

TIP PROJECT: R-3421A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.

SHEET NO.

R-3421A

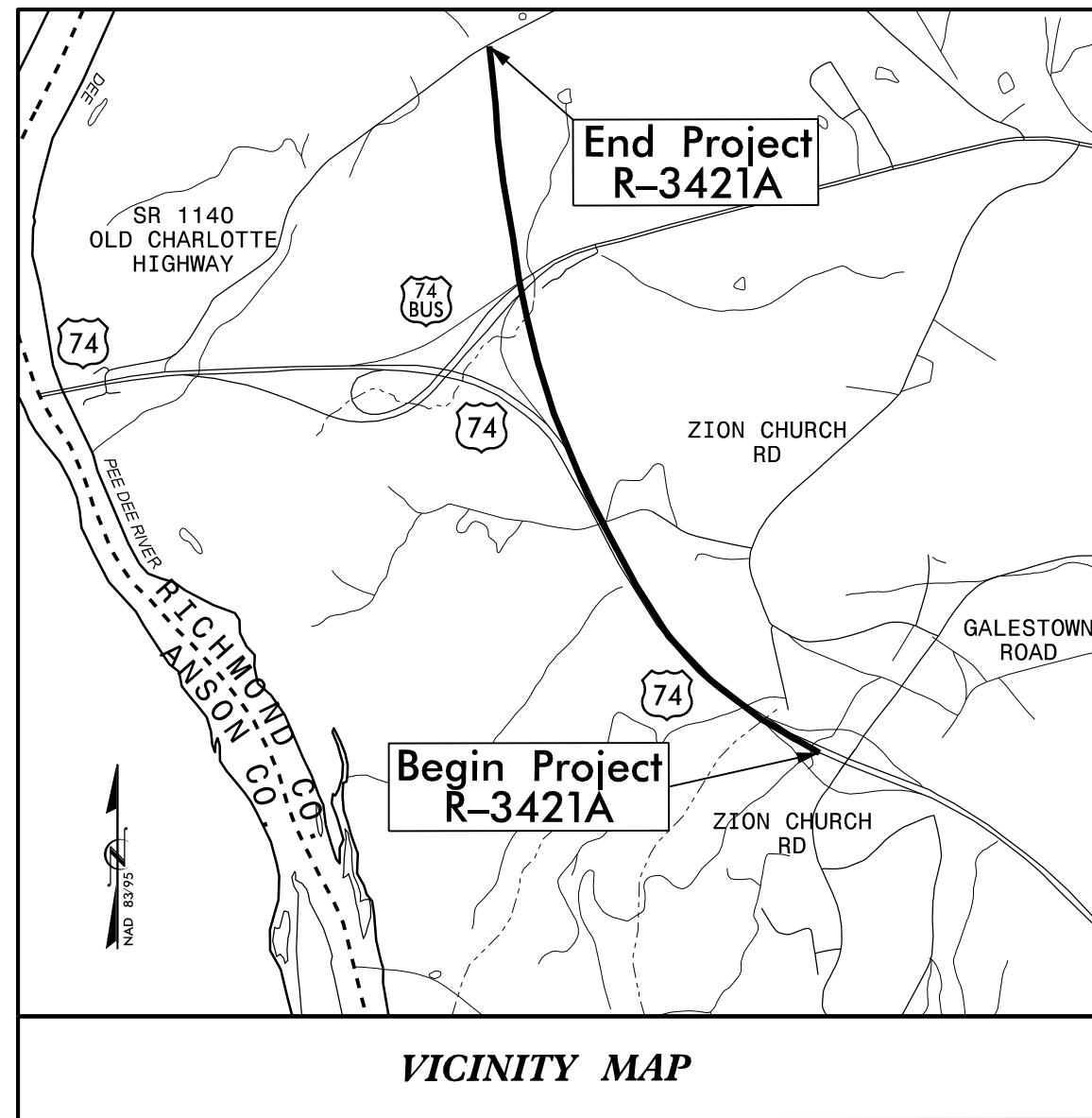
UC-1

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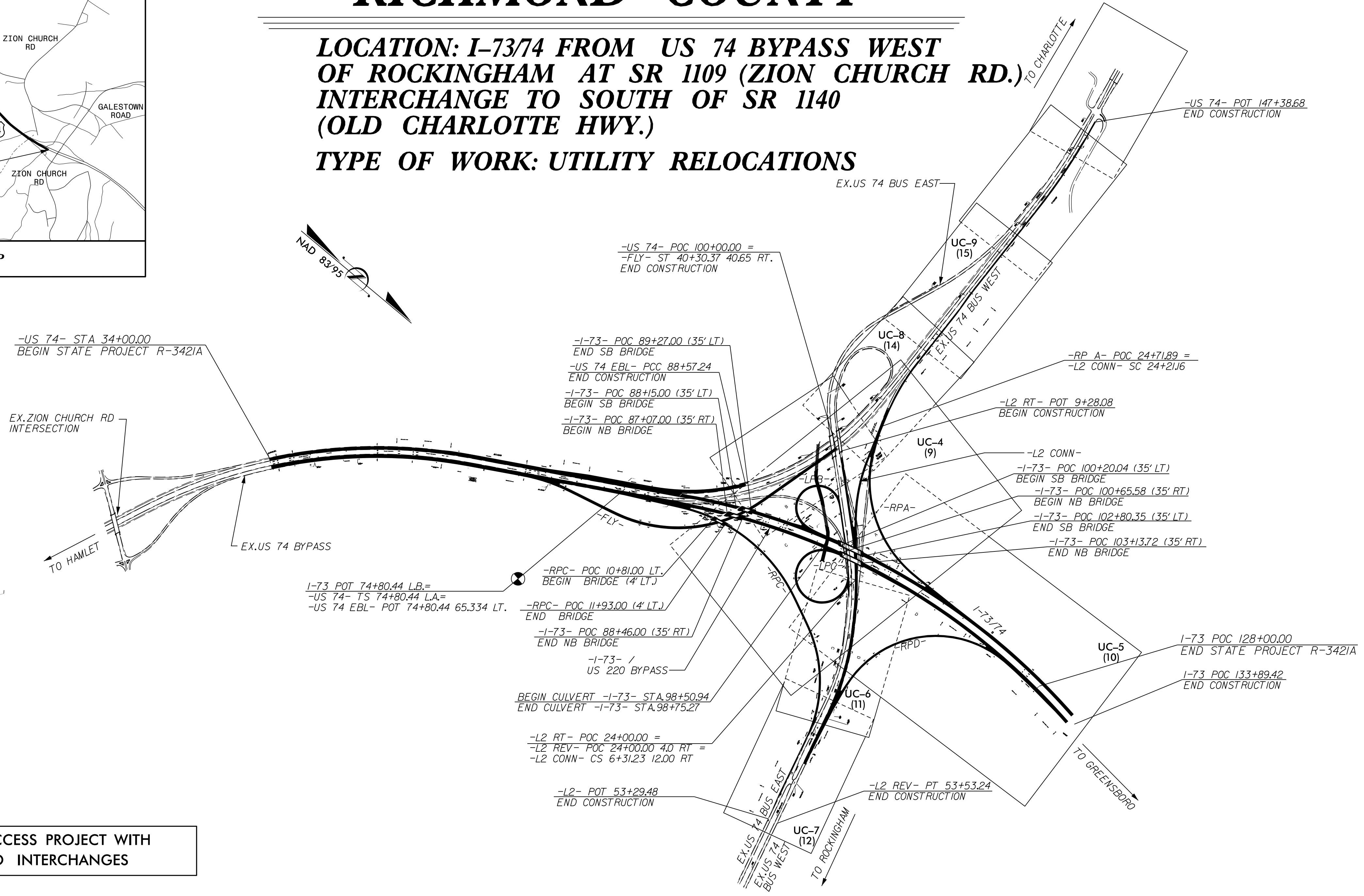
UTILITY CONSTRUCTION PLANS
RICHMOND COUNTY

LOCATION: I-73/74 FROM US 74 BYPASS WEST
OF ROCKINGHAM AT SR 1109 (ZION CHURCH RD.)
INTERCHANGE TO SOUTH OF SR 1140
(OLD CHARLOTTE HWY.)

TYPE OF WORK: UTILITY RELOCATIONS

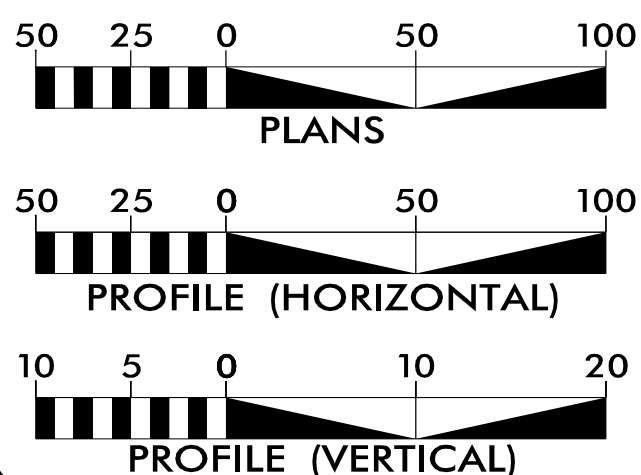


VICINITY MAP



THIS IS A CONTROLLED-ACCESS PROJECT WITH
ACCESS BEING LIMITED TO INTERCHANGES

GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A	DETAILS
UC-4 THRU UC-9	UTILITY CONSTRUCTION SHEETS
UC-10 THRU UC-19	PROFILE SHEETS

WATER AND SEWER OWNERS ON PROJECT

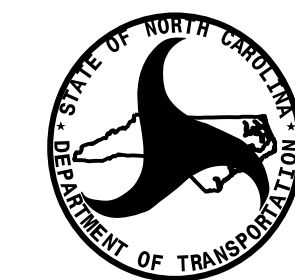
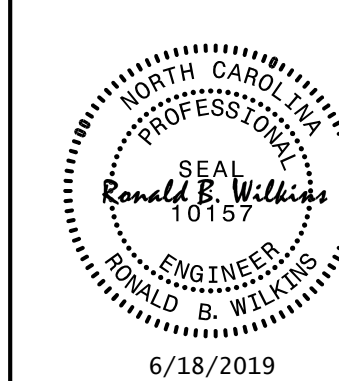
(A) WATER - RICHMOND COUNTY

PREPARED IN THE OFFICE OF:



Clint L. Stevens, P.E. UTILITIES PROJECT MANAGER
 Ron B. Wilkins, P.E. UTILITIES PROJECT ENGINEER
 Jordan K. Chapman UTILITIES PROJECT DESIGNER

SEAL




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

Travis L. Morgan, P.E. DIVISION CONTACT #1
 James D. Yow DIVISION CONTACT #2
 Xxxxx X.Xxxxx DIVISION CONTACT #3
 Xxxxx X.Xxxxx DIVISION CONTACT #4


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UTILITY CONSTRUCTION



7520 E. Independence Blvd., Suite 230 Charlotte, NC 28227
License No. C-2639

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PROJECT REFERENCE NO.	SHEET NO.
R-3421A	UC-3
DESIGNED BY: RBW	
DRAWN BY: RBW	
CHECKED BY: CLS	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2018.
2. THE EXISTING UTILITIES BELONG TO RICHMOND COUNTY. THE CONTACT FOR THE COUNTY IS:

MR. JERRY AUSTIN
PUBLIC WORKS DIRECTOR
910-997-8338
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.
7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

PROJECT SPECIFIC NOTES:

1. THE BPS (BOOSTER PUMP STATION) THAT IS TO BE LOCATED ON PARCEL 20 SHALL BE CONSTRUCTED AND PLACED INTO SERVICE AS NOTED IN THE SPECIAL PROVISIONS. ALL ACTIVITIES RELATED TO THE BPS SHALL BE CAREFULLY COORDINATED WITH THE ENGINEER AND THE OWNER.

