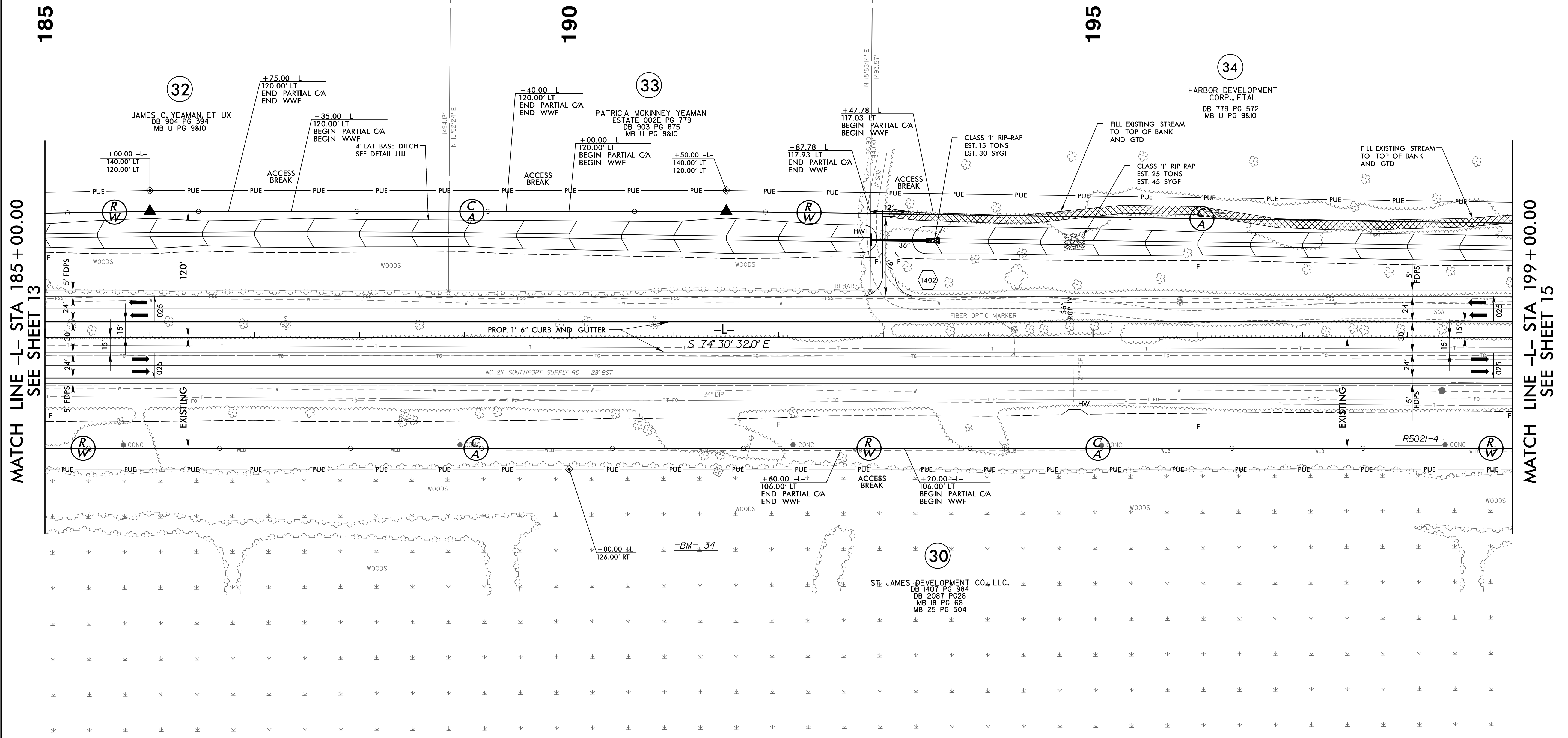
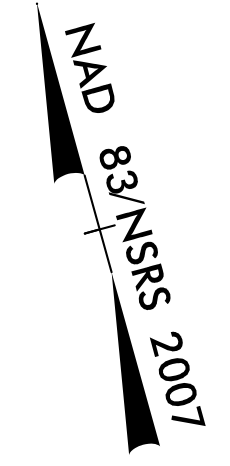


5/14/2021

PROJECT REFERENCE NO. <b>R-5021</b>		SHEET NO. <b>14</b>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			



MATCH LINE -L- STA 185 + 00.00  
SEE SHEET 13

MATCH LINE -L- STA 199 + 00.00  
SEE SHEET 15

**NOTE:**

1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

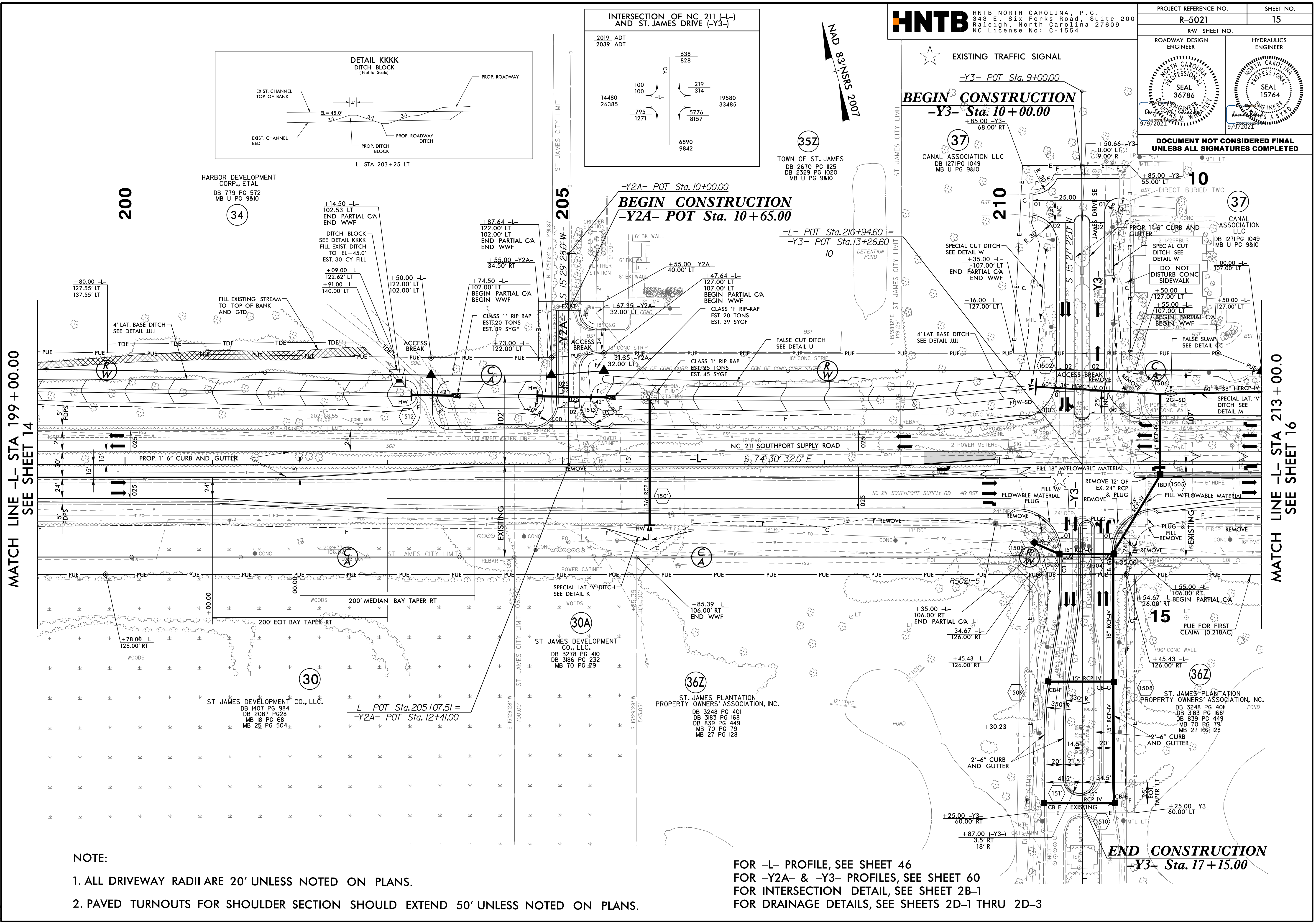
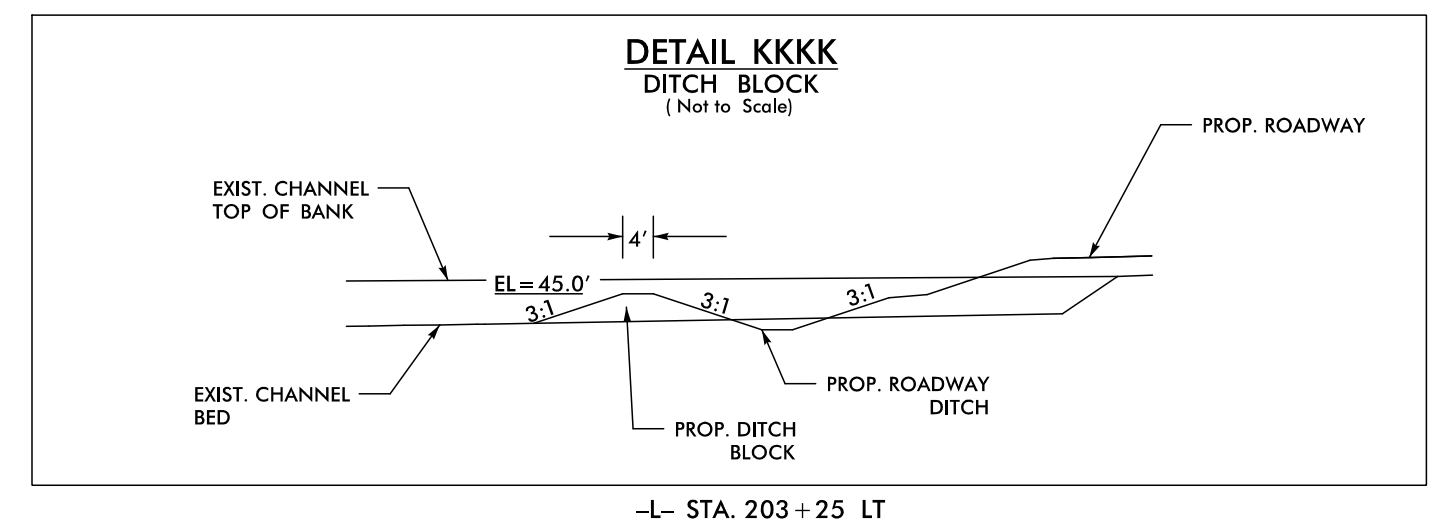
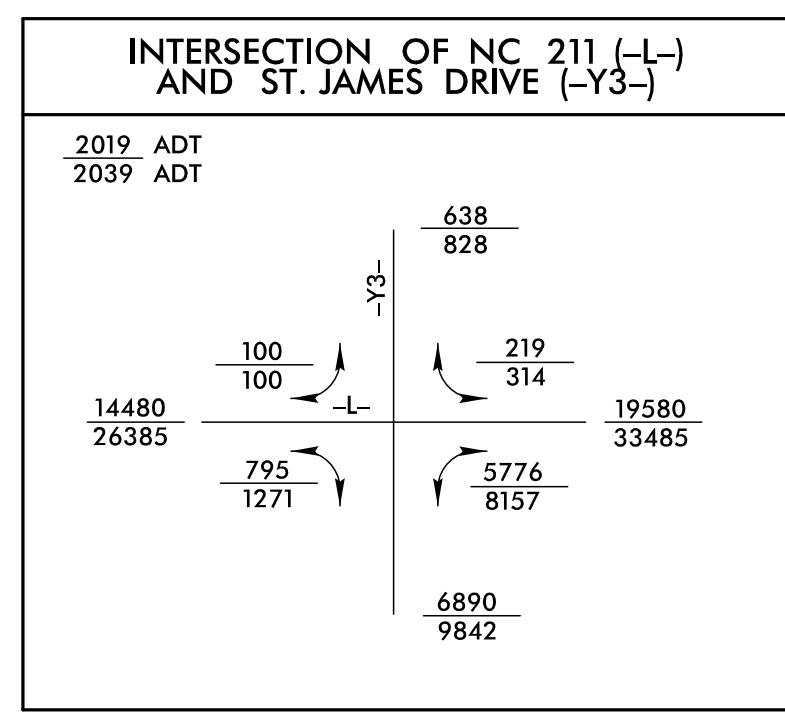
FOR -L- PROFILE, SEE SHEET 46  
FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3

22-JUL-2021 09:56  
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PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>15</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



MATCH LINE -L- STA 199 + 00.00  
SEE SHEET 14

MATCH LINE -L- STA 213 + 00.00  
SEE SHEET 16

**NOTE:**

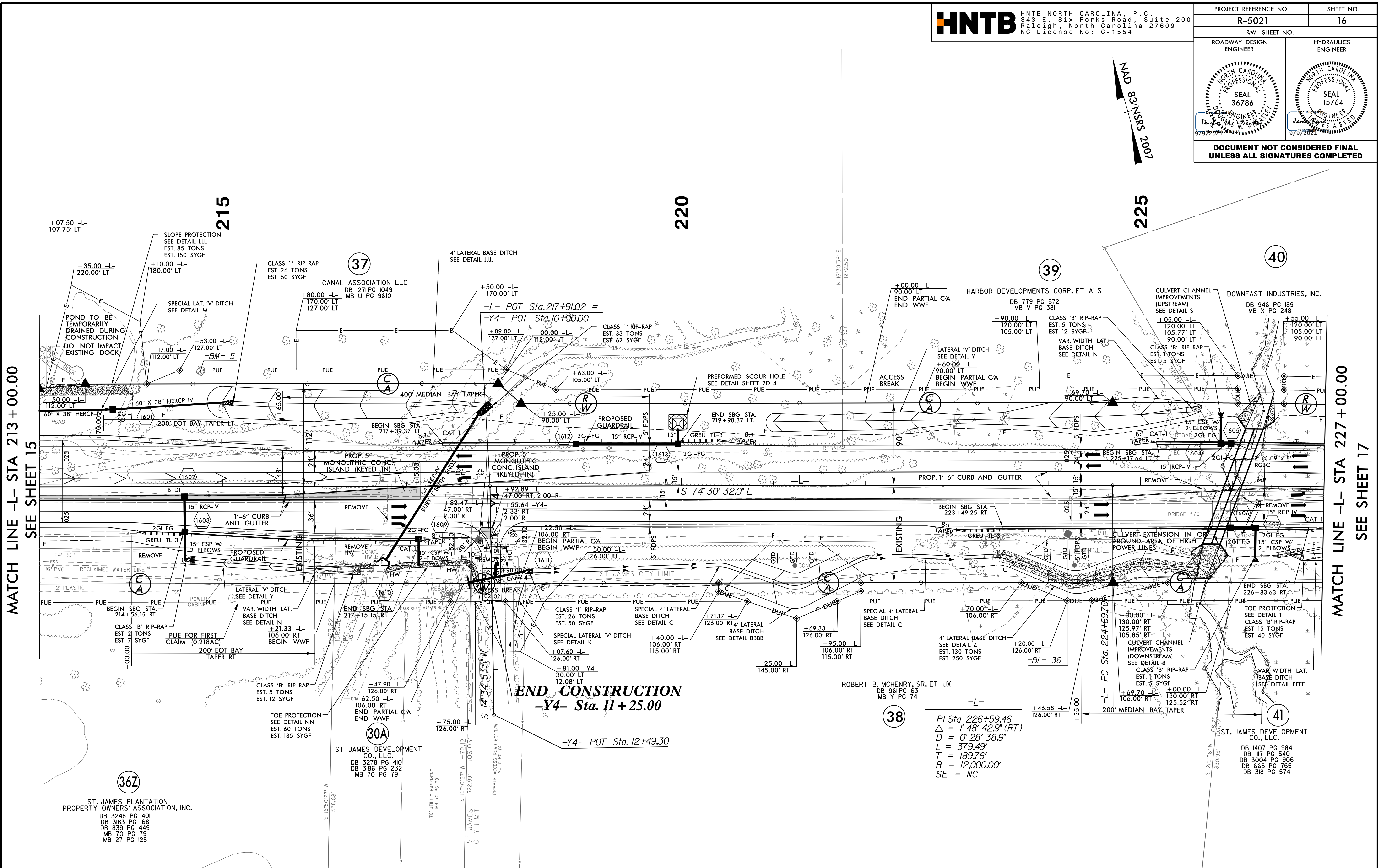
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- PROFILE, SEE SHEET 46  
 FOR -Y2A- & -Y3- PROFILES, SEE SHEET 60  
 FOR INTERSECTION DETAIL, SEE SHEET 2B-1  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3



5/14/2021

PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>16</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



MATCH LINE -L- STA 213+00.00  
SEE SHEET 15

MATCH LINE -L- STA 227+00.00  
SEE SHEET 17

**NOTE:**

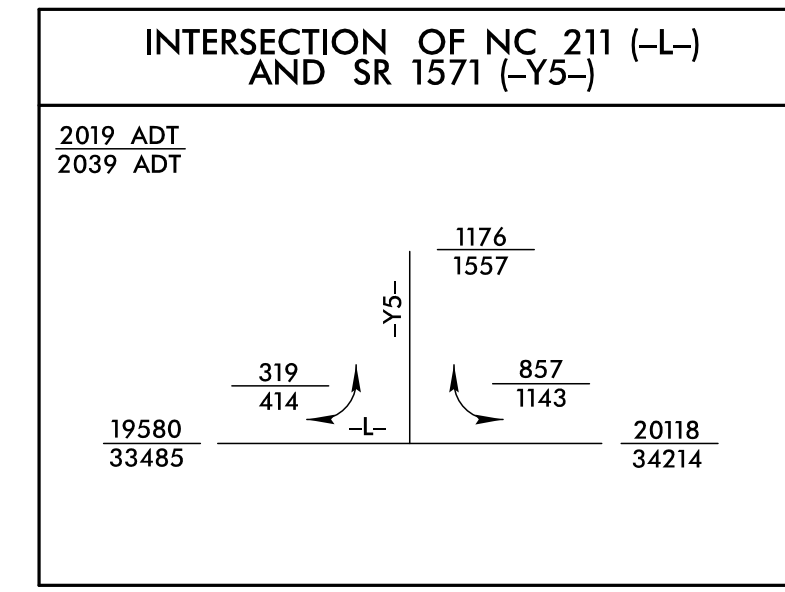
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- PROFILE, SEE SHEET 47  
 FOR -Y4- PROFILE, SEE SHEET 60  
 FOR INTERSECTION DETAIL, SEE SHEET 2B-1  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3  
 FOR CULVERT DETAILS, SEE SHEETS C3-1 THRU C3-5

