

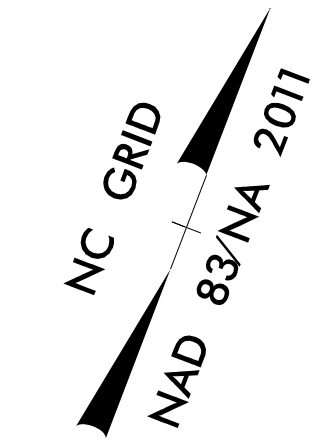
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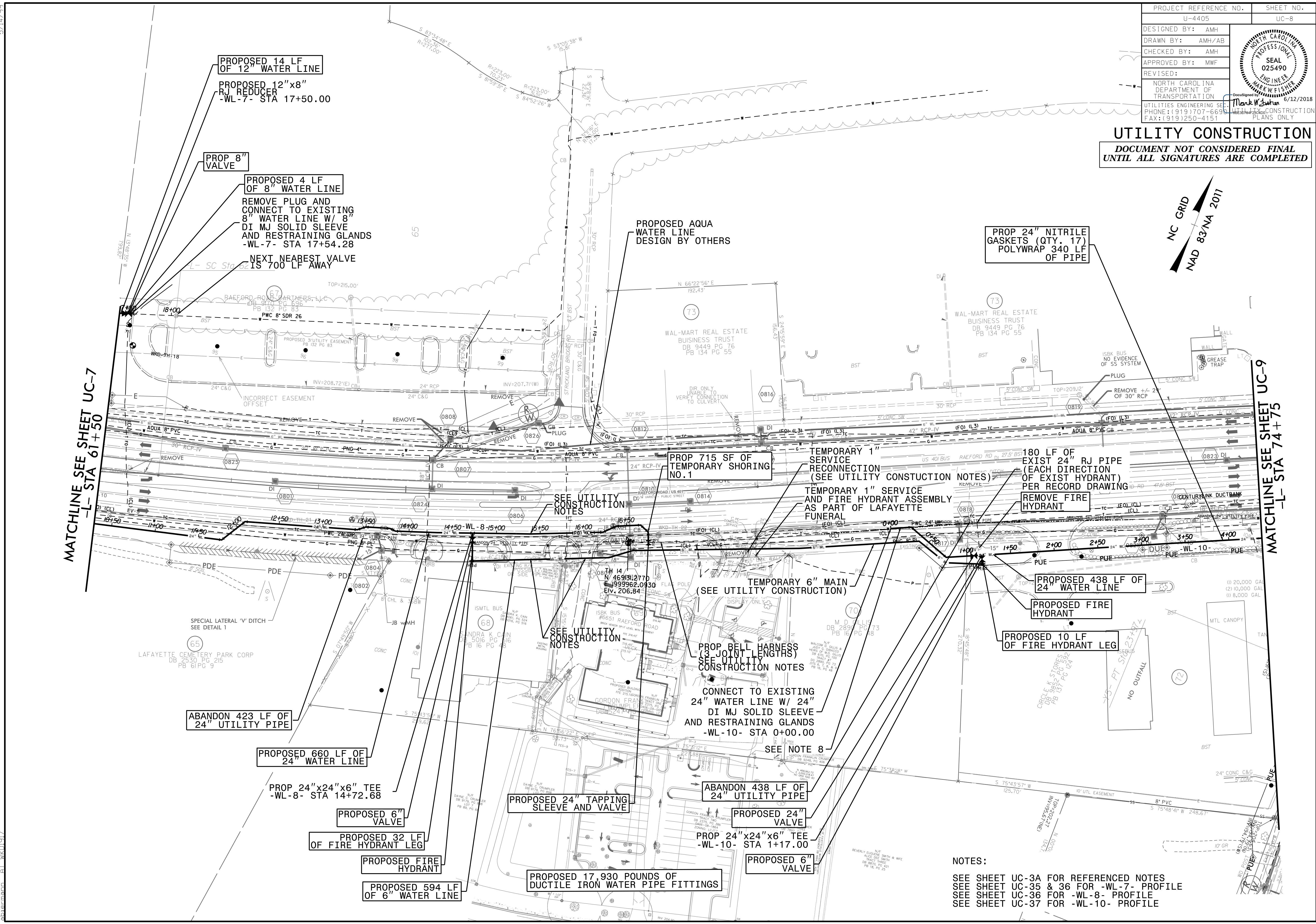
PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-8
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6696 FAX: (919) 250-4151	

UTILITY CONSTRUCTION
 DOCUMENT NOT CONSIDERED FINAL
 UNTIL ALL SIGNATURES ARE COMPLETED



MATCHLINE SEE SHEET UC-7
 -L- STA 61+50

MATCHLINE SEE SHEET UC-9
 -L- STA 74+75



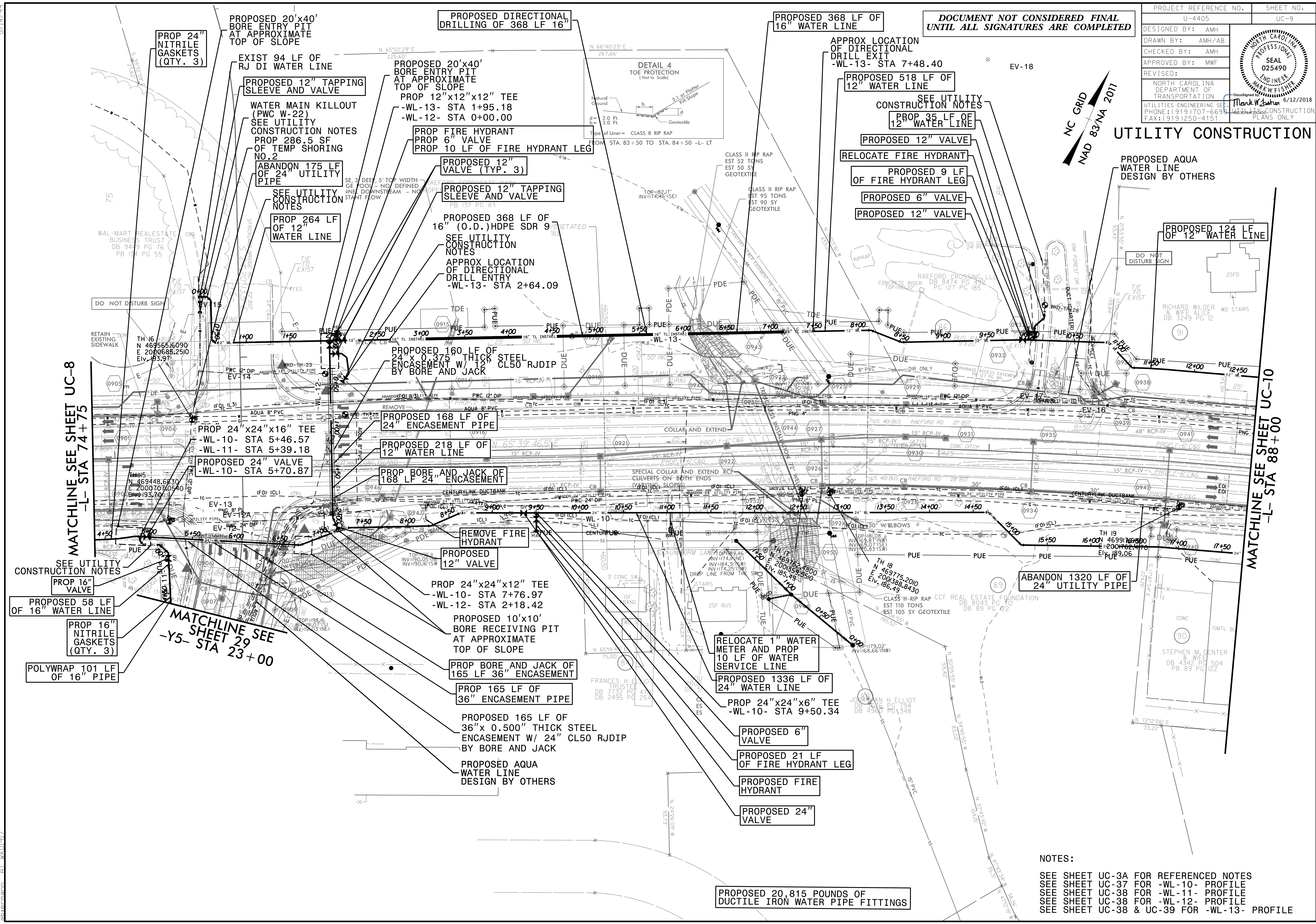
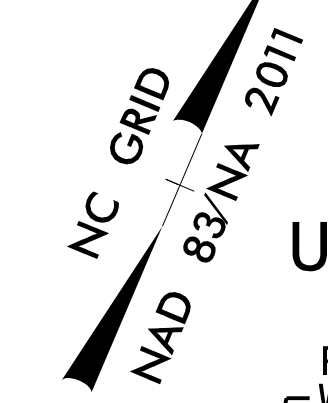
NOTES:
 SEE SHEET UC-3A FOR REFERENCED NOTES
 SEE SHEET UC-35 & 36 FOR -WL-7- PROFILE
 SEE SHEET UC-36 FOR -WL-8- PROFILE
 SEE SHEET UC-37 FOR -WL-10- PROFILE

05-JUN-2018 16:20 L:\Projects\17700RA -Roeford Road\Utilities\Engineering\UC\Proj\U4405-ut_rdyf8_uc08_psh.dgn 5/14/2018

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-9
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6696 FAX: (919) 250-4151

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UTILITY CONSTRUCTION

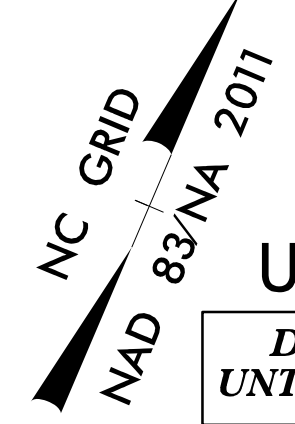


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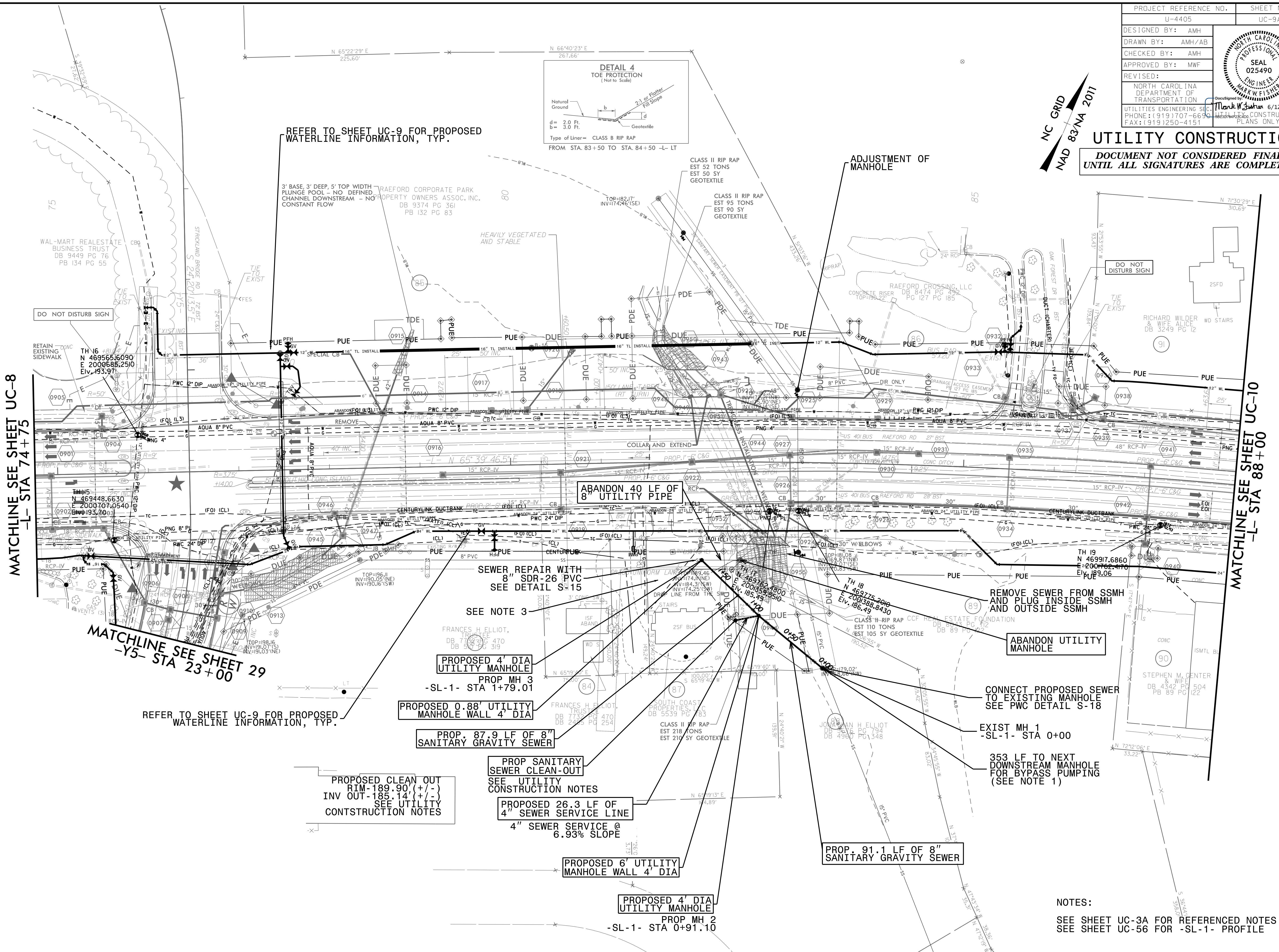
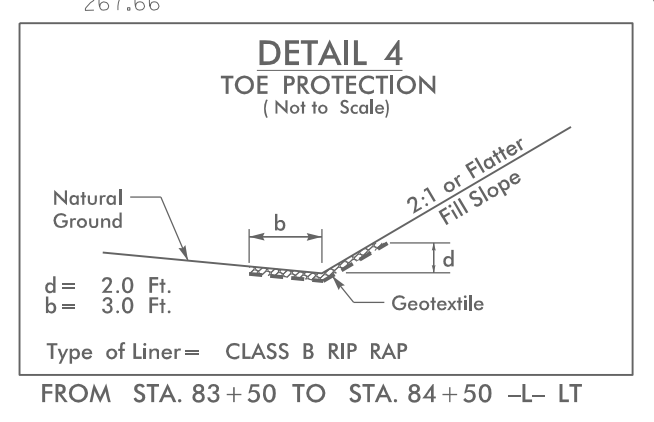
- NOTES:**
- SEE SHEET UC-3A FOR REFERENCED NOTES
 - SEE SHEET UC-37 FOR -WL-10- PROFILE
 - SEE SHEET UC-38 FOR -WL-11- PROFILE
 - SEE SHEET UC-38 FOR -WL-12- PROFILE
 - SEE SHEET UC-38 & UC-39 FOR -WL-13- PROFILE

PROPOSED 20,815 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-9A
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISER:	DATE
	6/12/2018
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	



UTILITY CONSTRUCTION
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REFER TO SHEET UC-9 FOR PROPOSED WATERLINE INFORMATION, TYP.

