# ENGINEER NG.

# BREATHITT COUNTY WATER DISTRICT

KY 30 EAST & WOLF CREEK WATERLINE EXTENSION PROJECT CONTRACT 1 - WATERLINES

December 2023

WATER COMMISSIONERS

**BOBBY THORPE JR - CHAIRMAN** 

**SAMMIE TURNER - VICE CHAIRMAN** 

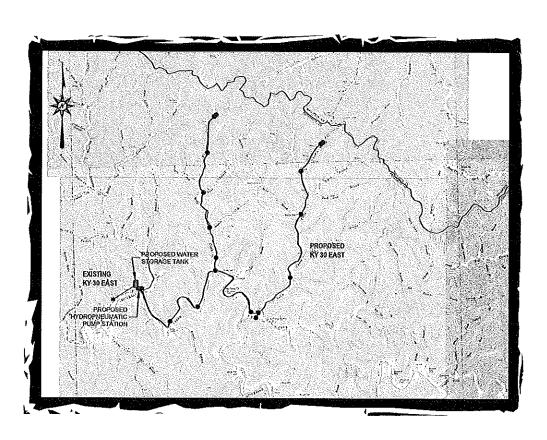
**EVA FUGATE - SECRETARY** 

**CHERYL CAMPBELL - TREASURER** 

**DAVID INGRAM - MEMBER** 







**VICINITY MAP** 1'' = 4000'

# ABBREVIATIONS

AFF.	ABOVE FINCHED FLOOR AJBIANAJ APPROXIATE BRIUMNOUS BULDNO BLOCK BRICH MARK BRITERIOLY BRICK BRICK MARK BRITERIOLY CHENCAL CAST BRON CAST BRON SOL P.P.E CONTRELE CONCRETE CONCRETE CONCRETE COLOR WATER COMPER COMPER CLEMOUT COMPINATION DENSE GRADED AGGRACATE DUCTILE BRON DOCUMER B	EXT	ECTIFICATION FINANCE PROPERTY OF THE PROPERTY	PRV	PRESSURE RELIEF VALVE
ALUK	ALIRENANI	F.Đ	FLOOR ORA'N	PRESS	PRESSURE
APPROX.	APPROXIMATE	F.F.	FINISHED FLOOR	REDUC	REDUCING
BIT	BITUIKNOUS	FLG	FLANCE	RED	REDUCER
BLDG	BULDING	FL.	FENCE INF	RENF.	RENFORCING
BLK	BLOCK	FLOC	FLOCCURATOR	REFERS	REFRIGERATOR
B.W.	BENCH MARK	GD.	GRADE	RM	ROOM
BRY	BUTTERFLY	D:P	DECORE TRON PAPE	SAN	SANITARY
BOTT	BOTTOM	н.в.	HOSE BIRR	SCH.	SCHEDULE
CHEM	CHENICAL	H	HUGHL	SECT	SECTION
CI	CAST IRON	H.W.	HOT WATER	SED	SEDIVENTATION
CISP	CAST IRON SOIL PIPE	INFL.	EVEL LIENT	SEW	SEMER
č~~.	CENTERINE	Div.	BACK!	SHY	SHEET
cose	CONCRETE	ÜÄŸ	LAVATORY	SOL.	SOLUTION
CHLUB	CHLORINE	Ľ"	LENGTH		SPECIFICATION'S
či	CLEARANCE	เดงชาต	LOLOUS	SPEC 5.	SOUARE
č	COLD WATER	LING	LONG	SQ.	
čii	COPPER	MH	HASSOV F	S.S. ST	STAINLESS STEEL
co.	CLEANOUT	M.J.	RECEIVED FORE	21	STEEL TUBE
CONT	CONTINUATION	M.N.	LEADING COLUMN	STL.	STEEL
0011	DENSE CONDED ACCOUNTS	MTD.	HOLMITED		STARLESS
D.	DISCHIE IOON	MAX.	MODITO	SURF	SURFACE
DECAS	DECRIBES	MACK.	PARTITION	SYCS	SERVICES
DYNY	DUCTILE IRON MECHANICAL JOINT	110.	NOMBER	I	THICK
D.I.P.E.	DIAMIC IONI MINI DA	NRS	NONCONG SIEM	T.O.C.	TOP OF CONCRETE
DJ.P.	DUCINE INCH PARE DID	H.T.S.	NOT TO SCALE	TIT.	TYPICAL.
DENO	DOUBLE, DON PIPE	0.C.	ON CENTER	TRANS	TRANSITION
DUAG	DEMOCRACIO	0.0.	DYLFOLL DIVENSION	VAC	VACUUNI
DAG	DAROUNAL ESTO USON	OPER	OPERATOR	VAL.	VALVE
Em	EPPLE FACE	OP'NG	OPENSIG	VTR	VENT THRU ROOF
EF.	DECEMBER	PE.	POLYERMENE	VERT	VERTICAL.
ELC	ELECIRCAL.	P.E.	PLAN END	WD	W000
EL.	ELEVAIRON	PL.	PLATE	W.C.	WATER CLOSET
EQUIP	DUCHLE IRON MICHANCAL JOINT DUCHLE IRON PLAN END DUCHLE IRON PPE DENQUINON DAGONAL EFFLUENT EACH FACE LEARNING EQUIPMENT EQUIPMENT EACH RAY EXCITING	PROP	PROPOSED	W.L.	WITH
E.W.	DACH WAY	PVC	POLYYMYL CHLORDE	W.L.	WATER LEVEL
EXIST	EXISTENC	PRV	PRESSURE RELIEF VALVE	W.S.E.	WATER SURFACE ELEVATION
		PRESS	PRESSURE	WWF	WOVEN WIRE FENCE

