

**TIP PROJECT: R-3421B**

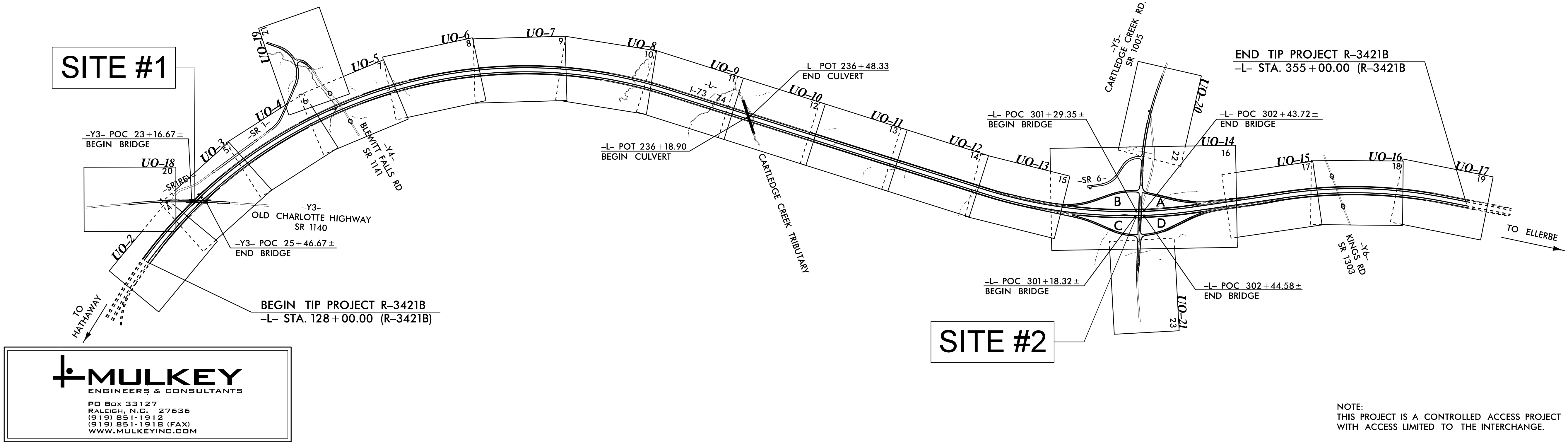
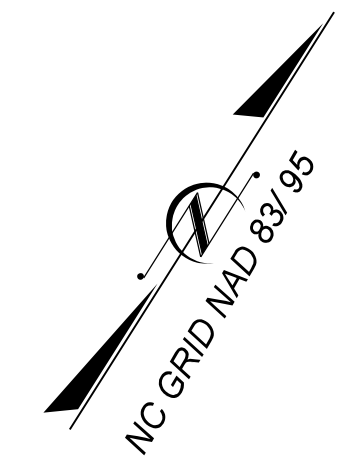
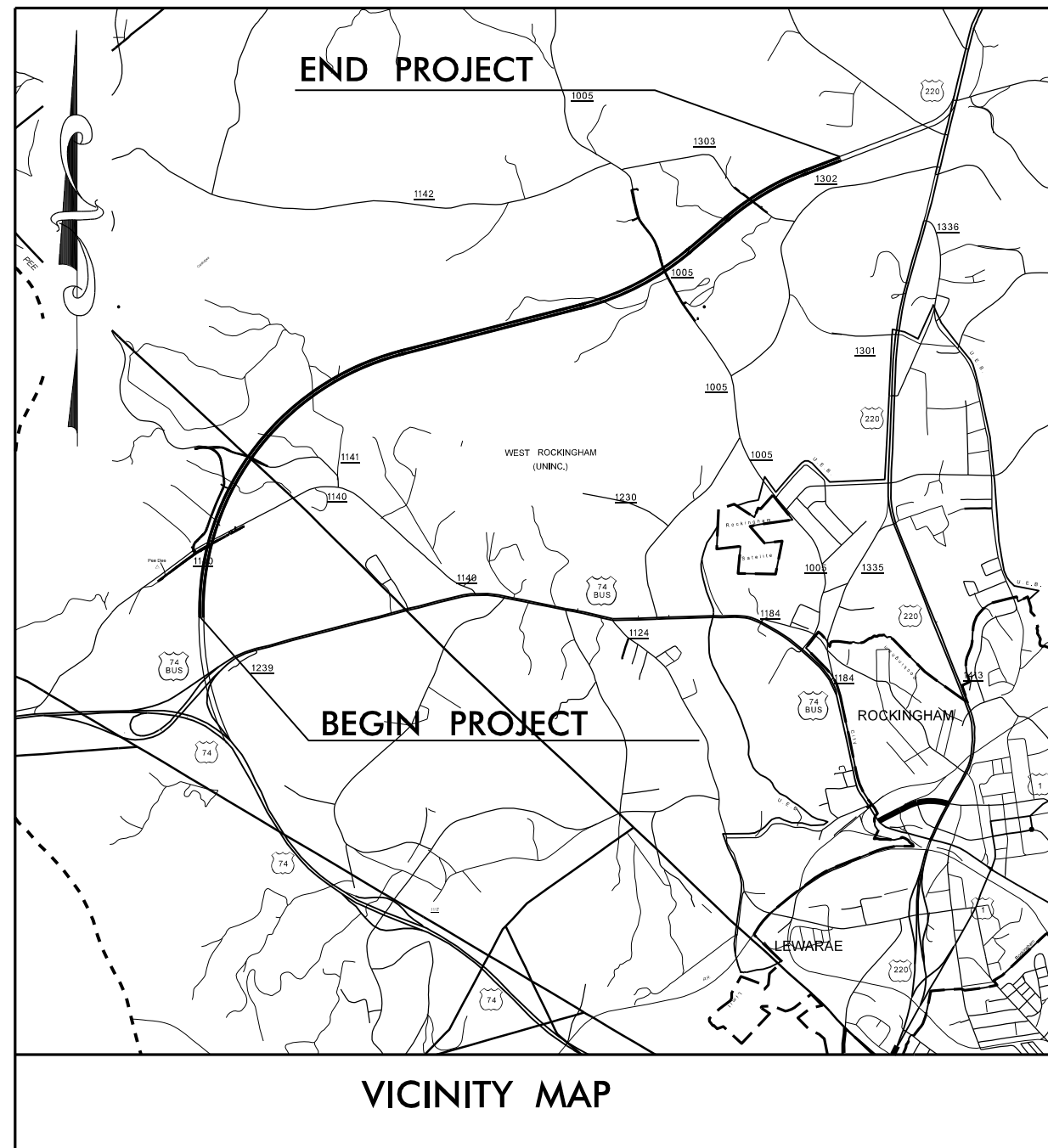
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
R-3421B	UO-1

NOTE:  
ALL UTILITY WORK SHOWN ON THIS SHEET IS DONE BY OTHERS.  
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

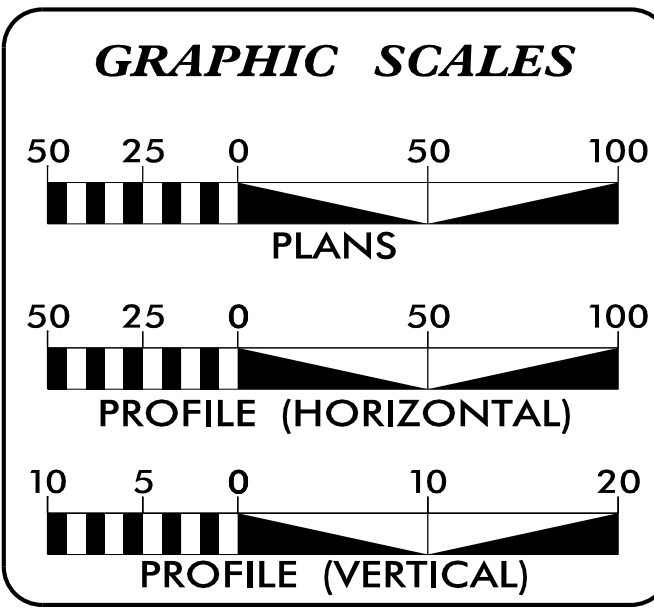
**UTILITIES BY OTHERS PLANS  
RICHMOND COUNTY**

**LOCATION: I-374 FROM 0.3 MILES SOUTH OF SR 1140 (OLD CHARLOTTE HIGHWAY) TO 0.2 MILES SOUTHWEST OF SR 1304 (HARRINGTON ROAD)**  
**TYPE OF WORK: GRADING, PAVING, DRAINAGE, CULVERTS, STRUCTURES, MSE RETAINING WALLS, AND SIGNING**



**MULKEY**  
ENGINEERS & CONSULTANTS  
PO Box 33127  
RALEIGH, N.C. 27636  
(919) 851-1912  
(919) 851-1918 (FAX)  
WWW.MULKEYINC.COM

NOTE:  
THIS PROJECT IS A CONTROLLED ACCESS PROJECT WITH ACCESS LIMITED TO THE INTERCHANGE.



**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-21	UBO PLAN SHEETS

**UTILITY OWNERS WITH CONFLICTS**

(A) POWER - DUKE ENERGY  
(B) POWER - DUKE ENERGY (TRANSMISSION)  
(C) POWER - PEE DEE ELECTRIC  
(D) TELECOM - AT&T  
(E) TELECOM - MCNC  
(F) TELECOM - CHARTER / SPECTRUM

PREPARED IN THE OFFICE OF:

**HINDE ENGINEERING**  
License No. C-2639  
401 Harrison Oaks Blvd., Suite 220 Cary, NC 27513  
(919)-653-0001

Michael E. Davis UTILITY COORDINATION PROJECT MANAGER  
Harris S. Winters PROJECT UTILITY COORDINATOR  
Jordan K. Chapman PROJECT UTILITY DESIGNER

**DIVISION OF HIGHWAYS  
UTILITIES UNIT**  
1555 MAIL SERVICES CENTER  
RALEIGH NC 27699-1555  
PHONE (919) 707-6690  
FAX (919) 250-4151

Travis L. Morgan, PE DIVISION CONTACT #1  
James D. Yow DIVISION CONTACT #2

I2-SEP-2019 14:38 S:\Server\Files\PROJECTS\2018\A20181001.00\_CAL.YX\_R-3421B\Design\Utilities\Engineering\UBO\Proj\R3421B\_Ut\_tsh\_UO1\_psh.dgn

### UTILITIES BY OTHERS

NOTE:  
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

(18)  
CHARLES D. SELLARS  
DB 1168 PG 533

NC GRID  
NAD 83/95

1720 ABY CL TO COP  
N24°15'55"W

WILLIAM SELLARS  
DB 1174 PG 45  
PLAT SLIDE 705-T

MATCHLINE TO SHEET U0-3  
-L- STATION 135+00

I-73/74

BEGIN TIP PROJECT R-3421B  
-L- POC STA. 128+00.00 (R-3421B)

BM  
BL - STA 120+85.00  
200' RIGHT  
ELEV. 293.09'