MATCHLINE SEE SHEET UC-8
 -L- STA 74 + 75

MATCHLINE SEE SHEET UC-10
 -L- STA 88 + 00

MATCHLINE SEE SHEET 29
 -Y5- STA 23 + 00

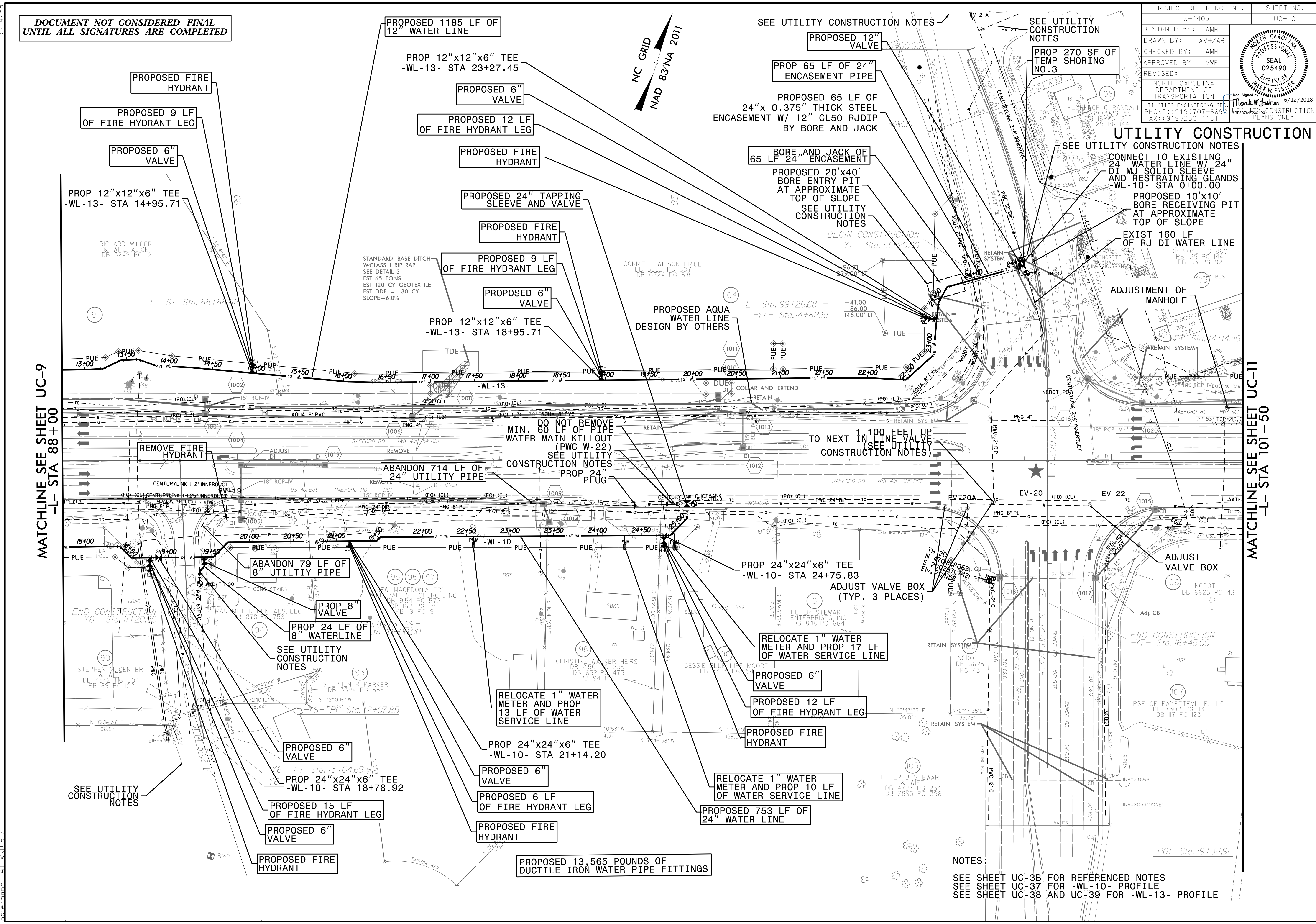
REFER TO SHEET UC-9 FOR PROPOSED WATERLINE INFORMATION, TYP.

NOTES:
 SEE SHEET UC-3A FOR REFERENCED NOTES
 SEE SHEET UC-56 FOR -SL-1- PROFILE

5/14/09
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 Mark W. Fisher
 PROFESSIONAL ENGINEER
 SEAL 025490
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 UTILITIES ENGINEERING SECTION
 PHONE: (919) 707-6690
 FAX: (919) 250-4151

PROJECT REFERENCE NO.	U-4405	SHEET NO.	UC-10
DESIGNED BY:	AMH		
DRAWN BY:	AMH/AB		
CHECKED BY:	AMH		
APPROVED BY:	MWF		
REVISED:		6/12/2018	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6696 FAX: (919) 250-4751			

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MATCHLINE SEE SHEET UC-9
-L- STA 88+00

MATCHLINE SEE SHEET UC-11
-L- STA 101+50

NOTES:
 SEE SHEET UC-3B FOR REFERENCED NOTES
 SEE SHEET UC-37 FOR -WL-10- PROFILE
 SEE SHEET UC-38 AND UC-39 FOR -WL-13- PROFILE

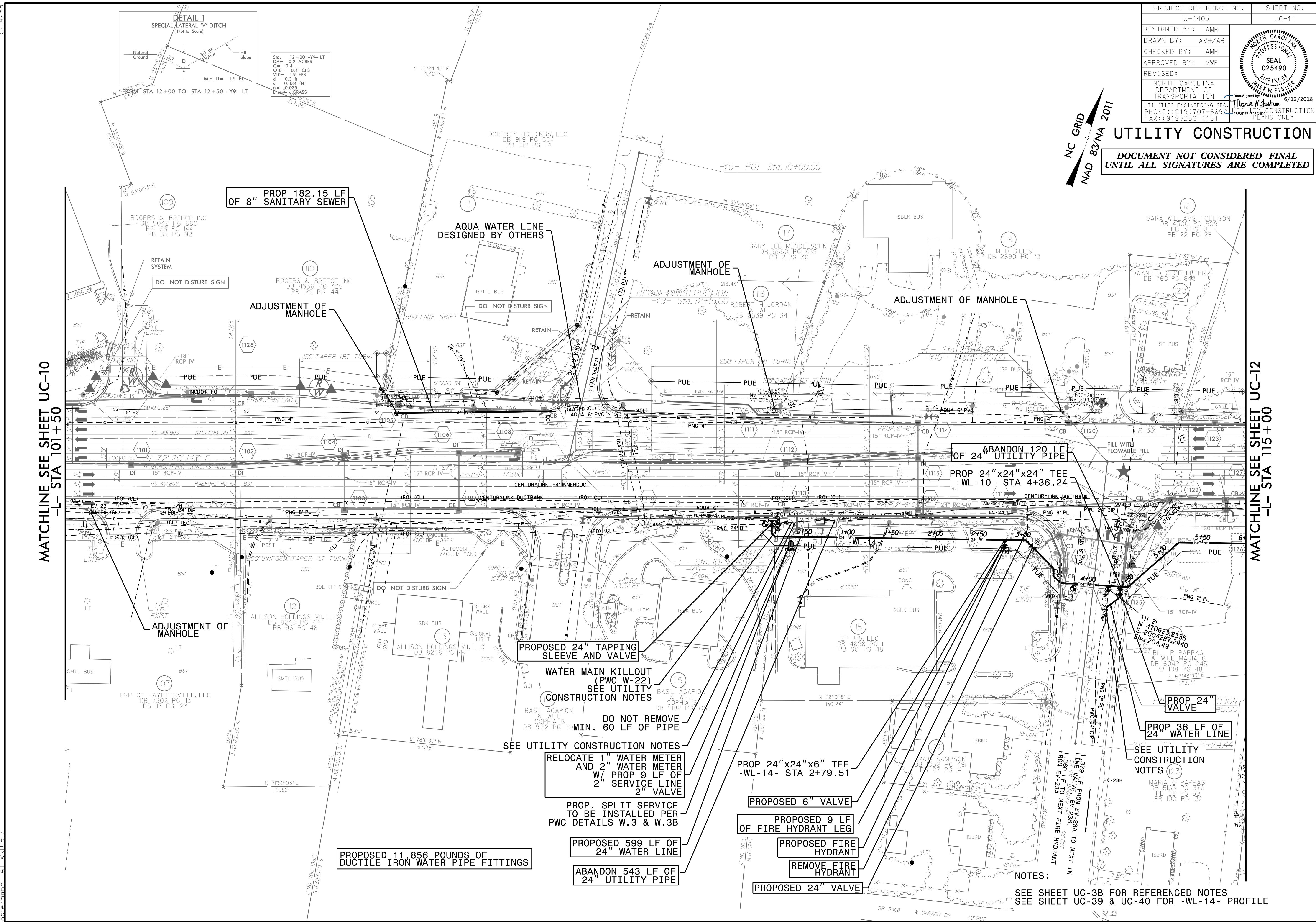
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 5/14/2018

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-11
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION

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NC GRID
NAD 83 NA 2011



MATCHLINE SEE SHEET UC-10
-L- STA 101+50

MATCHLINE SEE SHEET UC-12
-L- STA 115+00

PROP 182.15 LF OF 8" SANITARY SEWER

AQUA WATER LINE DESIGNED BY OTHERS

ADJUSTMENT OF MANHOLE

ADJUSTMENT OF MANHOLE

ABANDON 120' OF 24" UTILITY PIPE

PROP 24"x24"x24" TEE -WL-10- STA 4+36.24

PROPOSED 24" TAPPING SLEEVE AND VALVE

WATER MAIN KILLOUT (PWC W-22) SEE UTILITY CONSTRUCTION NOTES

DO NOT REMOVE 60 LF OF PIPE SEE UTILITY CONSTRUCTION NOTES

RELOCATE 1" WATER METER AND 2" WATER METER W/ PROP 9 LF OF 2" SERVICE LINE 2" VALVE

PROP. SPLIT SERVICE TO BE INSTALLED PER PWC DETAILS W.3 & W.3B

PROPOSED 599 LF OF 24" WATER LINE

ABANDON 543 LF OF 24" UTILITY PIPE

PROPOSED 11,856 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS

PROP 24"x24"x6" TEE -WL-14- STA 2+79.51

PROPOSED 6" VALVE

PROPOSED 9 LF OF FIRE HYDRANT LEG

PROPOSED FIRE HYDRANT

REMOVE FIRE HYDRANT

PROPOSED 24" VALVE

PROP 24" VALVE

PROP 36 LF OF 24" WATER LINE

SEE UTILITY CONSTRUCTION NOTES (23)

NOTES:
SEE SHEET UC-3B FOR REFERENCED NOTES
SEE SHEET UC-39 & UC-40 FOR -WL-14- PROFILE

3-MAY-2018 14:42
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5/14/2018

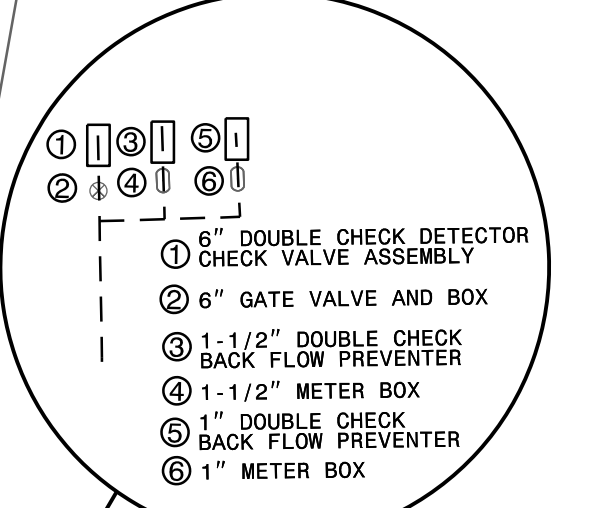
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REMOVE VALVE AND MIN. OF 20 FEET OF PIPE AFTER WL-15 IS OPERABLE. CONNECT TO EXISTING 8" WATER LINE W/ 8" DI MJ SOLID SLEEVE AND RESTRAINING GLANDS AND LAY BACK MIN. OF 20 FEET OF RJ PIPE -WL-15- STA 1+72.31

DOCUMENT NOT CONSIDERED FINAL UNTIL ALL SIGNATURES ARE COMPLETED

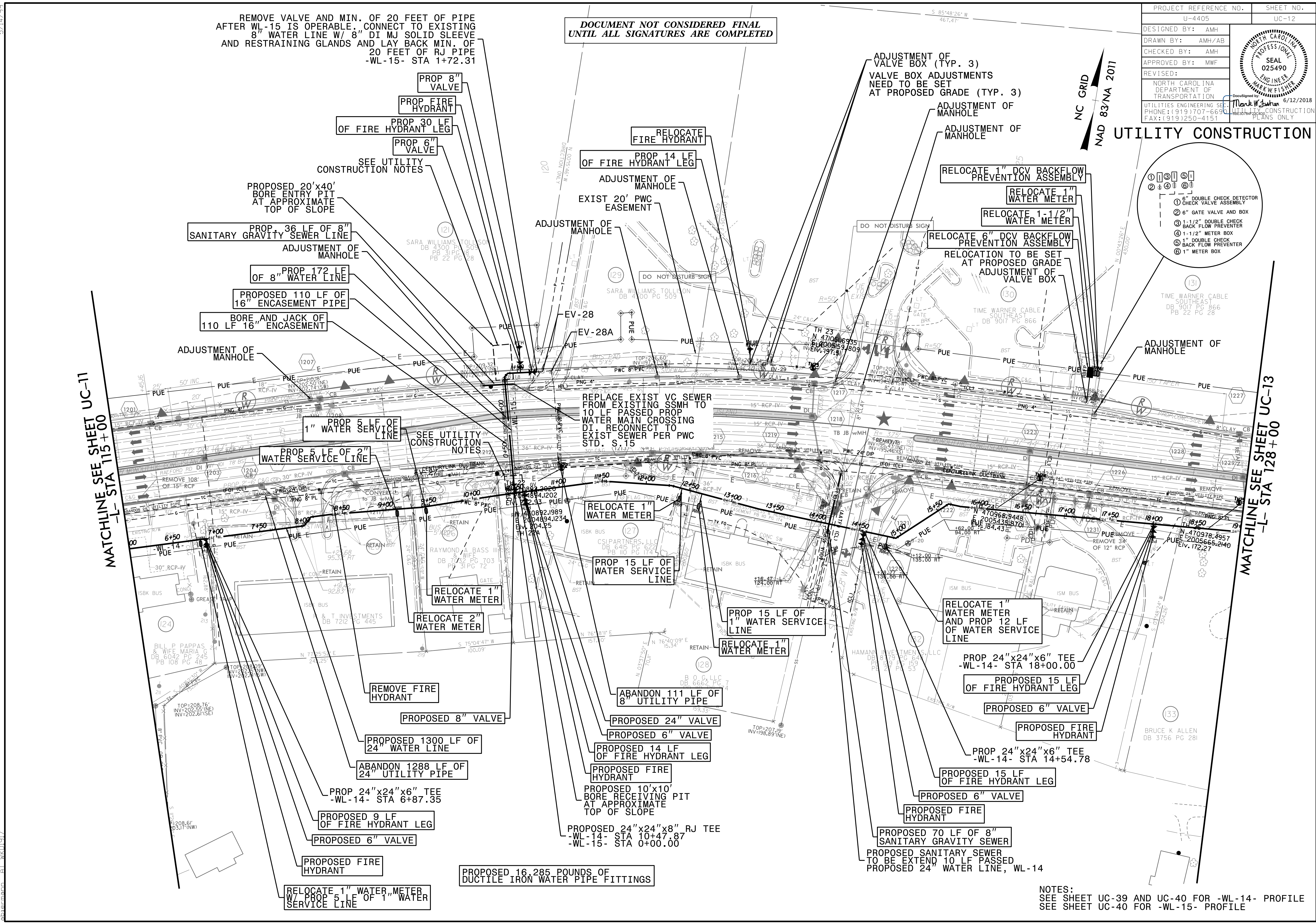
PROJECT REFERENCE NO.	U-4405	SHEET NO.	UC-12
DESIGNED BY:	AMH		
DRAWN BY:	AMH/AB		
CHECKED BY:	AMH		
APPROVED BY:	MWF		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		6/12/2018	
UTILITIES ENGINEERING SECTION		CONSTRUCTION PLANS ONLY	
PHONE: (919) 707-6699		FAX: (919) 250-4151	

UTILITY CONSTRUCTION



MATCHLINE SEE SHEET UC-11 -L- STA 115+00


MATCHLINE SEE SHEET UC-13 -L- STA 128+00



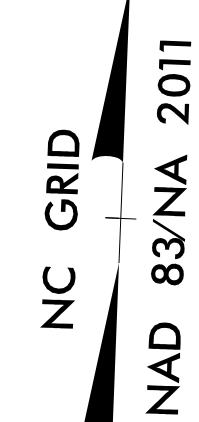
NOTES:
SEE SHEET UC-39 AND UC-40 FOR -WL-14- PROFILE
SEE SHEET UC-40 FOR -WL-15- PROFILE

