

WATER MAIN SUMMARY

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI

ITEM	DESCRIPTION	UNIT	TOTALS	6" BEND & BLOCK	8" BEND & BLOCK	12" BEND & BLOCK	24" BEND & BLOCK	12" PLUG & BLOCK	8"X6" REDUCER	12"X8" REDUCER	12"X10" REDUCER	8"X8" TEE & BLOCK	12"X12"X12" TEE & BLOCK	24"X24"X6" TEE & BLOCK	24"X24"X8" TEE & BLOCK	24"X24"X12" TEE & BLOCK				
14005	W CONCRETE ENCASEMENT	LF	70																	
14009	W ENCASEMENT STEEL BORED RANGE 4	LF	90																	
14010	W ENCASEMENT STEEL BORED RANGE 5	LF	309																	
14011	W ENCASEMENT STEEL BORED RANGE 6	LF	478																	
14019	W FIRE HYDRANT ASSEMBLY	EA	1																	
14020	W FIRE HYDRANT RELOCATE	EA	16																	
14030	W METER RELOCATE	EA	18																	
14032	W METER/FIRE SERVICE COMBO VAULT	EA	1																	
14036	W PIPE DUCTILE IRON 06 INCH	LF	101	2																
14037	W PIPE DUCTILE IRON 08 INCH	LF	960		15				2			1								
14039	W PIPE DUCTILE IRON 12 INCH	LF	1316			21		1		1	2		2							
14042	W PIPE DUCTILE IRON 24 INCH	LF	8694				29							6	4	4				
14088	W STRUCTURE REMOVAL	EA	1																	
14091	W TIE-IN 02 INCH	EA	2																	
14094	W TIE-IN 06 INCH	EA	8																	
14095	W TIE-IN 08 INCH	EA	7																	
14097	W TIE-IN 12 INCH	EA	8																	
14100	W TIE-IN 24 INCH	EA	2																	
14105	W VALVE 06 INCH	EA	7																	
14106	W VALVE 08 INCH	EA	9																	
14108	W VALVE 12 INCH	EA	7																	
14111	W VALVE 24 INCH	EA	15																	
14125	W VAULT SPECIAL	EA	1																	
14146	W SERV COPPER LONG SIDE 1-1/2 IN	EA	2																	
14147	W SERV COPPER LONG SIDE 2 IN	EA	1																	
14148	W SERV COPPER LONG SIDE 3/4 IN	EA	13																	
14151	W SERV COPPER SHORT SIDE 2 IN	EA	1																	
14152	W SERV COPPER SHORT SIDE 3/4 IN	EA	15																	

FILE NAME: G:\PW\WORKING\LOCHNER-PW-01\DNS22820\SH_01-DNS WATER SUMMARY.DGN

USER: CJACKSON
DATE PLOTTED: September 28, 2022

E-SHEET NAME: U00100SU

MicroStation v8.11.9.919

SHEET 1 OF 25

BOONE COUNTY WATER DISTRICT & NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

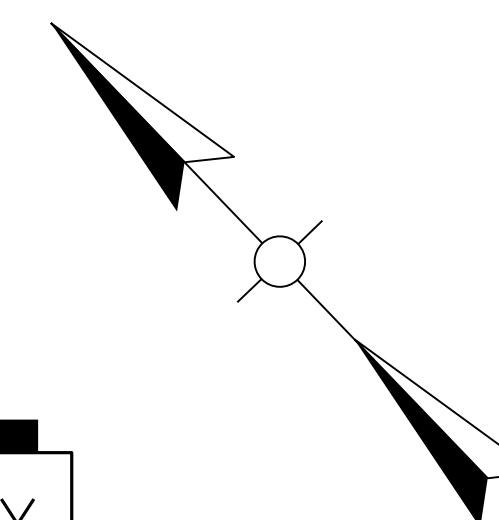
LOCHNER
H. W. LOCHNER, INC.
2365 HARRODSBURG ROAD, STE B400
LEXINGTON, KY 40504

WATER MAIN SUMMARY

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U2

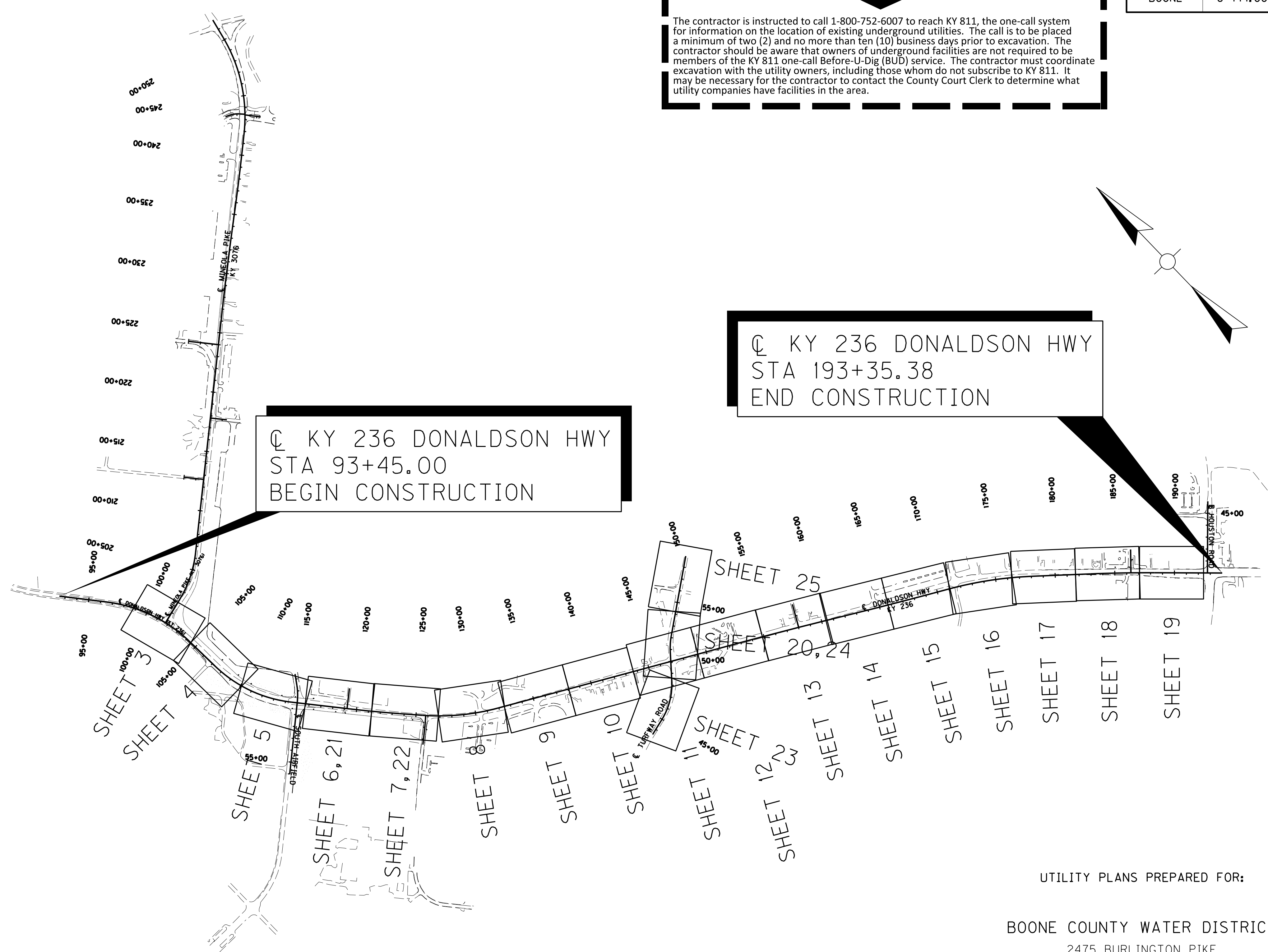
BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.



☉ KY 236 DONALDSON HWY
STA 193+35.38
END CONSTRUCTION

☉ KY 236 DONALDSON HWY
STA 93+45.00
BEGIN CONSTRUCTION



UTILITY PLANS PREPARED FOR:

BOONE COUNTY WATER DISTRICT
2475 BURLINGTON PIKE
BURLINGTON, KY 41005-0018

NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
ERLANGER, KENTUCKY 41018-0640

NOTES

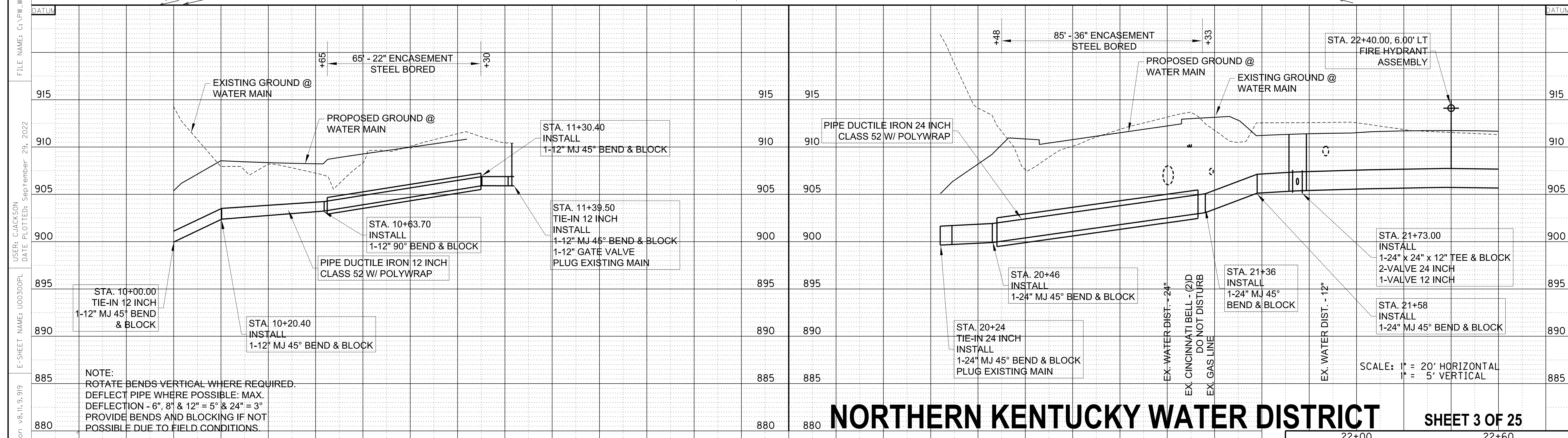
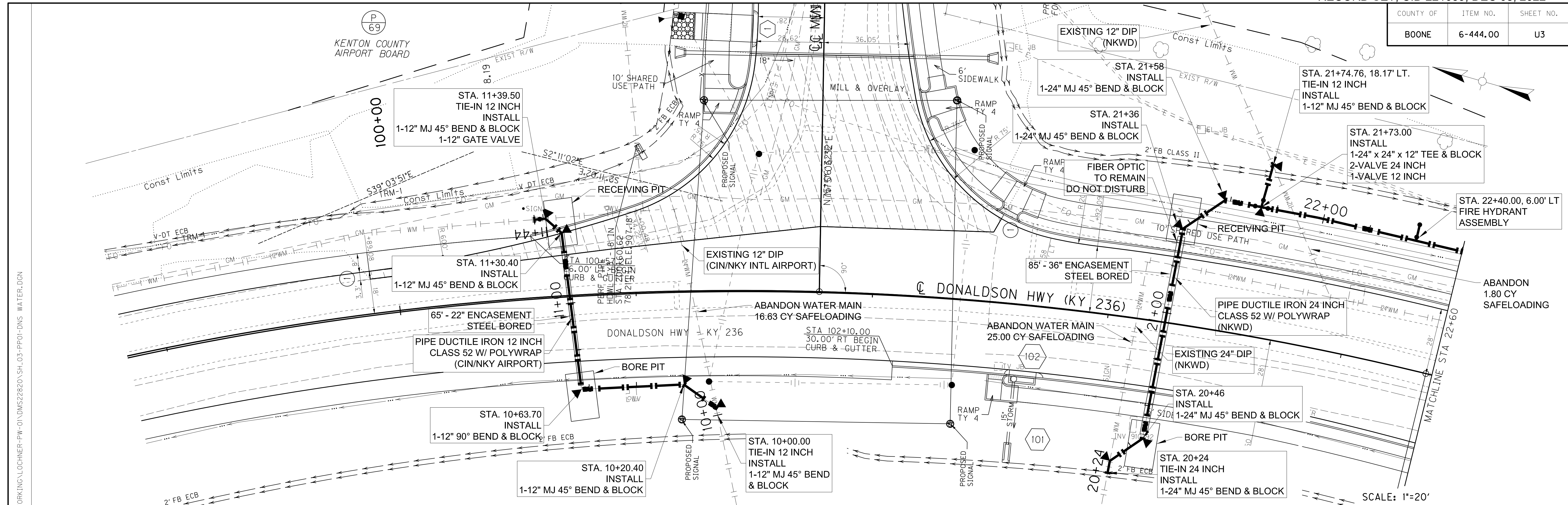
- CONTRACTOR SHALL SUPPLY FIELD NOTES UPON COMPLETION OF PROJECT IN SUFFICIENT DETAIL TO PREPARE "RECORD DRAWINGS".
- LOCATION OF UTILITIES AND STRUCTURES, BOTH EXISTING AND PROPOSED, ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT TIME OF BIDDING, AND ARE NOT NECESSARILY COMPLETE OR CORRECT. DURING CONSTRUCTION THE CONTRACTOR SHALL USE DILIGENCE IN PROTECTING FROM DAMAGE ALL EXISTING UTILITIES AND STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR OR RESTORATION OF SAME TO THE SATISFACTION OF THE ENGINEER AND THE UTILITY COMPANY.
- CONTRACTOR TO UNCOVER AND CONFIRM EXACT LOCATION OF EXISTING WATER MAINS AND SERVICES AT CONNECTION POINTS PRIOR TO CONSTRUCTION (INCIDENTAL).
- PRIOR TO START OF ANY UTILITY CONSTRUCTION, A "SEQUENCE OF CONSTRUCTION" SHALL BE PROVIDED IN WRITING TO THE UTILITY OWNER.
- CONTRACTOR TO COORDINATE AND EXPIDITE THE UTILITY CONSTRUCTION IN THE PROPER PHASES OF THE PROJECT AND MINIMIZE THE SHUT-DOWN TIME OF THE UTILITIES.
- CONTRACTOR TO COORDINATE ALL SHUT-DOWN TIMES WITH THE UTILITY OWNER. WATER SHUT-DOWNS FOR TIE-INS MAY BE REQUIRED TO BE PERFORMED AT NIGHT AT THE DISCRETION OF THE UTILITY OWNER.
- CONTRACTOR MAY BE REQUIRED TO MAKE TEMPORARY WATER MAIN AND SERVICE CONNECTIONS, USING APPROVED MATERIALS AND METHODS, DURING PHASING SEQUENCES TO PROVIDE CONTINUOUS WATER SERVICE. THIS IS INCIDENTAL TO THE COST OF THE WATER MAIN CONSTRUCTION. WATER METERS MAY NEED TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION TO ACCOMODATE CONSTRUCTION PHASING.
- WATER METER RELOCATES FOR BOONE COUNTY SHALL BE INSTALLED WITH FLARED COPPER.
- ALL ABANDONED WATER METERS TO BE MARKED, REMOVED, AND SERVICES DISCONNECTED BY THE UTILITY OWNER PRIOR TO CONSTRUCTION. CONTRACTOR TO CONFIRM DISCONNECT WITH WATER DISTRICT PRIOR TO CONSTRUCTION. BOONE COUNTY WATER DISTRICT WILL REQUIRE OFFICIAL NOTIFICATION OF WATER METER ABANDONMENT FROM PROPERTY OWNER PRIOR TO REMOVAL.
- ITEMS AND INSTRUCTION LABELS IN (PARENTHESIS) ARE INCIDENTALS TO THE CONSTRUCTION AND COST ITEM.
- ANY ADJUSTMENTS OR RELOCATIONS OF ITEMS TO FINAL GRADES AND LOCATIONS WILL BE CONSIDERED "INCIDENTAL" TO COST AND CONSTRUCTION OF ITEM.
- DIP WATER MAINS TO BE CLASS 52 WITH BLUE POLYWRAP.
- TEES, BENDS, CAPS, PLUGS OR ANY OTHER FITTINGS INSTALLED WITH NEW MAIN ARE TO BE CONSIDERED INCIDENTAL AND INCLUDED IN PIPE PRICE. THESE ITEMS ARE NOT PAID SEPARATELY AND DO NOT HAVE SEPARATE BID ITEM QUANTITIES.
- EXCAVATION IN PAVED AREAS OUTSIDE OF ROAD CONSTRUCTION SHALL BE BACKFILLED ABOVE INITIAL BEDDING WITH FLOWABLE FILL TO SUBGRADE OF THE EXISTING PAVEMENT. THE PAVEMENT SHALL BE SAW CUT TO NEAT LINES AND REPLACED IN-KIND. ALTERNATIVE BACKFILL AND PAVEMENT RESTORATION METHODS SHALL BE APPROVED BY THE KYTC SECTION ENGINEER BEFORE USE. ALL COSTS FOR RESTORATION OF AREAS OUTSIDE OF ROAD CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO WATER MAIN CONSTRUCTION.
- BLASTING OF ROCK SHALL NOT BE PERMITTED ON THIS PROJECT.
- ALL ROAD CROSSINGS SHALL HAVE A MINIMUM COVER DEPTH OF 48 INCHES TO TOP OF PIPE FROM FINAL GRADE. ALL OTHER AREAS SHALL HAVE A MINIMUM DEPTH OF 42 INCHES FROM FINAL GRADE.
- ALL ROAD CROSSINGS SHALL BE BACKFILLED WITH FLOWABLE FILL PER KYTC SPECIFICATIONS.
- TRACER WIRE SHALL BE INSTALLED ON ALL WATER LINES AND TEST BOXES INSTALLED AT FIRE HYDRANTS AS REQUIRED BY UTILITY OWNERS.
- 24" VALVES SHALL BE DUCTILE IRON RESILIENT WEDGE GATE VALVE WITH BEVEL GEAR AND HORIZONTAL INSTALLATION.
- ALL PIPES TO BE ABANDONED SHALL BE SAFE LOADED PER KYTC SPECIFICATIONS. QUANTITY IS INCLUDED IN ROADWAY ITEM.
- ALL MAINS OVER 16" DIAMETER SHALL BE CATHODICALLY PROTECTED. CATHODIC PROTECTION SHALL BE INCIDENTAL TO WATER MAIN CONSTRUCTION.
- INSTALLATION OF PROPOSED WATER MAIN IS DEPENDANT ON PLACEMENT OF FINAL GRADE. TEMPORARY CONNECTIONS MAY BE REQUIRED TO KEEP SYSTEM OPERATIONAL DURING CONSTRUCTION SEQUENCING.
- CONTRACTOR TO MAINTAIN ALL EXISTING WATER MAINS WHILE IN SERVICE. INCLUDING BLOCKING OR PROVIDING EQUIVALENT SUPPORT.



SCALE: 1"=500'

FILE NAME: G:\PW_WORKING\LOCHNER-PW-01\DM522820\SH_02-DNS WATER LAYOUT.DGN
 USER: CJACKSON
 DATE PLOTTED: September 29, 2022
 E-SHEET NAME: U00200LS
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U3



NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE: MAX.
 DEFLECTION - 6", 8" & 12" = 5° & 24" = 3°
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

NORTHERN KENTUCKY WATER DISTRICT SHEET 3 OF 25

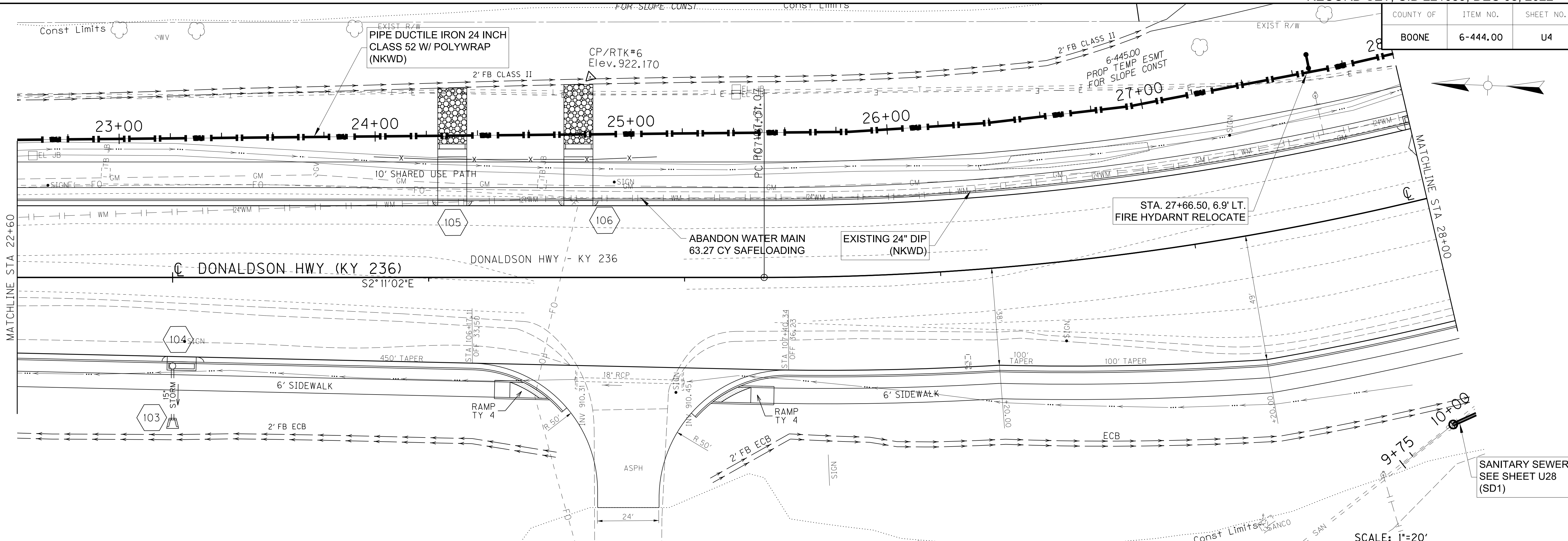
CIN/NKY INTL AIRPORT-WATER MAIN CONST. ONLY

- WATER MAIN CONST. ONLY

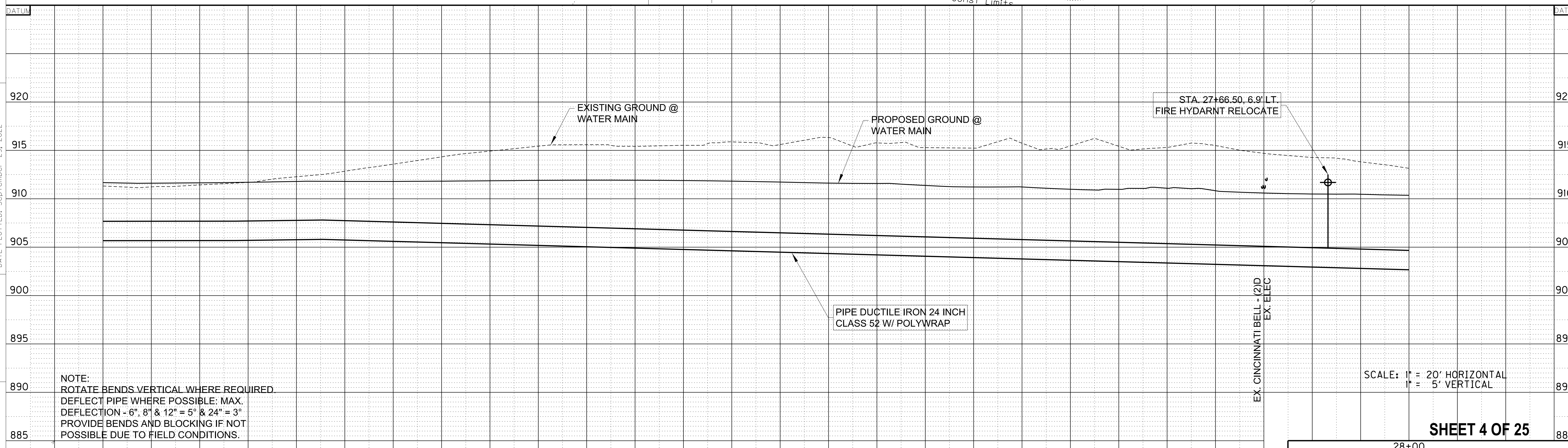
WATER MAIN PLAN & PROFILE
 WM STA 10+00 TO STA 11+44 (12")
 WM STA 20+00 TO STA 22+60 (24")

FILE NAME: G:\PW\WORKING\LOCHNER-PW-01\MS22820\SH_03-PP01-DNS WATER.DGN
 USER: CJACKSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME: U00300PL
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U4



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 USER: CJACKSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME: U00400PL
 MicroStation v8.11.9.919



NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE: MAX. DEFLECTION -6", 8" & 12" = 5° & 24" = 3°
 PROVIDE BENDS AND BLOCKING IF NOT POSSIBLE DUE TO FIELD CONDITIONS.

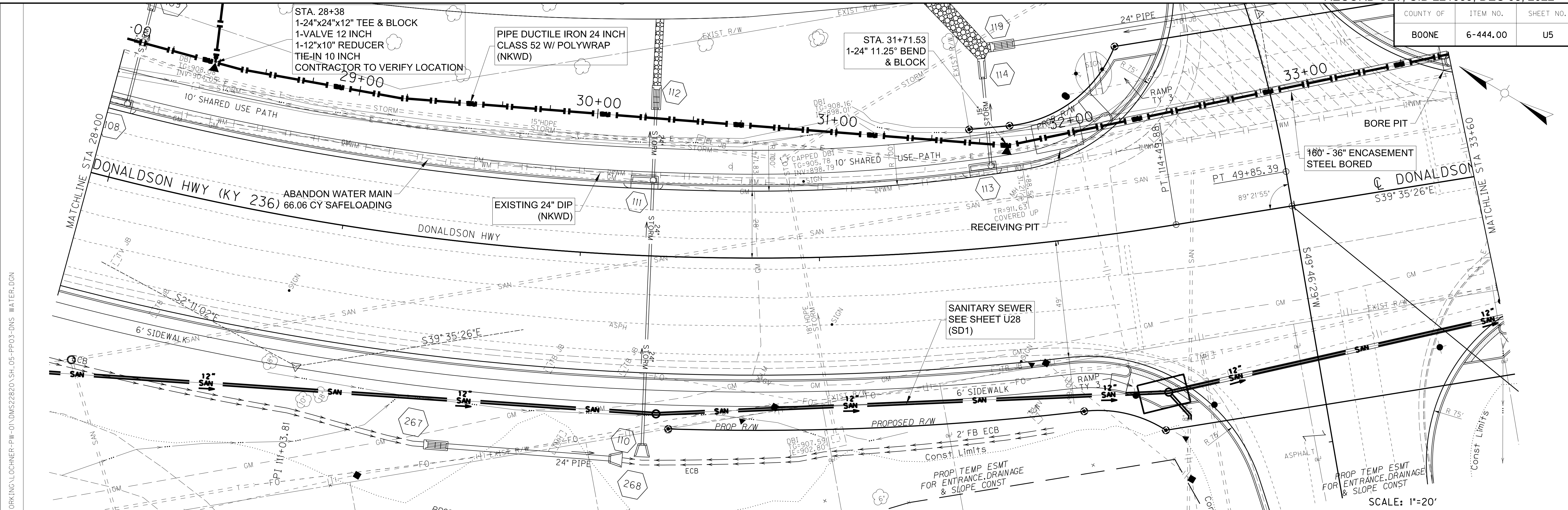
SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

SHEET 4 OF 25

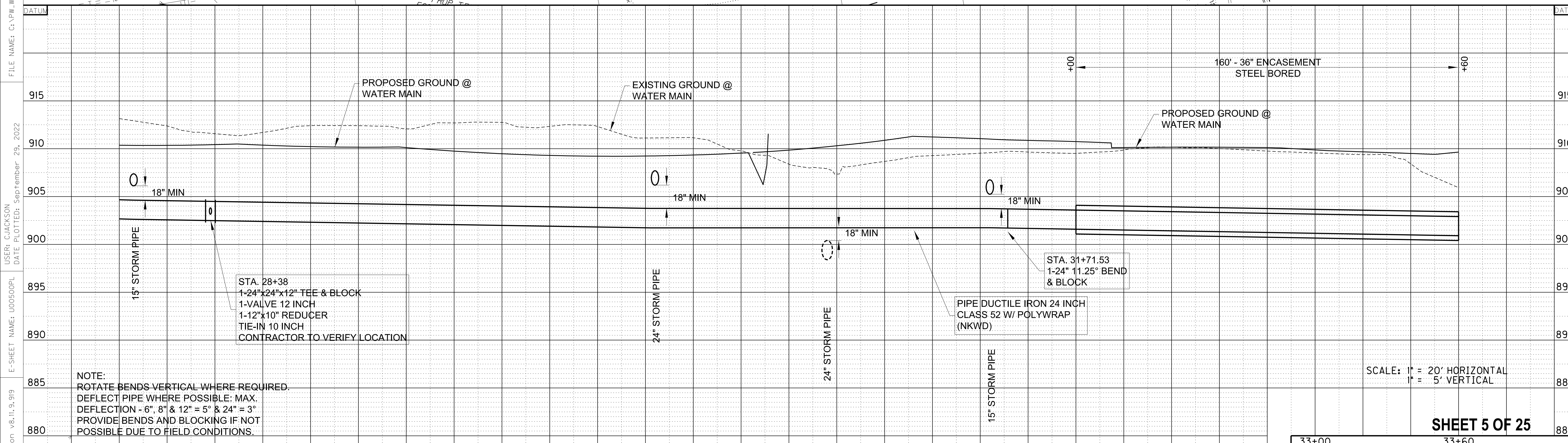
NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

28+00
 WATER MAIN PLAN & PROFILE
 WM STA 22+60 TO STA 28+00 (24')

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U5



SCALE: 1"=20'



SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

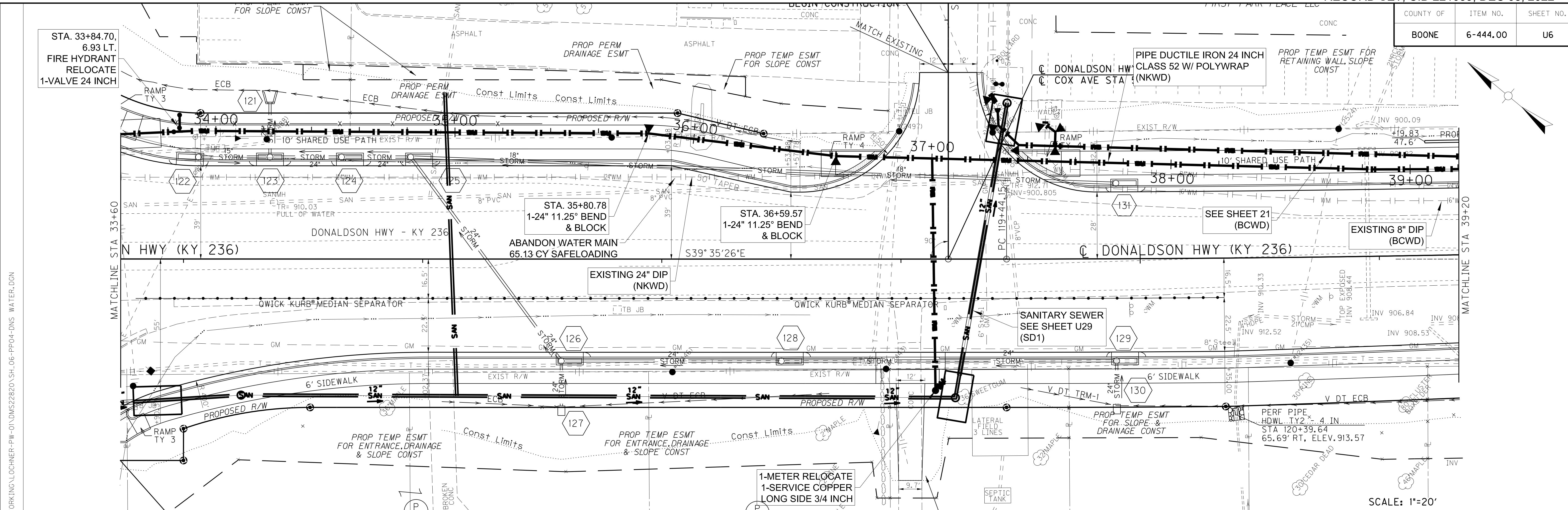
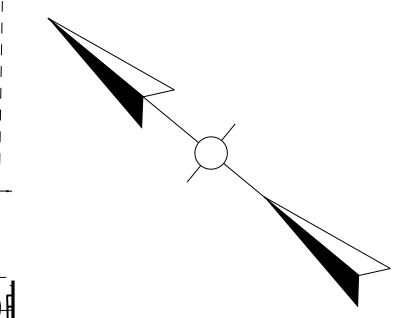
SHEET 5 OF 25

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

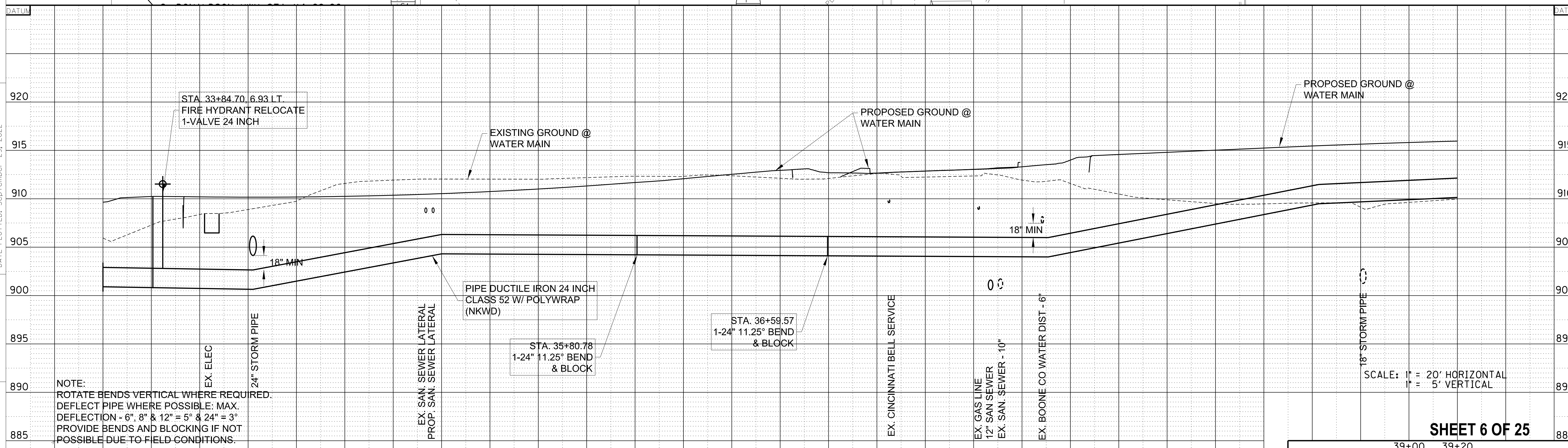
33+00	33+60
WATER MAIN PLAN & PROFILE	
WM STA 28+00 TO STA 33+60 (24')	

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 USER: CJACKSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME: U00500PL
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U6



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 USER: CLAWSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919



NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE: MAX.
 DEFLECTION - 6", 8" & 12" = 5° & 24" = 3°
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

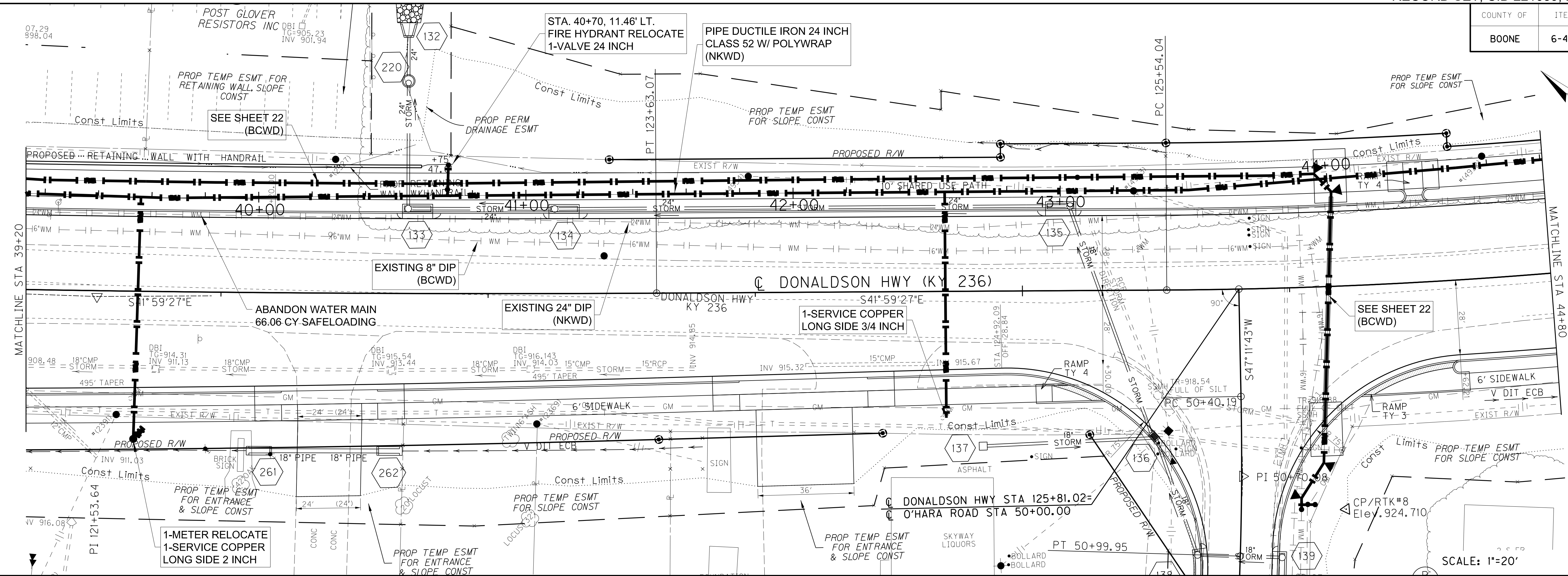
SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

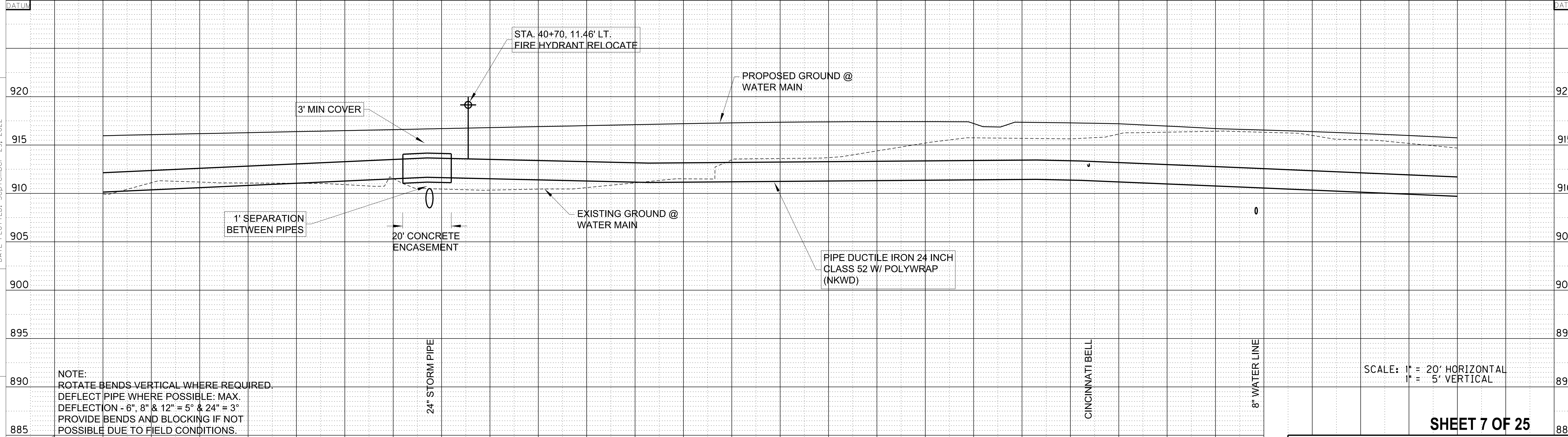
SHEET 6 OF 25

39+00 39+20
 WATER MAIN PLAN & PROFILE
 WM STA 33+60 TO STA 39+20

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U7



FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\MS22820\SH-07-PP05-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919

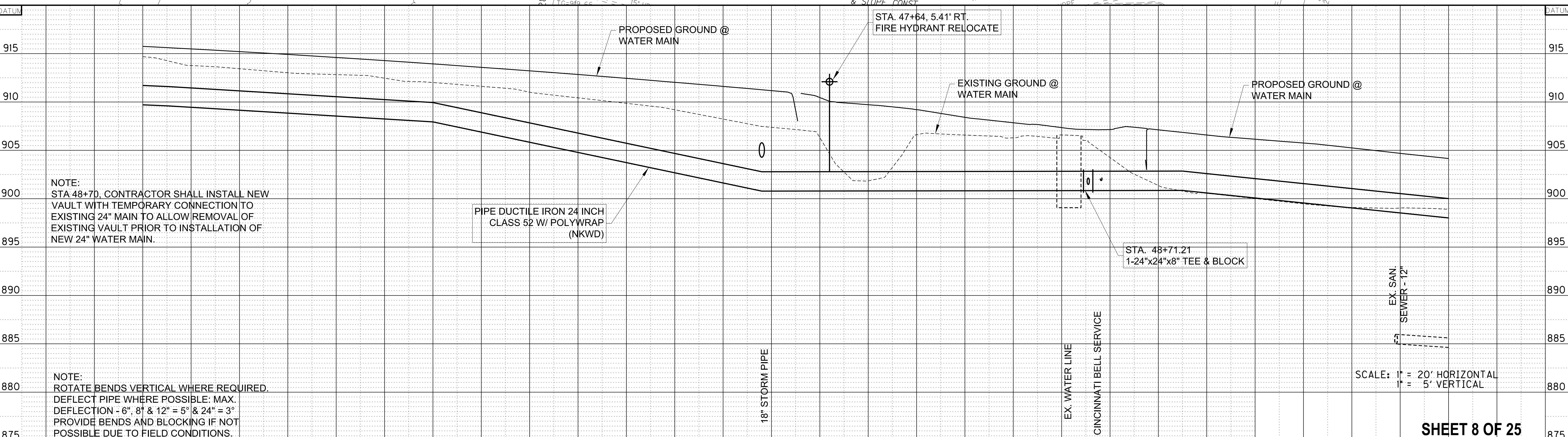
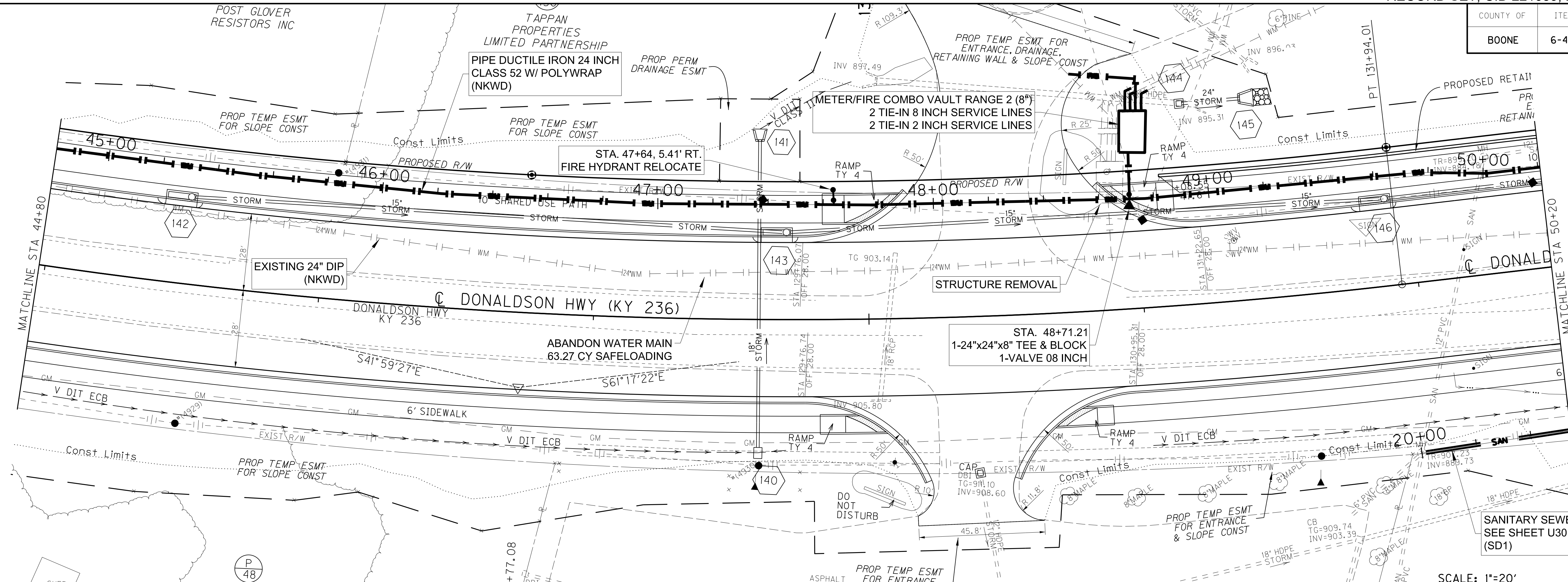


NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE; MAX.
 DEFLECTION - 6", 8" & 12" = 5° & 24" = 3°
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

SHEET 7 OF 25
 44+80 45+00
 WATER MAIN PLAN & PROFILE
 WM STA 39+20 TO STA 44+80 (24")

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U8



NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

50+00 50+20
 WATER MAIN PLAN & PROFILE
 WM STA 44+80 TO STA 50+20 (24')

FILE NAME: G:\PW_WORKING\LOCHNER-PW-01\DM522820\SH_08-PP06-DMS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 29, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919

NOTE:
 STA 48+70, CONTRACTOR SHALL INSTALL NEW VAULT WITH TEMPORARY CONNECTION TO EXISTING 24" MAIN TO ALLOW REMOVAL OF EXISTING VAULT PRIOR TO INSTALLATION OF NEW 24" WATER MAIN.