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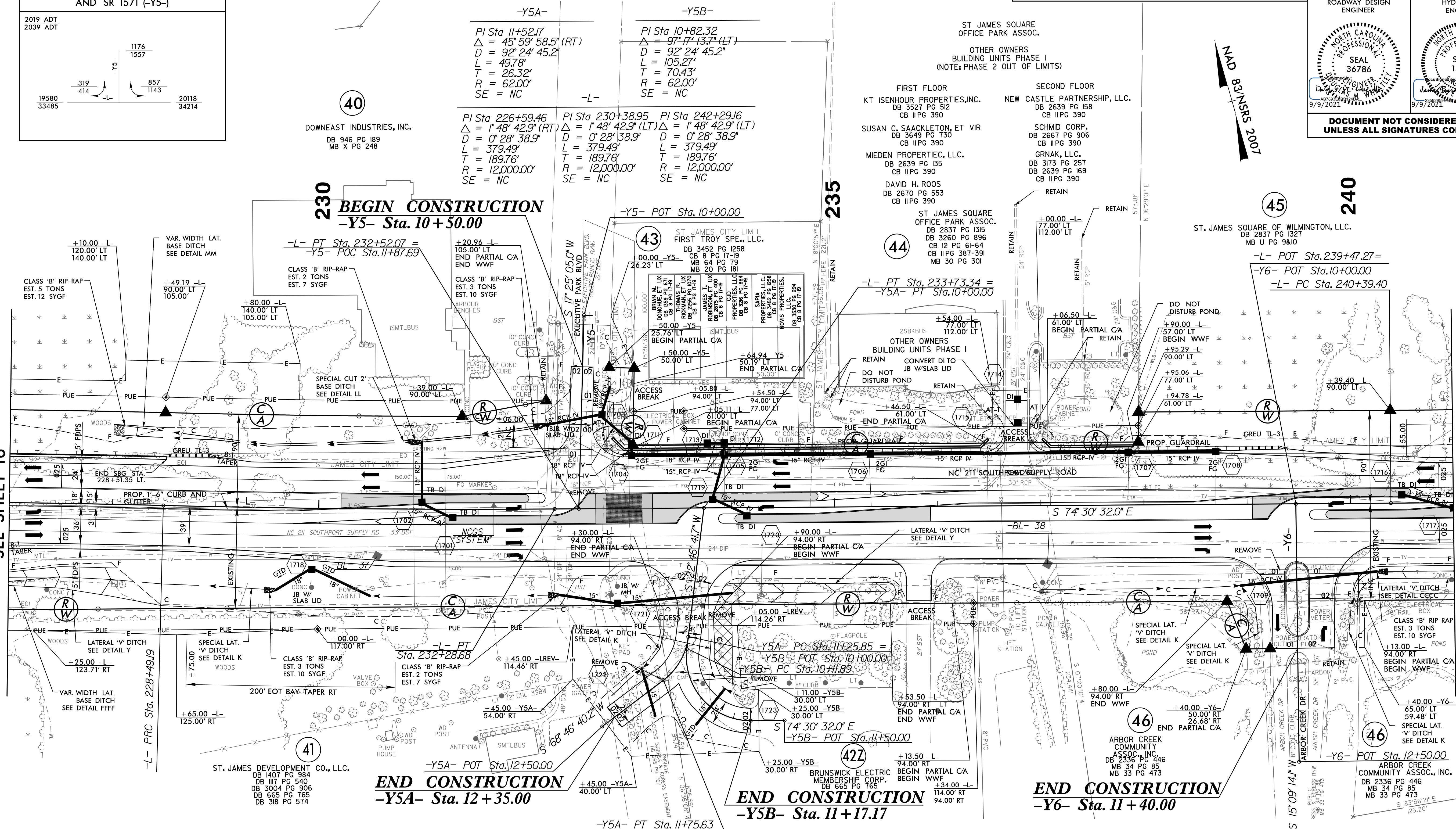
5/14/2019



PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>17</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

MATCH LINE -L- STA 227+00.00  
SEE SHEET 16

MATCH LINE -L- STA 241+00.00  
SEE SHEET 18



**NOTE:**

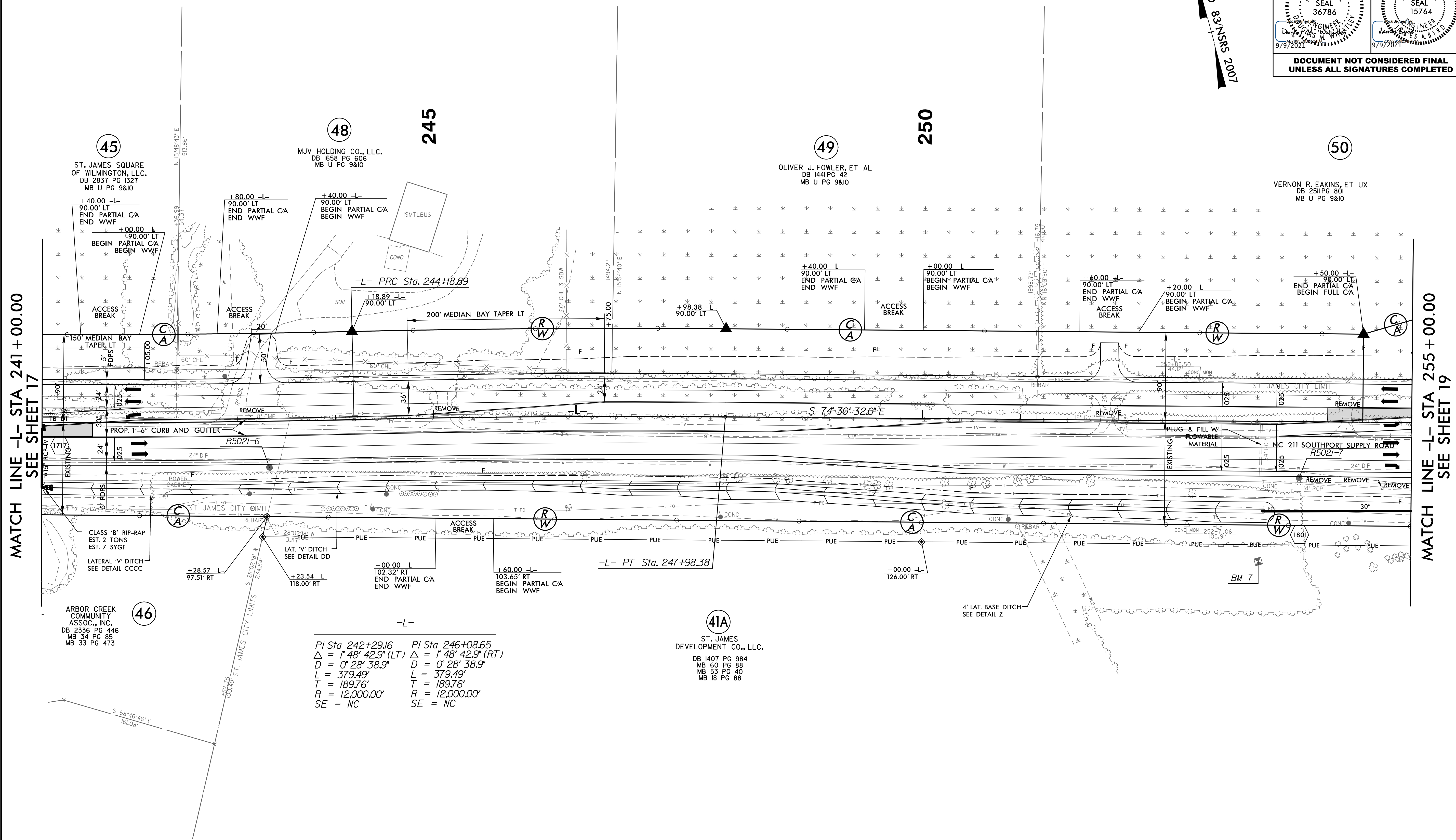
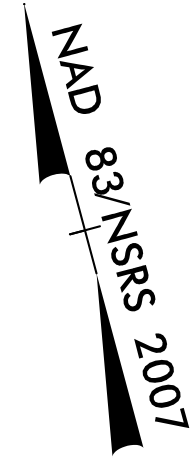
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

- FOR -L- PROFILE, SEE SHEET 47
- FOR -Y5- & -Y6- PROFILES, SEE SHEET 61
- FOR -Y5A- PROFILE, SEE SHEET 61
- FOR -Y5B- PROFILE, SEE SHEET 61
- FOR -Y5- & -Y6- INTERSECTION DETAILS, SEE SHEET 2B-2
- FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3
- FOR RETAINING WALL PLANS, SEE SHEETS W-1 THRU W-2

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PROJECT REFERENCE NO. <b>R-5021</b>		SHEET NO. <b>18</b>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			



MATCH LINE -L- STA 241+00.00  
SEE SHEET 17

MATCH LINE -L- STA 255+00.00  
SEE SHEET 19

**46**  
ARBOR CREEK  
COMMUNITY  
ASSOC., INC.  
DB 2336 PG 446  
MB 34 PG 85  
MB 33 PG 473

-L-  
PI Sta 242+29.16    PI Sta 246+08.65  
Δ = 1° 48' 42.9" (LT)    Δ = 1° 48' 42.9" (RT)  
D = 0' 28' 38.9"    D = 0' 28' 38.9"  
L = 379.49'    L = 379.49'  
T = 189.76'    T = 189.76'  
R = 12,000.00'    R = 12,000.00'  
SE = NC    SE = NC

**41A**  
ST. JAMES  
DEVELOPMENT CO., LLC.  
DB 1407 PG 984  
MB 60 PG 88  
MB 53 PG 40  
MB 18 PG 88

**NOTE:**

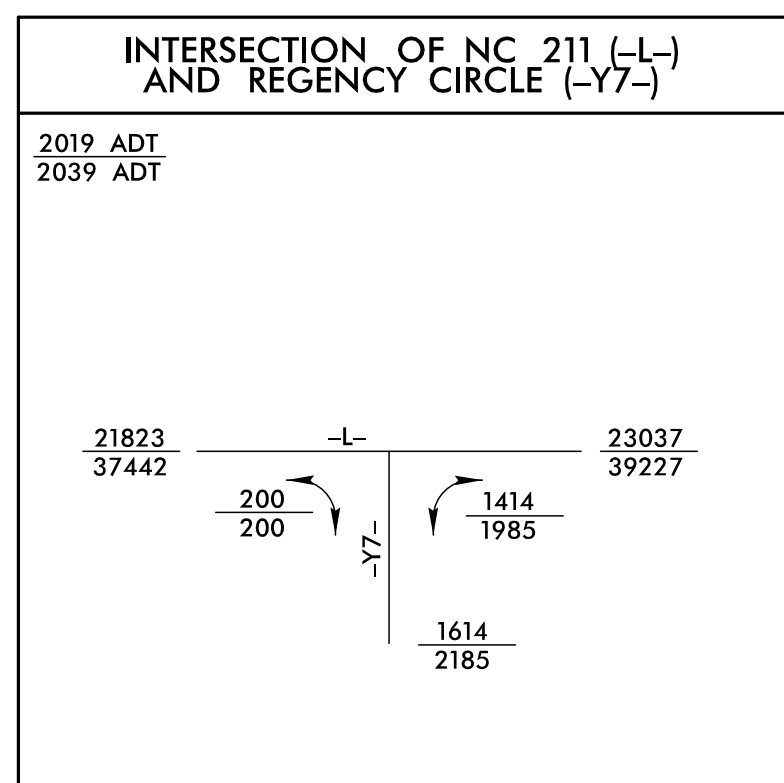
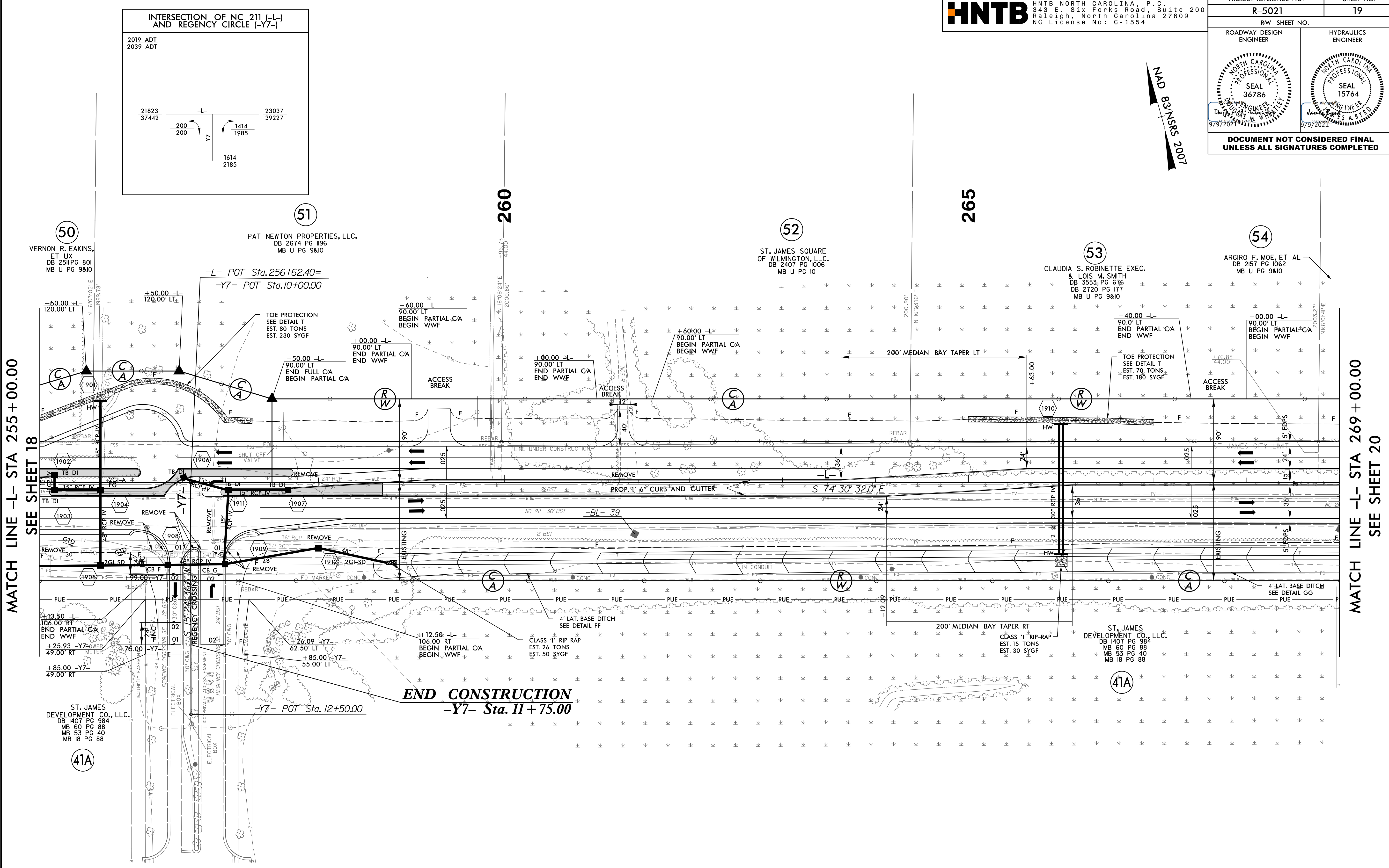
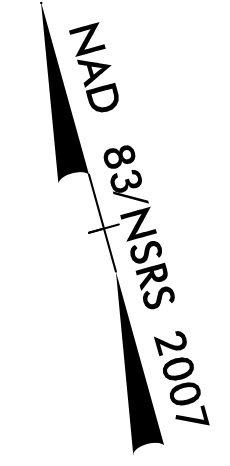
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- PROFILE, SEE SHEET 48  
FOR DETAIL FOR DIRECTIONAL CROSS OVER, SEE SHEET 2B-2  
FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3



5/14/2021

PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>19</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**NOTE:**

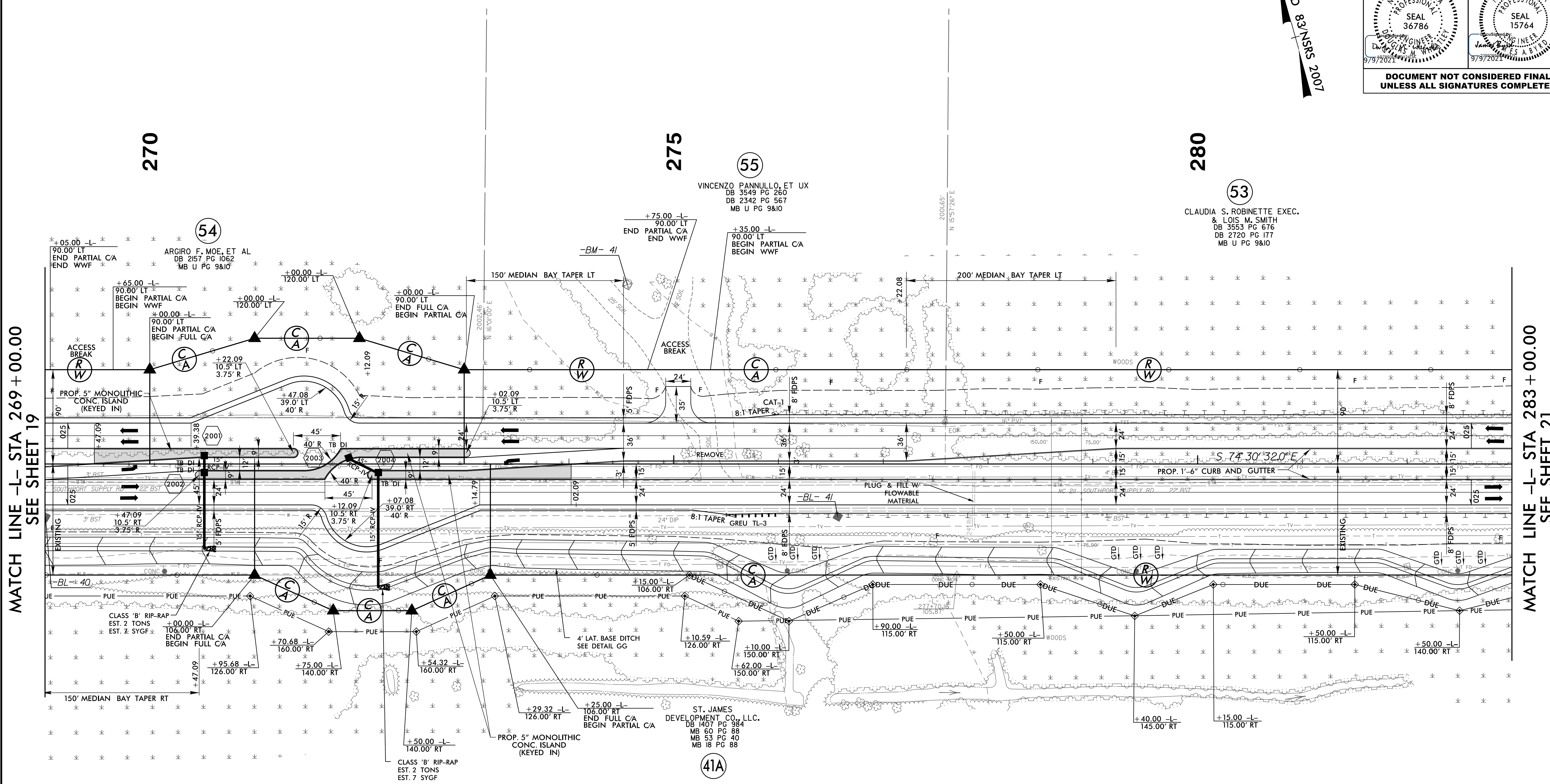
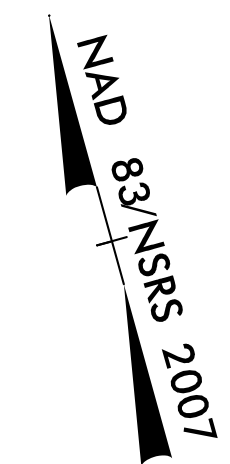
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- PROFILE, SEE SHEET 48  
 FOR -Y7- PROFILE, SEE SHEET 61  
 FOR INTERSECTION DETAIL AND DIRECTIONAL CROSS OVER, SEE SHEET 2B-2  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3