LIST OF STANDARD DRAWINGS

1515.02 FIRE HYDRANT


UTILITY CONSTRUCTION

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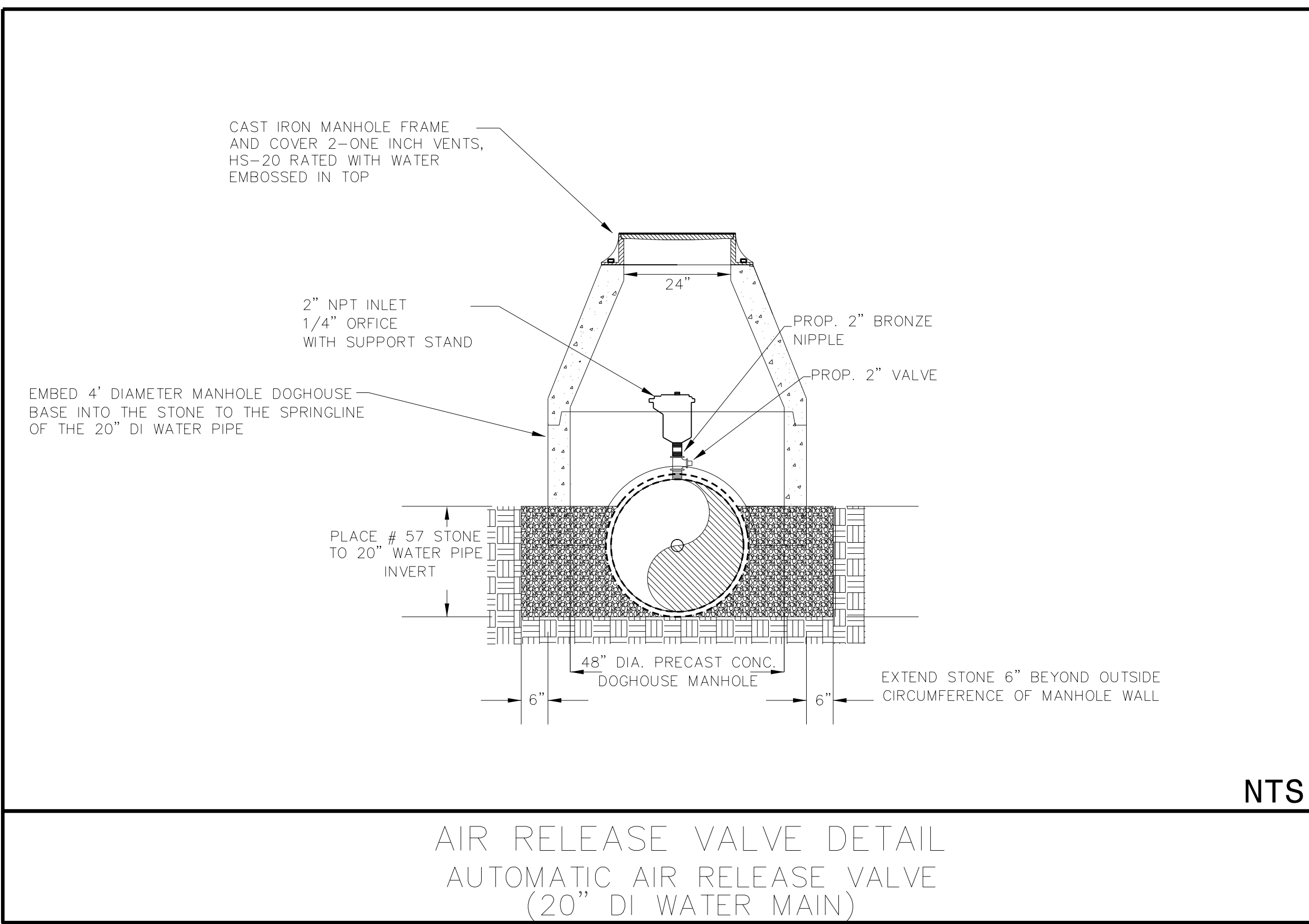
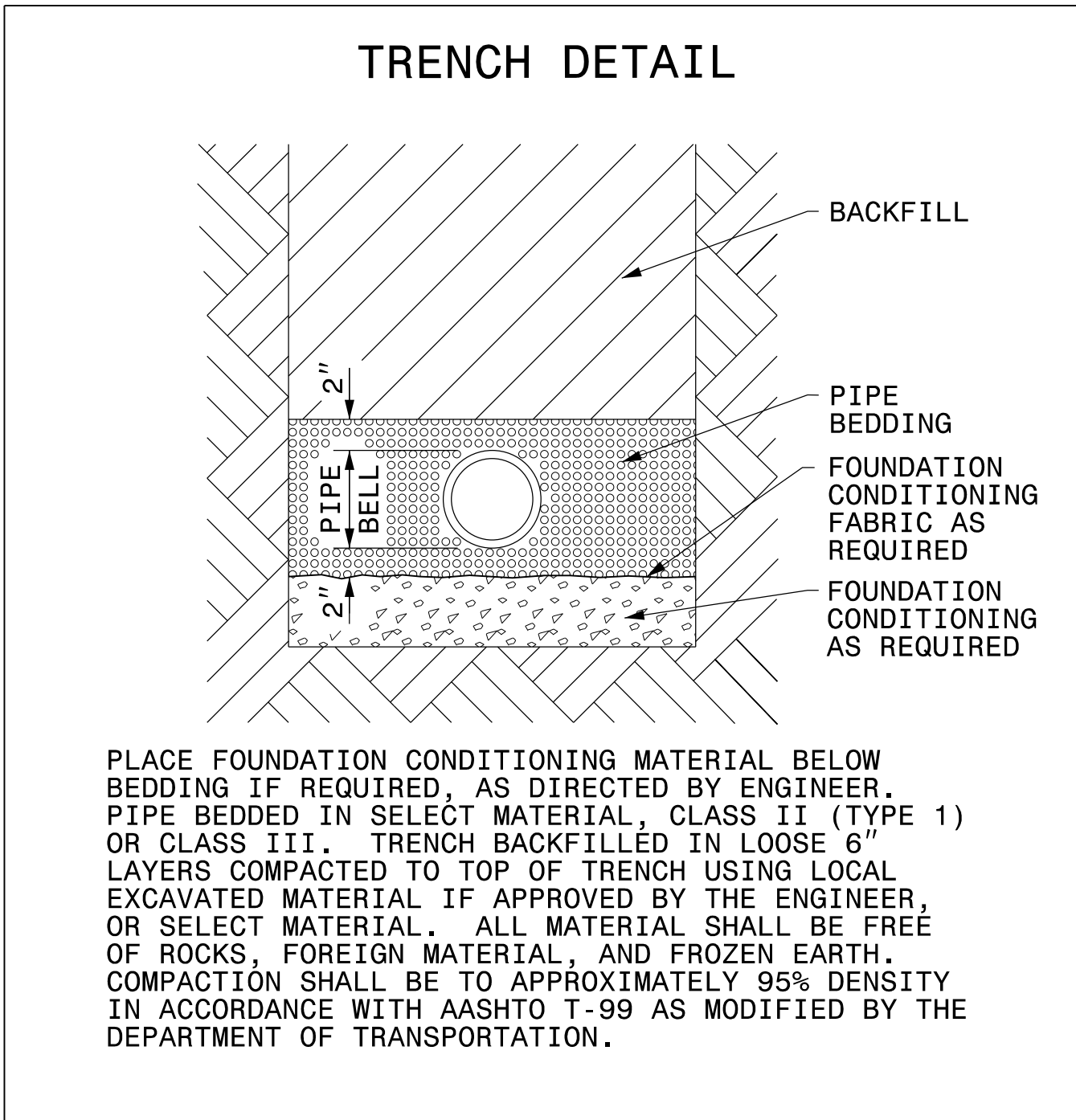