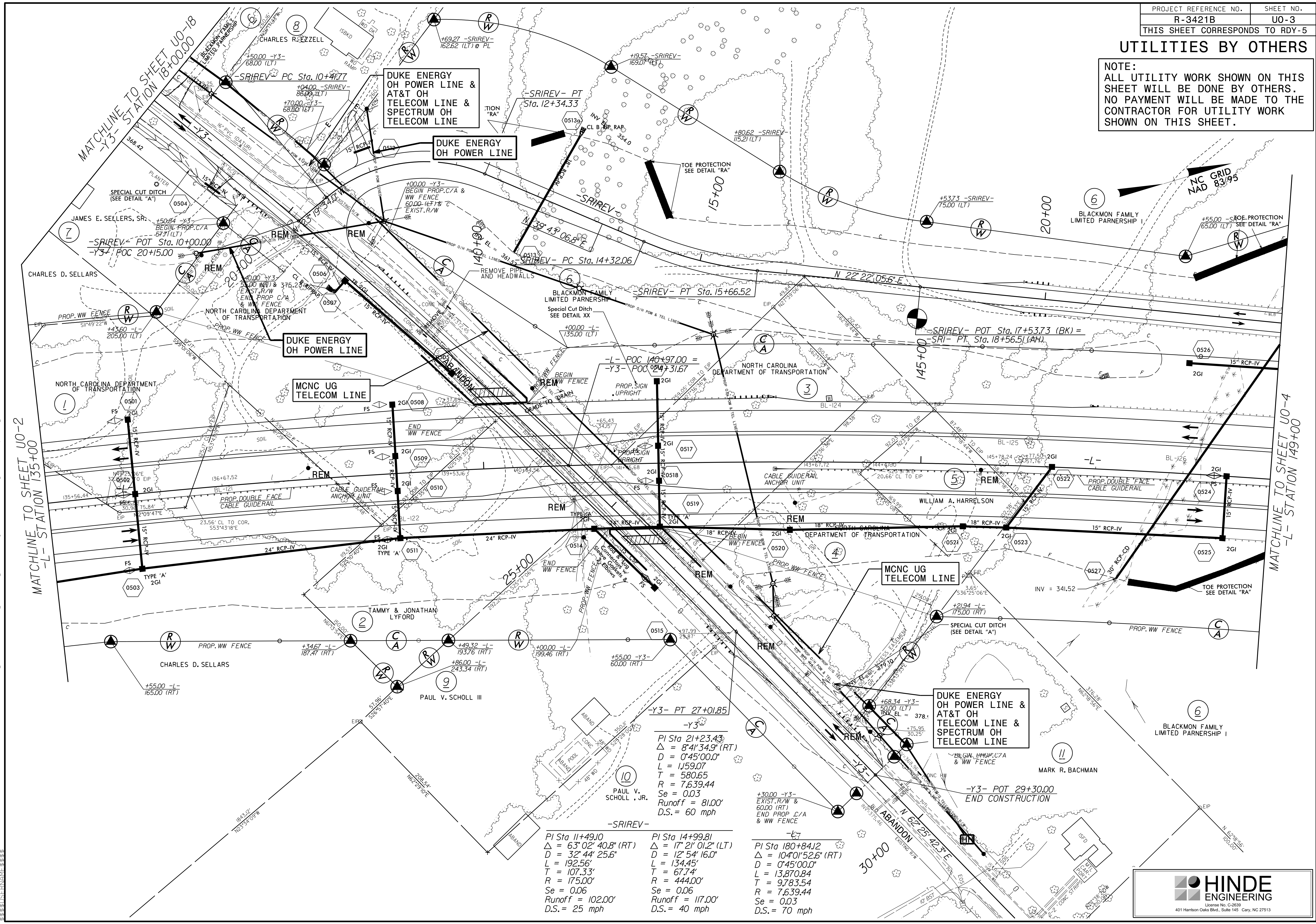
-L-  
PI Sta 180+84.12  
 $\Delta = 104^{\circ}01'52.6''$  (RT)  
 $D = 0^{\circ}45'00.0''$   
 $L = 13,870.84$   
 $T = 9,783.54$   
 $R = 7,639.44$   
 $Se = 0.03$   
 $D.S. = 70$  mph

I:\SEP-2019\1433\PROJECTS\2018\A20181001\00.CAL\X-R-3421B\Design\Utilities\Engineering\UBD0\Proc\N\3421B.Ut\_rdy4\_U0-02\_psh.dgn  
 8/28/2019 10:58:58 AM



### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



R:\SEP-2019\14-33-PROJECTS\2018\A20181001\00\_CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0-Proj\R3421B-Ut-rdy5\_U0-03\_psh.dgn  
 14-33-PROJECTS\2018\A20181001\00\_CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0-Proj\R3421B-Ut-rdy5\_U0-03\_psh.dgn  
 14-33-PROJECTS\2018\A20181001\00\_CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0-Proj\R3421B-Ut-rdy5\_U0-03\_psh.dgn

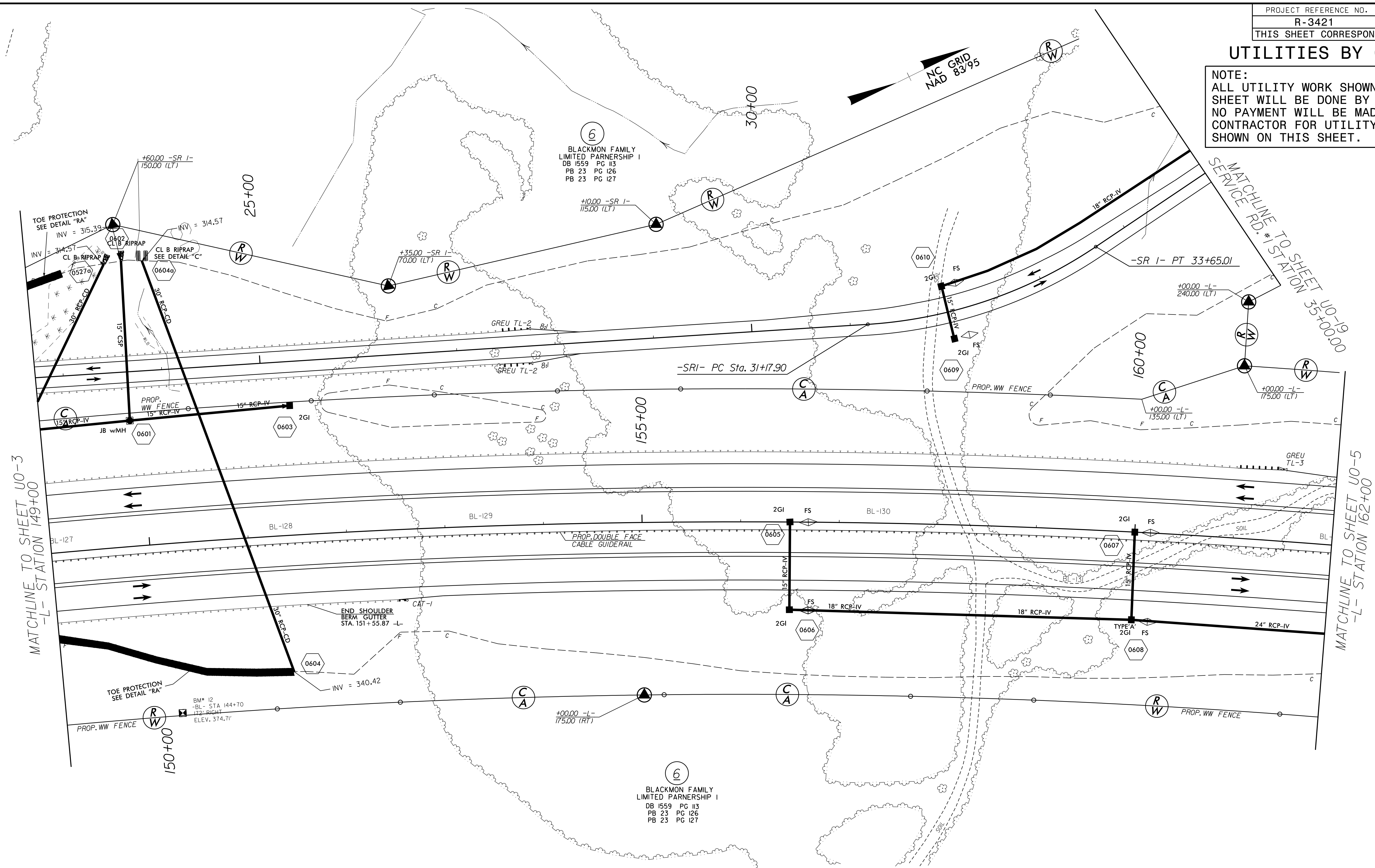
PI Sta 11+49.10 $\Delta = 63^{\circ}02'40.8"$ (RT) $D = 32^{\circ}44'25.6"$ $L = 192.56'$ $T = 107.33'$ $R = 175.00'$ $Se = 0.06$ $Runoff = 102.00'$ $D.S. = 25$ mph	PI Sta 14+99.81 $\Delta = 17^{\circ}21'01.2"$ (LT) $D = 12^{\circ}54'16.0"$ $L = 134.45'$ $T = 67.74'$ $R = 444.00'$ $Se = 0.06$ $Runoff = 117.00'$ $D.S. = 40$ mph	PI Sta 180+84.12 $\Delta = 104^{\circ}01'52.6"$ (RT) $D = 0^{\circ}45'00.0"$ $L = 13,870.84'$ $T = 9,783.54'$ $R = 7,639.44'$ $Se = 0.03$ $D.S. = 70$ mph
--	---	--

MATCHLINE TO SHEET U0-2  
-L- STATION 135+00

MATCHLINE TO SHEET U0-4  
-L- STATION 149+00

### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



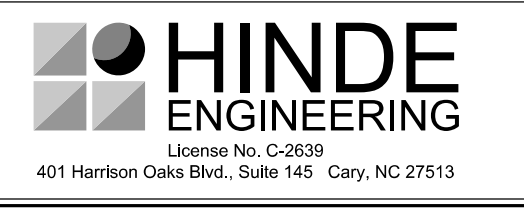
MATCHLINE TO SHEET U0-3  
-L- STATION 149+00

MATCHLINE TO SHEET U0-5  
-L- STATION 162+00

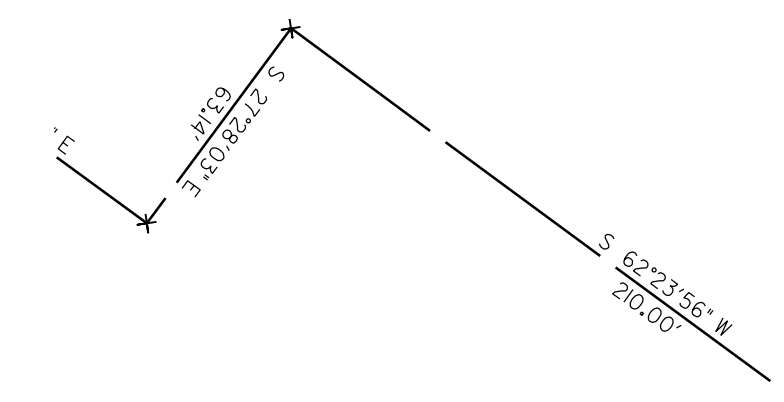
6  
 BLACKMON FAMILY  
 LIMITED PARTNERSHIP I  
 DB 1559 PG 113  
 PB 23 PG 126  
 PB 23 PG 127

6  
 BLACKMON FAMILY  
 LIMITED PARTNERSHIP I  
 DB 1559 PG 113  
 PB 23 PG 126  
 PB 23 PG 127

RAYNELL PERKINS  
 DB 514 PG 386



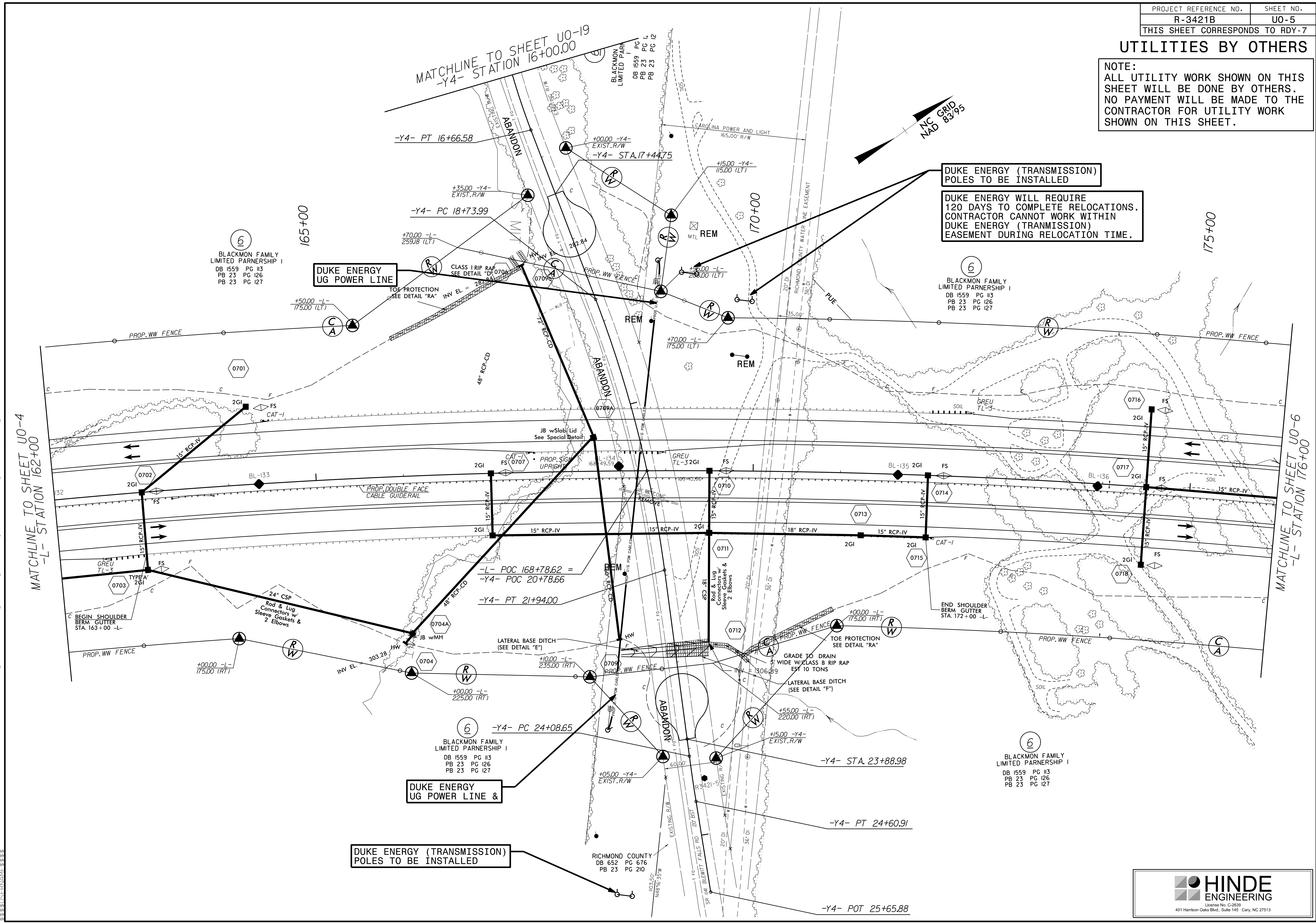
R:\SEP-2019\1433\PROJECTS\2018\A20181001\00.CAL.XX.R-3421\Design\Utilities\Engineering\UBD0\Proj\R3421B.Ut.-rdy6.U0-04.psh.dgn  
 3/21/20  
 5:43:58 PM