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PROJECT REFERENCE NO. <b>R-5021</b>		SHEET NO. <b>20</b>
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>		



MATCH LINE -L- STA 269 + 00.00  
SEE SHEET 19

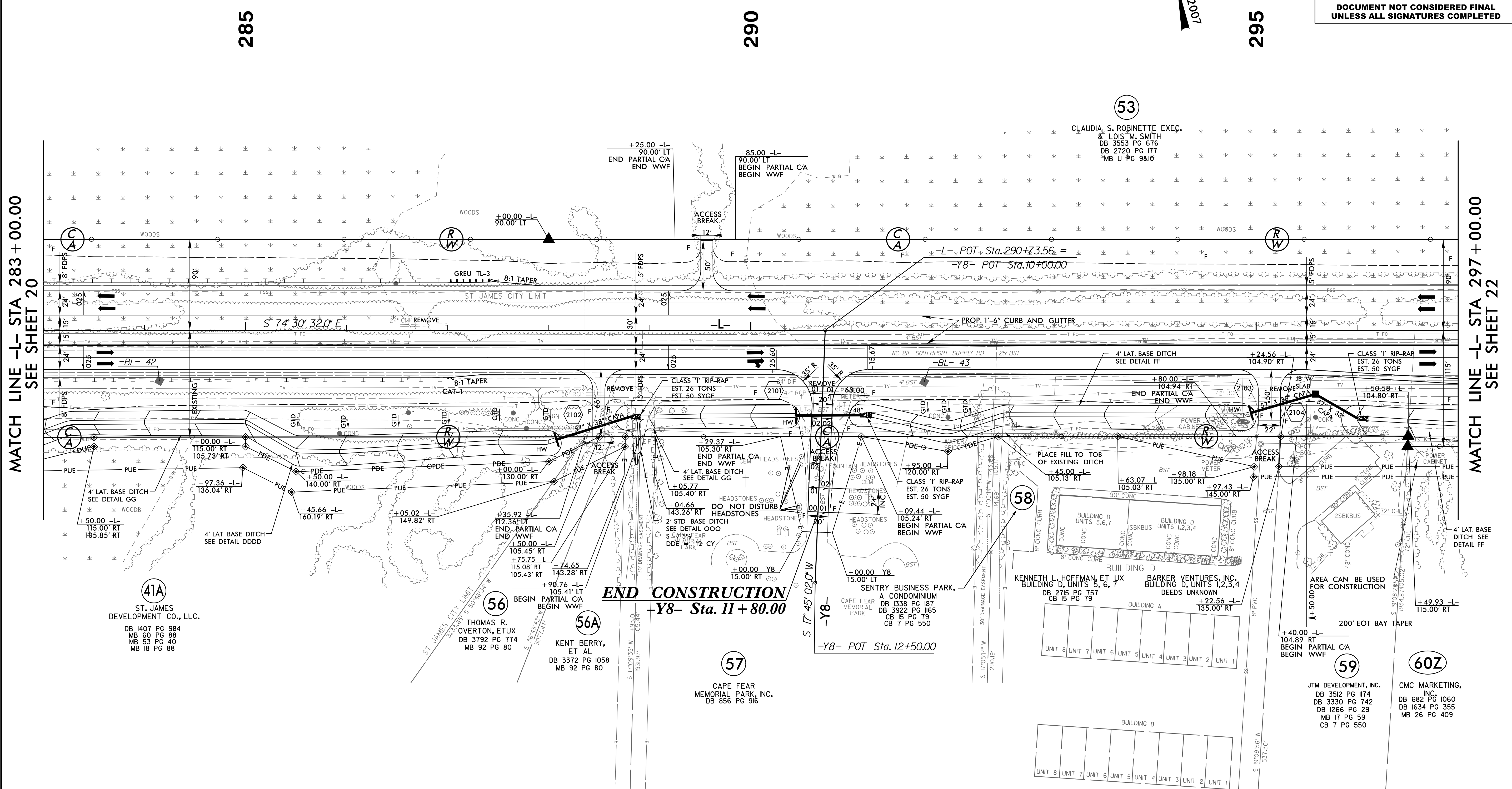
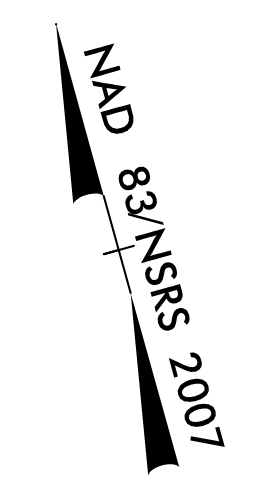
MATCH LINE -L- STA 283 + 00.00  
SEE SHEET 21

- NOTE:**
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
  2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- PROFILE, SEE SHEET 49  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3



PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>21</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL          UNLESS ALL SIGNATURES COMPLETED</b>	



MATCH LINE -L- STA 283 + 00.00  
SEE SHEET 20

MATCH LINE -L- STA 297 + 00.00  
SEE SHEET 22

**NOTE:**

1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- PROFILE, SEE SHEET 49  
 FOR -Y8- PROFILE, SEE SHEET 62  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3

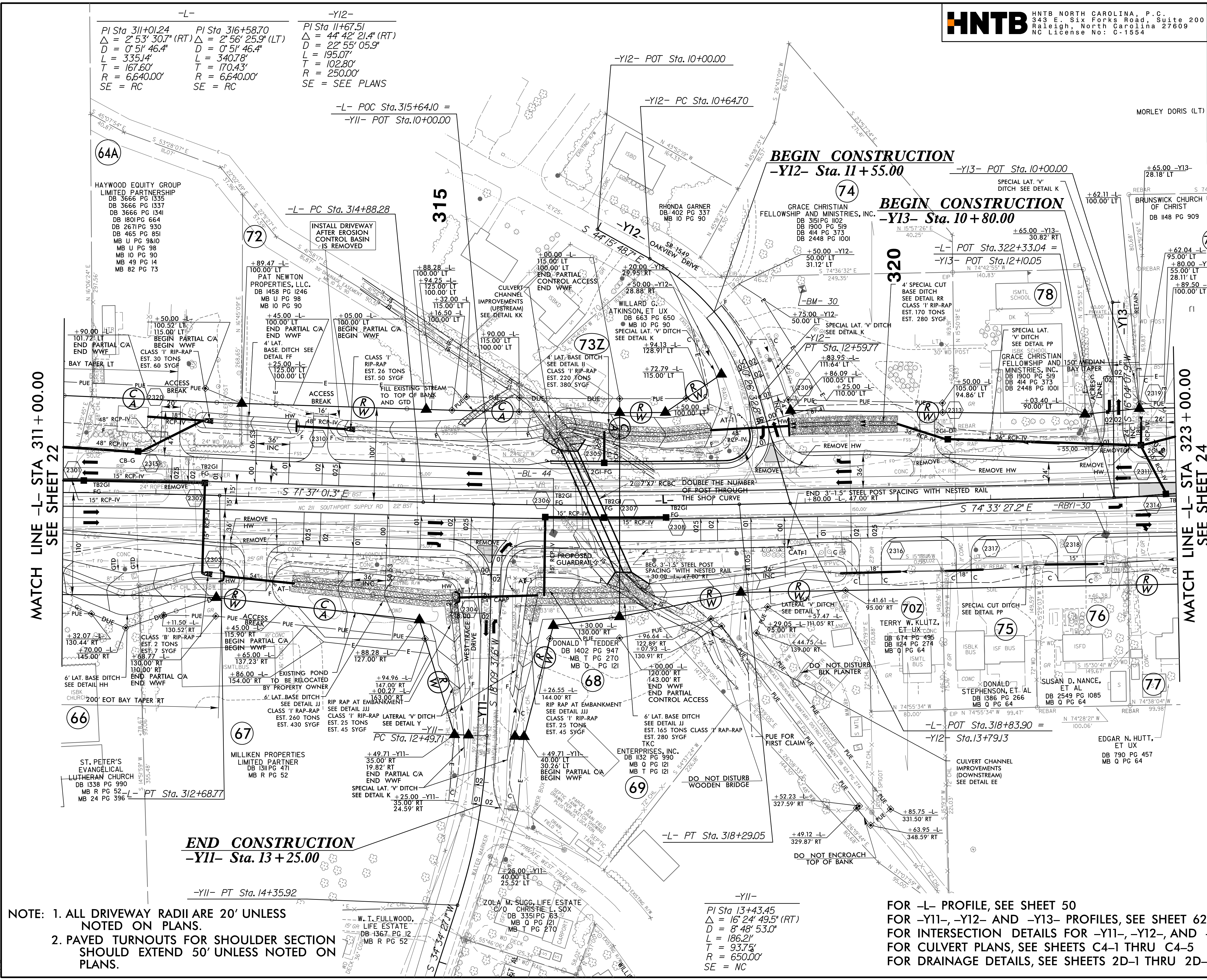






5/14/2017

PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>23</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



MATCH LINE -L- STA 311 + 00.00  
SEE SHEET 22

MATCH LINE -L- STA 323 + 00.00  
SEE SHEET 24

<b>-L-</b>	<b>-Y12-</b>
PI Sta 311+01.24 Δ = 2° 53' 30.7" (RT) D = 0° 51' 46.4" L = 335.14' T = 167.60' R = 6,640.00' SE = RC	PI Sta 11+67.51 Δ = 44° 42' 21.4" (RT) D = 22° 55' 05.9" L = 195.07' T = 102.80' R = 250.00' SE = SEE PLANS

-L- POC Sta.315+64.10 =  
-Y11- POT Sta.10+00.00

-Y12- POT Sta.10+00.00

-Y12- PC Sta.10+64.70

**BEGIN CONSTRUCTION**  
-Y12- Sta. 11 + 55.00

**BEGIN CONSTRUCTION**  
-Y13- Sta. 10 + 80.00

**END CONSTRUCTION**  
-Y11- Sta. 13 + 25.00

-Y11- PT Sta. 14 + 35.92

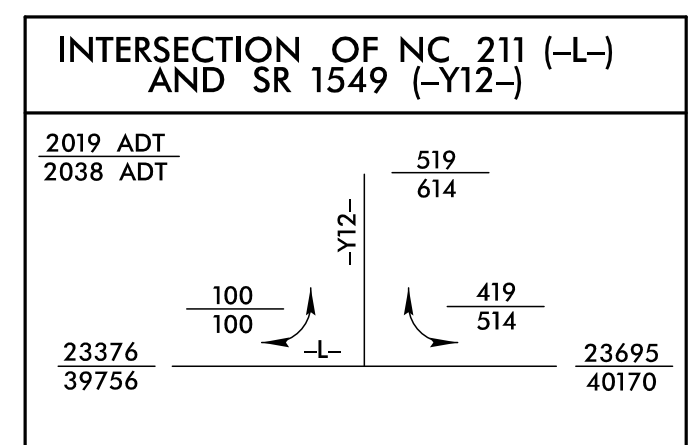
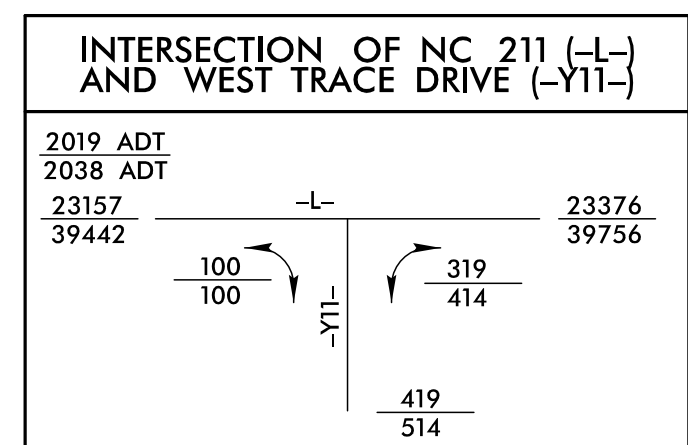
-L- PT Sta. 318 + 29.05

-Y11-

PI Sta 13+43.45 Δ = 16° 24' 49.5" (RT) D = 8° 48' 53.0" L = 186.21' T = 93.73' R = 650.00' SE = NC
--

FOR -L- PROFILE, SEE SHEET 50  
FOR -Y11-, -Y12- AND -Y13- PROFILES, SEE SHEET 62  
FOR INTERSECTION DETAILS FOR -Y11-, -Y12-, AND -Y13-, SEE SHEET 2B-3  
FOR CULVERT PLANS, SEE SHEETS C4-1 THRU C4-5  
FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3

NOTE: 1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.  
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.



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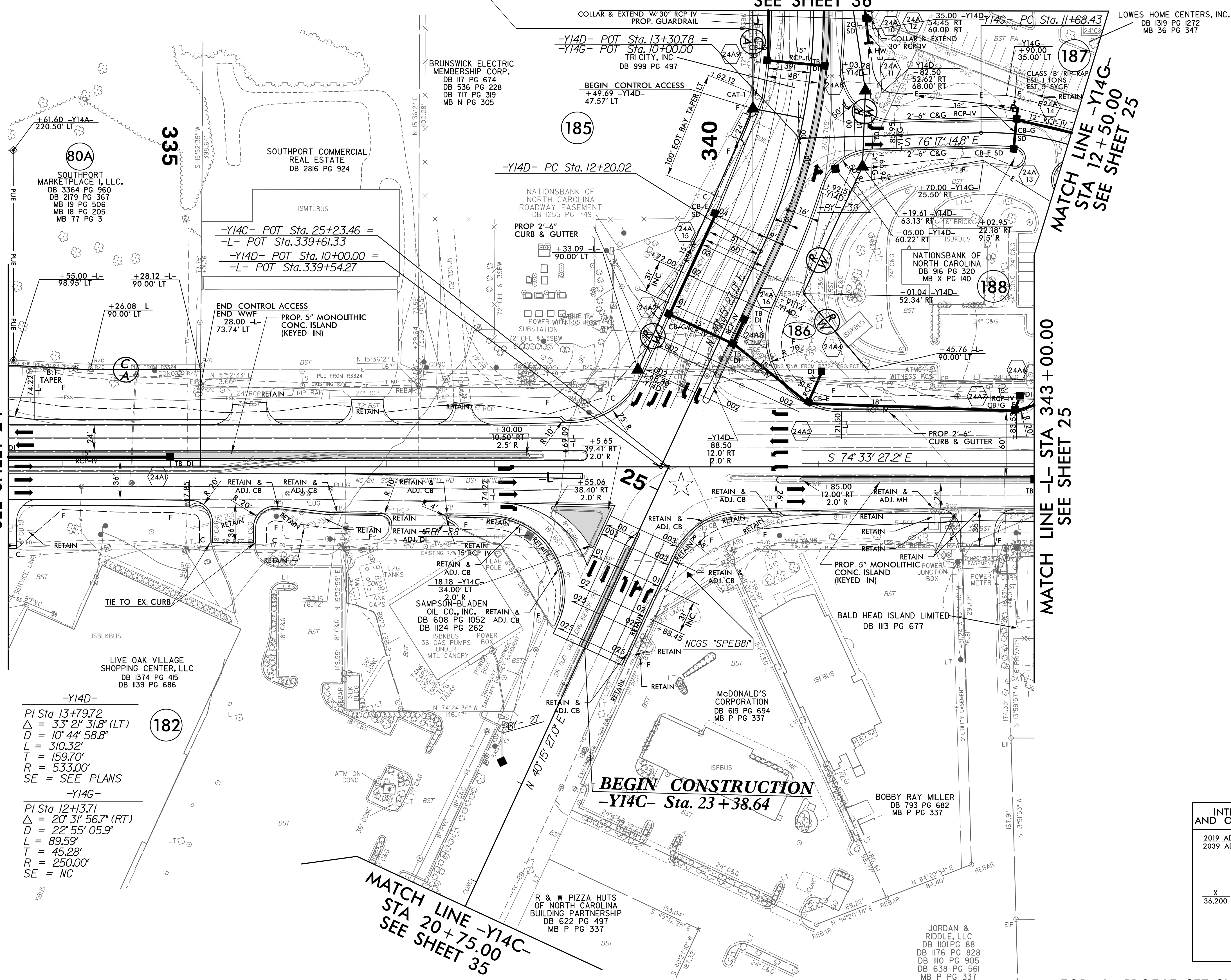
PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>24A</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

**DO NOT DISTURB FENCE AROUND BRUNSWICK ELECTRIC PARCEL**

**MATCH LINE -Y14D- STA 14 + 50.00  
SEE SHEET 36**

**MATCH LINE -L- STA 333 + 50.00  
SEE SHEET 24**

**MATCH LINE -L- STA 343 + 00.00  
SEE SHEET 25**



**-Y14D-**  
 PI Sta 13+79.72  
 $\Delta = 33' 21'' 31.8''$  (LT)  
 $D = 10' 44'' 58.8''$   
 $L = 310.32'$   
 $T = 159.70'$   
 $R = 533.00'$   
 SE = SEE PLANS

**-Y14C-**  
 PI Sta 12+13.71  
 $\Delta = 20' 31'' 56.7''$  (RT)  
 $D = 22' 55'' 05.9''$   
 $L = 89.59'$   
 $T = 45.28'$   
 $R = 250.00'$   
 SE = NC

**MATCH LINE -Y14C- STA 20 + 75.00  
SEE SHEET 35**

INTERSECTION OF NC 211 (-L-) AND OLD LONGBEACH RD (-Y14C-)

2019 ADT	X	-Y14D-	X
2039 ADT	13,500	28,800	8,500
	X		X
	36,200		38,100
	X		X
	4,500		11,400
		-Y14C-	X
			22,700

**NOTE: 1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.  
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.**