05-JUN-2018 16:31
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5/14/2018

DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED

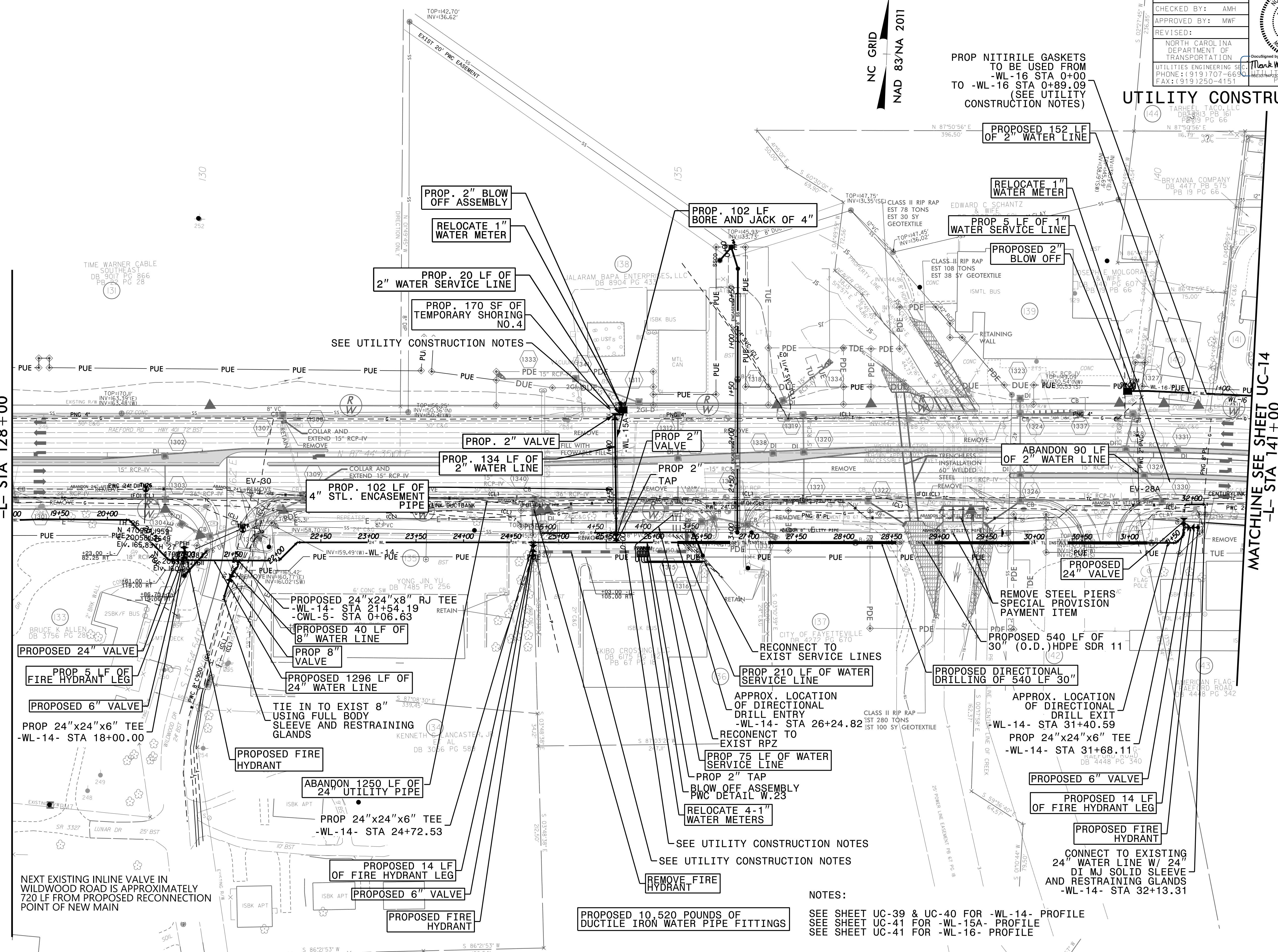
PROJECT REFERENCE NO.	U-4405	SHEET NO.	UC-13
DESIGNED BY:	AMH		
DRAWN BY:	AMH/AB		
CHECKED BY:	AMH		
APPROVED BY:	MWF		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITIES ENGINEERING SECTION PHONE: (919) 707-6693 FAX: (919) 250-4151	

UTILITY CONSTRUCTION



MATCHLINE SEE SHEET UC-12
-L- STA 128+00

MATCHLINE SEE SHEET UC-14
-L- STA 141+00



NOTES:
SEE SHEET UC-39 & UC-40 FOR -WL-14- PROFILE
SEE SHEET UC-41 FOR -WL-15A- PROFILE
SEE SHEET UC-41 FOR -WL-16- PROFILE

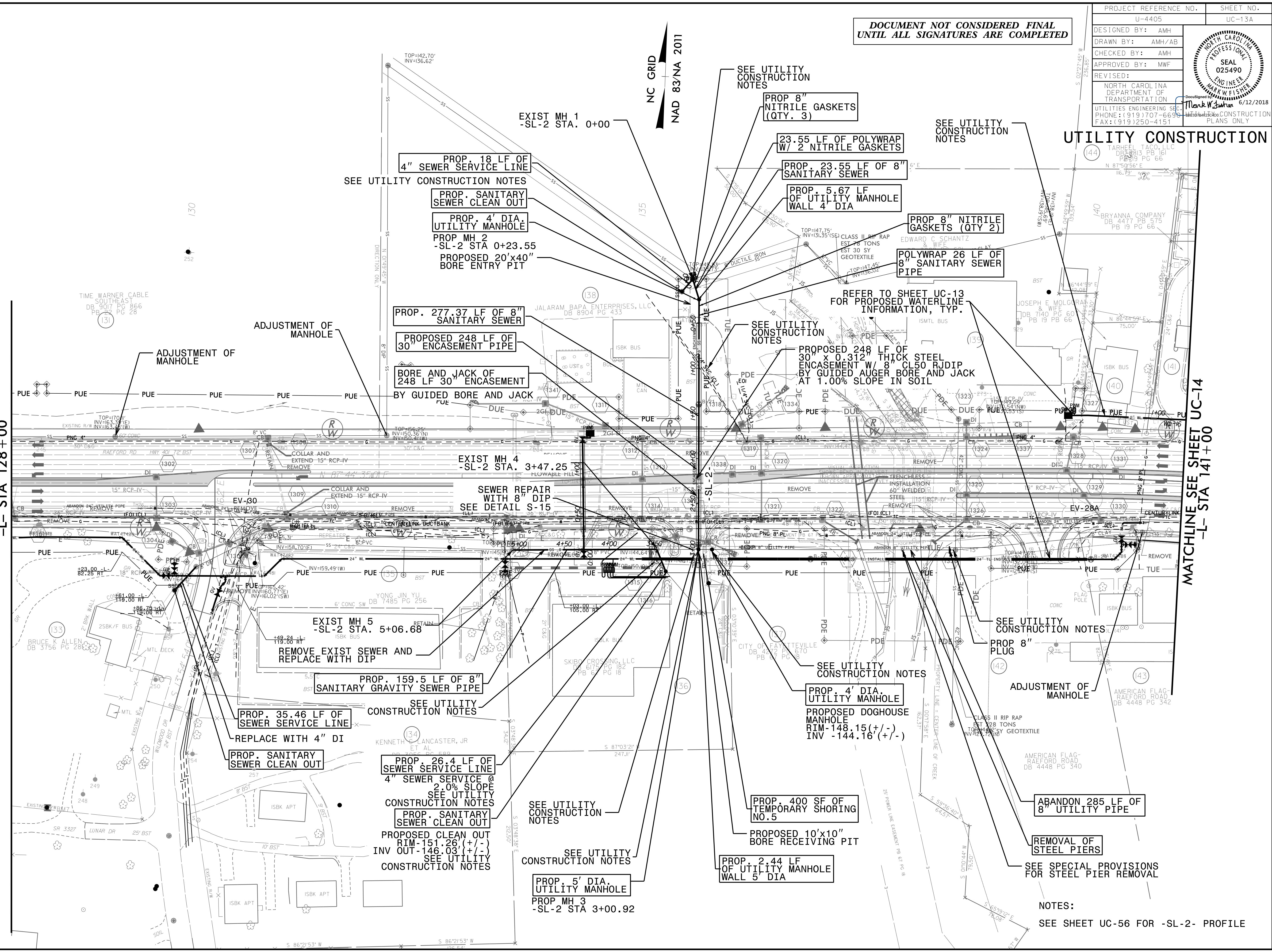
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PROJECT REFERENCE NO.	U-4405	SHEET NO.	UC-13A
DESIGNED BY:	AMH		
DRAWN BY:	AMH/AB		
CHECKED BY:	AMH		
APPROVED BY:	MWF		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		6/12/2018	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6699 FAX: (919) 250-4151		CONSTRUCTION PLANS ONLY	

MATCHLINE SEE SHEET UC-12 -L- STA 128+00

MATCHLINE SEE SHEET UC-14 -L- STA 141+00

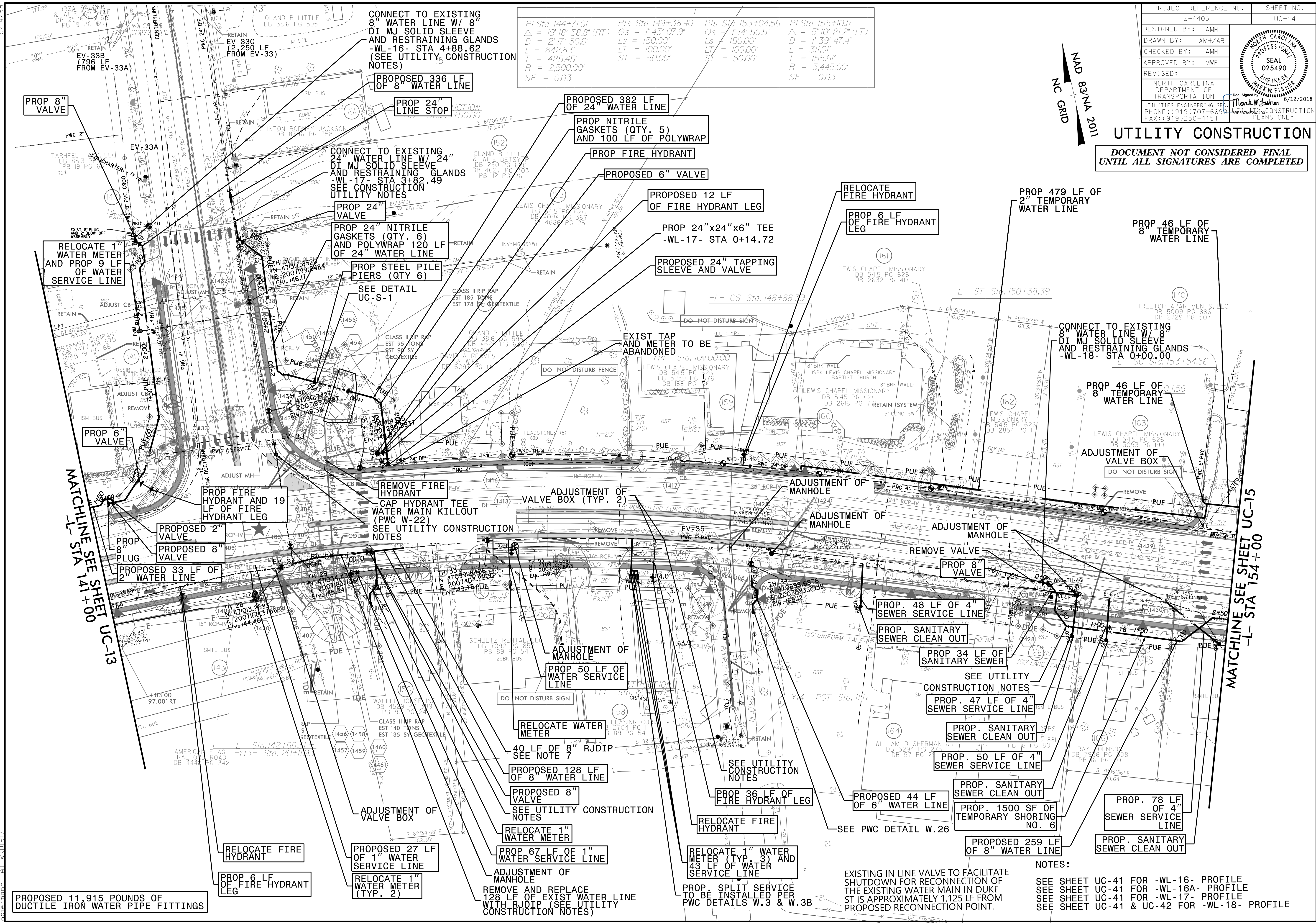
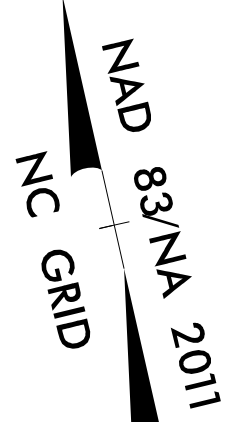


NOTES: SEE SHEET UC-56 FOR -SL-2- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-14
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6696 FAX: (919) 250-4151	

UTILITY CONSTRUCTION
 DOCUMENT NOT CONSIDERED FINAL
 UNTIL ALL SIGNATURES ARE COMPLETED

$PI Sta 144+71.01$ $\Delta = 19' 18" 58.8" (RT)$ $D = 2' 17" 30.6"$ $L = 842.83'$ $T = 425.45'$ $R = 2,500.00'$ $SE = 0.03$	$PIs Sta 149+38.40$ $\Theta s = 1' 43' 07.9"$ $Ls = 150.00'$ $LT = 100.00'$ $ST = 50.00'$	$PIs Sta 153+04.56$ $\Theta s = 1' 14' 50.5"$ $Ls = 150.00'$ $LT = 100.00'$ $ST = 50.00'$	$PI Sta 155+10.17$ $\Delta = 5' 10' 21.2" (LT)$ $D = 1' 39' 47.4"$ $L = 311.01'$ $T = 155.61'$ $R = 3,445.00'$ $SE = 0.03$
---	---	---	--



PROPOSED 11,915 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS

EXISTING IN LINE VALVE TO FACILITATE SHUTDOWN FOR RECONNECTION OF THE EXISTING WATER MAIN IN DUKE ST IS APPROXIMATELY 1,125 LF FROM PROPOSED RECONNECTION POINT.

NOTES:
 SEE SHEET UC-41 FOR -WL-16- PROFILE
 SEE SHEET UC-41 FOR -WL-16A- PROFILE
 SEE SHEET UC-41 FOR -WL-17- PROFILE
 SEE SHEET UC-41 & UC-42 FOR -WL-18- PROFILE

05-JUN-2018 16:32 L:\Projects\15017700RA Raeford Road NCDOT U-4405\CADD\NCDOT PLANS\Utilities\Engineering\UC\Proj\4405-ud\14-uc14-1.psd.dgn

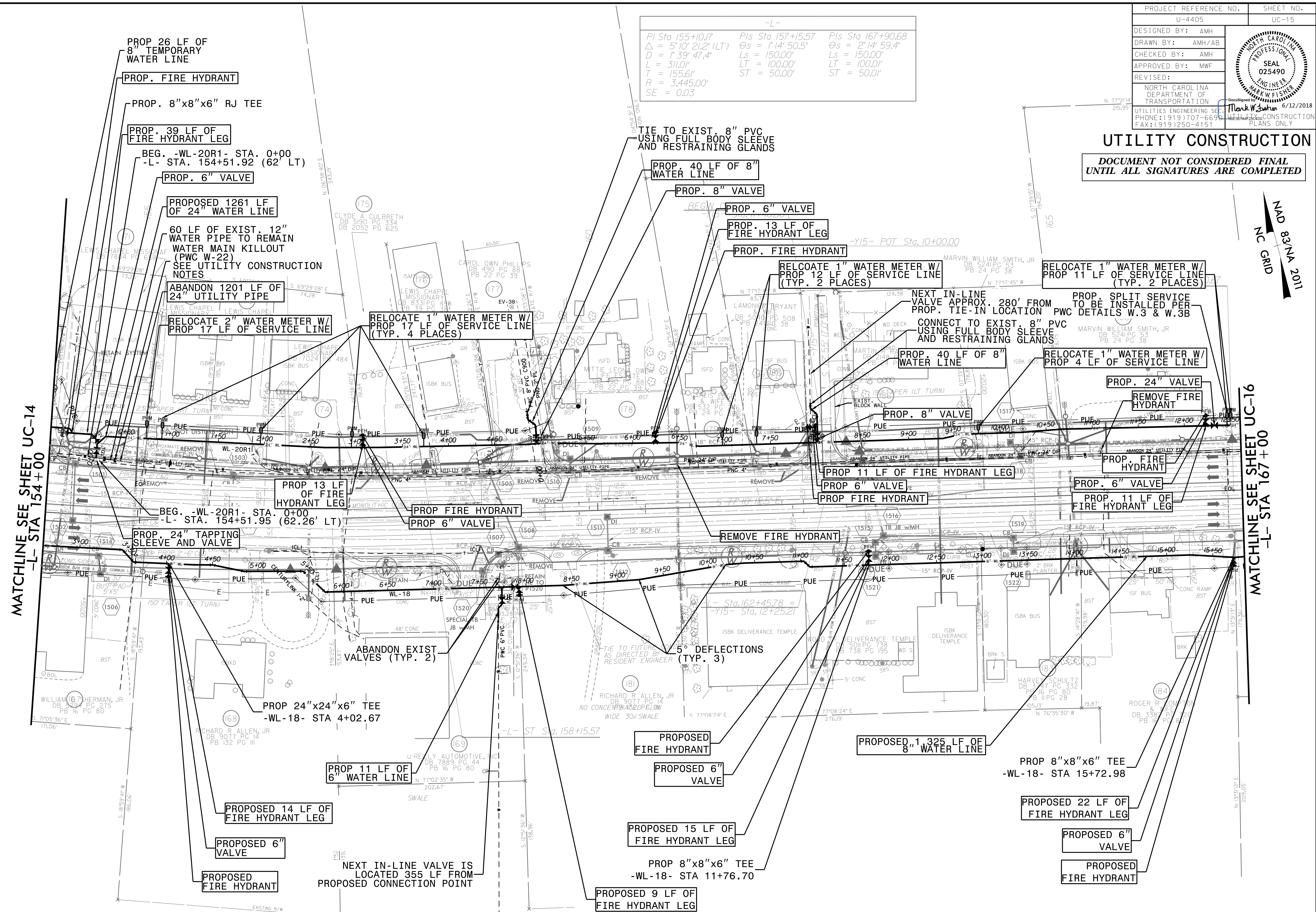
MATCHLINE SEE SHEET UC-13
 -L- STA 141+00