### UTILITIES BY OTHERS

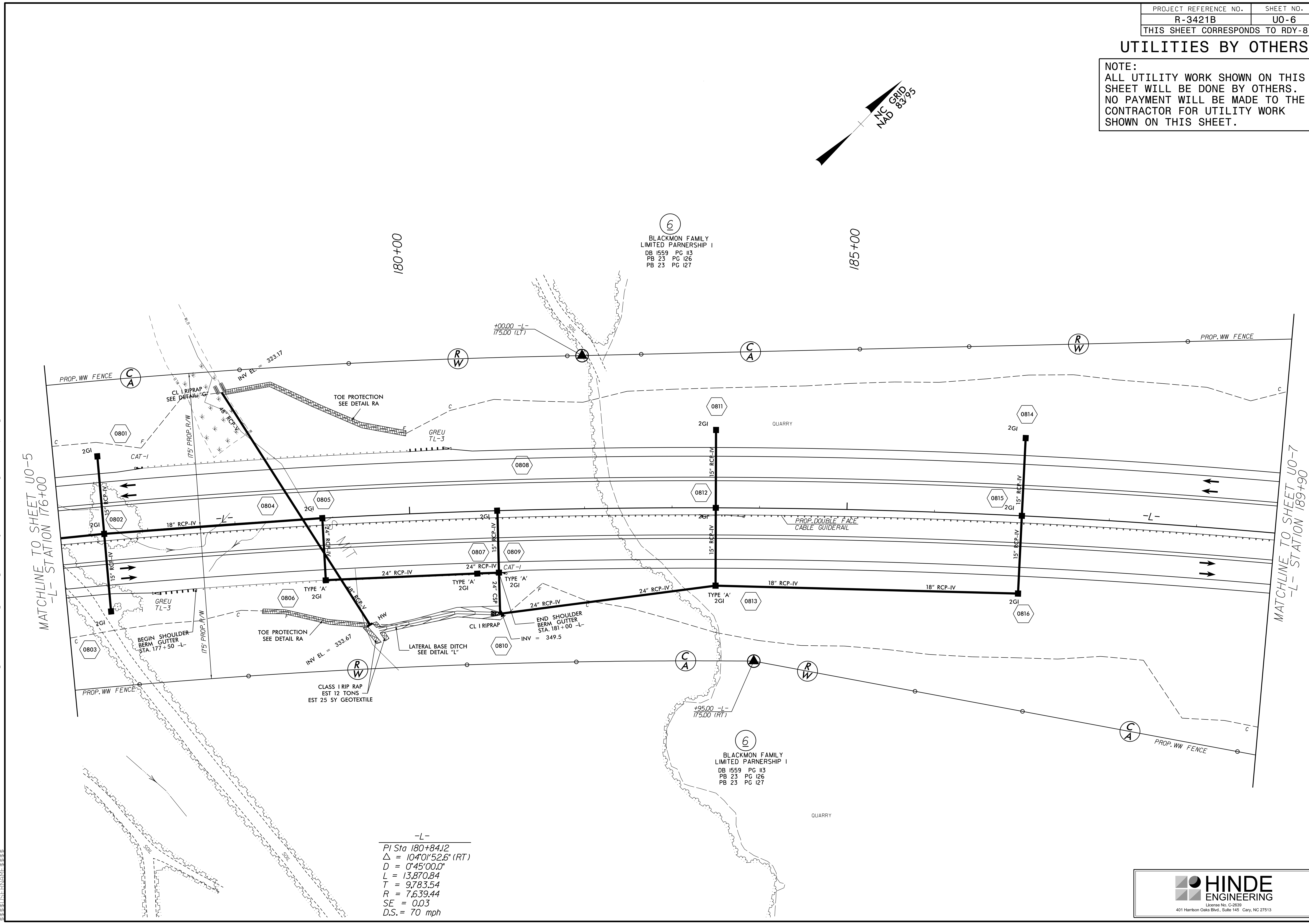
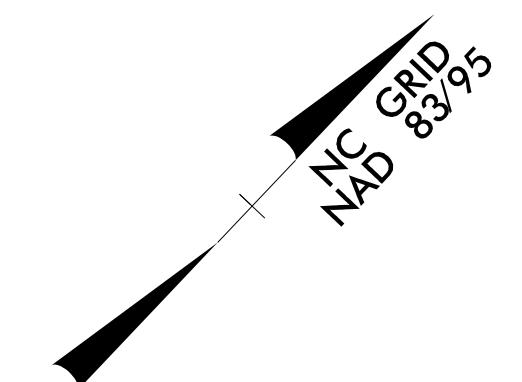
NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



R:\SEP-2019\1433\PROJECTS\2018\A20181001\00.CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B.Ut.L-rdy7\_U0-05\_psh.dgn  
 2019.09.14 14:33 PROJECTS\2018\A20181001\00.CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B.Ut.L-rdy7\_U0-05\_psh.dgn

### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



6  
 BLACKMON FAMILY  
 LIMITED PARTNERSHIP I  
 DB 1559 PG 113  
 PB 23 PG 126  
 PB 23 PG 127

6  
 BLACKMON FAMILY  
 LIMITED PARTNERSHIP I  
 DB 1559 PG 113  
 PB 23 PG 126  
 PB 23 PG 127

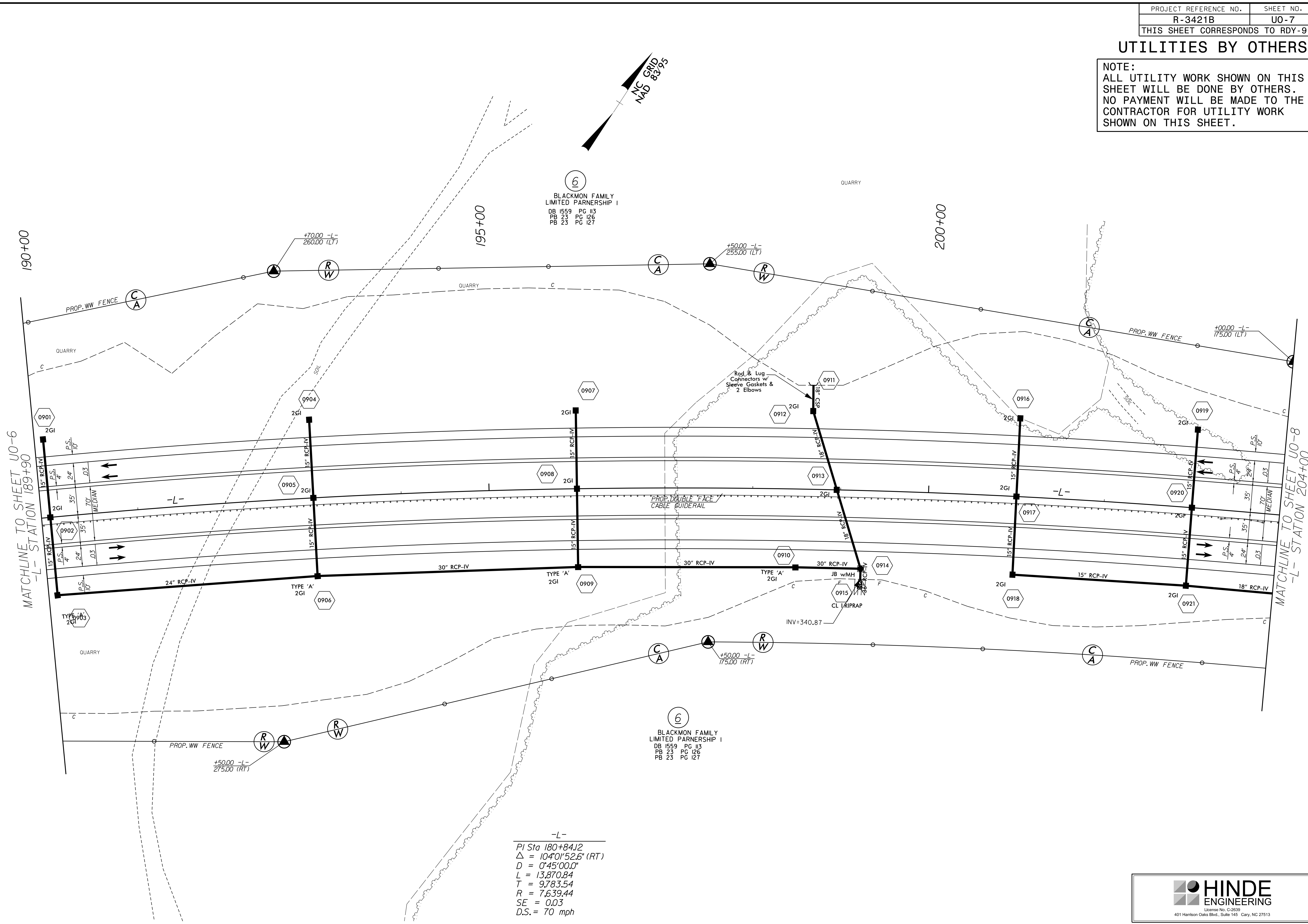
-L-  
 PI Sta 180+84.12  
 $\Delta = 104'01.526''$  (RT)  
 $D = 0'45'00.0''$   
 $L = 13,870.84$   
 $T = 9,783.54$   
 $R = 7,639.44$   
 $SE = 0.03$   
 $D.S. = 70$  mph

R:\SEP-2019\1433\PROJECTS\2018\A20181001\00\CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0\Proc\N3421B\_U0-6\_psh.dgn  
 8/28/2019 10:58:38 AM

### UTILITIES BY OTHERS

NOTE:  
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

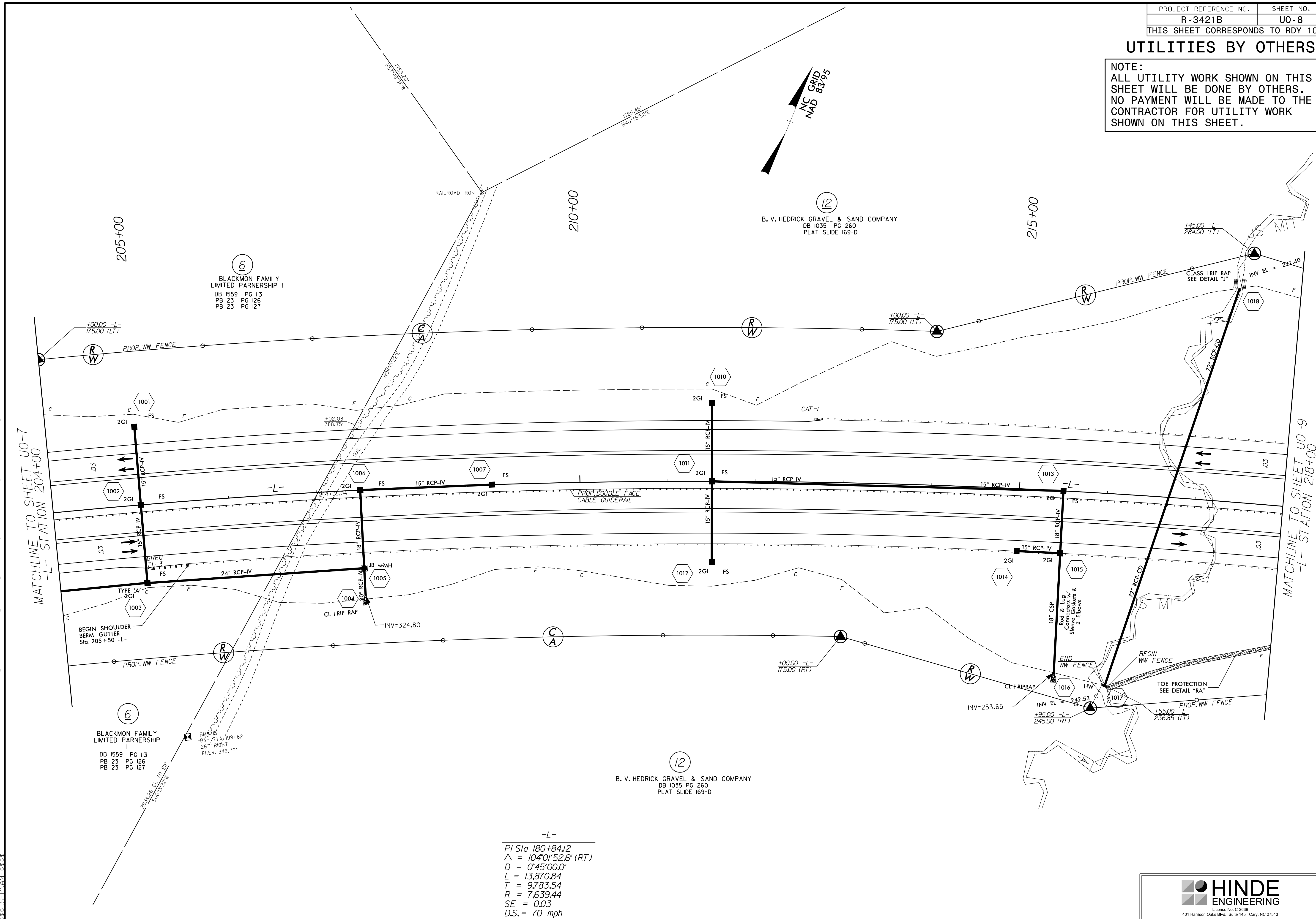
I:\SEP-2019\1433\PROJECTS\2018\A20181001\00\_CAL\_YX\_R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B\_U0-07\_psh.dgn  
 8/28/2019 10:58:38 AM