**FOR -L- PROFILE, SEE SHEET 51  
FOR -Y14C- AND -Y14D- PROFILE, SEE SHEET 65  
FOR -Y14G- PROFILE, SEE SHEET 66  
FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3**



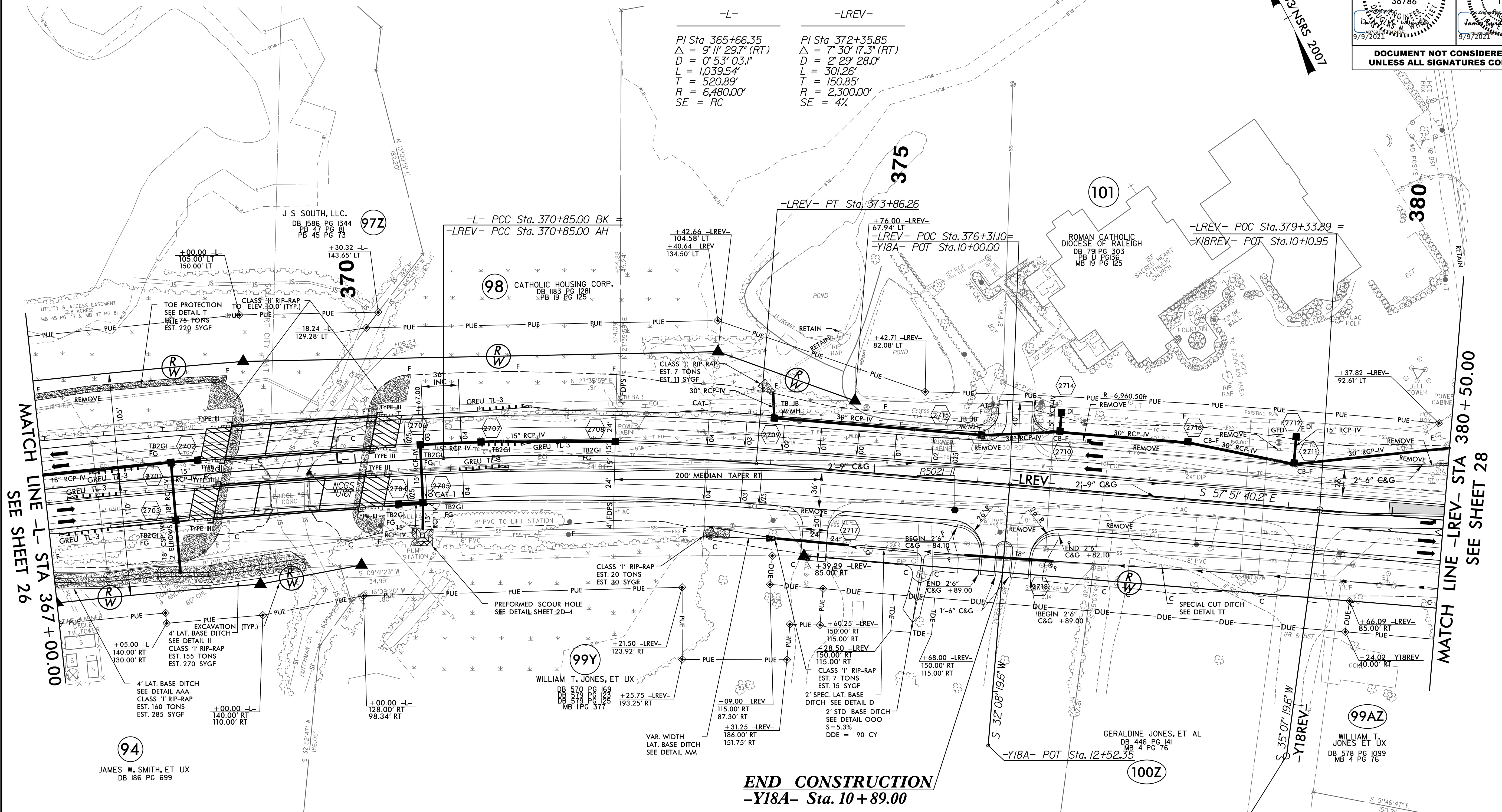
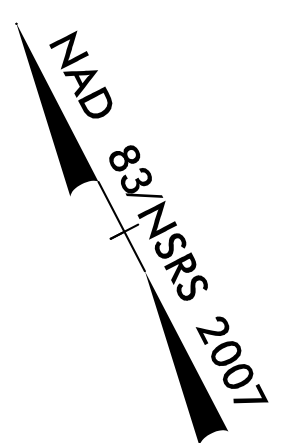








PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>27</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



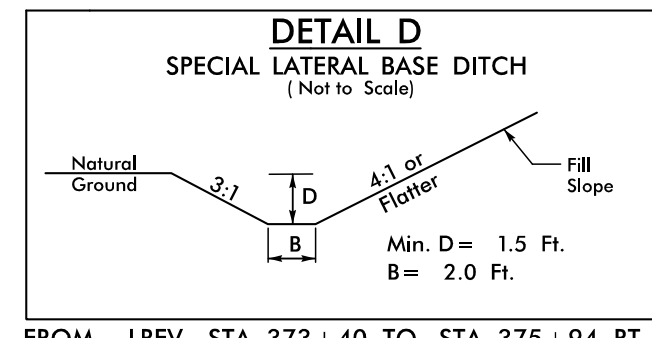
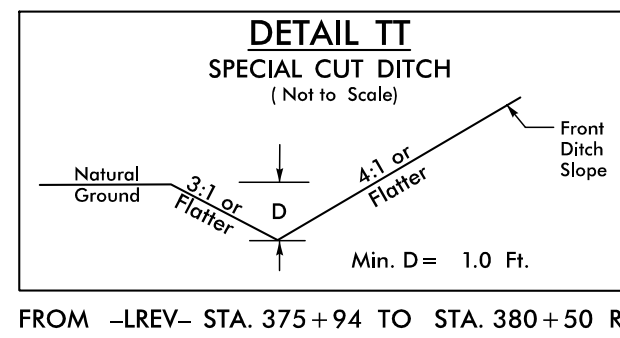
-L-                      -LREV-

PI Sta 365+66.35      PI Sta 372+35.85  
 $\Delta = 9' 11'' 29.7'' (RT)$        $\Delta = 7' 30'' 17.3'' (RT)$   
 $D = 0' 53' 03.1''$                $D = 2' 29' 28.0''$   
 $L = 1,039.54'$                    $L = 301.26'$   
 $T = 520.89'$                      $T = 150.85'$   
 $R = 6,480.00'$                    $R = 2,300.00'$   
 $SE = RC$                          $SE = 4\%$

MATCH LINE -L- STA 367+00.00  
SEE SHEET 26

MATCH LINE -LREV- STA 380+50.00  
SEE SHEET 28

**END CONSTRUCTION**  
**-Y18A- Sta. 10+89.00**



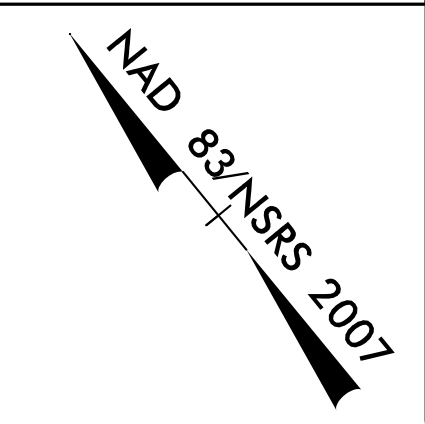
**NOTE:**  
 1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.  
 2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- & -LREV- PROFILE, SEE SHEET 52  
 FOR -Y18A- PROFILE, SEE SHEET 67  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3  
 FOR STRUCTURE PLANS, SEE SHEETS S1-1 THRU S1-38  
 FOR STRUCTURE PLANS, SEE SHEETS S2-1 THRU S2-38  
 FOR BRIDGE DETAIL SKETCH, SEE SHEET 2B-6

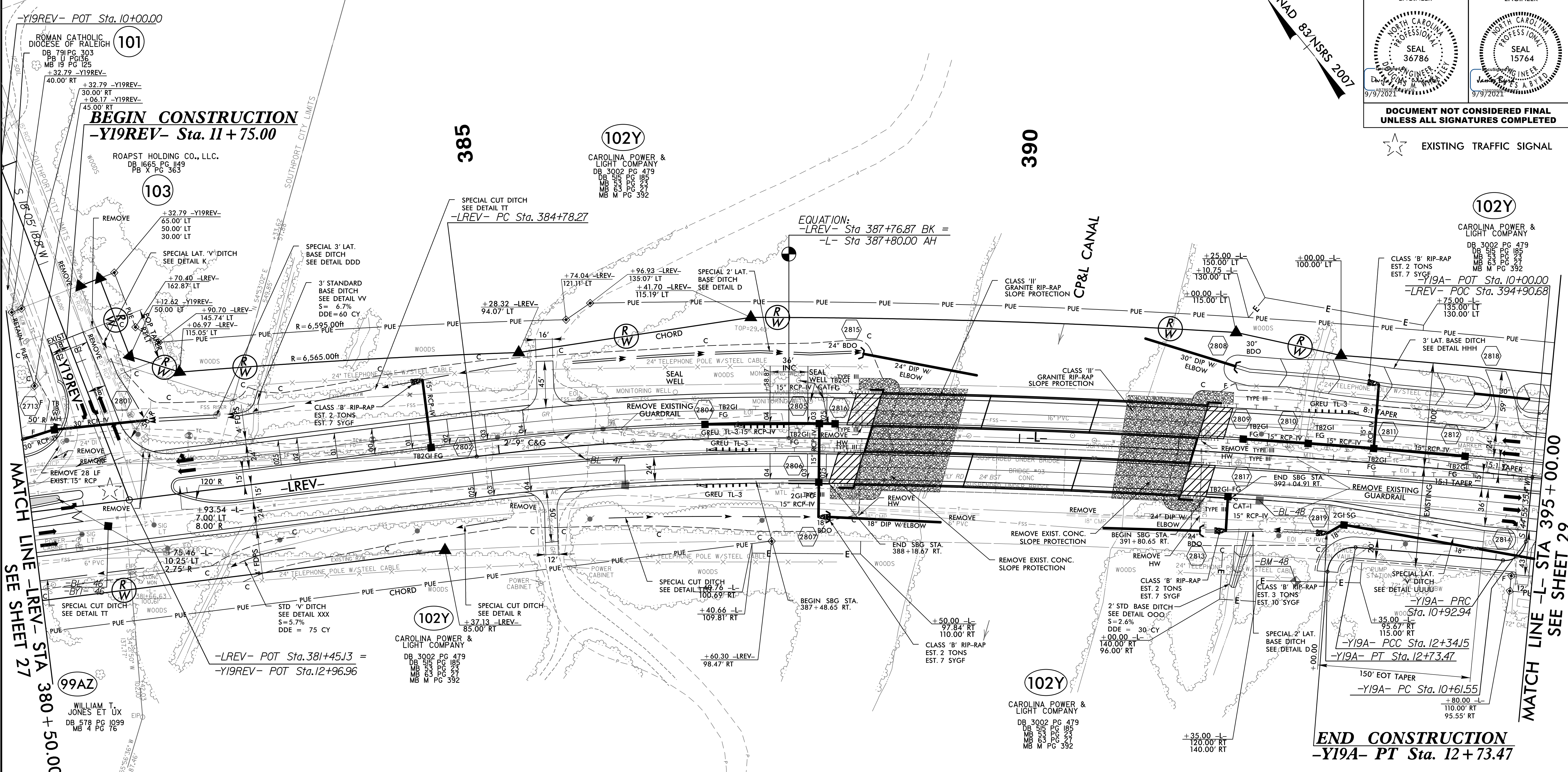


5/14/2021

PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>28</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



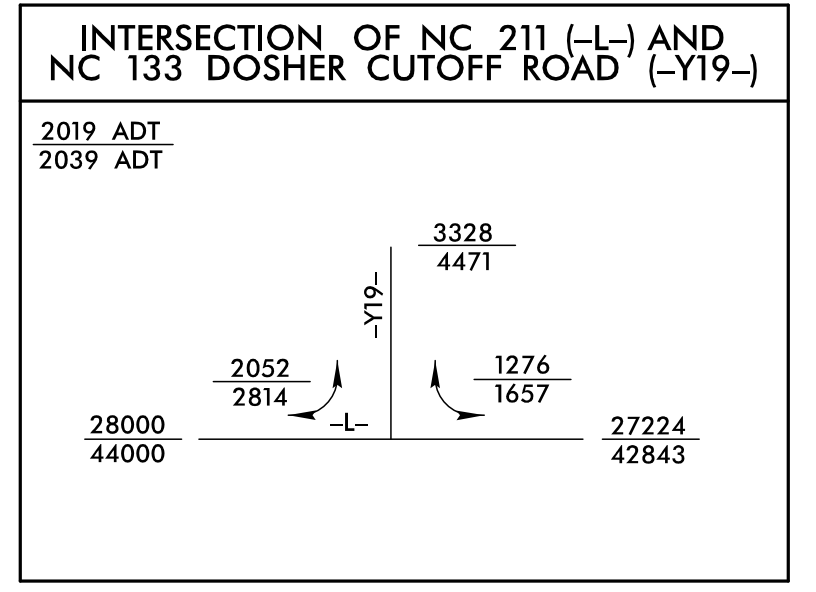
EXISTING TRAFFIC SIGNAL



MATCH LINE -LREV- STA 380 + 50.00  
SEE SHEET 27

MATCH LINE -L- STA 395 + 00.00  
SEE SHEET 29

-LREV-	-L-	-Y19A-
PI Sta 386+27.78	PI Sta 397+38.92	PI Sta 10+81.53
Δ = 7' 26" 18.8" (RT)	Δ = 14' 34" 20.0" (RT)	Δ = 89' 55" 24.8" (RT)
D = 2' 29" 28.0"	D = 0' 45" 50.2"	D = 286' 28" 44.0"
L = 298.60'	L = 1907.50'	L = 31.39'
T = 149.51'	T = 958.92'	T = 19.97'
R = 2,300.00'	R = 7,500.00'	R = 20.00'
SE = 4%	SE = RC	



**NOTE:**  
 1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.  
 2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- & -LREV- PROFILE, SEE SHEETS 52 & 53  
 FOR -Y19REV- PROFILE, SEE SHEET 67  
 FOR BRIDGE DETAIL SHEET, SEE SHEET 2B-6  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3  
 FOR STRUCTURE PLANS, SEE SHEETS S5-1 THRU S6-39

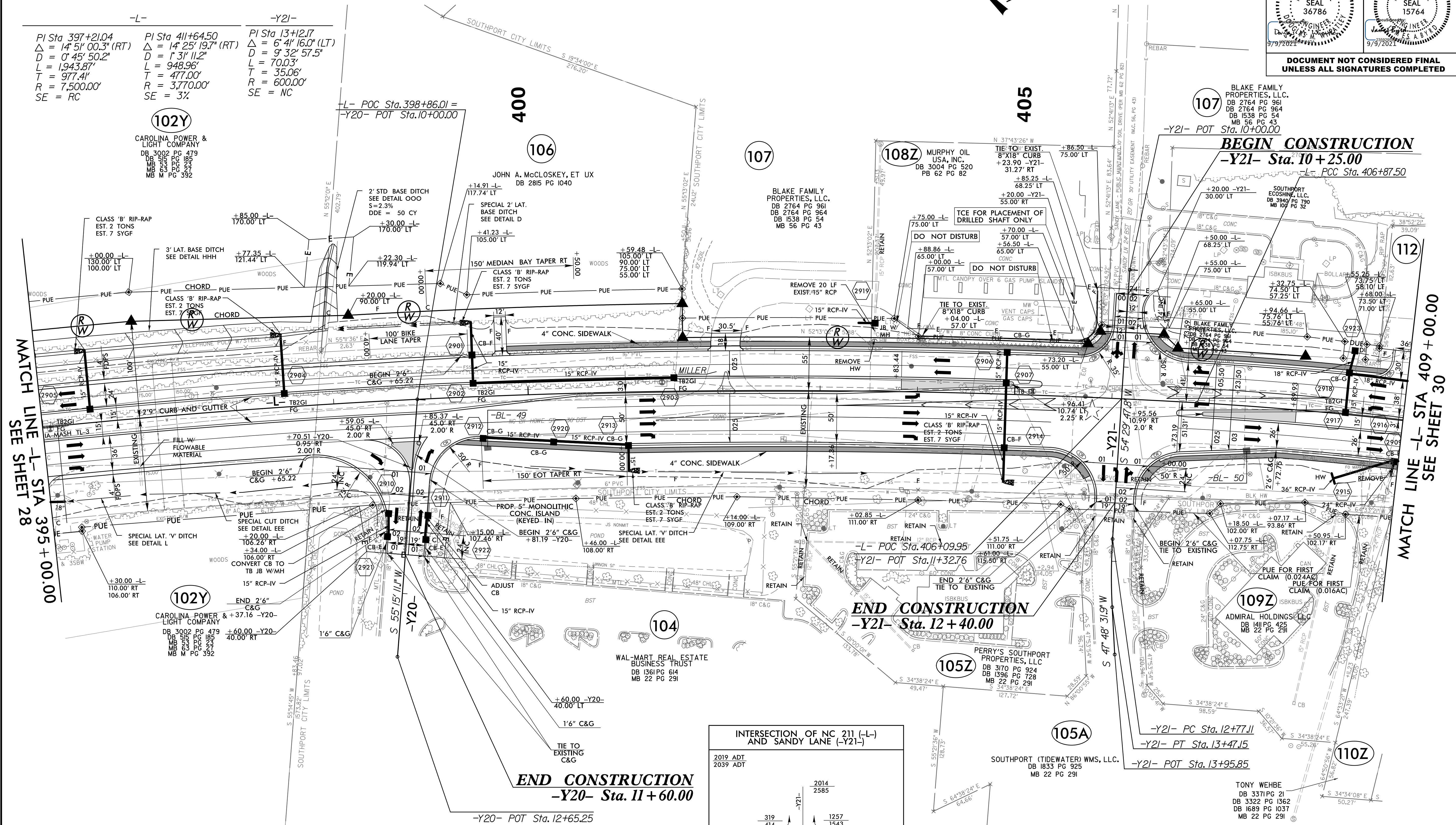
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PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>29</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

NAD 83/NRS 2007

EXISTING TRAFFIC SIGNAL



-L-	-Y2I-
PI Sta 397+21.04	PI Sta 411+64.50
$\Delta = 14' 51'' 00.3''$ (RT)	$\Delta = 14' 25'' 19.7''$ (RT)
$D = 0' 45'' 50.2''$	$D = 1' 31'' 11.2''$
$L = 1,943.87'$	$L = 948.96'$
$T = 977.41'$	$T = 477.00'$
$R = 7,500.00'$	$R = 3,770.00'$
$SE = RC$	$SE = NC$