MATCHLINE SEE SHEET UC-15
 -L- STA 154+00

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-15
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6699 FAX: (919) 250-4151	

UTILITY CONSTRUCTION
DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED

-L-		
PI Sta 155+10.17	PIs Sta 157+15.57	PIs Sta 167+90.68
$\Delta = 5' 10" 21.2" (LT)$	$\Theta_s = 1' 14" 50.5"$	$\Theta_s = 2' 14" 59.4"$
$D = 1' 39" 47.4"$	$L_s = 150.00'$	$L_s = 150.00'$
$L = 311.0'$	$LT = 100.00'$	$LT = 100.00'$
$T = 155.61'$	$ST = 50.00'$	$ST = 50.00'$
$R = 3,445.00'$		
$SE = 0.03$		



MATCHLINE SEE SHEET UC-14
-L- STA 154+00

MATCHLINE SEE SHEET UC-16
-L- STA 167+00

NAD 83/NA 2011
NC GRID

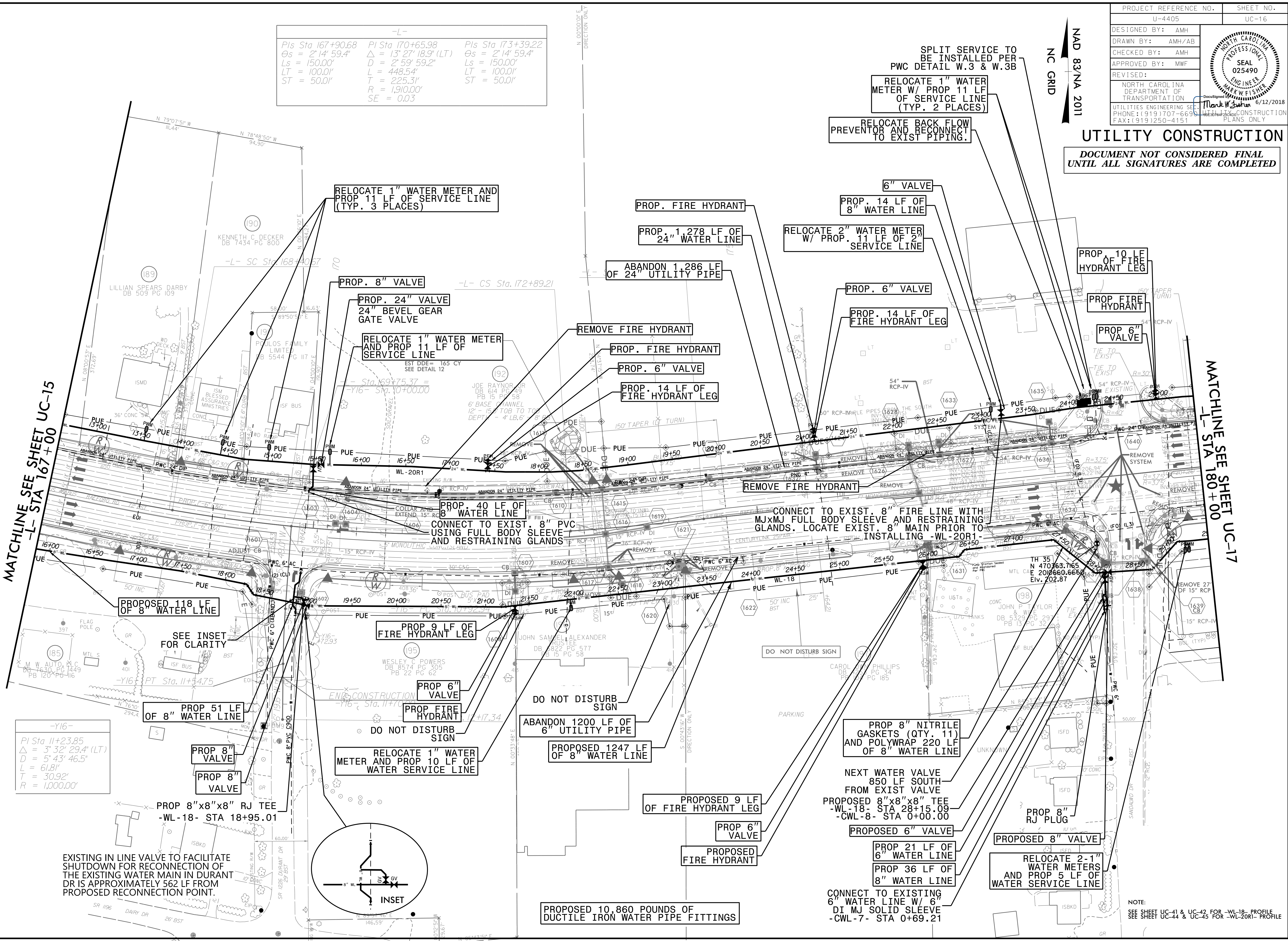
NOTES:
 SEE SHEET UC-41 & UC-42 FOR -WL-18- PROFILE
 SEE SHEET UC-44 & UC-45 FOR -WL-20R1- PROFILE

3-MAY-2018 14:46
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 5/14/2018

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-16
DESIGNED BY: AMH	
DRAWN BY: AMH/AE	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6693 FAX: (919) 250-4151	

UTILITY CONSTRUCTION
 DOCUMENT NOT CONSIDERED FINAL
 UNTIL ALL SIGNATURES ARE COMPLETED

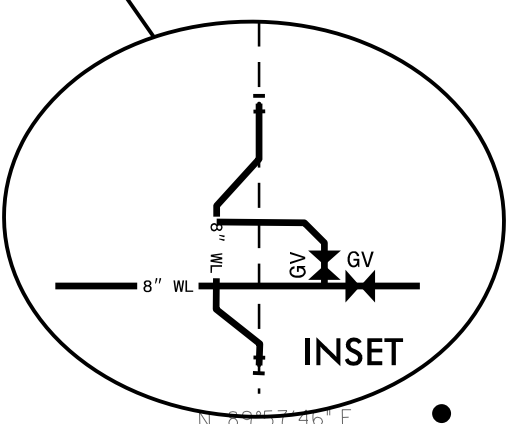
-L-
 PIs Sta 167+90.68 PI Sta 170+65.98 PIs Sta 173+39.22
 $\Delta s = 2' 14" 59.4"$ $\Delta = 13' 27" 18.9" (LT)$ $\Delta s = 2' 14" 59.4"$
 $L_s = 150.00'$ $D = 2' 59" 59.2"$ $L_s = 150.00'$
 $LT = 100.01'$ $L = 448.54'$ $LT = 100.01'$
 $ST = 50.01'$ $T = 225.31'$ $ST = 50.01'$
 $R = 1,910.00'$
 $SE = 0.03$



MATCHLINE SEE SHEET UC-15
 -L- STA 167+00

MATCHLINE SEE SHEET UC-17
 -L- STA 180+00

-Y16-
 PI Sta 11+23.85
 $\Delta = 3' 32" 29.4" (LT)$
 $D = 5' 43" 46.5"$
 $L = 61.81'$
 $T = 30.92'$
 $R = 1,000.00'$



EXISTING IN LINE VALVE TO FACILITATE SHUTDOWN FOR RECONNECTION OF THE EXISTING WATER MAIN IN DURANT DR IS APPROXIMATELY 562 LF FROM PROPOSED RECONNECTION POINT.

NOTE:
 SEE SHEET UC-41 & UC-42 FOR -WL-18- PROFILE
 SEE SHEET UC-44 & UC-45 FOR -WL-20R1- PROFILE

3-MAY-2018 14:47 L:\Projects\Fayetteville Public Works Commission\2015\017700RA -Roeford Road NCDOT U-4405\CADD\NCDOT PLANS\Utilities\Engineering\UC\Proj\Ud4405_ut_rdlj16.uc16.psh.dgn 5/14/2018

MATCHLINE SEE SHEET UC-16
-L- STA 180+00

MATCHLINE SEE SHEET UC-18
-L- STA 193+00

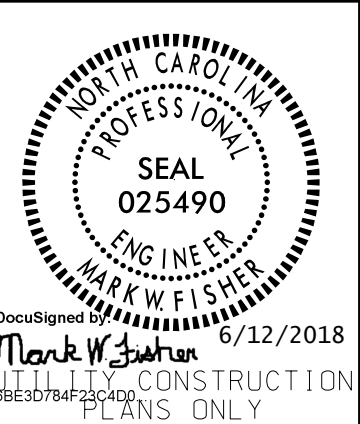
DOCUMENT NOT CONSIDERED FINAL
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SEE UTILITY
CONSTRUCTION
NOTES

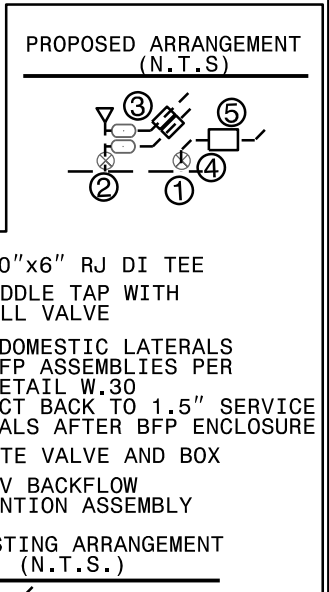
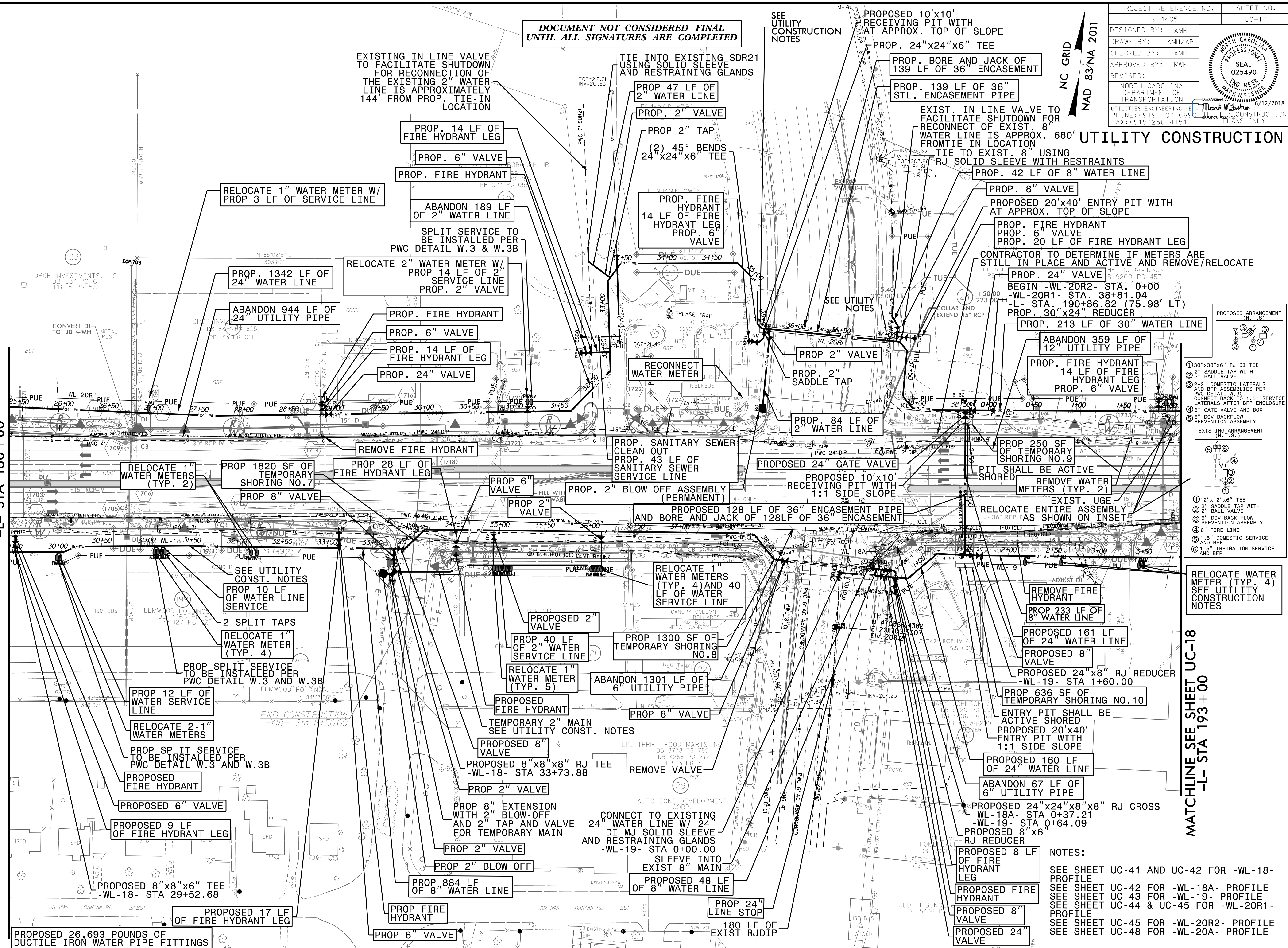
PROPOSED 10'x10'
RECEIVING PIT WITH
AT APPROX. TOP OF SLOPE

NC GRID
NAD 83/NA 2011

PROJECT REFERENCE NO.	U-4405
SHEET NO.	UC-17
DESIGNED BY:	AMH
DRAWN BY:	AMH/AB
CHECKED BY:	AMH
APPROVED BY:	MWF
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	



UTILITY CONSTRUCTION



RELOCATE WATER METER (TYP. 4)
SEE UTILITY CONSTRUCTION NOTES

NOTES:

SEE SHEET UC-41 AND UC-42 FOR -WL-18- PROFILE
 SEE SHEET UC-42 FOR -WL-18A- PROFILE
 SEE SHEET UC-43 FOR -WL-19- PROFILE
 SEE SHEET UC-44 & UC-45 FOR -WL-20R1- PROFILE
 SEE SHEET UC-45 FOR -WL-20R2- PROFILE
 SEE SHEET UC-48 FOR -WL-20A- PROFILE

PROPOSED 26,693 POUNDS OF
DUCTILE IRON WATER PIPE FITTINGS

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-18
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	