## CALL THE KENTUCKY ONE CALL BEFORE DIGGING:

KENTUCKY UNDERGROUND PROTECTION, INC. 1-800-752-6007 A FEDERAL LAW NOW IN EFFECT STATES THAT ANY PERSON WHO ENGAGES IN EXCAVATION ACTIVITIES WITHOUT FIRST USING AN AVAILABLE ONE-CALL NOTHICATION SYSTEM TO DETERMINE LOCATIONS OF UNDERGROUND FACILITIES; OR WITHOUT HEEDING LOCATION INFORMATION OR MARKINGS AND BUSSEQUENTLY DAMAGES A PIPELINE FACILITY SHALL BE SUBJECT TO A FINE, IMPRISONMENT, OR BOTH. THE LAW ALSO STATES THAT OSHA MAY BE NOTIFIED OF ANY ACCIDENT CAUSED BY AN EXCAVATOR.

NATIONAL ONE-CALL DEED DATA NUMBED 1, 200, 256, 2620. NATIONAL ONE-CALL REFERRAL NUMBER 1-800-258-0808

# GENERAL NOTES:

THE CONTRACTION SHALL USE ALL POSSIBLE CARE DURING EXCAVATION ON THIS PROJECT SO AS NOT TO DISTURB ANY EXCENSIVE UITRITY METHER SHOWN ON PRANS OR NOT. ANY UITRITY DISTURBED OR DAMAGED BY THE CONTRACTION DURING HIS CONSTRUCTION OPERATIONS STOLLE ET REPARED BY THE CONTRACTION BY DETRA COST TO THE OWNER.

3. THE CONTRACTOR SHULL CONSTRUCTION ACTIVITY TO THE AREA WITHIN EXISTING EASEMENTS AND CONSTRUCTION DUTS, UNLESS OTHERWISE APPROVED IN WRITING BY THE DANCE.

4. THE CONTRACTOR WILL BE SOLELY LIABLE FOR ANY WORK HE PERFORMS OUTSIDE OF LEGAL EASEMENTS OR CONSTRUCTION LIMITS.

5. The contractor must contact all utility owners and have them field locate their existing lines pror to any construction activity.

7. THE CONTRACTOR SHALL USE ALL POSSIBLE CARE DURING EXCAVATION ON THIS PROJECT SO AS NOT TO DISTURB OR DAMAGE ANY EXISTING UTILITY OR STRUCTURE NOT SCHEDULED FOR DEPOLITION WHETHER DEPOLITIE OR NOT BY THE CONTRICTION DRIVINGS. ANY DAMAGE TO THE AFFOR PROTOCOL OF CONTRICTION AND BY REPLAYED OR REPLAYED BY THE CONTRACTOR SHALL BE REPLAYED OR REPLAYED BY THE CONTRACTOR AND BY REPLAYED OR REPLAYED BY THE CONTRACTOR AT NO COST TO THE OWNER TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PROFIT TO BOYD DAMAGE.