**102Y**  
CAROLINA POWER & LIGHT COMPANY  
DB 3002 PG 479  
MB 315 PG 185  
MB 316 PG 185  
MB 317 PG 185  
MB 318 PG 185  
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MB 392 PG 185

MATCH LINE -L- STA 395 + 00.00  
SEE SHEET 28

MATCH LINE -L- STA 409 + 00.00  
SEE SHEET 30

INTERSECTION OF NC 211 (-L-) AND SANDY LANE (-Y2I-)

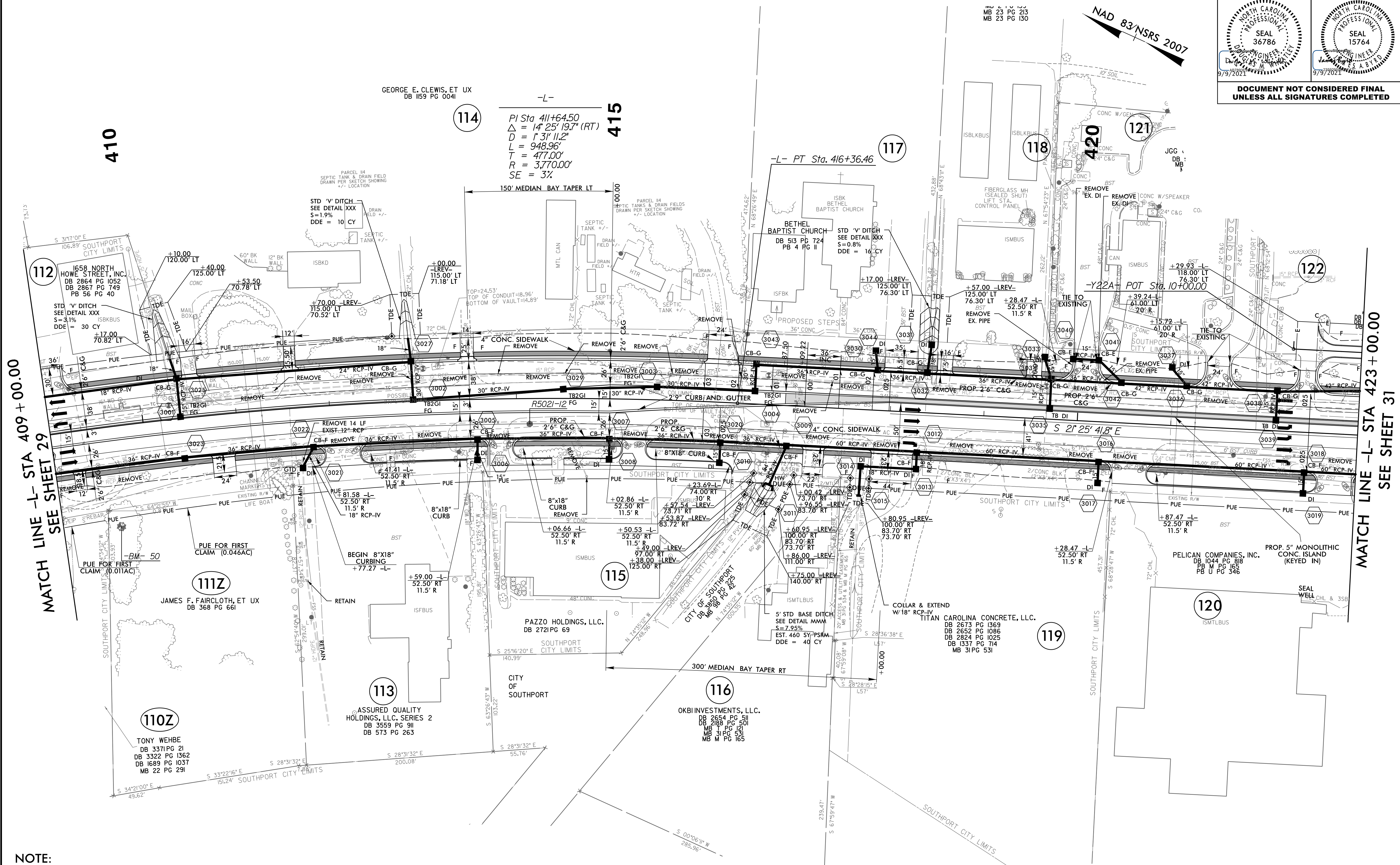
2019 ADT 2039 ADT		2014 2585	
	319 414		1257 1543
22280 36185		2376 2757	
			24476 39685
			6418 8513

- NOTE:**
- ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
  - PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- PROFILE, SEE SHEET 53  
FOR -Y20- & -Y21- PROFILES, SEE SHEET 68  
FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3



PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>30</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



- NOTE:**
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
  2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -L- PROFILE, SEE SHEET 54  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3

22-JUL-2021 09:57  
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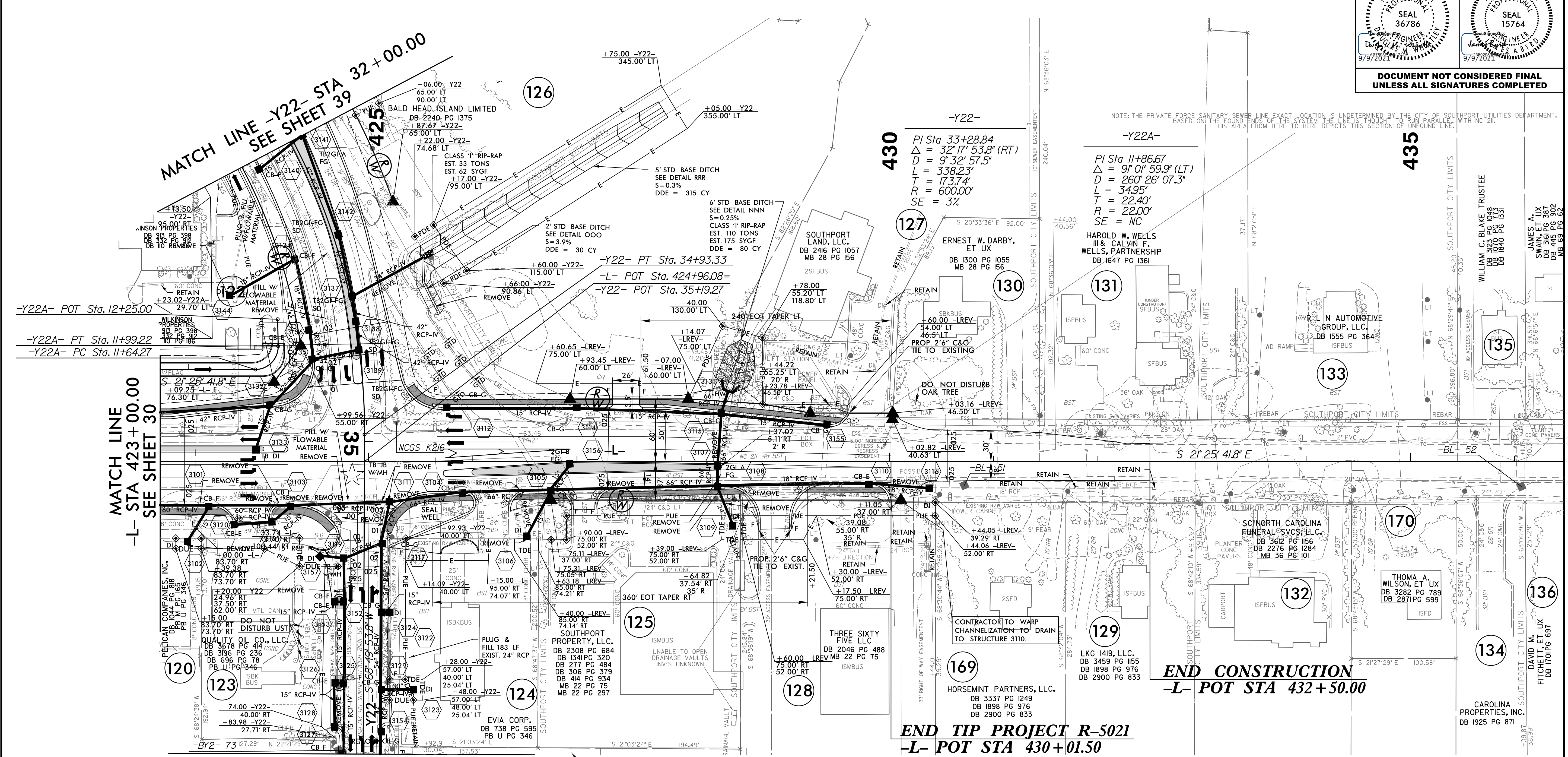


PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>31</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

**DO NOT DISTURB THE MONUMENT  
"NCGS K216".**

NAD 83/NSRS 2007

EXISTING TRAFFIC SIGNAL



NOTE: THE PRIVATE FORCE SANITARY SEWER LINE EXACT LOCATION IS UNDETERMINED BY THE CITY OF SOUTHPORT UTILITIES DEPARTMENT. BASED ON THE FOUND ENDS OF THE SYSTEM THE LINE IS THOUGHT TO RUN PARALLEL WITH NC 216. THIS AREA FROM HERE TO HERE DEPICTS THIS SECTION OF UNFOUND LINE.

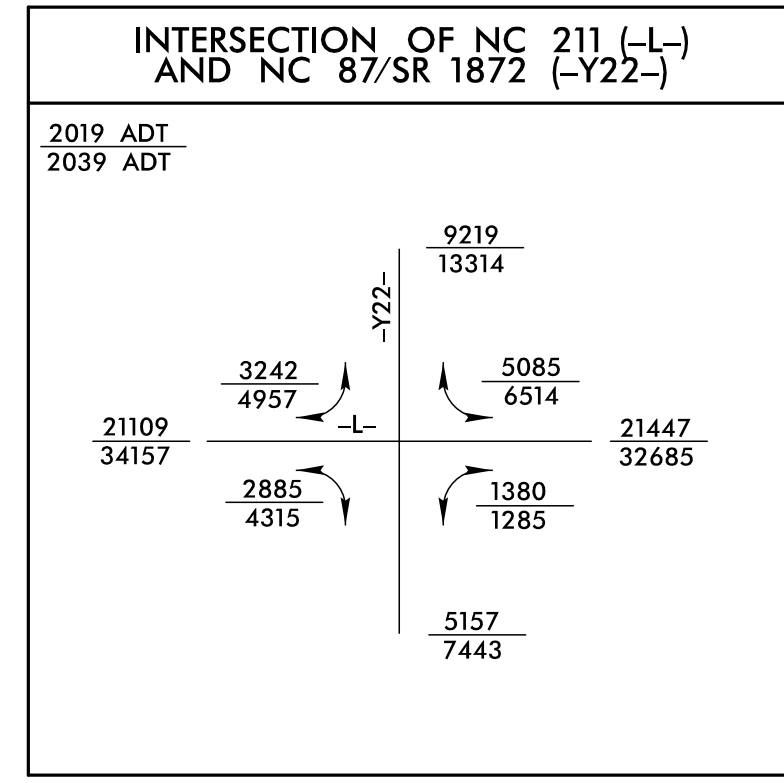
-Y22A- POT Sta. 12+25.00  
-Y22A- PT Sta. 11+99.22  
-Y22A- PC Sta. 11+64.27

MATCH LINE  
-L- STA 423+00.00  
SEE SHEET 30

MATCH LINE -Y22- STA 38+00.00  
SEE SHEET 40

**END TIP PROJECT R-5021  
-L- POT STA 430+01.50**

**END CONSTRUCTION  
-L- POT STA 432+50.00**



167  
SMITHVILLE CROSSING, LLC.  
DB 2503 PG 425  
MB 13 PG 107  
MB 22 PG 75  
MB U PG 346

- NOTE:
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
  2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

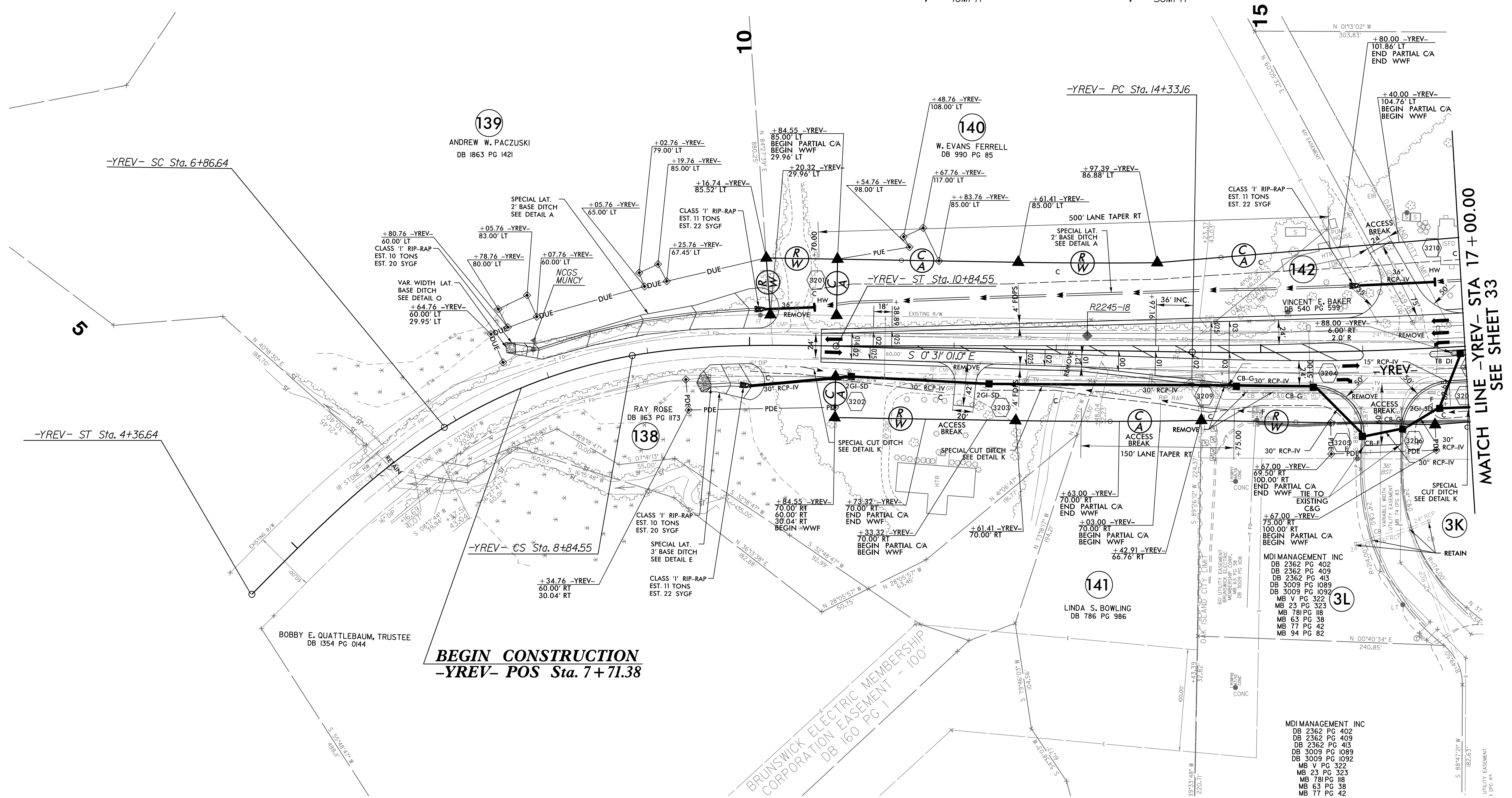
FOR -L- PROFILE, SEE SHEET 54  
FOR -Y22- PROFILE, SEE SHEET 69  
FOR INTERSECTION DETAIL, SEE SHEET 2B-4  
FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3



PROJECT REFERENCE NO.	SHEET NO.
R-5021	32
RW SHEET NO.	33
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

NAD 83/NSRS 2007

Pls Sta 6+03.82 $\Theta_s = 13^\circ 45' 00.0''$ $L_s = 250.00'$ $LT = 167.17'$ $ST = 83.79'$	Pls Sta 7+86.81 $\Delta = 21^\circ 46' 11.3'' (RT)$ $D = 11^\circ 00' 00.0''$ $L = 197.91'$ $T = 100.16'$ $R = 520.87'$ $SE = 6\%$ $V = 40MPH$	Pls Sta 9+51.45 $\Theta_s = 11^\circ 00' 00.0''$ $L_s = 200.00'$ $LT = 133.59'$ $ST = 66.90'$	Pls Sta 18+41.89 $\Delta = 13^\circ 23' 50.4'' (LT)$ $D = 1^\circ 38' 47.1''$ $L = 813.72'$ $R = 408.72'$ $R = 3,480.00'$ $SE = 3\%$ $V = 50MPH$
---	---	---	---



- NOTE:**
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
  2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -YREV- PROFILE, SEE SHEET 55  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3



5/14/2021

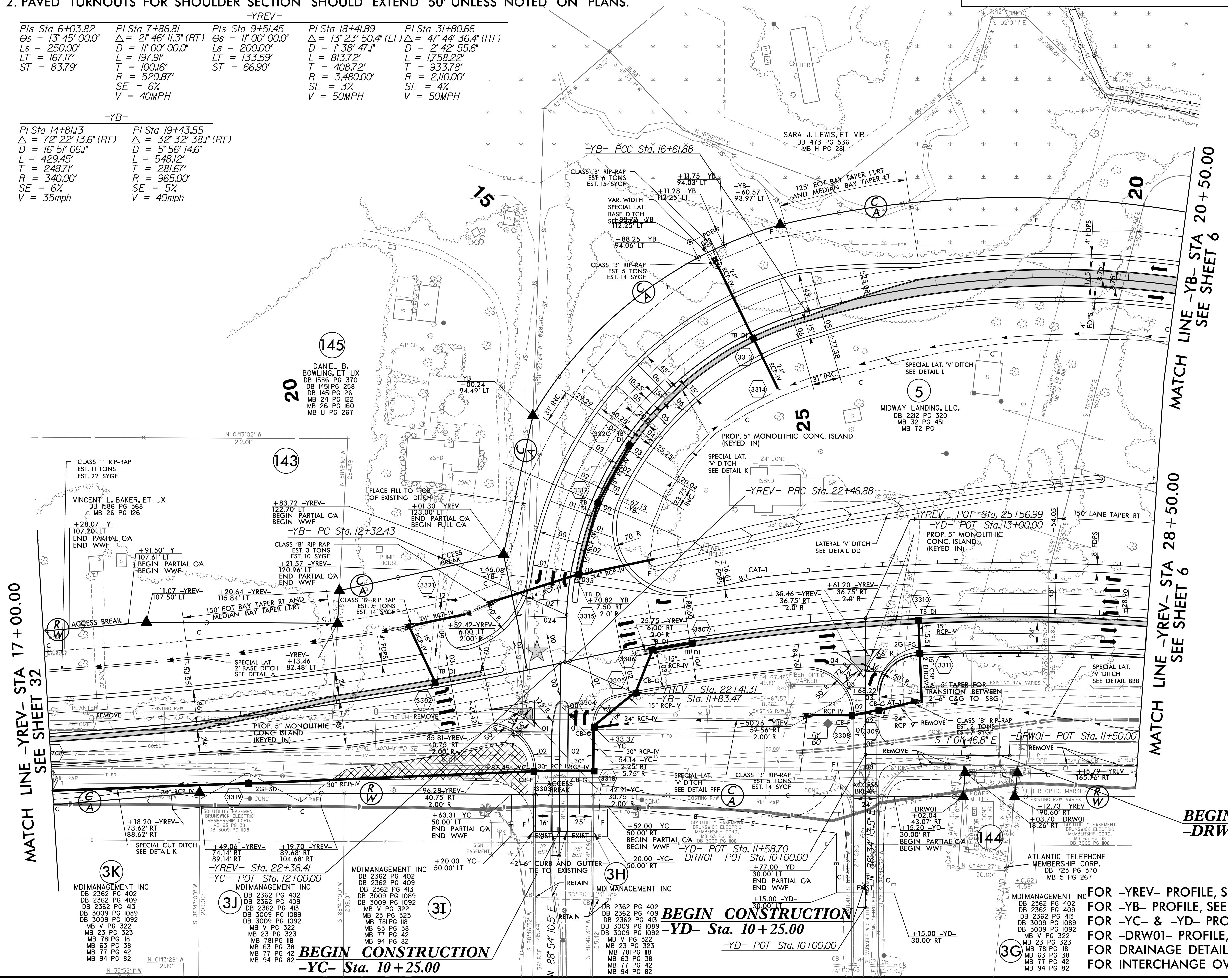
**NOTE:**  
 1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.  
 2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