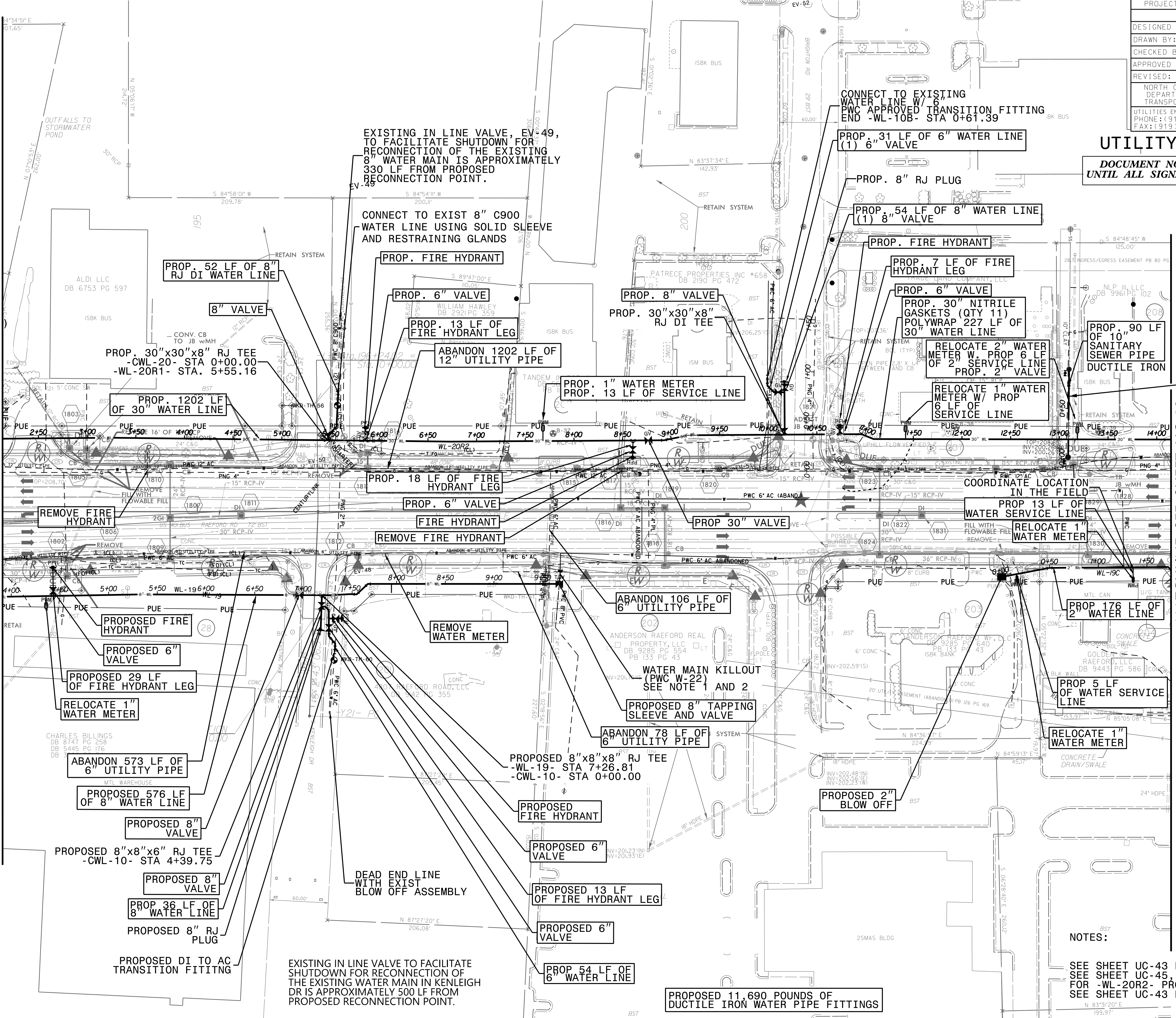
UTILITY CONSTRUCTION
 DOCUMENT NOT CONSIDERED FINAL
 UNTIL ALL SIGNATURES ARE COMPLETED

NC GRID
 NAD 83/NA 2011

REMOVE AND REPLACE
 10" VC WITH 10" DI
 FROM SSMH TO SSMH.
 CENTER 20 FT
 JOINT OVER CROSSING
 OF 30" MAIN. JOINT
 SHALL BE EQUIVALENT
 OF WATER MAIN
 STANDARD

MATCHLINE SEE SHEET UC-17
 -L- STA 193+00

MATCHLINE SEE SHEET UC-19
 -L- STA 205+00



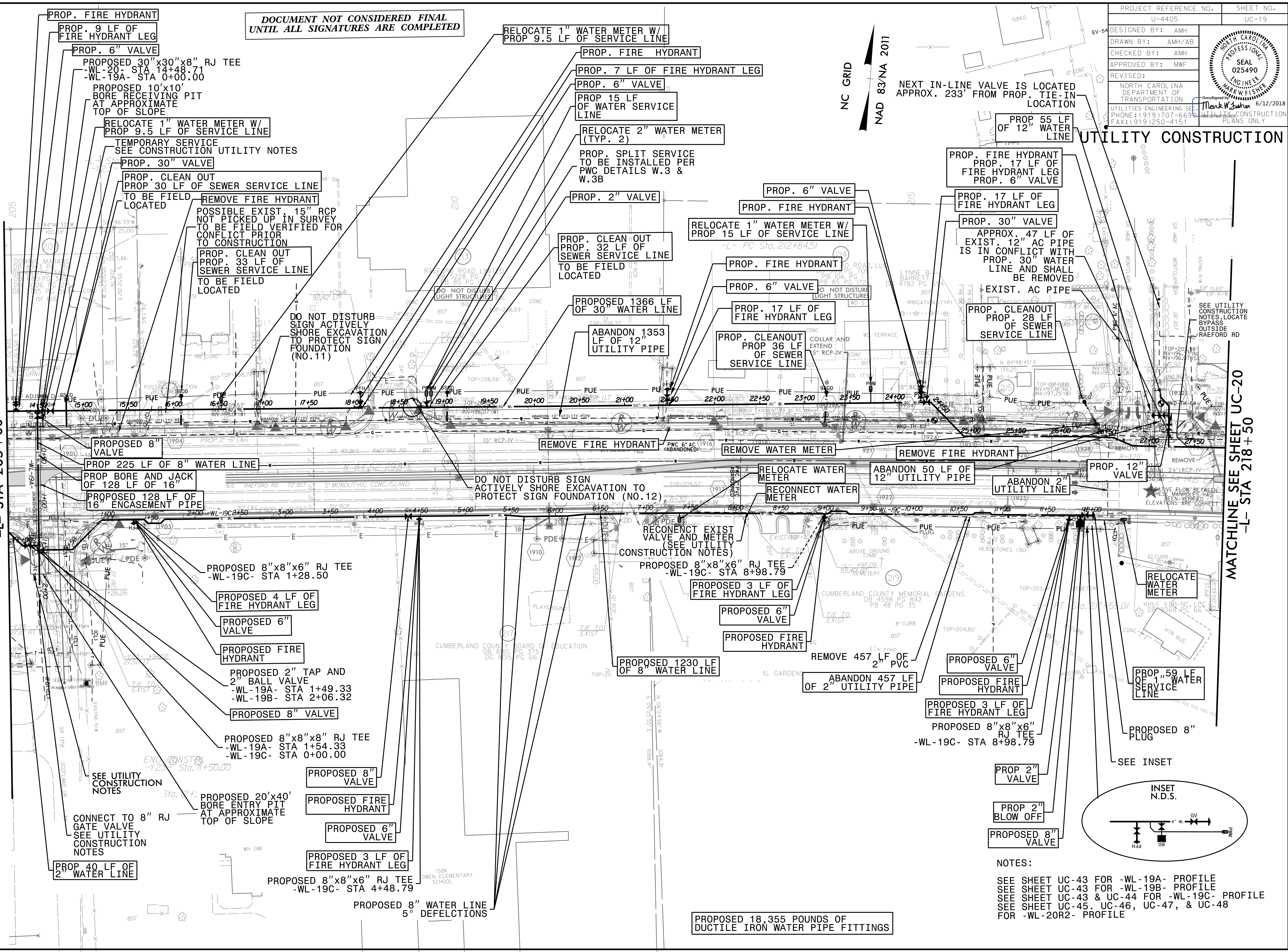
NOTES:
 SEE SHEET UC-43 FOR -WL-19- PROFILE
 SEE SHEET UC-45, UC-46, UC-47
 FOR -WL-20R2- PROFILE
 SEE SHEET UC-43 FOR -WL-19B- PROFILE

3-MAY-2018 14:48
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5/14/2018
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Mark W. Fisher
6/12/2018

MATCHLINE SEE SHEET UC-18
-L- STA 205+00

MATCHLINE SEE SHEET UC-20
-L- STA 218+50



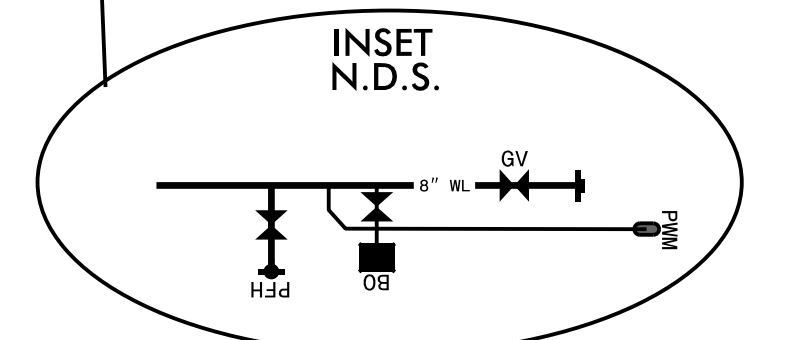
DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-19
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025490	
Mark W. Fisher 6/12/2018	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SECTION	
PHONE: (919) 707-6693	
FAX: (919) 250-4151	

UTILITY CONSTRUCTION

NOTES:
SEE SHEET UC-43 FOR -WL-19A- PROFILE
SEE SHEET UC-43 FOR -WL-19B- PROFILE
SEE SHEET UC-43 & UC-44 FOR -WL-19C- PROFILE
SEE SHEET UC-45, UC-46, UC-47, & UC-48 FOR -WL-20R2- PROFILE

PROPOSED 18,355 POUNDS OF
DUCTILE IRON WATER PIPE FITTINGS

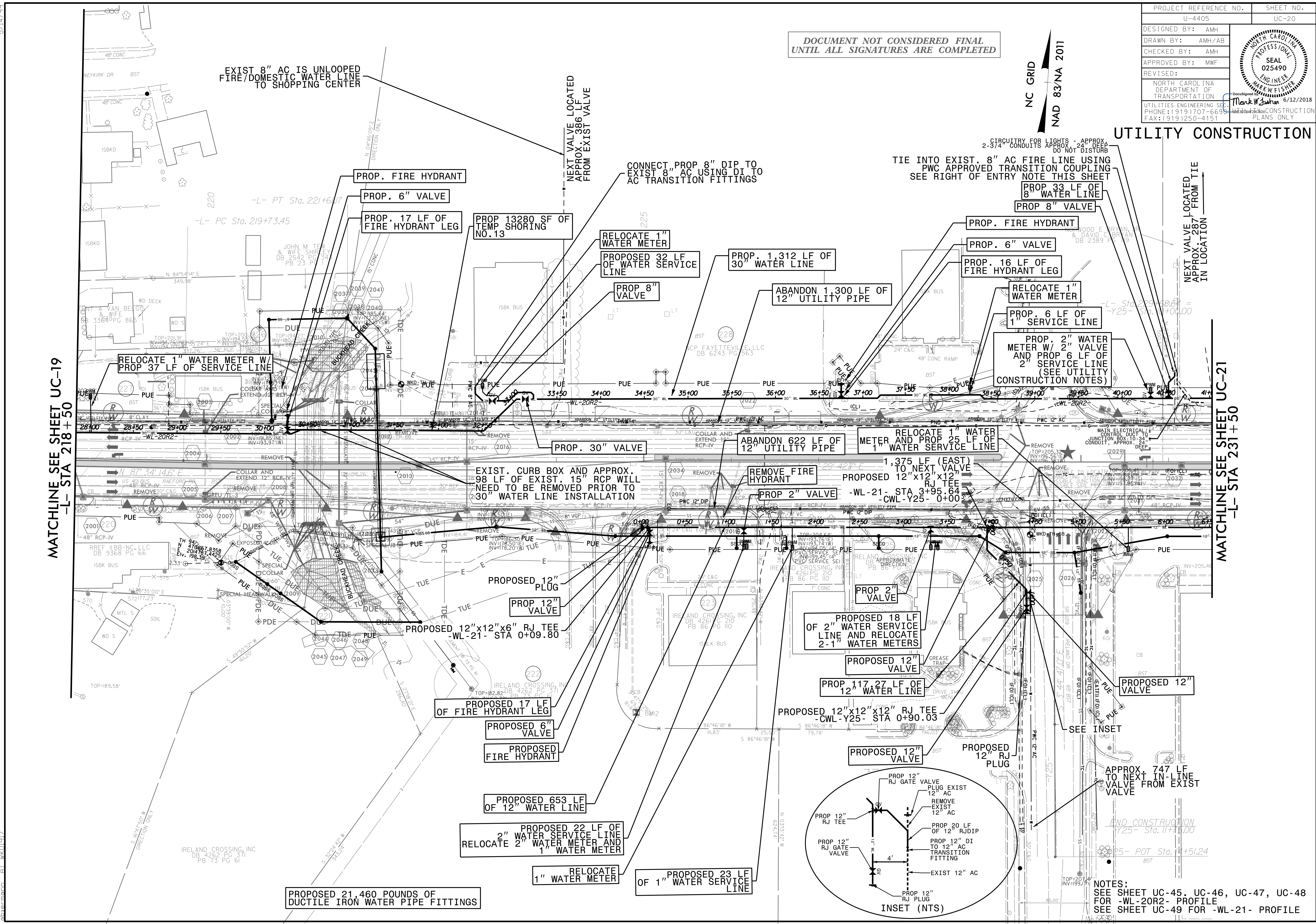


PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-20
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6698 FAX: (919) 250-4151	

DOCUMENT NOT CONSIDERED FINAL
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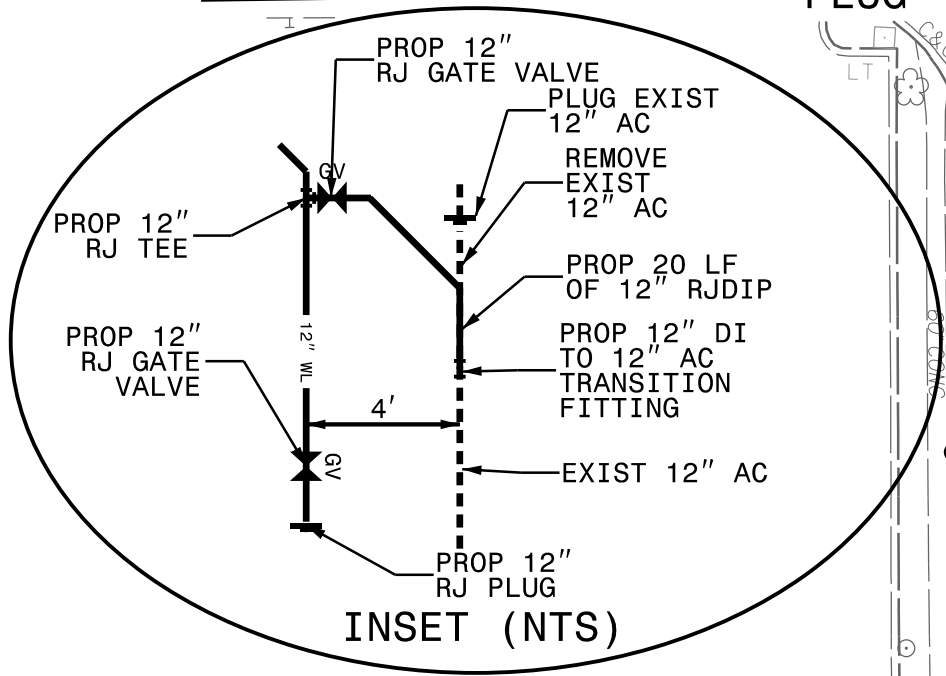
NC GRID
NAD 83/NA 2011

UTILITY CONSTRUCTION



MATCHLINE SEE SHEET UC-19
-L- STA 218+50

MATCHLINE SEE SHEET UC-21
-L- STA 231+50



NOTES:
SEE SHEET UC-45, UC-46, UC-47, UC-48
FOR -WL-20R2- PROFILE
SEE SHEET UC-49 FOR -WL-21- PROFILE

05-JUN-2018 16:38
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 5/14/2019

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-20A
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6698 FAX: (919) 250-4151	
6/12/2018 ALL CONSTRUCTION PLANS ONLY	