-L-  
 PI Sta 180+84.12  
 $\Delta = 1040'52.6" (RT)$   
 $D = 0'45'00.0"$   
 $L = 13,870.84$   
 $T = 9,783.54$   
 $R = 7,639.44$   
 $SE = 0.03$   
 $D.S. = 70 \text{ mph}$

### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



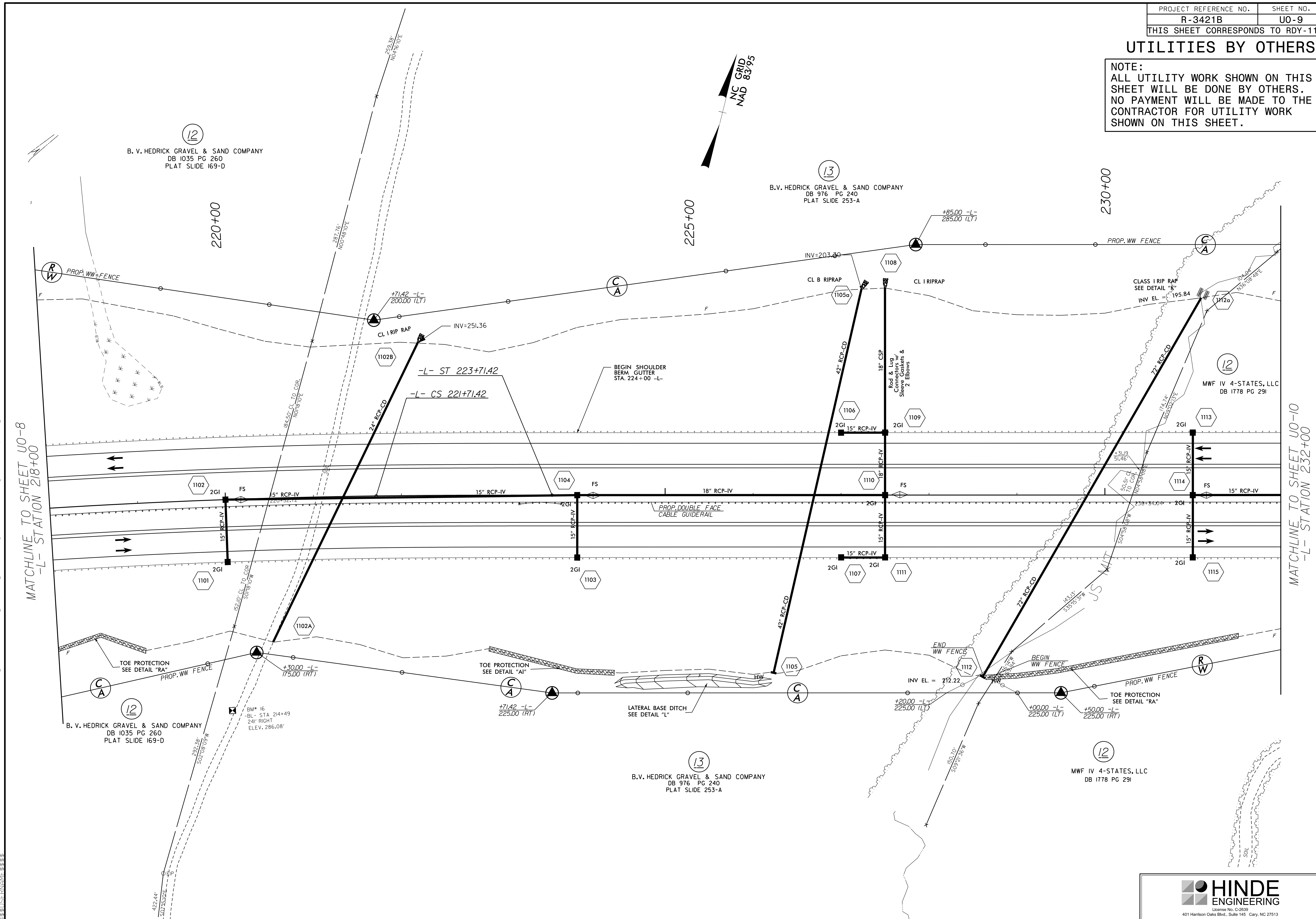
-L-  
 PI Sta 180+84.12  
 $\Delta = 104^{\circ}01'52.6" (RT)$   
 $D = 0^{\circ}45'00.0"$   
 $L = 13,870.84$   
 $T = 9,783.54$   
 $R = 7,639.44$   
 $SE = 0.03$   
 $D.S. = 70 \text{ mph}$

R:\SEP-2019\14-33\PROJECTS\2018\A20181001\00.CAL\X.X.R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B\_U0-8.psh.dgn  
 8/28/2019 10:58:38 AM



### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



I:\SEP-2019\1433\PROJECTS\2018\A20181001\00.CAL\X.Y.R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B-Ut-rdyl1-U0-09\_psh.dgn  
 12-SEP-2019 14:33  
 MATCHLINE TO SHEET U0-8  
 -L- STATION 218+00

MATCHLINE TO SHEET U0-10  
 -L- STATION 232+00

12  
 B. V. HEDRICK GRAVEL & SAND COMPANY  
 DB 1035 PG 260  
 PLAT SLIDE 169-D

13  
 B.V. HEDRICK GRAVEL & SAND COMPANY  
 DB 976 PG 240  
 PLAT SLIDE 253-A

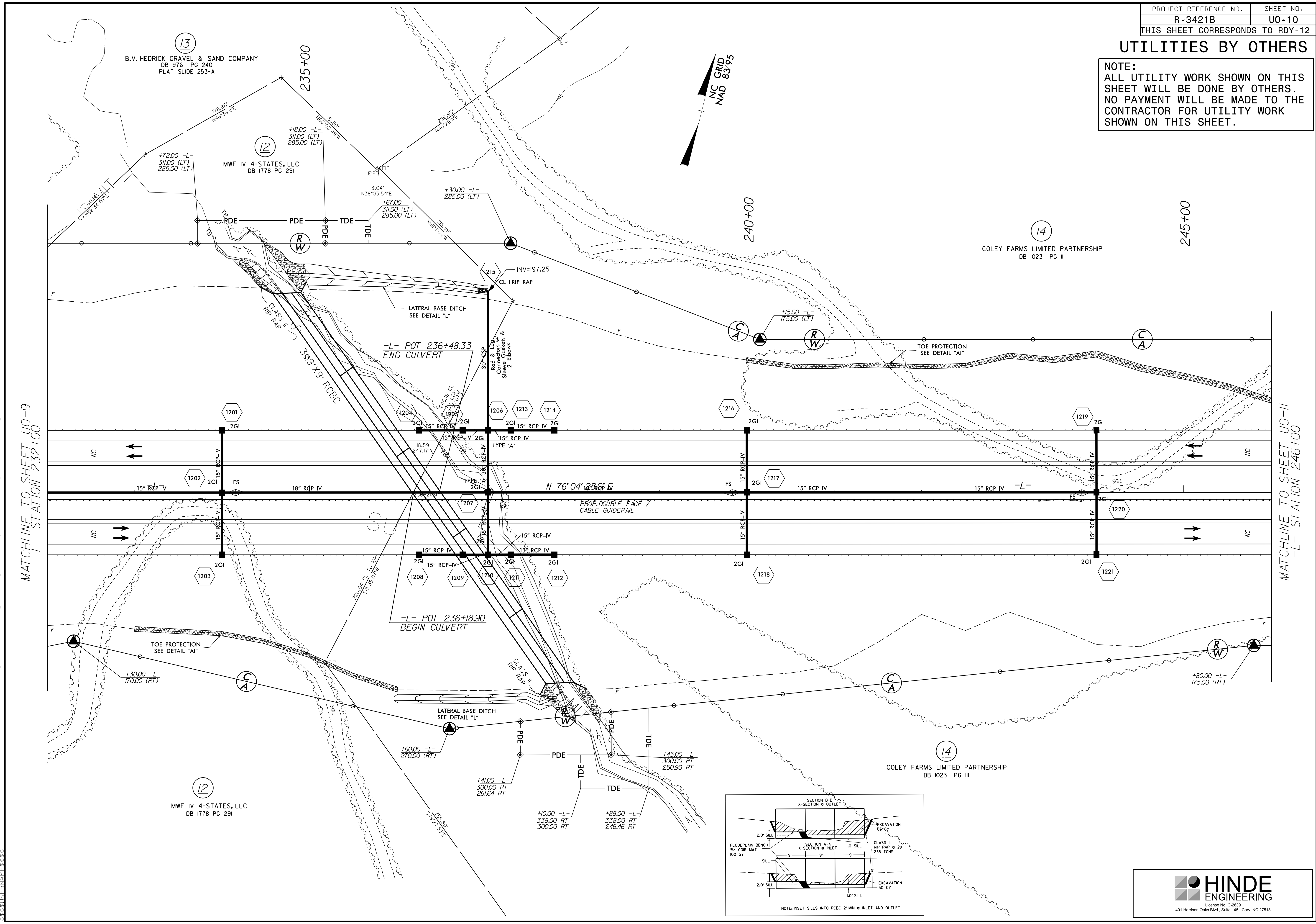
12  
 B. V. HEDRICK GRAVEL & SAND COMPANY  
 DB 1035 PG 260  
 PLAT SLIDE 169-D

13  
 B.V. HEDRICK GRAVEL & SAND COMPANY  
 DB 976 PG 240  
 PLAT SLIDE 253-A

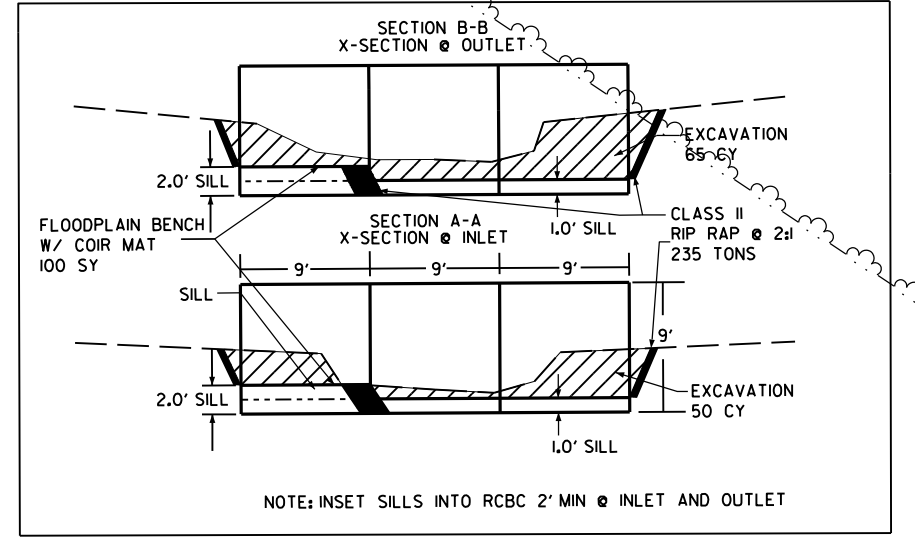
12  
 MWF IV 4-STATES, LLC  
 DB 1778 PG 291

### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

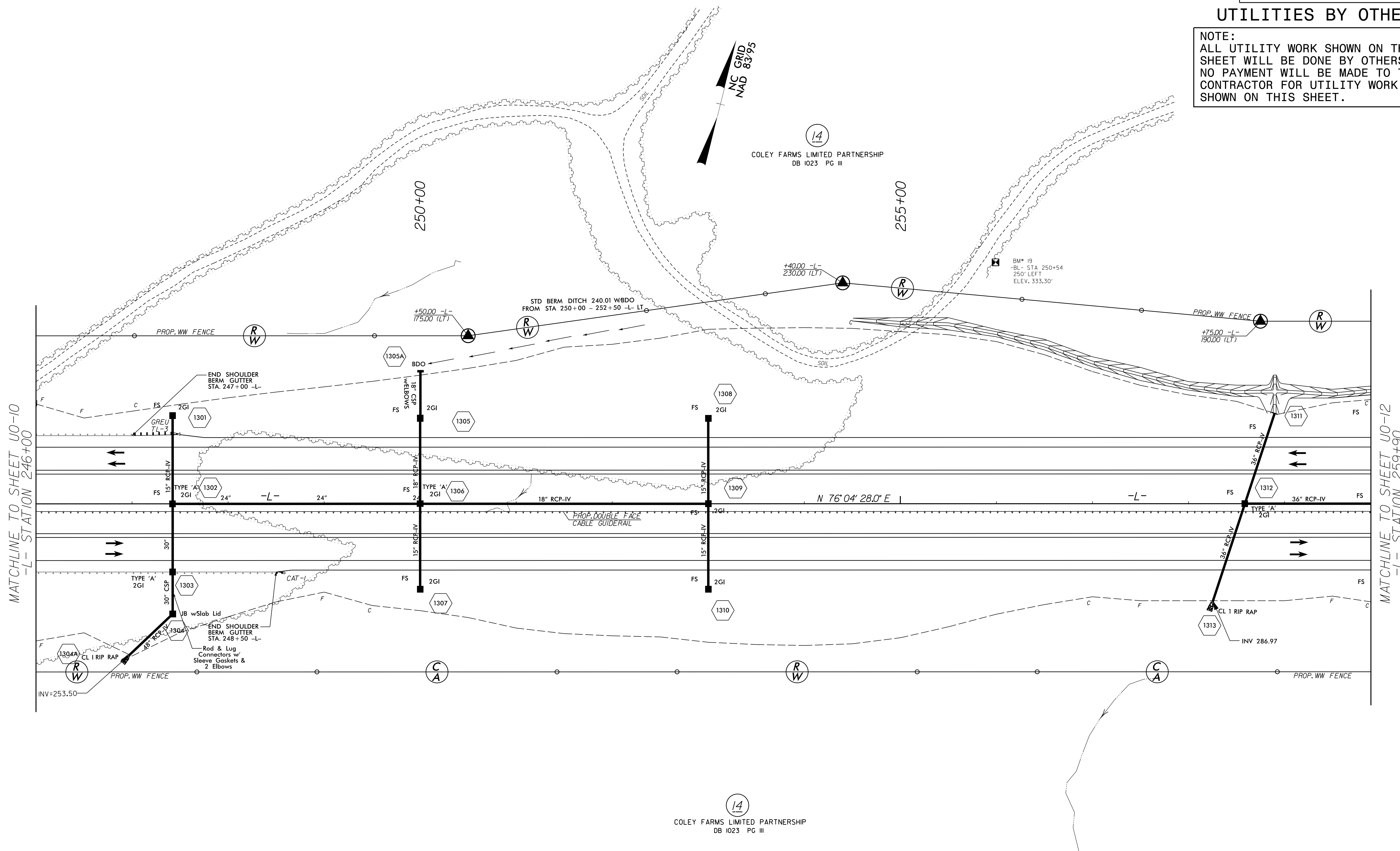


I:\PROJECTS\2018\A20181001\00\_CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B\_U0-10\_psh.dgn  
 14:33 9/14/2019  
 PROJECTS\2018\A20181001\00\_CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B\_U0-10\_psh.dgn



### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



14  
 COLEY FARMS LIMITED PARTNERSHIP  
 DB 1023 PG III

14  
 COLEY FARMS LIMITED PARTNERSHIP  
 DB 1023 PG III

MATCHLINE TO SHEET U0-10  
 -L- STATION 246+00

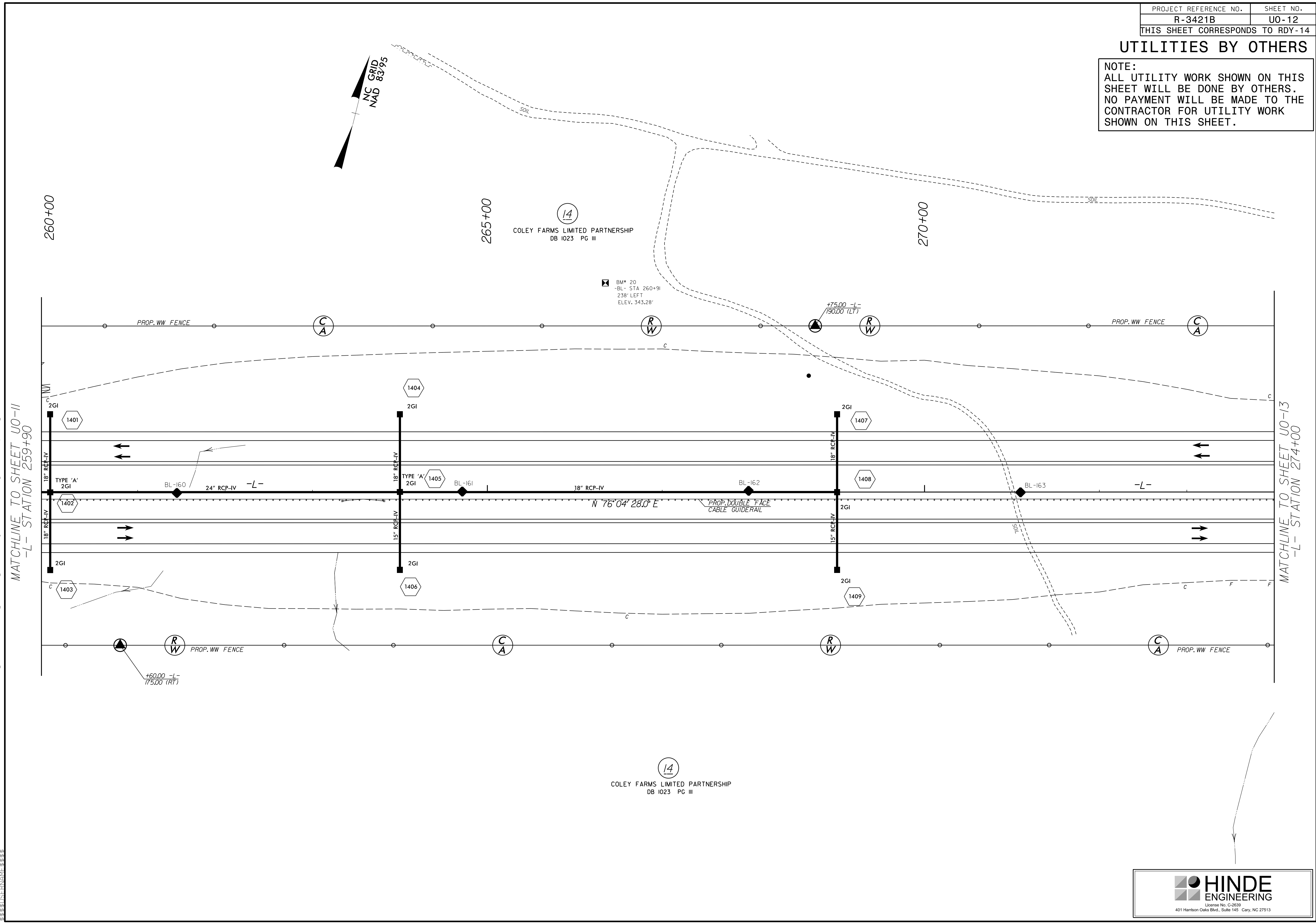
MATCHLINE TO SHEET U0-12  
 -L- STATION 259+90

I:\2019\09\14\33\PROJECTS\2018\A20181001\00\CAL\X-R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B\_U0-11.psh.dgn



### UTILITIES BY OTHERS

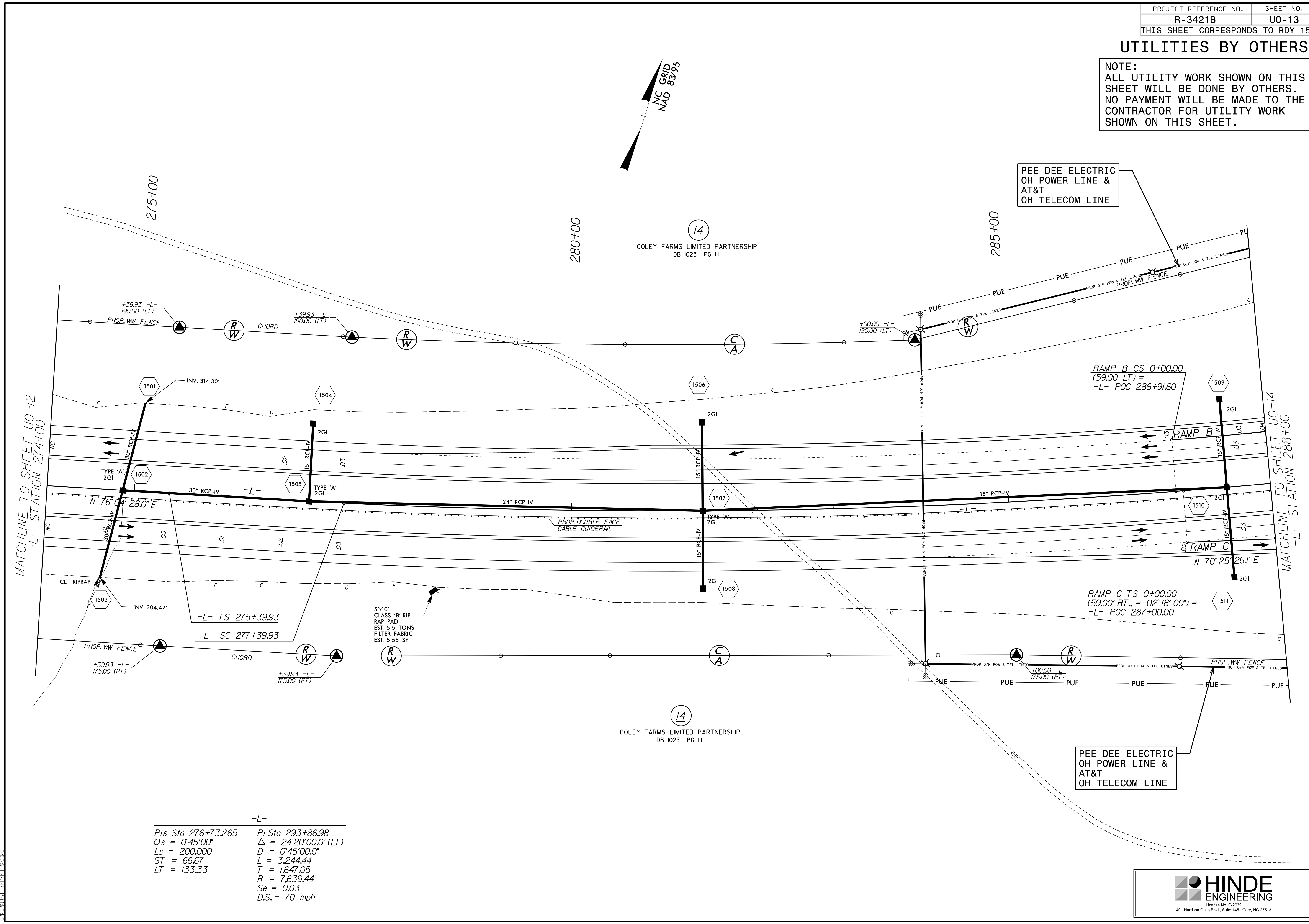
NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



I:\SEP-2019\1438\PROJECTS\2018\A20181001\00\CAL YX\_R-3421B\Design\Utilities\Engineering\UBD\Proj\R3421B\_U0-12\_psh.dgn  
 3/28/2019 10:58:58 AM