-YREV-	
PI Sta 6+03.82 Δ = 13' 45" 00.0" Ls = 250.00' LT = 167.17' ST = 83.79'	PI Sta 7+86.81 Δ = 21' 46" 11.3" (RT) D = 11' 00" 00.0" L = 197.91' T = 100.16' R = 520.87' SE = 6% V = 40MPH
PI Sta 9+51.45 Δ = 11' 00" 00.0" Ls = 200.00' LT = 133.59' ST = 66.90'	PI Sta 18+41.89 Δ = 13' 23" 50.4" (LT) D = 1' 38" 47.1" L = 813.72' T = 408.72' R = 3,480.00' SE = 3% V = 50MPH
PI Sta 31+80.66 Δ = 47' 44" 36.4" (RT) D = 2' 42" 55.6" L = 1,758.22' T = 933.78' R = 2,110.00' SE = 4% V = 50MPH	

-YB-	
PI Sta 14+81.13 Δ = 72' 22" 13.6" (RT) D = 16' 51" 06.1" L = 429.45' T = 248.71' R = 340.00' SE = 6% V = 35mph	PI Sta 19+43.55 Δ = 32' 32" 38.1" (RT) D = 5' 56" 14.6" L = 548.12' T = 281.67' R = 965.00' SE = 5% V = 40mph

PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>33</b>
RW SHEET NO. <b>34</b>	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	SEAL 36786
	SEAL 15764
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

NAD 83/NSRS 2007  
 ★ PROPOSED TRAFFIC SIGNAL



MATCH LINE -YREV- STA 17 + 00.00  
 SEE SHEET 32

MATCH LINE -YB- STA 20 + 50.00  
 SEE SHEET 6

MATCH LINE -YREV- STA 28 + 50.00  
 SEE SHEET 6

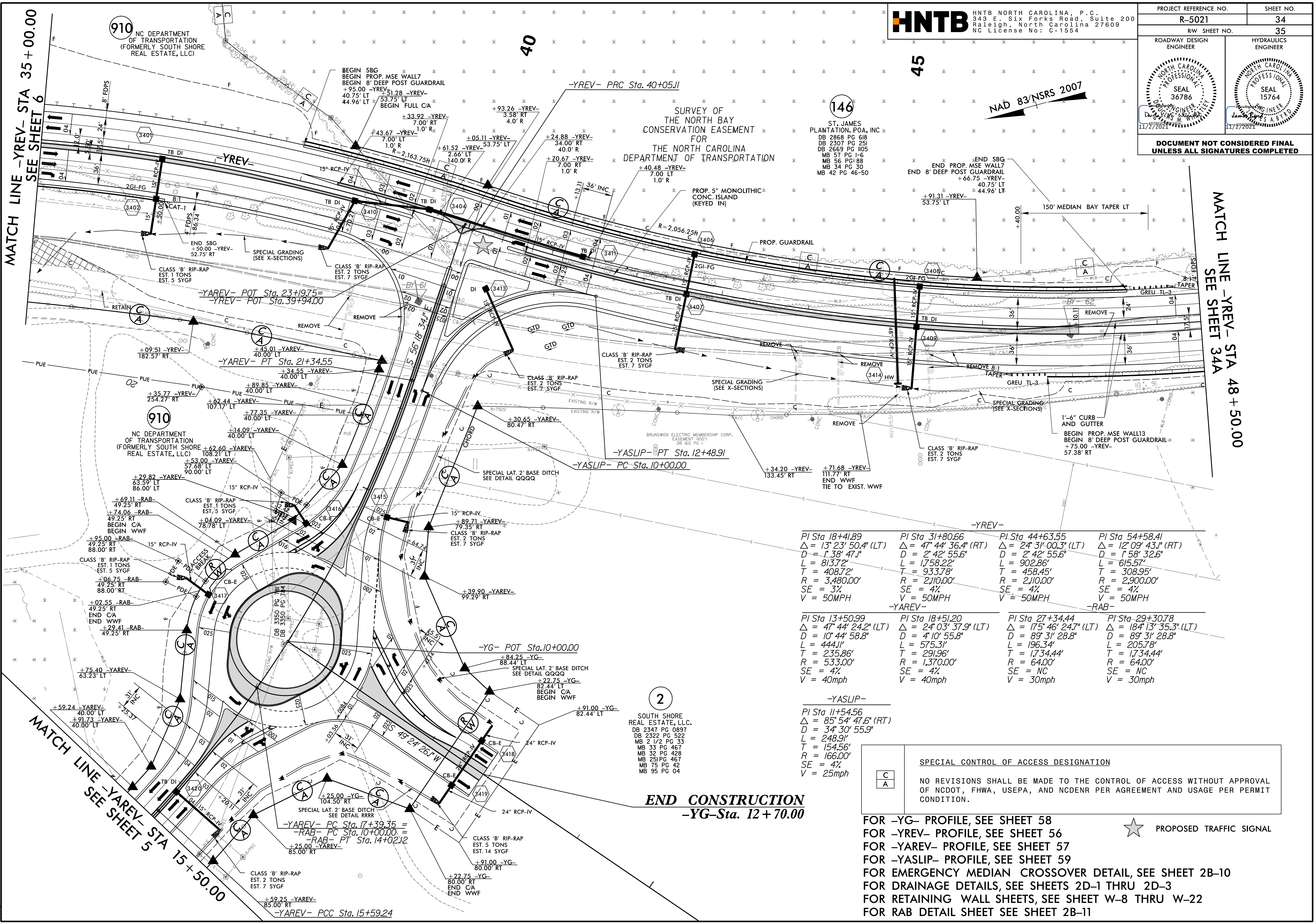
22-JUL-2021 09:57  
 Regdway P-co, NR-5021.LRDY\_PSH33.dgn

FOR -YREV- PROFILE, SEE SHEET 55  
 FOR -YB- PROFILE, SEE SHEET 57  
 FOR -YC- & -YD- PROFILES, SEE SHEET 58  
 FOR -DRW01- PROFILE, SEE SHEET 58  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3  
 FOR INTERCHANGE OVERVIEW, SEE SHEET 2B-7



5/14/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5021	34
RW SHEET NO.	35
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



PI Sta 18+41.89 $\Delta = 13' 23' 50.4''$ (LT) $D = 1' 38' 47.1''$ $L = 813.72'$ $T = 408.72'$ $R = 3,480.00'$ $SE = 3\%$ $V = 50MPH$	PI Sta 31+80.66 $\Delta = 47' 44' 36.4''$ (RT) $D = 2' 42' 55.6''$ $L = 1,758.22'$ $T = 933.78'$ $R = 2,110.00'$ $SE = 4\%$ $V = 50MPH$	PI Sta 44+63.55 $\Delta = 24' 31' 00.3''$ (LT) $D = 2' 42' 55.6''$ $L = 902.86'$ $T = 458.45'$ $R = 2,110.00'$ $SE = 4\%$ $V = 50MPH$	PI Sta 54+58.41 $\Delta = 12' 09' 43.1''$ (RT) $D = 1' 58' 32.6''$ $L = 615.57'$ $T = 308.95'$ $R = 2,900.00'$ $SE = 4\%$ $V = 50MPH$
--	--	--	--

PI Sta 13+50.99 $\Delta = 47' 44' 24.2''$ (LT) $D = 10' 44' 58.8''$ $L = 444.11'$ $T = 235.86'$ $R = 533.00'$ $SE = 4\%$ $V = 40mph$	PI Sta 18+51.20 $\Delta = 24' 03' 37.9''$ (LT) $D = 4' 10' 55.8''$ $L = 575.31'$ $T = 291.96'$ $R = 1,370.00'$ $SE = 4\%$ $V = 40mph$	PI Sta 27+34.44 $\Delta = 175' 46' 24.7''$ (LT) $D = 89' 31' 28.8''$ $L = 196.34'$ $T = 173.444'$ $R = 64.00'$ $SE = NC$ $V = 30mph$	PI Sta 29+30.78 $\Delta = 184' 13' 35.3''$ (LT) $D = 89' 31' 28.8''$ $L = 205.78'$ $T = 173.444'$ $R = 64.00'$ $SE = NC$ $V = 30mph$
---	--	---	---

-YASLIP-  
 PI Sta 11+54.56  
 $\Delta = 85' 54' 47.6''$  (RT)  
 $D = 34' 30' 55.9''$   
 $L = 248.91'$   
 $T = 154.56'$   
 $R = 166.00'$   
 $SE = 4\%$   
 $V = 25mph$

**SPECIAL CONTROL OF ACCESS DESIGNATION**

**C**  
**A**

NO REVISIONS SHALL BE MADE TO THE CONTROL OF ACCESS WITHOUT APPROVAL OF NCDOT, FHWA, USEPA, AND NCDENR PER AGREEMENT AND USAGE PER PERMIT CONDITION.

**END CONSTRUCTION**  
 -YG- Sta. 12 + 70.00

- FOR -YG- PROFILE, SEE SHEET 58
- FOR -YREV- PROFILE, SEE SHEET 56
- FOR -YAREV- PROFILE, SEE SHEET 57
- FOR -YASLIP- PROFILE, SEE SHEET 59
- FOR EMERGENCY MEDIAN CROSSOVER DETAIL, SEE SHEET 2B-10
- FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3
- FOR RETAINING WALL SHEETS, SEE SHEET W-8 THRU W-22
- FOR RAB DETAIL SHEET SEE SHEET 2B-11

PROPOSED TRAFFIC SIGNAL

02-NOV-2021 14:09  
 \\regdway\p-co\NR-5021.LRDY\_PSH34.dgn



8/17/99

PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>34A</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

NAD 83/NSRS 2007

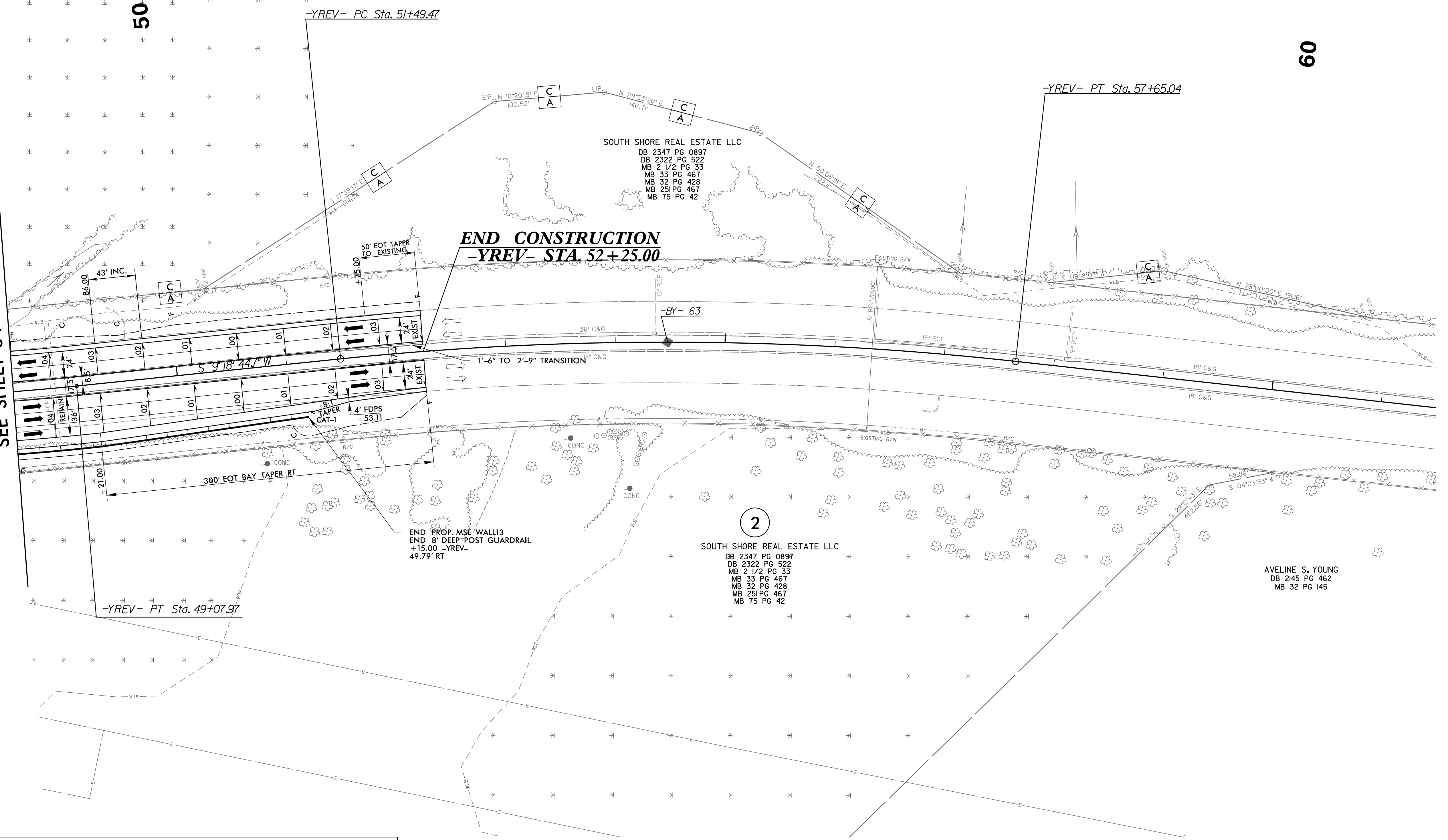
SURVEY OF  
THE NORTH BAY  
CONSERVATION EASEMENT  
FOR  
THE NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

**146**  
ST. JAMES  
PLANTATION, POA, INC  
DB 2868 PG 618  
DB 2307 PG 251  
DB 2669 PG 1105  
MB 57 PG 1-6  
MB 56 PG 88  
MB 34 PG 30  
MB 42 PG 46-50

**55**

**60**

MATCH LINE -YREV- STA 48+50.00  
SEE SHEET 34



<b>C</b> <b>A</b>	<b>SPECIAL CONTROL OF ACCESS DESIGNATION</b> NO REVISIONS SHALL BE MADE TO THE CONTROL OF ACCESS WITHOUT APPROVAL OF NCDOT, FHWA, USEPA, AND NCDENR PER AGREEMENT AND USAGE PER PERMIT CONDITION.
----------------------	--

SOUTH SHORE REAL ESTATE LLC  
DB 2347 PG 0897  
DB 2322 PG 522  
MB 2 1/2 PG 33  
MB 33 PG 467  
MB 32 PG 428  
MB 25 PG 467  
MB 75 PG 42

**2**  
SOUTH SHORE REAL ESTATE LLC  
DB 2347 PG 0897  
DB 2322 PG 522  
MB 2 1/2 PG 33  
MB 33 PG 467  
MB 32 PG 428  
MB 25 PG 467  
MB 75 PG 42

AVELINE S. YOUNG  
DB 2145 PG 462  
MB 32 PG 145

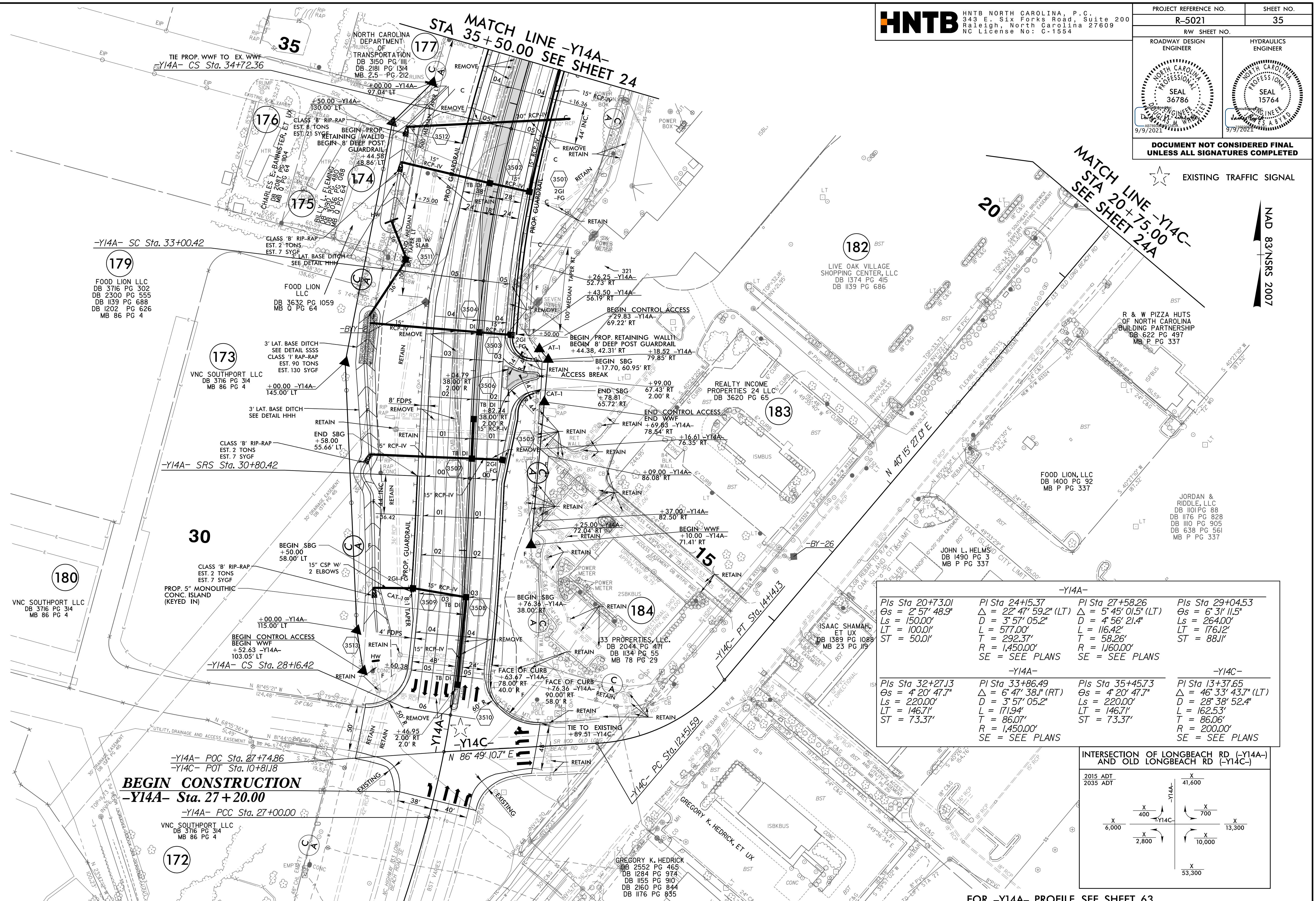
FOR -YREV- PROFILE, SEE SHEET 56  
FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3  
FOR RETAINING WALL PLANS, SEE SHEETS W-18 THRU W-22