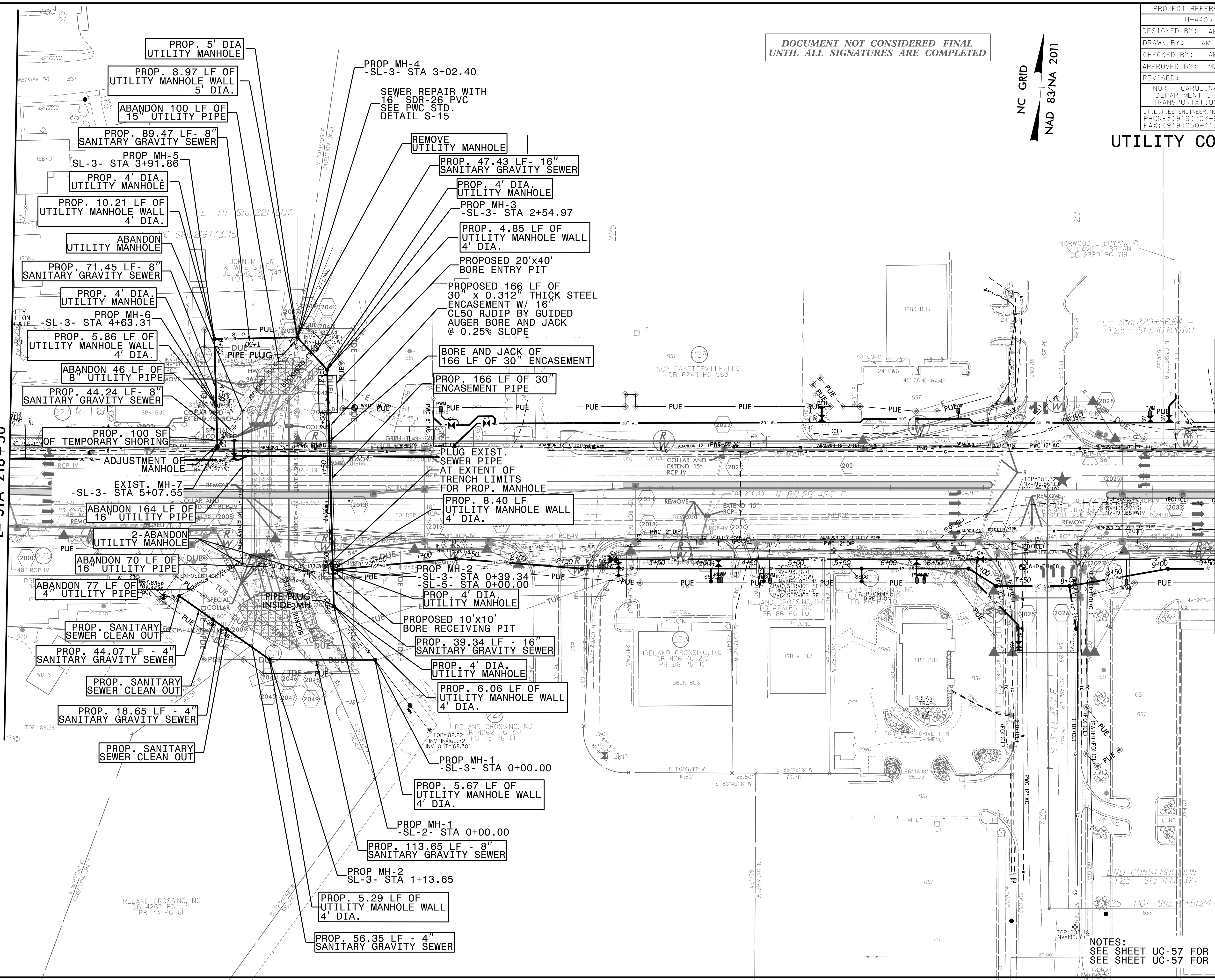
DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED

NC GRID
NAD 83/NA 2011

UTILITY CONSTRUCTION

MATCHLINE SEE SHEET UC-19
-L- STA 218+50

MATCHLINE SEE SHEET UC-21
-L- STA 231+50



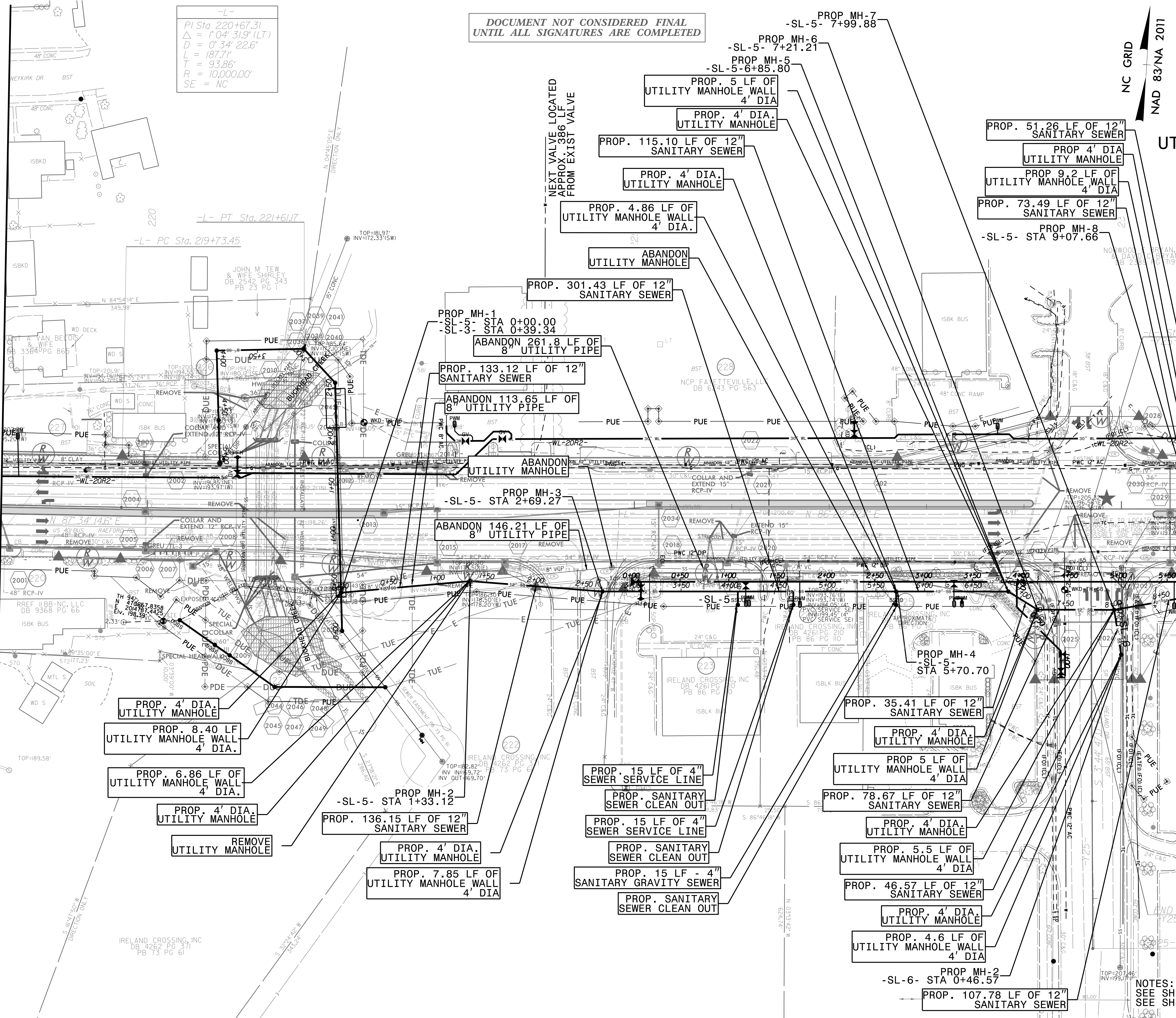
NOTES:
SEE SHEET UC-57 FOR -SL-3- PROFILE
SEE SHEET UC-57 FOR -SL-4- PROFILE

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 5/14/2018

5/14/99
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abernann


MATCHLINE SEE SHEET UC-19
-L- STA 218+50

MATCHLINE SEE SHEET UC-21
-L- STA 231+50



-L-
PI Sta. 220+67.31
 $\Delta = 1^{\circ}04'31.9''$ (LT)
 $D = 0^{\circ}34'22.6''$
 $L = 187.71'$
 $T = 93.86'$
 $R = 10,000.00'$
SE = NC

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UNTIL ALL SIGNATURES ARE COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-20B
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	6/12/2018 PLANS ONLY

UTILITY CONSTRUCTION

NC GRID
NAD 83/NA 2011

NOTES:
SEE SHEET UC-58 FOR -SL-5- PROFILE
SEE SHEET UC-59 FOR -SL-6- PROFILE

PROP. 4' DIA. UTILITY MANHOLE
PROP. 8.40 LF UTILITY MANHOLE WALL 4' DIA.
PROP. 6.86 LF OF UTILITY MANHOLE WALL 4' DIA.
PROP. 4' DIA. UTILITY MANHOLE
REMOVE UTILITY MANHOLE

PROP. MH-2
-SL-5- STA 1+33.12
PROP. 136.15 LF OF 12" SANITARY SEWER
PROP. 4' DIA. UTILITY MANHOLE
PROP. 7.85 LF OF UTILITY MANHOLE WALL 4' DIA.

PROP. MH-3
-SL-5- STA 2+69.27
ABANDON 146.21 LF OF 8" UTILITY PIPE

PROP. MH-1
-SL-3- STA 0+00.00
-SL-3- STA 0+39.34
ABANDON 261.8 LF OF 8" UTILITY PIPE
PROP. 133.12 LF OF 12" SANITARY SEWER
ABANDON 113.65 LF OF 8" UTILITY PIPE

PROP. 301.43 LF OF 12" SANITARY SEWER

PROP. 15 LF OF 4" SEWER SERVICE LINE
PROP. SANITARY SEWER CLEAN OUT
PROP. 15 LF OF 4" SEWER SERVICE LINE
PROP. SANITARY SEWER CLEAN OUT
PROP. 15 LF - 4" SANITARY GRAVITY SEWER
PROP. SANITARY SEWER CLEAN OUT

PROP. 115.10 LF OF 12" SANITARY SEWER
PROP. 4' DIA. UTILITY MANHOLE
PROP. 4.86 LF OF UTILITY MANHOLE WALL 4' DIA.
ABANDON UTILITY MANHOLE

PROP. 5 LF OF UTILITY MANHOLE WALL 4' DIA.
PROP. 4' DIA. UTILITY MANHOLE

PROP. MH-4
STA 5+70.70
PROP. 35.41 LF OF 12" SANITARY SEWER
PROP. 4' DIA. UTILITY MANHOLE
PROP. 5 LF OF UTILITY MANHOLE WALL 4' DIA.
PROP. 78.67 LF OF 12" SANITARY SEWER
PROP. 4' DIA. UTILITY MANHOLE
PROP. 5.5 LF OF UTILITY MANHOLE WALL 4' DIA.
PROP. 46.57 LF OF 12" SANITARY SEWER
PROP. 4' DIA. UTILITY MANHOLE
PROP. 4.6 LF OF UTILITY MANHOLE WALL 4' DIA.

PROP. MH-2
-SL-6- STA 0+46.57
PROP. 107.78 LF OF 12" SANITARY SEWER

PROP. 51.26 LF OF 12" SANITARY SEWER
PROP. 4' DIA. UTILITY MANHOLE
PROP. 9.2 LF OF UTILITY MANHOLE WALL 4' DIA.
PROP. 73.49 LF OF 12" SANITARY SEWER
PROP. MH-8
-SL-5- STA 9+07.66

AND CONSTRUCTION
-L- STA 11+15.00

25- POT Sta. 11+51.24

5/14/99
31-MAY-2016 14:52
C:\Users\pshdgn\OneDrive\Documents\Projects\U-4405\U-4405-ut-rd\21-uc21-ps-hdgn

DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED

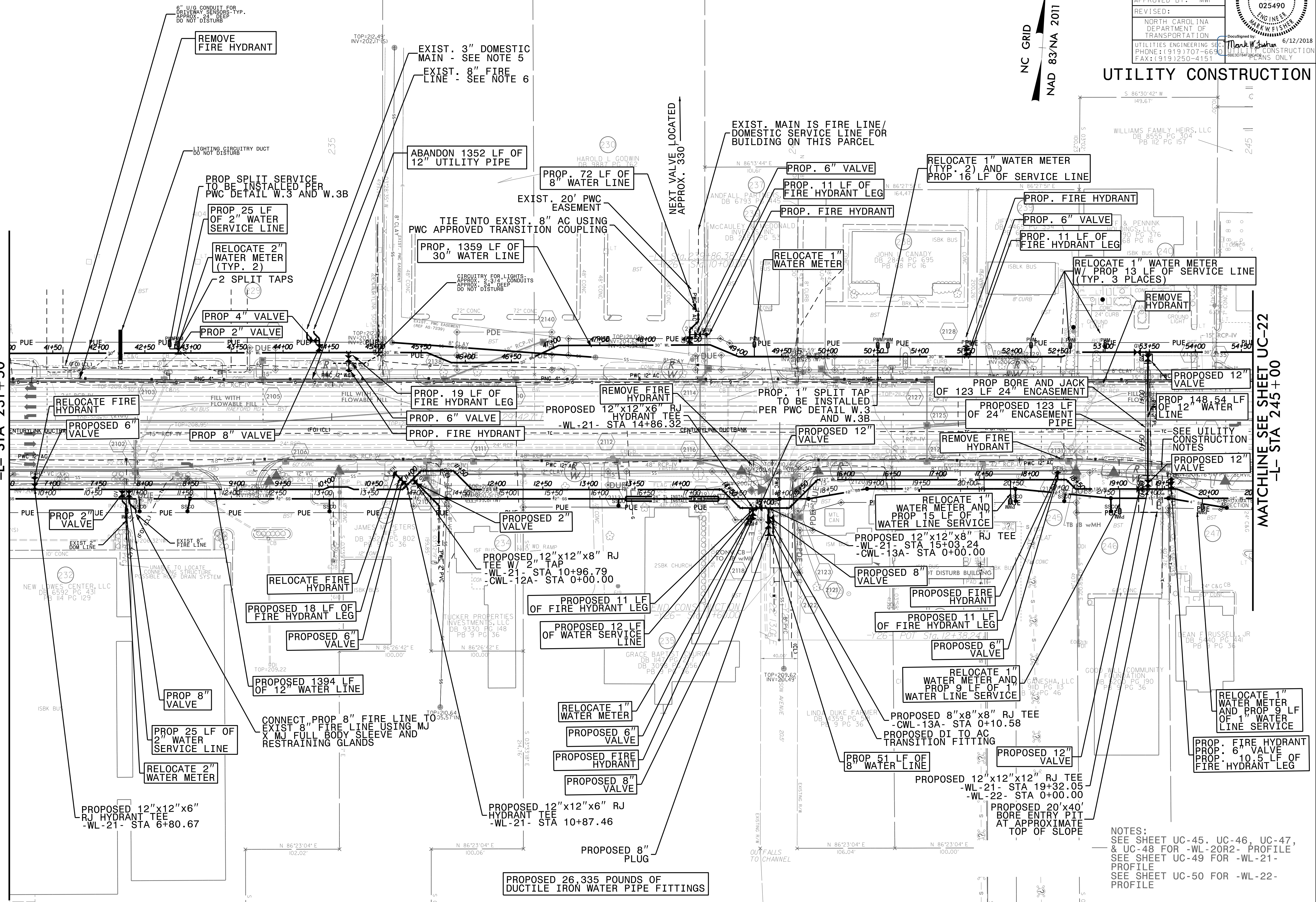
PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-21
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SECTION	
PHONE: (919) 707-6690	
FAX: (919) 250-4151	

6/12/2018
Mark W. Fisher
CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

MATCHLINE SEE SHEET UC-20
-L- STA 231+50


MATCHLINE SEE SHEET UC-22
-L- STA 245+00



NOTES:
SEE SHEET UC-45, UC-46, UC-47,
& UC-48 FOR -WL-20R2- PROFILE
SEE SHEET UC-49 FOR -WL-21-
PROFILE
SEE SHEET UC-50 FOR -WL-22-
PROFILE

5/14/99
06-JUN-2008 12:01
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PROJECT REFERENCE NO.	U-4405
SHEET NO.	UC-21A
DESIGNED BY:	AMH
DRAWN BY:	AMH/AB
CHECKED BY:	AMH
APPROVED BY:	MWF
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SECTION	
PHONE: (919) 707-6693	
FAX: (919) 250-4151	