### UTILITIES BY OTHERS

NOTE:  
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

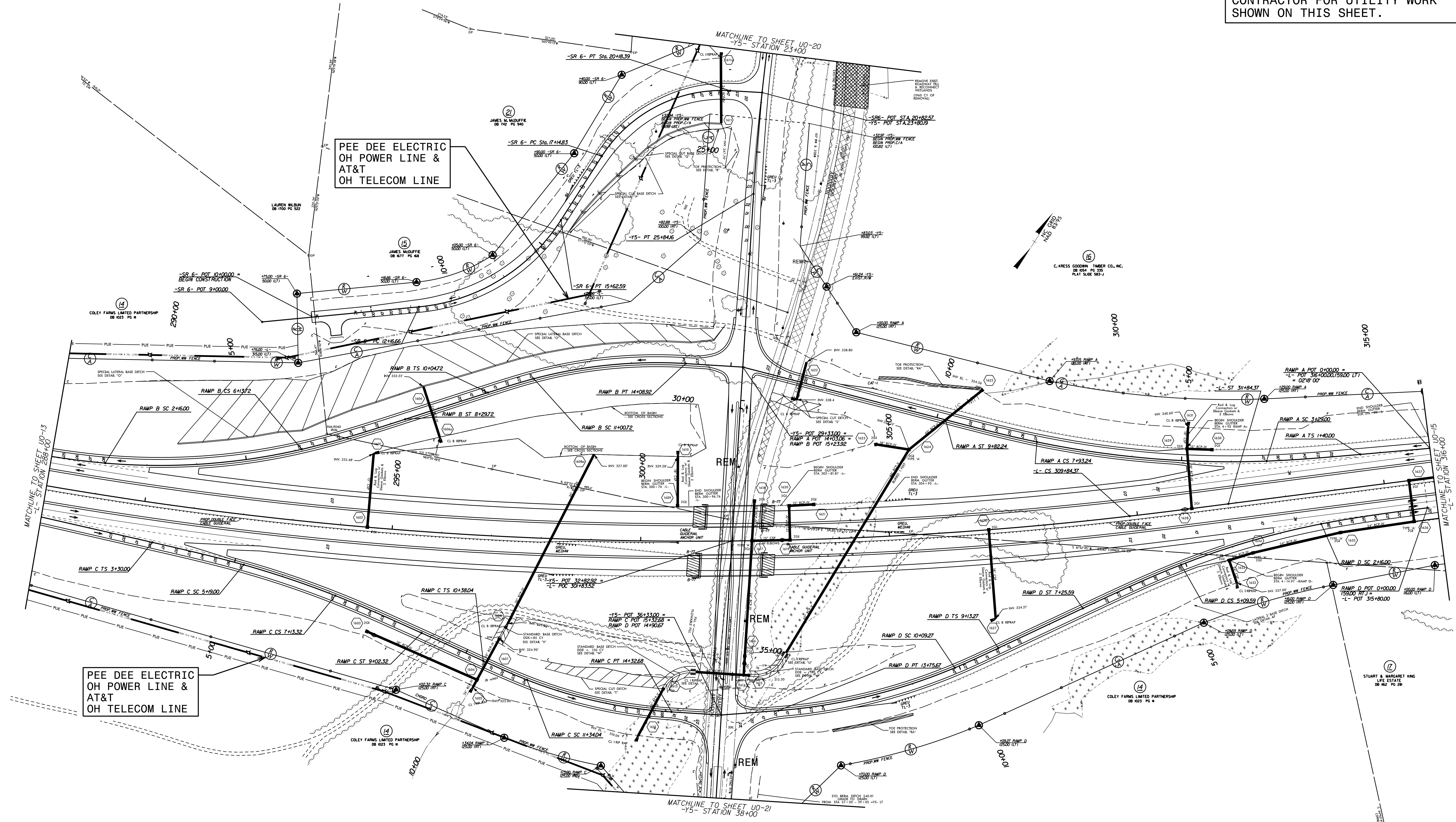


-L-	-L-
PIs Sta 276+73.265	PI Sta 293+86.98
θs = 0°45'00"	Δ = 24°20'00.0" (LT)
Ls = 200.000	D = 0°45'00.0"
ST = 66.67	L = 3,244.44
LT = 133.33	T = 1,647.05
	R = 7,639.44
	Se = 0.03
	D.S. = 70 mph

I:\SEP-2016\1433\PROJECTS\2018\A20181001\00.CAL.XX.R-3421B\Design\Util\traces\Engineering\UBD0\Proj\R3421B\_U0-13\_psh.dgn  
 8/28/2018 10:58:38 AM

### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

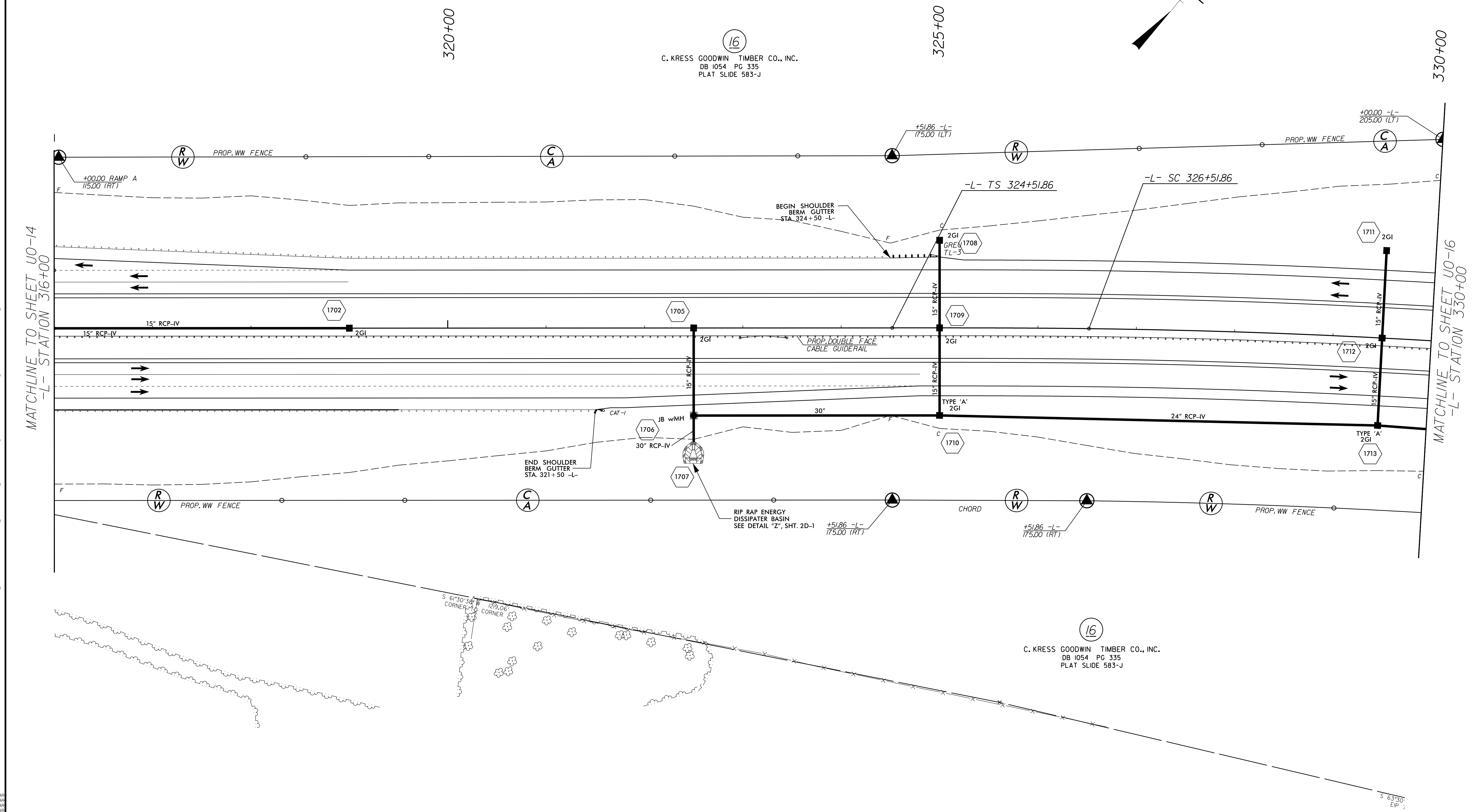
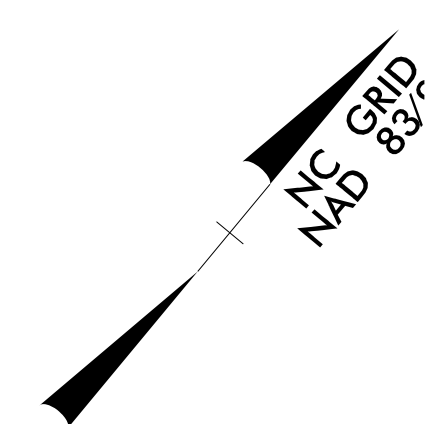


I:\SEP-2019\1433\PROJECTS\2018\A20181001\00.CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B.Uo-14.psh.dgn  
 3/28/2019 10:58:38 AM



### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



16  
 C. KRESS GOODWIN TIMBER CO., INC.  
 DB 1054 PG 335  
 PLAT SLIDE 583-J

16  
 C. KRESS GOODWIN TIMBER CO., INC.  
 DB 1054 PG 335  
 PLAT SLIDE 583-J

MATCHLINE TO SHEET U0-14  
-L- STATION 316+00

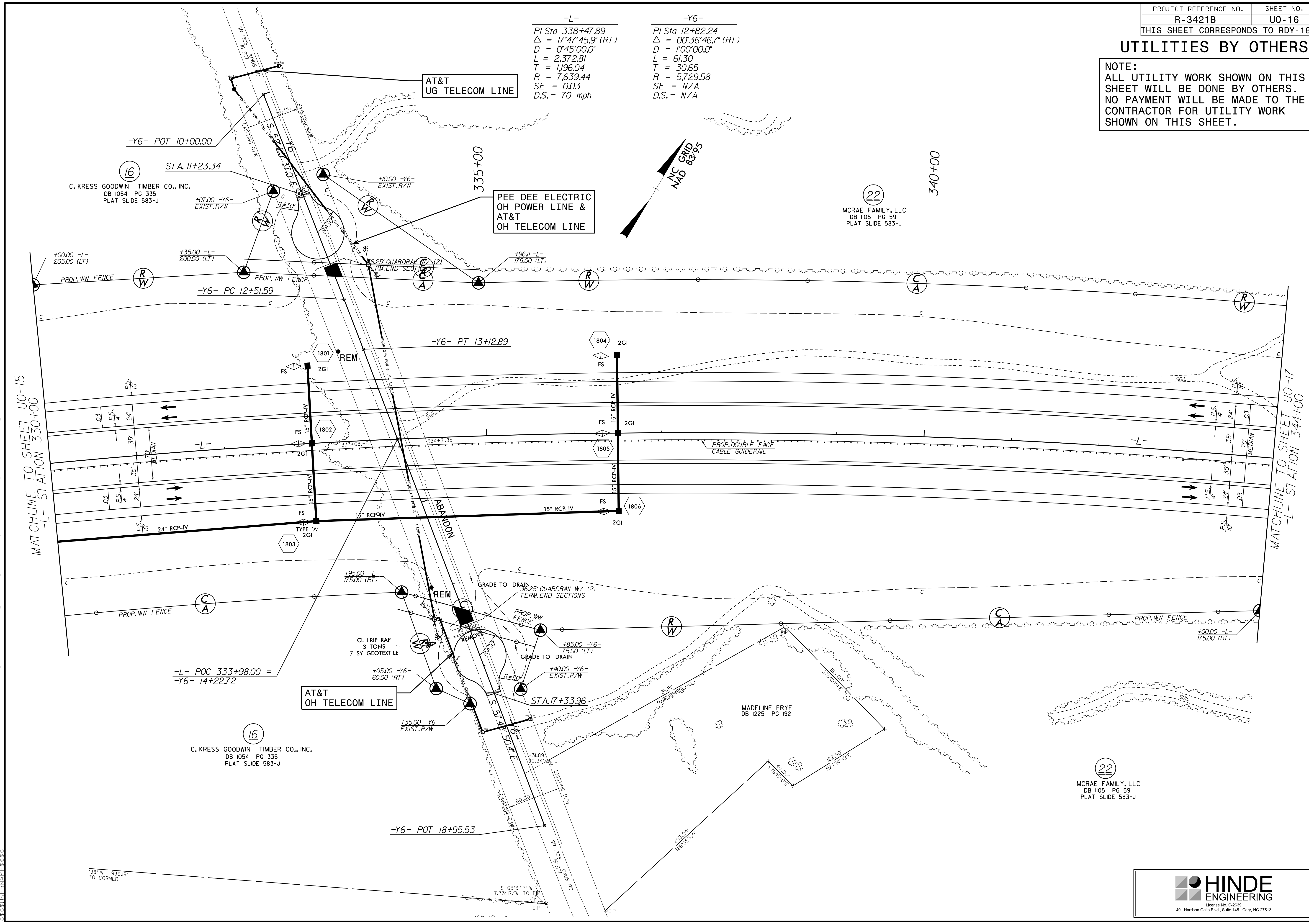
MATCHLINE TO SHEET U0-16  
-L- STATION 330+00