8. THE CONTRACTOR SHALL CONTACT AND OBTAIN THE PERVISSION OF EXISTING LITELITY CANCERS 48 HOURS (MILL) PRIOR TO ANY CONSTRUCTION ACTIVITY INTERRUPTING OPERATION OF SATE LITELITY.

9. Unless otherwise noted, all bured pipes shall have 30" (W.N.) cover as measured from paished grade to the outside surface of the pipe.

10. IT SHALL BE THE CONTRACTOR'S RESPONSBUTY TO WORK ALL APPLICABLE DRAWNOS AND THE APPROPRIATE SPECIFICATIONS AS A UNIT. ANY OWSSONS, DELETIONS, OR CONSTRET'S ARISING AS A RESULT OF FAULURE TO INCORPORATE ALL DRAWNOS AND SPECIFICATIONS WEIGH APPLY SHALL BE CONTRICTED BY THE CONTRACTOR AT NO ADDRED COST TO THE OWNER.

# CONSTRUCTION ON STATE RIGHT-OF-WAY NOTES:

1. WATER MAN/SEWER LINES TO BE CONSTRUCTED WITHIN THE KENTUCKY TRANSPORTATION CABINET RIGHT-OF-WAY.
TRENCHES SHALL BE OF A DEPTH SUPPLICENT TO PROTOE A MANUAL COVER OF 42" FROM THE EXSTING GROUND SURFACE TO
THE TOP OF THE PIPE AND BE LOCATED APPROXIMATELY AS SHOWN UNLESS OTHERWISE MOTED. SEE ROYADIAL SHEETS FOR
DETALS.

2. All bores under state rightans right-of-way: Shall be a unition of 42° depth under bottom of ditch line to top of the proposed bore and/or casing pipe on botts of the homewise.

3. ROCK BLASTING: THERE SHULL BE NO BLASTING WITHIN STATE RIGHT-OF-WAY WITHOUT WRITTEN CONSONT FROM THE KENTUCKY TRANSPORTATION CARNET.

4. PROJECTION OF EXISTING PAWNG:
CAME SMALL BE TAKEN BY THE CONTRACTOR TO MOD CRACKING OR BREAKING THE BITUURNOUS PAYING. ALL DAMAGE TO THE
SISTING PAWNG CAUSED BY THE CONTRACTOR'S OFFENDON SMALL BE REPARED BY THE CONTRACTOR AT NO COST TO THE
SISTING PAWNG CAUSED BY THE CONTRACTOR'S OFFENDON SMALL BE REPARED BY THE USE OF ROBBER AND STREET PAGNED MACHINERY OR OTHER
APPROVED EQUIPMENT WILL SMILLD FIRST THIS TYPE OF CONSTRUCTION.

5. BAXX AND DITCH PROTECTION EXCAVATION:
DURING CONSTRUCTION, ALL EMBANAUGHTS, REFILLS AND EXCAVATIONS SHALL BE KEPT SHAPED AND DRAINED BY THE
CONTRACTOR. DITCHES AND DRAINS ALONG THE FEGHNAYS SHALL BE MAINTAINED IN SUCH A MAINTER AS TO DRAIN EFFECTIVELY
AT ALL THESE.

6. PRIMITE ENTRANCE ROAD:
ALL ROUWN'S AND ENCHANS WITHIN THE WORK UNITS OF STATE RIGHT-OF-WAYS SIMIL BE REPLIED TO THE NATURAL SUBJECT OF THE CROUND WITH APPROVED MITERAL. THE IMPERAL SIMIL BE FLACED AND COMPACTED TO A SMOOTHNESS SUBJECT OF THE CROUND WITH APPROVED MITERAL. THE LIMITED WAS ASSOCIATED BY THE PROPOSED WITHIN THE CONTRACTION OF THE PROPOSED WATER MAIN THE CONTRACTION WIST HAVE ACCESS TO THEIR PROPERTIES AT ALL TIMES DURING CONSTRUCTION.

7. PROTECTION OF EXSTEND ORANAGE CULVERTS: ALL LOCATIONS WHERE THE PROPOSED WATER MAN/SEMER LINE IS PARALLEL WITH OR CROSSAND AN EXISTING STORM SEMER, THE COST OF RELAYING EXSTING LOLWERT PRES OR THE EXTRA DEPTH REQUIRED TO AVOID THE EXISTING CUALVERT IS CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND IS NOT A PAY ITEM.