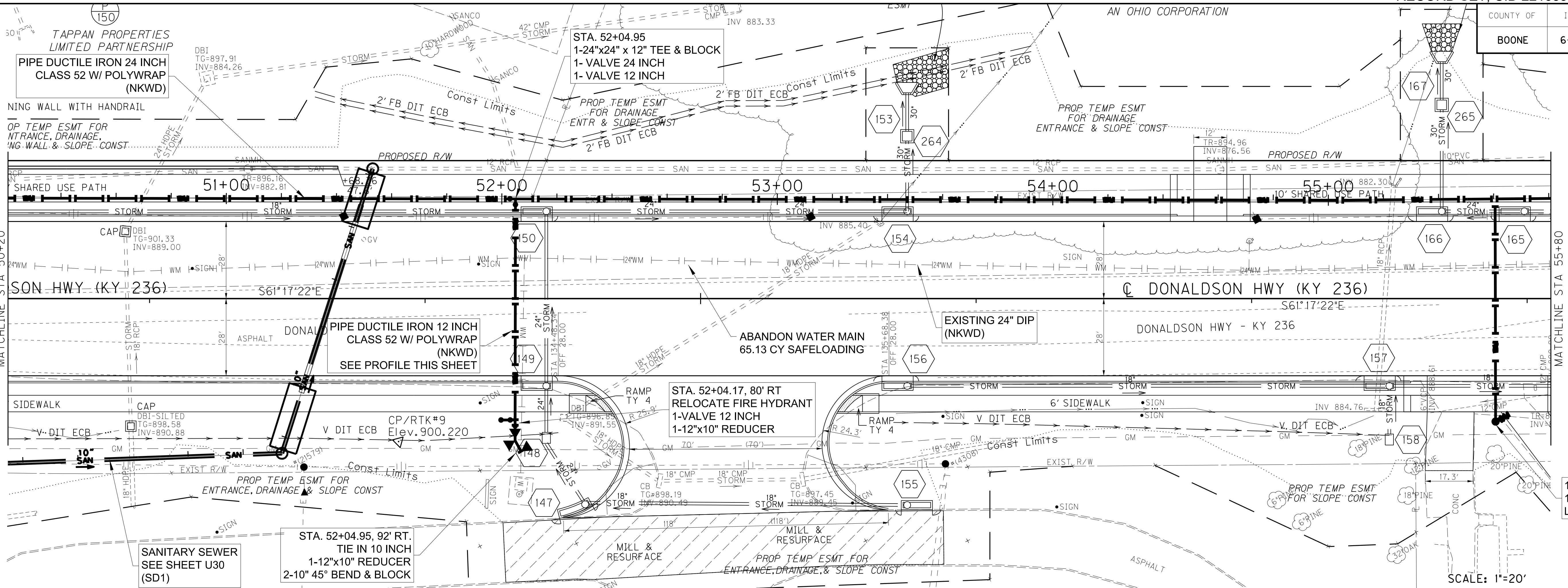
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 ROTATE BENDS VERTICAL WHERE REQUIRED. DEFLECT PIPE WHERE POSSIBLE: MAX. DEFLECTION - 6", 8" & 12" = 5° & 24" = 3°. PROVIDE BENDS AND BLOCKING IF NOT POSSIBLE DUE TO FIELD CONDITIONS.

SCALE: 1"=20'

SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

SHEET 8 OF 25

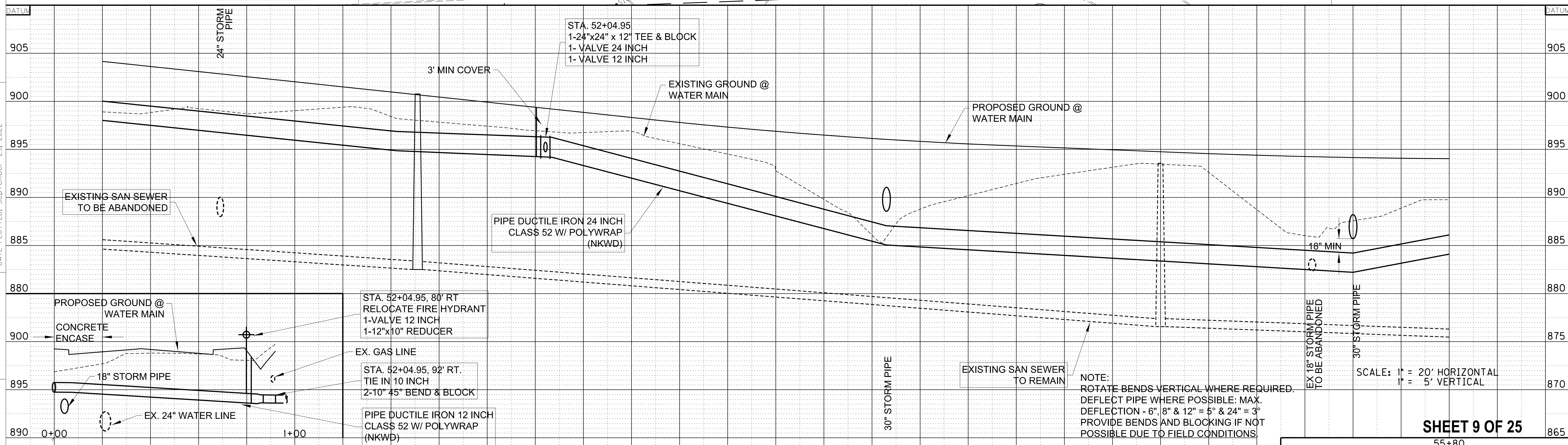
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U9



1-METER RELOCATE
1-SERVICE COPPER
LONG SIDE 3/4 INCH

SCALE: 1"=20'

FILE NAME: G:\PW\WORKING\LOCHNER\PW-01\MS22820\SH-09-PP07-DNS WATER.DGN
USER: CLAWSON
DATE PLOTTED: September 28, 2022
E-SHEET NAME: MicroStation v8.11.9.919



SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

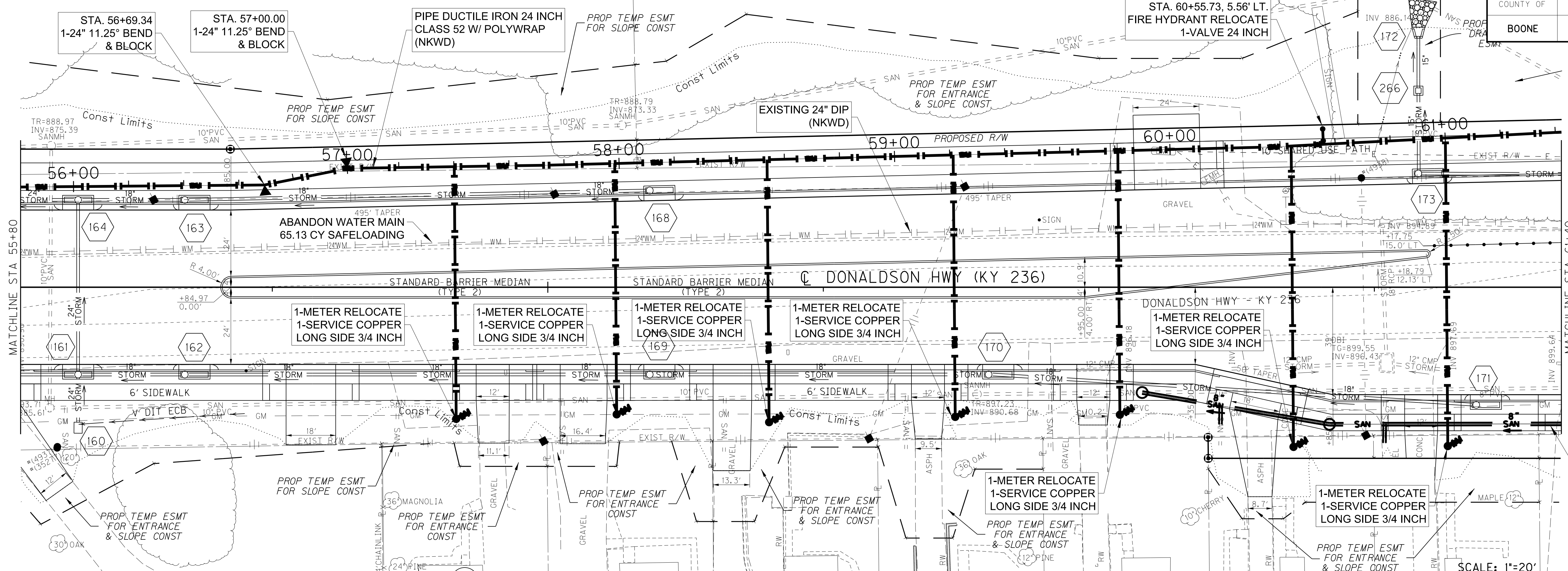
NOTE:
ROTATE BENDS VERTICAL WHERE REQUIRED.
DEFLECT PIPE WHERE POSSIBLE: MAX.
DEFLECTION - 6", 8" & 12" = 5° & 24" = 3°
PROVIDE BENDS AND BLOCKING IF NOT
POSSIBLE DUE TO FIELD CONDITIONS.

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

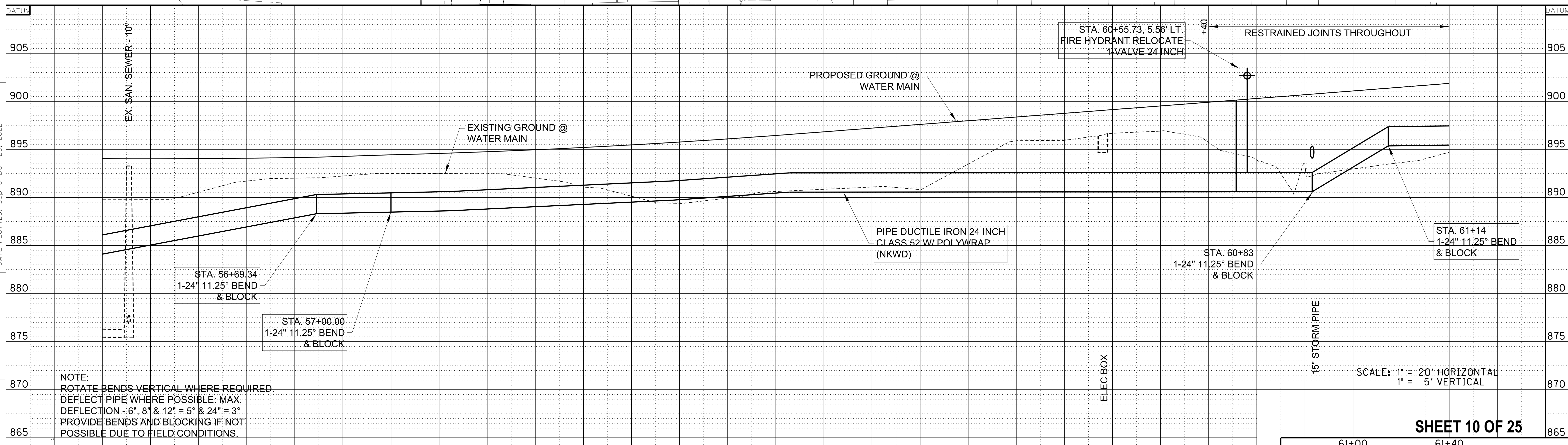
SHEET 9 OF 25

55+80
WATER MAIN PLAN & PROFILE
WM STA 50+20 TO STA 55+80 (24')

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI0



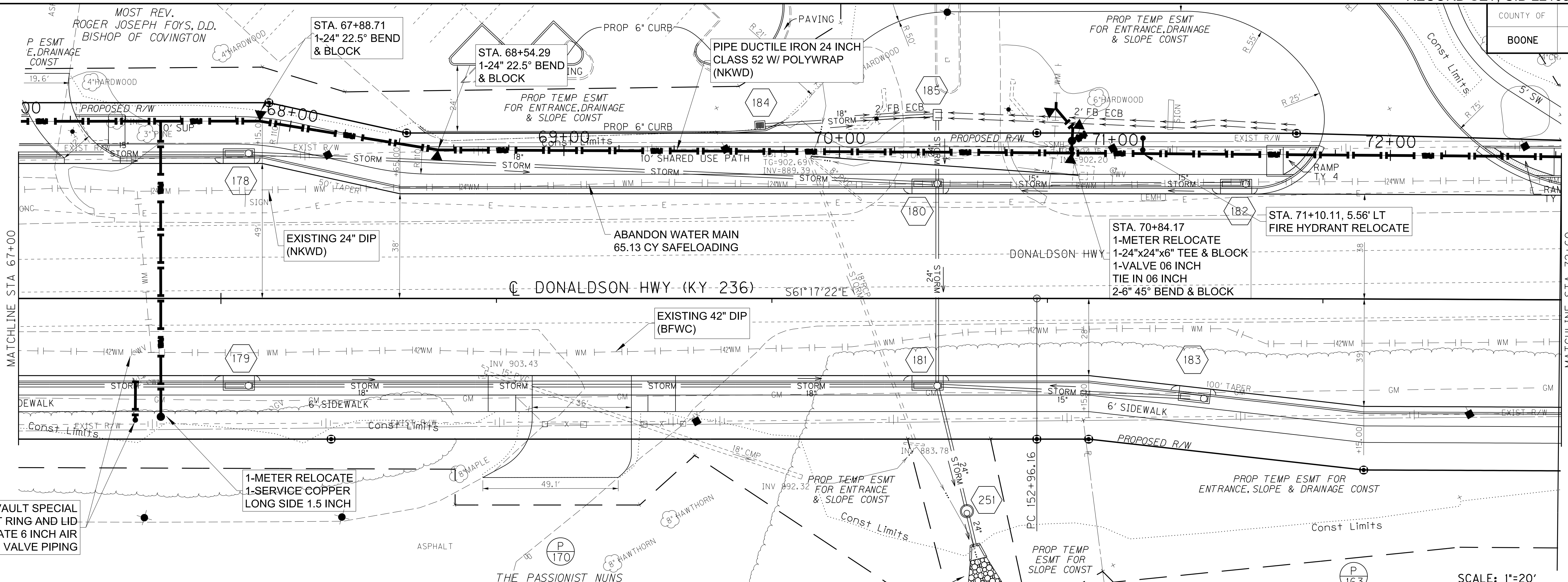
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 USER: CLAWSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME: MicroStation v8.11.9.919



NOTE:
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 DEFLECT PIPE WHERE POSSIBLE: MAX.
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NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI2

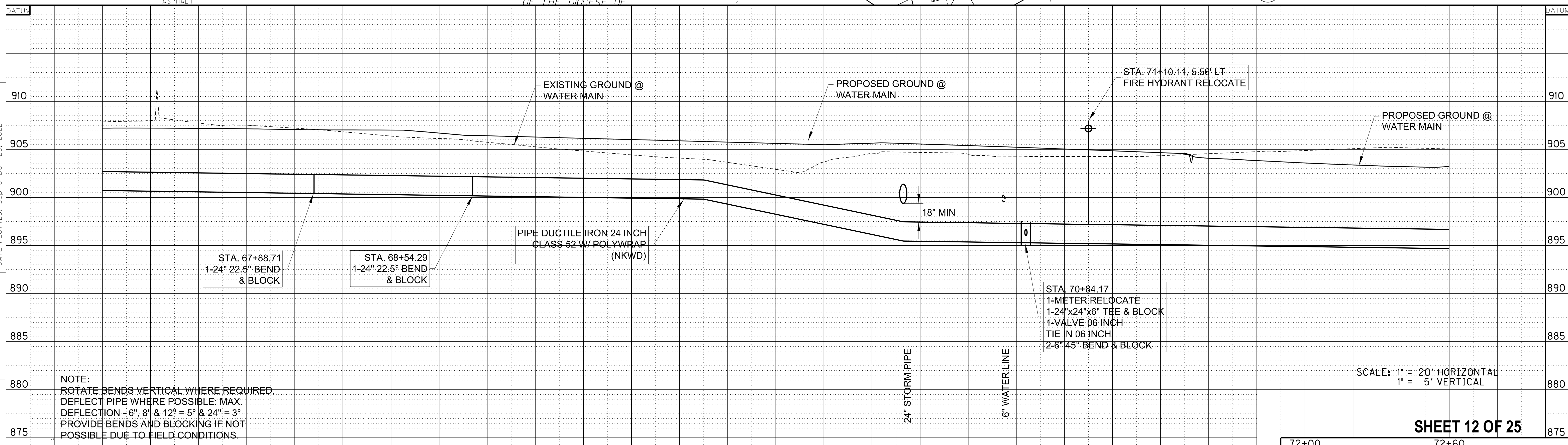


1-VAULT SPECIAL ADJUST VAULT RING AND LID RELOCATE 6 INCH AIR RELEASE VALVE PIPING

1-METER RELOCATE 1-SERVICE COPPER LONG SIDE 1.5 INCH

STA. 70+84.17
1-METER RELOCATE 1-24"x24"x6" TEE & BLOCK
1-VALVE 06 INCH TIE IN 06 INCH
2-6" 45° BEND & BLOCK

STA. 71+10.11, 5.56' LT FIRE HYDRANT RELOCATE



NOTE:
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DEFLECT PIPE WHERE POSSIBLE. MAX. DEFLECTION - 6" & 12" = 5° & 24" = 3°
PROVIDE BENDS AND BLOCKING IF NOT POSSIBLE DUE TO FIELD CONDITIONS.

SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

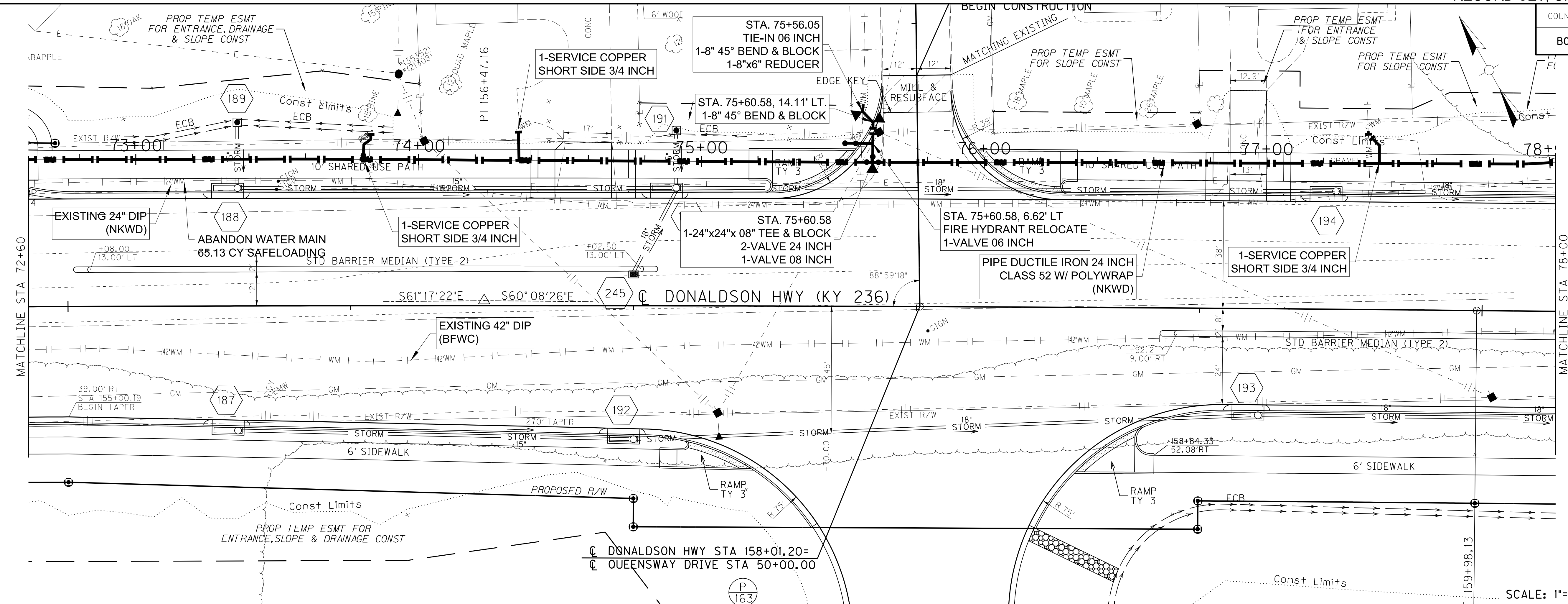
SHEET 12 OF 25

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

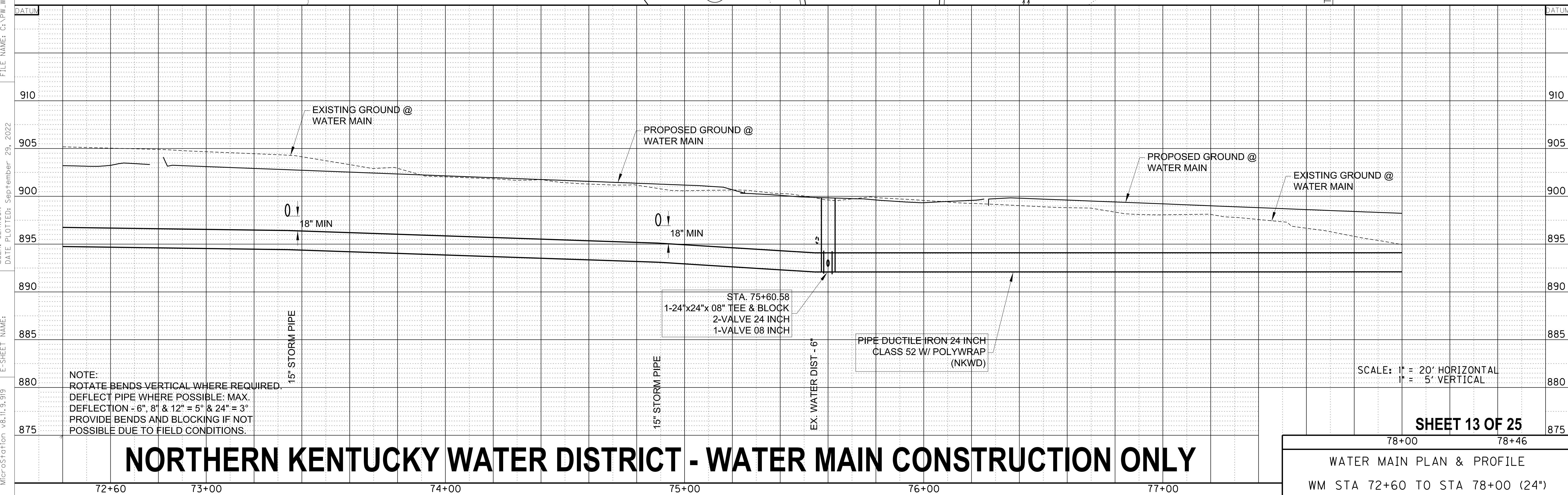
72+00 72+60
WATER MAIN PLAN & PROFILE
WM STA 67+00 TO STA 72+60 (24')

FILE NAME: C:\PW\WORKING\LOCHNER\PW-01\MS22820\SH-12-PP10-DNS WATER.DGN
USER: CLAWSON
DATE PLOTTED: September 29, 2022
E-SHEET NAME:
MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI3



SCALE: 1"=20'



SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

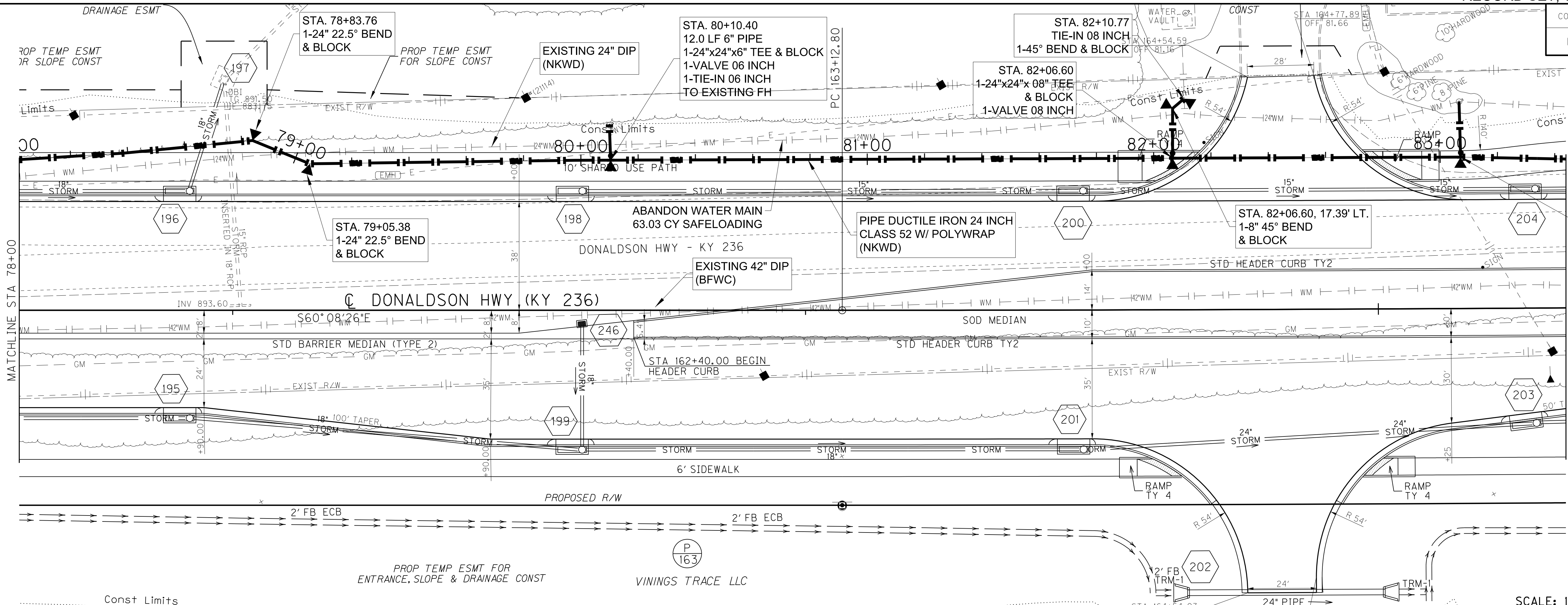
SHEET 13 OF 25

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

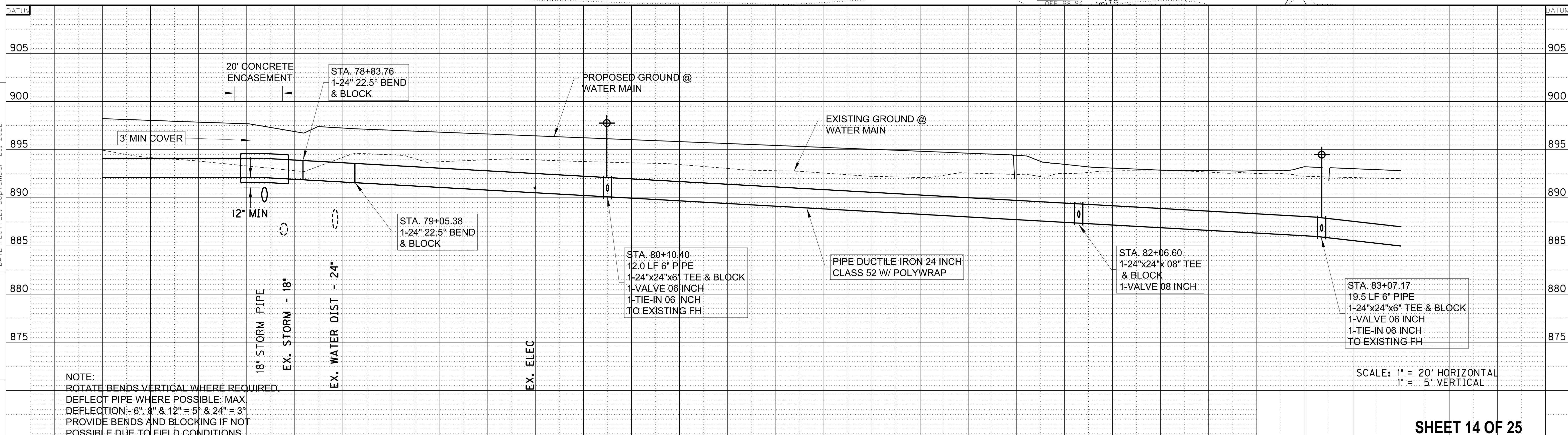
78+00 78+46
WATER MAIN PLAN & PROFILE
WM STA 72+60 TO STA 78+00 (24')

FILE NAME: G:\PW_WORKING\LOCHNER-PW-01\MS22820\SH-13-PPH-DMS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 29, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI4



FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\MS22820\SH_14-PP12-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919



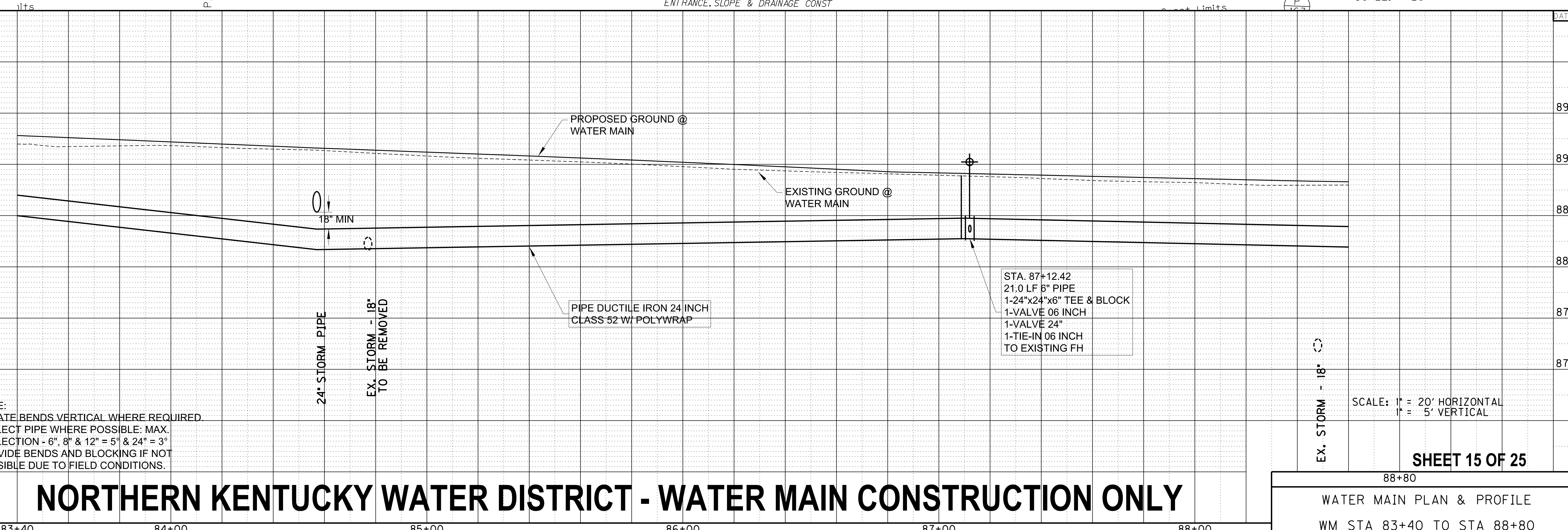
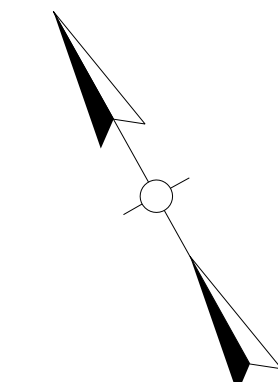
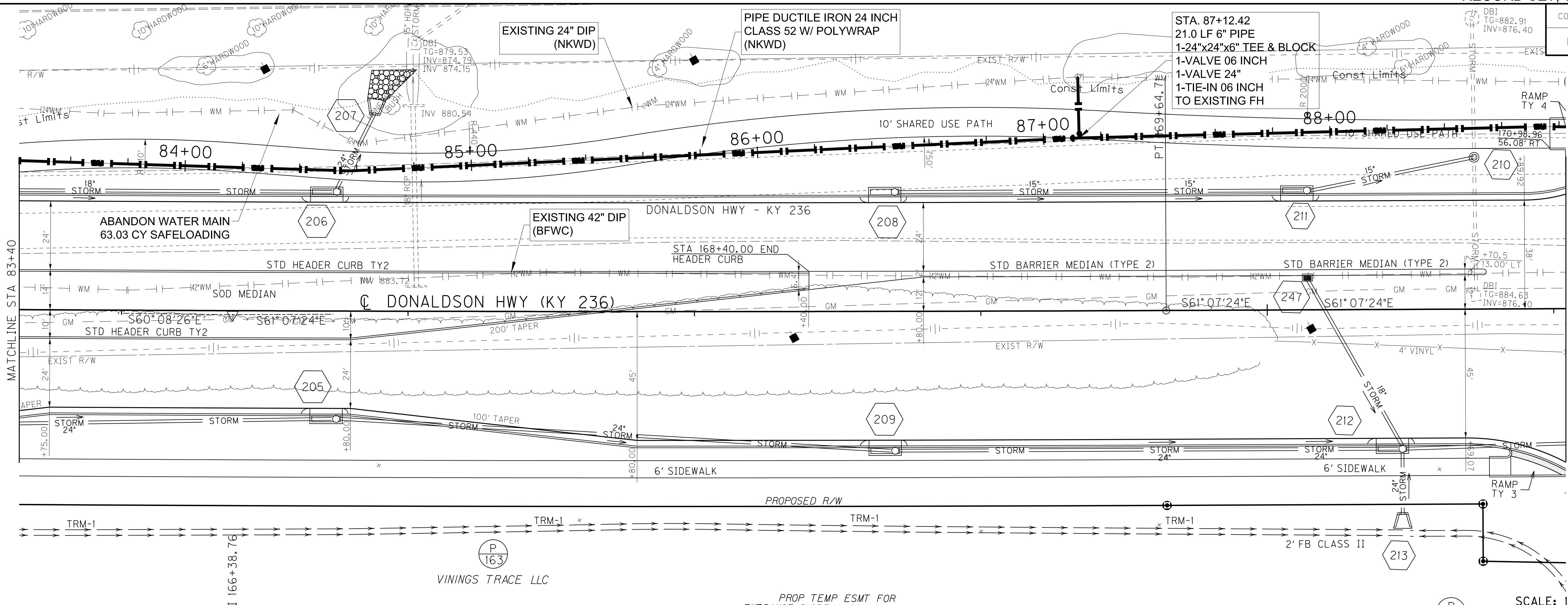
NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE. MAX.
 DEFLECTION - 6", 8" & 12" = 5' & 24" = 3'
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

83+00	83+40
WATER MAIN PLAN & PROFILE	
WM STA 78+00 TO STA 83+40	

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI5



NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED
 DEFLECT PIPE WHERE POSSIBLE. MAX.
 DEFLECTION - 6", 8" & 12" = 5" & 24" = 3"
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

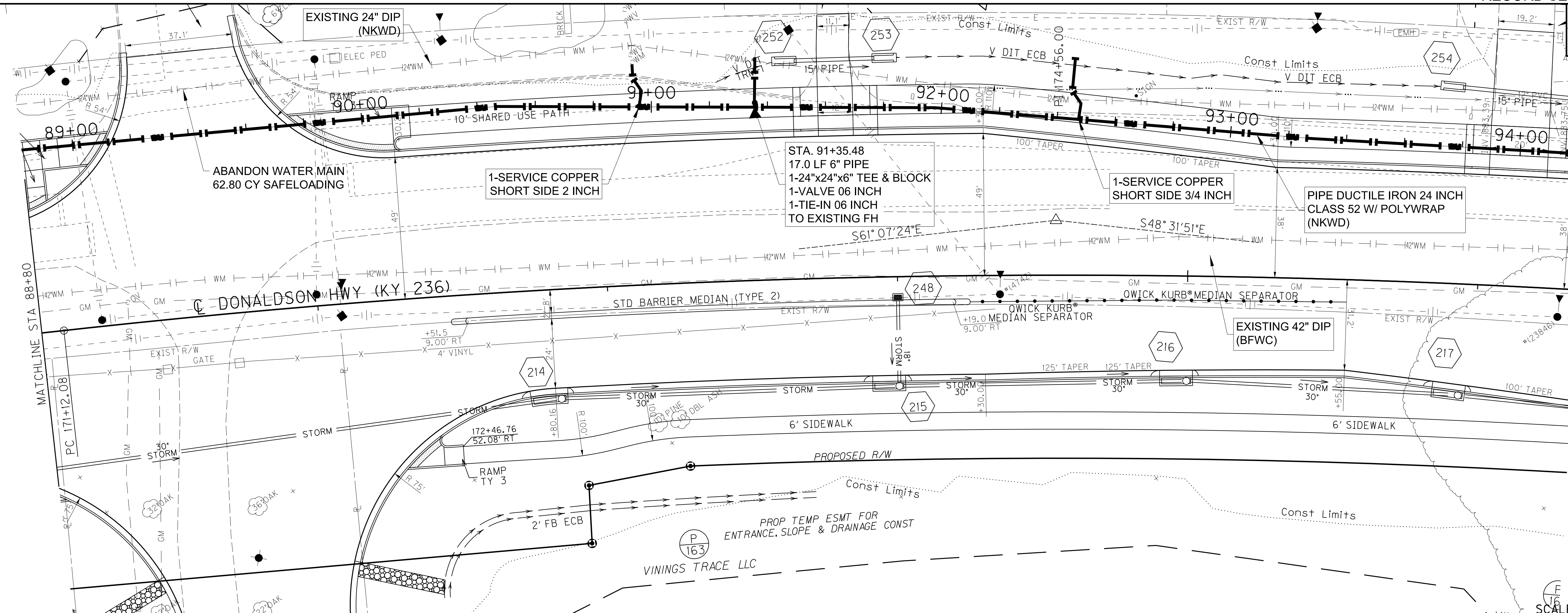
SHEET 15 OF 25

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

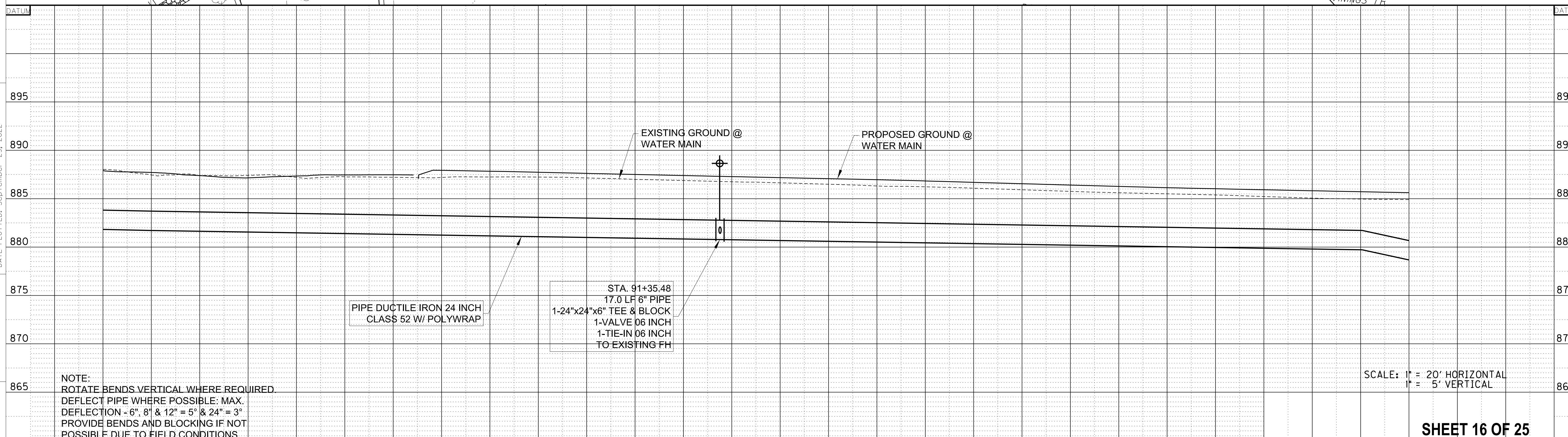
88+80
 WATER MAIN PLAN & PROFILE
 WM STA 83+40 TO STA 88+80

FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\DM522820\SH_15-PP13-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI6



FILE NAME: C:\PW\WORKING\LOCHNER-PW\01\DNMS22820\SH_16-PP14-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919



NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE. MAX.
 DEFLECTION -6", 8" & 12" = 5" & 24" = 3"
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

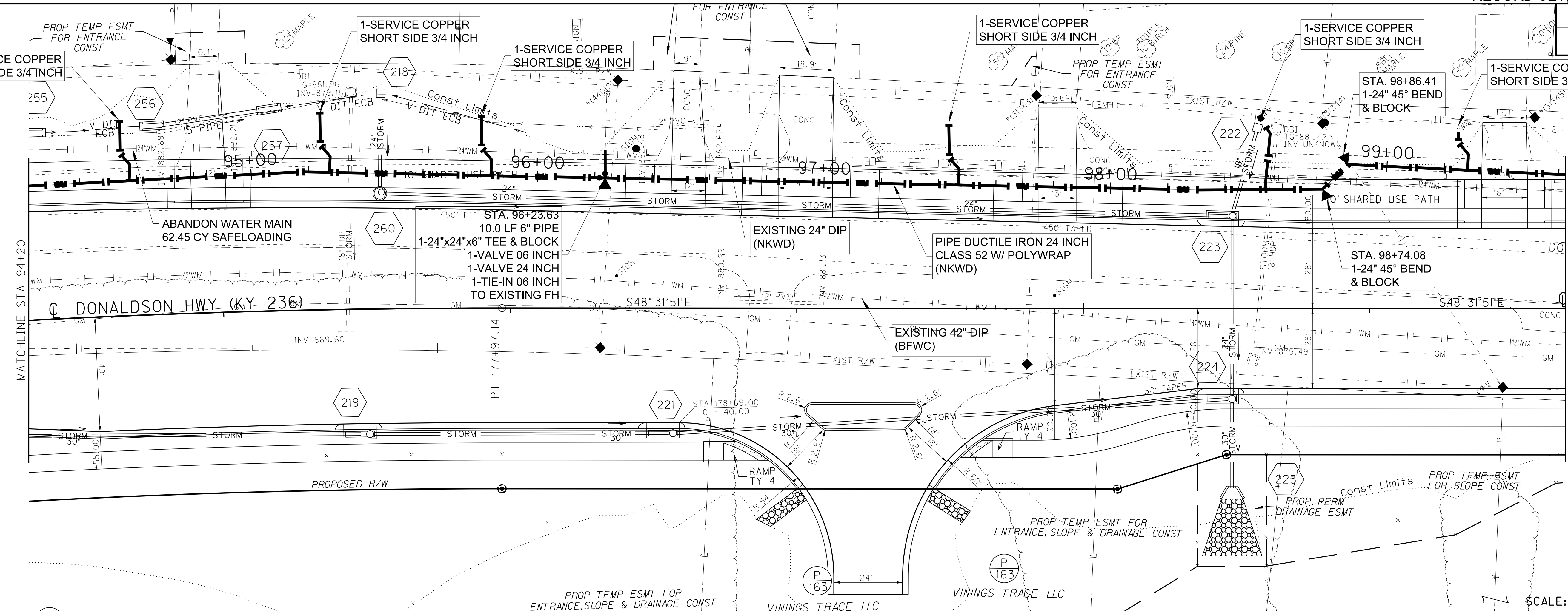
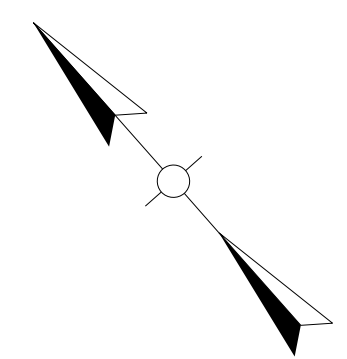
SHEET 16 OF 25

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

94+00 94+20
 WATER MAIN PLAN & PROFILE
 WM STA 88+80 TO STA 94+20

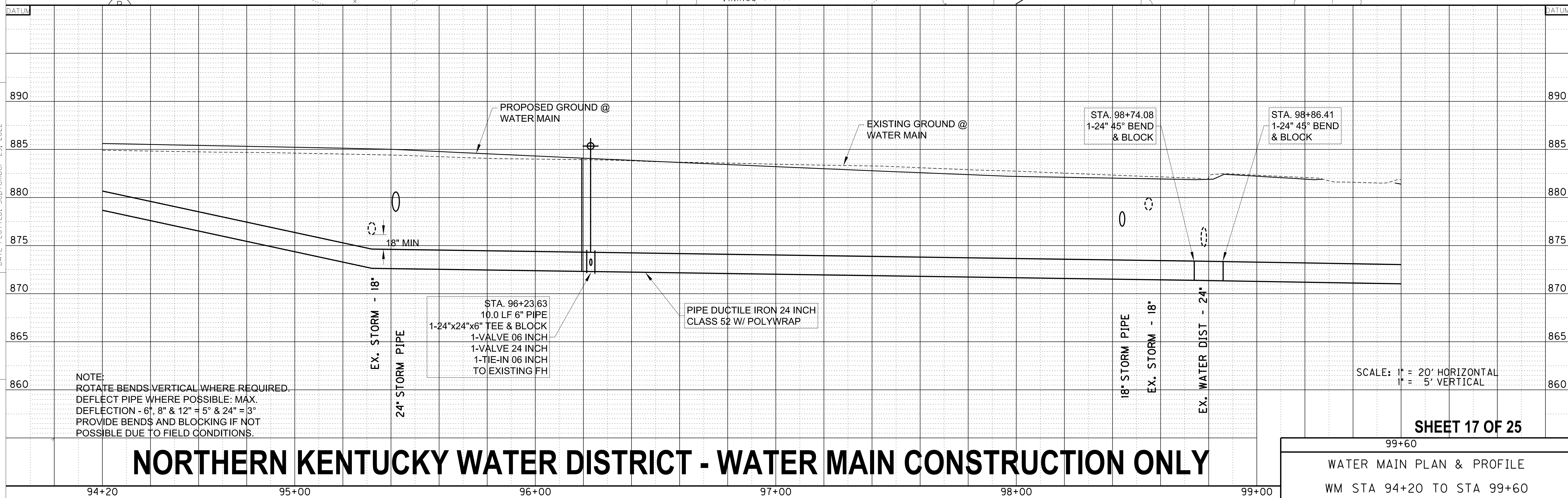
88+80 89+00 90+00 91+00 92+00 93+00

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI7



SCALE: 1"=20'

FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\MS22820\SH-17-PP15-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 29, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919