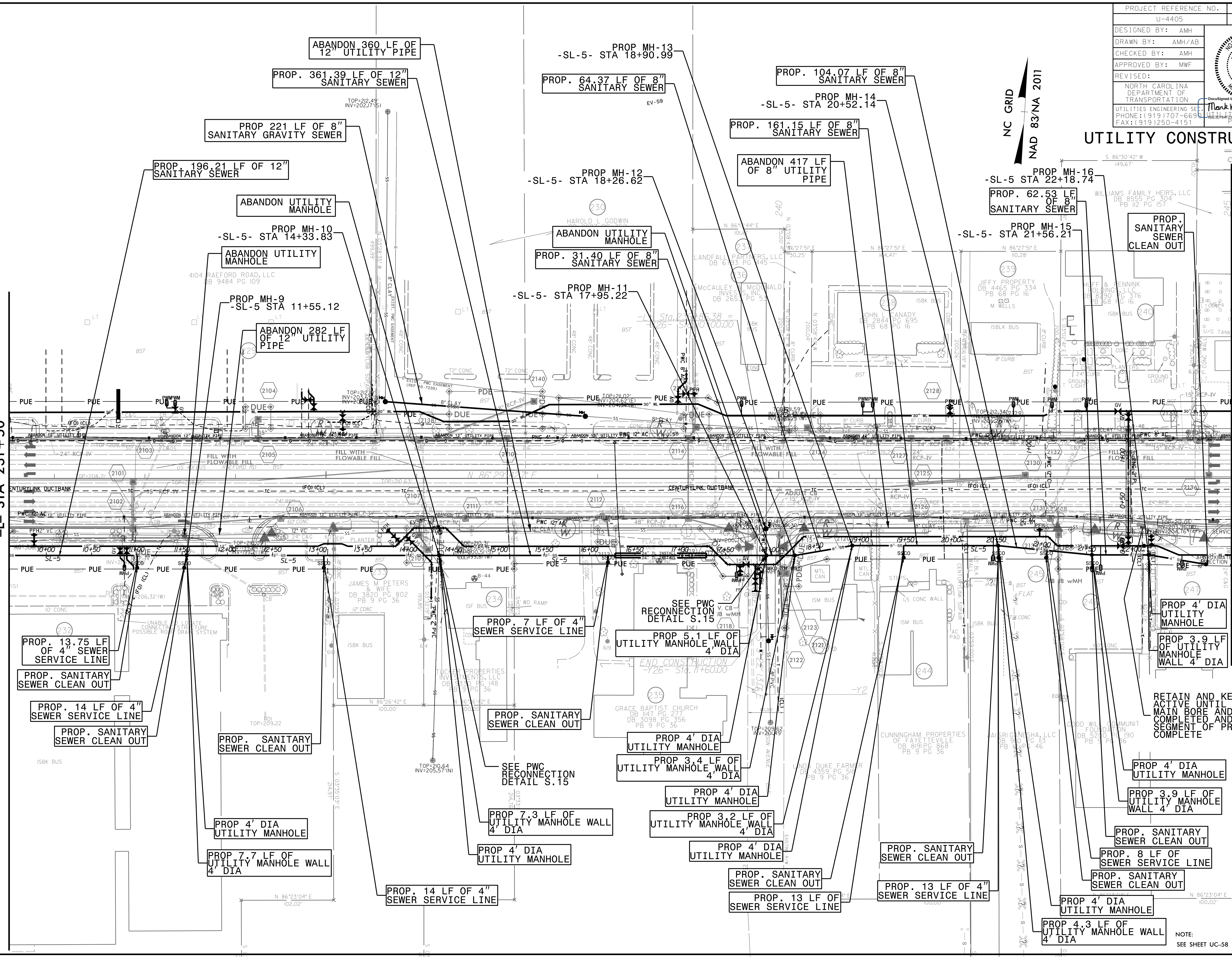


6/12/2018
CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

MATCHLINE SEE SHEET UC-20
-L- STA 231+50

MATCHLINE SEE SHEET UC-22
-L- STA 245+00



RETAIN AND KEEP SSMH ACTIVE UNTIL WATER MAIN BORE AND JACK IS COMPLETED AND LAST SEGMENT OF PROP SEWER COMPLETE

NOTE:
SEE SHEET UC-58 FOR -SL-5- PROFILE

07-JUN-2018 14:03
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5/14/2018

NC GRID
NAD 83/NA 2011

-L-
PI Sta 257+51.40 PI Sta 258+20.74
 $\theta_s = 0^\circ 31' 15.1''$ $\Delta = 0^\circ 45' 00.9''$ (LT)
Ls = 100.00' D = 1'02' 30.3"
LT = 66.67' T = 72.02'
ST = 33.33' R = 5,500.00'
SE = 0.025

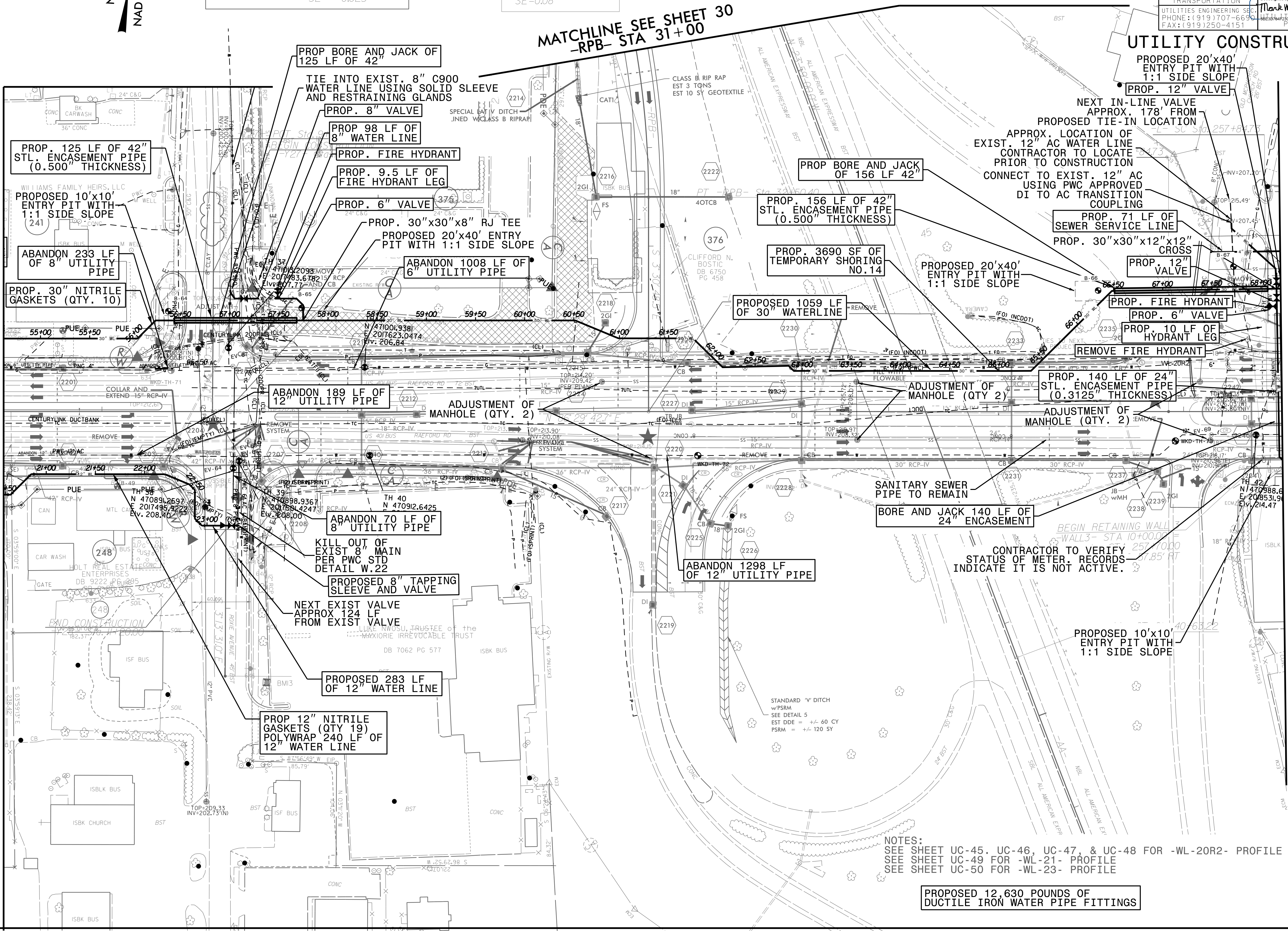
-RPB-
PI Sta 31+40.19
 $\Delta = 14^\circ 06' 13.2''$ (RT)
D = 6' 21' 58.3"
L = 221.54'
T = 111.33'
R = 900.00'
SE = 0.08

DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-22
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025490	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
6/12/2018	
UTILITIES ENGINEERING SECTION	
PHONE: (919) 707-6694	
FAX: (919) 250-4151	

MATCHLINE SEE SHEET UC-21
-L- STA 245+00

MATCHLINE SEE SHEET UC-23
-L- STA 258+00



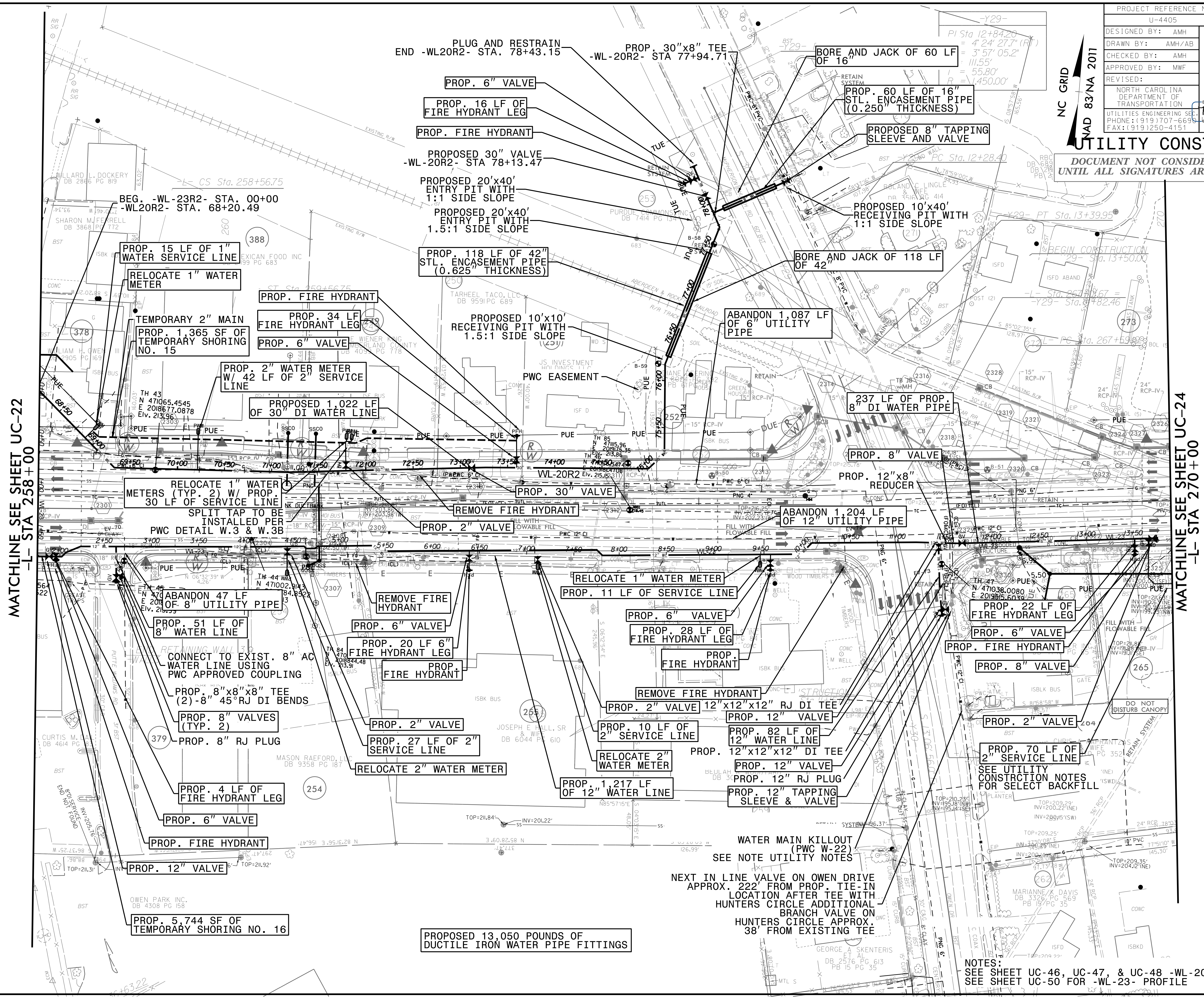
NOTES:
SEE SHEET UC-45, UC-46, UC-47, & UC-48 FOR -WL-20R2- PROFILE
SEE SHEET UC-49 FOR -WL-21- PROFILE
SEE SHEET UC-50 FOR -WL-23- PROFILE

PROPOSED 12,630 POUNDS OF
DUCTILE IRON WATER PIPE FITTINGS

PROJECT REFERENCE NO.	U-4405	SHEET NO.	UC-23
DESIGNED BY:	AMH		
DRAWN BY:	AMH/AB		
CHECKED BY:	AMH		
APPROVED BY:	MWF		
REVISED:		NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6696 FAX: (919) 250-4151	

UTILITY CONSTRUCTION
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NC GRID
 ROAD 83 NA 2017



MATCHLINE SEE SHEET UC-22
 -L- STA 258+00

MATCHLINE SEE SHEET UC-24
 -L- STA 270+00

WATER MAIN KILLOUT
 (PWC W-22)
 SEE NOTE UTILITY NOTES
 NEXT IN LINE VALVE ON OWEN DRIVE
 APPROX. 222' FROM PROP. TIE-IN
 LOCATION AFTER TEE WITH
 HUNTERS CIRCLE ADDITIONAL
 BRANCH VALVE ON
 HUNTERS CIRCLE APPROX.
 38' FROM EXISTING TEE

PROPOSED 13,050 POUNDS OF
 DUCTILE IRON WATER PIPE FITTINGS

NOTES:
 SEE SHEET UC-46, UC-47, & UC-48 -WL-20R2- PROFILE
 SEE SHEET UC-50 FOR -WL-23- PROFILE

07-JUN-2018 14:07
 L:\Projects\4405\1700RA -Roeford Road NCDOT U-4405\CADD\NCDOT PLANS\Utilities\Engineering\UC\PC\U-4405-ut-rd\23-uc23-iph.dgn
 5/14/19

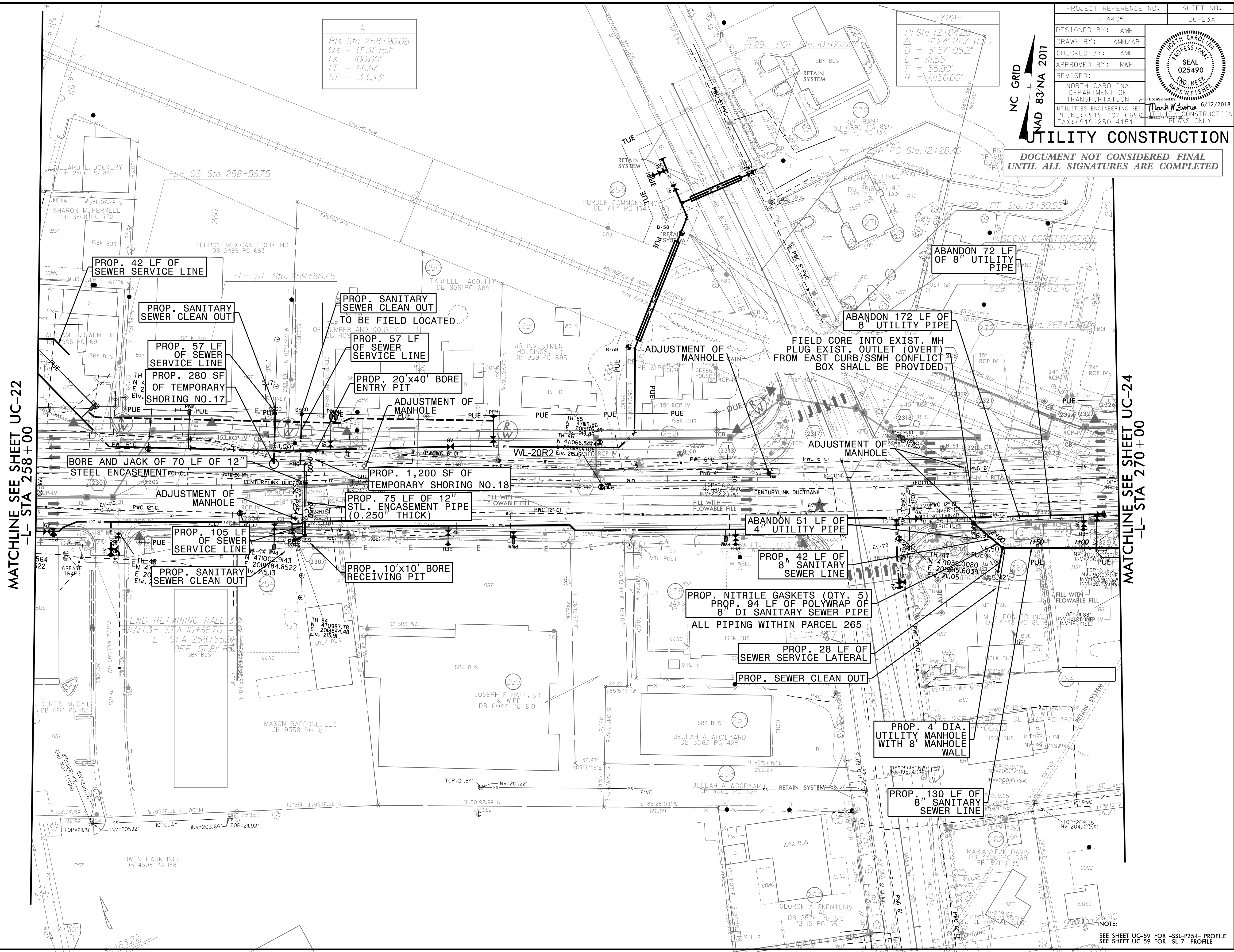
PROJECT REFERENCE NO.	U-4405	SHEET NO.	UC-23A
DESIGNED BY:	AMH		
DRAWN BY:	AMH/AB		
CHECKED BY:	AMH		
APPROVED BY:	MWF		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6699 FAX: (919) 250-4151		6/12/2018 UTILITIES CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION
 DOCUMENT NOT CONSIDERED FINAL
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NC GRID
 ROAD 83/NA 2017