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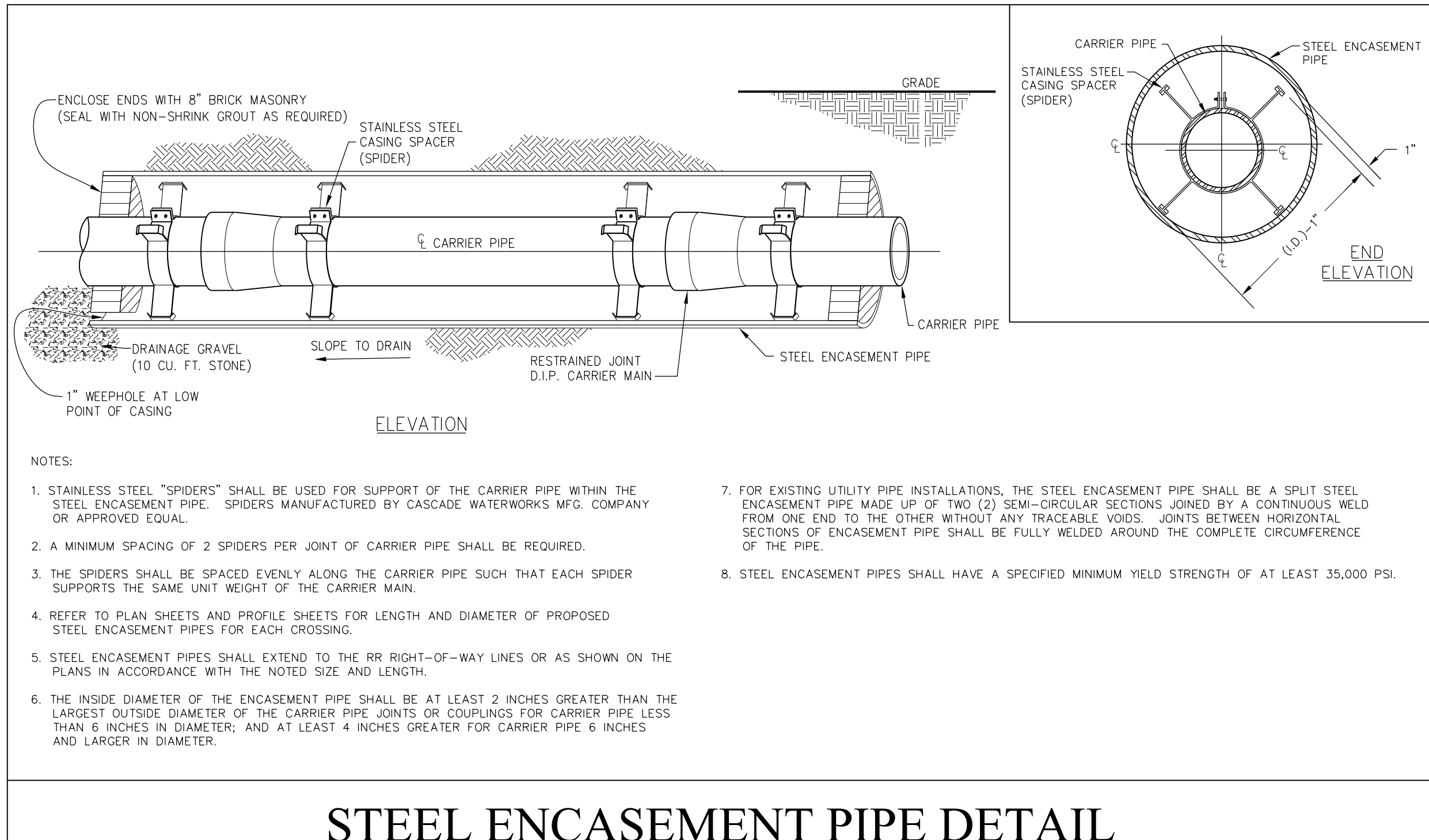
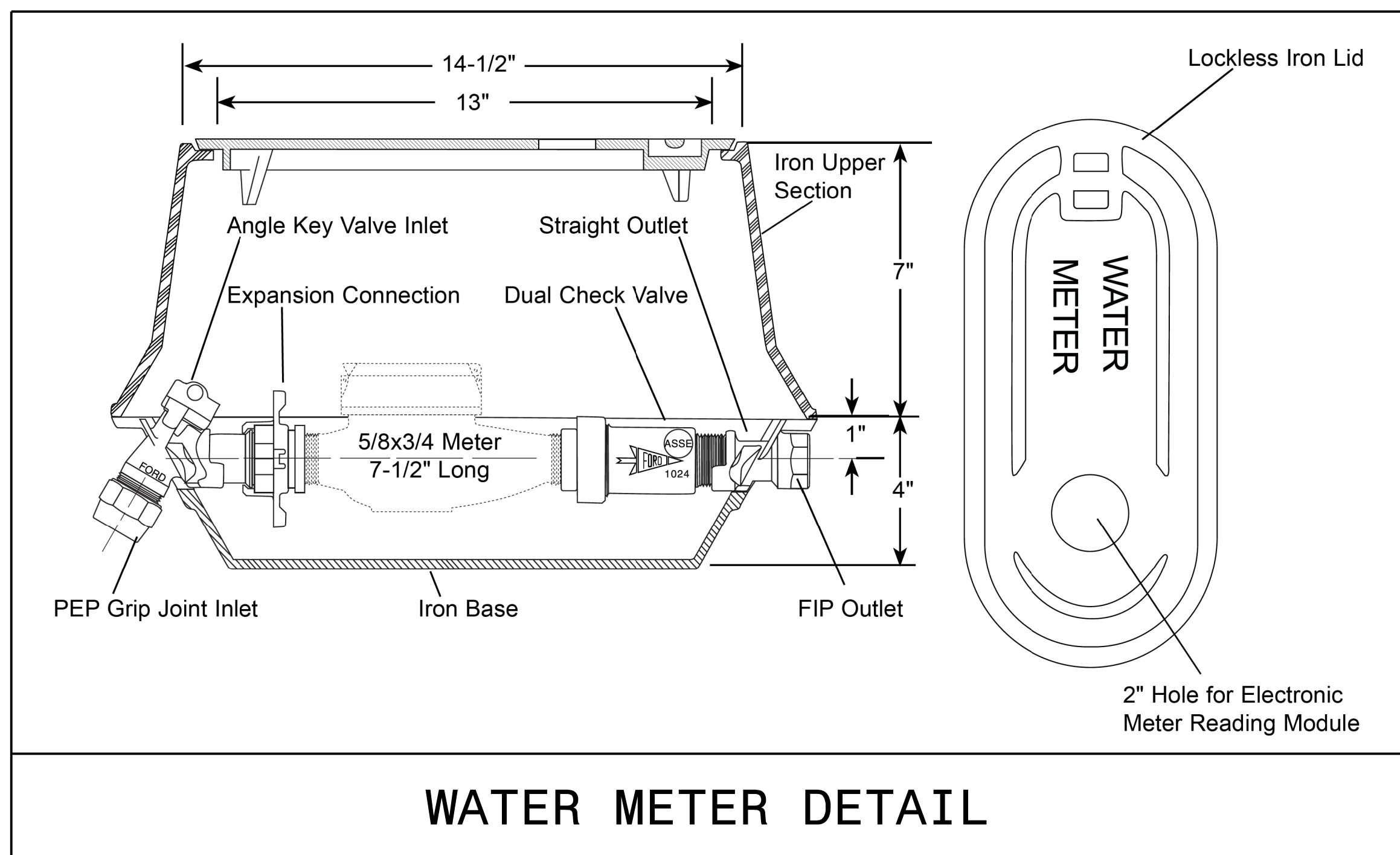
PROJECT REFERENCE NO.	SHEET NO.
R-3421A	UC-3A
DESIGNED BY: RBW	
DRAWN BY: JKC	
CHECKED BY: CLS	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

MAXIMUM TRENCH WIDTH AT TOP OF PIPE			
NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		



UTILITY CONSTRUCTION

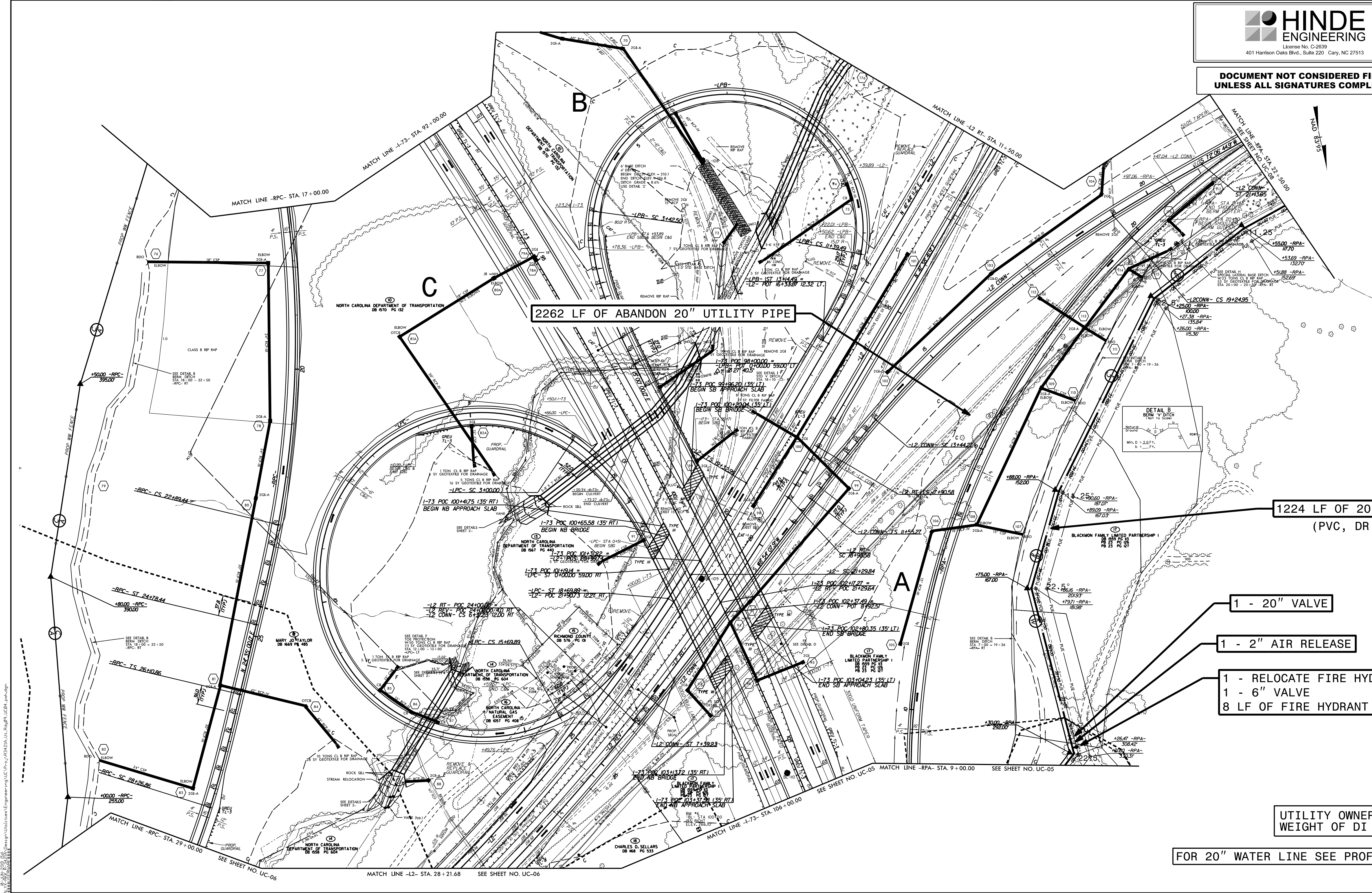
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PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-4
DESIGNED BY: JKC	
DRAWN BY: JKC	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY 6/18/2019	



UTILITY CONSTRUCTION

1224 LF OF 20" WATER LINE
(PVC, DR 18 C905)

1 - 20" VALVE

1 - 2" AIR RELEASE

1 - RELOCATE FIRE HYDRANT
1 - 6" VALVE
8 LF OF FIRE HYDRANT LEG

UTILITY OWNER IS RICHMOND COUNTY
WEIGHT OF DI FITTINGS IS 3225#

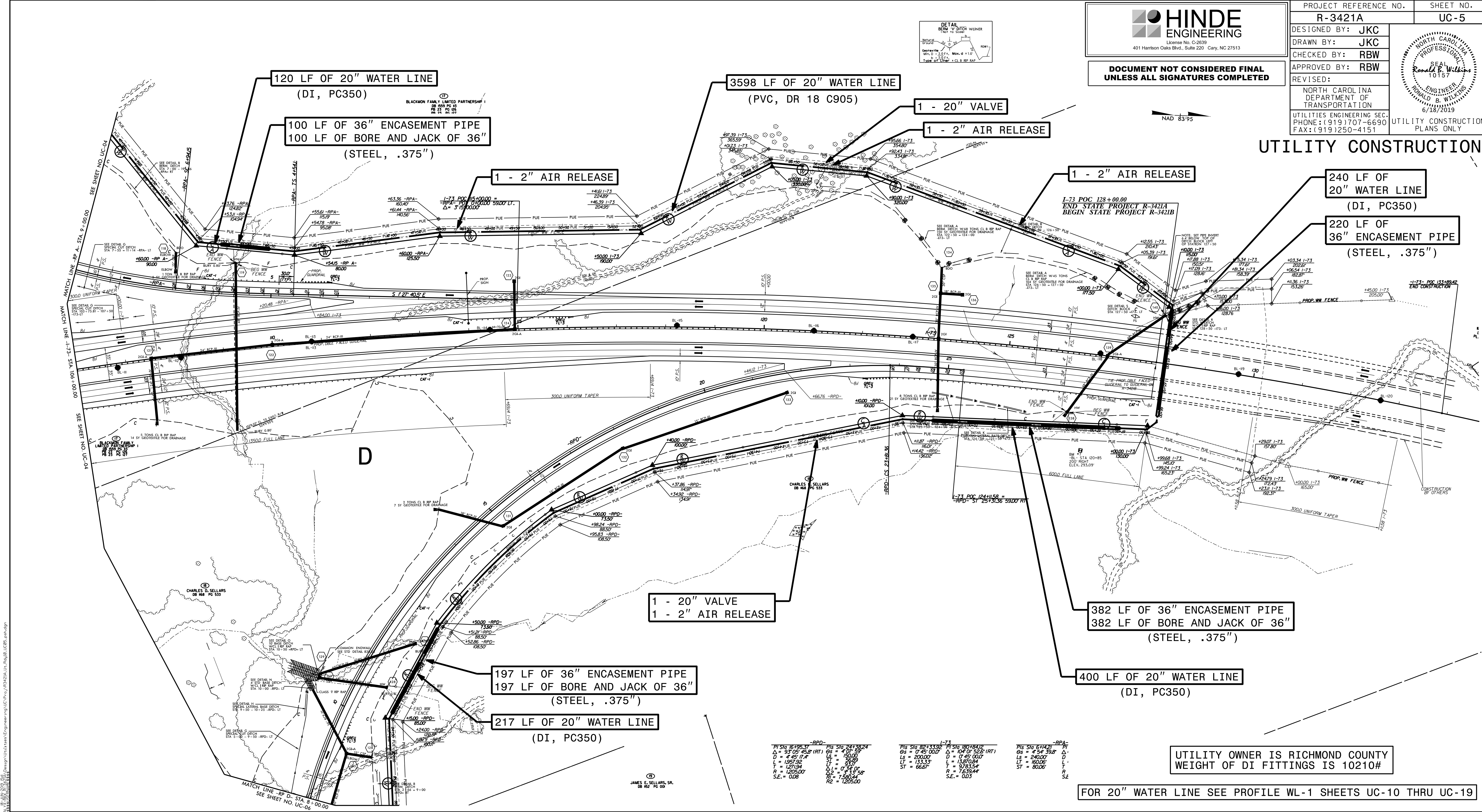
FOR 20" WATER LINE SEE PROFILE WL-1 SHEETS UC-10 THRU UC-19