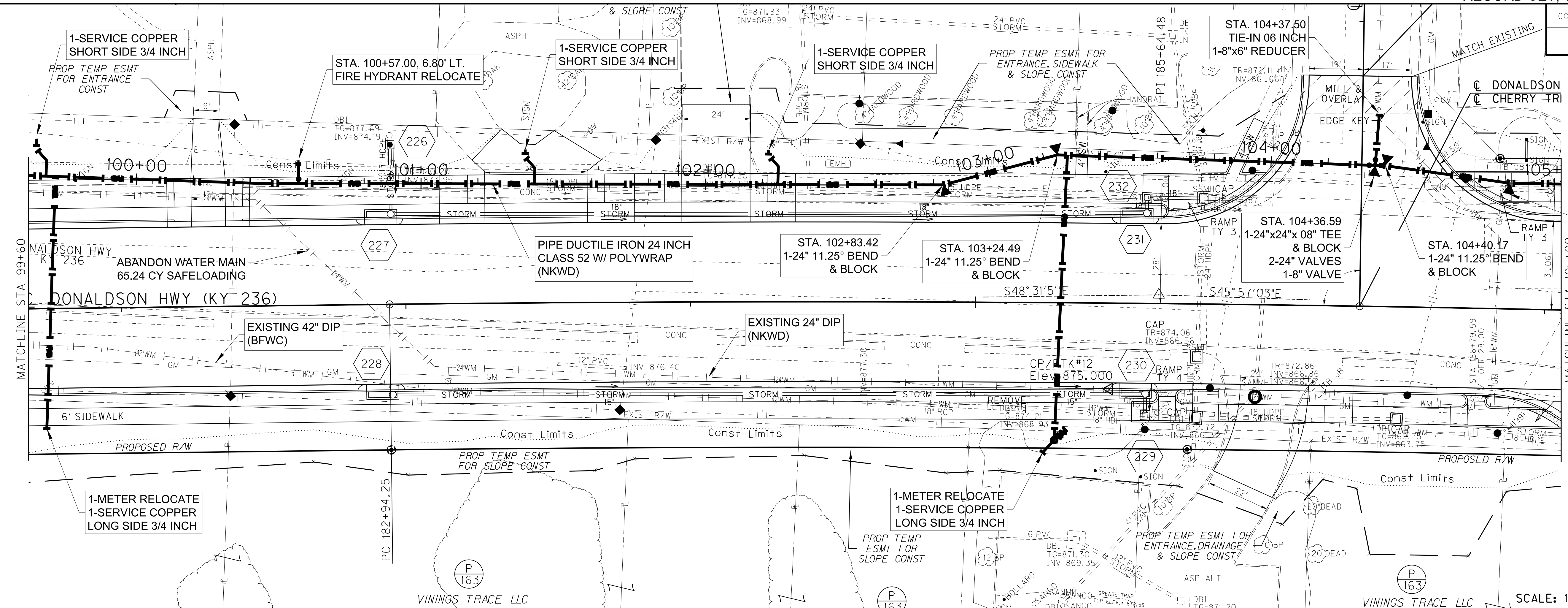


NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

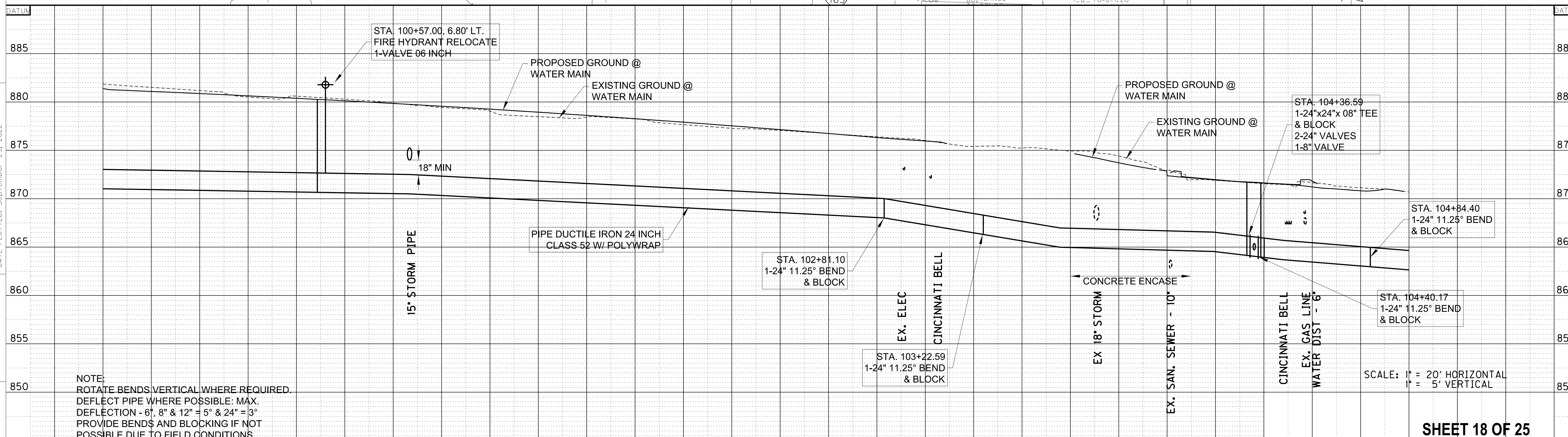
SHEET 17 OF 25

99+60
 WATER MAIN PLAN & PROFILE
 WM STA 94+20 TO STA 99+60

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI8



FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\MS22820\SH_18-PP16-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919



NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE: MAX.
 DEFLECTION - 6", 8" & 12" = 5° & 24" = 3°
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

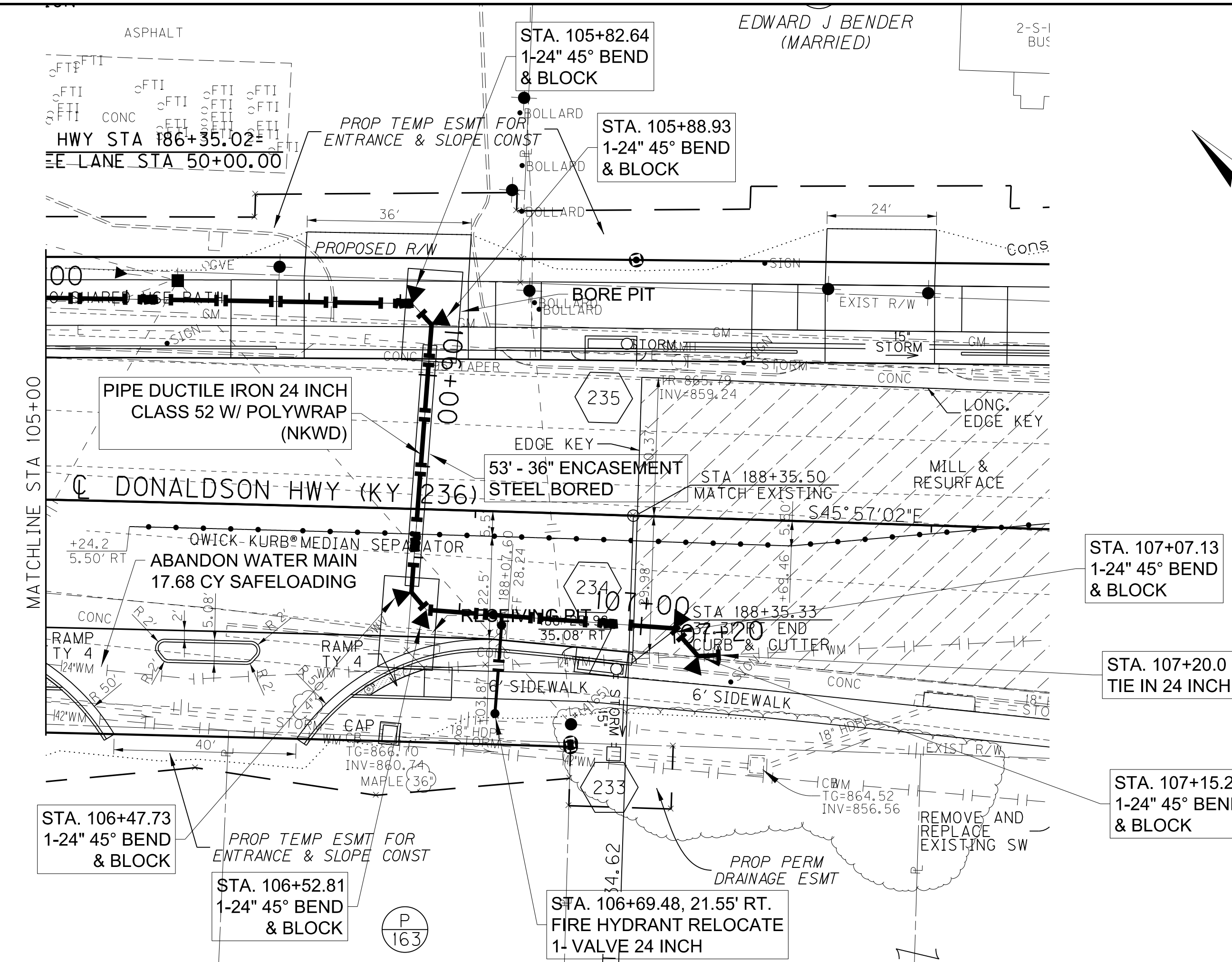
SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

SHEET 18 OF 25

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

105+00
 WATER MAIN PLAN & PROFILE
 WM STA 99+60 TO STA 105+00

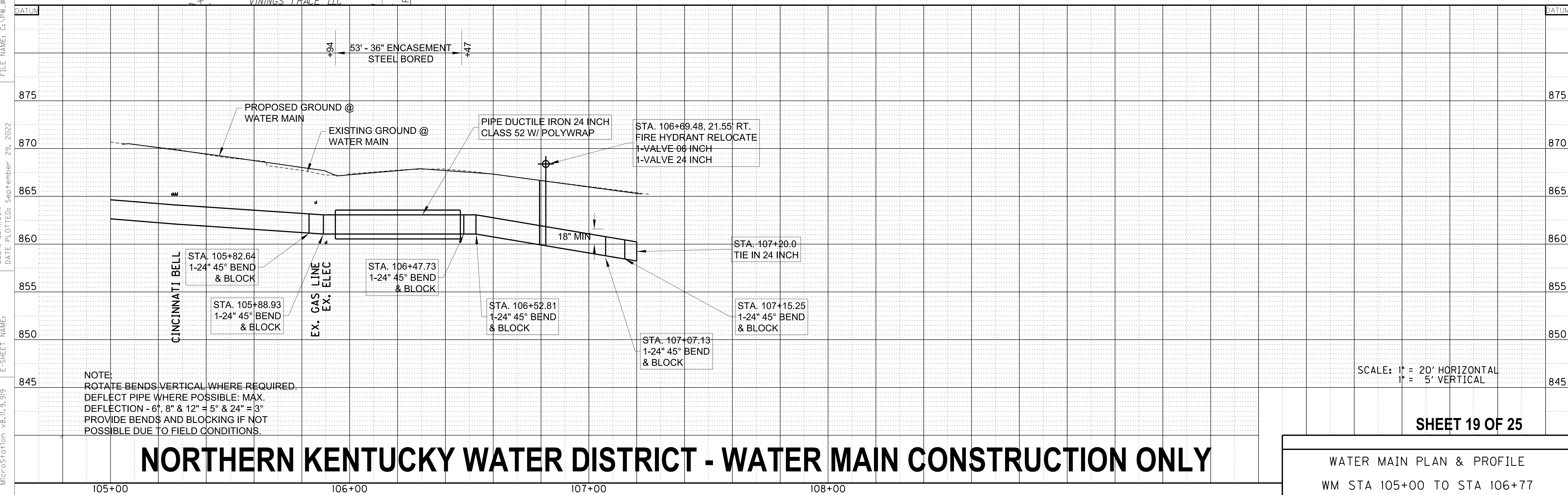
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	UI9



- STA. 105+82.64
1-24" 45° BEND & BLOCK
- STA. 105+88.93
1-24" 45° BEND & BLOCK
- STA. 107+07.13
1-24" 45° BEND & BLOCK
- STA. 107+20.0
TIE IN 24 INCH
- STA. 107+15.25
1-24" 45° BEND & BLOCK
- STA. 106+47.73
1-24" 45° BEND & BLOCK
- STA. 106+52.81
1-24" 45° BEND & BLOCK
- STA. 106+69.48, 21.55' RT.
FIRE HYDRANT RELOCATE
1- VALVE 24 INCH

SCALE: 1"=20'

FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\MS22820\SH_19-PP17-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 28, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919



NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE: MAX.
 DEFLECTION - 6", 8" & 12" = 5° & 24" = 3°
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

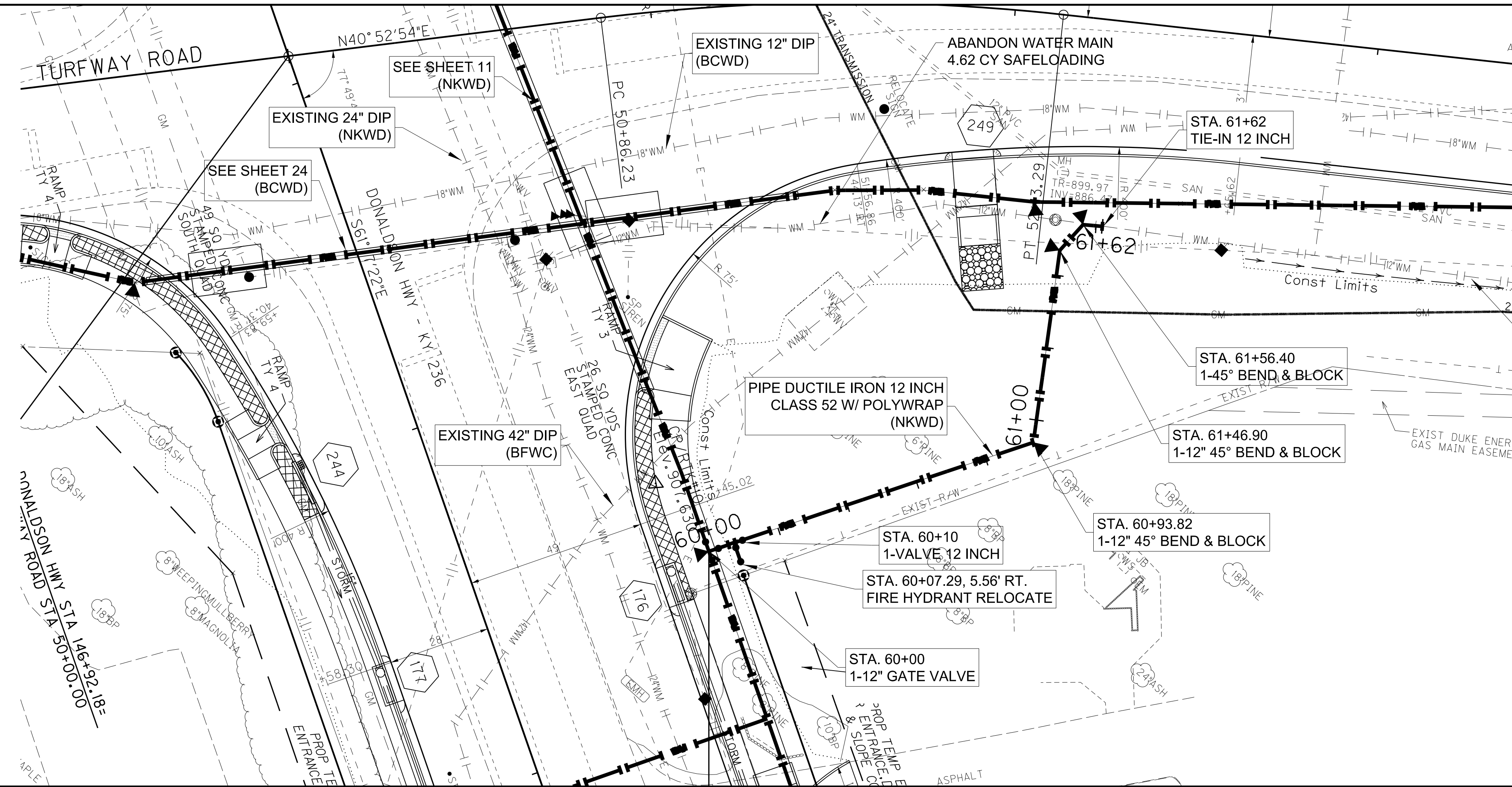
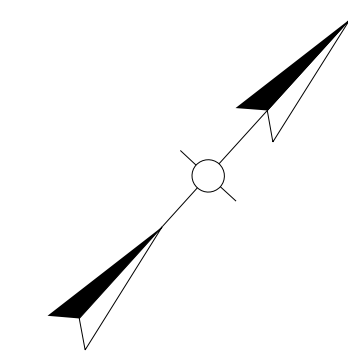
SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

SHEET 19 OF 25

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

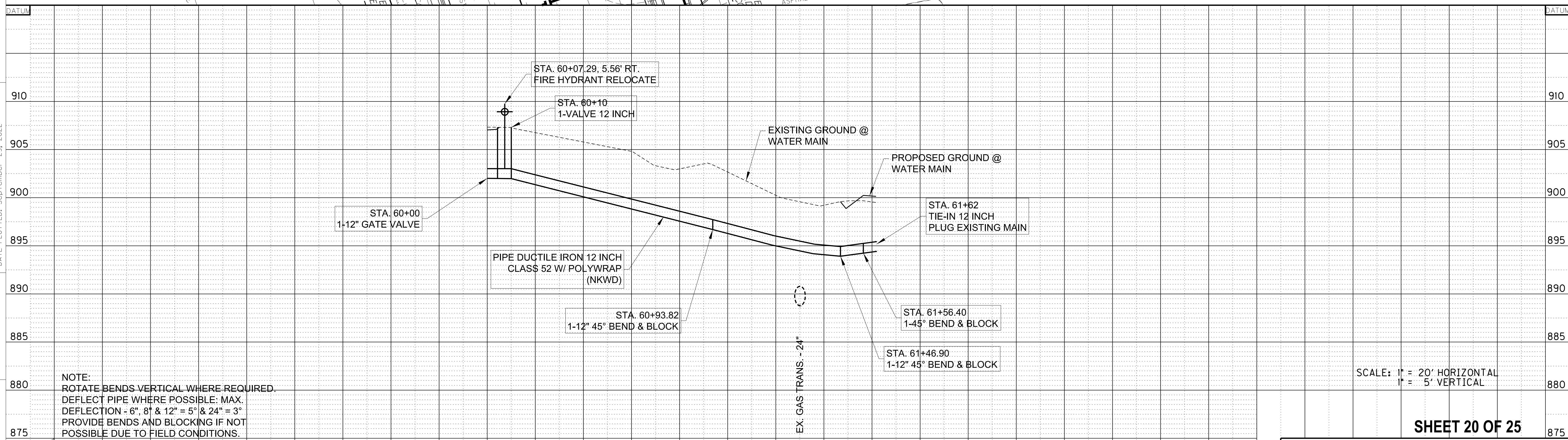
WATER MAIN PLAN & PROFILE
 WM STA 105+00 TO STA 106+77

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U20



SCALE: 1"=20'

FILE NAME: C:\PW\WORKING\LOCHNER\PW-01\DM522820\SH_20-PP18-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 29, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919



SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

SHEET 20 OF 25

NORTHERN KENTUCKY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

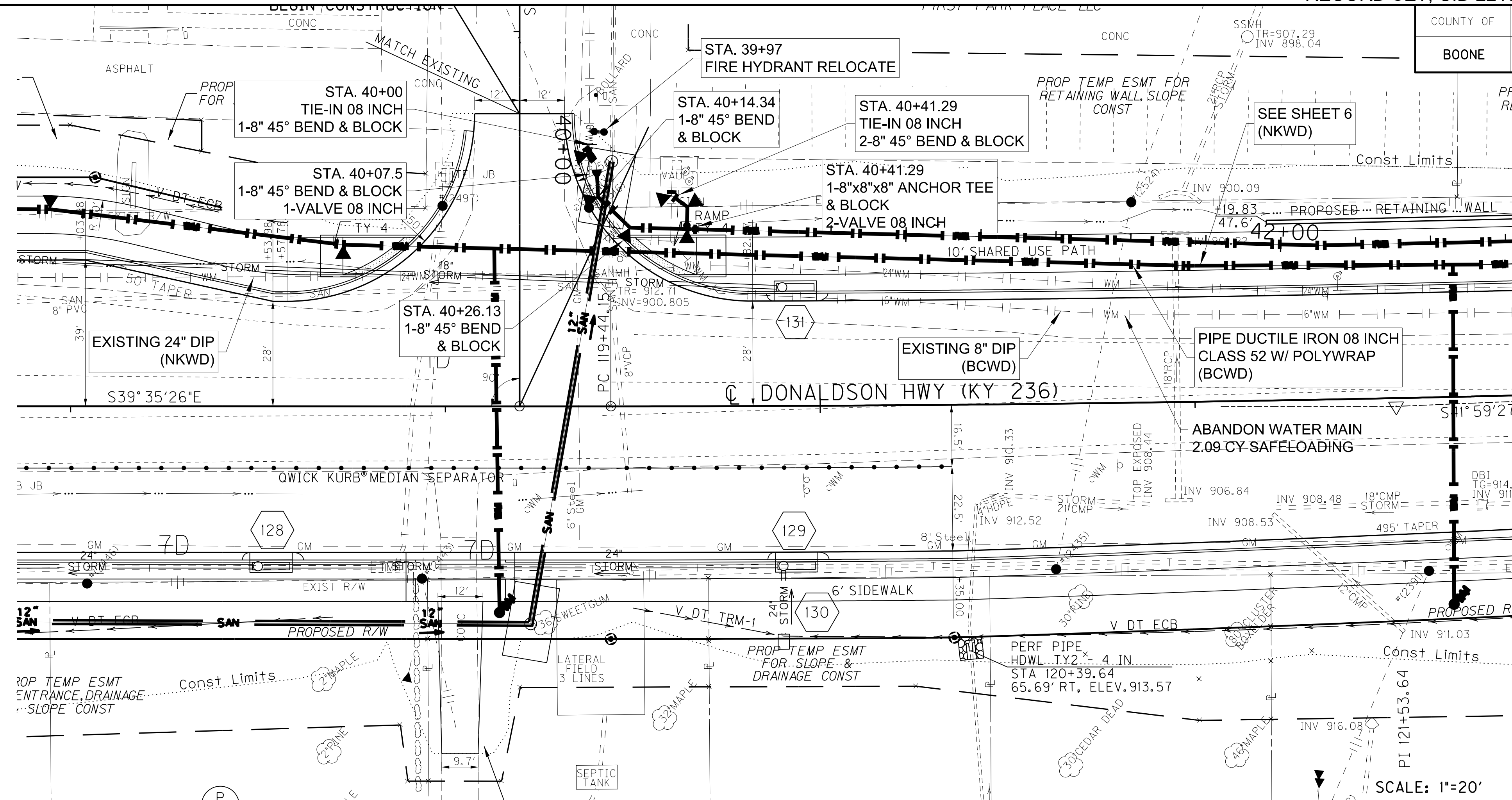
WATER MAIN PLAN & PROFILE
WM STA 60+00 TO STA 61+62 (12")

NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE. MAX.
 DEFLECTION - 6", 8" & 12" = 5" & 24" = 3"
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

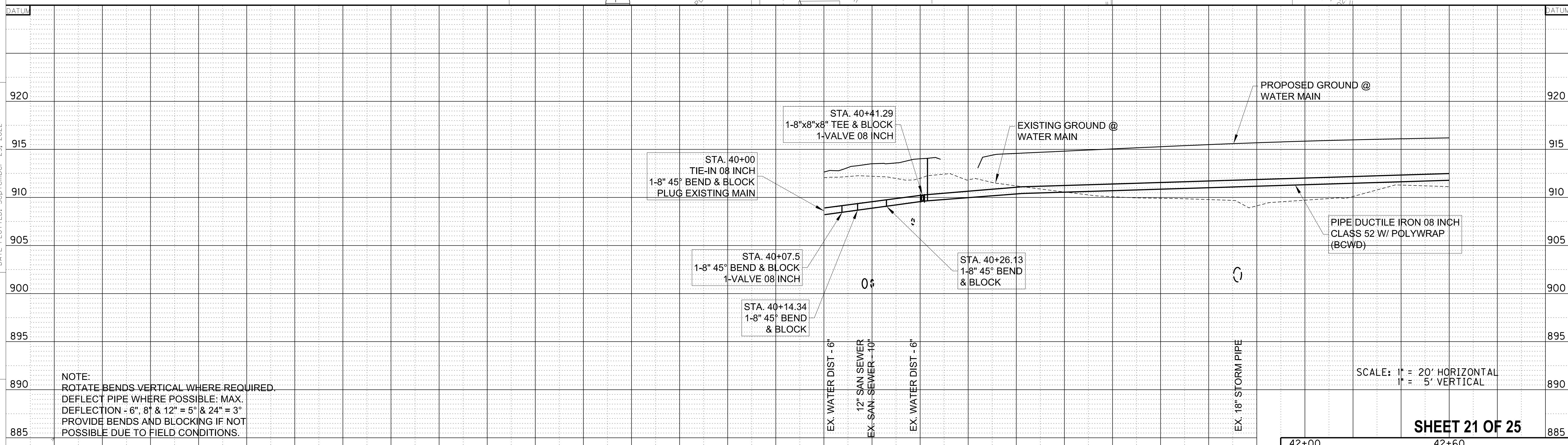
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U21

MATCHLINE STA 33+60

MATCHLINE STA 42+60



- NOTES:
1. ALL VALVES SHALL BE ANCHORED TO TEES WITH FOSTER ADAPTERS
 2. WATER METER RELOCATES SHALL BE INSTALLED WITH FLARED COPPER.
 3. TRACER WIRE SHALL BE INSTALLED ON ALL WATER LINES AND TEST BOXES INSTALLED AT FIRE HYDRANTS AS REQUIRED BY UTILITY OWNER. TRACER WIRE AND TEST BOXES ARE SUBSIDIARY TO PIPE INSTALLATION.



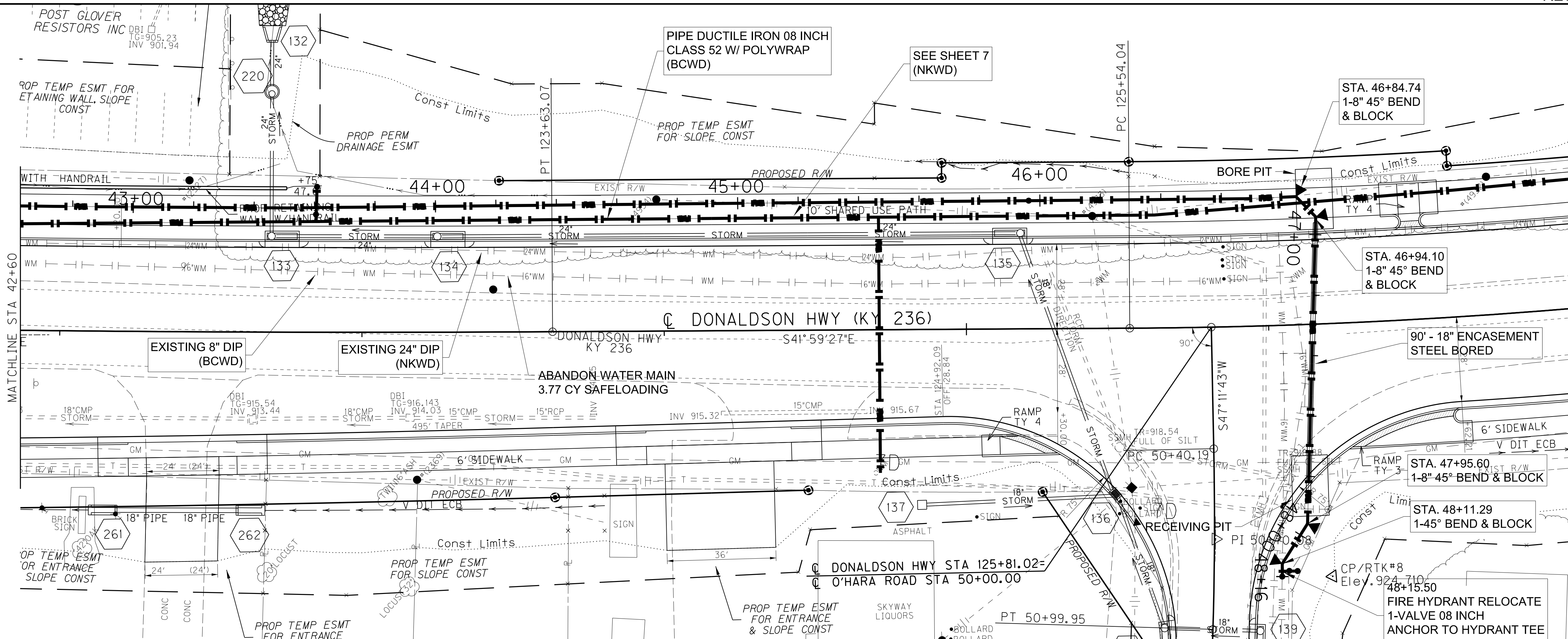
NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE; MAX. DEFLECTION - 6", 8" & 12" = 5° & 24" = 3°
 PROVIDE BENDS AND BLOCKING IF NOT POSSIBLE DUE TO FIELD CONDITIONS.

BOONE COUNTY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

42+00	42+60
WATER MAIN PLAN & PROFILE	
WM STA 40+00 TO STA 42+60 (8")	

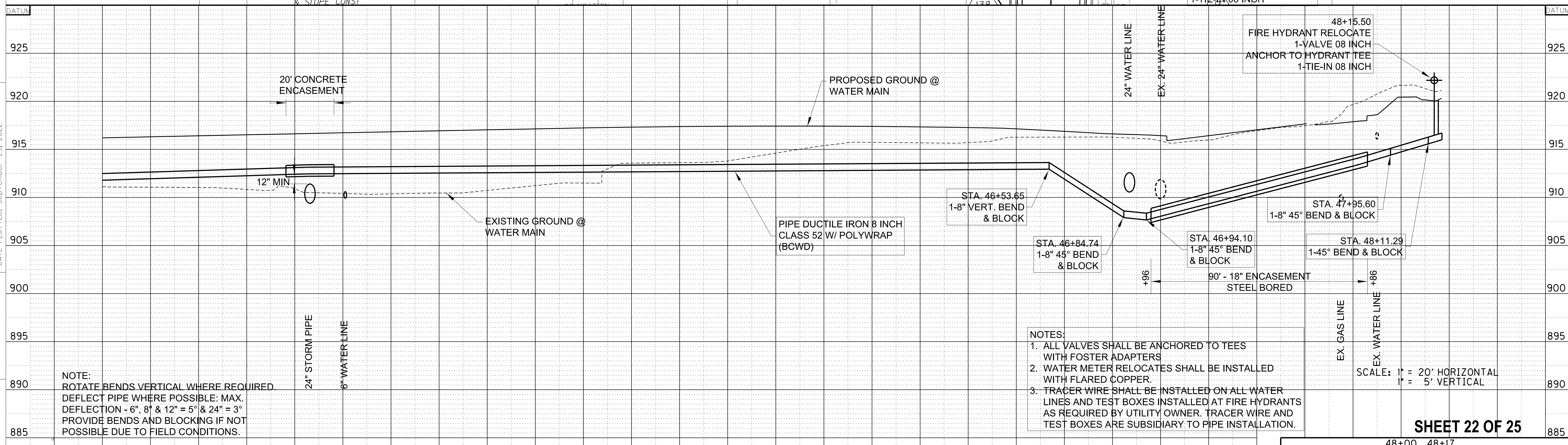
FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\DM522820\SH-21-PP19-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 29, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U22



SCALE: 1"=20'

FILE NAME: G:\PW\WORKING\LOCHNER-PW-01\MS22820\SH_22-PP20-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 29, 2022
 E-SHEET NAME: MicroStation v8.11.9.919



SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

- NOTES:
1. ALL VALVES SHALL BE ANCHORED TO TEES WITH FOSTER ADAPTERS
 2. WATER METER RELOCATES SHALL BE INSTALLED WITH FLARED COPPER.
 3. TRACER WIRE SHALL BE INSTALLED ON ALL WATER LINES AND TEST BOXES INSTALLED AT FIRE HYDRANTS AS REQUIRED BY UTILITY OWNER. TRACER WIRE AND TEST BOXES ARE SUBSIDIARY TO PIPE INSTALLATION.

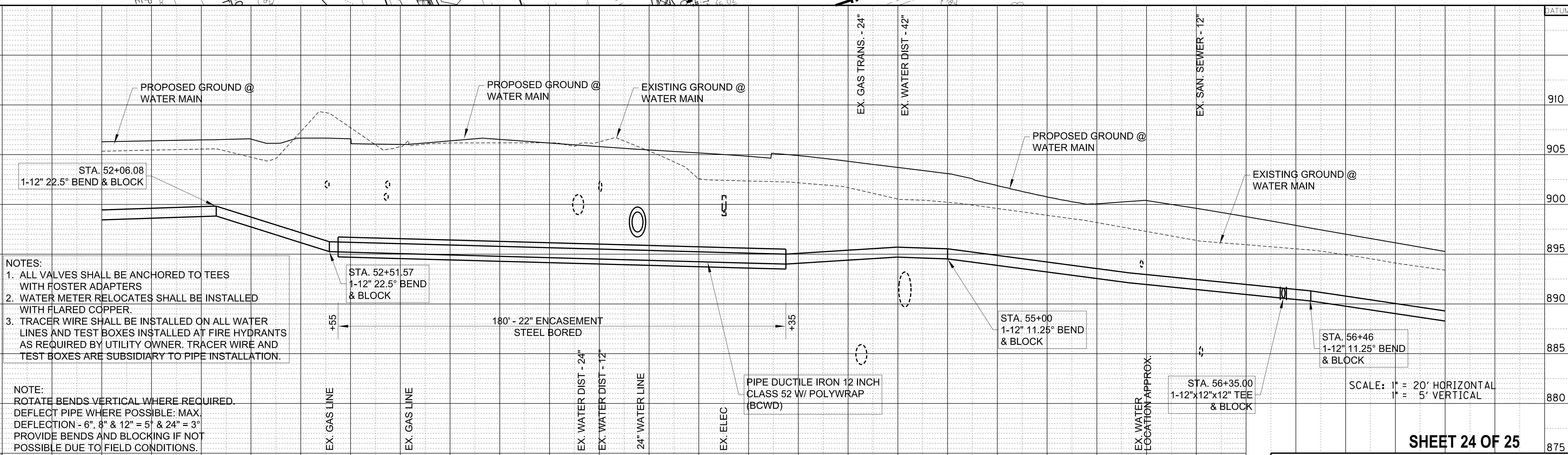
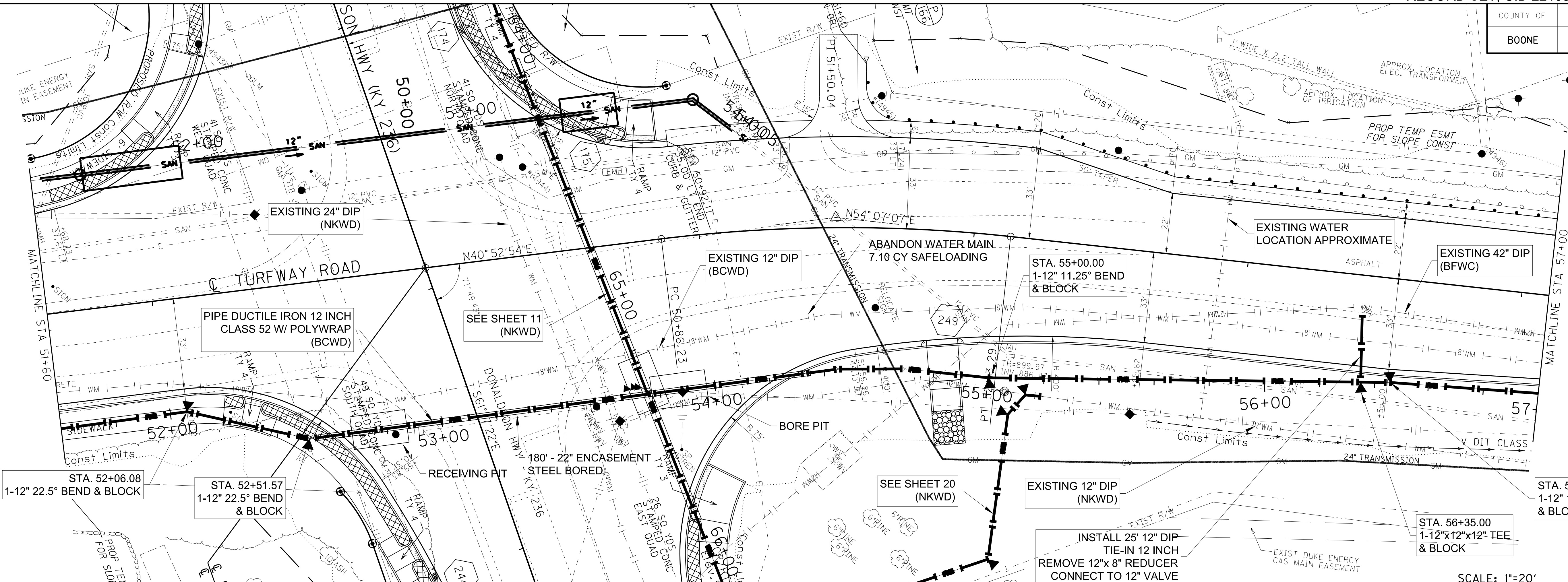
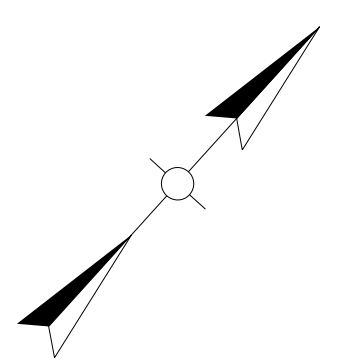
NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE. MAX. DEFLECTION - 6" 8" & 12" = 5" & 24" = 3"
 PROVIDE BENDS AND BLOCKING IF NOT POSSIBLE DUE TO FIELD CONDITIONS.

SHEET 22 OF 25

BOONE COUNTY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

48+00 48+17
 WATER MAIN PLAN & PROFILE
 WM STA 42+60 TO STA 48+17 (8")

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U24



- NOTES:
1. ALL VALVES SHALL BE ANCHORED TO TEES WITH FOSTER ADAPTERS
 2. WATER METER RELOCATES SHALL BE INSTALLED WITH FLARED COPPER.
 3. TRACER WIRE SHALL BE INSTALLED ON ALL WATER LINES AND TEST BOXES INSTALLED AT FIRE HYDRANTS AS REQUIRED BY UTILITY OWNER. TRACER WIRE AND TEST BOXES ARE SUBSIDIARY TO PIPE INSTALLATION.

NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE. MAX. DEFLECTION - 6", 8" & 12" = 5' & 24" = 3'
 PROVIDE BENDS AND BLOCKING IF NOT POSSIBLE DUE TO FIELD CONDITIONS.

SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

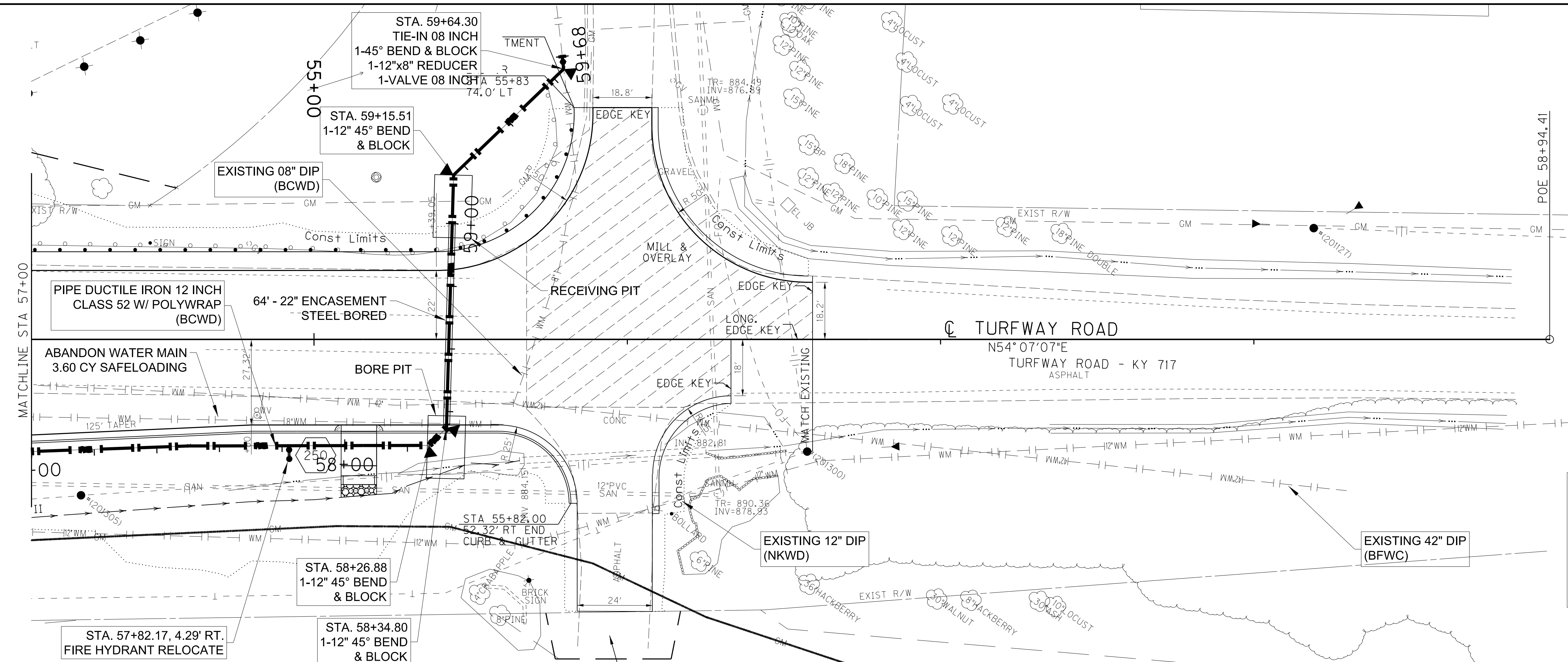
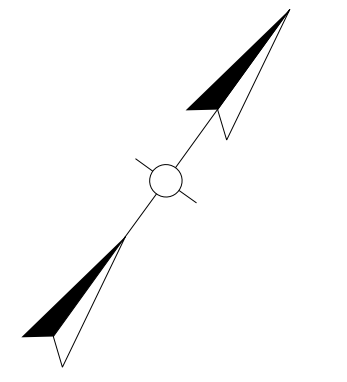
SHEET 24 OF 25

BOONE COUNTY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

WATER MAIN PLAN & PROFILE
 WM STA 51+60 TO STA 57+00 (12")

FILE NAME: G:\PW\WORKING\LOCHNER-PW-01\MS22820\SH-24-PP22-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 29, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919

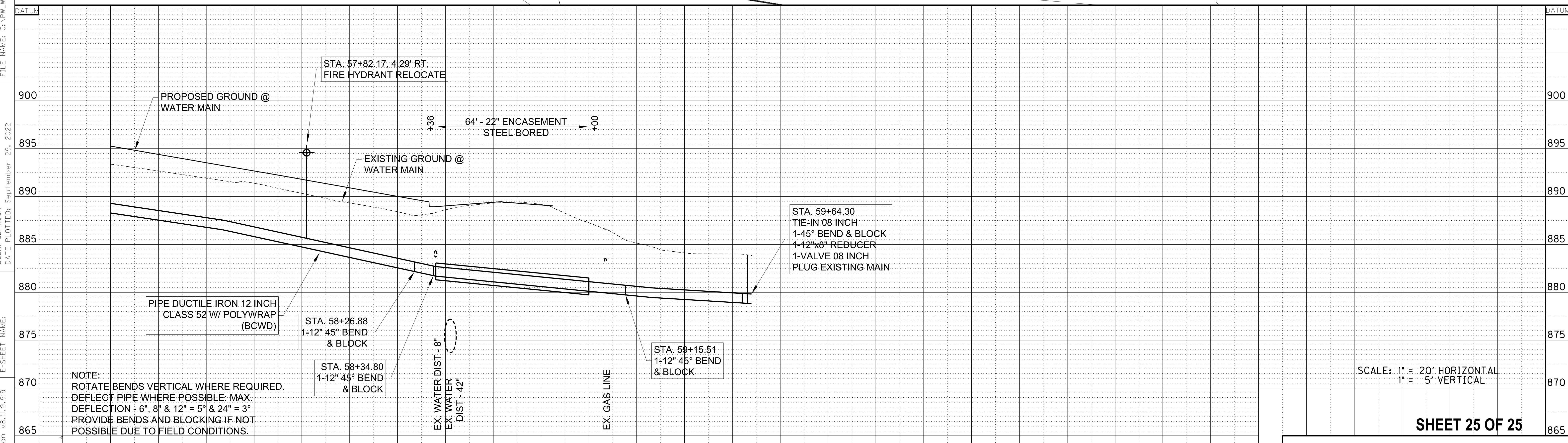
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U25



- NOTES:
1. ALL VALVES SHALL BE ANCHORED TO TEES WITH FOSTER ADAPTERS
 2. WATER METER RELOCATES SHALL BE INSTALLED WITH FLARED COPPER.
 3. TRACER WIRE SHALL BE INSTALLED ON ALL WATER LINES AND TEST BOXES INSTALLED AT FIRE HYDRANTS AS REQUIRED BY UTILITY OWNER. TRACER WIRE AND TEST BOXES ARE SUBSIDIARY TO PIPE INSTALLATION.

SCALE: 1"=20'

FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\DM522820\SH_25-PP23-DNS WATER.DGN
 USER: CLAWSON
 DATE PLOTTED: September 29, 2022
 E-SHEET NAME:
 MicroStation v8.11.9.919



NOTE:
 ROTATE BENDS VERTICAL WHERE REQUIRED.
 DEFLECT PIPE WHERE POSSIBLE. MAX.
 DEFLECTION - 6", 8" & 12" = 5" & 24" = 3"
 PROVIDE BENDS AND BLOCKING IF NOT
 POSSIBLE DUE TO FIELD CONDITIONS.

SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

SHEET 25 OF 25

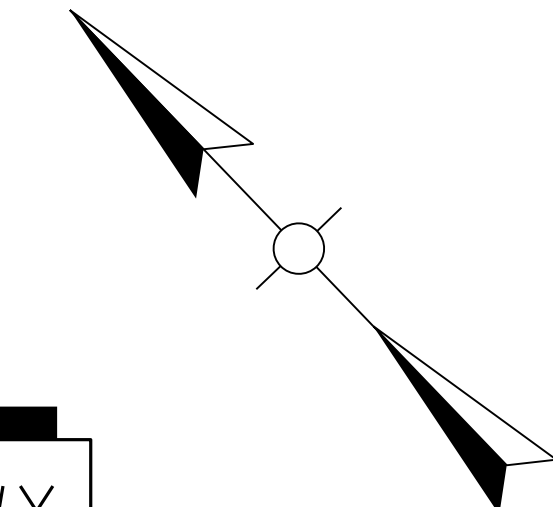
BOONE COUNTY WATER DISTRICT - WATER MAIN CONSTRUCTION ONLY

WATER MAIN PLAN & PROFILE
 WM STA 57+00 TO STA 59+68 (12")

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U27

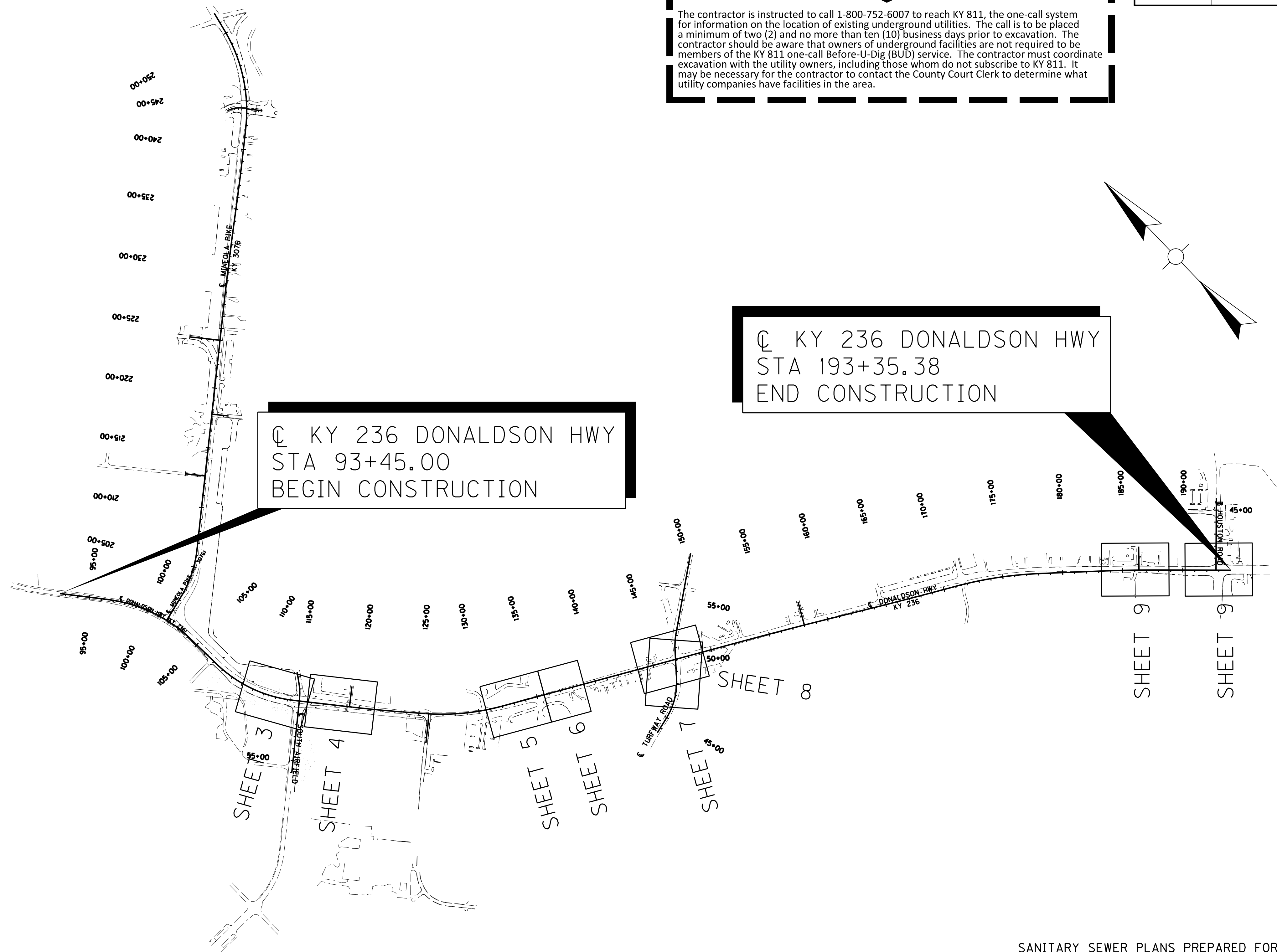
BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.