8. Sove existing utilities have not been shown: The contractor small be responsible for locating all bosting utilities. The contractor small coordinate with the representatives of the virgous utilities when working near any existing utility. No additional patient to the contractor will be made for exiting opth required to anod any fasting utility.

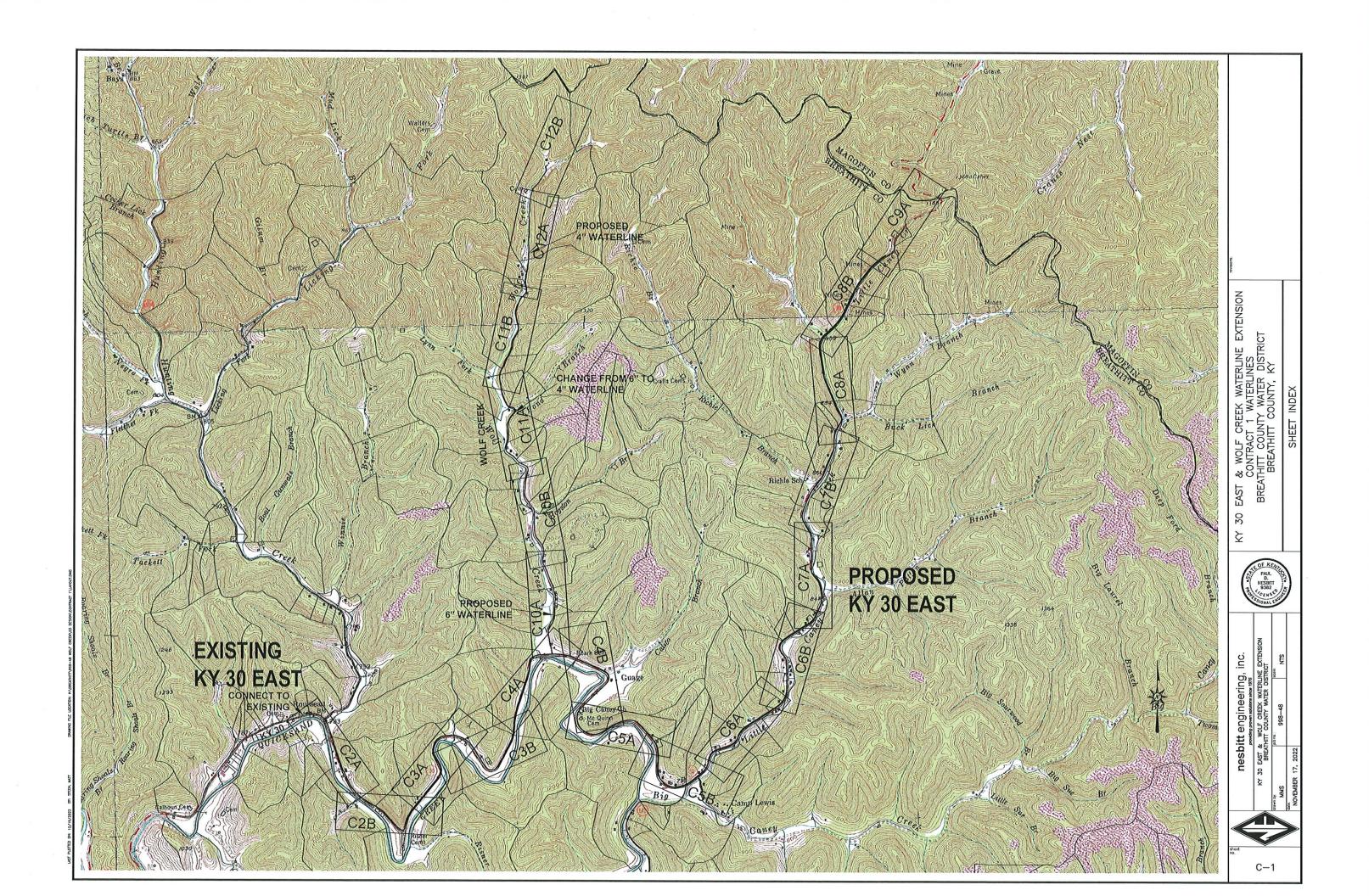
# SHEET INDEX

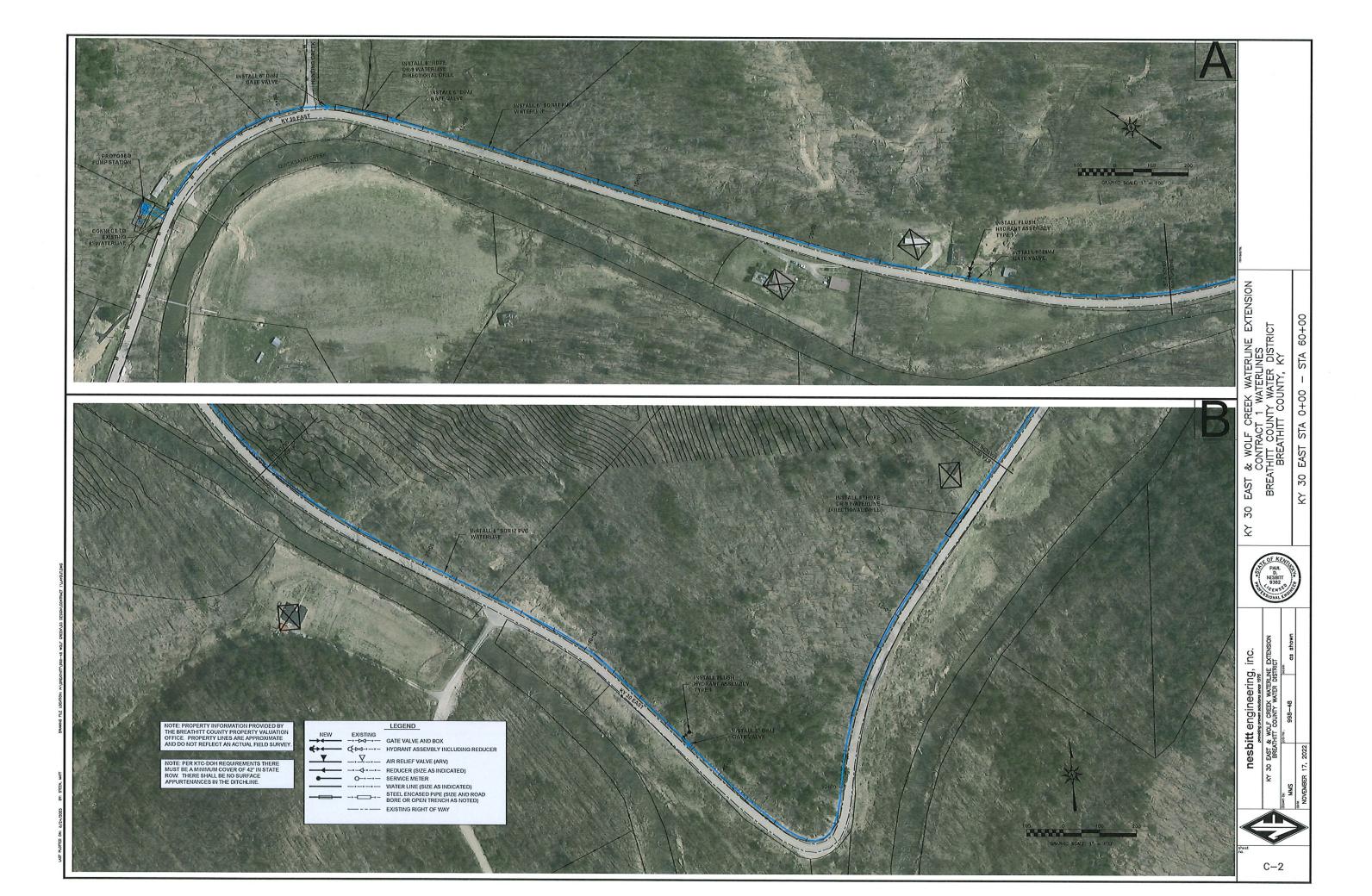
C-1	INDEX
C-2	KY 30 EAST STA 0+00 TO STA 60+00
C-3	KY 30 EAST STA 60+00 TO STA 120+00
C-4	KY 30 EAST STA 120+00 TO STA 180+00
C-5	KY 30 EAST STA 180+00 TO STA 240+00
C-6	KY 30 EAST STA 240+00 TO STA 300+00
C-7	KY 30 EAST STA 300+00 TO STA 360+00
C-8	KY 30 EAST STA 360+00 TO STA 420+00
C-9	KY 30 EAST STA 420+00 TO STA 424+00
C-10	WOLF CREEK STA 0+00 TO STA 60+00
C-11	WOLF CREEK STA 60+00 TO STA 120+00
C-12	WOLF CREEK STA 120+00 TO STA 160+50
D-1	DIRECTIONAL DRILL DETAILS
D-2	STANDARD DETAILS
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D-6	PUMP STATION - PLAN VIEW
D-7	PUMP STATION - ELEVATIONS
D-8	PUMP STATION - FOUNDATION
D-9	PUMP STATION - HOIST SYSTEM