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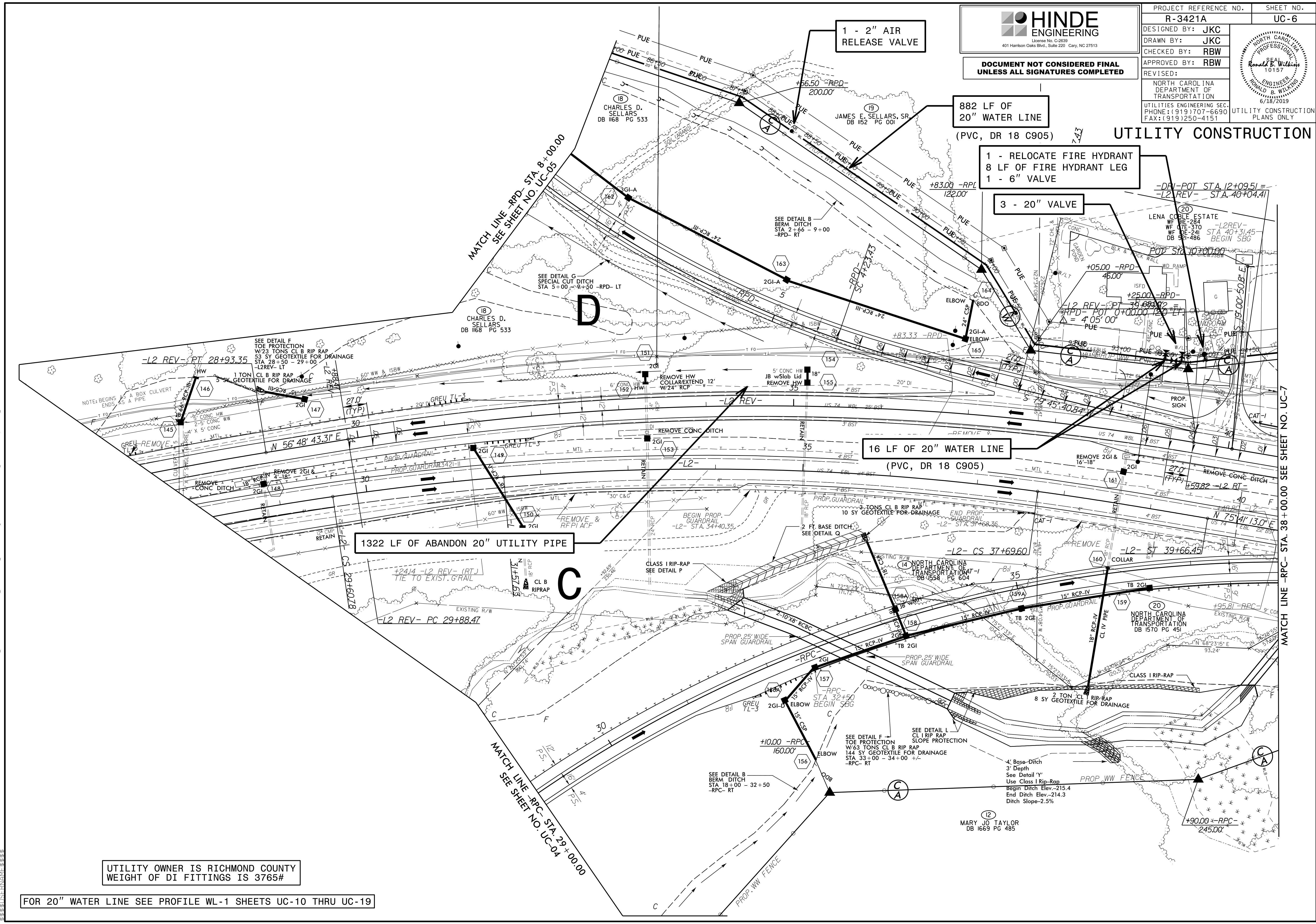
PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-5
DESIGNED BY: JKC	
DRAWN BY: JKC	
CHECKED BY: RBW	
APPROVED BY: RBW	
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PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-6
DESIGNED BY: JKC	
DRAWN BY: JKC	
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APPROVED BY: RBW	
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UTILITY OWNER IS RICHMOND COUNTY
 WEIGHT OF DI FITTINGS IS 3765#

FOR 20" WATER LINE SEE PROFILE WL-1 SHEETS UC-10 THRU UC-19

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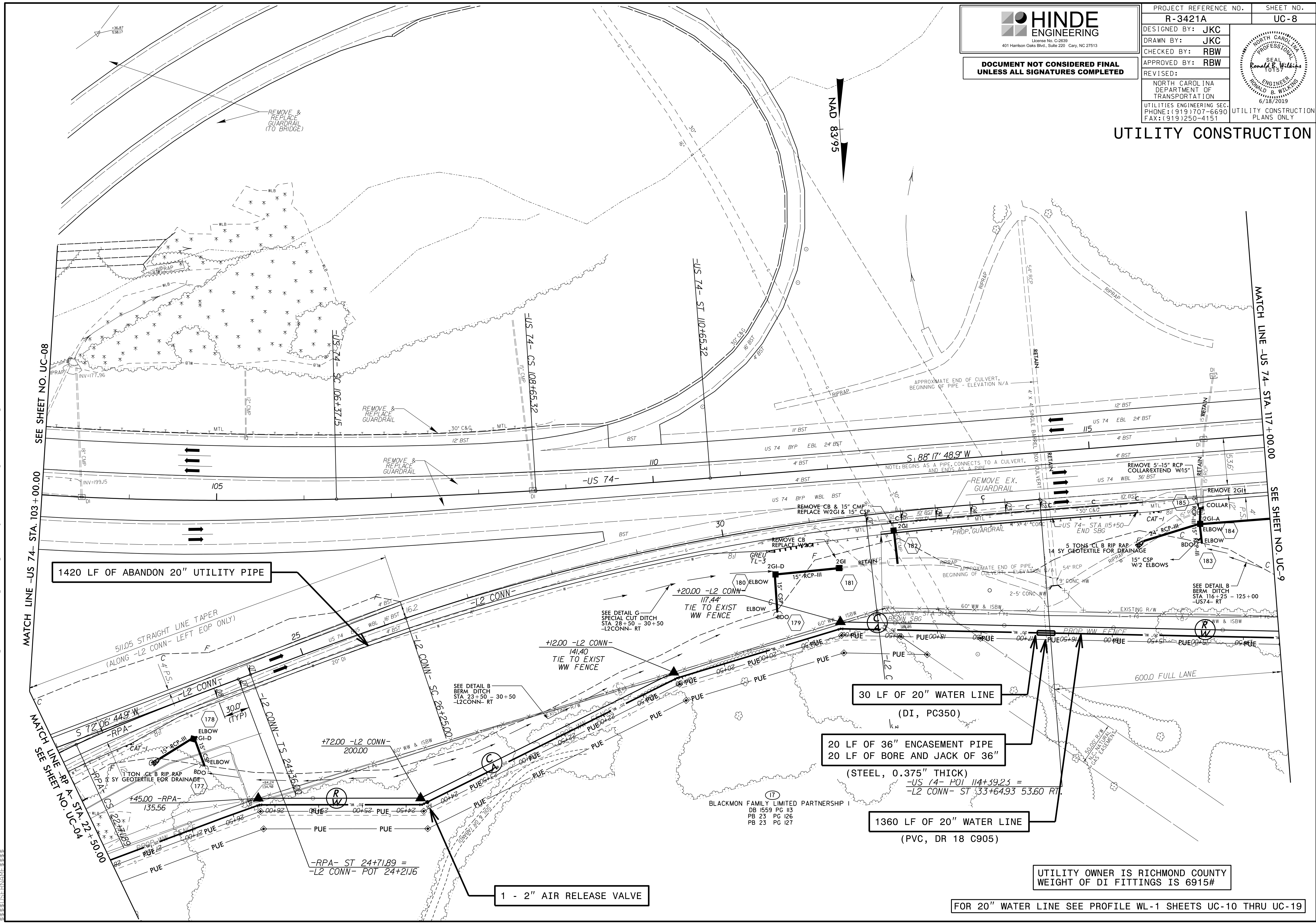
MATCH LINE -RPC- STA. 38+00.00 SEE SHEET NO. UC-7

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PROJECT REFERENCE NO.	R-3421A	SHEET NO.	UC-8
DESIGNED BY:	JKC		
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APPROVED BY:	RBW		
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UTILITY CONSTRUCTION



1420 LF OF ABANDON 20" UTILITY PIPE

30 LF OF 20" WATER LINE
(DI, PC350)

20 LF OF 36" ENCASEMENT PIPE
20 LF OF BORE AND JACK OF 36"
(STEEL, 0.375" THICK)
-US 74- POL 114+39.23 =
-L2 CONN- ST 33+64.93 53.60 RT.