I:\SEP-2019\1438\PROJECTS\2018\A20181001\00\CAL\X-R-3421B\Design\Utilities\Engineering\UBD0\Proj\R3421B-Ut-rdy17-U0-15-psh.dgn

### UTILITIES BY OTHERS

NOTE:  
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

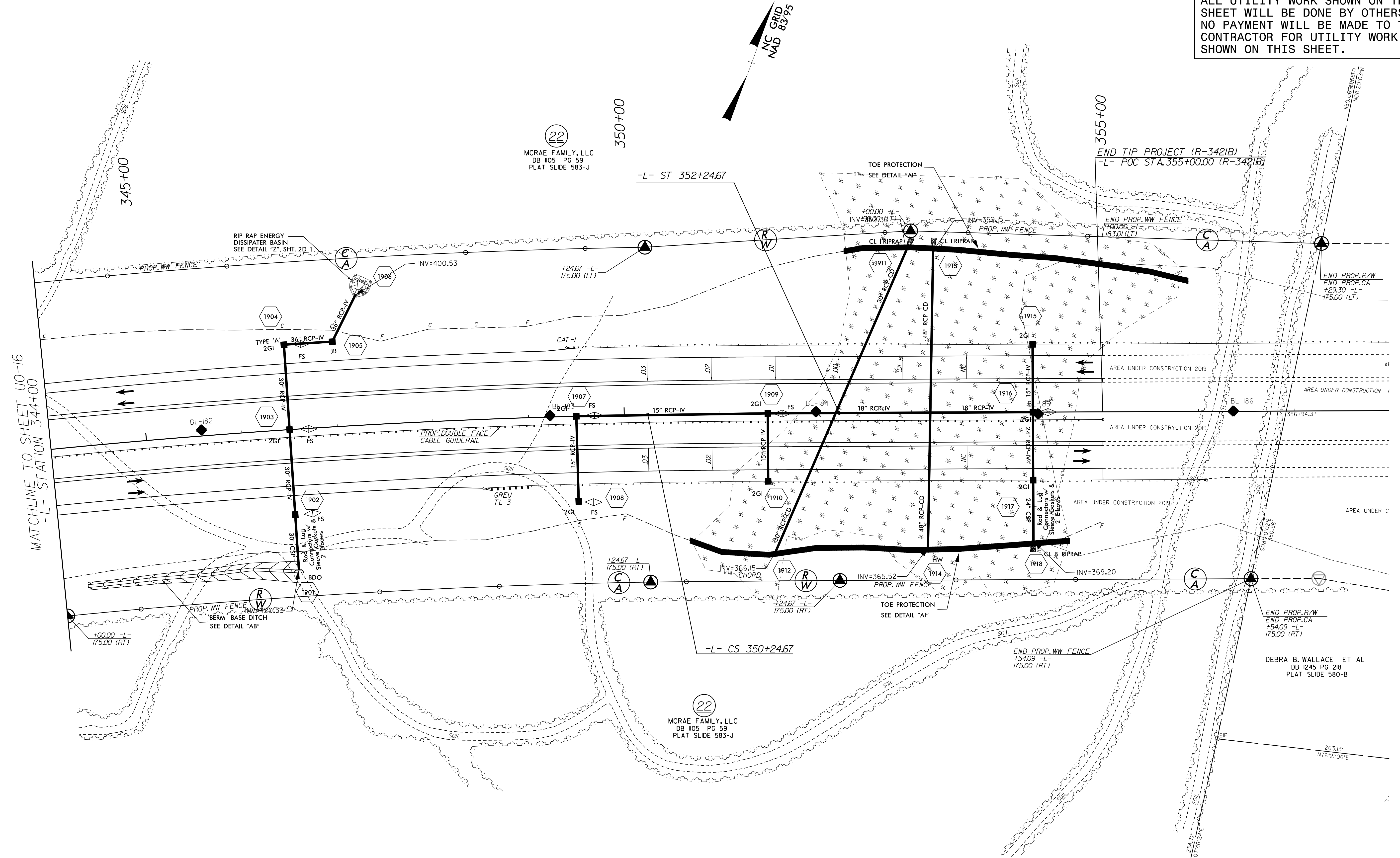
-L-	-Y6-
PI Sta 338+47.89	PI Sta 12+82.24
$\Delta = 17^{\circ}47'45.9" (RT)$	$\Delta = 00^{\circ}36'46.7" (RT)$
$D = 0^{\circ}45'00.0"$	$D = 100^{\circ}00.0"$
$L = 2,372.81$	$L = 61.30$
$T = 1,196.04$	$T = 30.65$
$R = 7,639.44$	$R = 5,729.58$
$SE = 0.03$	$SE = N/A$
$D.S. = 70 \text{ mph}$	$D.S. = N/A$



I:\SEP-2019\14-33\PROJECTS\2018\A20181001\00.CAL.XX.R-3421B\Design\Utilities\Engineering\UO-16.psh.dgn  
 2018-09-14 14:33  
 2018-09-14 14:33  
 2018-09-14 14:33

### UTILITIES BY OTHERS

**NOTE:**  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



MATCHLINE TO SHEET UO-16  
 -L- STATION 344+00

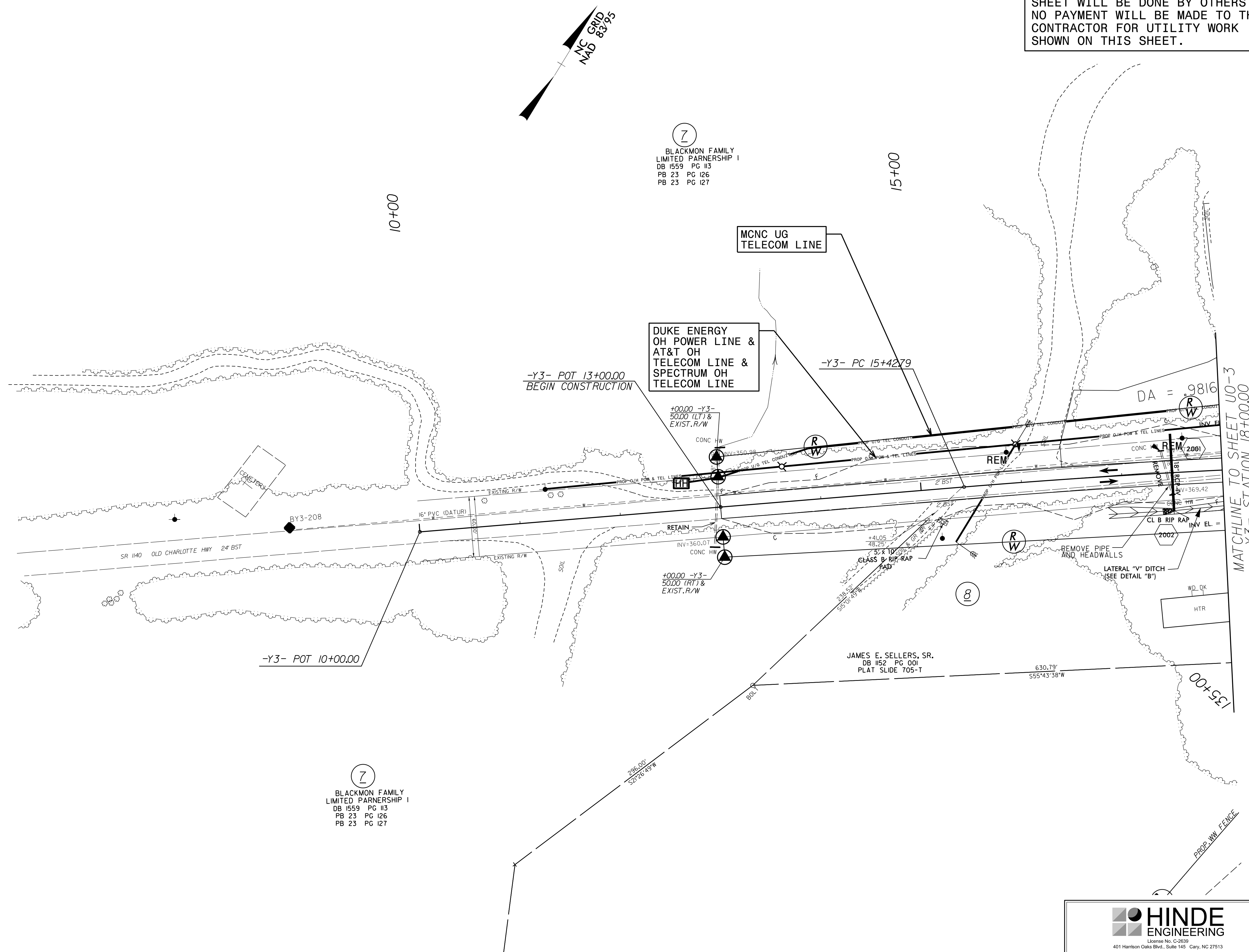
R:\SEP-2019\1433\PROJECTS\2018\A20181001\00.CAL.XX.R-3421B\Design\Utilities\Engineering\UO-17.psh.dgn



### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

I:\2018\PROJECTS\2018\A20181001\00.CAL.XX.R-3421B\Design\Utilities\Engineering\UBD0\Proc\A20181001\00.UO-18.psh.dgn  
 2018-09-14 14:33  
 2018-09-14 14:33  
 2018-09-14 14:33



7  
 BLACKMON FAMILY  
 LIMITED PARTNERSHIP I  
 DB 1559 PG 113  
 PB 23 PG 126  
 PB 23 PG 127

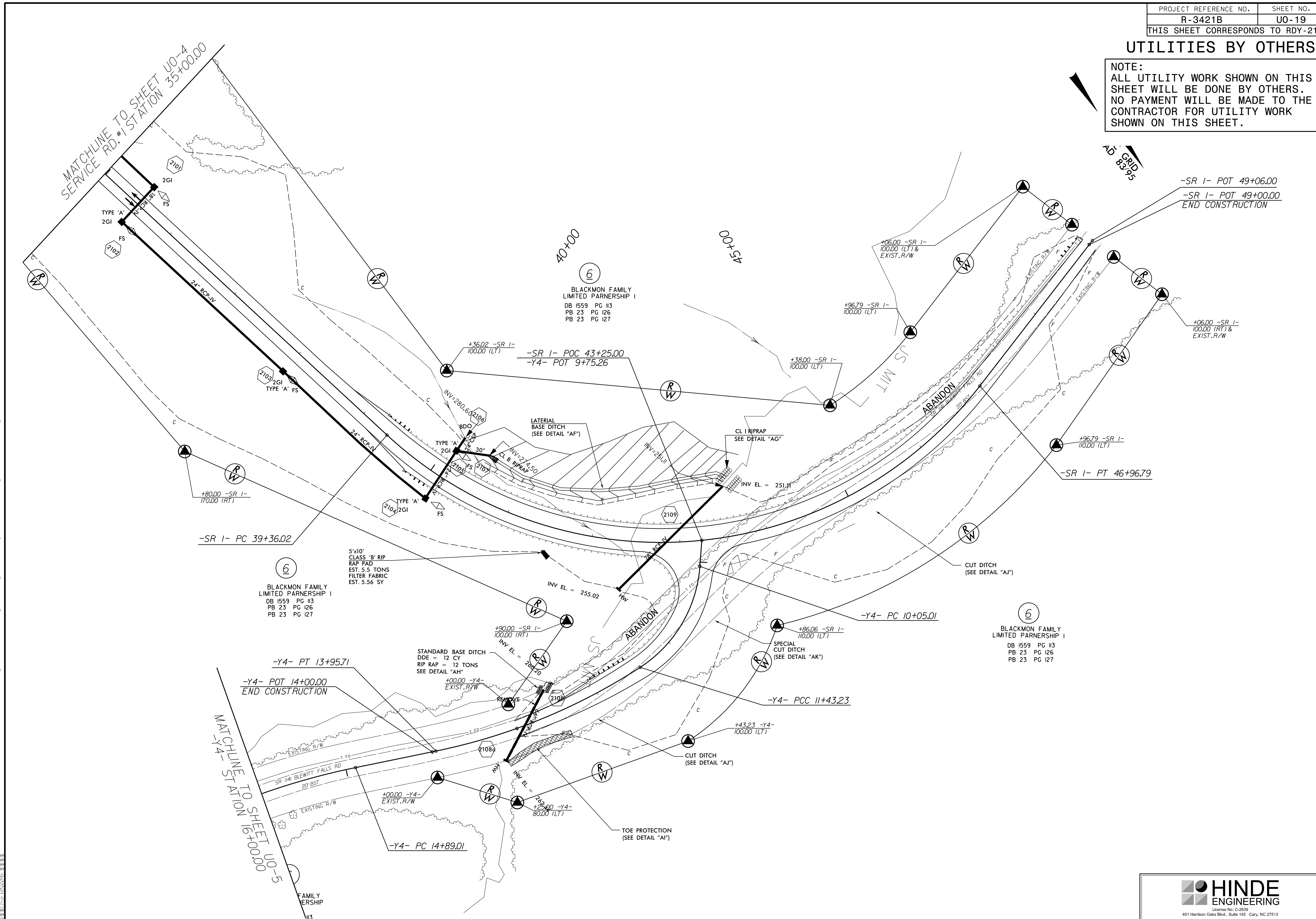
7  
 BLACKMON FAMILY  
 LIMITED PARTNERSHIP I  
 DB 1559 PG 113  
 PB 23 PG 126  
 PB 23 PG 127