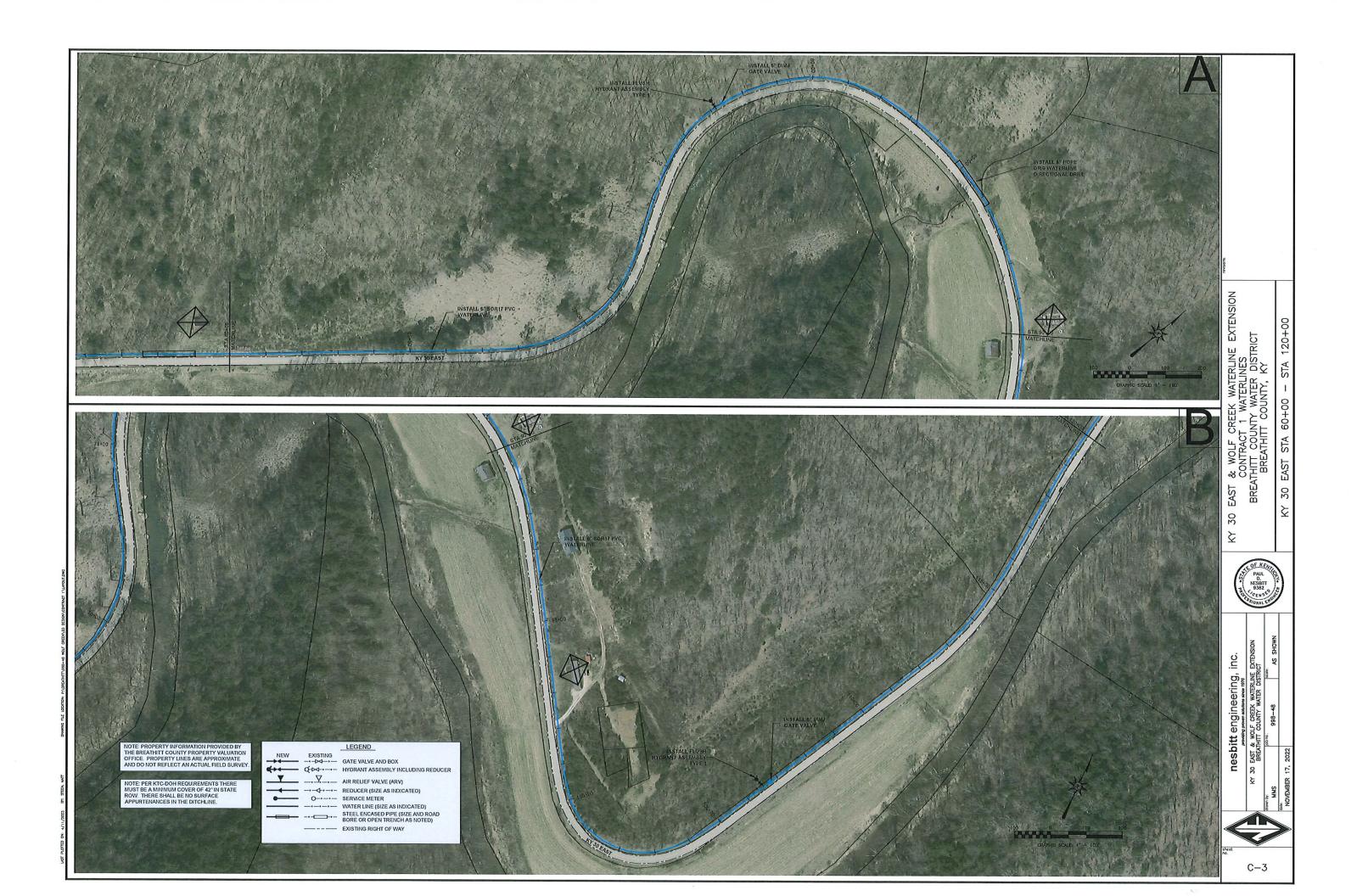


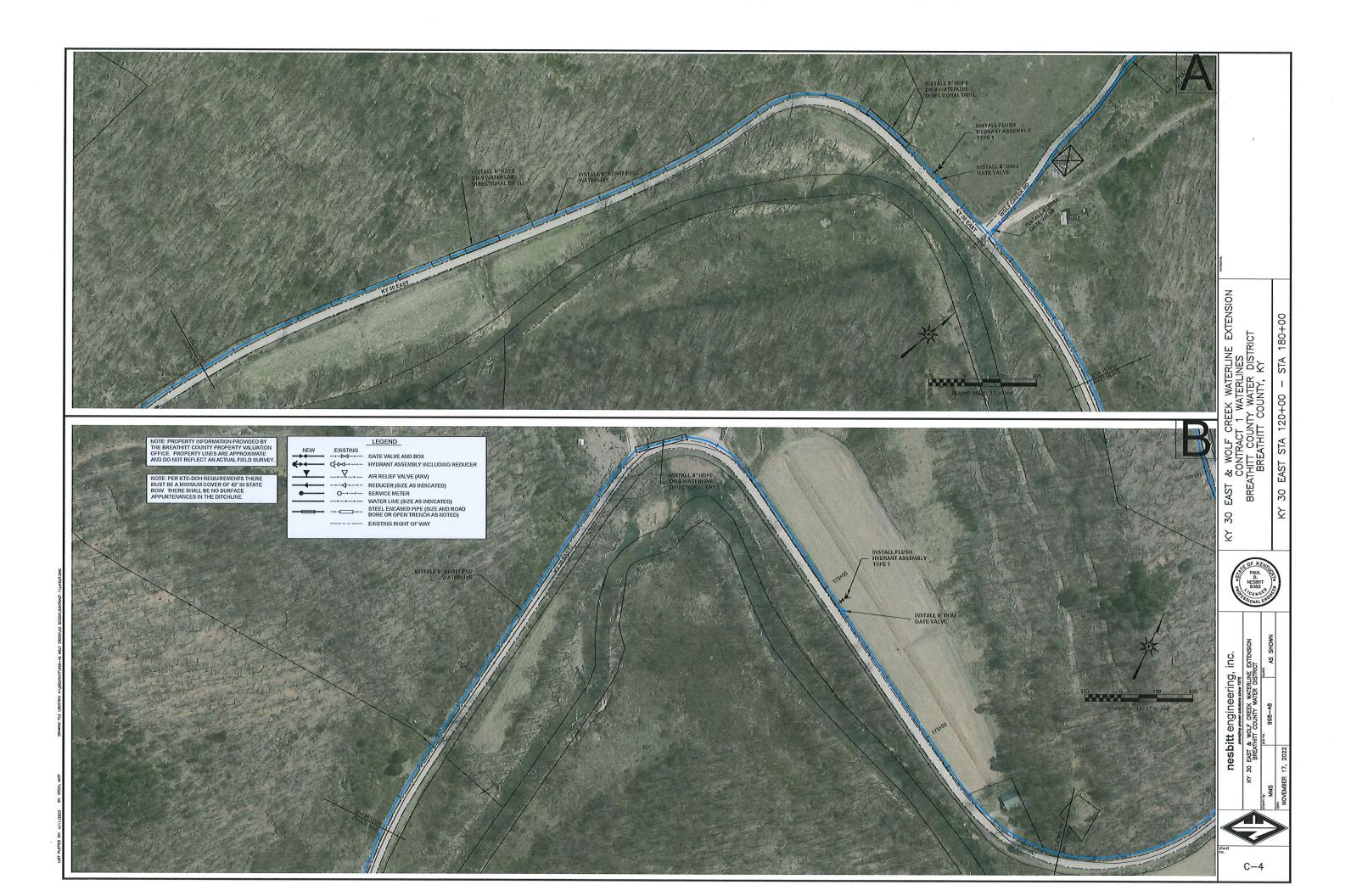
227 M. Upper Street lexington, Kentucky 40507-1018 Tel (659) 233-3111 Fax (859) 259-2717