1360 LF OF 20" WATER LINE
(PVC, DR 18 C905)

1 - 2" AIR RELEASE VALVE

UTILITY OWNER IS RICHMOND COUNTY
WEIGHT OF DI FITTINGS IS 6915#

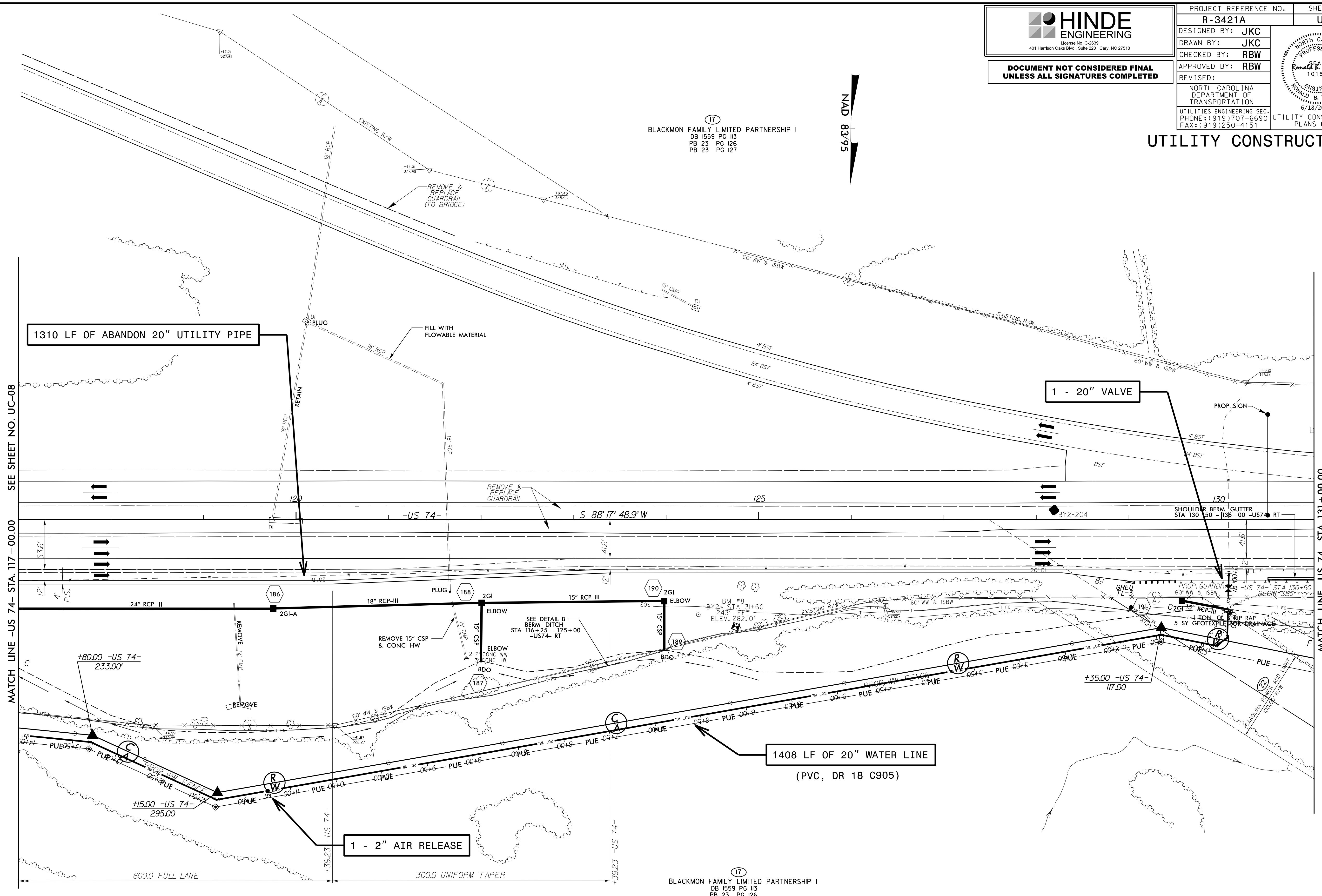
FOR 20" WATER LINE SEE PROFILE WL-1 SHEETS UC-10 THRU UC-19

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PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-9
DESIGNED BY: JKC	
DRAWN BY: JKC	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 6/18/2019 UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION	



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

NAD 83/95

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

UTILITY OWNER IS RICHMOND COUNTY
 WEIGHT OF DI FITTINGS IS 5315#

FOR 20" WATER LINE SEE PROFILE WL-1 SHEETS UC-10 THRU UC-19

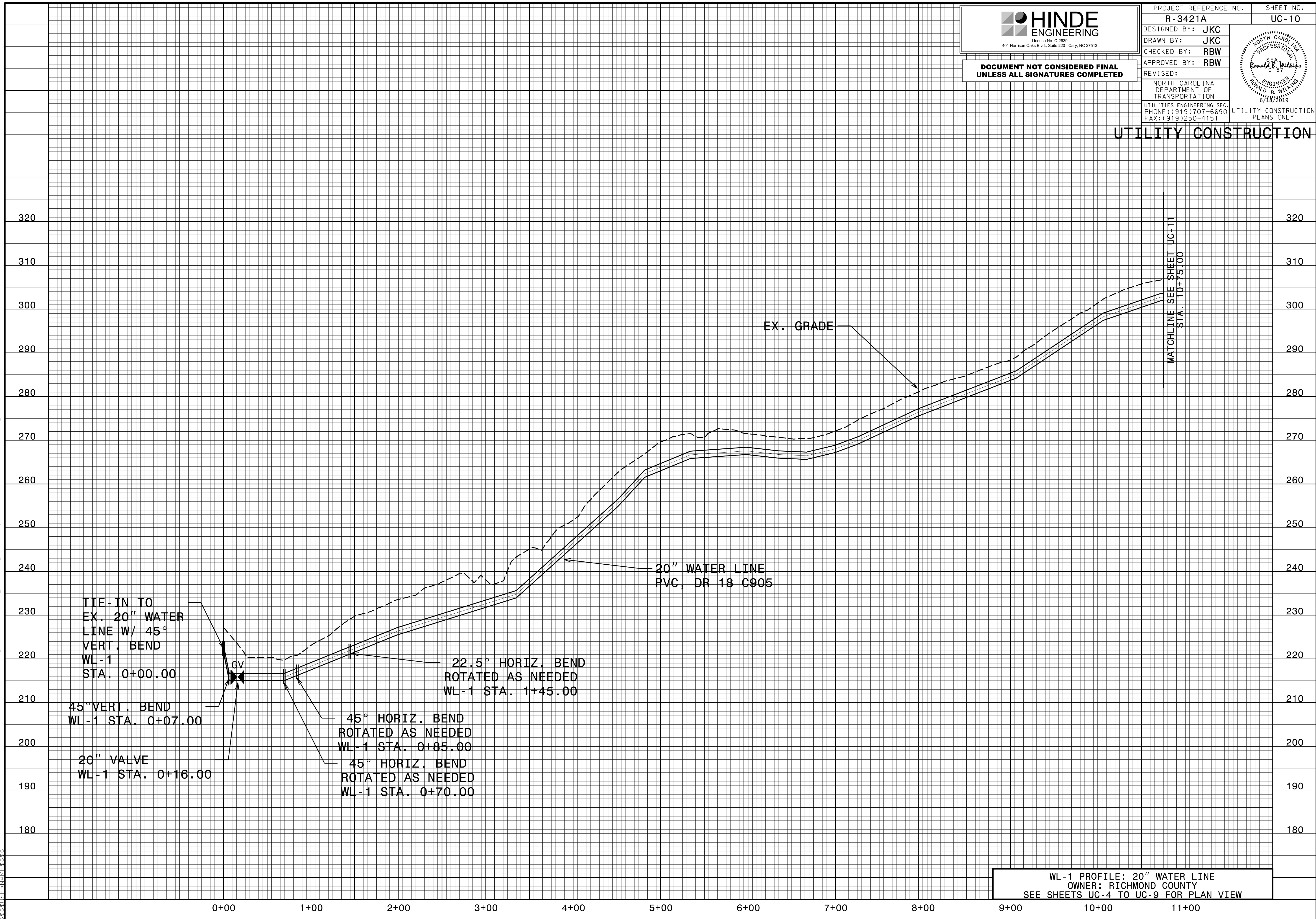
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PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-10
DESIGNED BY: JKC	
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APPROVED BY: RBW	
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UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



**WL-1 PROFILE: 20" WATER LINE
 OWNER: RICHMOND COUNTY
 SEE SHEETS UC-4 TO UC-9 FOR PLAN VIEW**

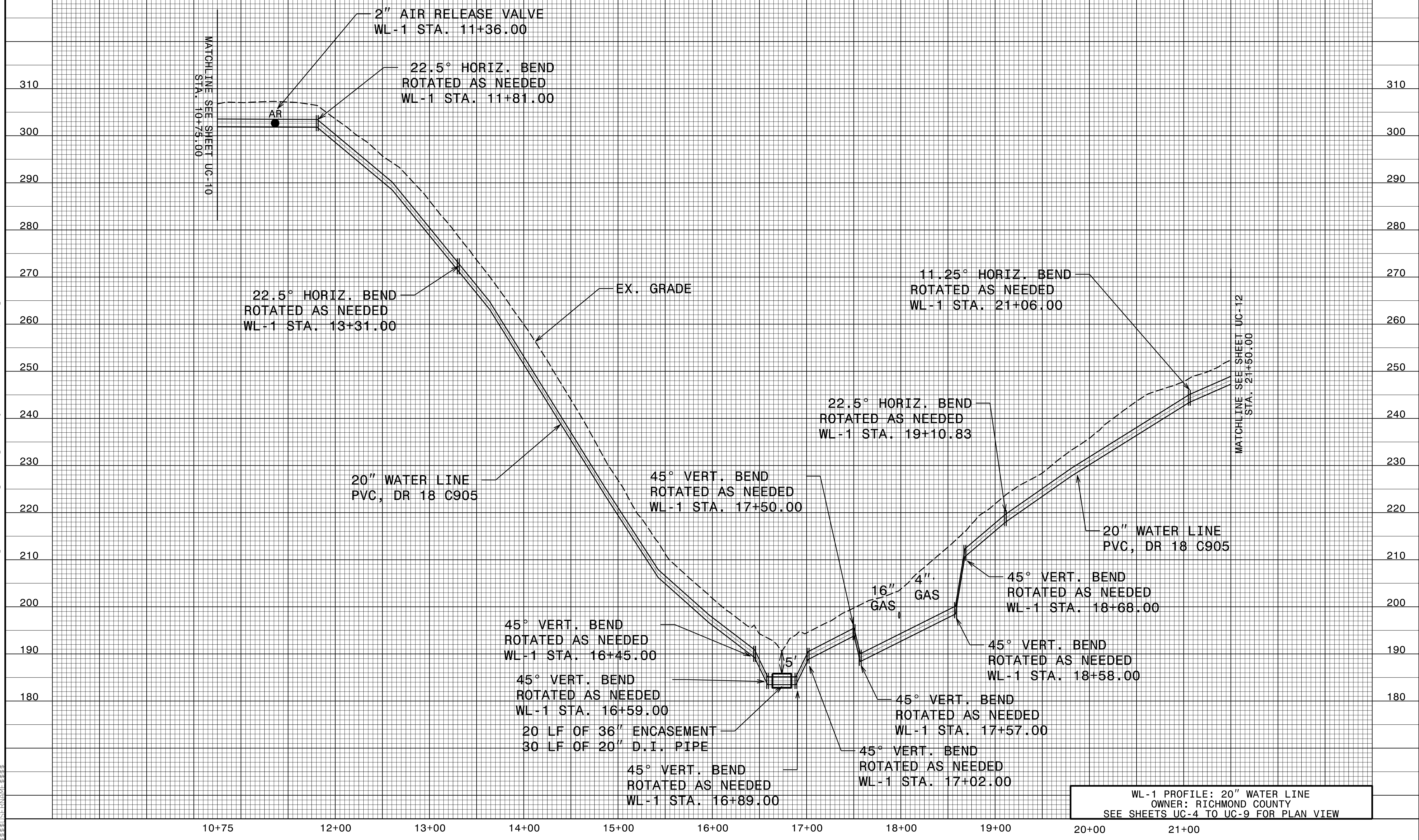
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CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION



WL-1 PROFILE: 20" WATER LINE
 OWNER: RICHMOND COUNTY
 SEE SHEETS UC-4 TO UC-9 FOR PLAN VIEW

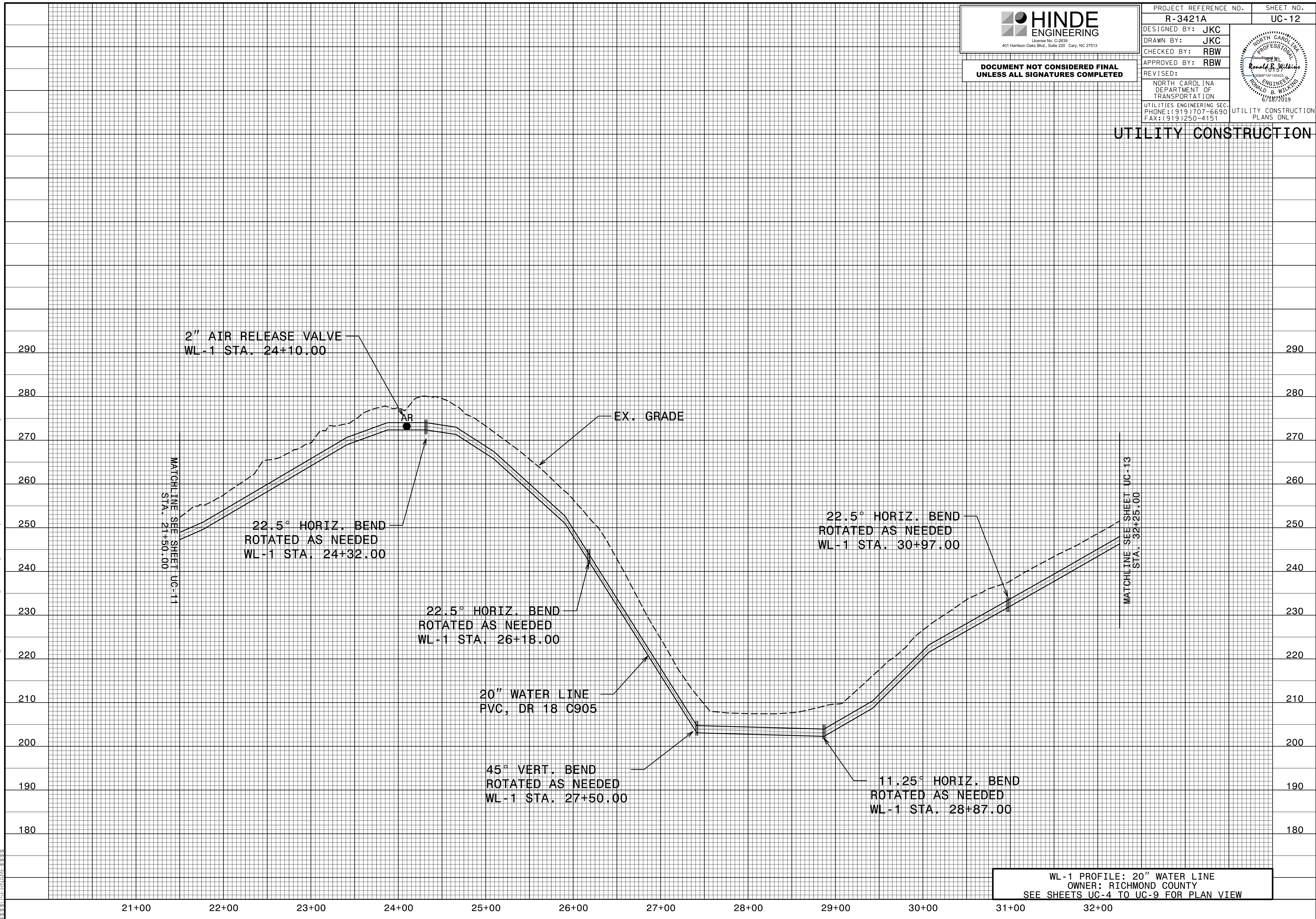
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PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-12
DESIGNED BY: JKC	
DRAWN BY: JKC	
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APPROVED BY: RBW	
REVISED:	
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2" AIR RELEASE VALVE
 WL-1 STA. 24+10.00

MATCHLINE SEE SHEET UC-11
 STA. 21+50.00

22.5° HORIZ. BEND
 ROTATED AS NEEDED
 WL-1 STA. 24+32.00

22.5° HORIZ. BEND
 ROTATED AS NEEDED
 WL-1 STA. 26+18.00

20" WATER LINE
 PVC, DR 18 C905

45° VERT. BEND
 ROTATED AS NEEDED
 WL-1 STA. 27+50.00

EX. GRADE

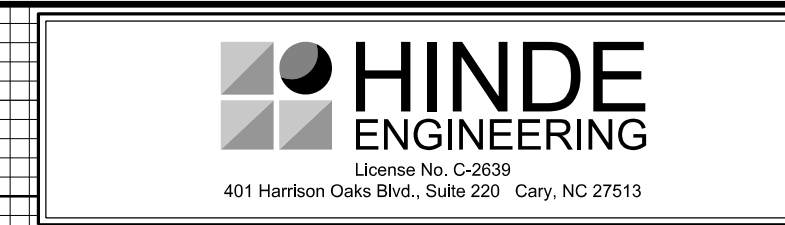
22.5° HORIZ. BEND
 ROTATED AS NEEDED
 WL-1 STA. 30+97.00

11.25° HORIZ. BEND
 ROTATED AS NEEDED
 WL-1 STA. 28+87.00

MATCHLINE SEE SHEET UC-13
 STA. 32+25.00

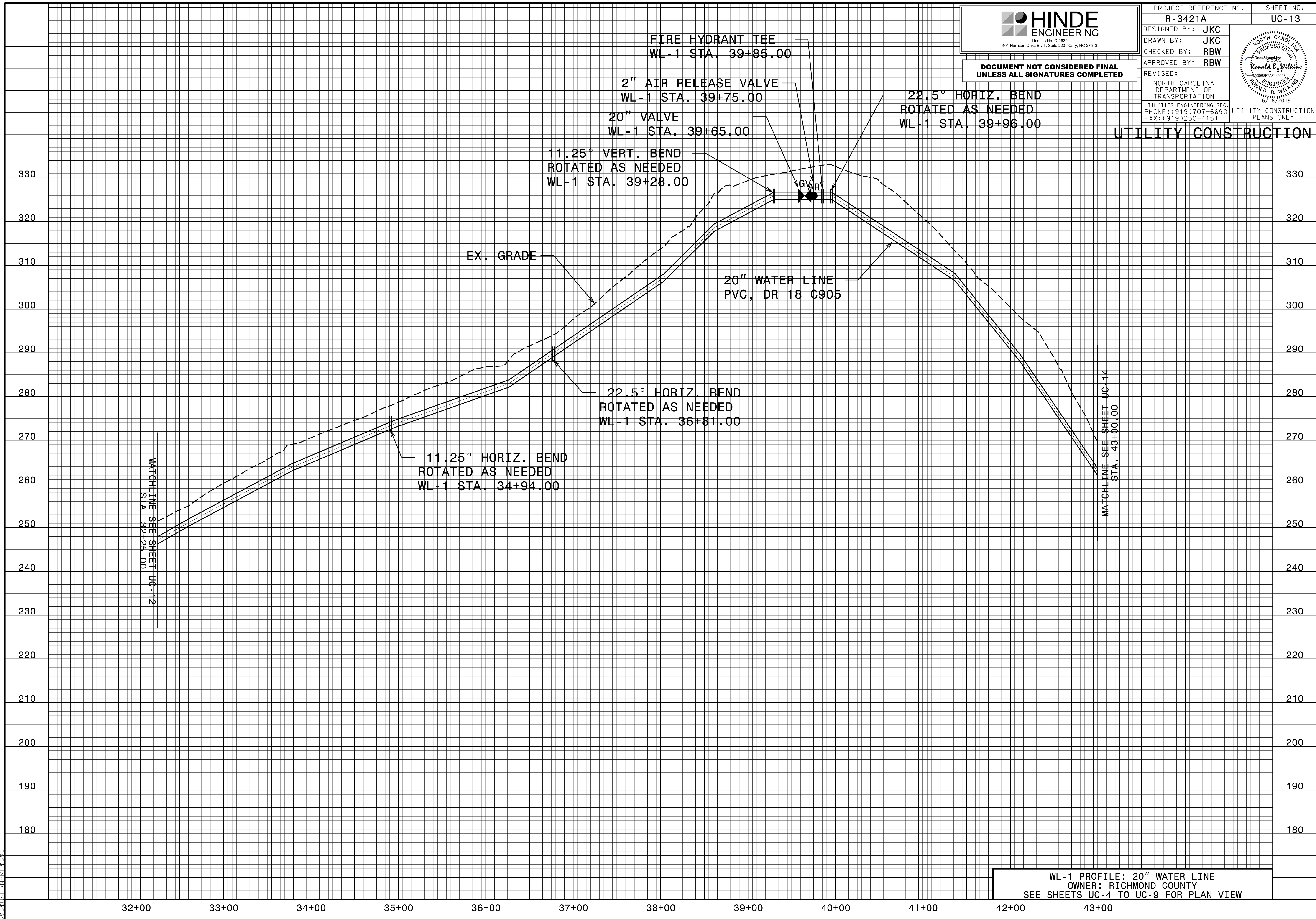
WL-1 PROFILE: 20" WATER LINE
 OWNER: RICHMOND COUNTY
 SEE SHEETS UC-4 TO UC-9 FOR PLAN VIEW

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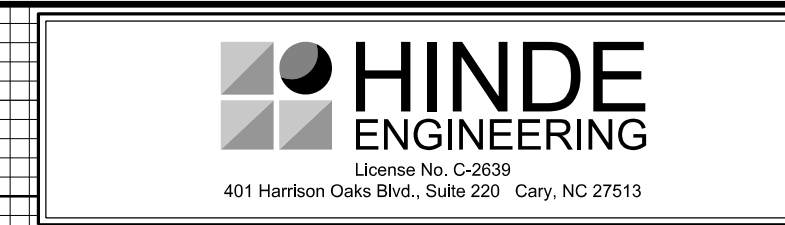
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**WL-1 PROFILE: 20" WATER LINE
OWNER: RICHMOND COUNTY
SEE SHEETS UC-4 TO UC-9 FOR PLAN VIEW**