☉ KY 236 DONALDSON HWY
STA 193+35.38
END CONSTRUCTION

☉ KY 236 DONALDSON HWY
STA 93+45.00
BEGIN CONSTRUCTION



SANITARY SEWER PLANS PREPARED FOR:

SANITATION DISTRICT NO. 1
1045 EATON DRIVE
FT. WRIGHT, KY 41017



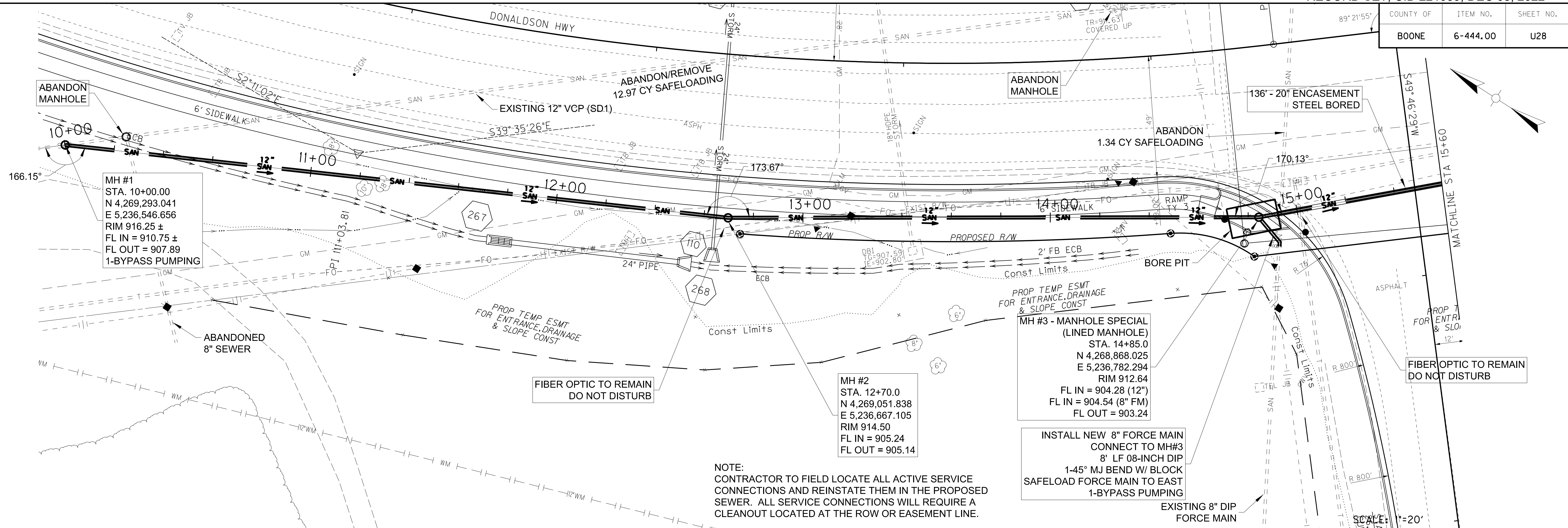
SCALE: 1"=500'

NOTES

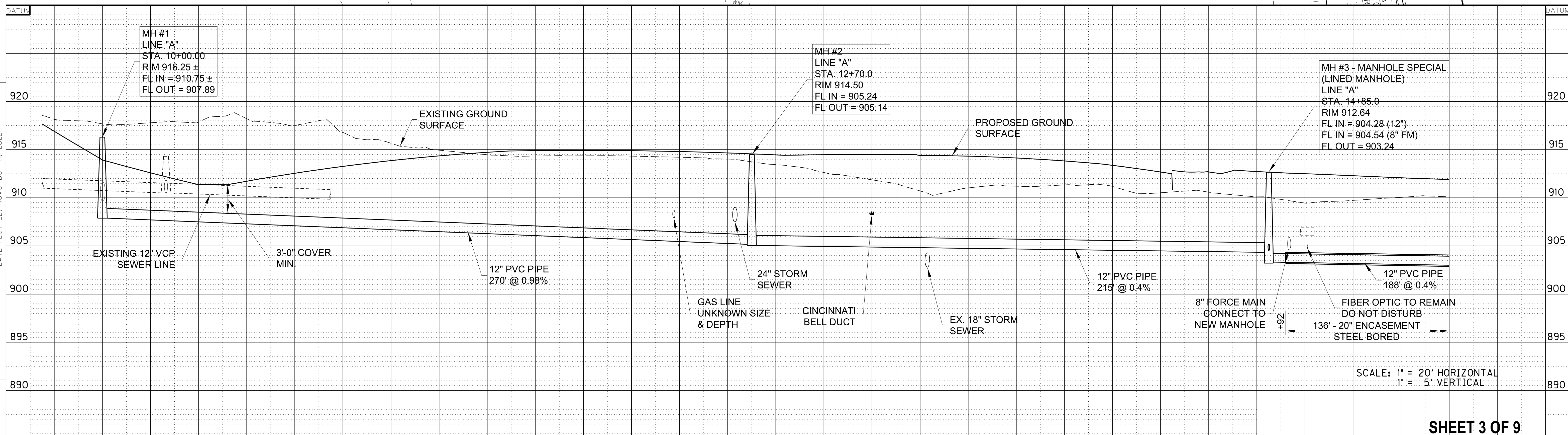
- CONTRACTOR SHALL SUPPLY FIELD NOTES UPON COMPLETION OF PROJECT IN SUFFICIENT DETAIL TO PREPARE "RECORD DRAWINGS".
- LOCATION OF UTILITIES AND STRUCTURES, BOTH EXISTING AND PROPOSED, ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT TIME OF BIDDING, AND ARE NOT NECESSARILY COMPLETE OR CORRECT. DURING CONSTRUCTION THE CONTRACTOR SHALL USE DILIGENCE IN PROTECTING FROM DAMAGE ALL EXISTING UTILITIES AND STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR OR RESTORATION OF SAME TO THE SATISFACTION OF THE ENGINEER AND THE UTILITY COMPANY.
- CONTRACTOR TO UNCOVER AND CONFIRM EXACT LOCATION OF EXISTING SANITARY SEWERS MAINS AND SERVICES AT CONNECTION POINTS PRIOR TO CONSTRUCTION (INCIDENTAL).
- CONTRACTOR SHALL VERIFY ALL SEWER INVERT ELEVATIONS AND SERVICE LINE LOCATIONS PRIOR TO CONSTRUCTION (INCIDENTAL).
- PRIOR TO START OF ANY UTILITY CONSTRUCTION, A "SEQUENCE OF CONSTRUCTION" SHALL BE PROVIDED IN WRITING TO THE UTILITY OWNER.
- CONTRACTOR TO COORDINATE AND EXPIDITE THE UTILITY CONSTRUCTION IN THE PROPER PHASES OF THE PROJECT AND MINIMIZE THE SHUT-DOWN TIME OF THE UTILITIES.
- CONTRACTOR TO COORDINATE ALL SHUT-DOWN TIMES WITH THE UTILITY OWNER. SHUT-DOWNS FOR TIE-INS MAY BE REQUIRED TO BE PERFORMED AT NIGHT AT THE DISCRETION OF THE UTILITY OWNER.
- ITEMS AND INSTRUCTION LABELS IN (PARENTHESIS) ARE INCIDENTALS TO THE CONSTRUCTION AND COST ITEM.
- ANY ADJUSTMENTS OR RELOCATIONS OF ITEMS TO FINAL GRADES AND LOCATIONS WILL BE CONSIDERED "INCIDENTAL" TO COST AND CONSTRUCTION OF ITEM.
- EXCAVATION IN PAVED AREAS OUTSIDE OF ROAD CONSTRUCTION SHALL BE BACKFILLED ABOVE INITIAL BEDDING WITH FLOWABLE FILL TO SUBGRADE OF THE EXISTING PAVEMENT. THE PAVEMENT SHALL BE SAW CUT TO NEAT LINES AND REPLACED IN-KIND. ALTERNATIVE BACKFILL AND PAVEMENT RESTORATION METHODS SHALL BE APPROVED BY THE KYTC SECTION ENGINEER BEFORE USE. ALL COSTS FOR RESTORATION OF AREAS OUTSIDE OF ROAD CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO SEWER MAIN CONSTRUCTION.
- BLASTING OF ROCK SHALL NOT BE PERMITTED ON THIS PROJECT.
- ALL ROAD CROSSINGS SHALL HAVE A MINIMUM COVER DEPTH OF 48 INCHES TO TOP OF PIPE FROM FINAL GRADE.
- ALL ROAD CROSSINGS SHALL BE BACKFILLED WITH FLOWABLE FILL PER KYTC SPECIFICATIONS.
- PIPES AND MANHOLES LABELED TO BE ABANDONED OR PLUGGED SHALL BE SAFE LOADED PER KYTC SPECIFICATIONS. QUANTITY IS INCLUDED IN ROADWAY PLANS.

FILE NAME: G:\PW_WORKING\LOCHNER-PW-01\DM522820\SH-27-DNS SEWER LAYOUT.DGN
 USER: JHIERONYMUS
 DATE PLOTTED: November 11, 2022
 E-SHEET NAME: U02700LS
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U28



NOTE:
CONTRACTOR TO FIELD LOCATE ALL ACTIVE SERVICE CONNECTIONS AND REINSTATE THEM IN THE PROPOSED SEWER. ALL SERVICE CONNECTIONS WILL REQUIRE A CLEANOUT LOCATED AT THE ROW OR EASEMENT LINE.

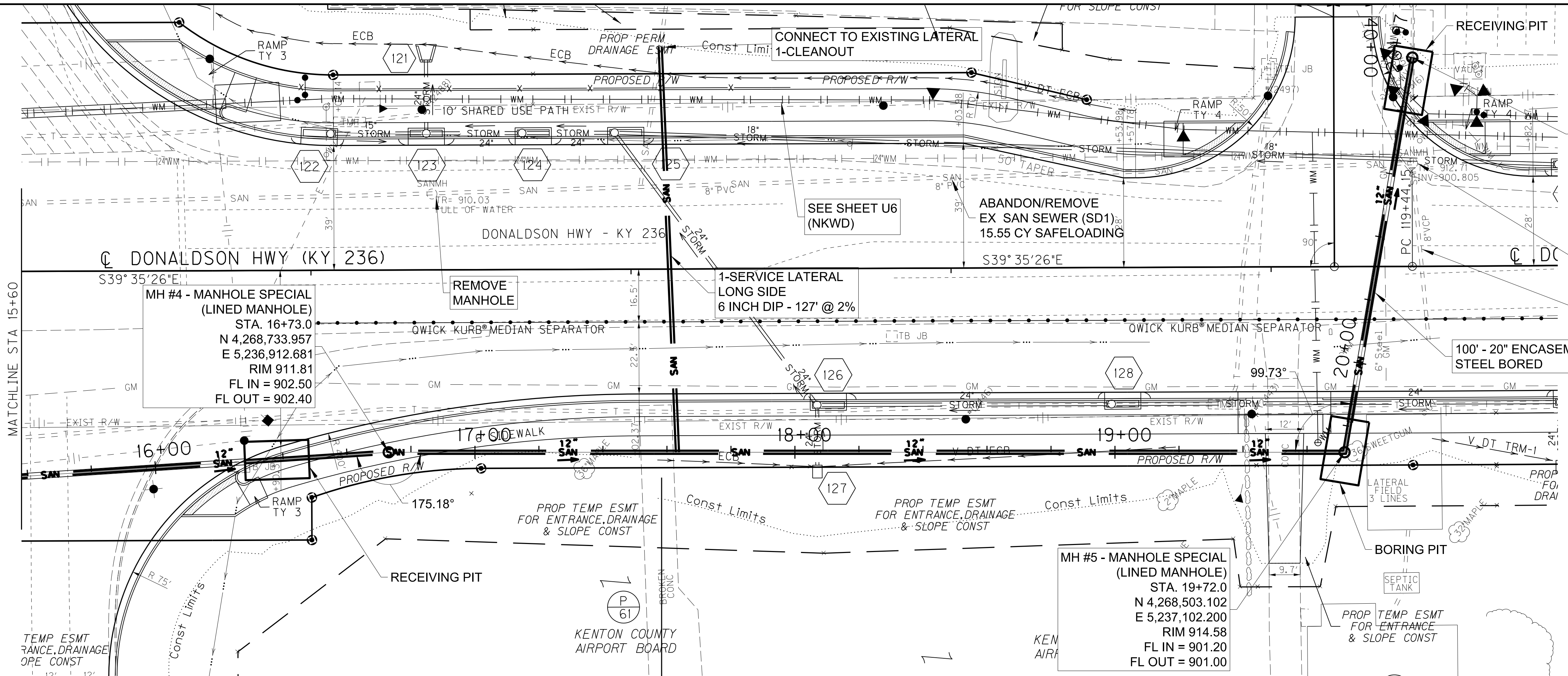


SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

SANITATION DISTRICT NO. 1 - SANITARY SEWER CONSTRUCTION ONLY

FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\DM522820\SH-28-PP01-SANSEW.DGN
 USER: CLAWSON
 DATE PLOTTED: November 11, 2022
 E-SHEET NAME: U02800PL
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U29



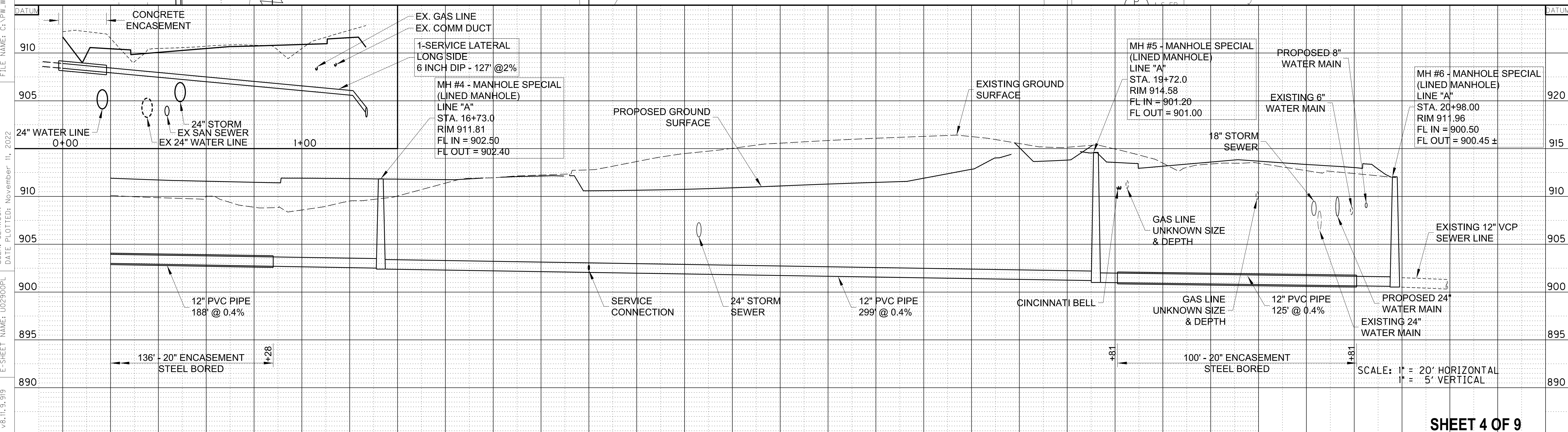
MH #6 - MANHOLE SPECIAL (LINED MANHOLE)
 STA. 20+98.00
 N 4,268,565.041
 E 5,237,211.008
 RIM 911.96
 FL IN = 900.50
 FL OUT = 900.45 ±
 1-BYPASS PUMPING

MH #4 - MANHOLE SPECIAL (LINED MANHOLE)
 STA. 16+73.0
 N 4,268,733.957
 E 5,236,912.681
 RIM 911.81
 FL IN = 902.50
 FL OUT = 902.40

MH #5 - MANHOLE SPECIAL (LINED MANHOLE)
 STA. 19+72.0
 N 4,268,503.102
 E 5,237,102.200
 RIM 914.58
 FL IN = 901.20
 FL OUT = 901.00

NOTE:
 CONTRACTOR TO FIELD LOCATE ALL ACTIVE SERVICE CONNECTIONS AND REINSTATE THEM IN THE PROPOSED SEWER. ALL SERVICE CONNECTIONS WILL REQUIRE A CLEANOUT LOCATED AT THE ROW OR EASEMENT LINE.

SCALE: 1"=20'



SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

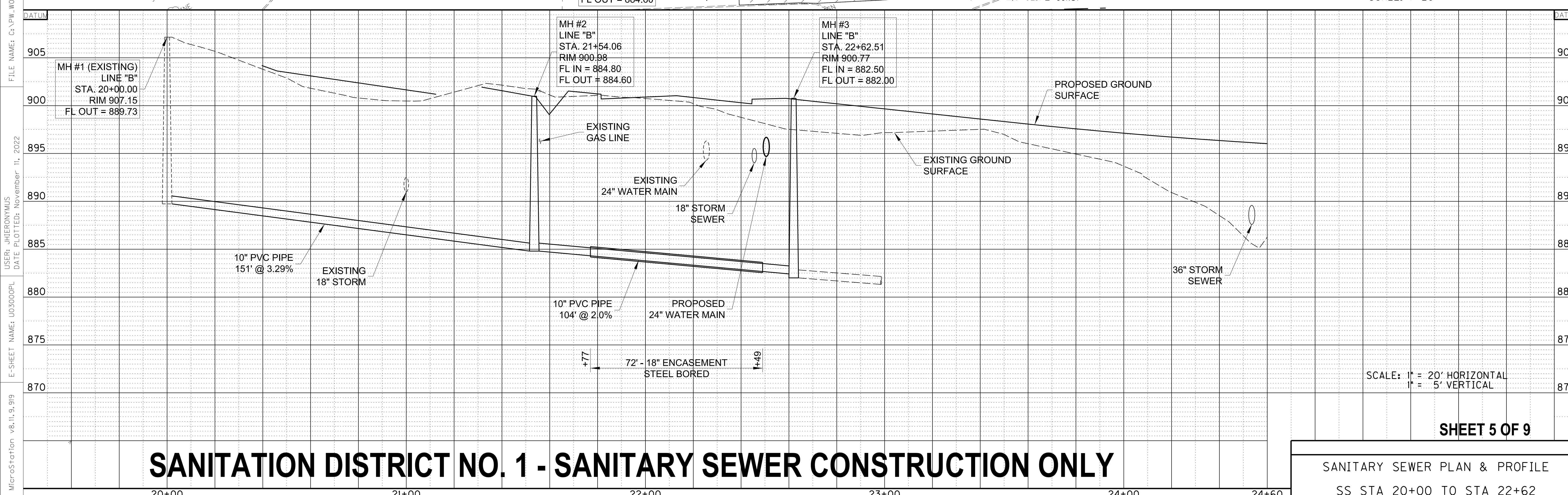
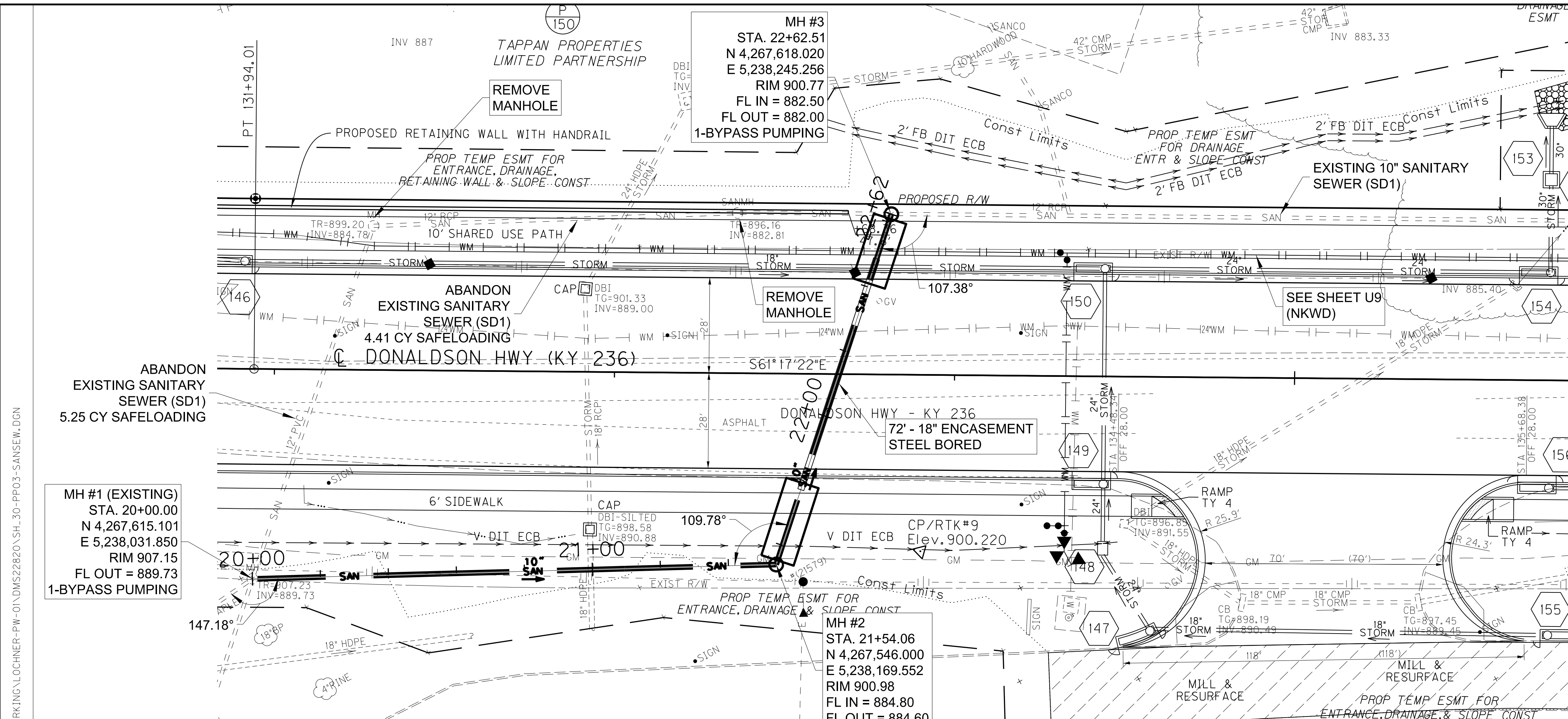
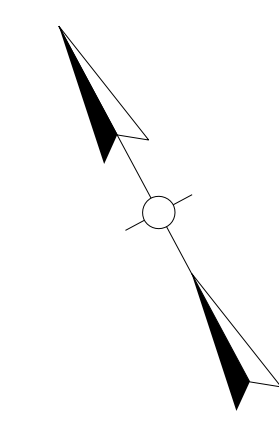
SHEET 4 OF 9

SANITATION DISTRICT NO. 1 - SANITARY SEWER CONSTRUCTION ONLY

21+00
 SANITARY SEWER PLAN & PROFILE
 SS STA 15+60 TO STA 20+97

FILE NAME: G:\PW\WORKING\LOCHNER-PW-01\MS22820\SH-29-PP02-SANSEW.DGN
 USER: CLAWSON
 DATE PLOTTED: November 11, 2022
 E-SHEET NAME: U02900PL
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U30



NOTE:
 CONTRACTOR TO FIELD LOCATE ALL ACTIVE SERVICE CONNECTIONS AND REINSTATE THEM IN THE PROPOSED SEWER. ALL SERVICE CONNECTIONS WILL REQUIRE A CLEANOUT LOCATED AT THE ROW OR EASEMENT LINE.

SCALE: 1"=20'

SCALE: 1" = 20' HORIZONTAL
 1" = 5' VERTICAL

SHEET 5 OF 9

SANITATION DISTRICT NO. 1 - SANITARY SEWER CONSTRUCTION ONLY

SANITARY SEWER PLAN & PROFILE
 SS STA 20+00 TO STA 22+62

FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\MS22820\SH_30-PP03-SANSEW.DGN
 USER: JHIERONYMUS
 DATE PLOTTED: November 11, 2022
 E-SHEET NAME: U03000PL
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U32

1-MANHOLE ADJUST TO GRADE = 897.86±

MH #1
STA. 30+00.00
N 4,267,144.895
E 5,238,939.174
RIM 899.00
FL IN = 892.10
FL OUT = 891.90
1-BYPASS PUMPING

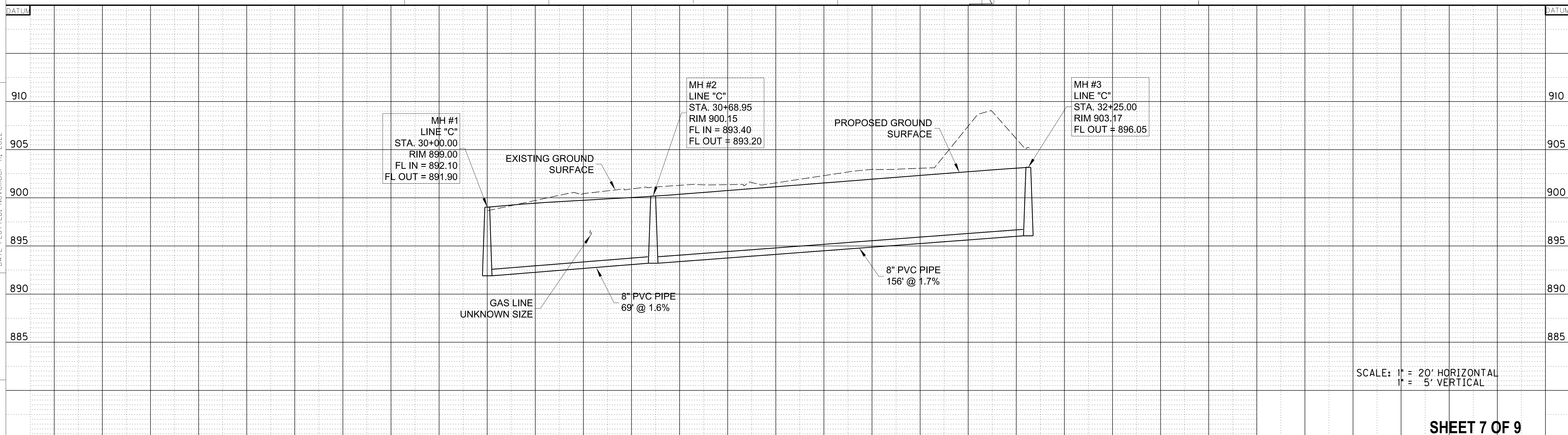
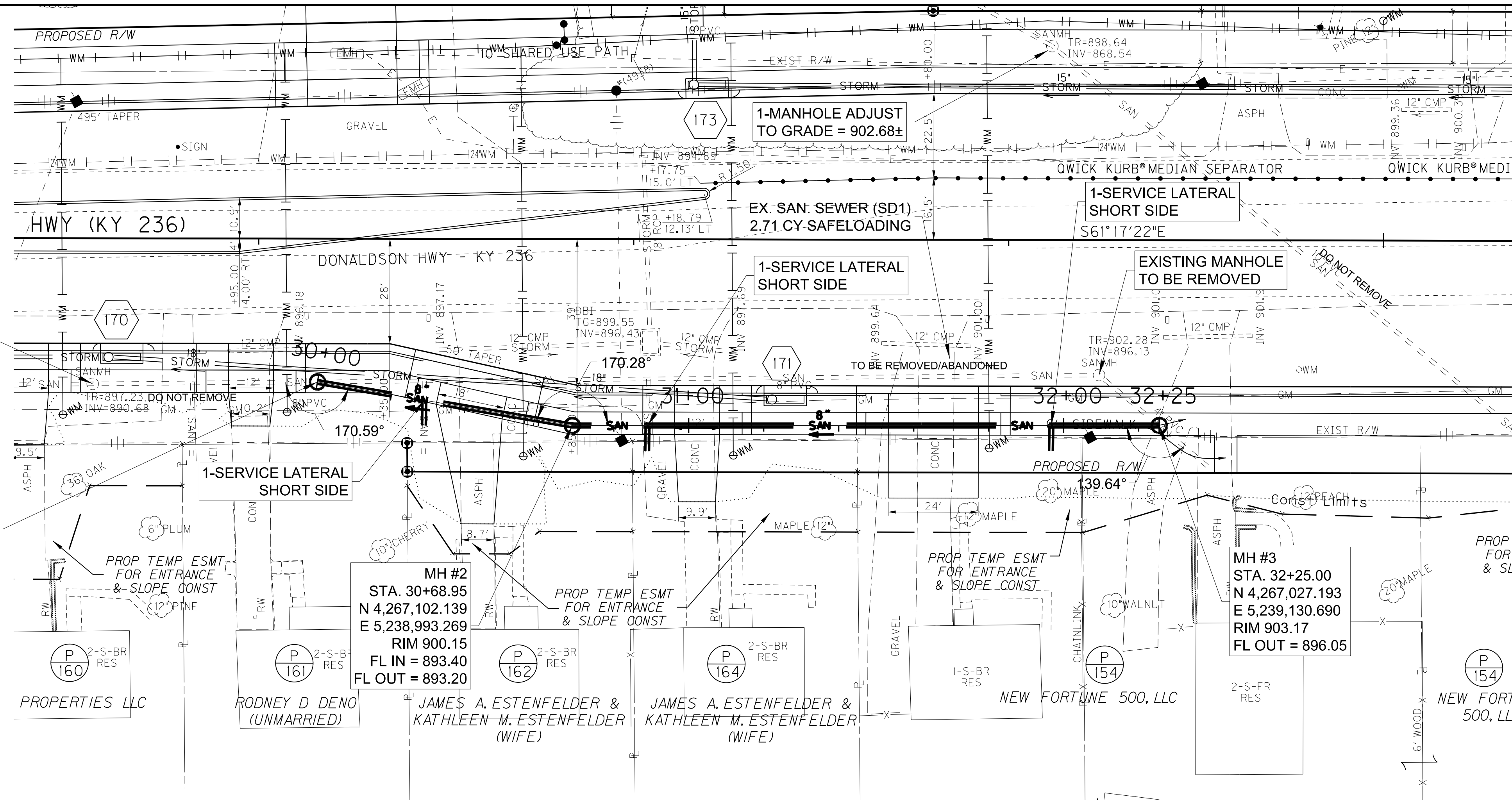
MH #2
STA. 30+68.95
N 4,267,102.139
E 5,238,993.269
RIM 900.15
FL IN = 893.40
FL OUT = 893.20

MH #3
STA. 32+25.00
N 4,267,027.193
E 5,239,130.690
RIM 903.17
FL OUT = 896.05

NOTE:
CONTRACTOR TO FIELD LOCATE ALL ACTIVE SERVICE CONNECTIONS AND REINSTATE THEM IN THE PROPOSED SEWER. ALL SERVICE CONNECTIONS WILL REQUIRE A CLEANOUT LOCATED AT THE ROW OR EASEMENT LINE.

SCALE: 1"=20'

FILE NAME: C:\PW\WORKING\LOCHNER-PW\01\MS22820\SH_32-PP05-SANSEW.DGN
 USER: JHIERONYMUS
 DATE PLOTTED: November 11, 2022
 E-SHEET NAME: U03200PL
 MicroStation v8.11.9.919



SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

SHEET 7 OF 9

SANITATION DISTRICT NO. 1 - SANITARY SEWER CONSTRUCTION ONLY

SANITARY SEWER PLAN & PROFILE
SS STA 30+00 TO STA 32+25

30+00 31+00 32+00 33+00

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-444.00	U33

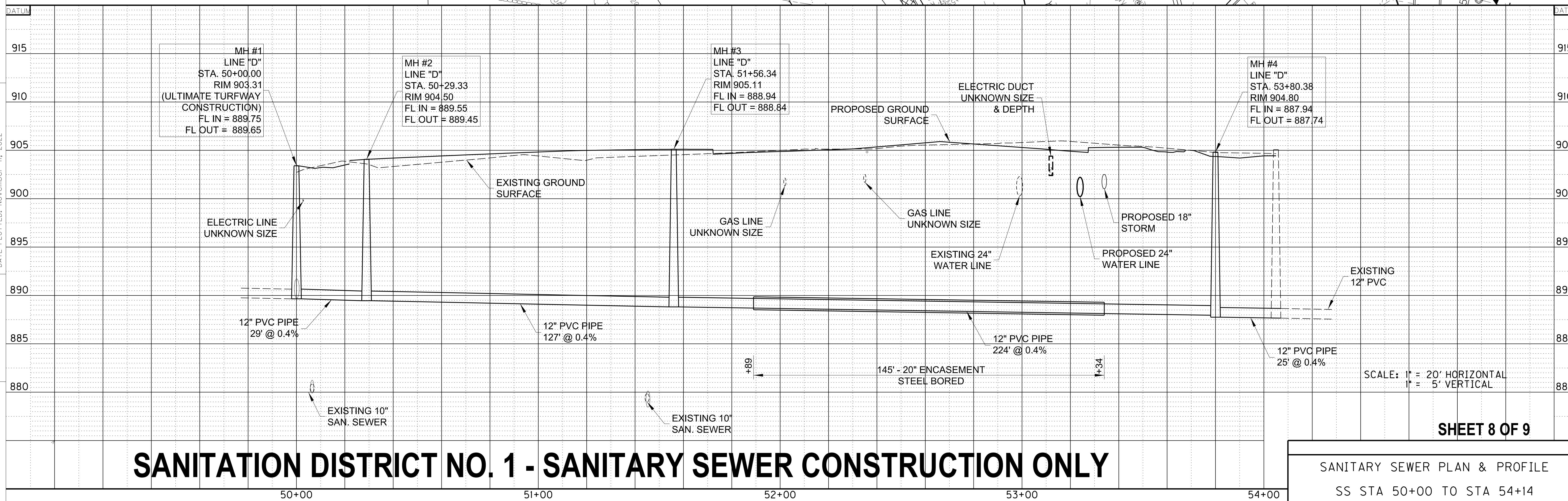
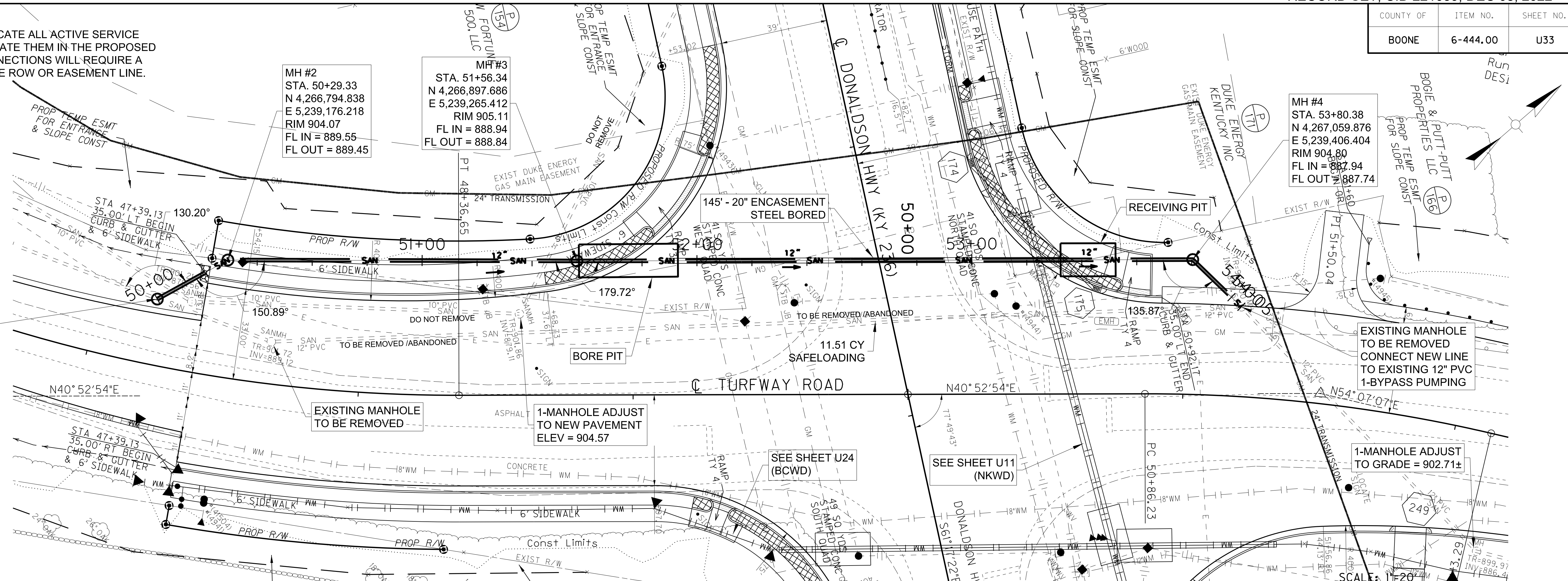
NOTE:
CONTRACTOR TO FIELD LOCATE ALL ACTIVE SERVICE CONNECTIONS AND REINSTATE THEM IN THE PROPOSED SEWER. ALL SERVICE CONNECTIONS WILL REQUIRE A CLEANOUT LOCATED AT THE ROW OR EASEMENT LINE.

MH #1
STA. 50+00.00
N 4,266,766.150
E 5,239,170.097
RIM 903.40
(ULTIMATE TURFWAY CONSTRUCTION)
FL IN = 889.75
FL OUT = 889.65
1-BYPASS PUMPING

MH #2
STA. 50+29.33
N 4,266,794.838
E 5,239,176.218
RIM 904.07
FL IN = 889.55
FL OUT = 889.45

MH #3
STA. 51+56.34
N 4,266,897.686
E 5,239,265.412
RIM 905.11
FL IN = 888.94
FL OUT = 888.84

MH #4
STA. 53+80.38
N 4,267,059.876
E 5,239,406.404
RIM 904.80
FL IN = 887.94
FL OUT = 887.74



SANITATION DISTRICT NO. 1 - SANITARY SEWER CONSTRUCTION ONLY

SANITARY SEWER PLAN & PROFILE
SS STA 50+00 TO STA 54+14

FILE NAME: C:\PW\WORKING\LOCHNER-PW-01\MS22820\SH_33-PP06-SANSEW.DGN
 USER: JHIERONYMUS
 DATE PLOTTED: November 11, 2022
 E-SHEET NAME: U03300PL
 MicroStation v8.11.9.919

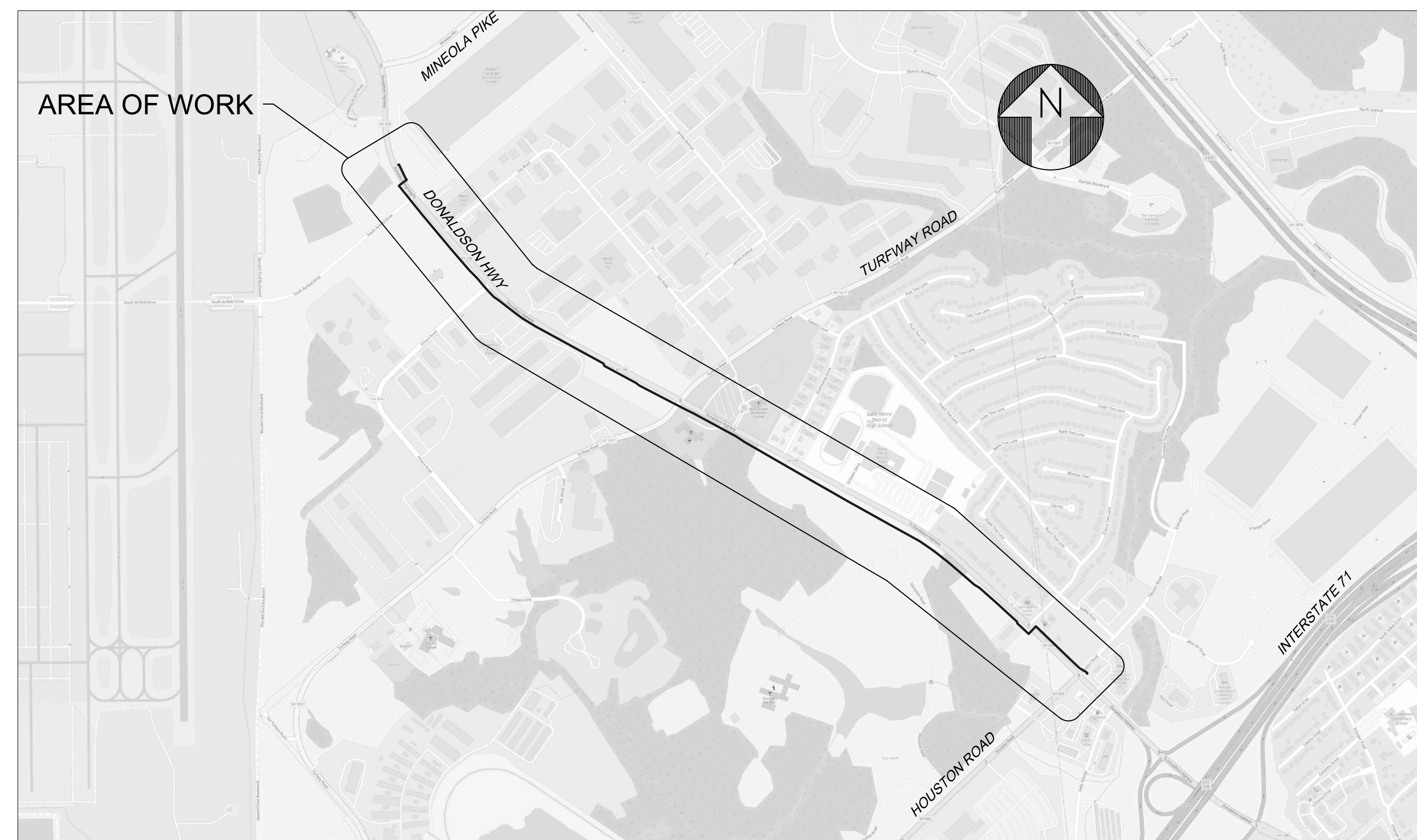
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U49

CONTACT GAS SYSTEMS OPERATIONS SUPERVISOR PRIOR TO STARTING JOB TO VERIFY GAS FLOW

CALL K.U.P.S 48 HOURS BEFORE YOU DIG 1-800-752-6007

CONTRACTOR MUST CALL 811 TWO TO TEN DAYS PRIOR TO EXCAVATION DATE TO HAVE UNDERGROUND UTILITIES MARKED IN THE FIELD.

DUKE ENERGY



VICINITY MAP

N.T.S.

GENERAL NOTES

- INSTALLER SHALL FURNISH ALL MATERIALS NOT PROVIDED BY THE COMPANY (UNLESS OTHERWISE NOTED ON DRAWINGS OR SPECIFICATIONS) INCLUDING EQUIPMENT TRANSPORTATION AND SERVICES, AND PERFORM ALL NECESSARY WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREINAFTER.
- IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO VERIFY ALL DIMENSIONS GIVEN ON THE DRAWINGS. ANY ITEM IN QUESTION SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO PROCEEDING WITH THE WORK.
- INSTALLER SHALL BE RESPONSIBLE FOR PROTECTION OF ALL SURROUNDING AREAS.
- ALL BELOWGROUND WELDS SHALL BE COATED PER PERTINENT DUKE NATURAL GAS BUSINESS UNIT (NGBU) DESIGN AND CONSTRUCTION STANDARDS.
- ALL ABOVEGROUND PIPING TO BE BLASTED TO CORRECT SOCIETY FOR PROTECTIVE COATINGS (SSPC) SURFACE PROFILE. PAINT SYSTEM TO BE UTILIZED SHALL BE PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS.
- UPON BACKFILLING IN AREAS OF ROCK, BURIED PIPE SHALL HAVE 6" OF SAND PAD FILL PLACED AROUND THE PIPE'S CIRCUMFERENCE.
- PRESSURE TESTING SHALL MEET THE REQUIREMENTS OF THE DUKE NGBU'S PRESSURE TESTING STANDARD, PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS.
- INSTALLER SHALL DEWATER ALL HYDROSTATICALLY TESTED PIPING, USING CLEANING PIGS AS REQUIRED, AND DRY TO A DEWPOINT OF -40 °F PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS.