JAMES E. SELLERS, SR.  
 DB 1152 PG 001  
 PLAT SLIDE 705-T

MATCHLINE TO SHEET UO-3  
 -Y3- STATION 18+00.00

### UTILITIES BY OTHERS

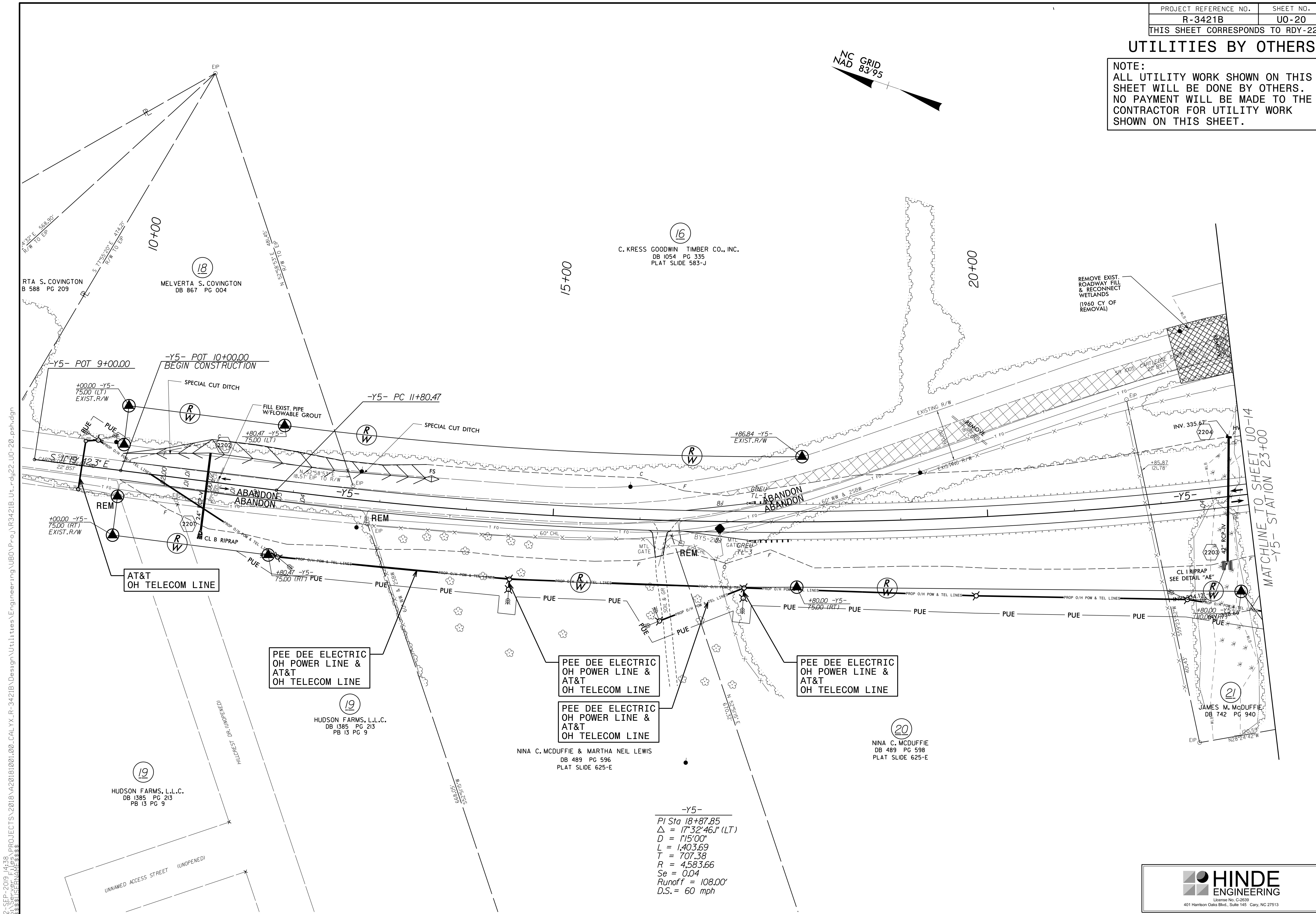
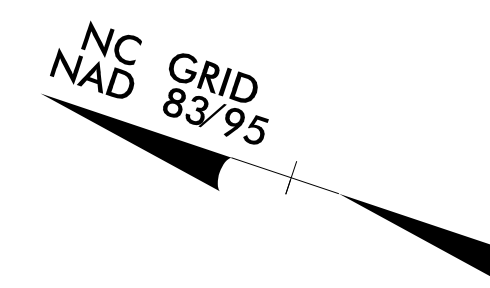
NOTE:  
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



R:\SEP-2019\1433\PROJECTS\2018\A20181001\00.CAL.XX.R-3421B\Design\Utilities\Engineering\UBD\Proj\R3421B.Uo-19\_rdy21.UO-19\_psh.dgn  
 3/23/2019 10:58:58 AM

### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



16  
 C. KRESS GOODWIN TIMBER CO., INC.  
 DB 1054 PG 335  
 PLAT SLIDE 583-J

18  
 MELVERTA S. COVINGTON  
 DB 867 PG 004

I:\SEP-2019\1433\PROJECTS\2018\A20181001\00\_CAL.XX.R-3421B\Design\Utilities\Engineering\UBD\Proj\R3421B\_U0-20\_psh.dgn  
 1433\PROJECTS\2018\A20181001\00\_CAL.XX.R-3421B\Design\Utilities\Engineering\UBD\Proj\R3421B\_U0-20\_psh.dgn  
 1433\PROJECTS\2018\A20181001\00\_CAL.XX.R-3421B\Design\Utilities\Engineering\UBD\Proj\R3421B\_U0-20\_psh.dgn

19  
 HUDSON FARMS, L.L.C.  
 DB 1385 PG 213  
 PB 13 PG 9

PEE DEE ELECTRIC  
 OH POWER LINE &  
 AT&T  
 OH TELECOM LINE

19  
 HUDSON FARMS, L.L.C.  
 DB 1385 PG 213  
 PB 13 PG 9

PEE DEE ELECTRIC  
 OH POWER LINE &  
 AT&T  
 OH TELECOM LINE

PEE DEE ELECTRIC  
 OH POWER LINE &  
 AT&T  
 OH TELECOM LINE

NINA C. MCDUFFIE & MARTHA NEIL LEWIS  
 DB 489 PG 596  
 PLAT SLIDE 625-E

PEE DEE ELECTRIC  
 OH POWER LINE &  
 AT&T  
 OH TELECOM LINE

20  
 NINA C. MCDUFFIE  
 DB 489 PG 598  
 PLAT SLIDE 625-E

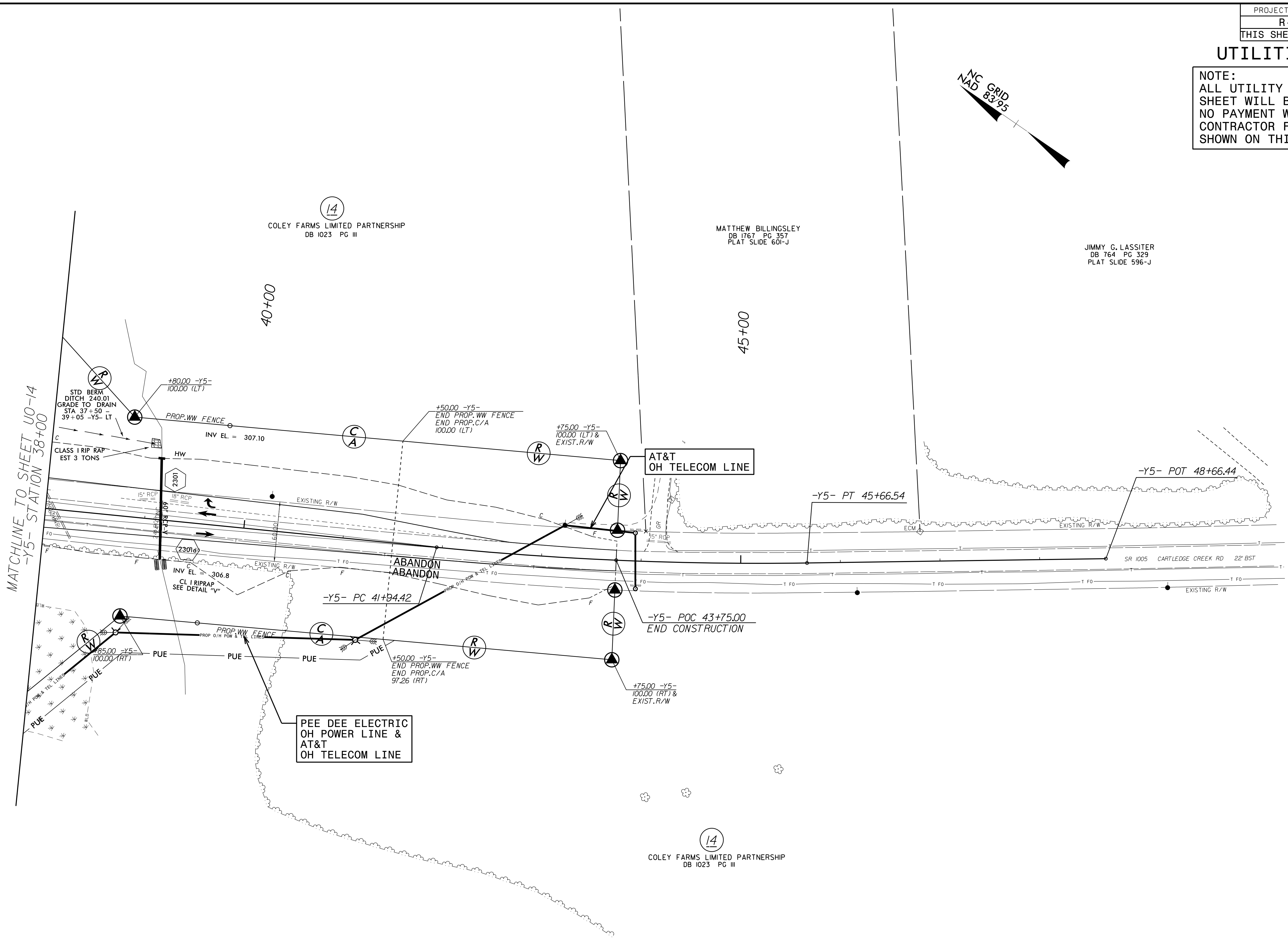
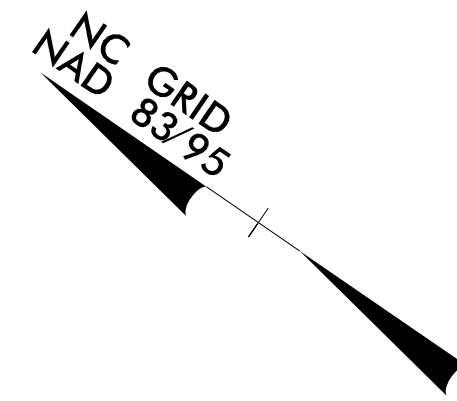
21  
 JAMES M. MCDUFFIE  
 DB 742 PG 940

-Y5-  
 PI Sta 18+87.85  
 $\Delta = 17^{\circ}32'46.1''$  (LT)  
 D = 115'00"  
 L = 1,403.69  
 T = 707.38  
 R = 4,583.66  
 Se = 0.04  
 Runoff = 108.00'  
 D.S. = 60 mph



### UTILITIES BY OTHERS

NOTE:  
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.  
 NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



I:\SEP-2019\1433\PROJECTS\2018\A20181001\00\CAL YX.R-3421B\Design\Utilities\Engineering\UBD0\Proc\N3421B.Ut\_rdy23\_U0-21\_psh.dgn  
 1433  
 09/11/2019 11:58:38 AM