02-NOV-2021 14:09  
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HNTB



5/14/2021

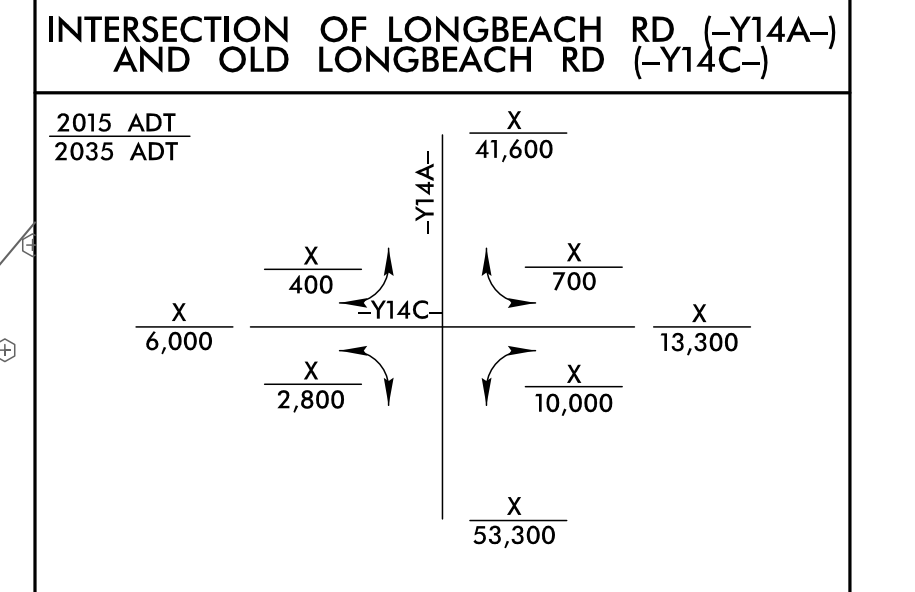
PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>35</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



EXISTING TRAFFIC SIGNAL

NAD 83/NSRS 2007

-Y14A-			
Pls Sta 20+73.01 Os = 2' 57" 48.9" Ls = 150.00' LT = 100.01' ST = 50.01'	Pls Sta 24+15.37 Δ = 22' 47" 59.2" (LT) D = 3' 57" 05.2" L = 577.00' T = 292.37' R = 1,450.00'	Pls Sta 27+58.26 Δ = 5' 45" 01.5" (LT) D = 4' 56" 21.4" L = 116.42' T = 58.26' R = 1,160.00'	Pls Sta 29+04.53 Os = 6' 31" 11.5" Ls = 264.00' LT = 176.12' ST = 88.11'
-Y14C-			
Pls Sta 32+27.13 Os = 4' 20" 47.7" Ls = 220.00' LT = 146.71' ST = 73.37'	Pls Sta 33+86.49 Δ = 6' 47" 38.1" (RT) D = 3' 57" 05.2" L = 171.94' T = 86.07' R = 1,450.00'	Pls Sta 35+45.73 Os = 4' 20" 47.7" Ls = 220.00' LT = 146.71' ST = 73.37'	Pls Sta 13+37.65 Δ = 46' 33" 43.7" (LT) D = 28' 38" 52.4" L = 162.53' T = 86.06' R = 200.00'



**BEGIN CONSTRUCTION**  
**-Y14A- Sta. 27+20.00**  
 -Y14A- POC Sta. 27+74.86  
 -Y14C- POT Sta. 10+81.18  
 -Y14A- PCC Sta. 27+00.00

NOTE: 1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.  
 2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

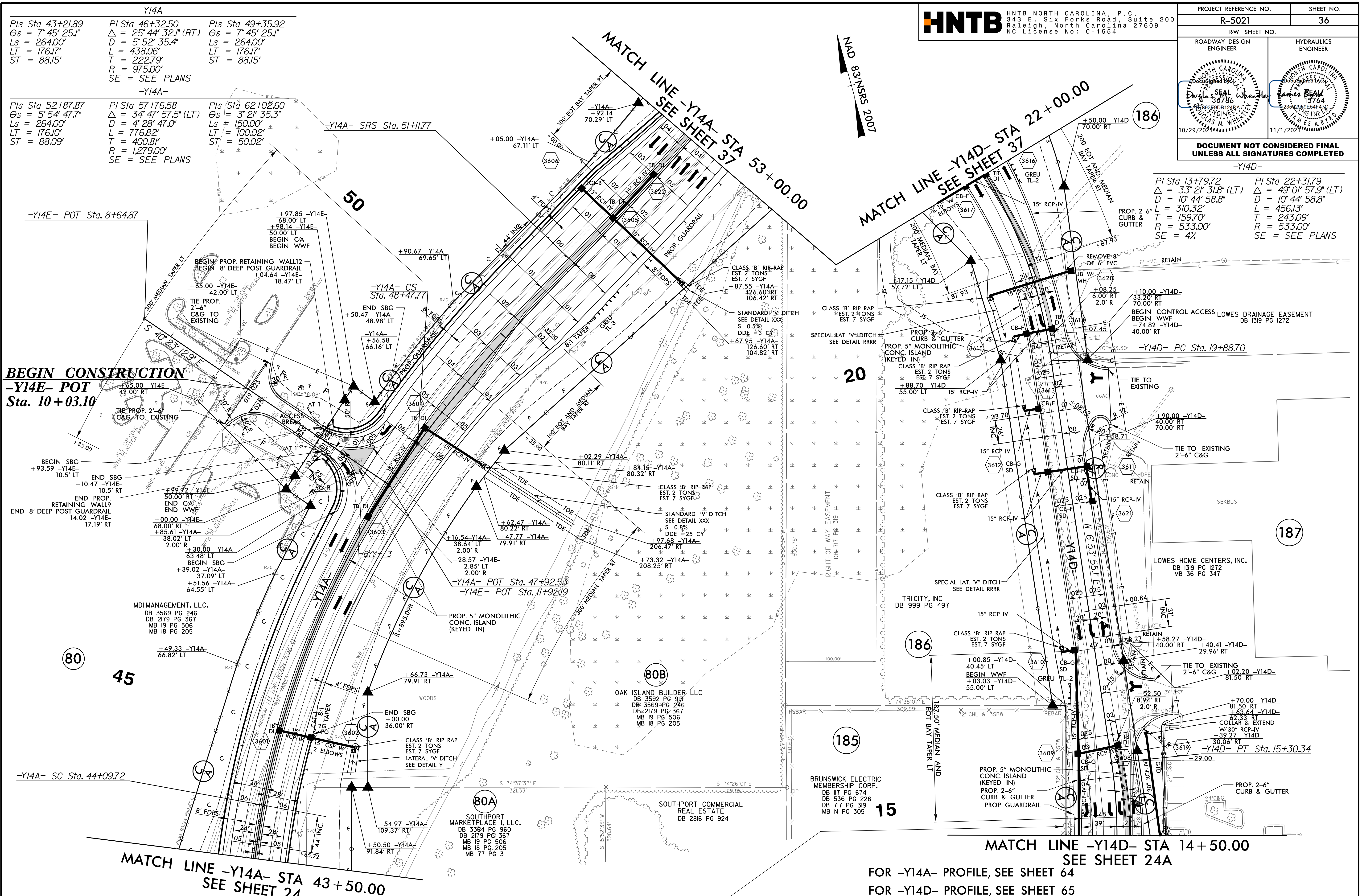
FOR -Y14A- PROFILE, SEE SHEET 63  
 FOR -Y14C- PROFILE, SEE SHEET 65  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3  
 FOR RETAINING WALL PLANS, SEE SHEETS W-8 THRU W-17

22-JUL-2021 09:57  
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5/14/2021 15:49  
Regdway\p-co\NR-5021.LRDY\_PSH36.dgn

PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>36</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<i>David Seal</i> David Seal 36786 Professional Engineer 10/29/2021	<i>James Beal</i> James Beal 15764 Professional Engineer 11/1/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



-Y14A-  
 Pls Sta 43+21.89    Pls Sta 46+32.50    Pls Sta 49+35.92  
 $\Delta s = 7' 45" 25.1"$      $\Delta = 25' 44" 32.1" (RT)$      $\Delta s = 7' 45" 25.1"$   
 $Ls = 264.00'$      $D = 5' 52" 35.4"$      $Ls = 264.00'$   
 $LT = 176.17'$      $L = 438.06'$      $LT = 176.17'$   
 $ST = 88.15'$      $T = 222.79'$      $ST = 88.15'$   
                    $R = 975.00'$   
 SE = SEE PLANS

-Y14A-  
 Pls Sta 52+87.87    Pls Sta 57+76.58    Pls Sta 62+02.60  
 $\Delta s = 5' 54" 47.7"$      $\Delta = 34' 47" 57.5" (LT)$      $\Delta s = 3' 21" 35.3"$   
 $Ls = 264.00'$      $D = 4' 28" 47.0"$      $Ls = 150.00'$   
 $LT = 176.10'$      $L = 776.82'$      $LT = 100.02'$   
 $ST = 88.09'$      $T = 400.81'$      $ST = 50.02'$   
                    $R = 1,279.00'$   
 SE = SEE PLANS

-Y14D-  
 Pls Sta 13+79.72    Pls Sta 22+31.79  
 $\Delta = 33' 21" 31.8" (LT)$      $\Delta = 49' 01" 57.9" (LT)$   
 $D = 10' 44" 58.8"$      $D = 10' 44" 58.8"$   
 $L = 310.32'$      $L = 456.13'$   
 $T = 159.70'$      $T = 243.09'$   
 $R = 533.00'$      $R = 533.00'$   
 SE = 4%    SE = SEE PLANS

**BEGIN CONSTRUCTION**  
 -Y14E- POT  
 Sta. 10+03.10

-Y14A- SC Sta. 44+09.72

MATCH LINE -Y14A- STA 43+50.00  
 SEE SHEET 24

MATCH LINE -Y14D- STA 14+50.00  
 SEE SHEET 24A

NOTE: 1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.  
 2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

DO NOT DISTURB FENCE AROUND BRUNSWICK ELECTRIC PARCEL

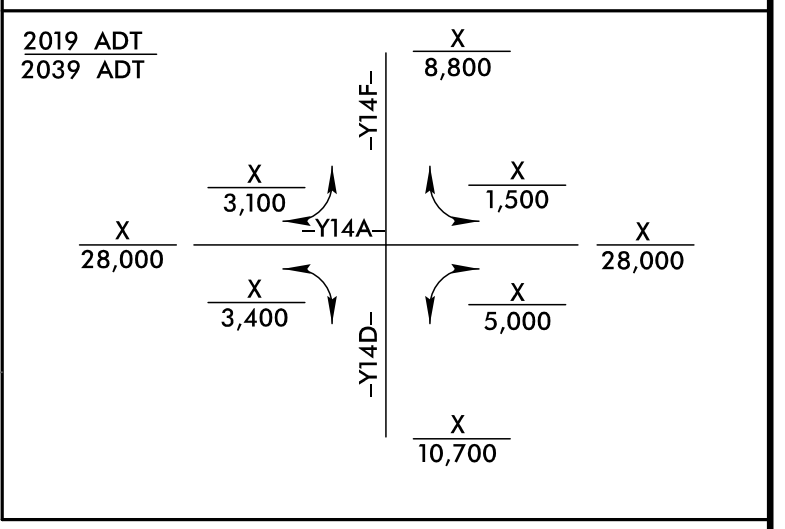
FOR -Y14A- PROFILE, SEE SHEET 64  
 FOR -Y14D- PROFILE, SEE SHEET 65  
 FOR -Y14E- PROFILE, SEE SHEET 66  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3  
 FOR RETAINING WALL PLANS, SEE SHEETS W-8 THRU W-11 & W-18 THRU W-22



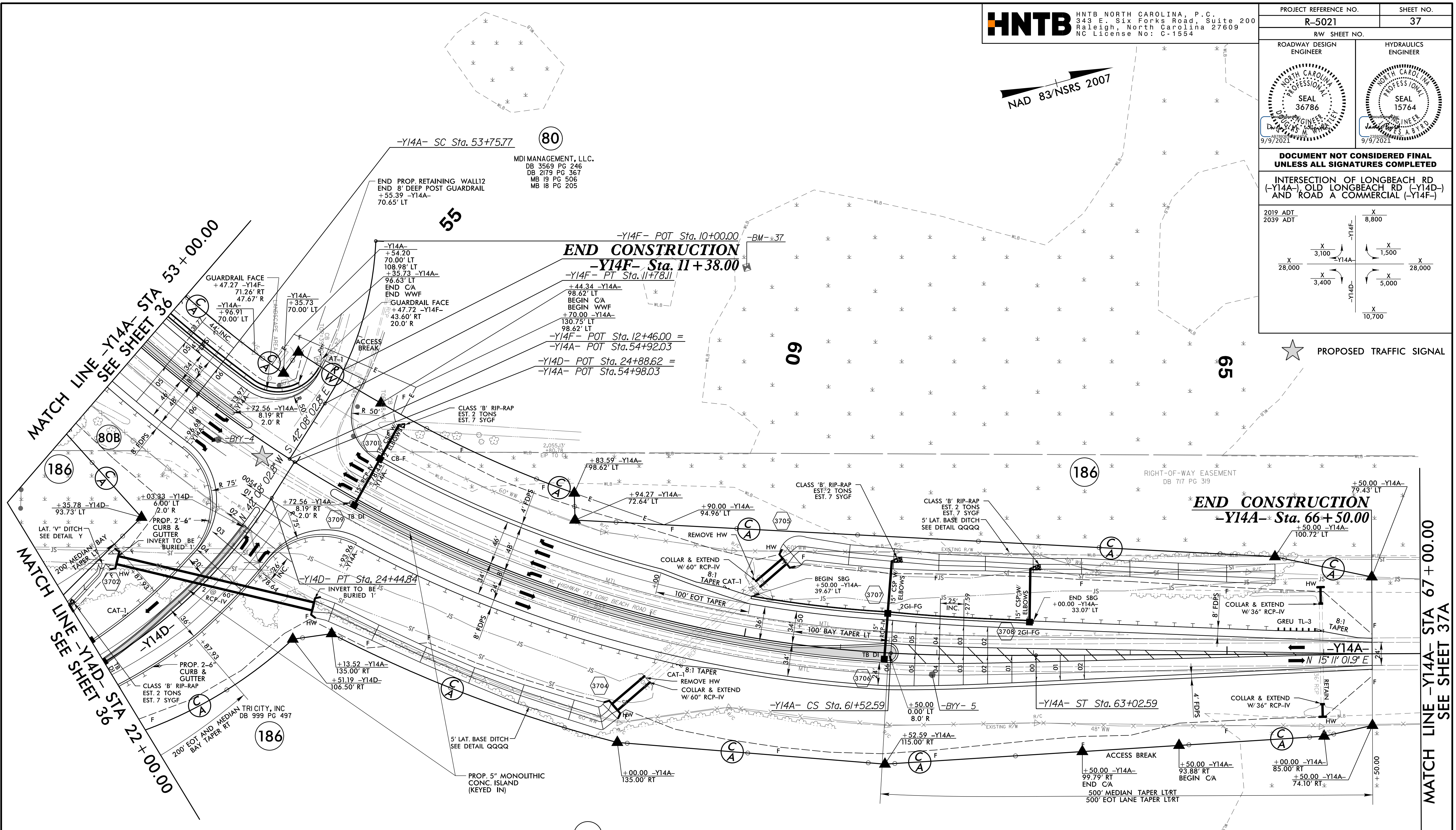
PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>37</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

**INTERSECTION OF LONGBEACH RD  
(-Y14A-), OLD LONGBEACH RD (-Y14D-)  
AND ROAD A COMMERCIAL (-Y14F-)**



★ PROPOSED TRAFFIC SIGNAL



-Y14A-		
Pls Sta 52+87.87	Pls Sta 57+76.58	Pls Sta 62+02.60
$\Delta = 5^{\circ} 54' 47.7''$	$\Delta = 34^{\circ} 47' 57.5''$ (LT)	$\Delta = 3^{\circ} 21' 35.3''$
$Ls = 264.00'$	$D = 4^{\circ} 28' 47.0''$	$Ls = 150.00'$
$LT = 176.10'$	$L = 776.82'$	$LT = 100.02'$
$ST = 88.09'$	$T = 400.81'$	$ST = 50.02'$
	$R = 1,279.00'$	
	SE = SEE PLANS	
-Y14D-		
Pls Sta 22+31.79	Pls Sta 10+91.15	
$\Delta = 49^{\circ} 01' 57.9''$ (LT)	$\Delta = 30^{\circ} 00' 52.6''$ (RT)	
$D = 10^{\circ} 44' 58.8''$	$D = 16^{\circ} 51' 06.1''$	
$L = 456.13'$	$L = 178.11'$	
$T = 243.09'$	$T = 91.15'$	
$R = 533.00'$	$R = 340.00'$	
SE = SEE PLANS	SE = SEE PLANS	