CONSTRUCTION NOTES

- EXISTING OVERHEAD AND BELOWGROUND FACILITIES MAY BE IN THE WORK AREA VICINITY. INSTALLER IS RESPONSIBLE FOR HAVING SUCH FACILITIES LOCATED AND IS RESPONSIBLE FOR MAINTENANCE AND PRESERVATION OF THESE FACILITIES.
- PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS, INSTALLER IS REQUIRED TO CALL 811 FOR UTILITY LOCATES A MINIMUM OF 72 HOURS PRIOR TO COMMENCEMENT OF WORK. NO EXTRA COMPENSATION WILL BE ALLOWED FOR DELAYS FROM ANY WORK PROVIDED BY OTHER UTILITIES.
- IF EXISTING UTILITIES OF ANY TYPE ARE ENCOUNTERED IN THE FIELD AND DEEMED TO BE IN CONFLICT WITH INSTALLATION OF FACILITIES, INSTALLER SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY SO THE CONFLICT MAY BE RESOLVED.
- WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, INSTALLER SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR PRIVATE DRAINS OR SEWERS. RESTORATION OF THESE FACILITIES IS TO BE PERFORMED ONCE CONSTRUCTION IS COMPLETE AND ARE CONSIDERED INCIDENTAL COSTS OF THE PROJECT.
- ALL DRAWING MEASUREMENTS ARE TO BE TAKEN FROM EXISTING GRADE. FINAL GRADE SHALL BE MATCHED TO SURROUNDING GRADE AS PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS.
- INSTALLER IS TO REMAIN WITHIN CONSTRUCTION WORKING LIMITS. ACCESS TO AREAS OUTSIDE WORKING LIMITS MUST BE COORDINATED WITH THE OWNER OR DUKE NGBU PROJECT MANAGER.
- ALL EXCESS EXCAVATION, CONSTRUCTION DEMOLITION DEBRIS AND UNSUITABLE MATERIALS THAT DO NOT CONTAIN ASBESTOS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED.
- STANDARD SPECIFICATIONS REFERENCED ON THIS SHEET AND CONSTRUCTION PLANS ARE CONSIDERED AS PART OF THE CONTRACT DOCUMENTS. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED, BUT ARE CONSIDERED TO BE A PART OF THIS CONTRACT.
- BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY DUKE NGBU OR COMPANY REPRESENTATIVE. FINAL PAYMENT SHALL BE MADE AFTER ALL OF THE INSTALLER'S WORK HAS BEEN ACCEPTED AND APPROVED AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- DURING CONSTRUCTION, ALL LOOSE MATERIAL THAT ARE DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, SHALL BE REMOVED AT THE END OF EACH WORK DAY.
- ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE EXTENDED TO OUTLET INTO AN EXISTING DRAINAGE WAY. A RECORD OF ALL FIELD TILE FOR ONSITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE INSTALLER AND TURNED OVER TO THE PROJECT MANAGER UPON COMPLETION OF THE PROJECT.
- INSTALLER IS REQUIRED TO MAINTAIN A SET OF ISSUED FOR CONSTRUCTION DRAWINGS AND ALL PERMITS AT THE JOB SITE. ANY MODIFICATIONS OR ALTERATIONS TO THE PLANS OR SPECIFICATIONS SHALL BE APPROVED BY THE PROJECT MANAGER.
- INSTALLER IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS/HER WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS. INSTALLER IS RESPONSIBLE FOR THE CONSTRUCTION METHODS AND TECHNIQUES, SEQUENCES, TIME OF PERFORMANCE ALL SAFETY PRECAUTIONS.
- MINIMUM DEPTH OF BURIAL SHALL BE PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS.
- ALL PIPELINES BEING CROSSED ARE TO BE PROTECTED WITH A MINIMUM OF (3) 4 FEET X 18 FEET WOODEN MATS.
- PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS, FOR OPEN DITCH EXCAVATION, A MINIMUM OF TWO FEET OF SEPARATION SHALL BE MAINTAINED BETWEEN ALL CROSSING STRUCTURES. SEPARATION BETWEEN CROSSING STRUCTURES AND PIPELINES THAT ARE INSTALLED VIA DIRECTIONAL DRILLING METHODS IS AT THE DISCRETION OF ENGINEERING.
- DURING BACKFILLING, A SIX INCH CROWN SHALL BE PLACED ON ALL DISTURBED AREAS. COMPACTION REQUIREMENTS SHALL BE PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS.
- BOLTS FOR FLANGES TO BE TORQUED PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS.

CIVIL AND STRUCTURAL NOTES

- ADDITIONAL EXCAVATIONS BELOW FOOTINGS MAY BE NECESSARY TO REACH UNDISTURBED SOIL. SHOULD THIS OCCUR, THE EXCAVATION SHALL BE BROUGHT TO THE BOTTOM OF THE FOOTING ELEVATION WITH COMPACTED SAND FILL MEETING THE REQUIREMENTS OF MODIFIED PROCTOR COMPACTION TEST (ASTM D1557) TO 95% IN SIX INCH LIFTS.
 - ALL EXPOSED CONCRETE EDGES SHALL HAVE A 1" X 1" 45° CHAMFER.
 - CONCRETE SHALL BE MIXED AND POURED PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS. TESTING SHALL CONFORM TO ACI 318. INSTALLER TO SUPPLY ALL CONCRETE AND TESTING.
 - ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 SPECIFICATION. STEEL REINFORCING BAR SHALL CONFORM TO ASTM A615 GRADE 60 AND WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. TIE WIRE SHALL CONFORM TO ASTM A82.
 - UNSUITABLE OR EXCESS EARTH SPOIL SHALL BE DISPOSED OF AT AN APPROVED WASTE LOCATION. SOIL BEING TRANSPORTED ONTO THE JOB SITE SHALL BE APPROVED BY EITHER THE PROJECT MANAGER OR CONSTRUCTION MANAGER.
 - ROCKSHIELD OR SIMILAR COMPANY APPROVED PRODUCT MUST BE INSTALLED BETWEEN ALL PIPE AND FITTINGS THAT COME INTO CONTACT WITH CONCRETE. A LAYER OF NON ABRASIVE MATERIAL SUCH AS FRP SHALL BE INSTALLED BETWEEN ALL PIPE SUPPORTS AND PIPING.
 - ALL FIELD BENDING OF REBAR SHALL BE DONE COLD.
 - INSTALLER SHALL THOROUGHLY REVIEW IFC DRAWINGS FOR INSTALLATION REQUIREMENTS ON ALL VESSELS OR OTHER COMPONENTS THAT MAY BE SUBJECT TO THERMAL OR VIBRATION EFFECTS, TO ENSURE INSTALLATION OF A SUITABLE SURFACE THAT WILL ACCOMMODATE THESE EFFECTS.
 - UNLESS DIRECTED OTHERWISE, LOADING OF CONCRETE STRUCTURES SHALL BE IN ACCORDANCE WITH FOC-ST-2020.
- SOIL EROSION AND SEDIMENT CONTROL NOTES**
- INSTALLER IS TO CONSTRUCT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AT THE COMMENCEMENT OF THE PROJECT, PROVIDE MAINTENANCE AND ASSURE EFFECTIVENESS THROUGHOUT THE DURATION OF THE PROJECT.
 - CARE SHALL BE TAKEN TO MINIMIZE DOWNSTREAM SILTATION. RAW BANKS MAY BE SEEDED AND MULCHED TO PREVENT EROSION.
 - ALL SPOILS INCLUDING ORGANIC SOILS, VEGETATION AND DEBRIS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN SUCH A MANNER AS TO NOT ERODE INTO ANY BODY OF WATER OR WETLAND.
 - SILT FENCING SHALL BE PLACED WHERE NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE WORK AREA.
 - CATCH ALL INLET FILTERS ARE REQUIRED AT ALL SEWER INLETS, GRATES AND MANHOLES FOR SEDIMENT CONTROL.
 - WETLAND AREAS SHALL HAVE SILT FENCING AND ONE LAYER OF STRAW LOG INSTALLED NO CLOSER THAN 50 FEET FROM POINT OF WETLAND DELINEATION.
 - TOPSOIL STOCKPILES SHALL BE LOCATED TO AVOID EROSION OF SAID STOCKPILE ONTO OFFSITE AREAS.
 - ALL ENVIRONMENTAL MEASURES SHALL BE PER PERTINENT DUKE NGBU DESIGN AND CONSTRUCTION STANDARDS.

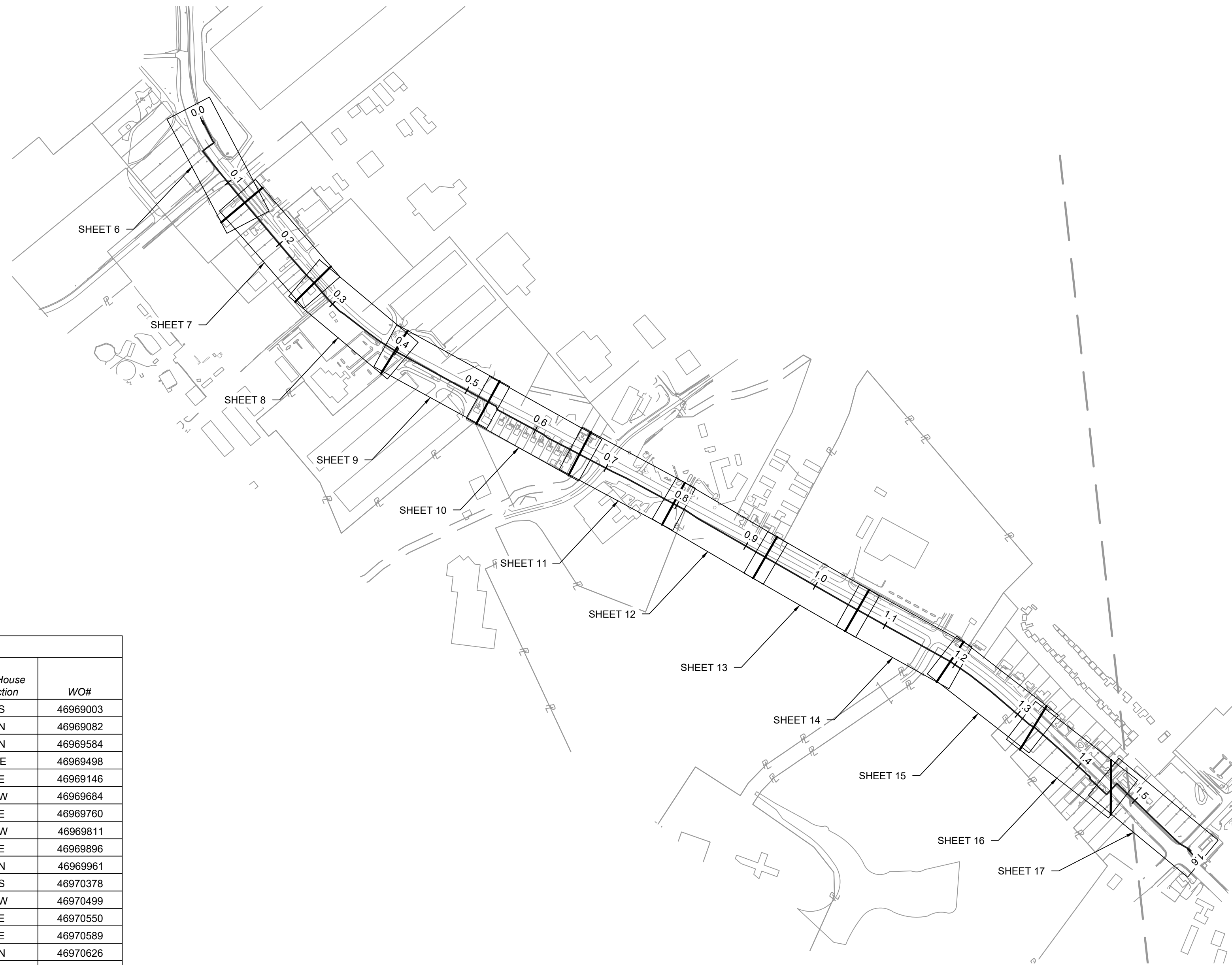
DESIGN REVIEW OF COMPLETED CONSTRUCTION JOB SPONSOR _____ DATE _____ FIELD CHANGE REQUEST DOCUMENT REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/> TRANSMISSION DESIGN DOCUMENT REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/>		CORROSION ENGINEERING CONDITION OF COATING WHEN DELIVERED TO JOB: <input type="checkbox"/> TEST CONN. PER STD. SI-ST-4000 APPR. BY _____ NO. PROPOSED _____ COATING TYPE _____ GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR <input type="checkbox"/> NO. INSTALLED _____ INSPECTION: INSULATION CHECKED <input type="checkbox"/> NO. TESTED OK _____ VISUAL <input type="checkbox"/> JEEP <input type="checkbox"/> NO. CHECKED _____ PLASTIC SEPARATIONS INSTALLED <input type="checkbox"/> TYPE PATCH MATERIAL _____ CONTINUITY OF COUPLINGS CHECKED <input type="checkbox"/> CASING CHECKED FOR SHORT <input type="checkbox"/>		PERMIT(S) REQUIRED _____ _____ _____ _____ _____																																							
SYSTEMS OPERATION SUPERVISOR VALVES AND NUMBERS REVIEWED REVIEWED BY _____ DATE _____		SUPERVISOR BLOCK SUPERVISOR OR CONTRACTOR _____ RECORDED BY _____ DATE STARTED _____ DATE PLACED IN SERVICE _____ COMPLETED _____ PERMIT NO. _____		FIELD PRESSURE LEAK TEST ALL PIPELINES REQUIRE LEAK TESTING BEFORE PLACING INTO SERVICE. PRESSURE CHARTS AND FORMS SHOULD BE FORWARDED TO GAS ENGINEERING FOC-PR-2040 REQUIRED TEST PRESSURE RANGE: MIN. 90 PSIG TO MAX 100 PSIG HOURS _____ MEDIUM _____ TESTED BY _____ DATE _____		PROJECT CONTACTS CONSTRUCTION: MELISSA VAUGHAN (W) 859-534-4404 (C) 513-312-9744 NICK SCHACK (W) 513-287-1415 (C) 513-748-1689 ENGINEERING SPONSOR: SCOTT PFEFFERMAN (C) 513-315-4593																																					
VALVES THAT HAVE BEEN ABANDONED AND REMOVED # _____ # _____ # _____ # _____ # _____ # _____ # _____ # _____ # _____ # _____ # _____ # _____		TRACEABILITY OF PLASTIC MAIN AND SERVICES TESTED UPON COMPLETION COMPLETION CONTRACTOR _____ VERIFICATION INSPECTOR _____		PIPE INSTALLED ON JOB <table border="1"> <thead> <tr> <th>SIZE</th> <th>KIND</th> <th>WALL THICKNESS</th> <th>EST. PIPE LENGTH</th> <th>ACTUAL PIPE LENGTH</th> <th>ACTUAL FITTING VALVE LENGTH</th> </tr> </thead> <tbody> <tr> <td>12"</td> <td>PL</td> <td></td> <td>8419'</td> <td></td> <td></td> </tr> <tr> <td>8"</td> <td>PL</td> <td></td> <td>78'</td> <td></td> <td></td> </tr> <tr> <td>4"</td> <td>PL</td> <td></td> <td>67'</td> <td></td> <td></td> </tr> <tr> <td>2"</td> <td>PL</td> <td></td> <td>21'</td> <td></td> <td></td> </tr> <tr> <td colspan="3">TOTAL</td> <td>8585'</td> <td></td> <td></td> </tr> </tbody> </table>				SIZE	KIND	WALL THICKNESS	EST. PIPE LENGTH	ACTUAL PIPE LENGTH	ACTUAL FITTING VALVE LENGTH	12"	PL		8419'			8"	PL		78'			4"	PL		67'			2"	PL		21'			TOTAL			8585'		
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OCTOBER 31, 2022

39856643

COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U50

DRAWING INDEX	
SHEET NO.	DRAWING TITLE
1	10353876-00G-1-001 COVER SHEET
2	10353876-00G-1-002 SHEET INDEX & PROJECT LAYOUT
3	10353876-00G-1-004 GENERAL NOTES
4	10353876-00G-1-005 BILL OF MATERIALS
5	10353876-00G-1-006 BILL OF MATERIALS
6	10353876-00C-5-001 STA 0+00 TO STA 7+00
7	10353876-00C-5-002 STA 7+00 TO STA 14+00
8	10353876-00C-5-003 STA 14+00 TO STA 21+00
9	10353876-00C-5-004 STA 21+00 TO STA 28+00
10	10353876-00C-5-005 STA 28+00 TO STA 35+00
11	10353876-00C-5-006 STA 35+00 TO STA 42+00
12	10353876-00C-5-007 STA 42+00 TO STA 49+00
13	10353876-00C-5-008 STA 49+00 TO STA 56+00
14	10353876-00C-5-009 STA 56+00 TO STA 63+00
15	10353876-00C-5-010 STA 63+00 TO STA 70+00
16	10353876-00C-5-011 STA 70+00 TO STA 77+00
17	10353876-00C-5-012 STA 77+00 TO STA 84+06
18	10353876-00C-5-013 LINE DETAILS



SERVICES TO BE INSTALLED								
Service ID#	Service Address	Date	Length (')	Nominal Diameter (")	Material	Near House Line Distance (')	Near House Direction	WO#
18675	1459 DONALDSON HWY	11/13/2017	8	1	Plastic	9	NS	46969003
451260	1431 DONALDSON HWY	3/1/1993	8	2	Plastic	18	NN	46969082
313481	1409 DONALDSON HWY	9/22/2009	1	1	Plastic	24	NN	46969584
513948	Multiple 1360 DONALDSON	2/8/2000	66	2	Plastic	28	WE	46969498
513947	Multiple 1390 DONALDSON	2/8/2000	75	2	Plastic	50	EE	46969146
513094	1379 DONALDSON HWY	2/18/1999	5	2	Plastic	38	WW	46969684
606731	Multiple 1335 DONALDSON	12/9/2006	8	2	Plastic	29	EE	46969760
606730	Multiple 1325 DONALDSON	12/9/2006	8	2	Plastic	157	WW	46969811
311563	1259 DONALDSON HWY	9/27/2017	4	1	Plastic	7	EE	46969896
434168	1253 DONALDSON HWY	9/17/1991	12	1	Plastic	9	NN	46969961
430675	1247 DONALDSON HWY	3/22/1991	2	1	Plastic	7	SS	46970378
430172	1241 DONALDSON HWY	2/26/1991	4	1	Plastic	11	WW	46970499
302770	1235 DONALDSON HWY	9/27/2017	3	1	Plastic	5	EE	46970550
488148	1229 DONALDSON HWY	9/12/1995	1	1	Plastic	1	EE	46970589
515934	1223 DONALDSON HWY	9/25/2002	5	1	Plastic	11	NN	46970626
686370	3608 TURFWAY RD	1/26/2022	6	1.25	Plastic	8	WW	46970680
69	1151 DONALDSON HWY	7/24/2017	6	2	Plastic	51	WE	46970813
288103	1149 DONALDSON HWY	6/29/2017	1	1	Plastic	9	EE	46970855
312893	1130 DONALDSON HWY	9/22/1999	86	2	Plastic	111	EE	46970913
308396	1108 DONALDSON HWY	8/7/2013	78	1	Plastic	18	EW	46970939
295145	1066 DONALDSON HWY	2/3/2012	73	1	Plastic	7	EE	46970966
512700	3755 SCHEBEN DR	3/18/1998	103	3	Plastic	18	WW	
514403	926 DONALDSON HWY	11/14/2022	89	1	Plastic	7	EE	46971023
18674	Multiple 904 DONALDSON	2/17/1988	68	1	Plastic	7	SS	46969618
18673	896 DONALDSON HWY	8/28/1991	81	1	Plastic	1	WE	46970496
325534	876 DONALDSON HWY	8/28/1991	90	1	Plastic	N/A	WE	46970586
52969	864 DONALDSON HWY	2/9/2015	84	1	Plastic	28	WE	46970602
370305	854 DONALDSON HWY	9/6/1991	81	1	Plastic	12	EW	46970616
360046	844 DONALDSON HWY	9/9/1991	83	1	Plastic	5	WW	46970631
299142	828 DONALDSON HWY	9/12/1991	86	1	Plastic	3	WE	46970648
18672	822 DONALDSON HWY	9/19/1991	85	1	Plastic	47	EW	46970661
515933	805 DONALDSON HWY	9/25/2002	6	1	Plastic	4	SN	46970681

CONSTRUCTION NOTES

1. TARGET START DATE: _____
 TARGET IN-SERVICE DATE: _____
 TARGET COMPLETION DATE: _____
2. THE WINNING BIDDER MUST INSTALL THE MAIN IN ACCORDANCE WITH THE SPECIFIED BID INSTALLATION METHOD UNLESS AN ALTERNATIVE METHOD IS SUBMITTED TO AND APPROVED BY THE DUKE ENERGY DESIGN ENGINEER. ANY CHANGES IN INSTALLATION METHOD SHALL NOT INCREASE THE COST OF THE PROJECT TO KYTC.
3. RESTRICTED HOURS, TRAFFIC CONTROL OR OTHER RESTRICTIONS IMPOSED BY THE PERMITTING AGENCY ARE THE SOLE RESPONSIBILITY OF THE BIDDERS.
4. ALL WORK MUST BE DONE IN ACCORDANCE WITH THE MOST CURRENT VERSIONS OF GD-147 AND GD-150.
5. TIE-IN MAINS MUST BE ADEQUATELY EXPOSED FOR PROPER LINE-UP.
6. CONTRACTOR WILL BE PAID COST PLUS 10% FOR T&M GAS MISCELLANEOUS WORK. IF REQUESTED BY DUKE WILL BE PAID DIRECT BY DUKE.
7. ASSUME ROCKY CONDITIONS WHEN DRILLING. CONTRACTOR WILL NOT BE PAID EXTRA FOR USING A LARGE DRILL MACHINE OR ROCK HEAD, IF NEEDED.
8. CONTRACTOR WILL PROVIDE A PROJECT SCHEDULE IN GANTT CHART FORM.
9. TARGET IN-SERVICE DATE IS THE DATE THAT ALL MAIN AND SERVICES ARE GASSED UP & ABANDONMENTS ARE COMPLETE.
10. TARGET FINISH DATE IS THE DATE WHEN ALL RESTORATION IS COMPLETE.
11. CONTRACTOR MAY BE EXPECTED TO PERFORM MORE THAN ONE PRESSURE TEST DUE TO LENGTH OF PIPE INSTALLED.
12. WINNING BIDDER WILL NOT BE COMPENSATED FOR EXTRA PRESSURE TESTS IF REQUIRED BY GAS ENGINEERING.
13. ALL MAIN INSTALLED OUTSIDE OF ROADWAYS SHALL HAVE 42" MINIMUM DEPTH FROM FINAL GRADE. ALL MAIN UNDER PAVEMENT SHALL HAVE MINIMUM DEPTH OF 60" FROM FINAL GRADE.
14. ALL BACKFILL OUTSIDE OF ROADWAYS SHALL BE BACKFILLED WITH TRENCH EXCAVATED MATERIAL COMPACTED TO 95% OPTIMUM DENSITY OR FLOWABLE FILL. ALL BACKFILL IN ROADWAYS SHALL BE FLOWABLE FILL.
15. 20. GRANULAR BEDDING CAN BE USED TO MAXIMUM 12" OVER PIPE. GRANULAR SHALL NOT BE USED AS BACKFILL. ALL GRANULAR SHALL BE COMPACTED.

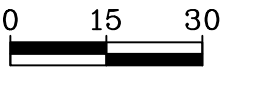
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U51

BOM #	Maximo Part #	Legacy Part #	Source System	Qty	Retired?	Description	Ordering Instructions	Ordering Specifications	Manuf	Model	Manuf Part #
PIPE (BOM# 000-099)											
1	50131193	50131193	OH/KT	8560		PIPE, 12" IPS, 40' LG, PLAIN ENDS, EXTRUDED, SDR 17, 64 LB, BLACK EXTRUDED BIMODAL PE4710, ASTM D2513, W/ LONGITUDINAL, YELLOW STRIPES EVERY 90-120 DEG			JMMFGCOINC,PERFORMANPIP,WLPLASTIC S,		DAE6-14, 1103620, S1200DR110G47NRXX0040, S1200DR17G47NRXX0040
2	50131194	50131194	OH/KT	80		PIPE, 8" IPS, 40' LG, PLAIN ENDS, EXTRUDED, SDR 17, 64 LB, BLACK EXTRUDED BIMODAL PE4710, ASTM D2513, W/ LONGITUDINAL, YELLOW STRIPES EVERY 90-120 DEG			JMMFGCOINC,PERFORMANPIP,WLPLASTIC S,	8300 SERIES	PE4710, DAE1-149, 1103359
3	1551341	16360	PNG	40		PIPE, 8" NPS X 0.322" WALL THK, DBL RANDOM LG, BEVELED ENDS, ELECTRIC RESISTANCE WELD, SCH 40, STL, API 5L PSL-2, GR X52, NO JOINTERS, FUSION BONDED EPOXY COATED			AXISPIPETUBE		8-322-DRL-X52-FBE
4	50056058	50056058	OH/KT	80		PIPE, 4" IPS, 40' LG, PLAIN ENDS, EXTRUDED, SDR 11.5, 76 LB, PE 2406, ASTM D2513, PIPE-4" I.P.S. X .395" WALL THICKNESS X 4.50 O.D. POLYETHYLENE DRISCOPIPE 6500 YELLOW PIPE, (29 LENGTHS = 1160 FT. BUNDLE) 16,240 FT. = TRUCKLOAD MATERIAL SPECIFICATIONS MUST BE SUPPLIED W/EACH SHIPMENT, 29 LENGTHS PER BUNDLE, 14 BUNDLES PER TRUCK 16,240 FT			CHEVRONPHILL,JMMFGCOINC,POLYPIPEIN C,		1002349, 65P0401155040Y, UAD1-01, 1215491
5	1551335	14093	PNG	40		PIPE, 4" NPS X 0.237 W.T., DBL RANDOM LG, BEVELED ENDS, ELECTRIC RESISTANCE WELD, FBE, STL, API 5L PSL-2, GR X52, NO JOINTERS			WHEATLANDTUB, AMERICAN,		4-237-DRL-X52-FBE
6	50056057	50056057	OH/KT	40		PIPE, 2" IPS, 40' LG, PLAIN ENDS, EXTRUDED, SDR 11, 76 LB, PE 2406, ASTM D2513, PIPE-2" I.P.S. X .216" WALL THICKNESS X 2.375IN O.D., POLYETHYLENE DRISCOPIPE 6500 YELLOW PIPE. SDR 1 40 FT. LENGTHS. (88 LENGTHS = 3520 BUNDLE) 49,280 FT = TRUCKLOAD; MATERIAL SPECIFICATIONS MUST BE SUPPLIED W/EACH SHIPMENT.			CHEVRONPHILL,JMMFGCOINC,POLYPIPEIN C,		1002303, 65P0201105040Y, UAB3-01, 1215442
7	1552396	16403	PNG	40		PIPE, 2" NPS, DBL RANDOM LG, BEVELED ENDS, ELECTRIC RESISTANCE WELD, 0.218" WALL THK, STL, API 5L PSL-1, GR X52, NO JOINTERS, W/ FUSION BONDED EPOXY COATING, API 5L PSL-2 IS ALSO ACCEPTABLE			IPSCOINC		2-218-DRL-X52-FBE
8	50088398	50088398	OH/KT	40		PIPE, 6" IPS, 40' LG, PLAIN ENDS, EXTRUDED, SDR 13.5, PE 2406, ASTM D2513			CHEVRONPHILL,JMMFGCOINC,POLYPIPEIN C,		1002373, 65P0601355040Y, UAD5-02, 1215510
FITTINGS (BOM# 100-199)											
100	50131447	50131447	OH/KT	8		ELBOW,PIPE, 12" IPS, BUTT FUSION, 45 DEG, STD RADIUS, BIMODAL PE4710, ASTM D2513, 64 LB, SDR 17			AGRUAMERICAN,CENTRALPLAST,INTEGRITYFUS,JMMFGCOINC,	JM EAGLE	45BI-12IPS-17, R-EL45-R17-12.00, 10004082, 511275275022
101	50131448	50131448	OH/KT	2		ELBOW,PIPE, 12" IPS, BUTT FUSION, 90 DEG, STD RADIUS, BIMODAL PE4710, ASTM D2513, 64 LB, SDR 17			AGRUAMERICAN,AGRUAMERICAN,CENTRALPLAST,INTEGRITYFUS,JMMFGCOINC,	JM EAGLE	90BI-12IPS-17, R-EL-R17-12.00, R-EL90-R17-12.00, 10004127, 512275275022
102	50131449	50131449	OH/KT	7		TEE,PIPE, 12" IPS, BUTT FUSION, 64 PSI, SDR 17.0, MOLDED BLACK PE 4710, ASTM D2513			AGRUAMERICAN,CENTRALPLAST,INTEGRITYFUS,JMMFGCOINC,	JM EAGLE	TEEBI-12IPS-17, R-EL-TEES-R17-12.00, 1004246, 513275275022
103	50131431	50131431	OH/KT	4		ELBOW,PIPE, 8" IPS, BUTT FUSION, 90 DEG, STD RADIUS, MOLDED PE 3408 (4710), ASTM D2513, ASTM D3261, 64 LB, SDR 17			AGRUAMERICAN,CENTRALPLAST,INTEGRITYFUS,JMMFGCOINC,	JM EAGLE	10008766, 90BI-8IPS-17, R-EL90-R17-08.00, 10004153, 512863863022
105	50133016	50133016	OH/KT	4		FITTING, TRANSITION, 8" IPS X 8" IPS, EPOXY COATED CS GR A, SDR 17, PE4710 X SCH 40,W/ BEVELED END			CENTRALPLAST,RWLYALLCO,		10008662, 128638631800, 128638636800
106	50092525	13538	5 STATE	4		COUPLING,PIPE, 8" IPS, ELECTROFUSION, PE 4710, ASTM D2513, F1055, ELECTROFUSION X ELECTROFUSION, 4.7 MM PINS, MUST INCLUDE BARCODE IDENTIFICATION			CENTRALPLAST, MTDEASONCOIN,		5750078, TRI0180,
107	50122923	50122923	OH/KT	4		CAP,PIPE, 8" IPS, ELECTRO FUSION, MOLDED PE 3408 (PE 4710), ASTM D2513/ASTM F1055, SDR 11, GR PE 100/PE 2406/PE 3408			MTDEASONCOIN,	8IN IPS EF END CAP	TRI0520
108	1520778	1520778	OH/KT	4		CAP,PIPE, 8" NPS X 0.250 W.T., MECHANICAL, STL, ASTM A105 GR B, 8.63 OD, 5" MIDDLE RING, EPOXY COATED, ALLOY HARDWARE, SBR GASKET,, GEN II EZ RESTRAINED VENTED LINE, 1" NPT PLUG			SMITHBLAIRIN,		EZB88VUMG
109	50131443	50131443	OH/KT	5		CAP,PIPE, 8" IPS, BUTT FUSION, 64 LB, SDR 17, MOLDED BLACK PE 4710, ASTM D2513, 64 LB, SDR 17, CFR 49 PART 192.283(B)			AGRUAMERICAN,CENTRALPLAST,INTEGRITYFUS,JMMFGCOINC,		CAPBI-8IPS-17, R-CAPS-R17-08.00, 10004182, 515863000022
110	50057555	50057555	OH/KT	2		ELBOW,PIPE, 4" IPS, BUTT FUSION, 90 DEG, PE 2406 (2708), ASTM D2513, 80 LB, SDR 11/11.5, YELLOW CSA, IAPMO STD PKG/10			CENTRALPLAST,CHEVRONPHILL,PERFORMANPIP,PHILLIPSDRIS,PLEXCO,		6911423, 65M040110L90DY, 1005275, 361821
111	1552334	1552334	OH/KT	2		ELBOW,PIPE, 4", BUTT FUSION, 45 DEG, HDPE, ASTM D2513 & D3261, PE4710 PE3408, SDR 9.3 WALL			DRISCOPIEDI,		1552334
112	50092949	50092949	OH/KT	3		ADAPTER,PIPE, 4" IPS, BUTT FUSION, FLG, SDR 11.5, PE 2406 / COATED STL, ASTM D2513, ASTM D1598, ASTM F1973, ANSI B1.20.1, ANSI B31.8, FITTING, TRANSITION, IPS, GR B STL W/ 150 LB FLG END			CENTRALPLAST,CHEVRONPHILL,MCJUNKIN CORP,PHILLIPSDRIS,RWLYALLCO,		650040430000, 650040110TRFLY, 61424854, 1010918, 650-040110TRCPY, 14450450 0900
113	50057407	50057407	5 STATE	3		COUPLING,PIPE, 4" IPS, ELECTROFUSION, PE 4710, ASTM D2513, F1055, ELECTROFUSION X ELECTROFUSION, 4.7 MM PINS, MUST INCLUDE BAR CODE IDENTIFICATION			CENTRALPLAST, MTDEASONCOIN,		5756008, TRI0140,
114	50122921	50122921	OH/KT	3		CAP,PIPE, 4" IPS, ELECTRO FUSION, MOLDED PE 3408 (PE 4710), ASTM D2513/ASTM F1055, MOLDED PE 100/PE 2406/PE 3408			MTDEASONCOIN,	4IN IPS EF END CAP	TRI0510
115	1520775	1520775	OH/KT	3		CAP,PIPE, 4" NPS X 0.203 W.T., MECHANICAL, STL, ASTM A105 GR B, 4.50" OD, 1" NPT PLUG, 5" MIDDLE RING, EPOXY COATED, ALLOY, HARDWARE, SBR GASKET, GEN II EZ LINE RESTRAINED VENTED LINE			SMITHBLAIRIN,		EZB48VUMG
116	50126825	50126825	OH/KT	32		FITTING, PURGE & EQUALIZATION, 2", CS, FLAT BOTTOM, THD CAP W/ INTERNAL THD COMPLETION PLUG, MIN 720 PSI RATED			MTDEASONCOIN,TDWILLIAMSON,WELDFIT ENER,		0200-1480-P&E-0000, PE-02-3000-3336, TR-0000-0001-00

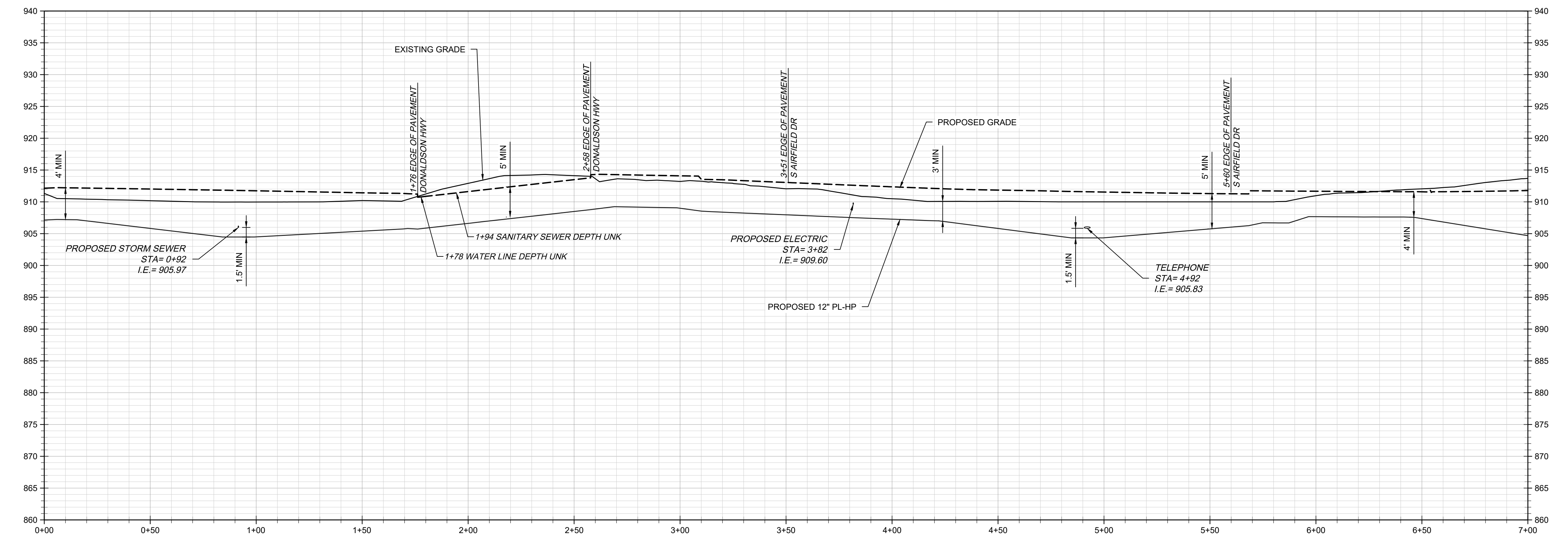
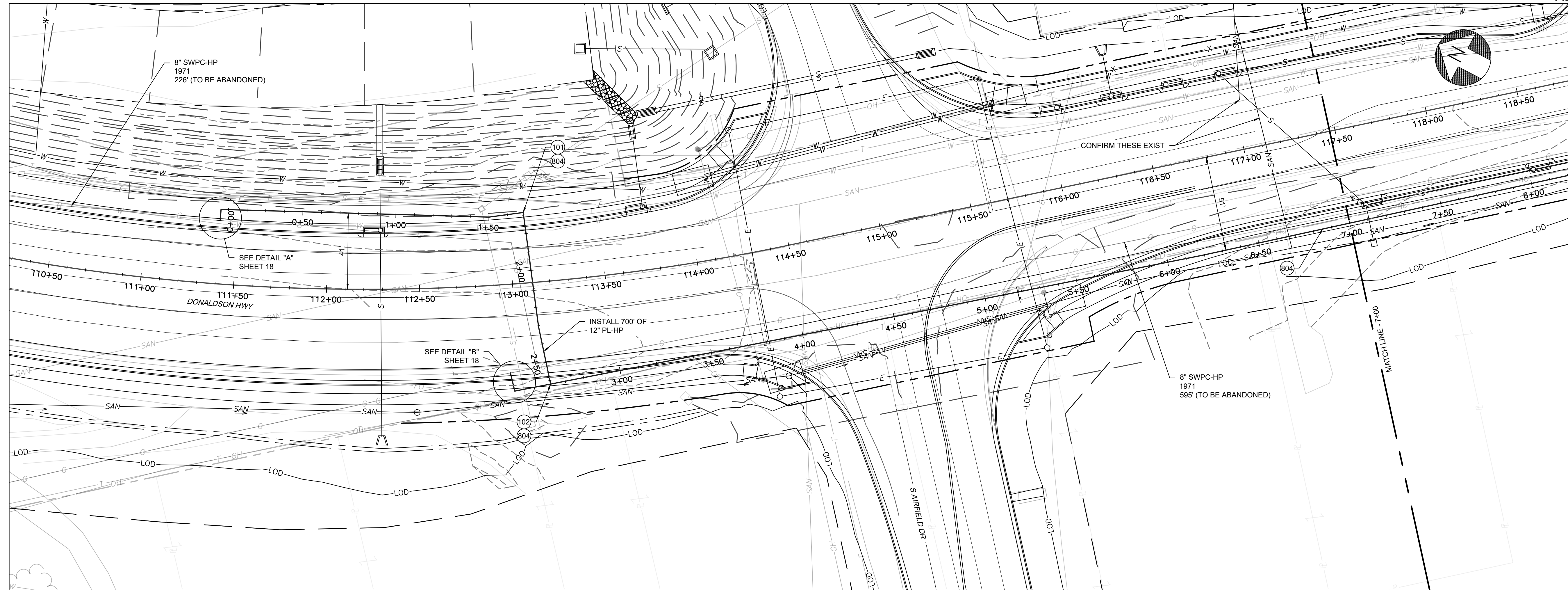
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BOONE/KENTON	6-444.00	U52

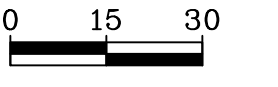
BOM #	Maximo Part #	Legacy Part #	Source System	Qty	Retired?	Description	Ordering Instructions	Ordering Specifications	Manuf	Model	Manuf Part #
FITTINGS (BOM# 100-199)											
118	50125317	50125317	OH/KT	1		ELBOW,PIPE, 2" IPS, ELECTRO FUSION, 45 DEG, MOLDED PE 3408 (4710), ASTM D2513, 64 LB			MTDEASONCOIN,		TRIO420
119	50057409	13382	5 STATE	1		COUPLING,PIPE, 2" IPS, ELECTROFUSION, PE 4710, ASTM D2513, F1055, ELECTROFUSION X ELECTROFUSION, 4.0 MM PINS, MUST INCLUDE BARCODE IDENTIFICATION			KEROTESTMFG,		89000200
120	50057346	50057346	OH/KT	1		CAP,PIPE, 2" IPS, BUTT FUSION, 80 LB, SDR 11, YELLOW CSA PE 2406 (PE 2708), ASTM D2513, 80 LB, SDR 11, STD PKG/10			CENTRALPLAST,CHEVRONPHILL,JMMFGCOINC,PERFORMANPIP,PLEXCO,		515238000081, 691022200000, 1005239, 65MO20110CPSTY,; 329602
121	50122918	50122918	OH/KT	1		CAP,PIPE, 2" IPS, ELECTRO FUSION, MOLDED PE 3408 (PE 4710), ASTM D2513/ASTM F1055, GR PE2406/PE 3408/PE100			MTDEASONCOIN,	2IN EF END CAP	TRIO500
122	1520771	1520771	OH/KT	1		CAP,PIPE, 2" NPS X 0.156 W.T., MECHANICAL, STL, GR B, 2.38" OD, SHORT BODY, EZ LINE SEAL & RESTRAINT, ALLOY HARDWARE, SBR GASKET, 1", NPT PLUG			SMITHBLAIRIN,		EZB2VUMG
123	50092952	50092952	OH/KT	1		ADAPTER,PIPE, 2" IPS, BUTT FUSION, BEVELED, SDR 11, PE 2406 / COATED STL, ASTM D2513, ASTM D1598, ASTM F1973, ANSI B1.20.1, ANSI B31.8, GR B, FITTING, TRANSITION, STL OUTLET W/ BEVELED END STD			CENTRALPLAST,CHEVRONPHILL,MCJUNKINCORP,PHILLIPSDRIS,RWLYALLCO,		6500829, 65020230, SAE 6500910, 650020110TRFLY, 61424850, 1007519, 14238238 0800
124	50131803	50131803	OH/KT	9		REDUCER,PIPE, CONCENTRIC, 12" IPS X 8" IPS, BUTT FUSION, 64 LB, SDR 17, BLACK MOLDED PE 4710, ASTM D2513			AGRUAMERICAI,CENTRALPLAST,INTEGRITY FUS,JMMFGCOINC,	JM EAGLE	REDBI-12X8IPS-17, R-REDU-R17-12X08, TBD, 514275863022
125	1458380	1458380	OH/KT	4		REDUCER,PIPE, CONCENTRIC, 8" IPS X 6" IPS, BUTT FUSION, PE 4710, ASTM D2513, 64 PSIG, HDPE, ASTM PE4710, 6" IPS DR 13.5 X 8" IPS DR 17, PER			CENTRALPLAST,		10010386, 10010692
126	50133006	50133006	OH/KT	1		REDUCER,PIPE, CONCENTRIC, 6" IPS X 4" IPS, ELECTROFUSION, PE 3408 / PE 4710, ASTM D2513			MTDEASONCOIN,		TRI 0230
127	50133005	50133005	OH/KT	4		REDUCER,PIPE, CONCENTRIC, 4" IPS X 2" IPS, ELECTROFUSION, PE 3408 / PE 4710, ASTM D2513			MTDEASONCOIN,		TRI 0220
VALVES (including ROV's and ACTUATORS) (BOM# 300-399)											
300	50132196	50132196	OH/KT	4		VALVE,BALL, 12" IPS, 2-WAY, SDR 17, 64 LB, FULL PORT, 140 DEG F, BUTT FUSION, GEAR OPERATED, PE 4710 BODY, BUNA-N SEAL, 11.38" ID, 2" SQ NUT GEAR OPERATED, FULL PORT STD PKG/1 BF SDR 17 PE4710 ENDS, NO BY-PASS			FLOWSERVECOR		12" - 89117
301	50132191	50132191	OH/KT	7		VALVE,BALL, 8" IPS, 2-WAY, SDR 17, 64 LB, FULL PORT, 140 DEG F, BUTT FUSION, MANUALLY OPERATED, PE 4710 BODY, ELASTOMERIC BUNA-N SEAL, 2" SQ OPERATING NUT, 1/4 TURN FULL OPEN, 6.69" ID, SDR 17 PIPE ENDS, STD PKG/1 NOT USED			FLOWSERVECOR,KEROTESTMFG,MTDEASONCOIN,RWLYALLCO,		99058017, 8 - 89117, BMAXPE0800-17, BV0800M-MFNG-000
303	50057269	50057269	OH/KT	8		BOX, VALVE, 12-1/2" WD X 15-1/2" DP, CI			BINGHAMTAYLO,CHRISERHARTF,		I8B12X15CGE, I8B12X15G, FR60-52
304	50094846	50094846	OH/KT	8		BOX, VALVE, 8" FULL PORT, 29"-42" ADJUSTABLE, NO SUPPORT NEEDED, PE, 8" FULL PORT, 29" -42" ADJUSTABLE, NO SUPPORT NEEDED			BINGHAMTAYLO,HANDLEYINDUS,		P-5562-S-107, G6VNC3NP1AC, G6VNB3NP1AC
MISCELLANEOUS (BOM# 800-899)											
800	50057869	50057869	OH/KT	1		TEE,PIPE ADAPTER, 2" NPS X 2" NPS, INLET WELD X OUTLET THD RUN, BW BRANCH, CLASS 150, CS, ASME B16.11, ASTM A105, 3-WAY, COMPLETE, W/ CAP, COMPLETION PLUG AND O-RING STD PKG/1			BLACKHAWKIND,MTDEASONCOIN,TDWILLIAMSON,		0200-0285T-0000, 6511-1502-00, 26-0217, 26-0217-0000-00
801	50057872	17569	PNG	3		TEE,PIPE ADAPTER, 4" NPS X 4" NPS, INLET WELD X OUTLET FLG RUN, BW BRANCH, CLASS 150, CS, ASME B16.11, ASTM A105, SPHERICAL, 3-WAY(TYPE 11A, STD PKG/1			BLACKHAWKIND,MTDEASONCOIN,TDWILLIAMSON,		6523-1504-00, 0400-0285S-0000, 06-7223-0000-00, 26-0934-0000-00
802	50057874	17571	PNG	4		TEE,PIPE ADAPTER, 8" NPS X 8" NPS, INLET WELD X OUTLET FLG RUN, BW BRANCH, CLASS 150, CS, ASME B16.11, ASTM A105, SPHERICAL, 3-WAY(TYPE 11A, COMPLETE WITH COVER FLANGE, GASKET, NUTS ,CAP SCREWS, PLASTIC CAPPLUGS AND COMPLETION PLUG STD PKG/1			BLACKHAWKIND,MTDEASONCOIN,TDWILLIAMSON,		6523-1508-00, 0800-0285S-0000, 06-7225-0000-00
803	1552969	10490	PNG	24		ANODE, MAGNESIUM, 17 LB, HIGH POTENTIAL ANODE. WITH 10' LONG #12 TW SOLID COPPER WIRE, BLACK.			CORRPROCMPA,MESAPRODUCTS,		KMAG17, UNKNOWN
804	50057325	50057325	OH/KT	38		BOX, 4" DIA X 18" LG, PLASTIC, WHITE, FLARED BOTTOM, CI RIM / COLLAR, YELLOW CI LOCKING LID, MARKED "TEST STATION", 50/PALLET, CATHODIC TERMINAL TEST, WHITE, FLARED BOTTOM, CI RIM / COLLAR, YELLOW CI, LOCKING LID, MARKED "TEST STATION", 50/PALLET			BINGHAMTAYLO,HANDLEYINDUS,		P202CNG, P445DT, P4BHLWTS18, T2IS3A81, T46

