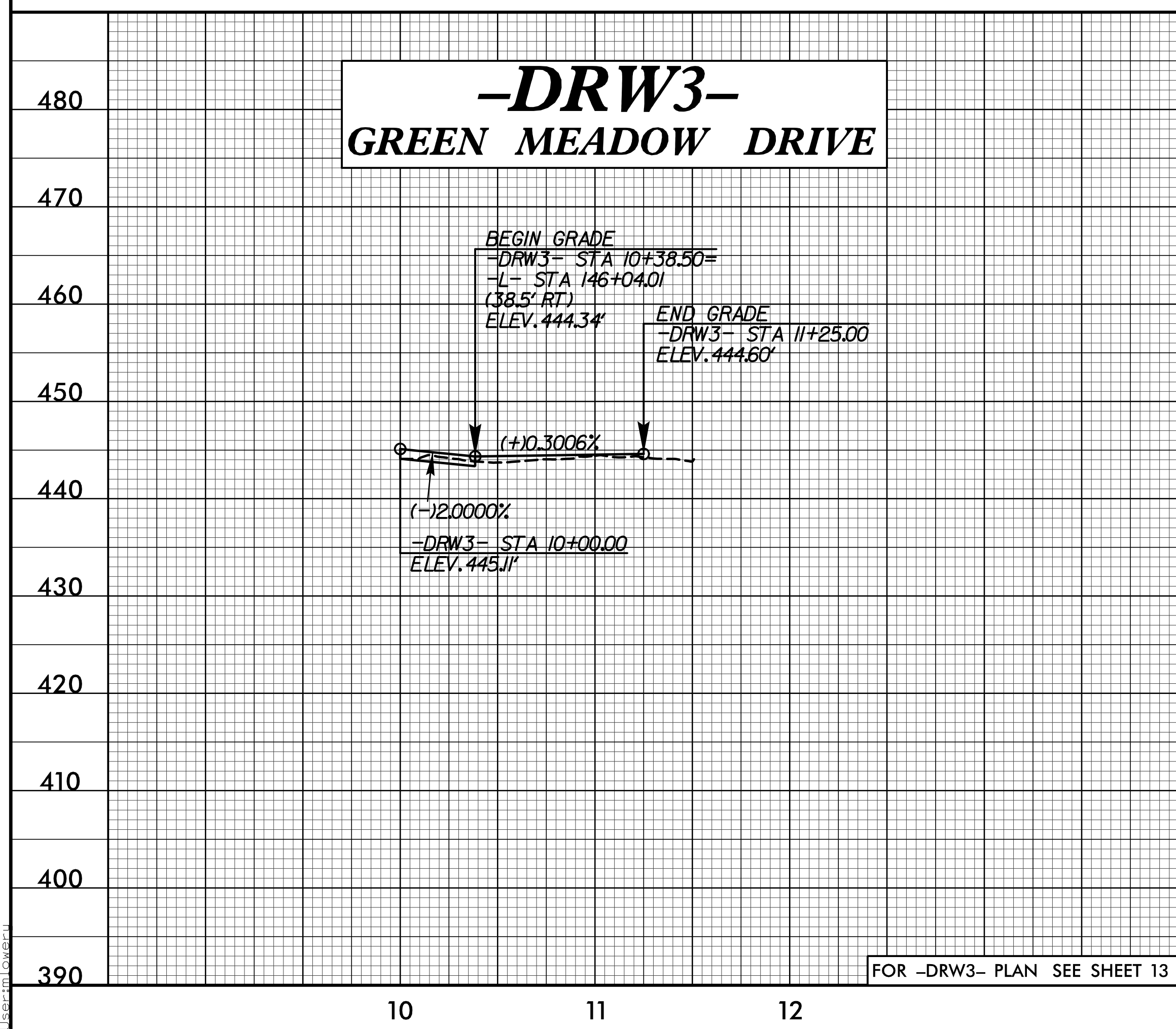
**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