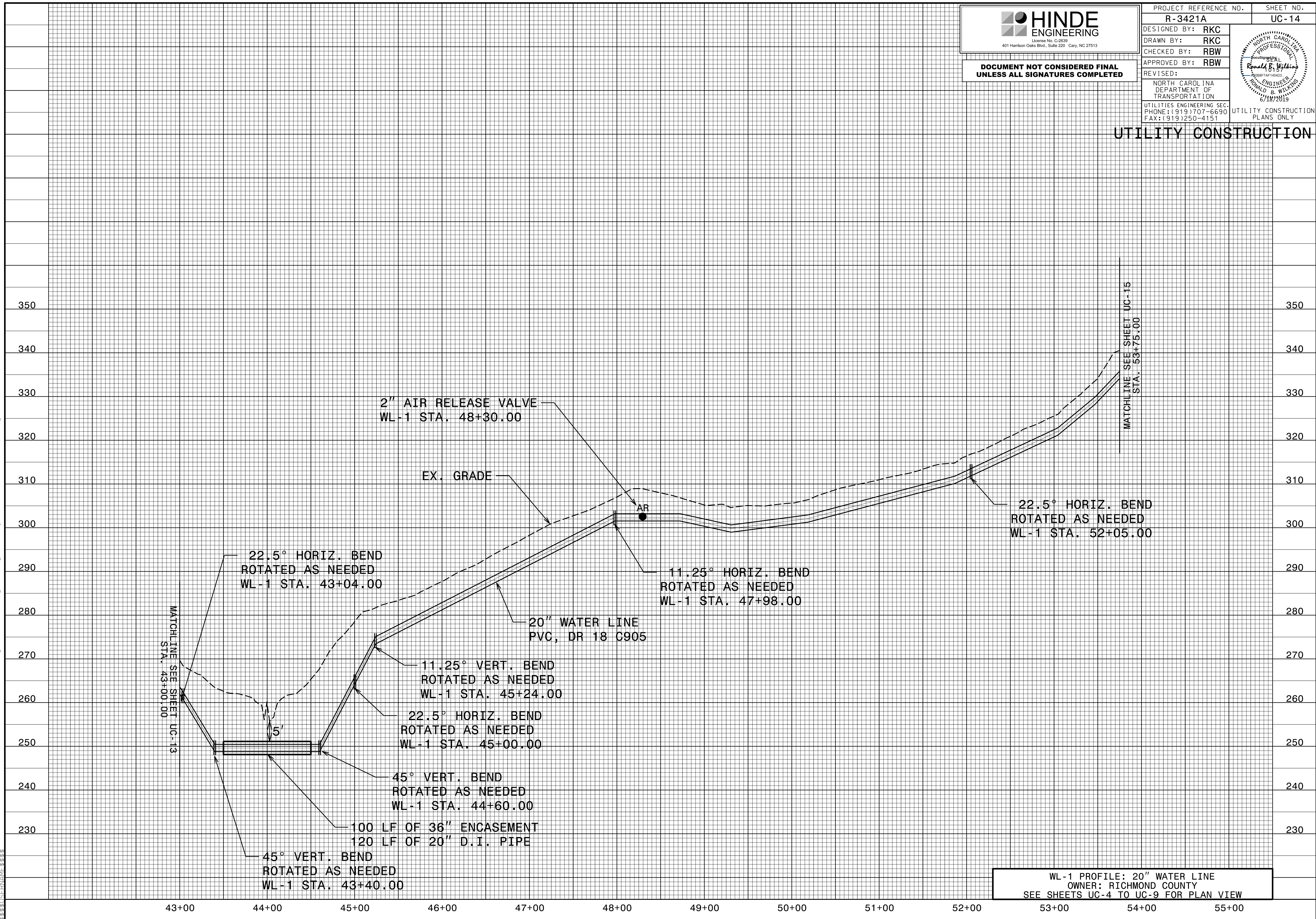
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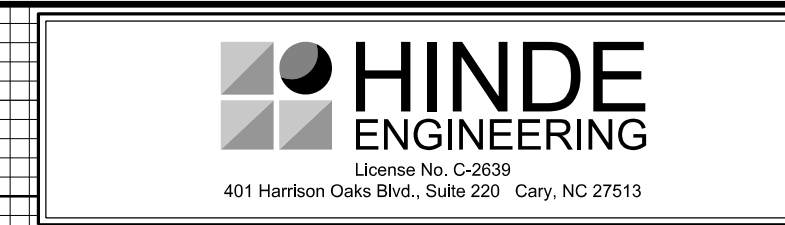
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DRAWN BY: RKC	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
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UTILITY CONSTRUCTION



WL-1 PROFILE: 20" WATER LINE
OWNER: RICHMOND COUNTY
SEE SHEETS UC-4 TO UC-9 FOR PLAN VIEW

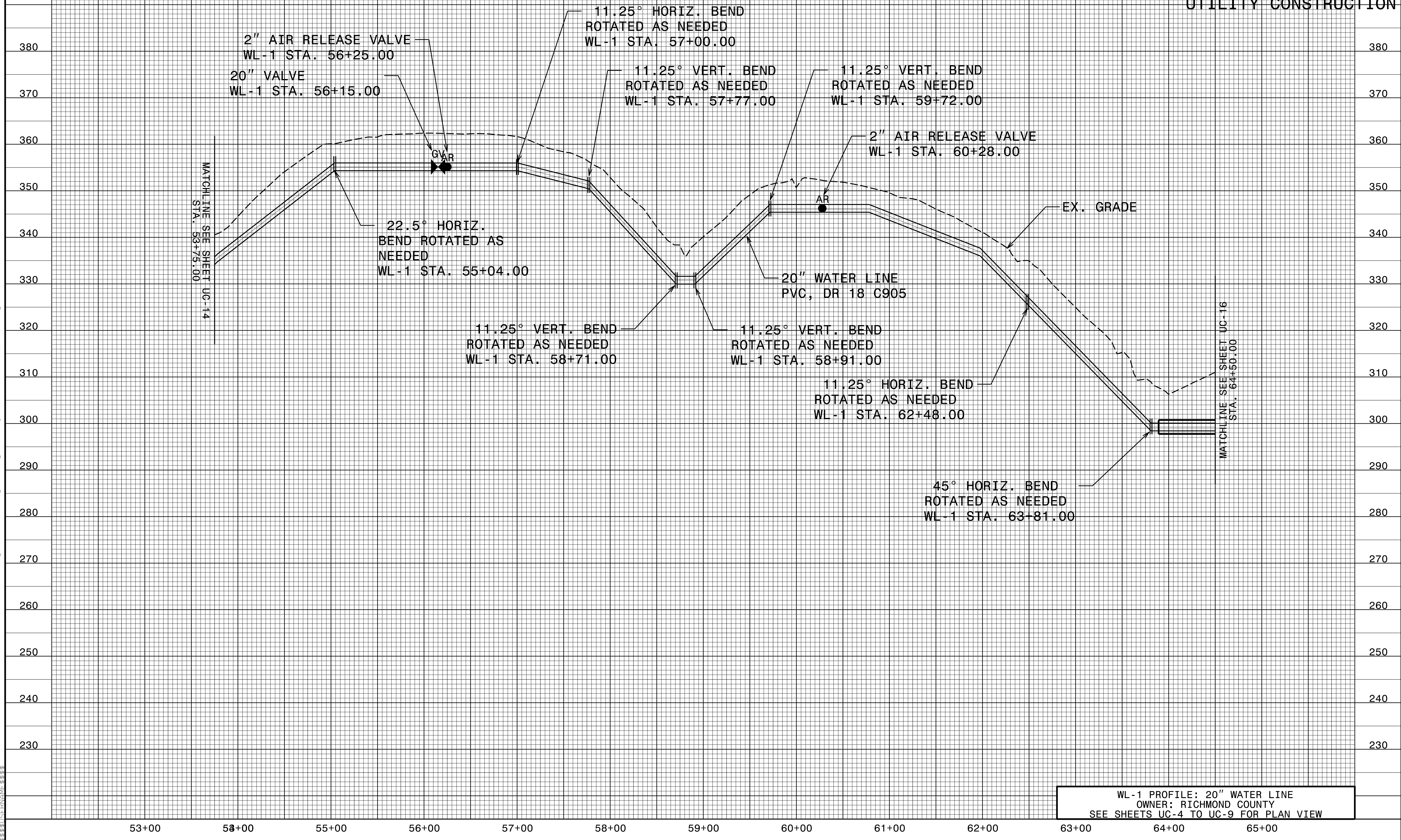
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PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-15
DESIGNED BY: JKC	
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APPROVED BY: RBW	
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WL-1 PROFILE: 20" WATER LINE
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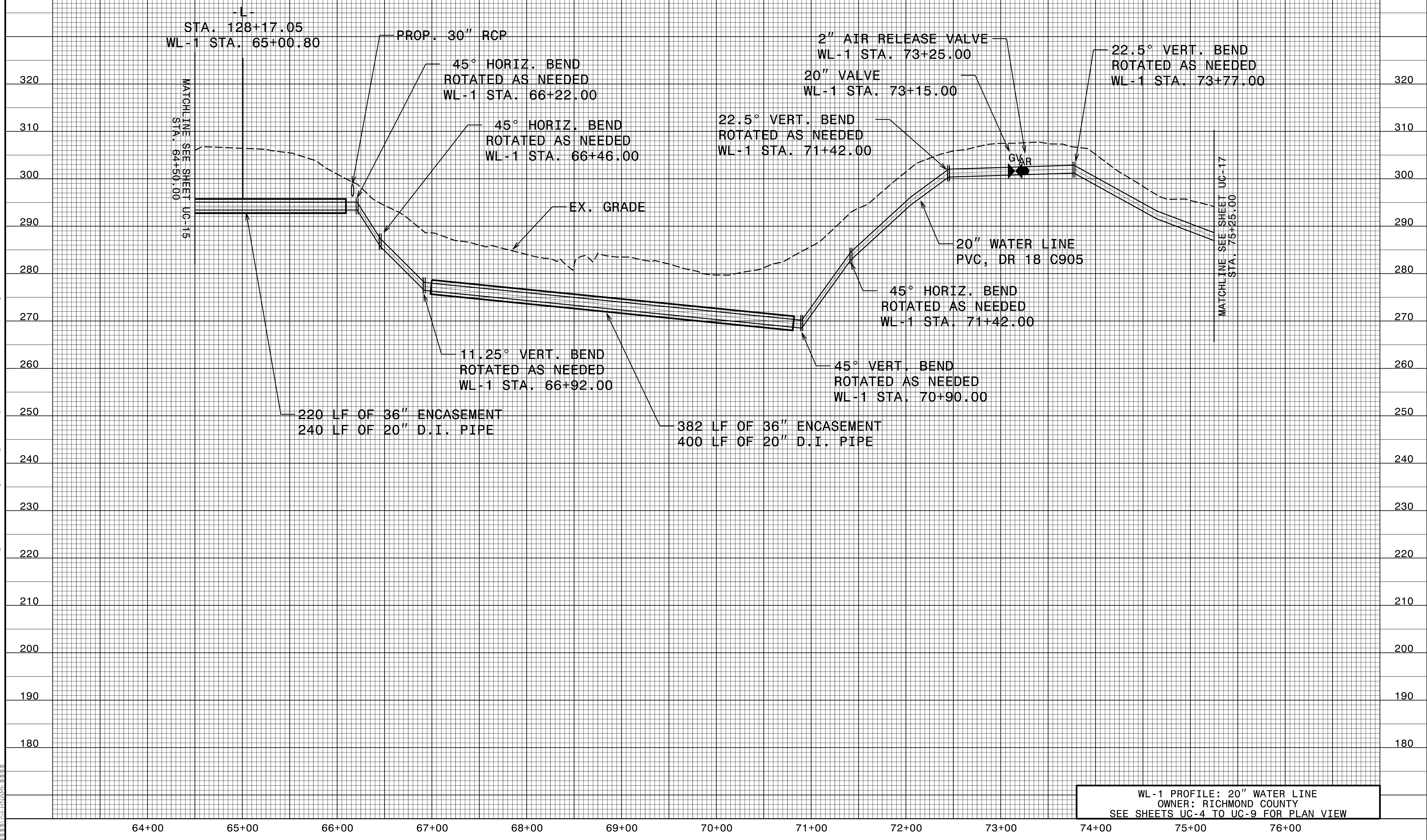
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PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-16
DESIGNED BY: JKC	
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CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