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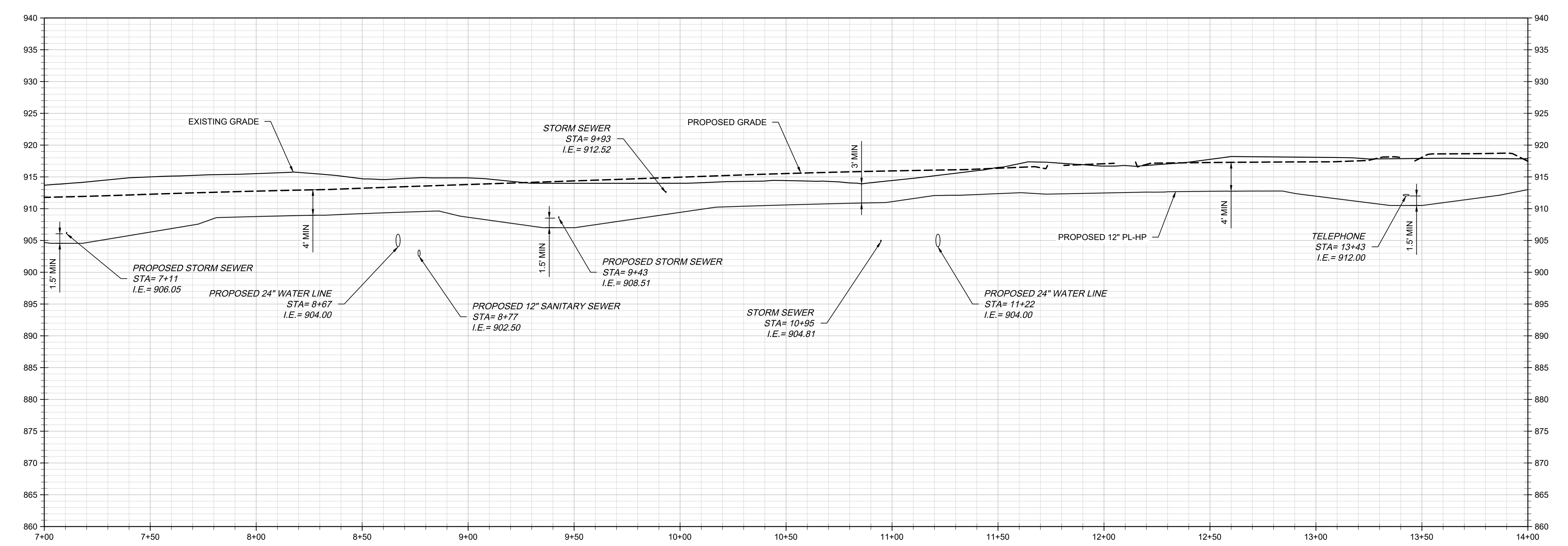
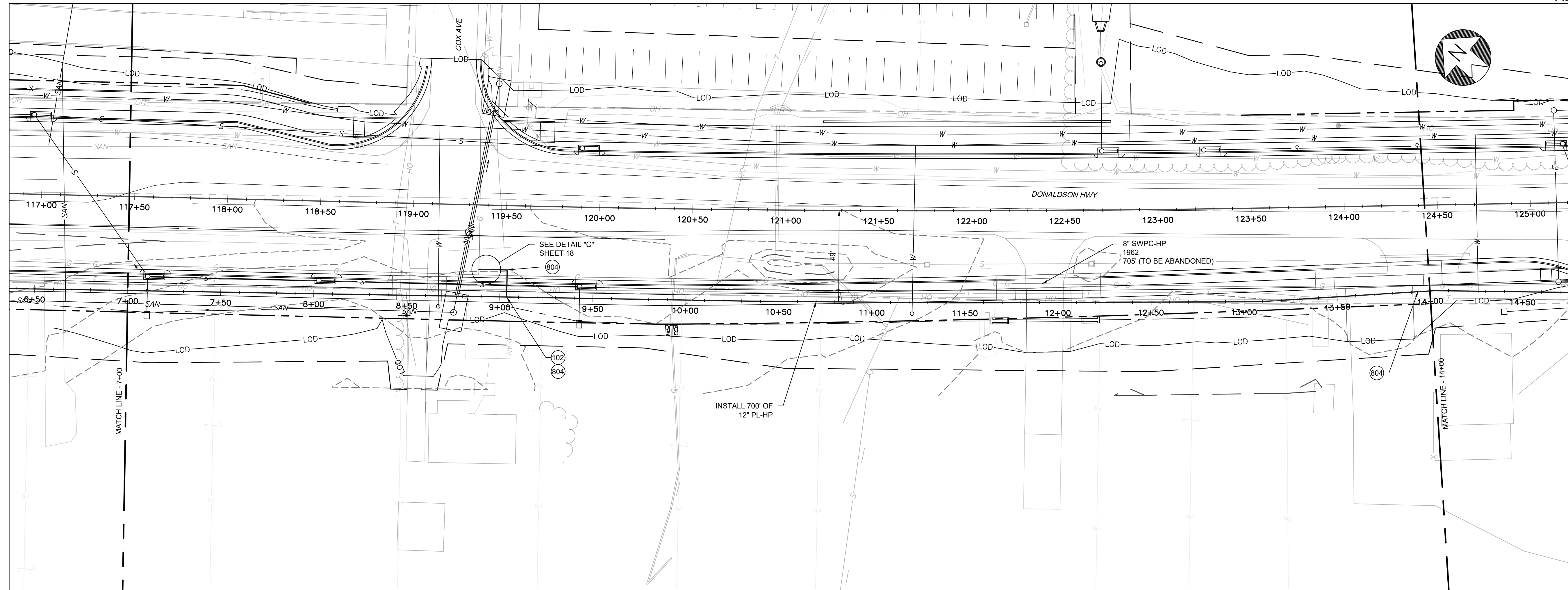


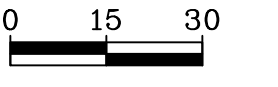
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U54



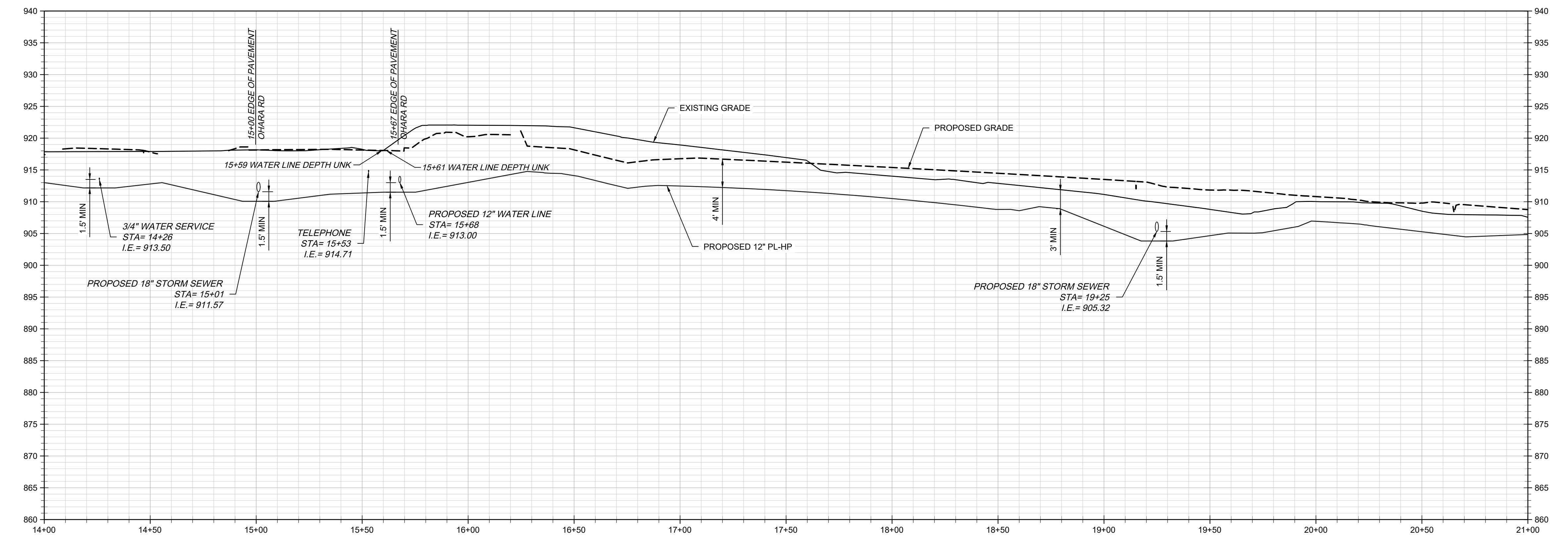
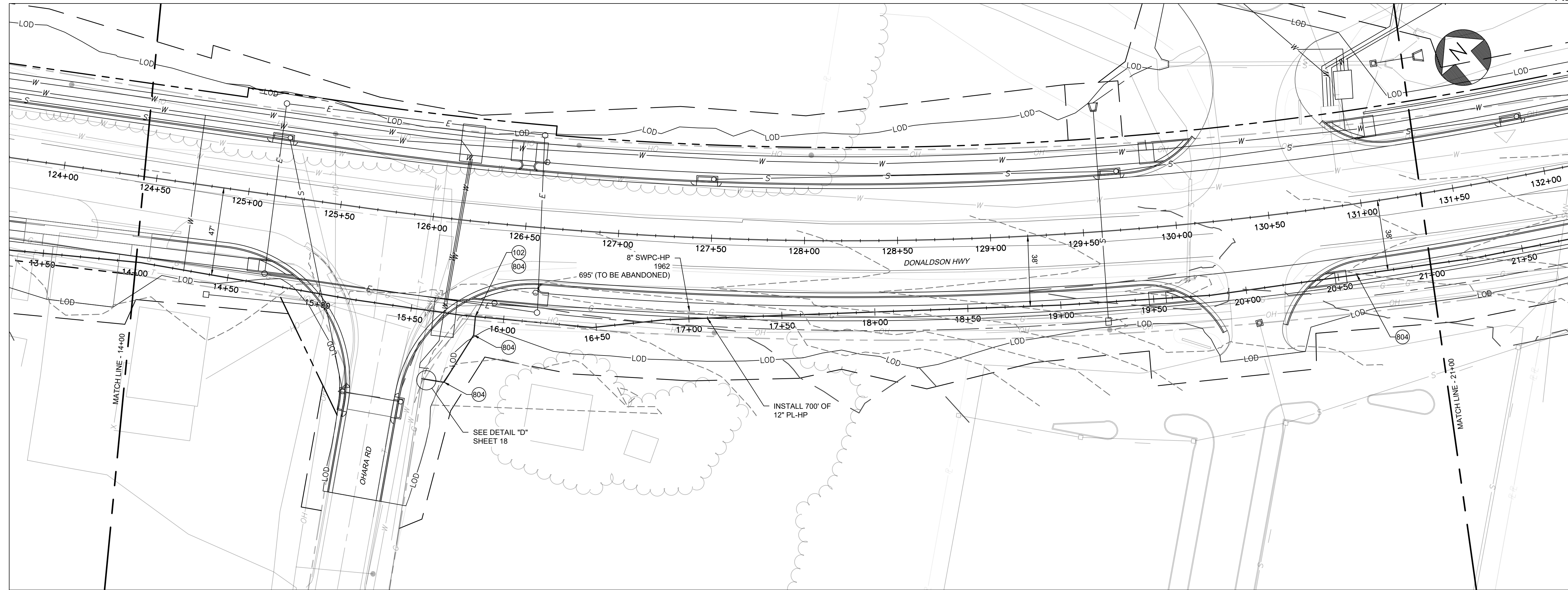


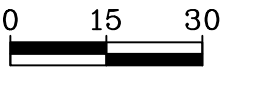
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U55



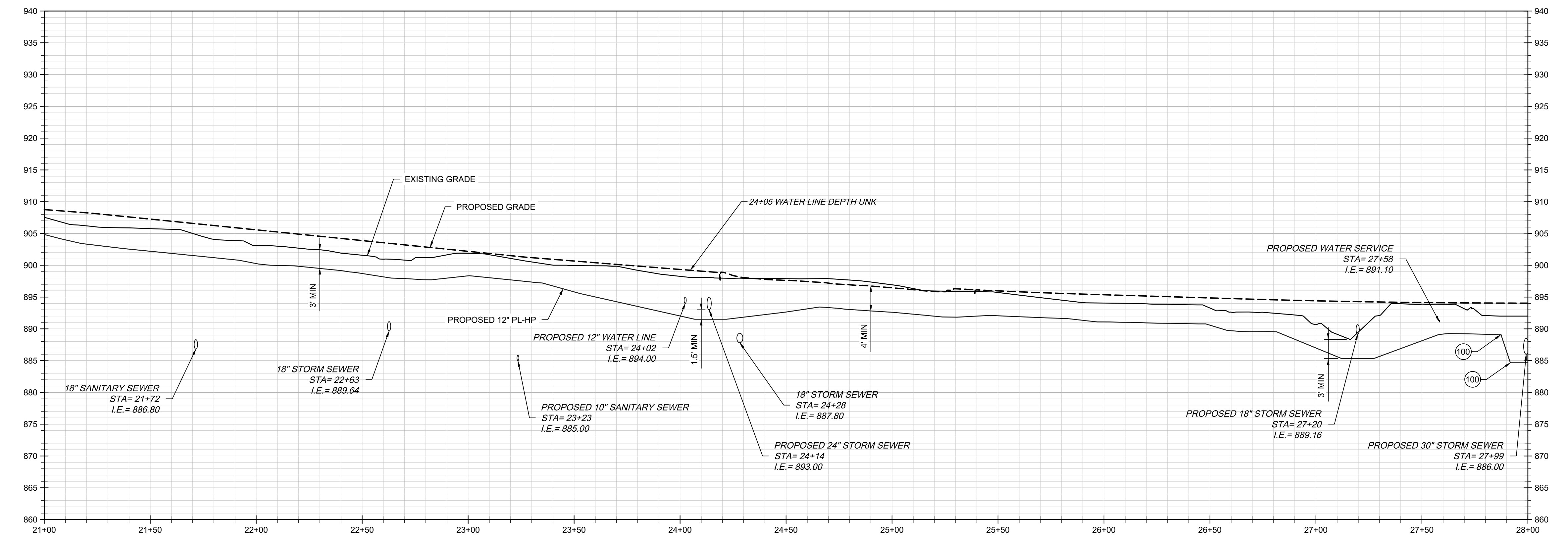
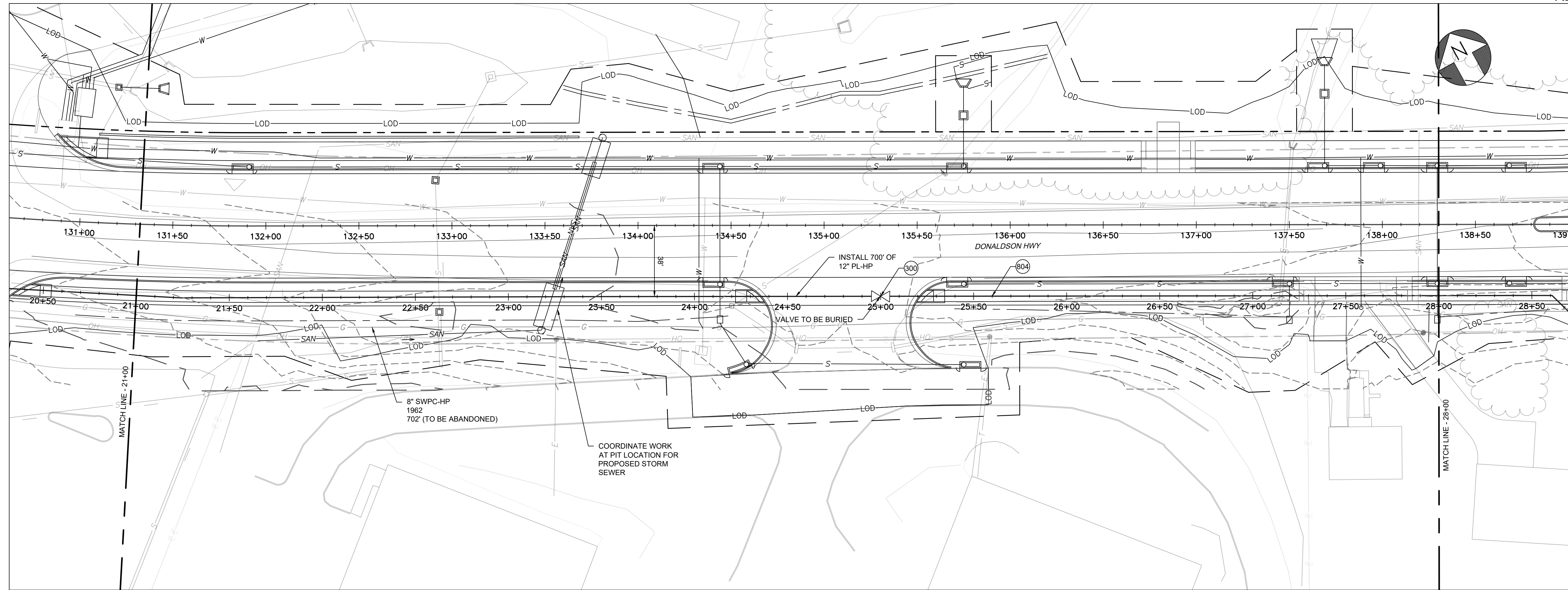


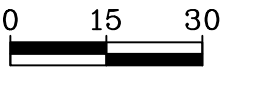
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U56



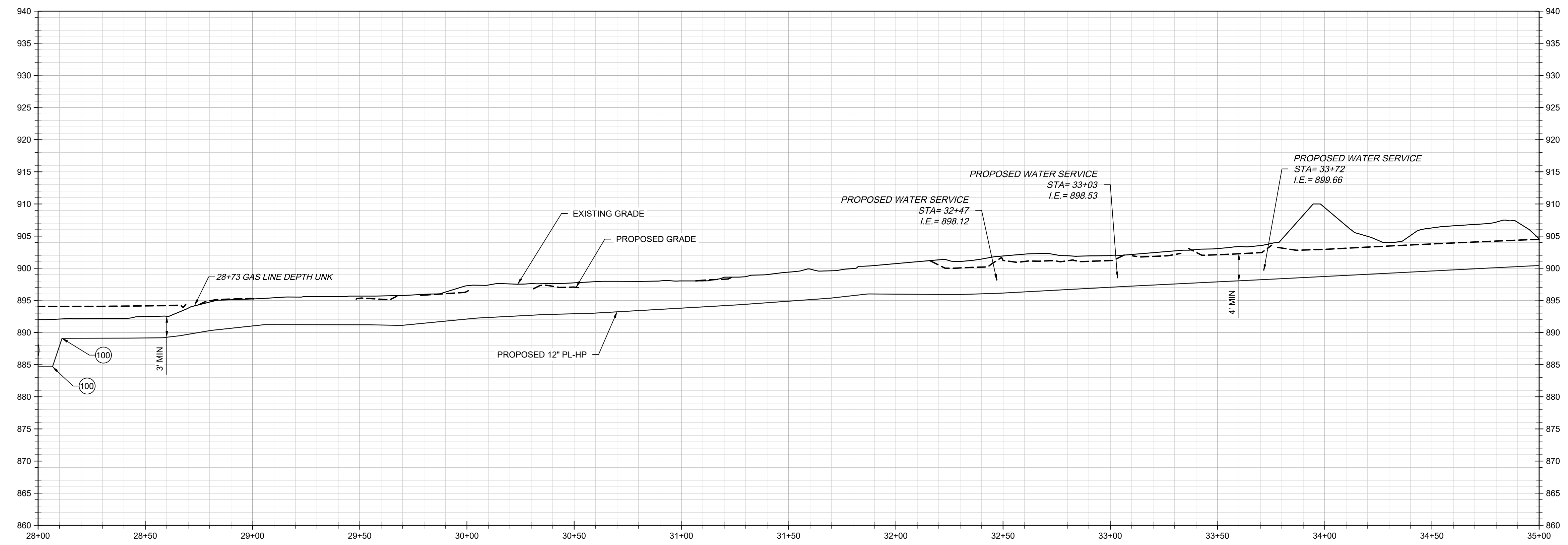
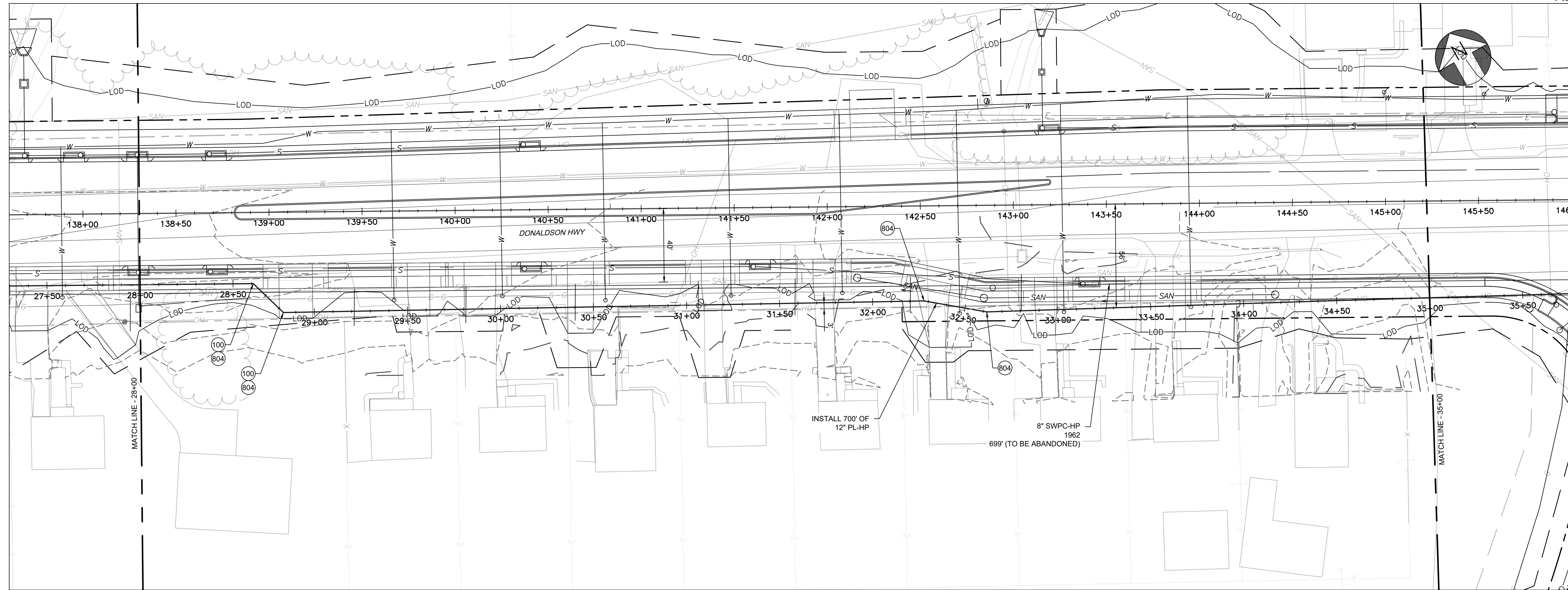


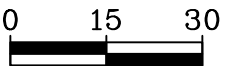
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BOONE/KENTON	6-444.00	U57



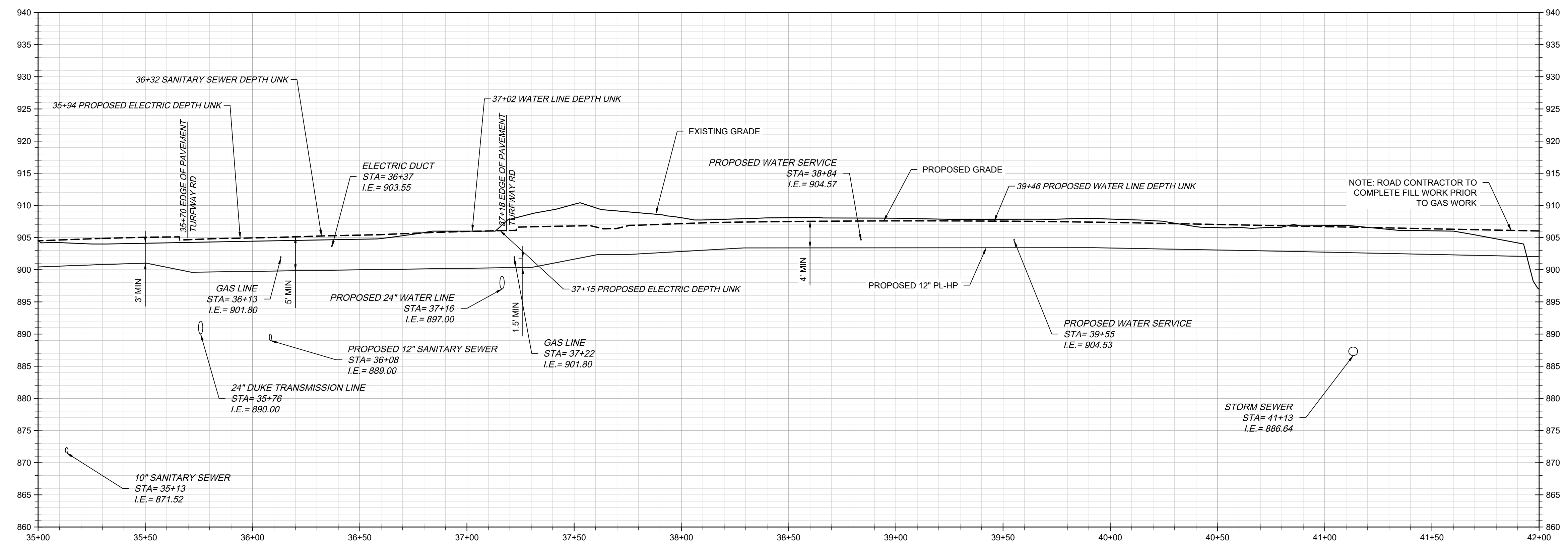
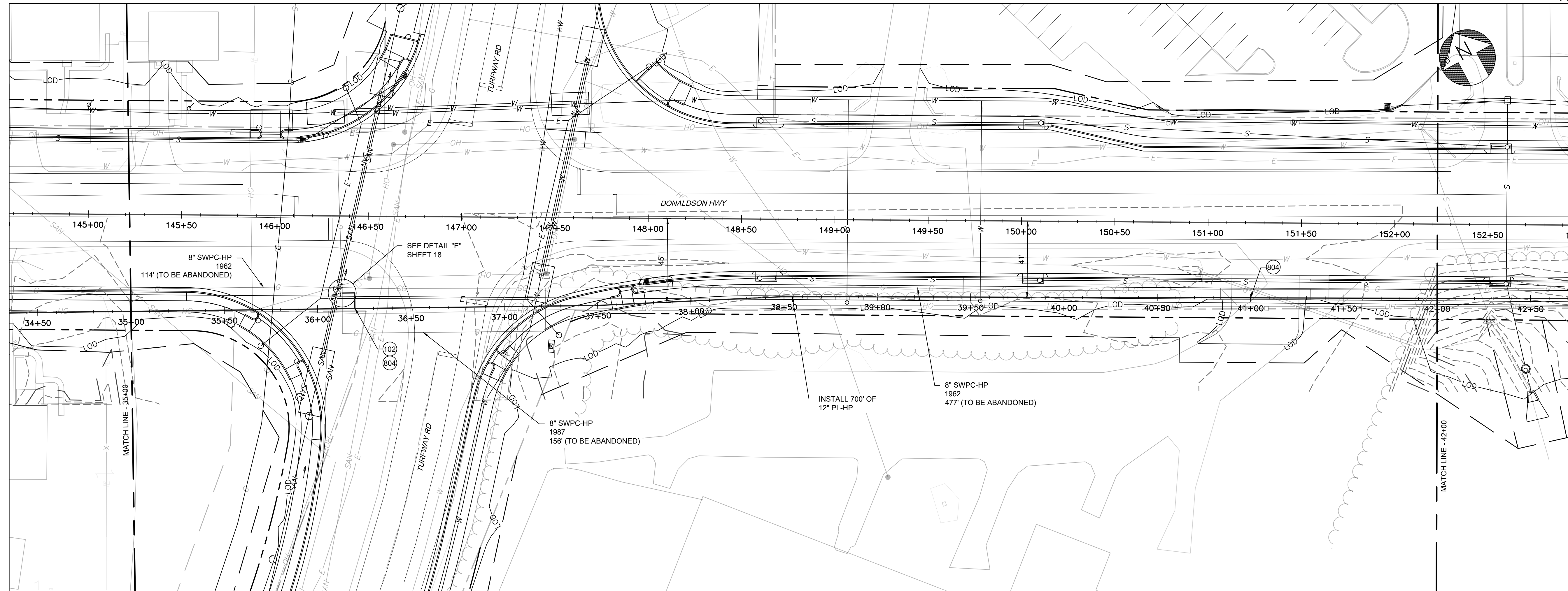


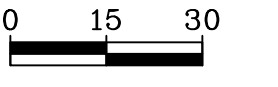
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U58



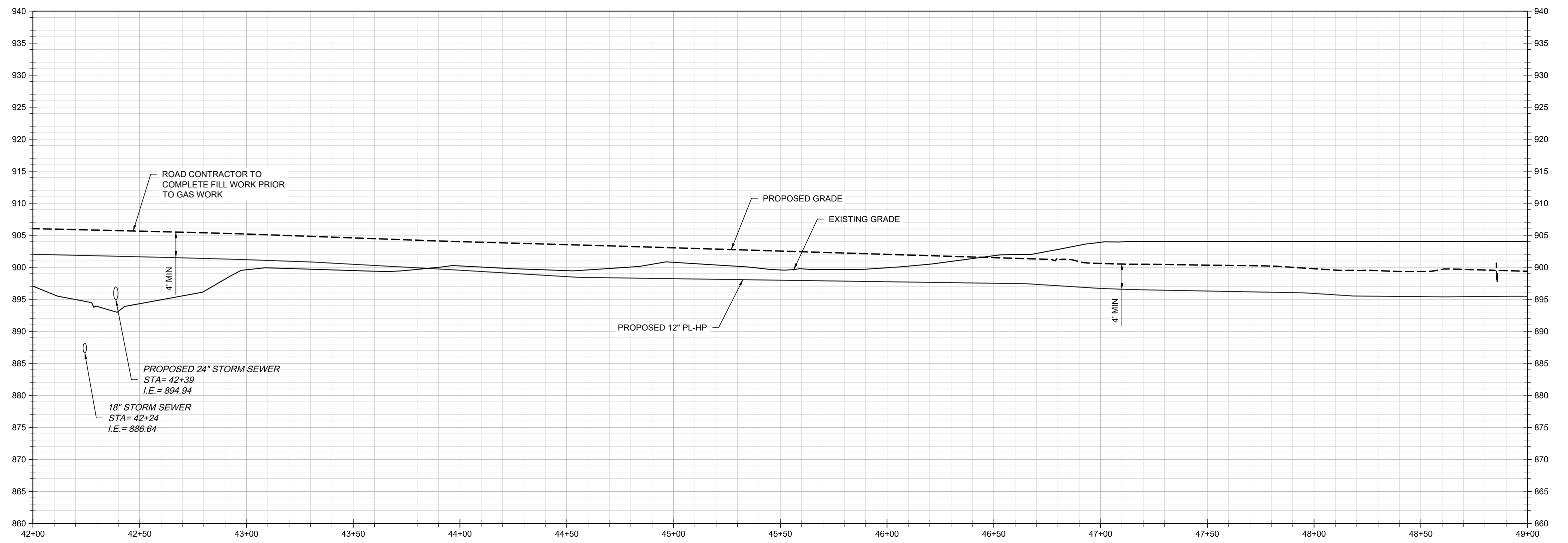
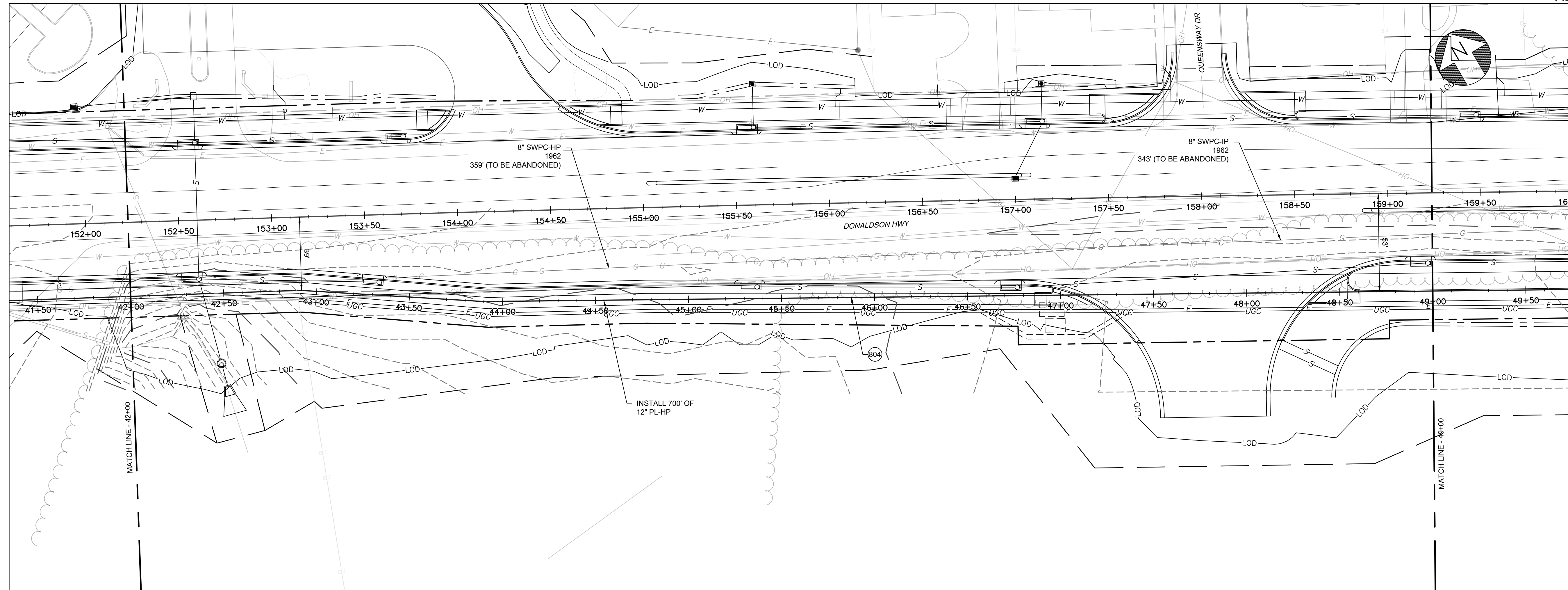


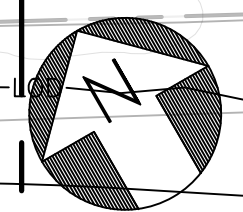
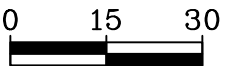
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U59



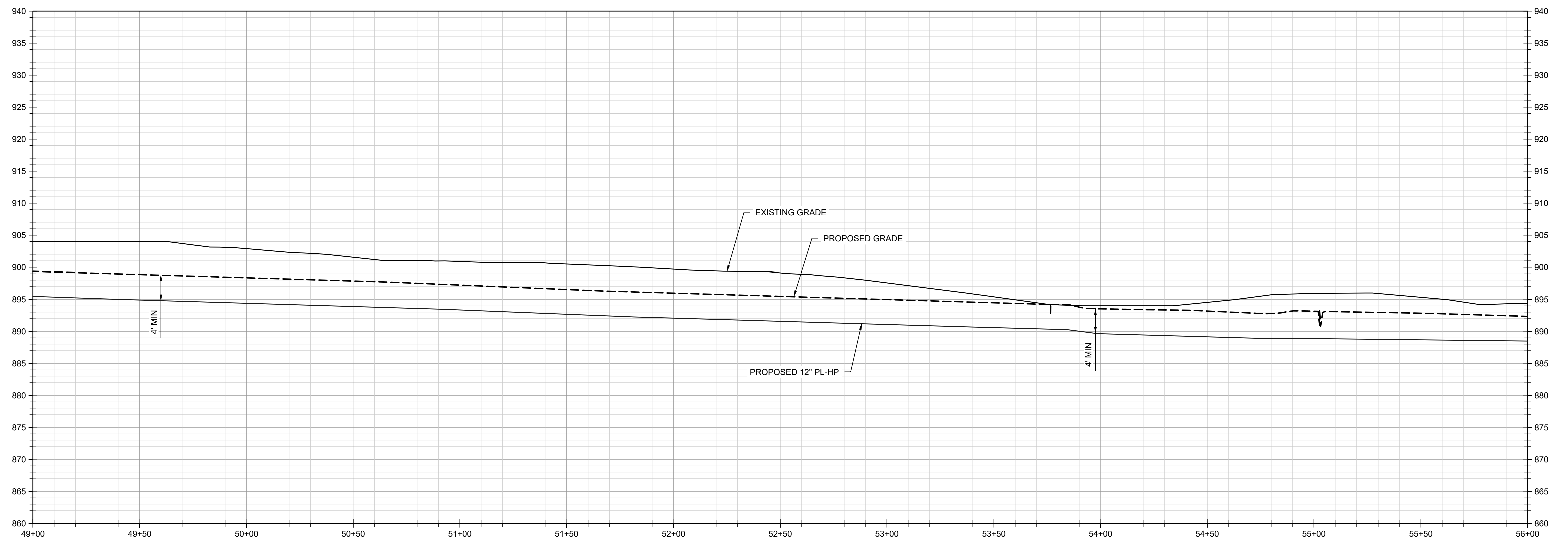
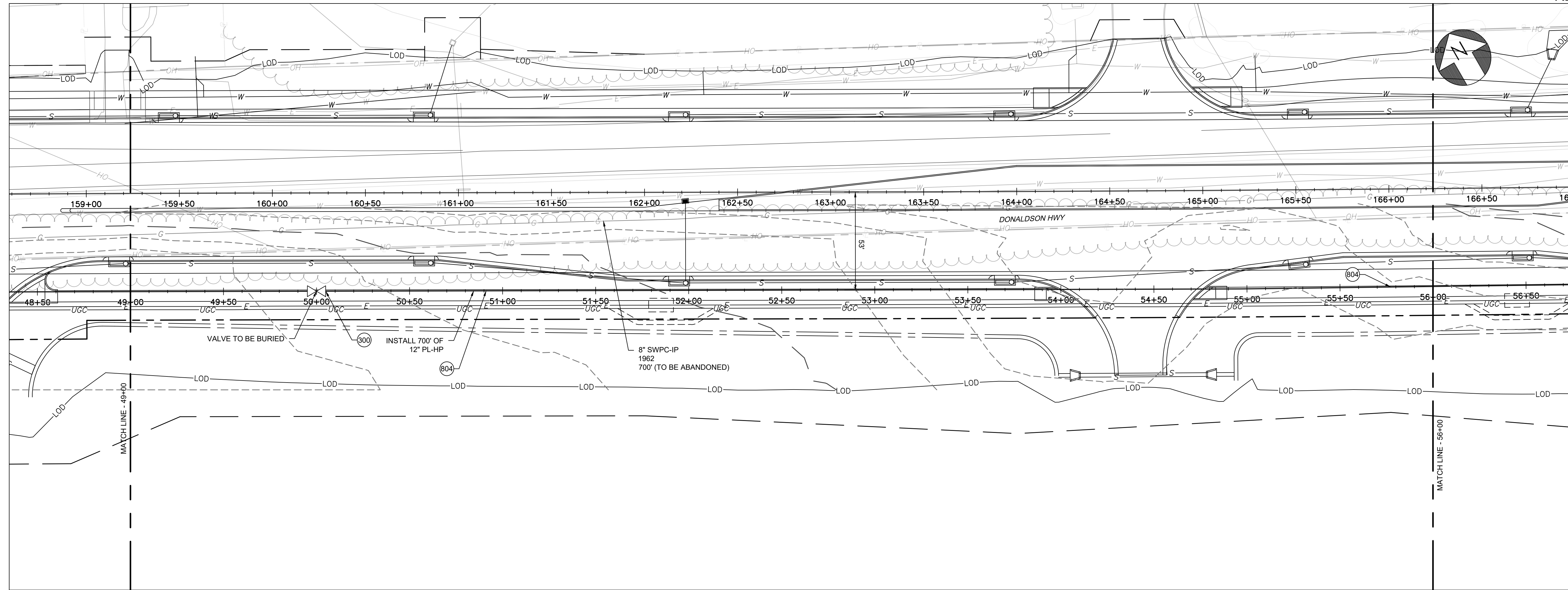


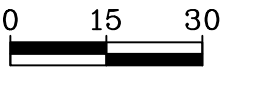
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U60



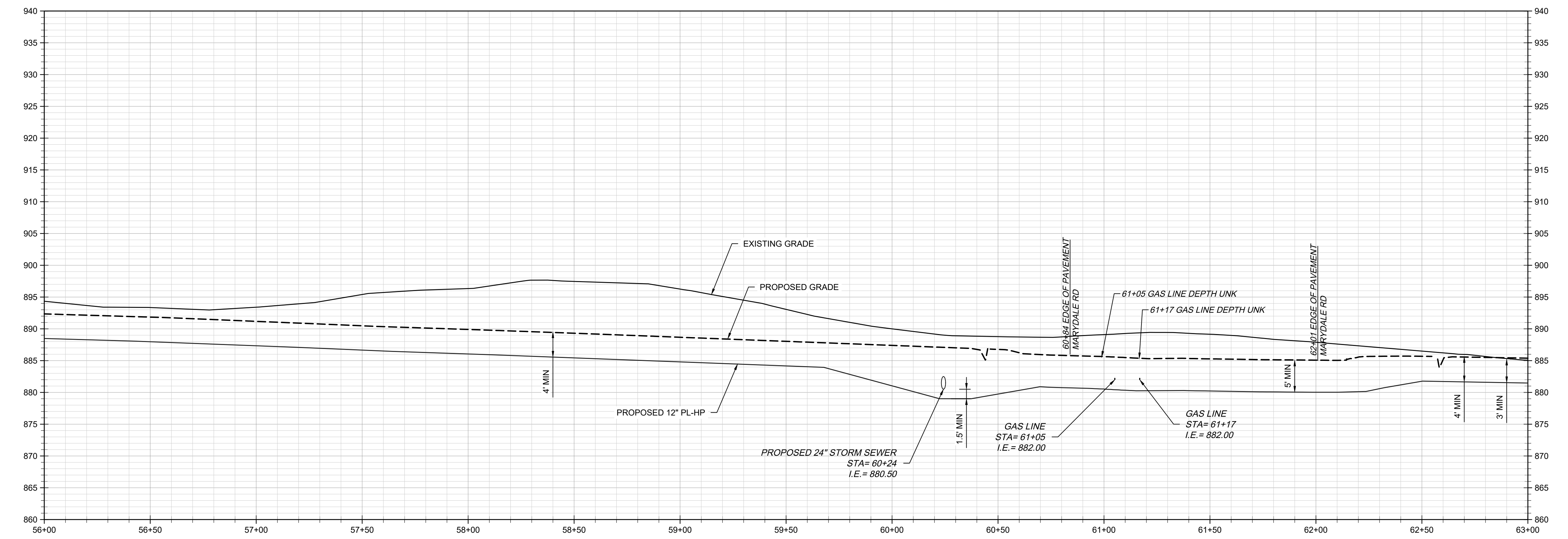
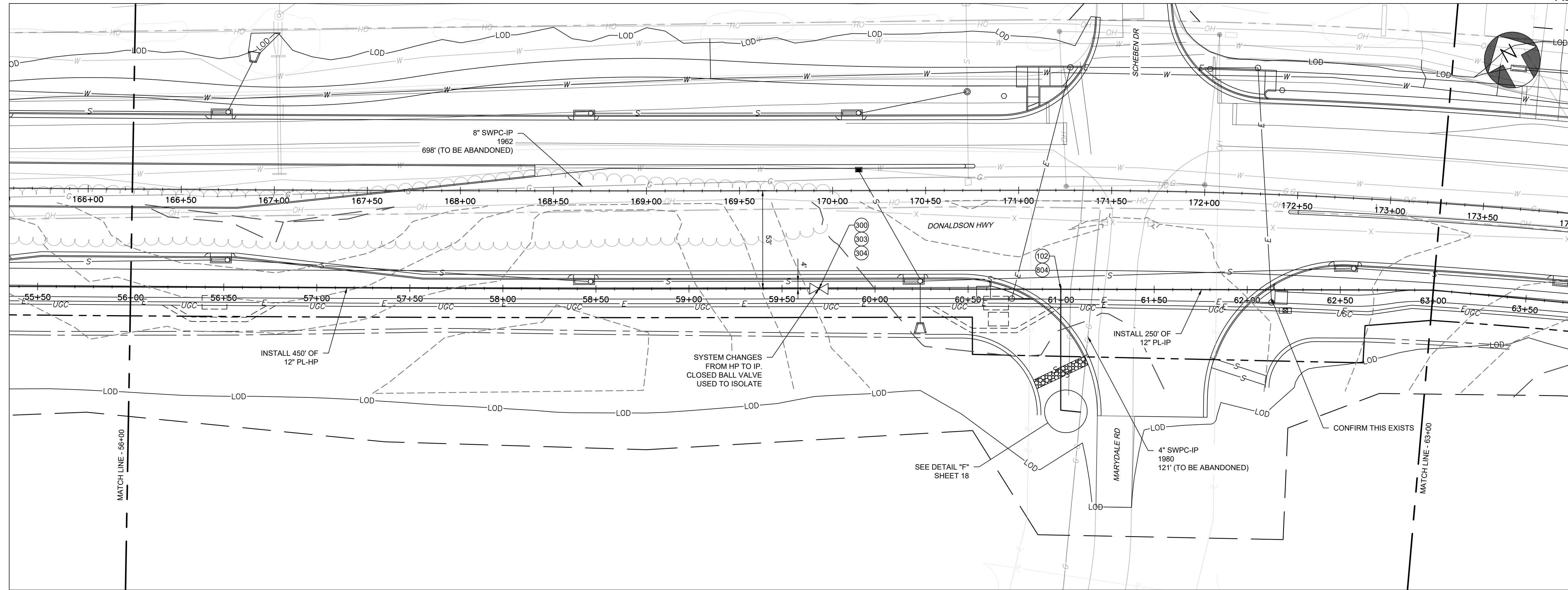


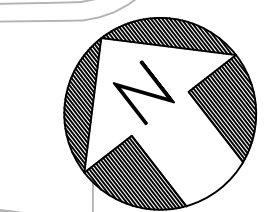
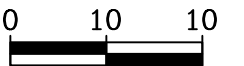
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U61