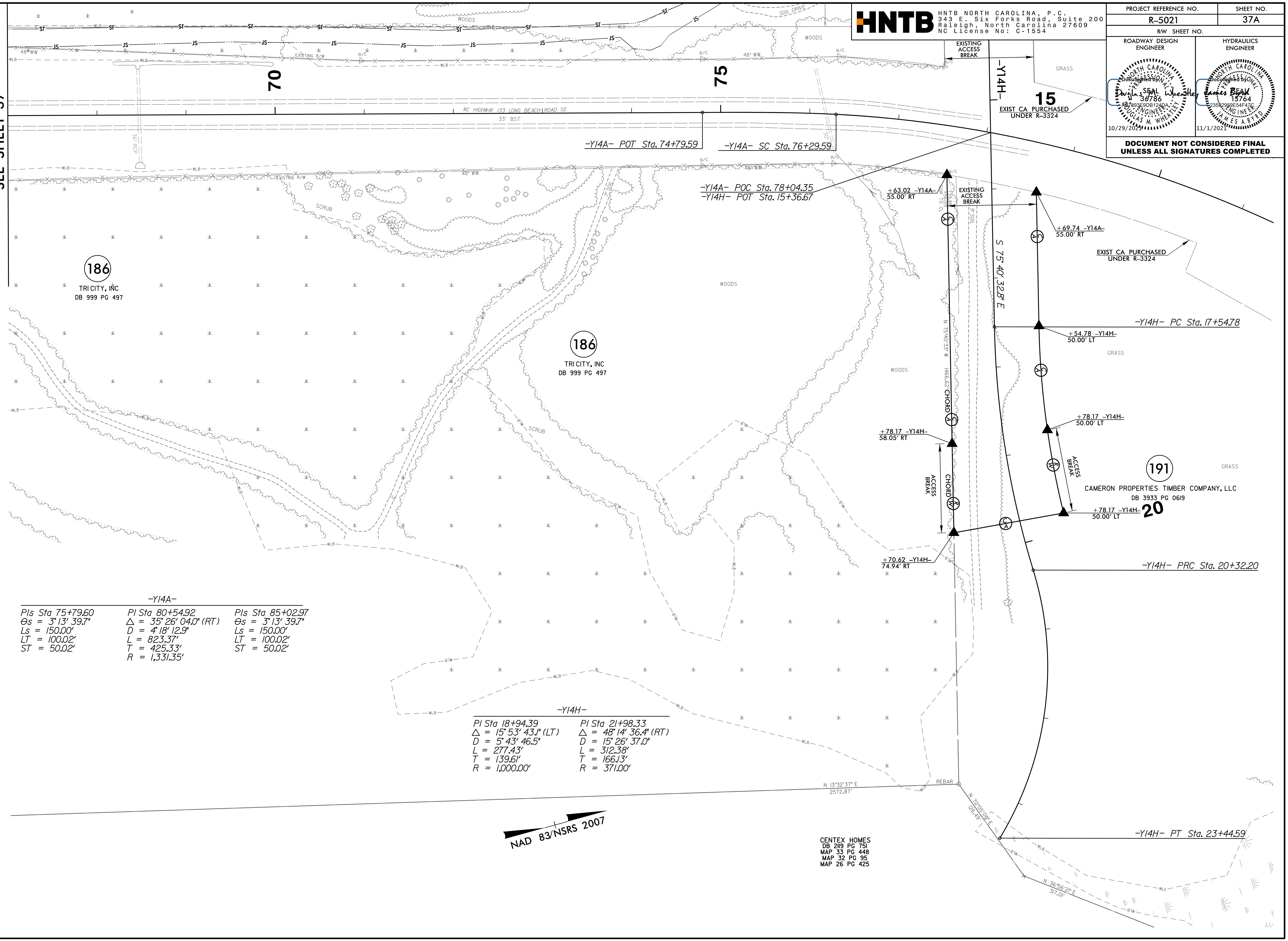
- NOTE:**
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
  2. PAVED TURNOUTS FOR SHOULDER PLAN SHOULD EXTEND 50' UNLESS NOTED ON PLANS.



MATCH LINE -Y14A- STA 67 + 00.00  
SEE SHEET 37

**HNTB** HNTB NORTH CAROLINA, P.C.  
343 E. Six Forks Road, Suite 200  
Raleigh, North Carolina 27609  
NC License No: C-1554

PROJECT REFERENCE NO. <b>R-5021</b>	SHEET NO. <b>37A</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



-Y14A-

PIs Sta 75+79.60	PI Sta 80+54.92	PIs Sta 85+02.97
$\theta_s = 3^\circ 13' 39.7''$	$\Delta = 35^\circ 26' 04.0''$ (RT)	$\theta_s = 3^\circ 13' 39.7''$
$L_s = 150.00'$	$D = 4^\circ 18' 12.9''$	$L_s = 150.00'$
$LT = 100.02'$	$L = 823.37'$	$LT = 100.02'$
$ST = 50.02'$	$T = 425.33'$	$ST = 50.02'$
	$R = 1,331.35'$	

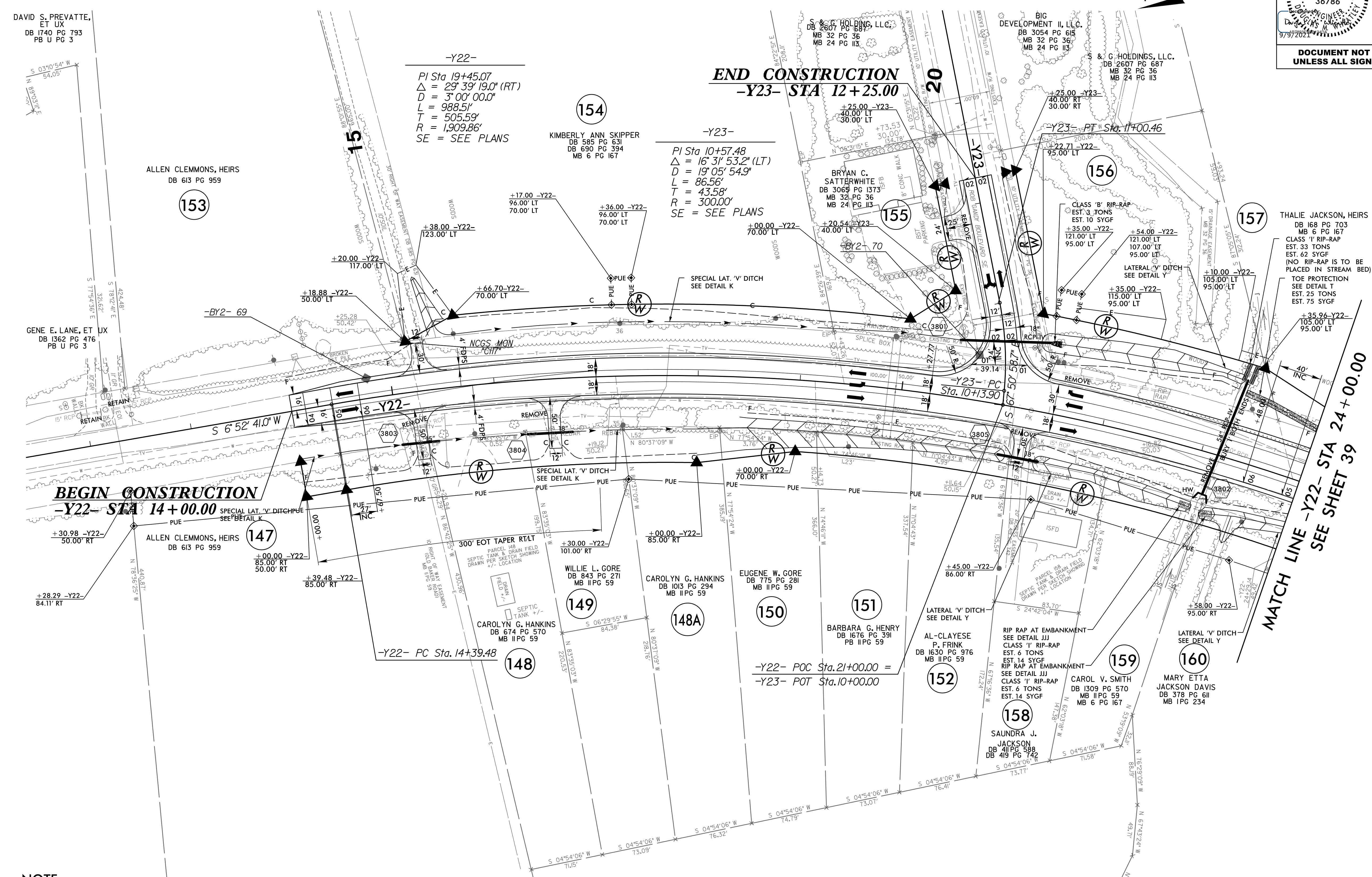
-Y14H-

PI Sta 18+94.39	PI Sta 21+98.33
$\Delta = 15^\circ 53' 43.1''$ (LT)	$\Delta = 48^\circ 14' 36.4''$ (RT)
$D = 5^\circ 43' 46.5''$	$D = 15^\circ 26' 37.0''$
$L = 277.43'$	$L = 312.38'$
$T = 139.61'$	$T = 166.13'$
$R = 1,000.00'$	$R = 371.00'$

CENTEX HOMES  
DB 219 PG 751  
MAP 33 PG 448  
MAP 32 PG 95  
MAP 26 PG 425



PROJECT REFERENCE NO.	SHEET NO.
R-5021	38
RW SHEET NO.	36
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



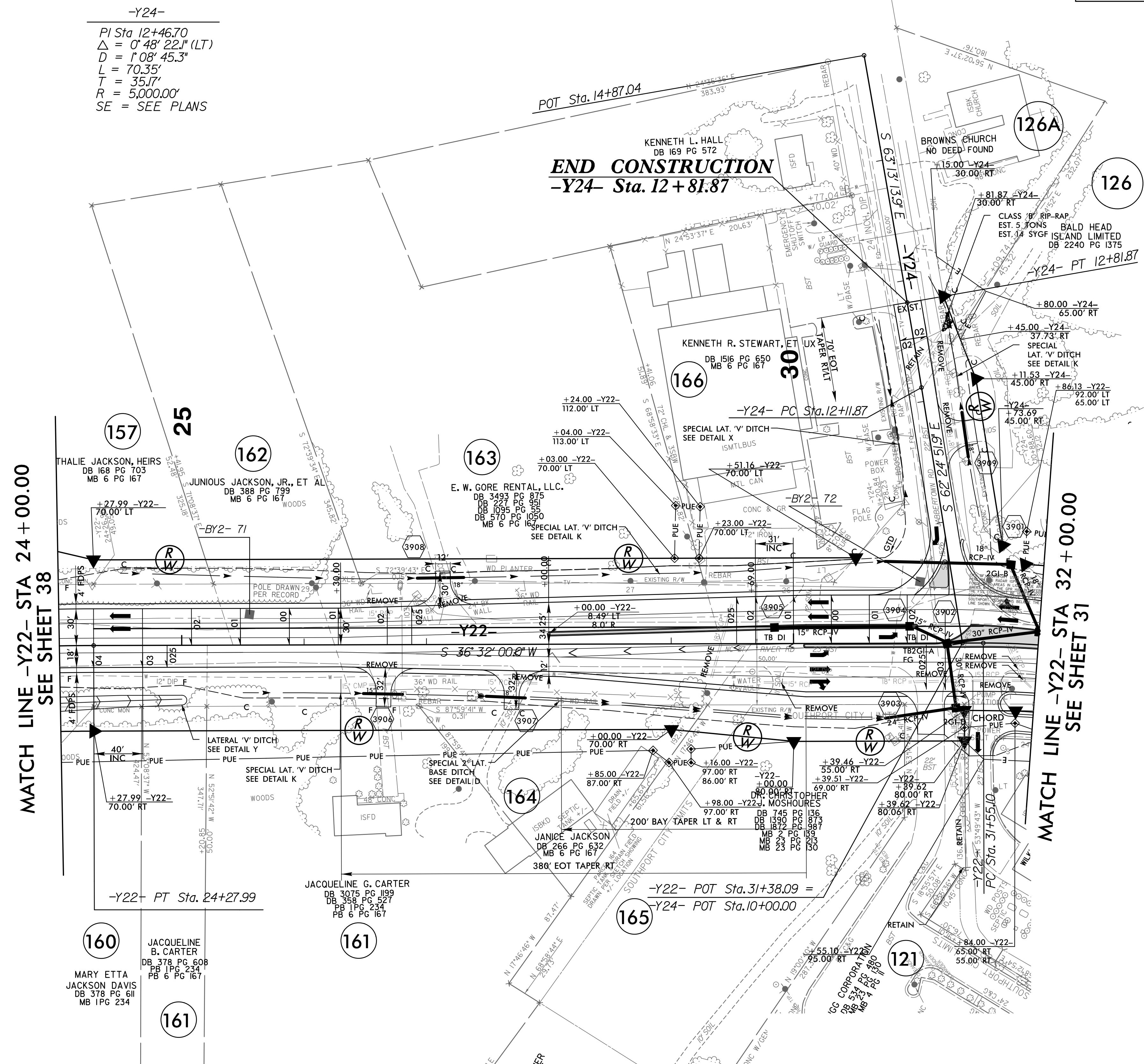
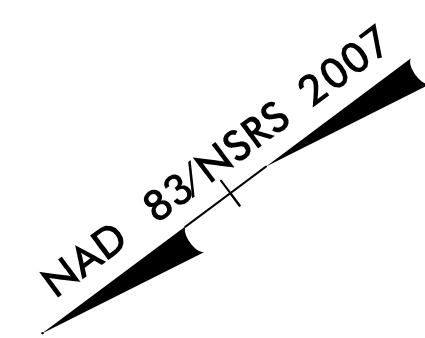
**NOTE:**

1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -Y22- PROFILE, SEE SHEET 68  
 FOR -Y23- PROFILE, SEE SHEET 70  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3



PROJECT REFERENCE NO.	SHEET NO.
R-5021	39
RW SHEET NO.	37
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



-Y24-  
 PI Sta 12+46.70  
 $\Delta = 0' 48' 22.1''$  (LT)  
 $D = 1' 08' 45.3''$   
 $L = 70.35'$   
 $T = 35.17'$   
 $R = 5,000.00'$   
 SE = SEE PLANS

**NOTE:**

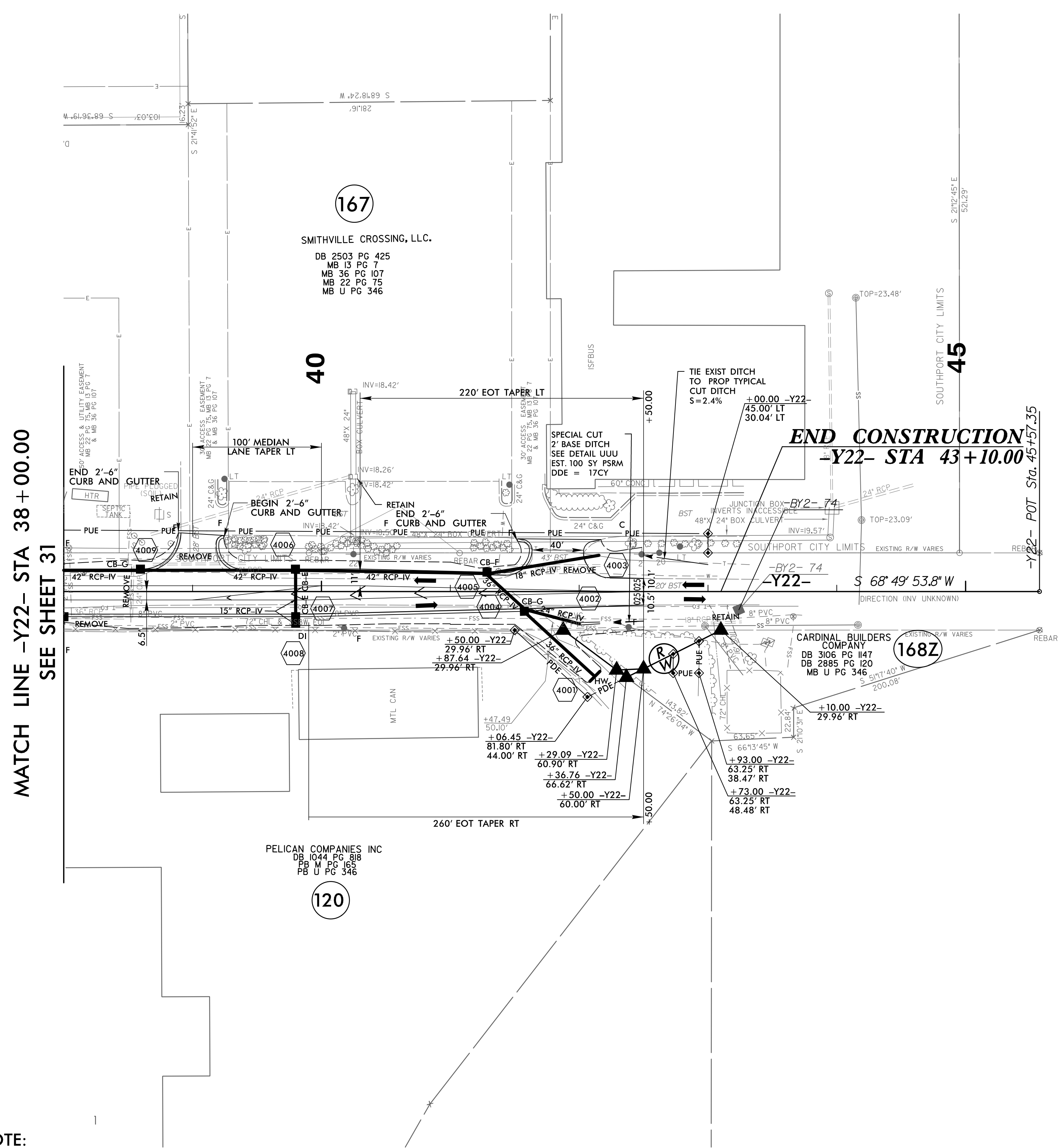
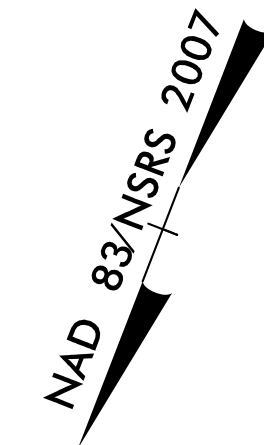
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -Y22- PROFILE, SEE SHEETS 68 & 69  
 FOR -Y24- PROFILE, SEE SHEET 70  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3



5/14/2021

PROJECT REFERENCE NO.		SHEET NO.	
R-5021		40	
RW SHEET NO.		38	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER		
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			



- NOTE:**
1. ALL DRIVEWAY RADII' ARE 20' UNLESS NOTED ON PLANS.
  2. PAVED TURNOUTS FOR SHOULDER SECTION SHOULD EXTEND 50' UNLESS NOTED ON PLANS.

FOR -Y22- PROFILE, SEE SHEET 69  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 THRU 2D-3

22-JUL-2021 09:58  
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 JMB