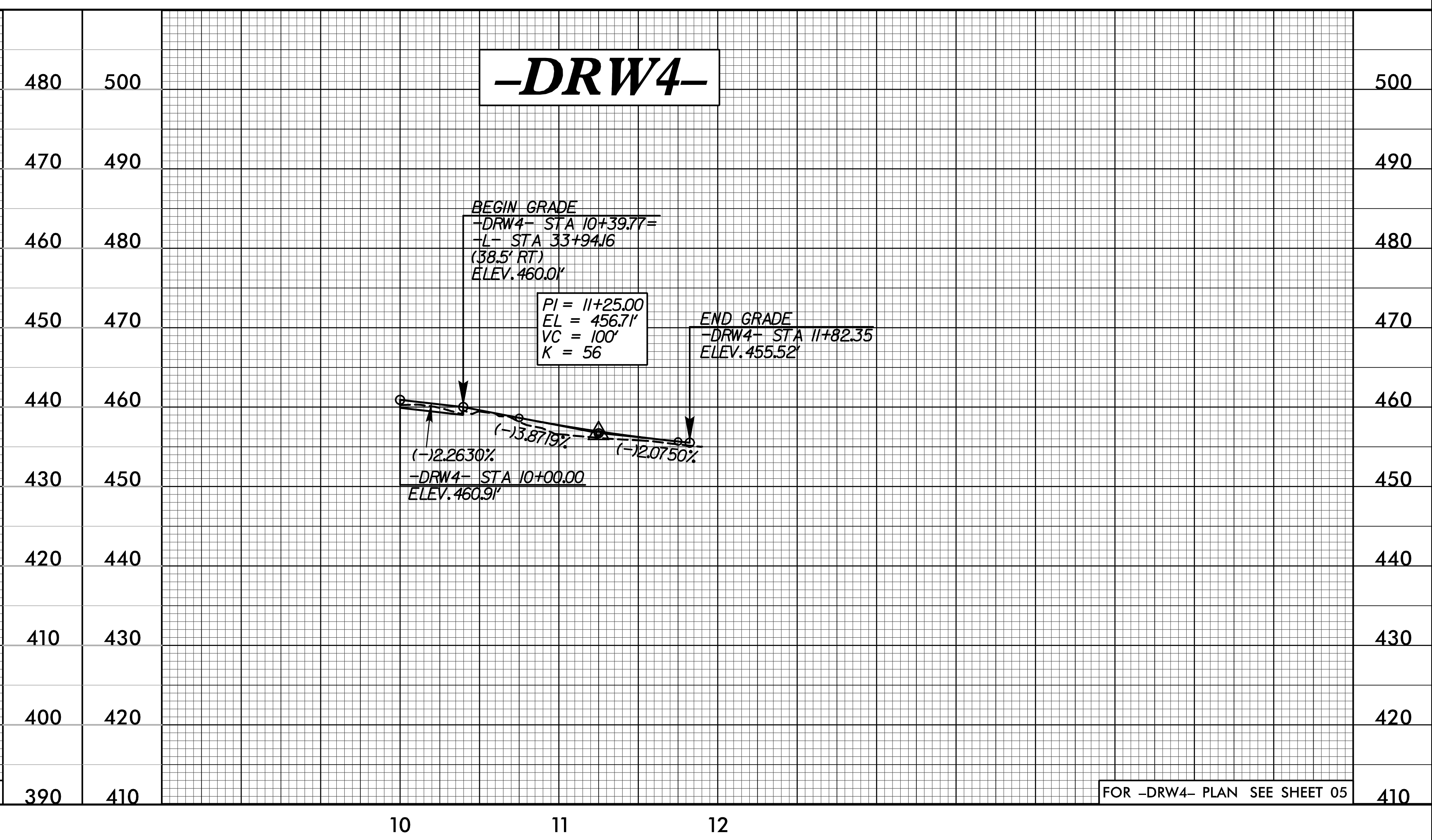
FOR -DRW1- PLAN SEE SHEET 04



FOR -DRW2- PLAN SEE SHEET 08



FOR -DRW3- PLAN SEE SHEET 13



FOR -DRW4- PLAN SEE SHEET 05

C:\Users\lgower\OneDrive\Documents\Projects\3830\Roadway\Proc\3830\rdw\pf1\_44.dgn