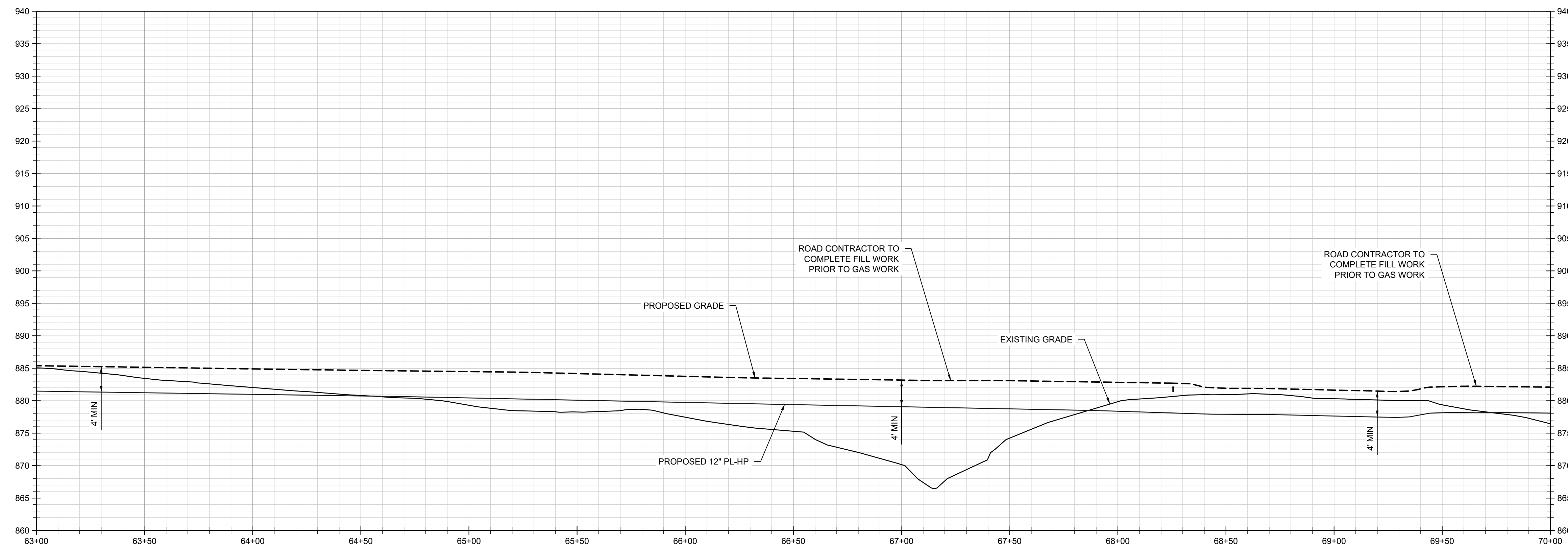
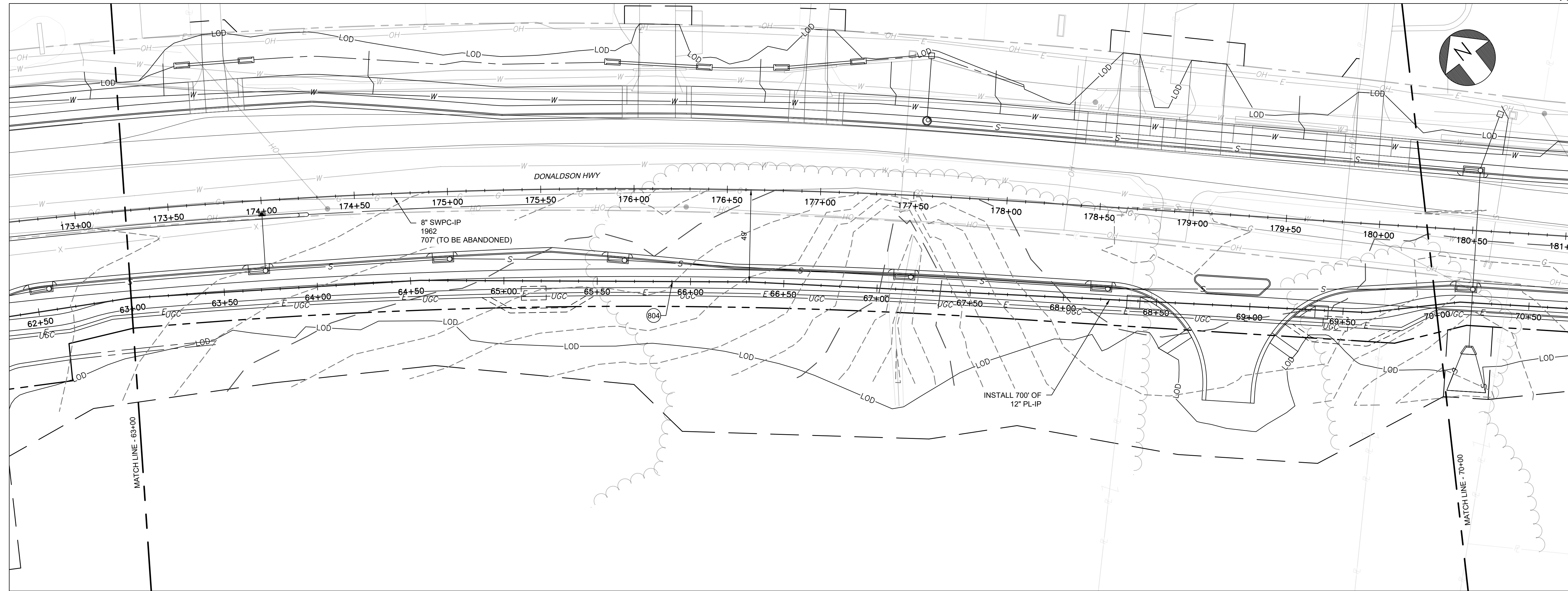


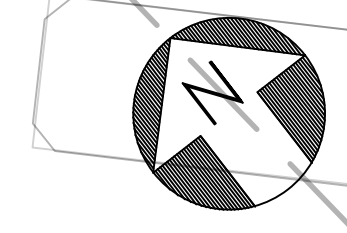
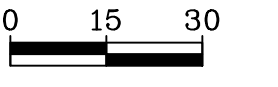
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BOONE/KENTON	6-444.00	U62



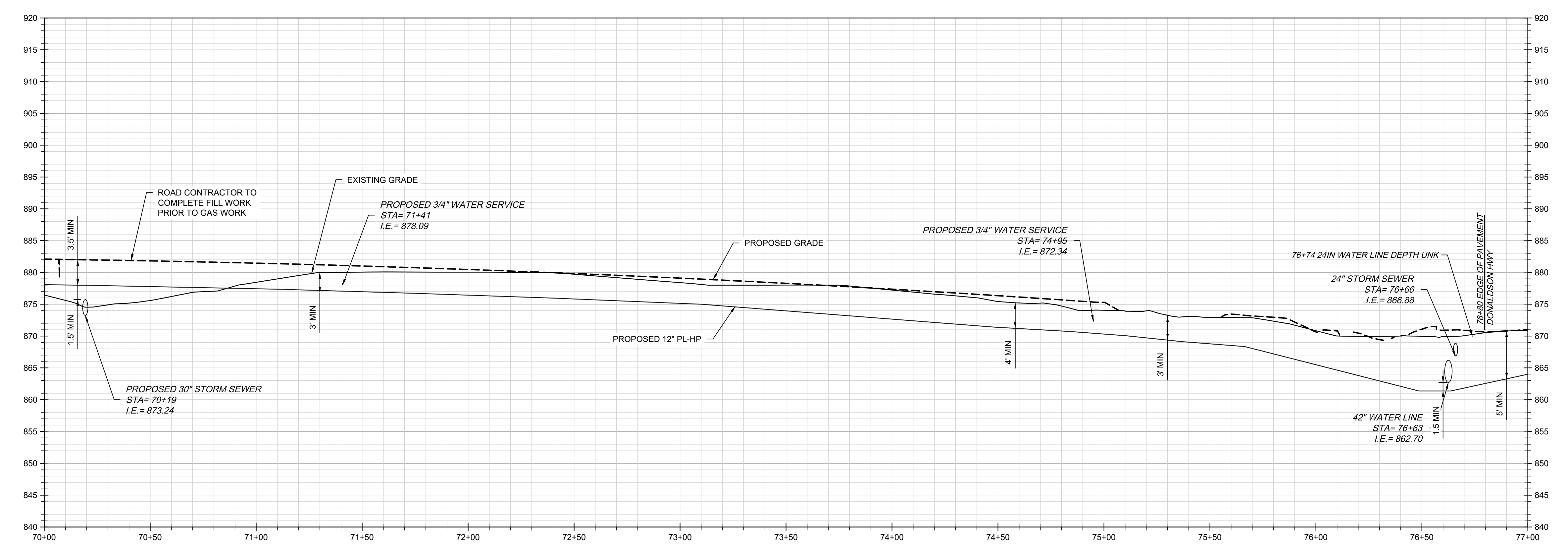
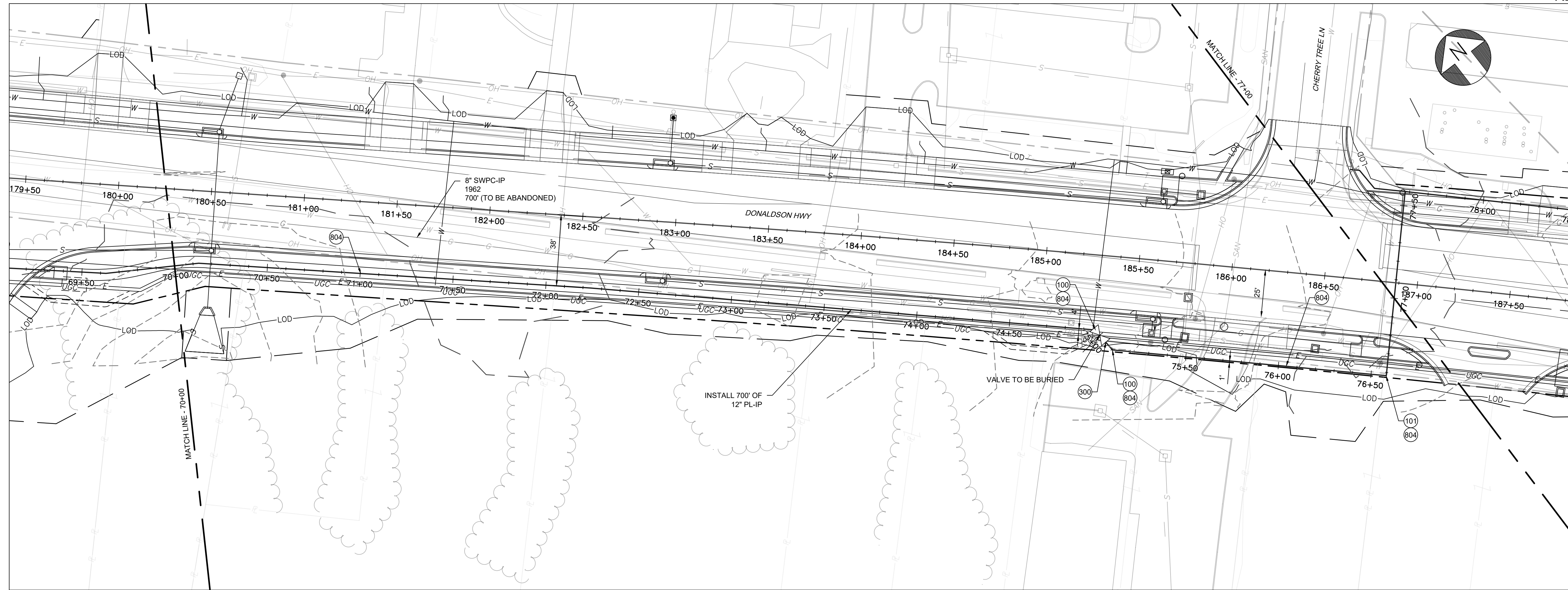


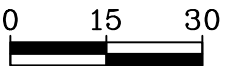
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U63



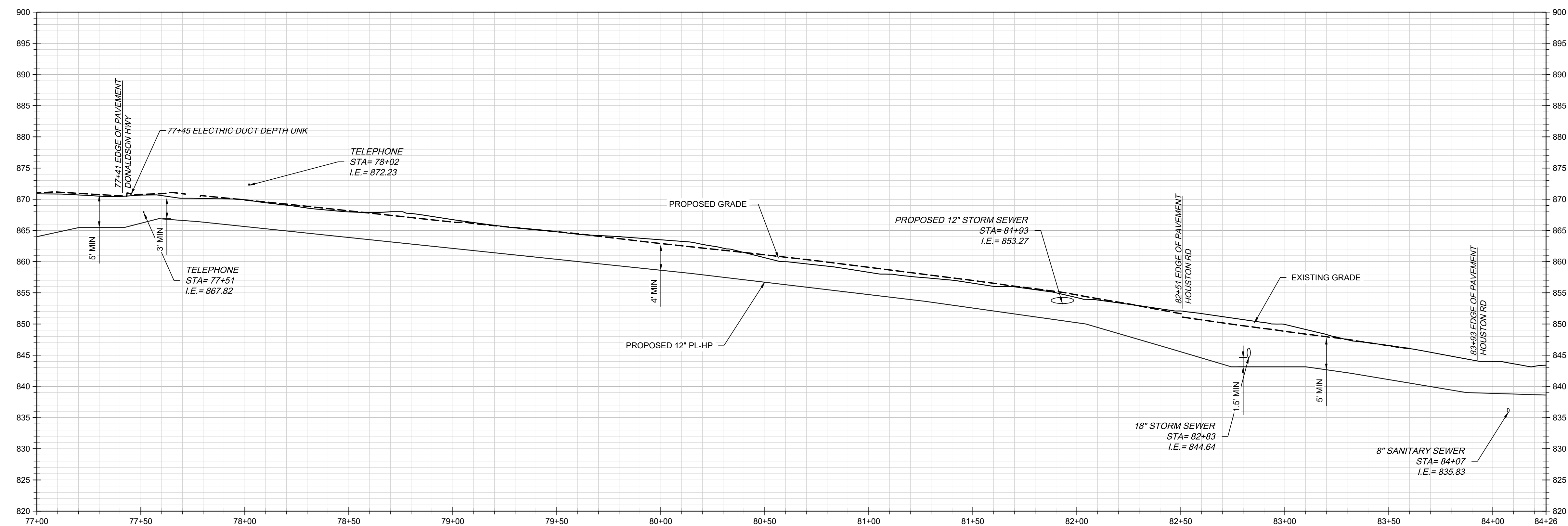
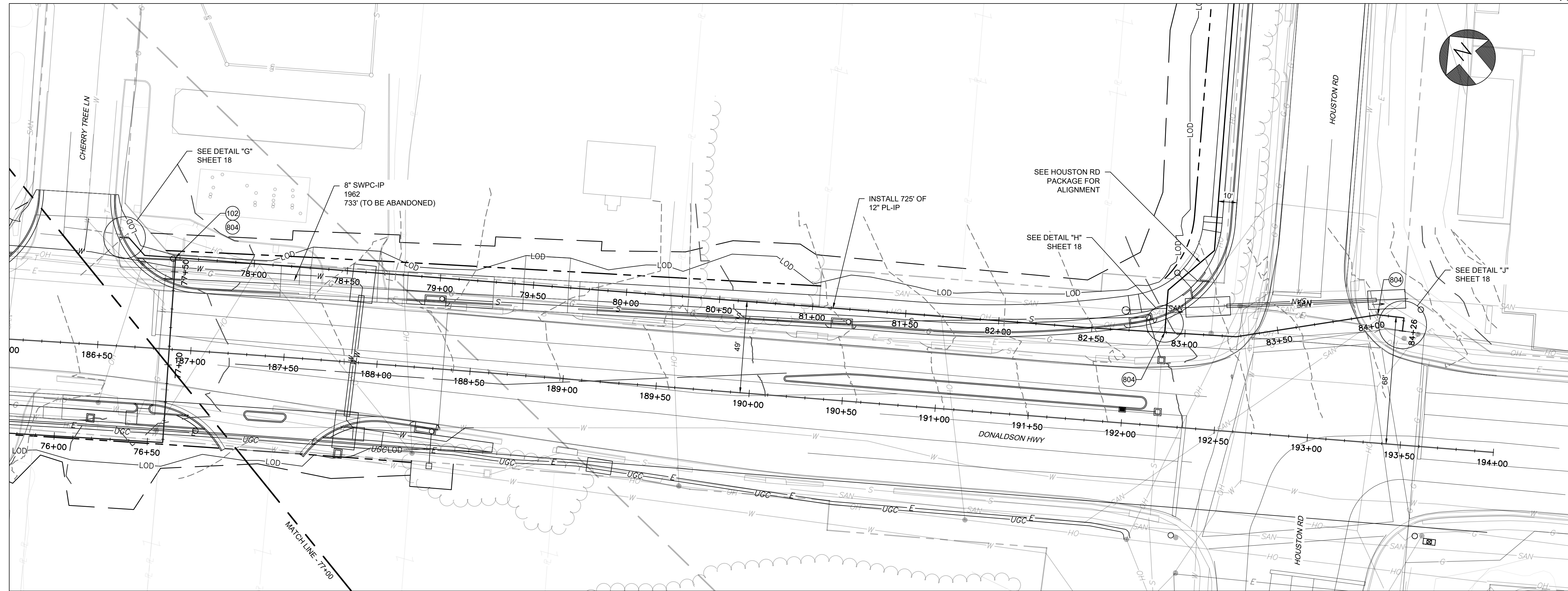


COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U64



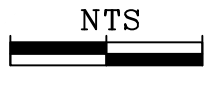


COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U65

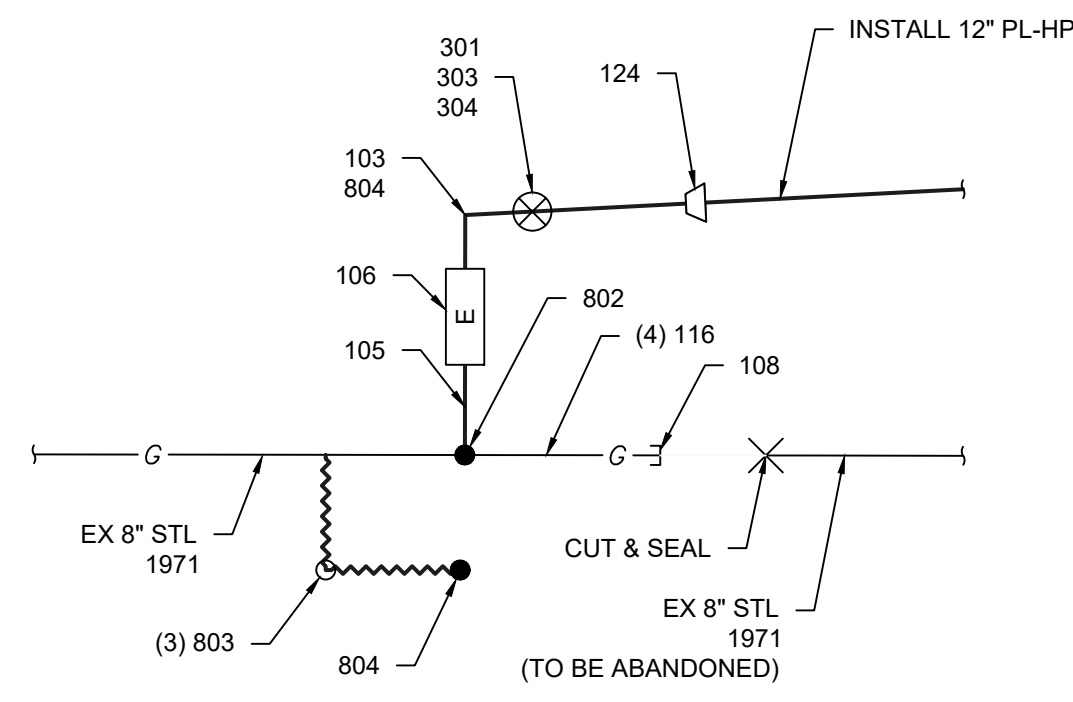


OCTOBER 31, 2022

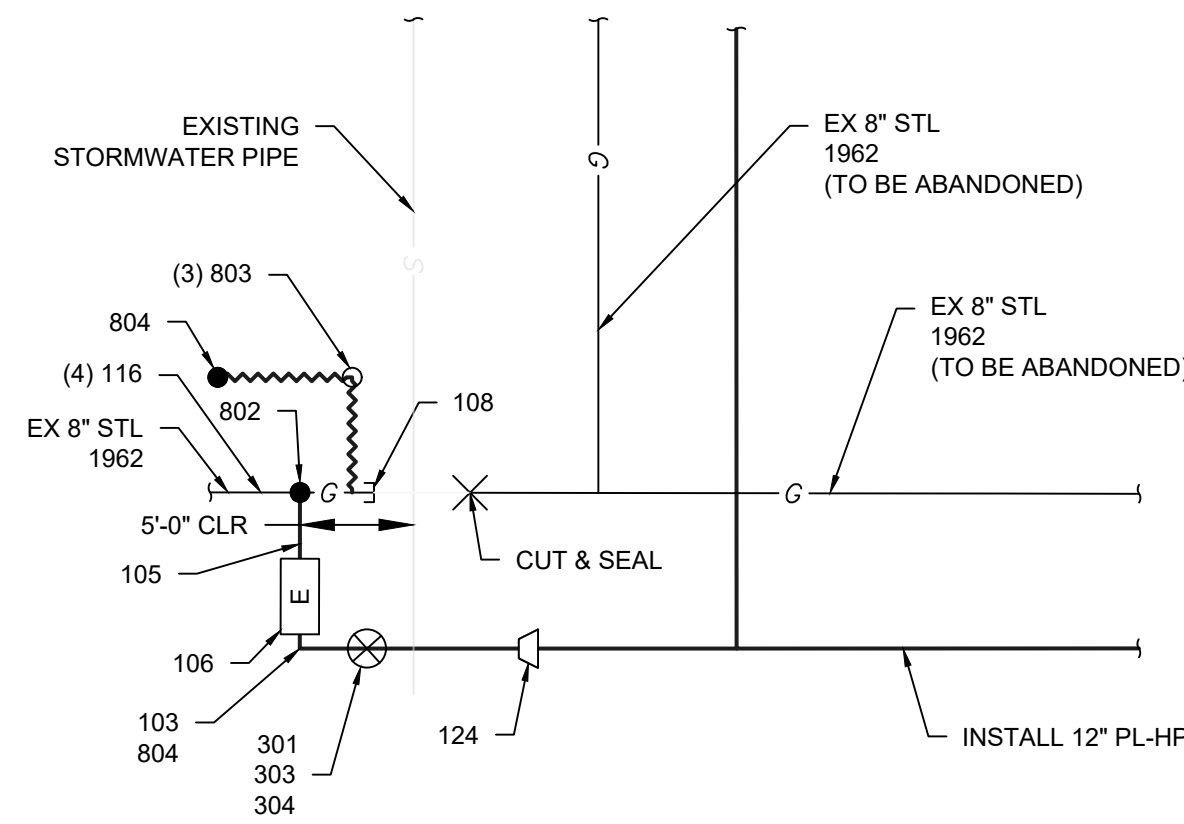
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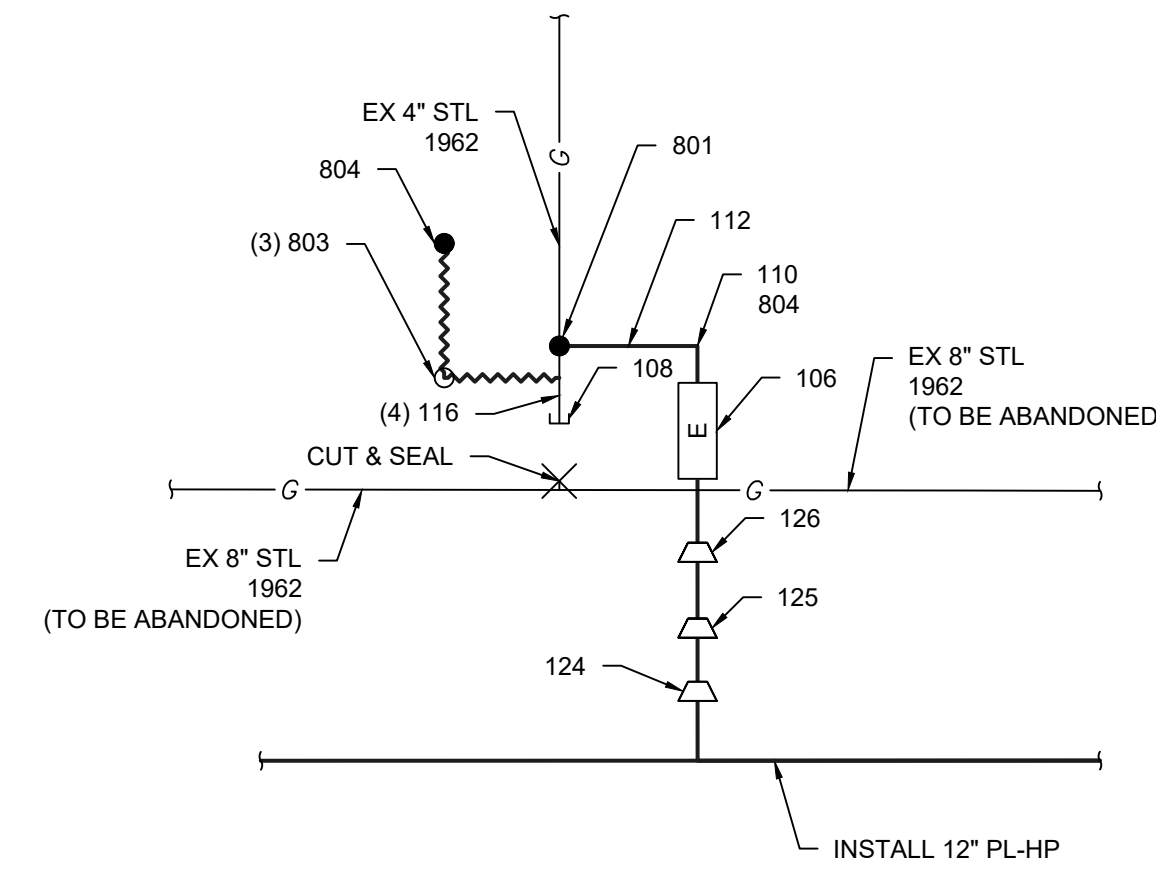
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U66



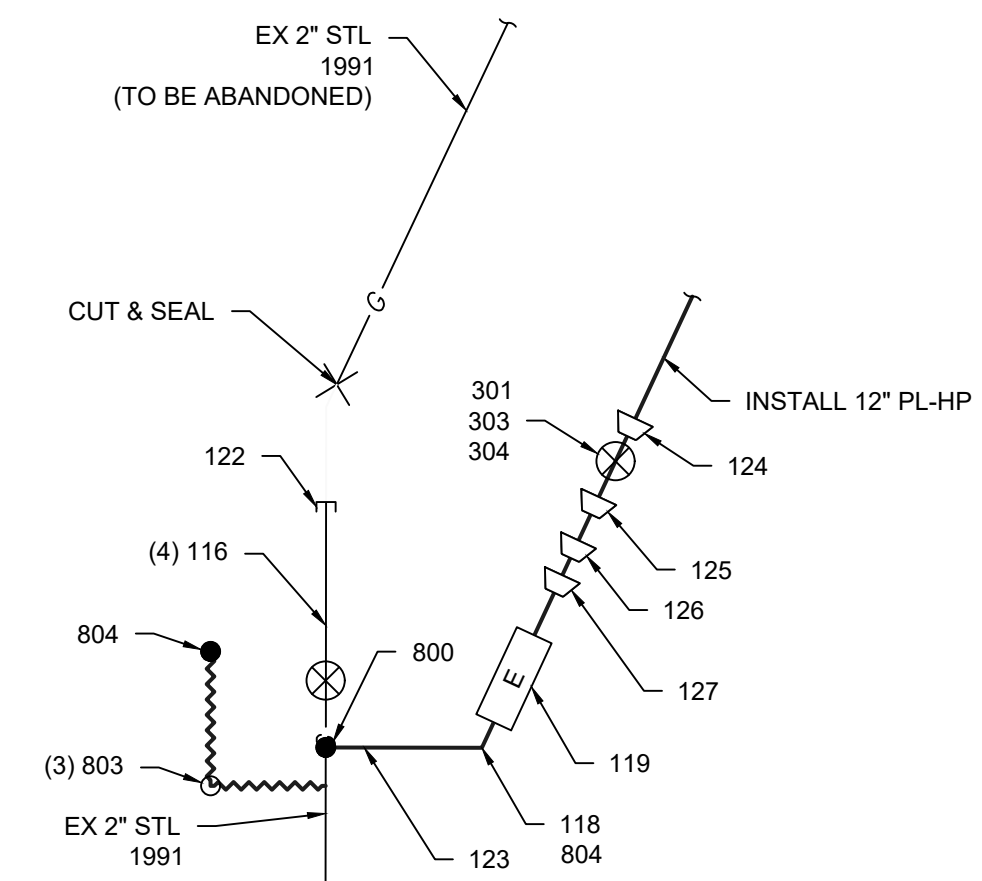
DETAIL A
SCALE: NTS
6



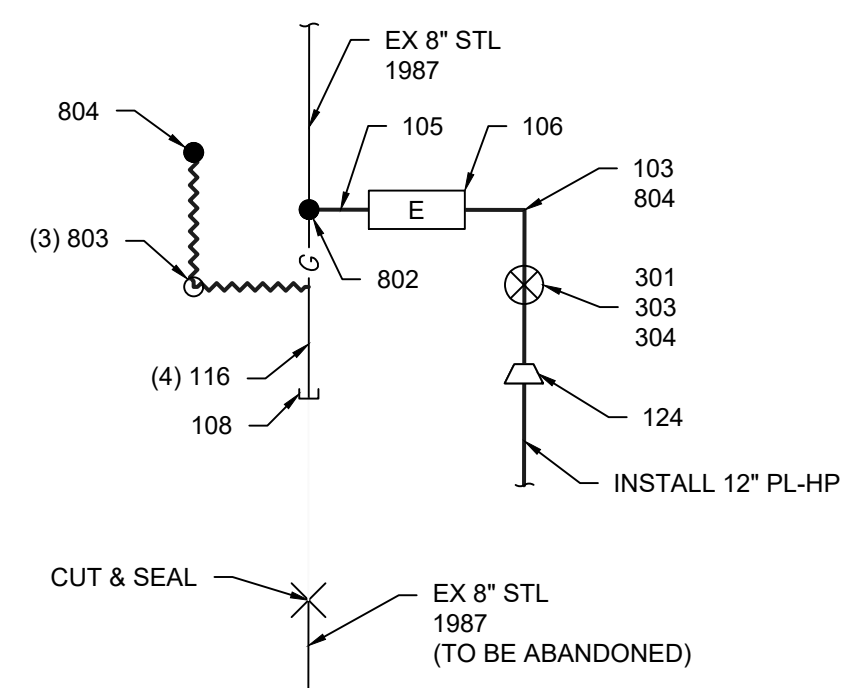
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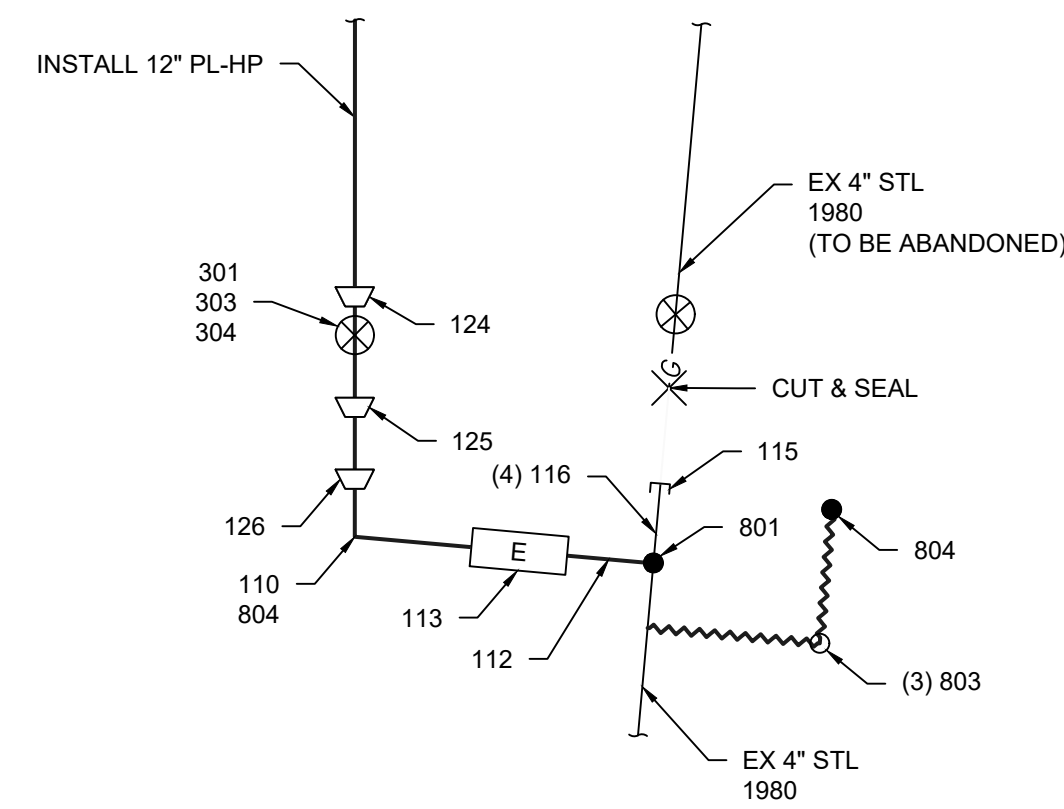
DETAIL C
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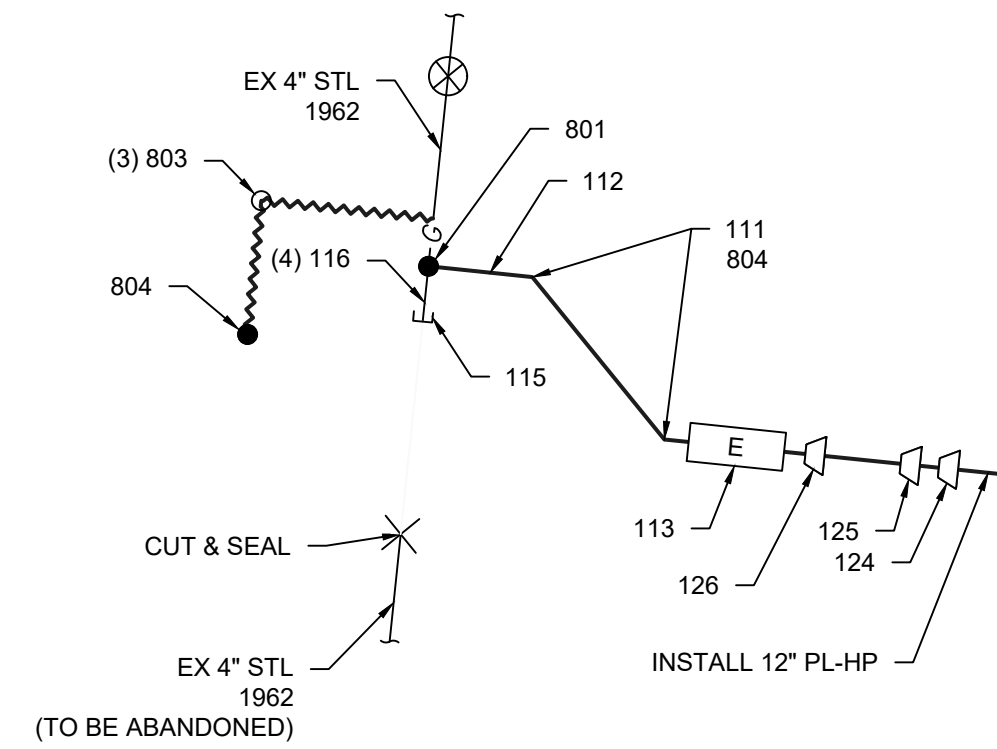
DETAIL D
SCALE: NTS
8



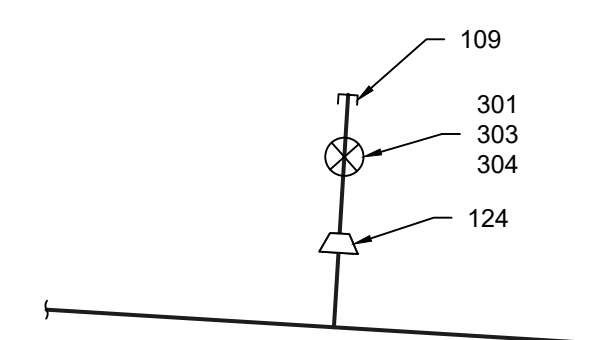
DETAIL E
SCALE: NTS
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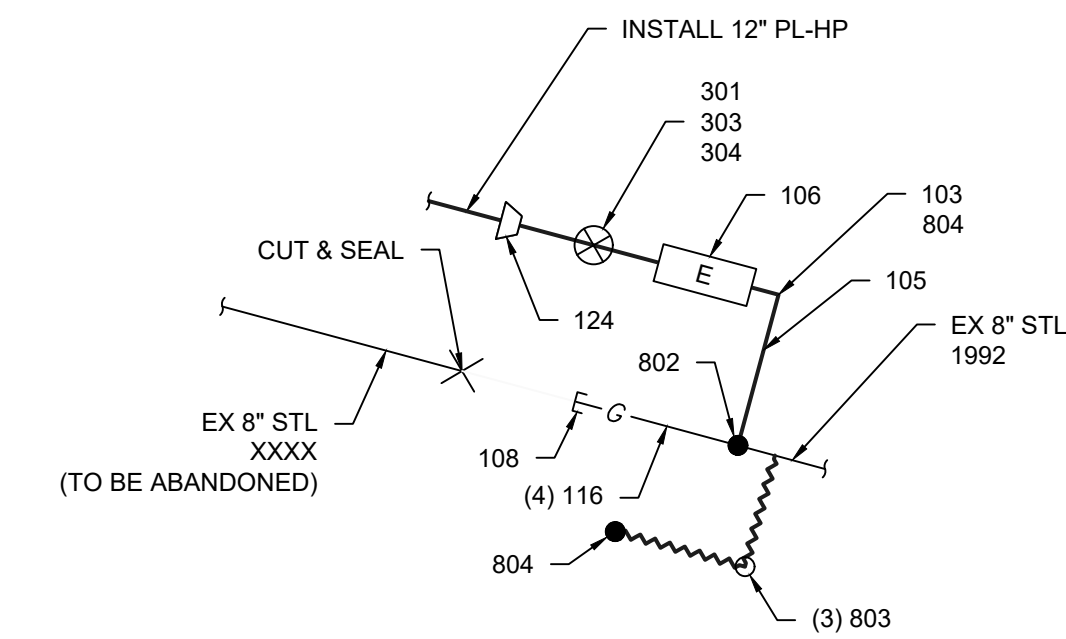
DETAIL F
SCALE: NTS
14



DETAIL G
SCALE: NTS
17



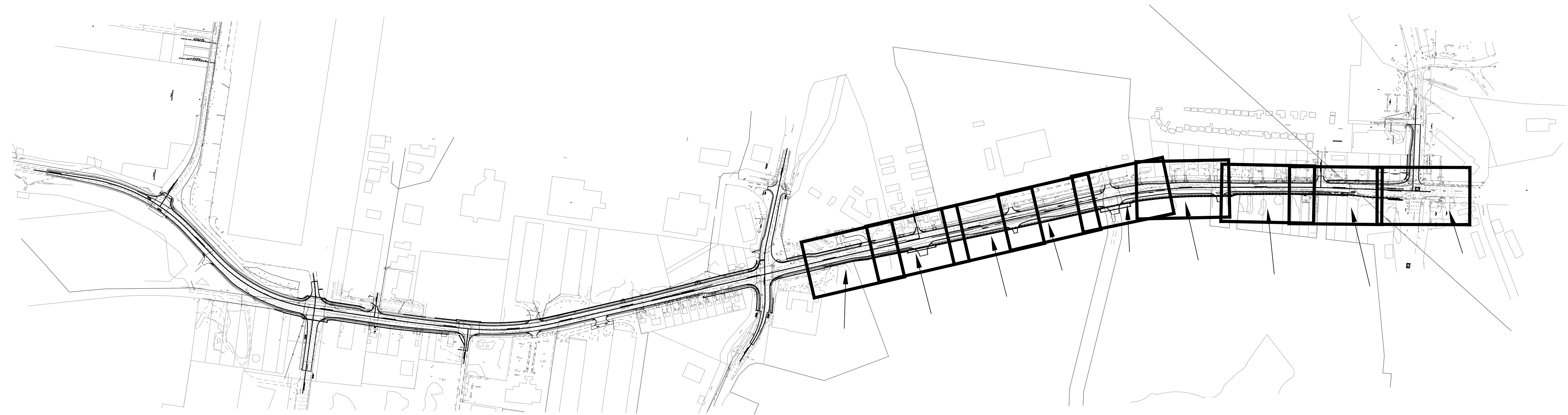
DETAIL H
SCALE: NTS
17



DETAIL J
SCALE: NTS
17

COUNTY OF	ITEM NO.	SHEET NO.
BOONE/ KENTON	6-444.00	U36

1" = 400'



BEFORE YOU DIG

↓

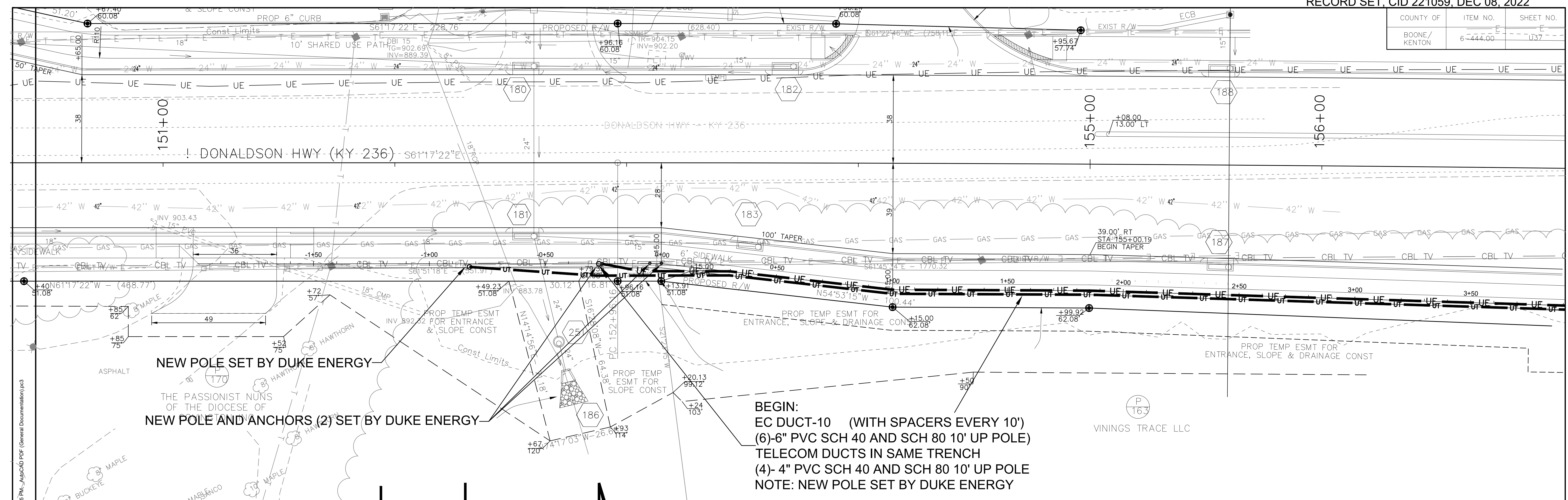
The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

* NOTES *

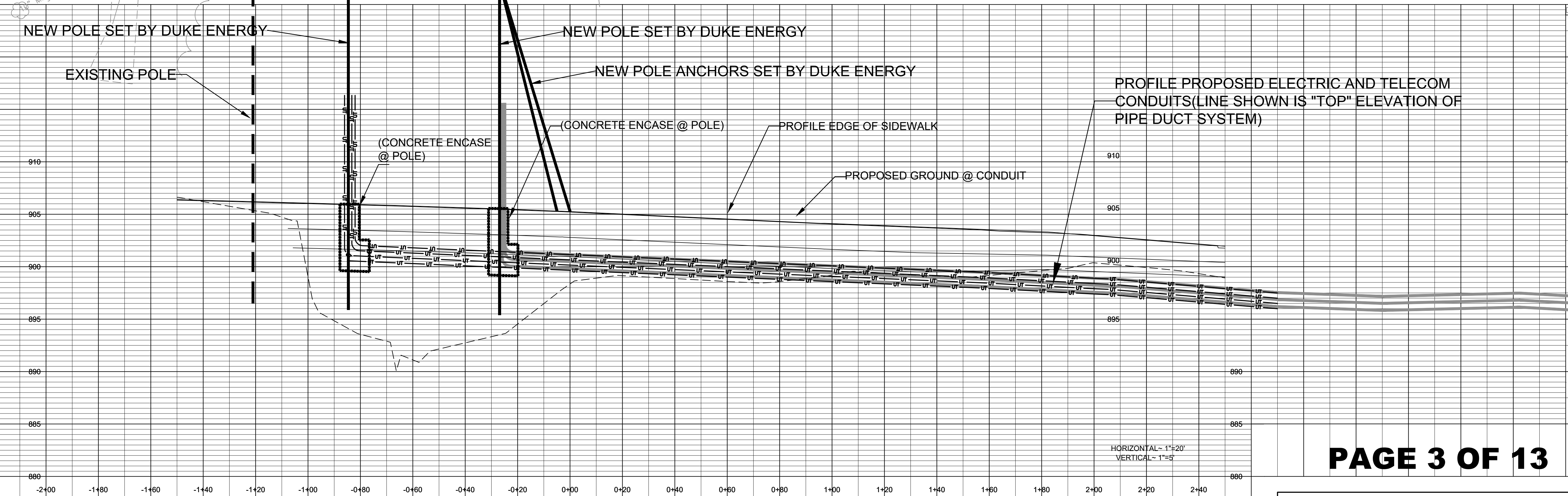
1. Contractor shall supply field notes upon completion of project in sufficient detail to prepare "Record Drawings".
2. Location of utilities and structures, both existing and proposed, are shown on the plans from data available at time of bidding, and are not necessarily complete or correct. During construction the contractor shall use diligence in protecting from damage all existing utilities and structures whether shown on the plans or not. If damage is caused, the contractor will be responsible for repair or restoration of same to the satisfaction of the Engineer and the utility company.
3. Contractor to uncover and confirm exact location of existing and proposed facilities at connection points prior to construction. (incidental)
4. Prior to start of any duct construction, a "Sequence of Construction" shall be provided in writing to the Project Engineer.
5. Contractor to coordinate and expedite the conduit/duct construction in the proper phases of the project. Existing poles and facilities to remain in service through early grading phases! Construct ducts and cable pits after initial grading phase, but before pavement and sidewalks.
6. Contractor to coordinate all shut-down times with the Project Engineer
7. Items and instruction labels in (parenthesis) are incidentals to the construction and cost of item.
8. Any extra adjustments or relocations of items to final grades and locations will be considered "incidental" to cost and construction of item.
9. Fittings, bends, and caps to be incidental and included in pipe price, these items do not have separate bid item quantities.
10. All items to be constructed to Duke Energy Specifications.
11. All abandoned poles to be removed by Duke Energy.