WL-1 PROFILE: 20" WATER LINE
 OWNER: RICHMOND COUNTY
 SEE SHEETS UC-4 TO UC-9 FOR PLAN VIEW

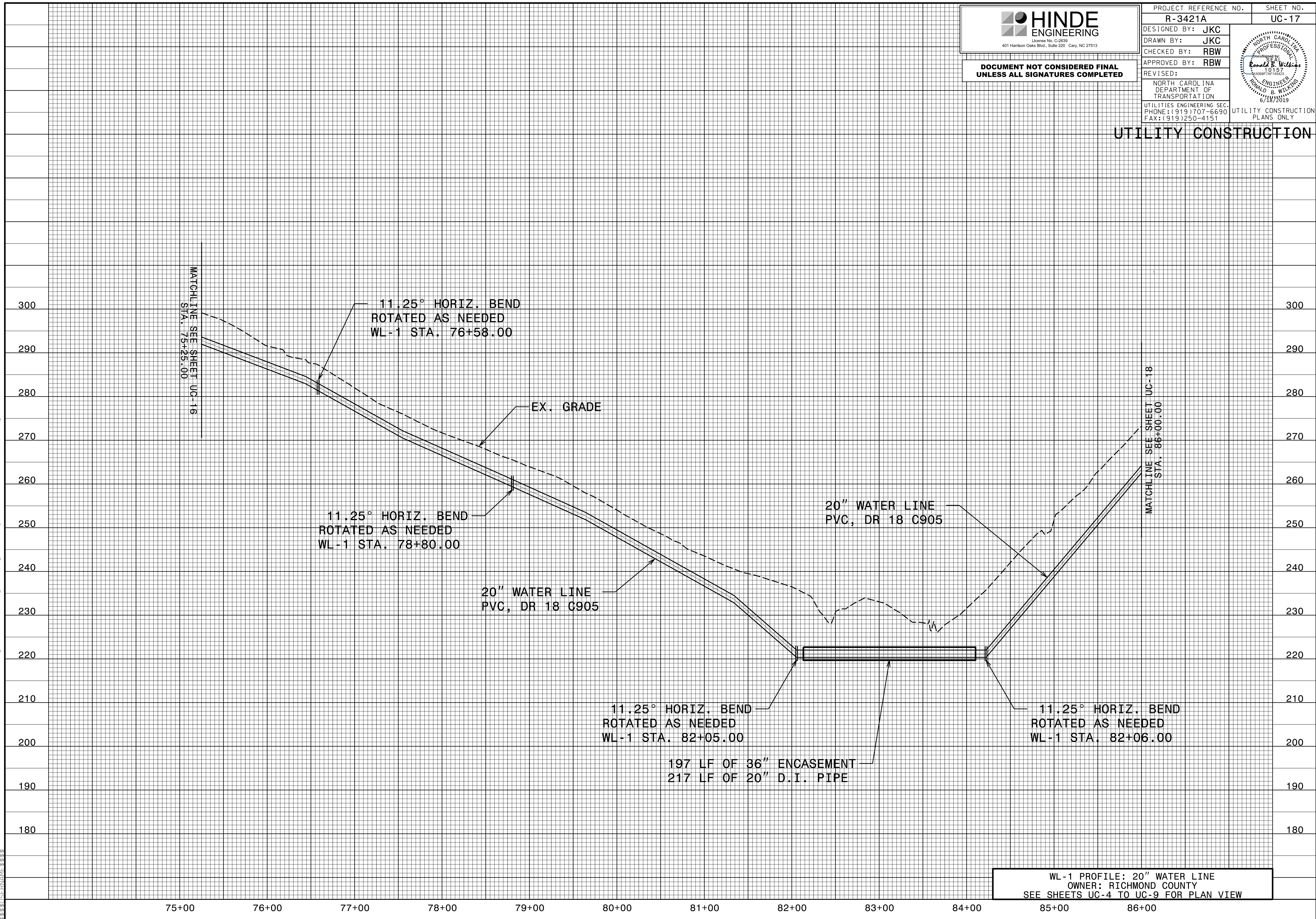
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PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-17
DESIGNED BY: JKC	
DRAWN BY: JKC	
CHECKED BY: RBW	
APPROVED BY: RBW	
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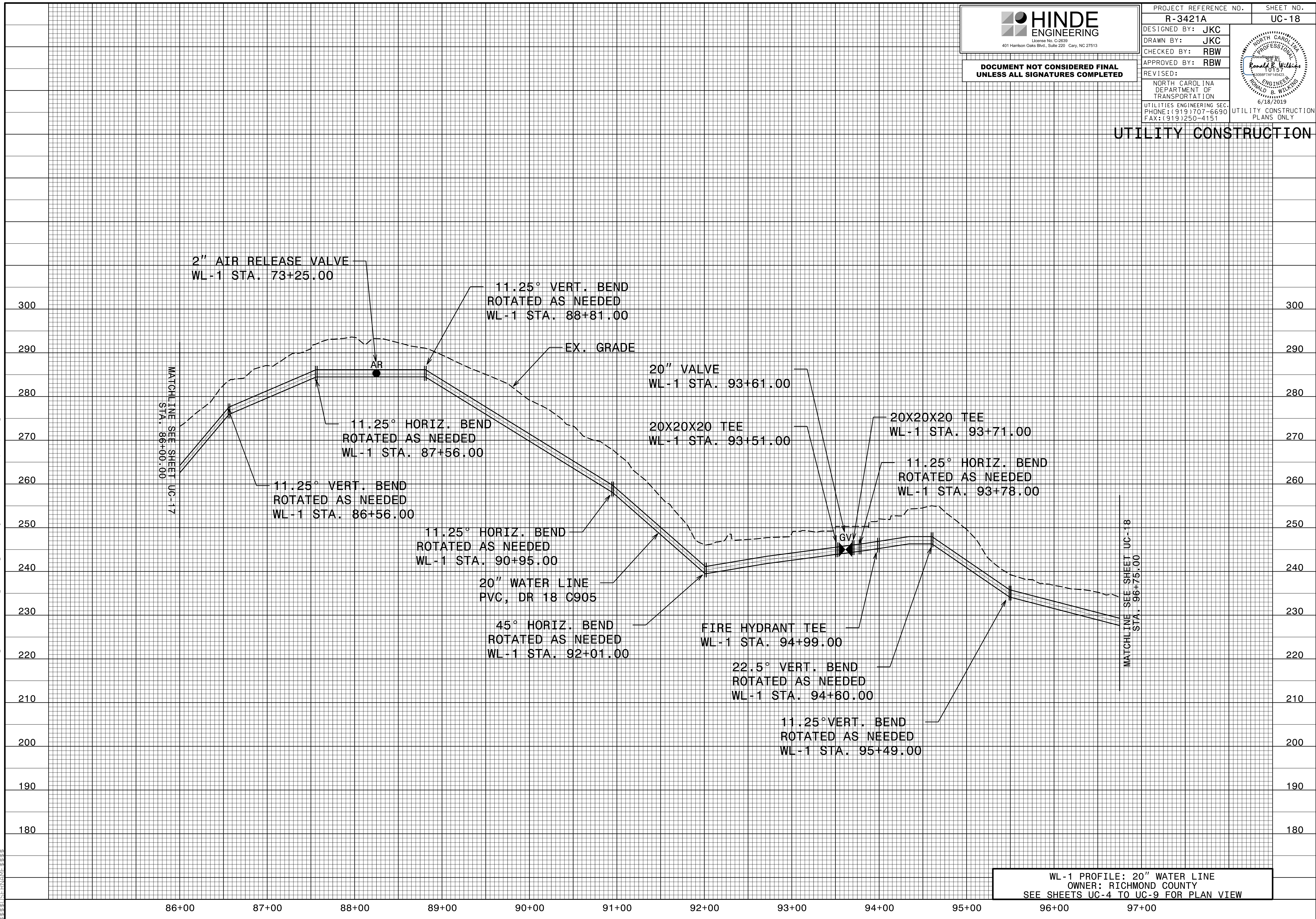
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PROJECT REFERENCE NO. R-3421A	SHEET NO. UC-18
DESIGNED BY: JKC	
DRAWN BY: JKC	
CHECKED BY: RBW	
APPROVED BY: RBW	
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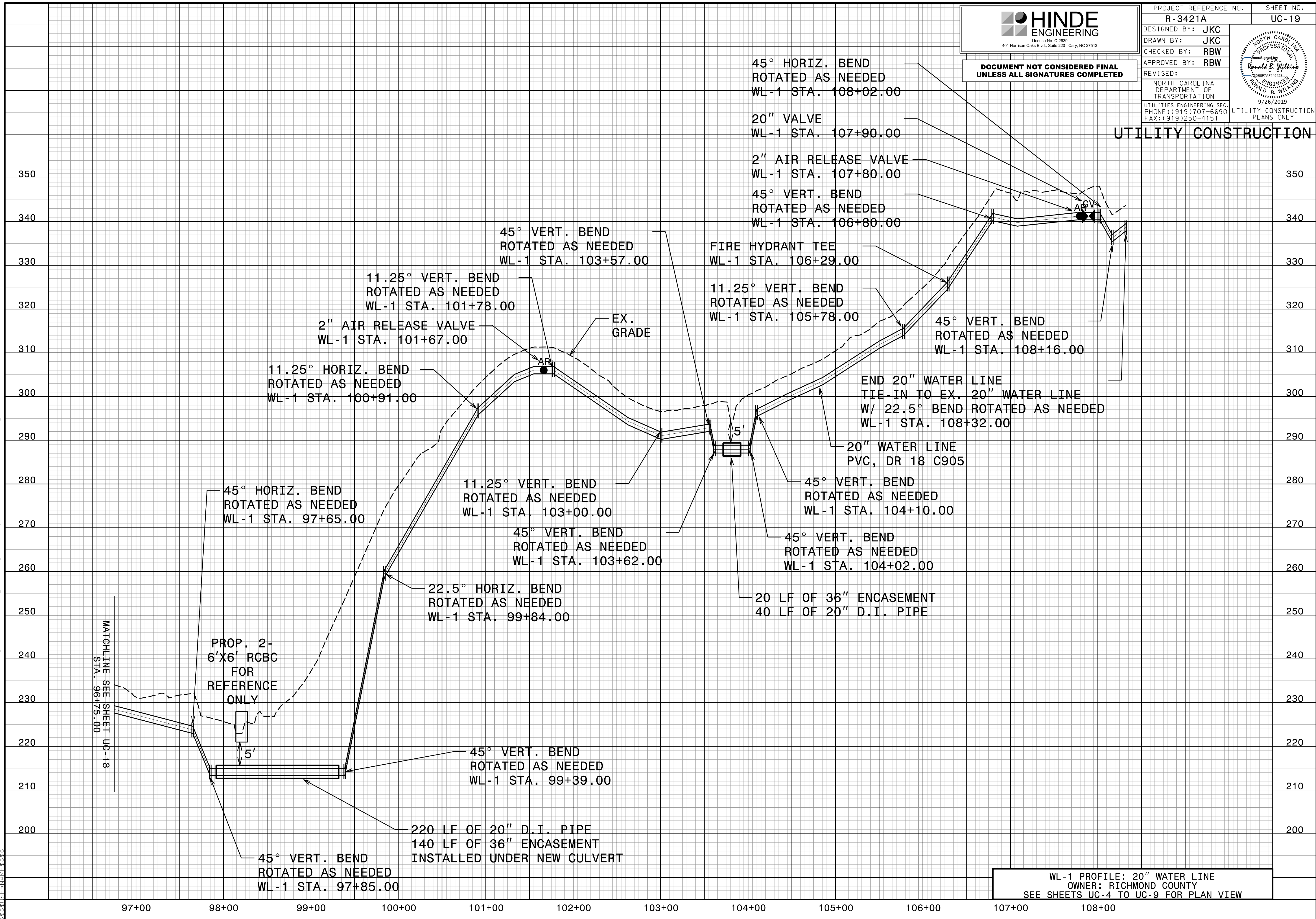
WL-1 PROFILE: 20" WATER LINE
 OWNER: RICHMOND COUNTY
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PROJECT REFERENCE NO.	SHEET NO.
R-3421A	UC-19
DESIGNED BY: JKC	
DRAWN BY: JKC	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
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