-L-
 Pts Sta 258+90.08
 Es = 0' 31' 15.1"
 Ls = 100.00'
 LT = 66.67'
 ST = 33.33'

-Y29-
 P1 Sta 12+84.20
 Δ = 4' 24' 27.7" (R)
 D = 3' 57' 05.2"
 L = 111.55'
 T = 55.80'
 R = 1,450.00'



MATCHLINE SEE SHEET UC-22
 -L- STA 258+00

MATCHLINE SEE SHEET UC-24
 -L- STA 270+00

NOTE:
 SEE SHEET UC-59 FOR -SSL-P254- PROFILE
 SEE SHEET UC-59 FOR -SL-7- PROFILE

07-JUN-2018 14:11 L:\Projects\Public Works Commission\2015\017700RA -Roerford Road NCDOT U-4405\CADD\NCDOT PLANS\Utilities\Engineering\UC\PC\U-4405-ut_r.dwg UC-23A_psh.dgn
 5/14/2018

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-24
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	
DATE: 6/12/2018 PROJECT: UTILITIES CONSTRUCTION PLANS ONLY	

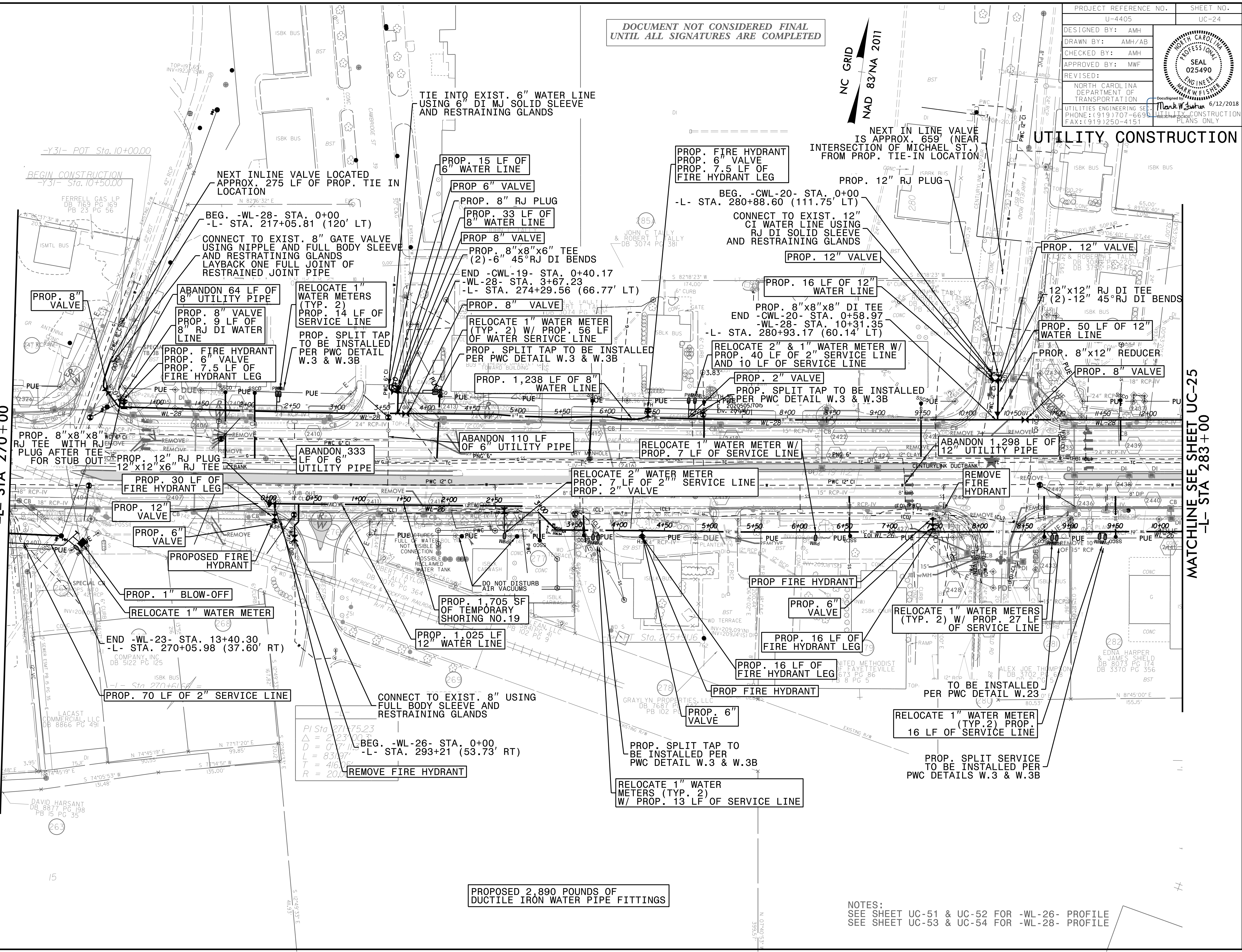
DOCUMENT NOT CONSIDERED FINAL
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NC GRID
NAD 83/NA 2011

UTILITY CONSTRUCTION

MATCHLINE SEE SHEET UC-23
-L- STA 270+00

MATCHLINE SEE SHEET UC-25
-L- STA 283+00



PROPOSED 2,890 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS


NOTES:
SEE SHEET UC-51 & UC-52 FOR -WL-26- PROFILE
SEE SHEET UC-53 & UC-54 FOR -WL-28- PROFILE

05-JUN-2018 17:06 L:\Projects\Public Works Commission\2015017700RA Reelford_Road_NCDOT_U_4405\CADD\NCDOT_PLANS\Utilities\Engineering\UC\Proj\4405_ut_rdy24_uc24_uc24.psh.dgn 5/14/2018

05-JUN-2018 17:03
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5/14/2018

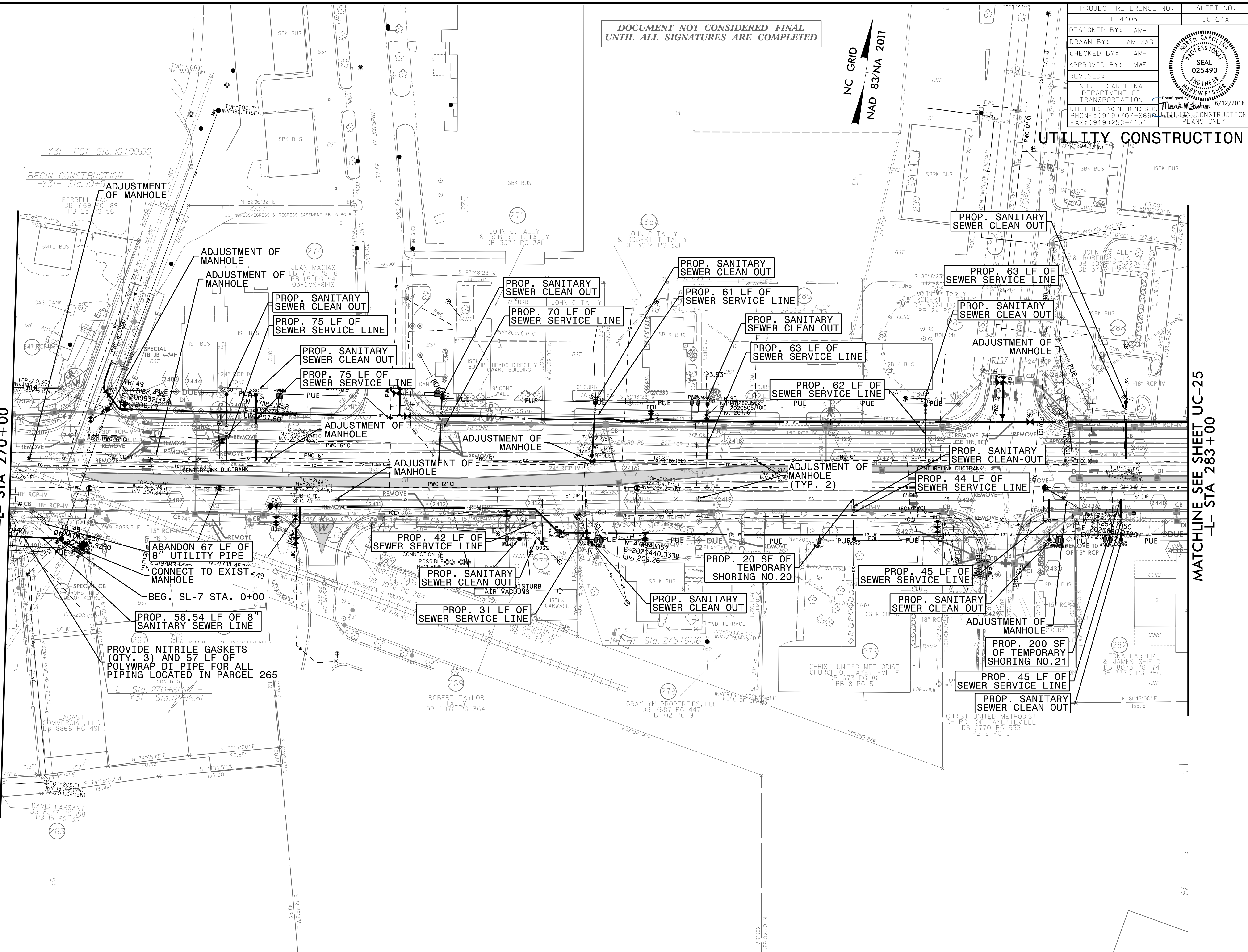
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NC GRID
NAD 83/NA 2011

PROJECT REFERENCE NO.	UC-4405	SHEET NO.	UC-24A
DESIGNED BY:	AMH		
DRAWN BY:	AMH/AB		
CHECKED BY:	AMH		
APPROVED BY:	MWF		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		6/12/2018	
UTILITIES ENGINEERING SECTION		CONSTRUCTION PLANS ONLY	
PHONE: (919) 707-6699		FAX: (919) 250-4151	

MATCHLINE SEE SHEET UC-23
-L- STA 270+00

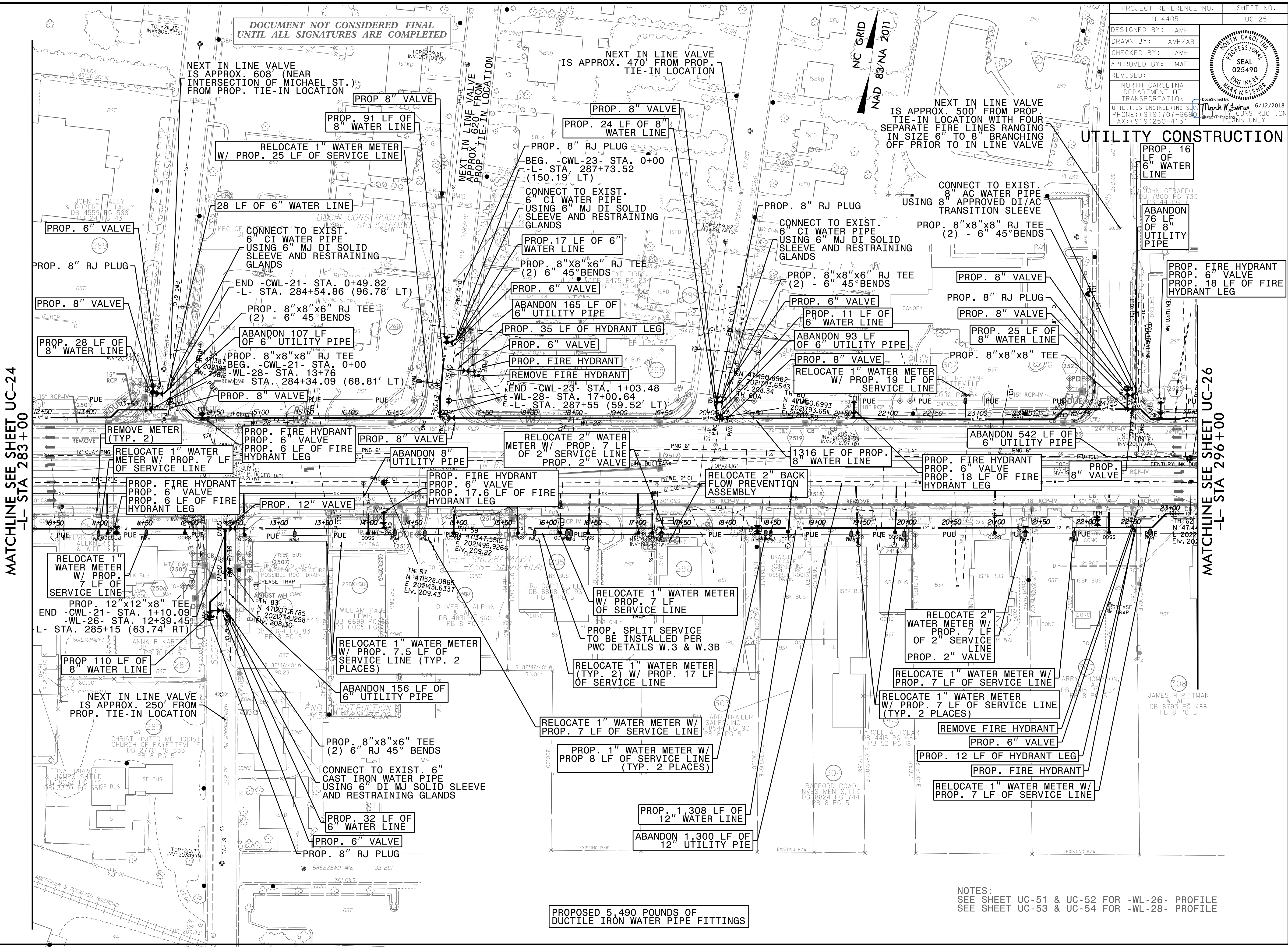
MATCHLINE SEE SHEET UC-25
-L- STA 283+00



PROJECT REFERENCE NO.	U-4405
SHEET NO.	UC-25
DESIGNED BY:	AMH
DRAWN BY:	AMH/AB
CHECKED BY:	AMH
APPROVED BY:	MWF
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SECTION	
PHONE: (919) 707-6500	
FAX: (919) 250-4151	



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UNTIL ALL SIGNATURES ARE COMPLETED



MATCHLINE SEE SHEET UC-24
-L- STA 283+00

MATCHLINE SEE SHEET UC-26
-L- STA 296+00

PROPOSED 5,490 POUNDS OF
DUCTILE IRON WATER PIPE FITTINGS

NOTES:
SEE SHEET UC-51 & UC-52 FOR -WL-26- PROFILE
SEE SHEET UC-53 & UC-54 FOR -WL-28- PROFILE

5/14/2018
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