FOR FURTHER INSTRUCTIONS AND SPECIFICATIONS, SEE KYTC "STANDARD ELECTRIC AND COMMUNICATIONS BID ITEM DESCRIPTIONS" AND DETAILS ON PAGES 12 of 13 and 13 of 13 of THESE PLANS

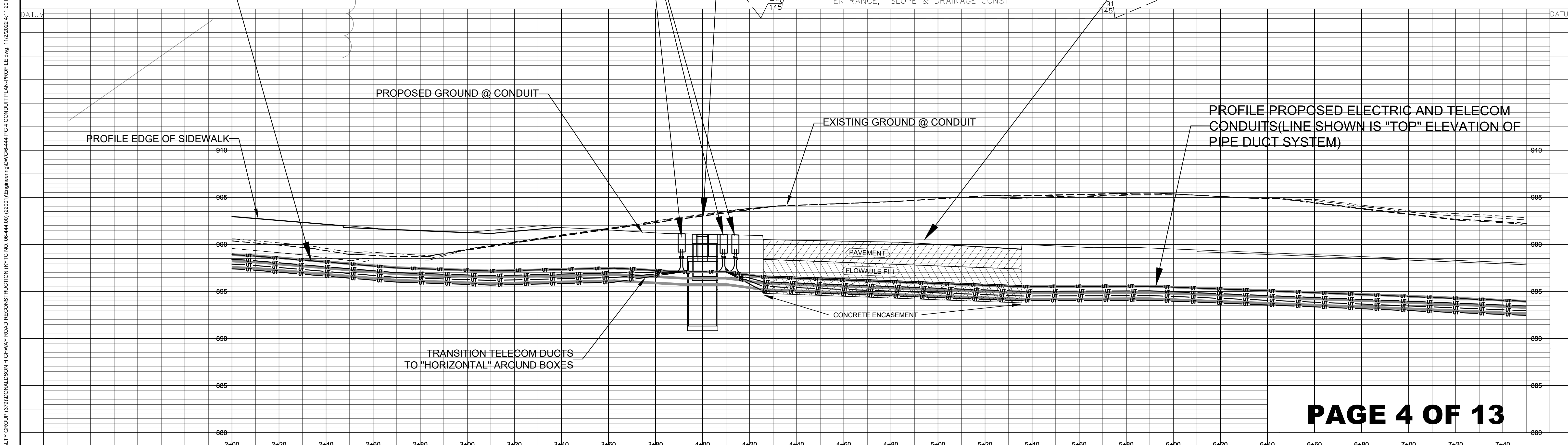
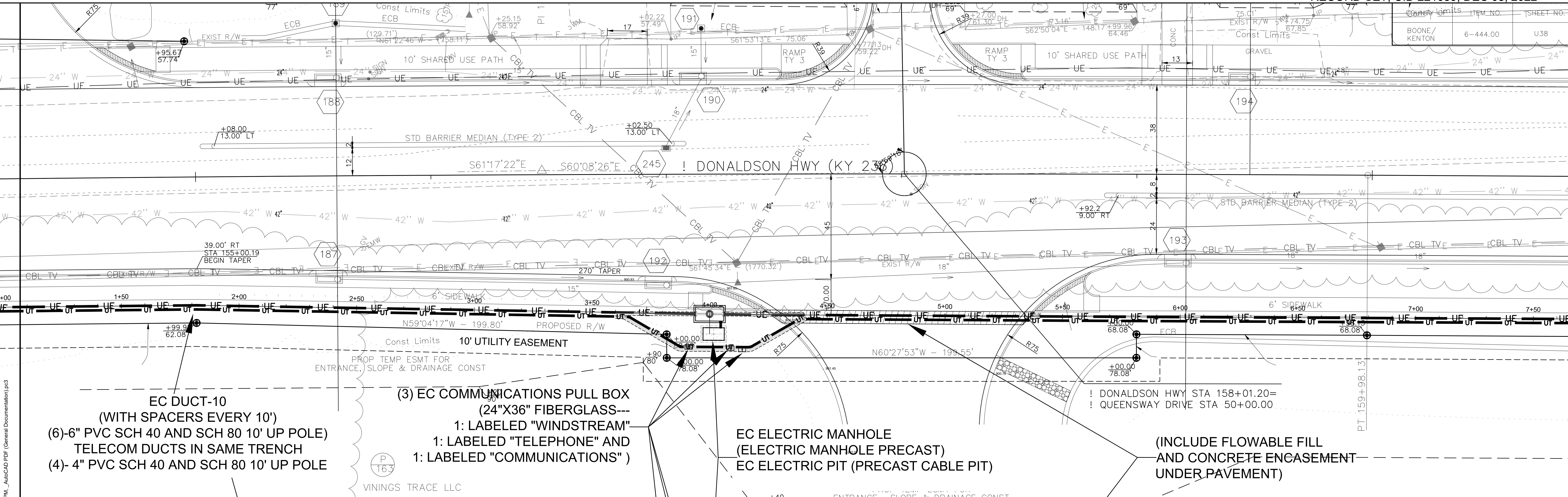
COUNTY OF	ITEM NO.	SHEET NO.
BOONE/ KENTON	6-444.00	U37



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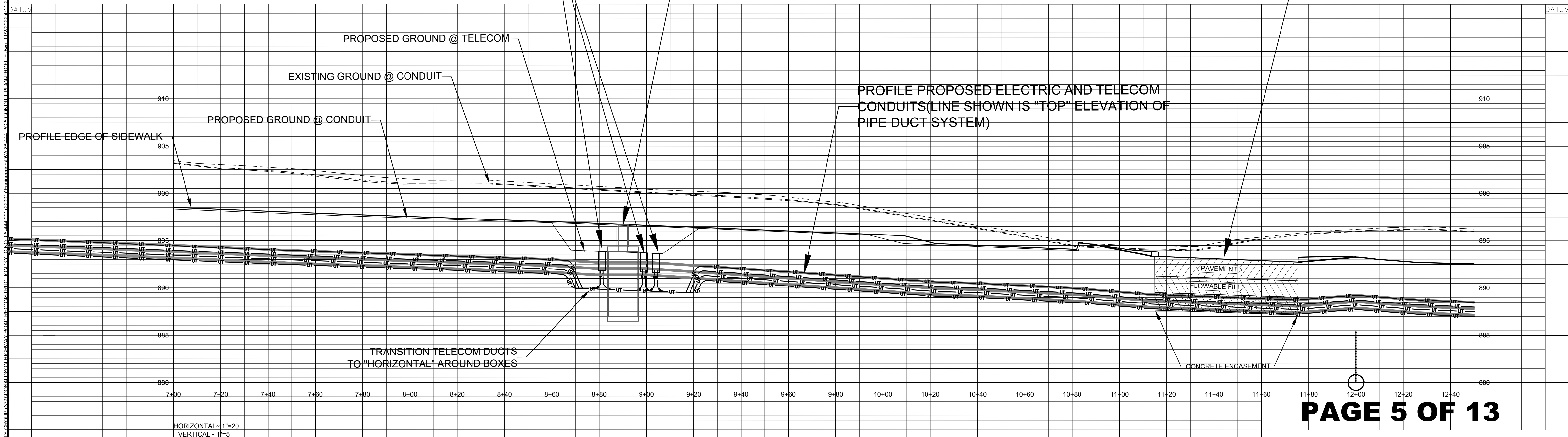
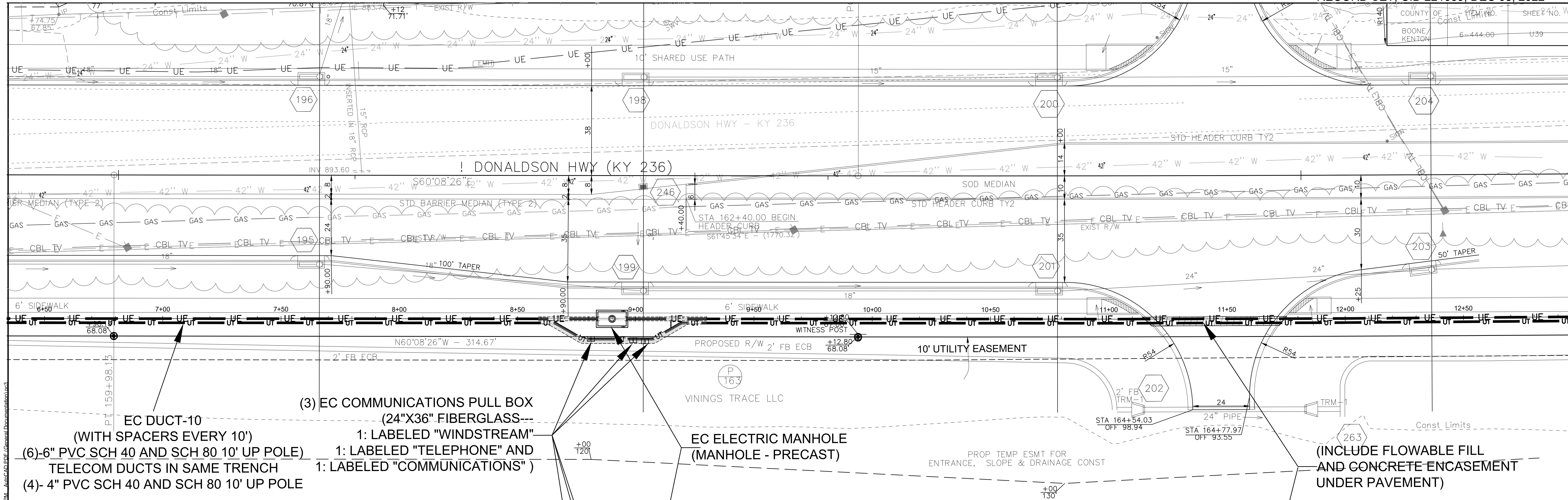


COUNTY LIMITS	ITEM NO.	SHEET NO.
BOONE/ KENTON	6-444.00	U38



- UNDERGROUND CONDUIT CONSTRUCTION ONLY -

P:\EAGLE REALTY GROUP (375)\DONALDSON HIGHWAY ROAD RECONSTRUCTION (KYTC NO. 06-444.00) (20201)\Engineering\DWG\6-444 PG 4 CONDUIT PLAN-PROFILE.dwg, 1/12/2022 4:11:20 PM, AutoCAD PDF (General Documentation).pc3



EC DUCT-10
(WITH SPACERS EVERY 10')
(6)-6" PVC SCH 40 AND SCH 80 10' UP POLE)
TELECOM DUCTS IN SAME TRENCH
(4)-4" PVC SCH 40 AND SCH 80 10' UP POLE

(3) EC COMMUNICATIONS PULL BOX
(24"X36" FIBERGLASS---
1: LABELED "WINDSTREAM"
1: LABELED "TELEPHONE" AND
1: LABELED "COMMUNICATIONS")

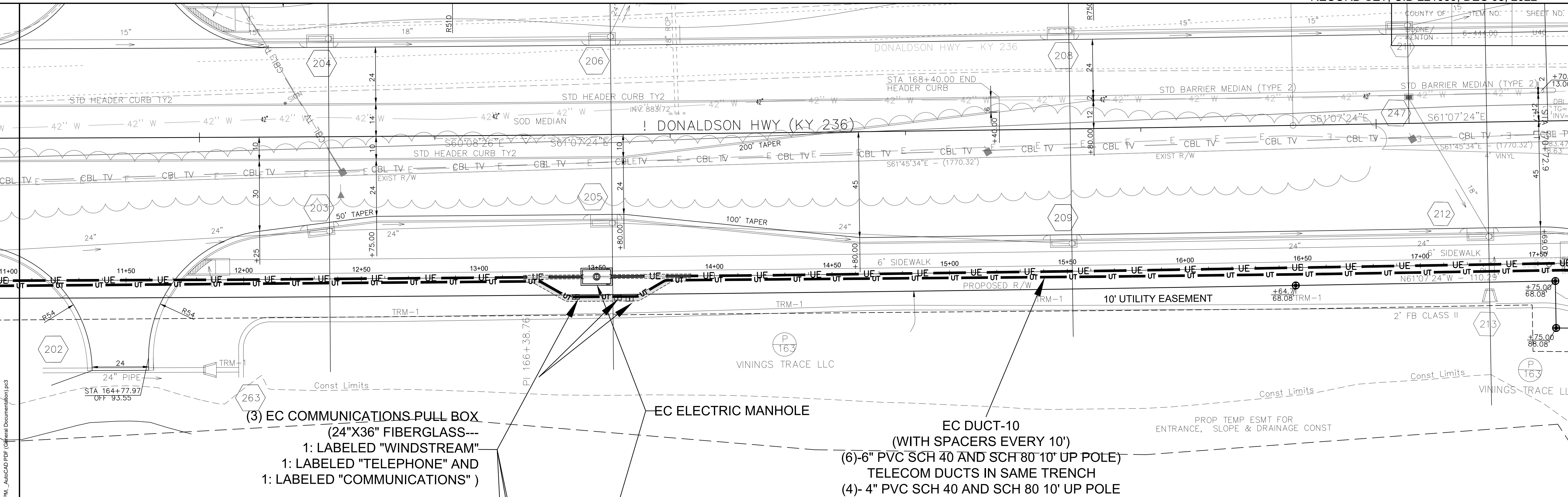
EC ELECTRIC MANHOLE
(MANHOLE - PRECAST)

(INCLUDE FLOWABLE FILL
AND CONCRETE ENCASUREMENT
UNDER PAVEMENT)

HORIZONTAL ~ 1"=20'
VERTICAL ~ 1"=5'

- UNDERGROUND CONDUIT CONSTRUCTION ONLY -

COUNTY OF	ITEM NO.	SHEET NO.
KENTON	6-444-00	U44

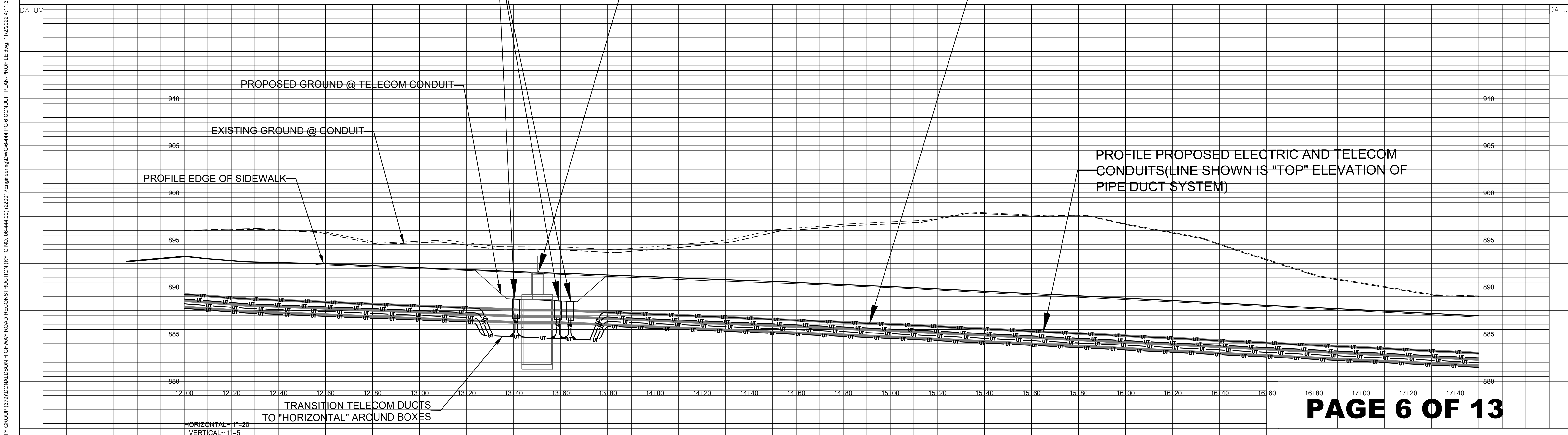


(3) EC COMMUNICATIONS PULL BOX
 (24"X36" FIBERGLASS---
 1: LABELED "WINDSTREAM"
 1: LABELED "TELEPHONE" AND
 1: LABELED "COMMUNICATIONS")

EC ELECTRIC MANHOLE

EC DUCT-10
 (WITH SPACERS EVERY 10')
 (6)- 6" PVC SCH 40 AND SCH 80 10' UP POLE)
 TELECOM DUCTS IN SAME TRENCH
 (4)- 4" PVC SCH 40 AND SCH 80 10' UP POLE

PROP TEMP ESMT FOR
 ENTRANCE, SLOPE & DRAINAGE CONST

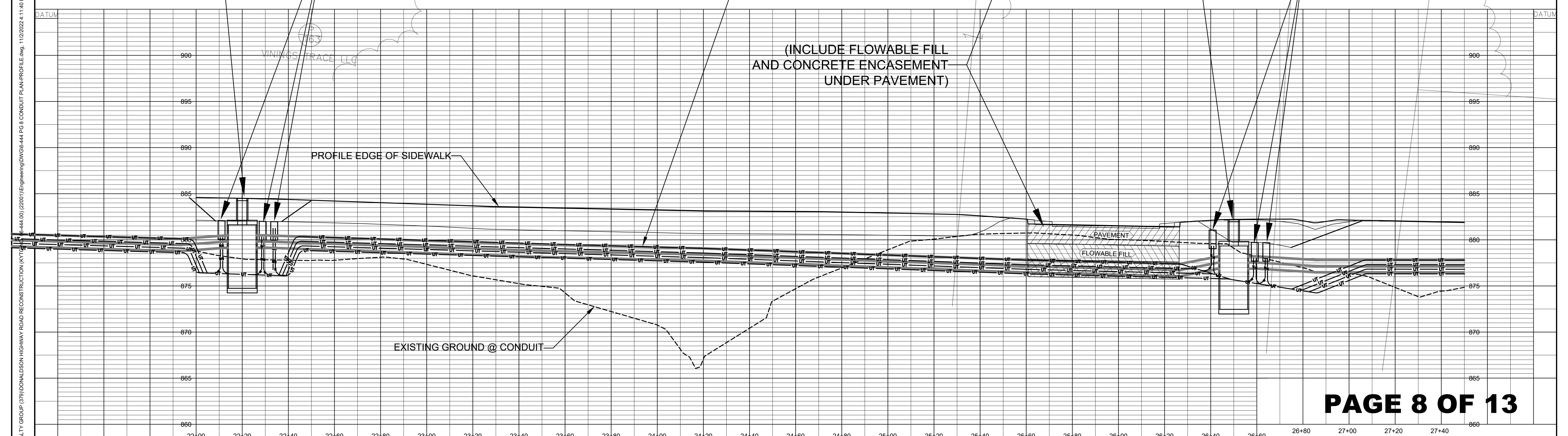
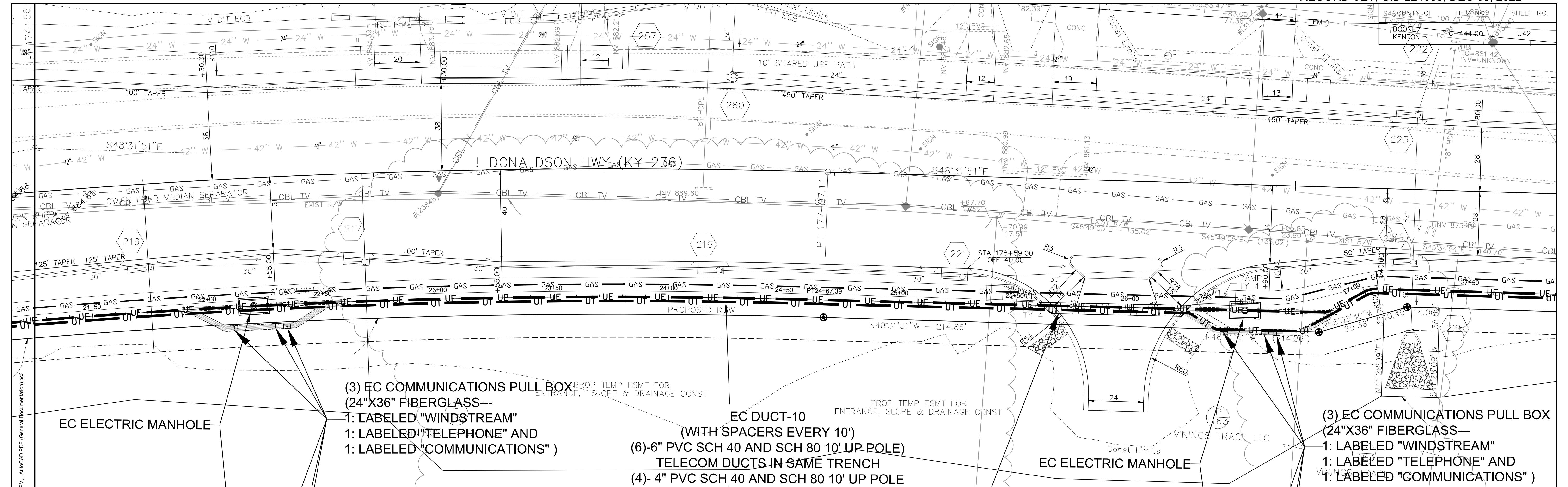


HORIZONTAL - 1"=20'
 VERTICAL - 1"=5'

- UNDERGROUND CONDUIT CONSTRUCTION ONLY -

ELECTRIC/TELECOM DUCT
 PLAN & PROFILE

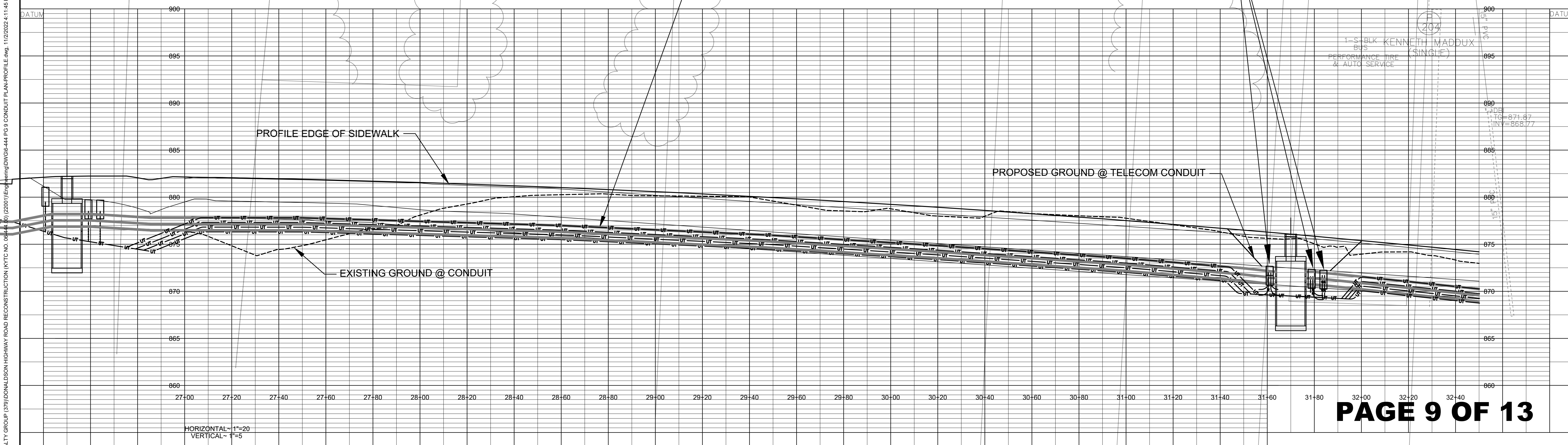
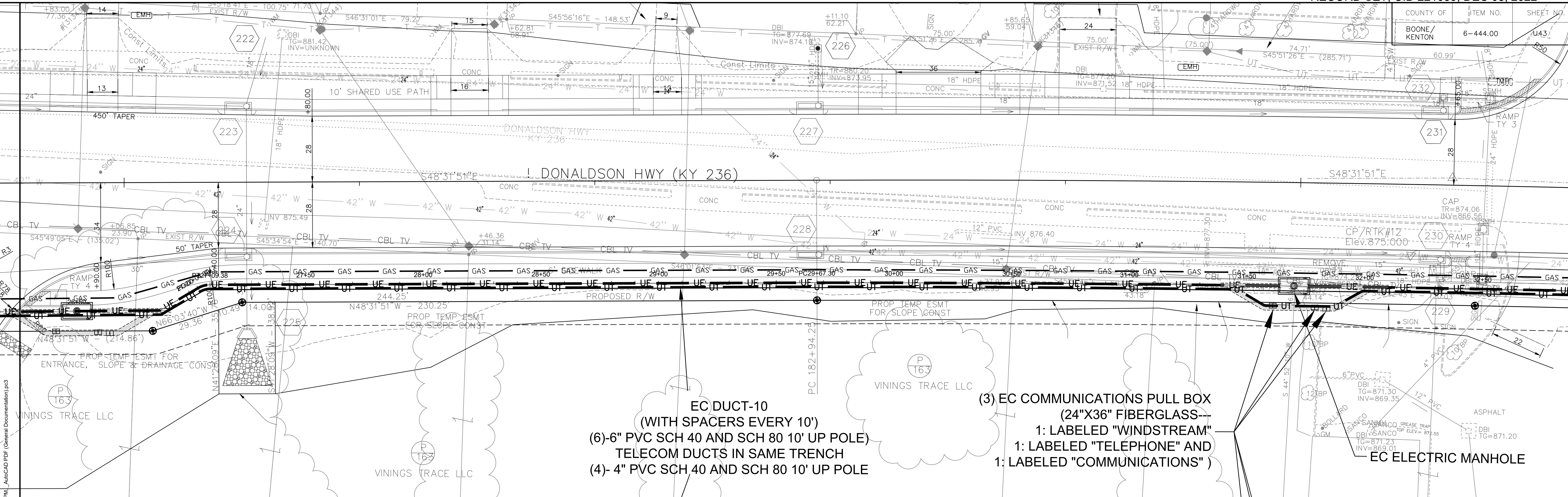
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- UNDERGROUND CONDUIT CONSTRUCTION ONLY -

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COUNTY OF	ITEM NO.	SHEET NO.
BOONE/KENTON	6-444.00	U43/



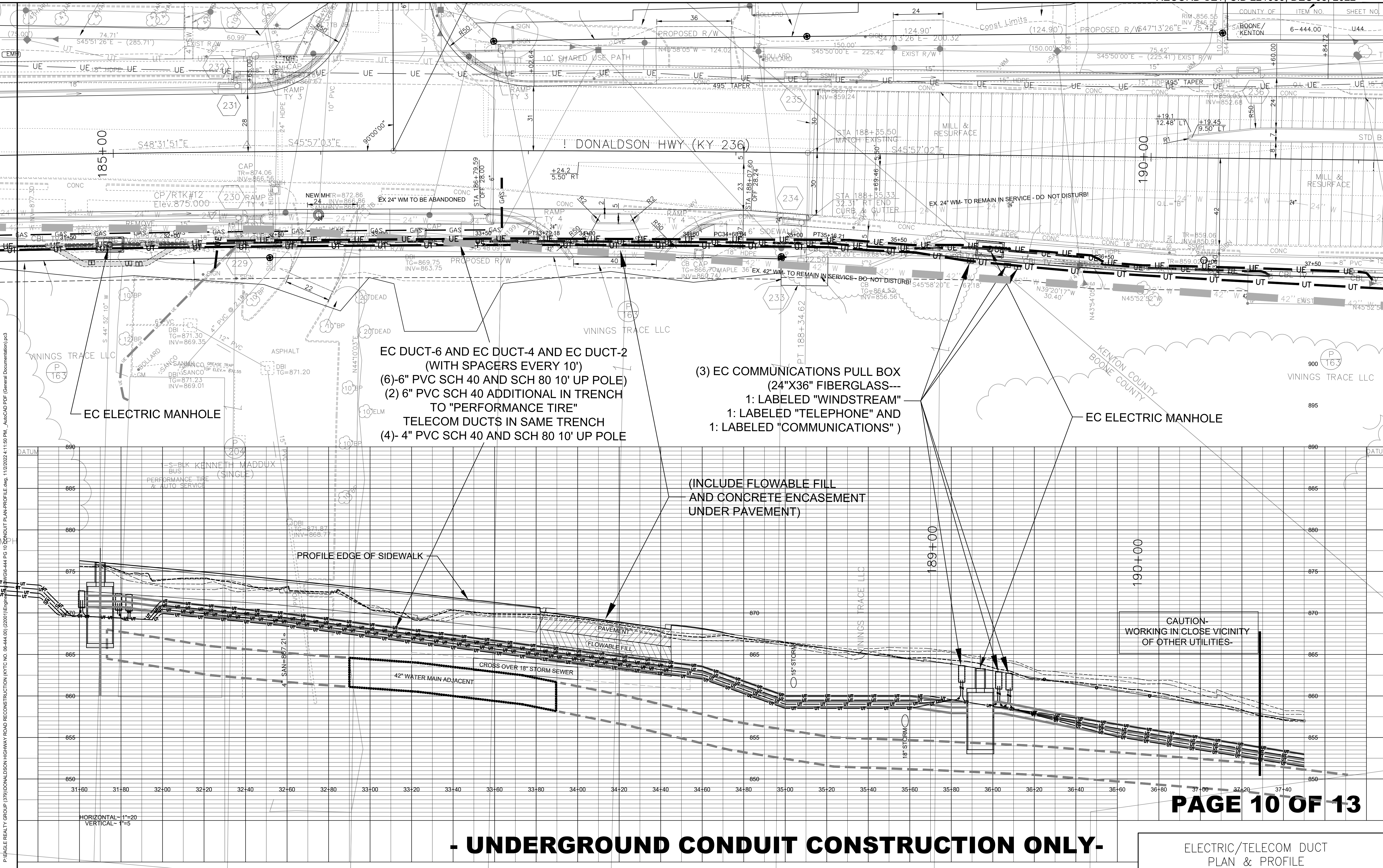
HORIZONTAL - 1"=20'
VERTICAL - 1"=5'

- UNDERGROUND CONDUIT CONSTRUCTION ONLY -

ELECTRIC/TELECOM DUCT
PLAN & PROFILE

P:\EAGLE REALTY GROUP (379)\DONALDSON HIGHWAY ROAD RECONSTRUCTION (KYTC NO. 06-44-00) (22001)\Engineering\DWG\6-444 PG 9 CONDUIT PLAN-PROFILE.dwg, 11/2/2022 4:11:45 PM, AutoCAD PDF (General Documentation).pc3

COUNTY OF	ITEM NO.	SHEET NO.
BOONE/ KENTON	6-444.00	U44



EC DUCT-6 AND EC DUCT-4 AND EC DUCT-2
(WITH SPACERS EVERY 10')
(6)-6" PVC SCH 40 AND SCH 80 10' UP POLE)
(2) 6" PVC SCH 40 ADDITIONAL IN TRENCH
TO "PERFORMANCE TIRE"
TELECOM DUCTS IN SAME TRENCH
(4)- 4" PVC SCH 40 AND SCH 80 10' UP POLE

(3) EC COMMUNICATIONS PULL BOX
(24"X36" FIBERGLASS---
1: LABELED "WINDSTREAM"
1: LABELED "TELEPHONE" AND
1: LABELED "COMMUNICATIONS")

(INCLUDE FLOWABLE FILL
AND CONCRETE ENCASEMENT
UNDER PAVEMENT)

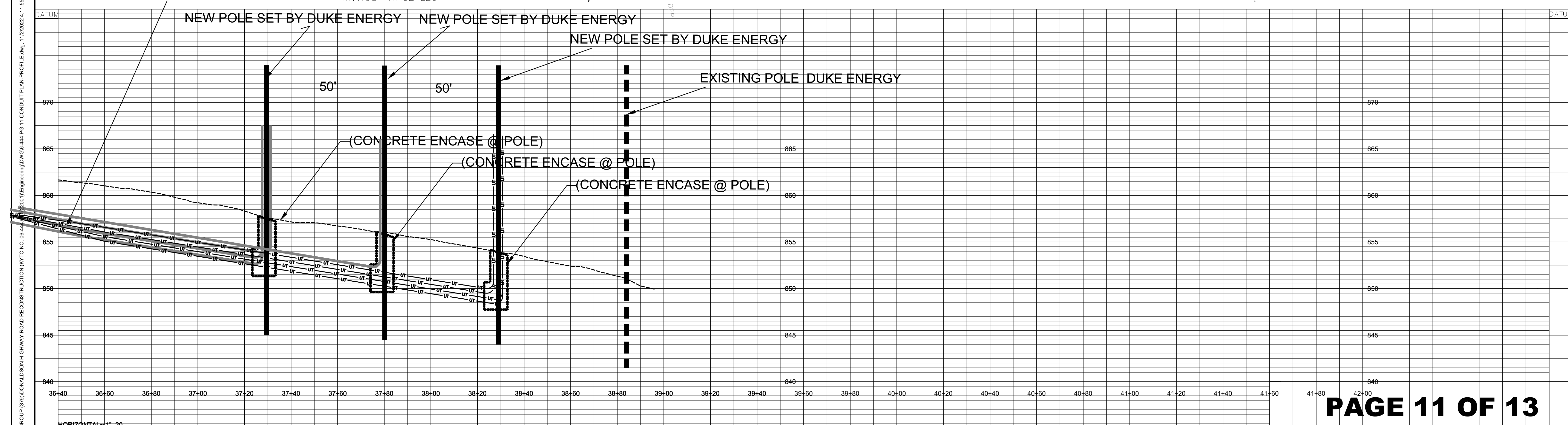
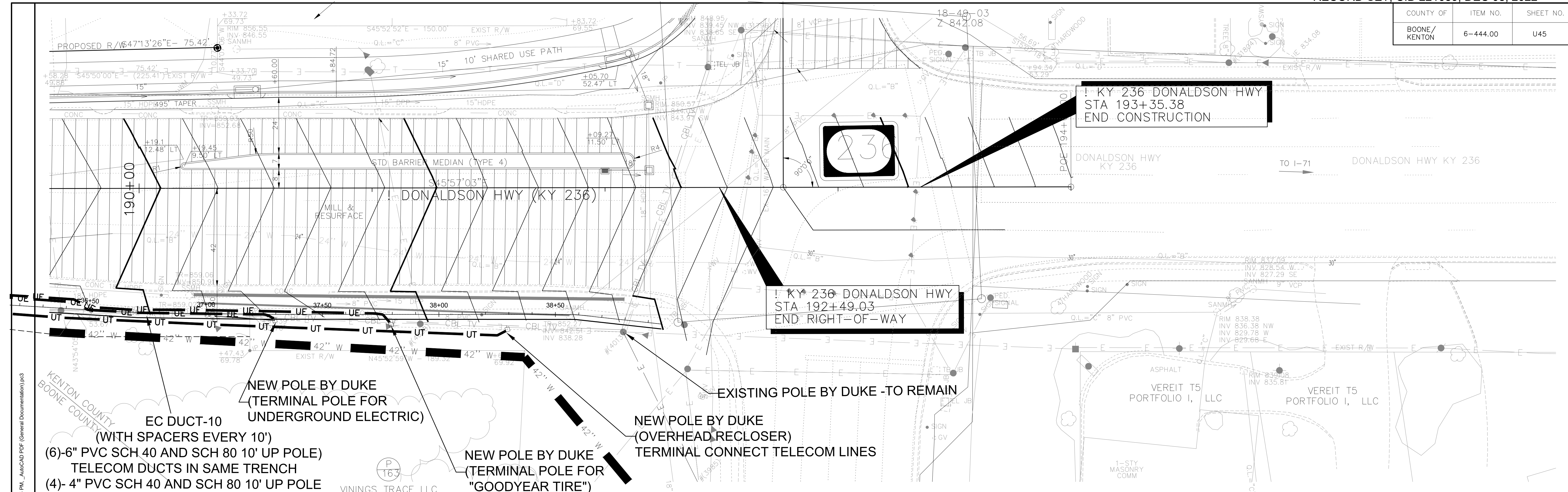
CAUTION-
WORKING IN CLOSE VICINITY
OF OTHER UTILITIES-

- UNDERGROUND CONDUIT CONSTRUCTION ONLY -

ELECTRIC/TELECOM DUCT
PLAN & PROFILE

P:\EAGLE REALTY GROUP (379)\DONALDSON HIGHWAY ROAD RECONSTRUCTION (KYTC NO. 06-444.00) (2020)\ENGINEERING\DWG\6-444 PG 10 UNDERGND PLAN-PROFILE.dwg, 11/20/2022 4:11:50 PM, AutoCAD PDF (General Documentation).pc3

COUNTY OF	ITEM NO.	SHEET NO.
BOONE/ KENTON	6-444.00	U45



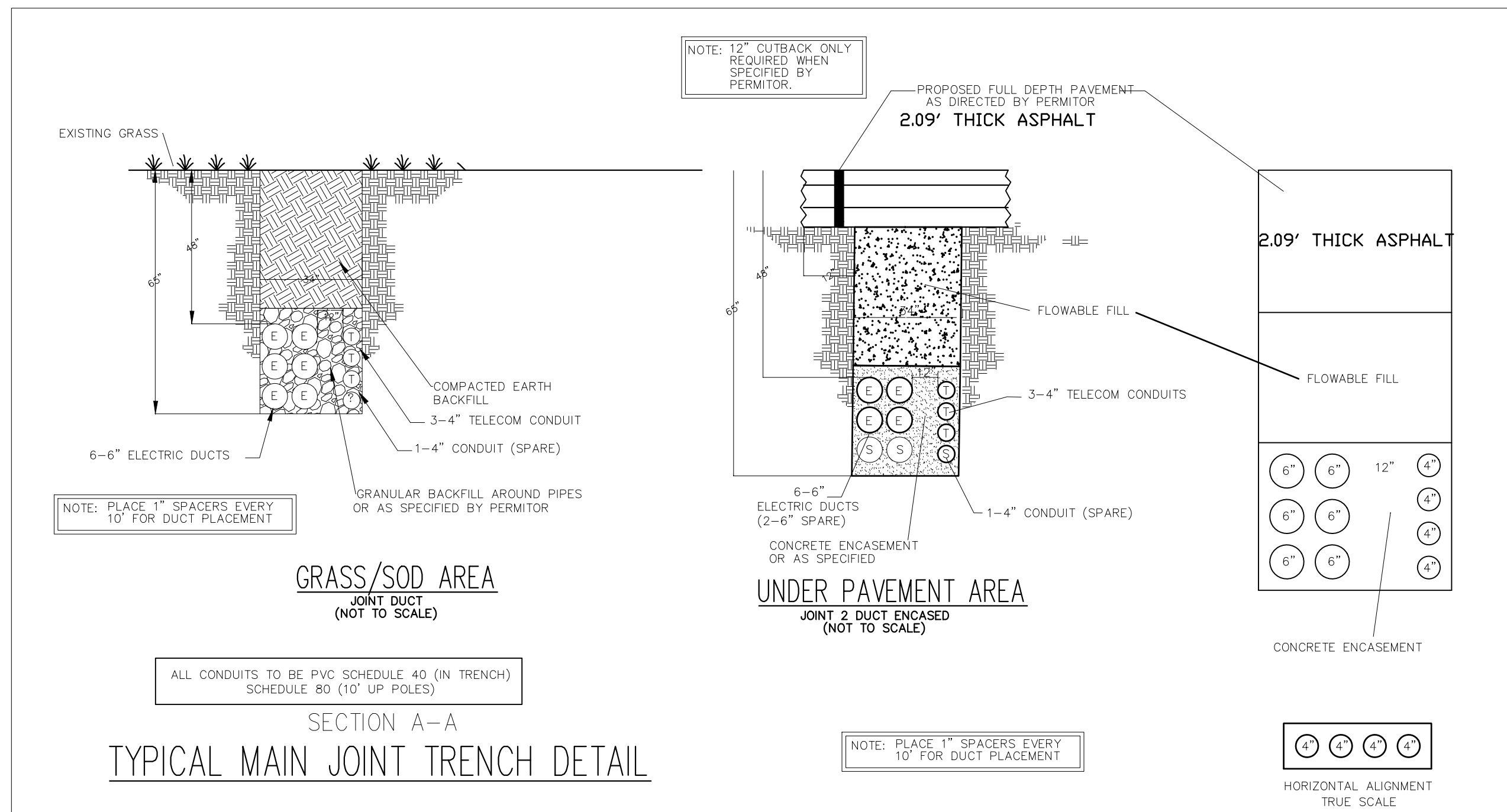
HORIZONTAL = 1"=20'
VERTICAL = 1"=5'

- UNDERGROUND CONDUIT CONSTRUCTION ONLY -

ELECTRIC/TELECOM DUCT
PLAN & PROFILE

P:\EAGLE REALTY GROUP (379)\DONALDSON HIGHWAY ROAD RECONSTRUCTION (KYTC NO. 06-444... (2001)\Engineering\DWG\6-444 PG 11 CONDUIT PLAN-PROFILE.dwg - 11/20/2022 4:11:55 PM - AutoCAD PDF (General Documentation).ps3

COUNTY OF	ITEM NO.	SHEET NO.
BOONE/ KENTON	6-444.00	U47



MACRO UNIT	SUBLE NUMBER	COMPATIBLE UNIT	QTY	ITEM NUMBER	ITEM QTY/ CU	DESCRIPTION
	1	71050 121 X 60 X 70 FAVE	1	50125640	1	121 X 60 X 70 FOR 15KV AND 15KV SPACING
	1	71050 121 X 60 X 70 SOD	1	50125640	1	121 X 60 X 70 FOR 15KV AND 15KV SPACING
	1	71050 101 X 50 X 70 FAVE	1	50119916	1	101 X 50 X 70 FOR 15KV SINGLE CIRCUIT SPACING
	1	71050 101 X 50 X 70 SOD	1	50119916	1	101 X 50 X 70 FOR 15KV SINGLE CIRCUIT SPACING
	1	71050 BL X 48 X 70 FAVE	1	50119918	1	81 X 48 X 70 FOR UBO CABLE SPACING
	1	71050 BL X 48 X 70 SOD	1	50119918	1	81 X 48 X 70 FOR UBO CABLE SPACING
	1	MANHOLE SEALANT	8	1520164	1 ROLL	GROUND, SEALING, PREMIUM GRADE, BUTYL RUBBER, BLACK, 1" DIA. X 14.5' ROLL.

NOTES:

- PRECAST MANHOLES MUST BE ORDERED FOR SPECIFIC REQUIREMENTS. DELIVERY TO THE JOBSITE AND PLACEMENT IN THE EXCAVATION AREA ARE INCLUDED IN THE PURCHASE PRICE. THE CONSTRUCTION SUPERVISOR MUST COORDINATE DELIVERY OF THE MANHOLE BASED ON THE JOB SCHEDULE.
- THE BOTTOM OF THE EXCAVATION FOR THE PRECAST MANHOLE SHOULD BE FILLED WITH AN 8" THICK LAYER OF CRUSHED ROCK. IT SHOULD BE LEVEL. A SUMP OR FRENCH DRAIN, 3 FT. SQUARE AND 3 FT. DEEP AND FILLED WITH GRAVEL SHOULD BE PLACED UNDER THE SUMP HOLE KNOCKOUT IN THE MANHOLE. THE SUMP HOLE SHOULD BE OPENED AFTER THE MANHOLE IS SET.
- ALL PRECAST MANHOLES ARE CONFIGURED AS CORNER MANHOLES (TYPE "3"). IN ADDITION TO DUCT TERMINATORS FOR (6) SIX-6" DUCTS IN EACH END, THERE ARE (6) SIX-6" DUCT TERMINATORS IN BOTH SIDES OF ONE END OF THE MANHOLE.
- MANHOLES COME WITH GALVANIZED STEEL CABLE RACKS AND ARMS THAT MOUNT TO INSERTS PRE-INSTALLED IN THE WALLS. SEE THE CABLE RACKING SECTION OF THE CHAPTER FOR MORE DETAILS AND OTHER RACKING OPTIONS SUCH AS CAST IRON AND NON-METALLIC PRODUCTS.
- MANHOLE COVERS IN OHIO AND KENTUCKY MUST IDENTIFY THE OWNER OF THE MANHOLE. INDIANA INSTALLATIONS MAY USE A LID MARKED "ELECTRIC". SEE THE MANHOLE FRAME AND COVER SECTION OF THIS CHAPTER FOR MORE DETAILS.
- MANHOLE CHIMNEYS, GRADE RING RISERS, AND INTRA-RISERS, ALONG WITH THE MANHOLE COVER FRAME, MAY BE USED TO FILL THE GAP BETWEEN THE TOP OF THE MANHOLE AND FINISHED GRADE. SEE THOSE SECTIONS OF THIS CHAPTER FOR DETAILS.
- INSTALL 4/0CUB57 GROUND BUS AROUND MANHOLE APPROXIMATELY 12" ABOVE THE FLOOR AND CONNECT TO THE GROUND ROD USING A SUITABLE CLAMP.
- EIGHT (8) ROLLS OF MANHOLE SEALANT (14.5 FT. IN LENGTH) ARE PROVIDED WITH EACH PRE-CAST MANHOLE INSTALLATION. THE SEALANT IS TO BE PLACED AT JOINTS BETWEEN CONCRETE SECTIONS AND CONCRETE RISERS.

MANHOLES - PRECAST

DEC	DEM	DEP	DEF
	X		

29.14-102

NOTES:

- THE INSIDE DIMENSIONS FOR THE PRE-CAST CABLE PIT ARE 5 FT. WIDE X 10 FT. LONG X 4'-6" DEEP. THE CLEAR OPENING AT THE TOP WHERE THE EQUIPMENT IS POSITIONED MUST BE 9 FT. LONG TO ENSURE PROPER FIT FOR THE COVER PLATES.
- EACH LONG WALL HAS A 9 FT. SECTION OF IMBEDDED UNISTRUT ALONG THE LENGTH OF THE OPENING. THESE UNISTRUT CHANNELS MUST BE LOCATED 61-1/2" APART CENTER TO CENTER.
- THE BOTTOM OF THE EXCAVATION FOR THE PRECAST CABLE PIT MUST BE LEVEL WITH A MINIMUM OF 8" OF COMPACTED GRANULAR FILL. A SUMP OR FRENCH DRAIN 3 FT. SQUARE AND 3 FT. DEEP WITH GRAVEL SHOULD BE PROVIDED UNDER THE SUMP HOLE KNOCKOUT IN THE FLOOR OF THE CABLE PIT.
- WALLS AND FLOORS MUST BE OF A THICKNESS SUCH THAT THE CABLE PIT IS STRUCTURALLY SOUND AND CAPABLE OF CARRYING THE WEIGHT OF THE SWITCHGEAR (2000 LBS. MAXIMUM).
- THERE ARE (4) 1" I.D. PVC PIPE SLEEVES THROUGH THE FLOOR LOCATED APPROXIMATELY 1 FT. FROM EACH CORNER FOR INSTALLING GROUND RODS.
- THERE ARE (4) DUCT ENTRY POINTS, ONE AT EACH SIDE AS SHOWN. MANUFACTURER IS TO PROVIDE KNOCKOUTS, SLEEVES, OR INSERTS TO ACCOMMODATE (4) 6" I.D. SCH. 40 PVC DUCTS AT EACH ENTRY LOCATION.
- INDIVIDUAL CONDUITS ARE TO BE SEPARATED BY 4" (OUTSIDE TO OUTSIDE) WHERE THEY ENTER THE PIT. END OF CONDUIT TO BE TERMINATED IN A BELL END FITTING THAT IS FINISHED FLUSH WITH THE INSIDE WALL OF THE CABLE PIT.
- 3/4" PVC DRAIN IS PROVIDED AT EACH CORNER TO ALLOW WATER TO DRAIN FROM UNISTRUT INTO CABLE PIT.

PRECAST CABLE PIT FOR PAD-MOUNTED EQUIPMENT

DEC	DEM	DEP	DEF
	X		

24.02-100

CONDUIT SIZE	DUCT WIDTH (W)	DUCT HEIGHT (H)				
		1 ROW	2 ROWS	3 ROWS	4 ROWS	5 ROWS
4"	17-1/4"	10-1/2"	17-1/4"	23-7/8"	30-1/2"	37-1/8"
6"	19-3/8"	11-1/2"	19-3/8"	32"	39-1/2"	46-3/8"
8"	21-1/2"	12-3/4"	21-3/8"	30"	38-5/8"	47-1/4"

CONDUIT SIZE	DUCT HEIGHT (H)				
	1 ROW	2 ROWS	3 ROWS	4 ROWS	5 ROWS
4"	0.0384	0.0618	0.0848	0.1078	0.1303
6"	0.0487	0.0713	0.0923	0.1210	0.1498
8"	0.0527	0.0825	0.1125	0.1420	0.1726

DUCT BANK CONFIGURATIONS TWO WIDE

DEC	DEM	DEP	DEF
	X	X	X

22.06-102

P:\EAGLE REALTY GROUP (379)\DONALDSON HIGHWAY ROAD RECONSTRUCTION (KYTC NO. 06-444.00) (2201)\Engineering\DWG\64-444 PG 13 CONDUIT PLAN\DETAILS-2.dwg, 1/12/2022 4:12:04 PM, _AutoCAD PDF (General Documentation).pc3