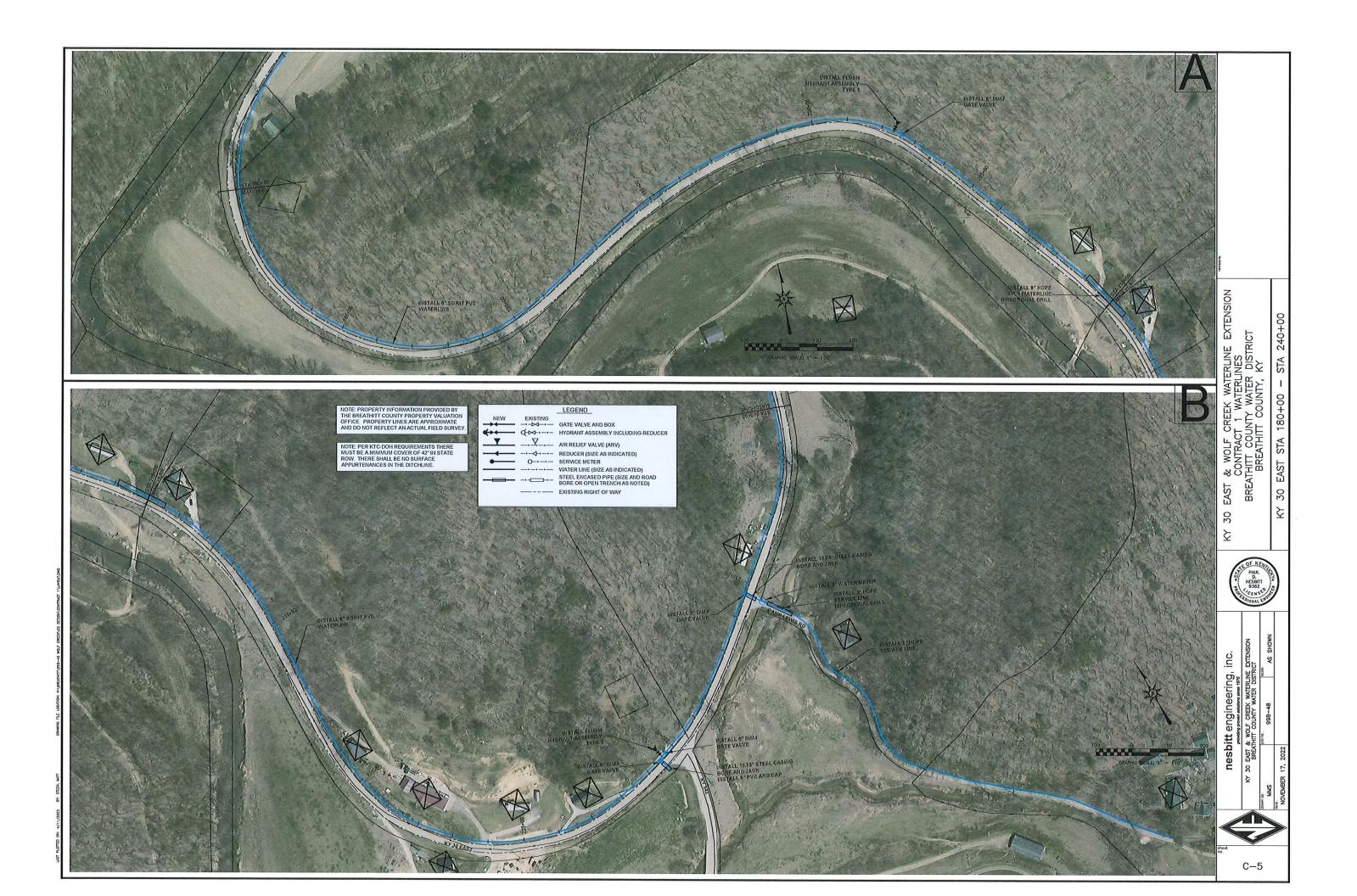


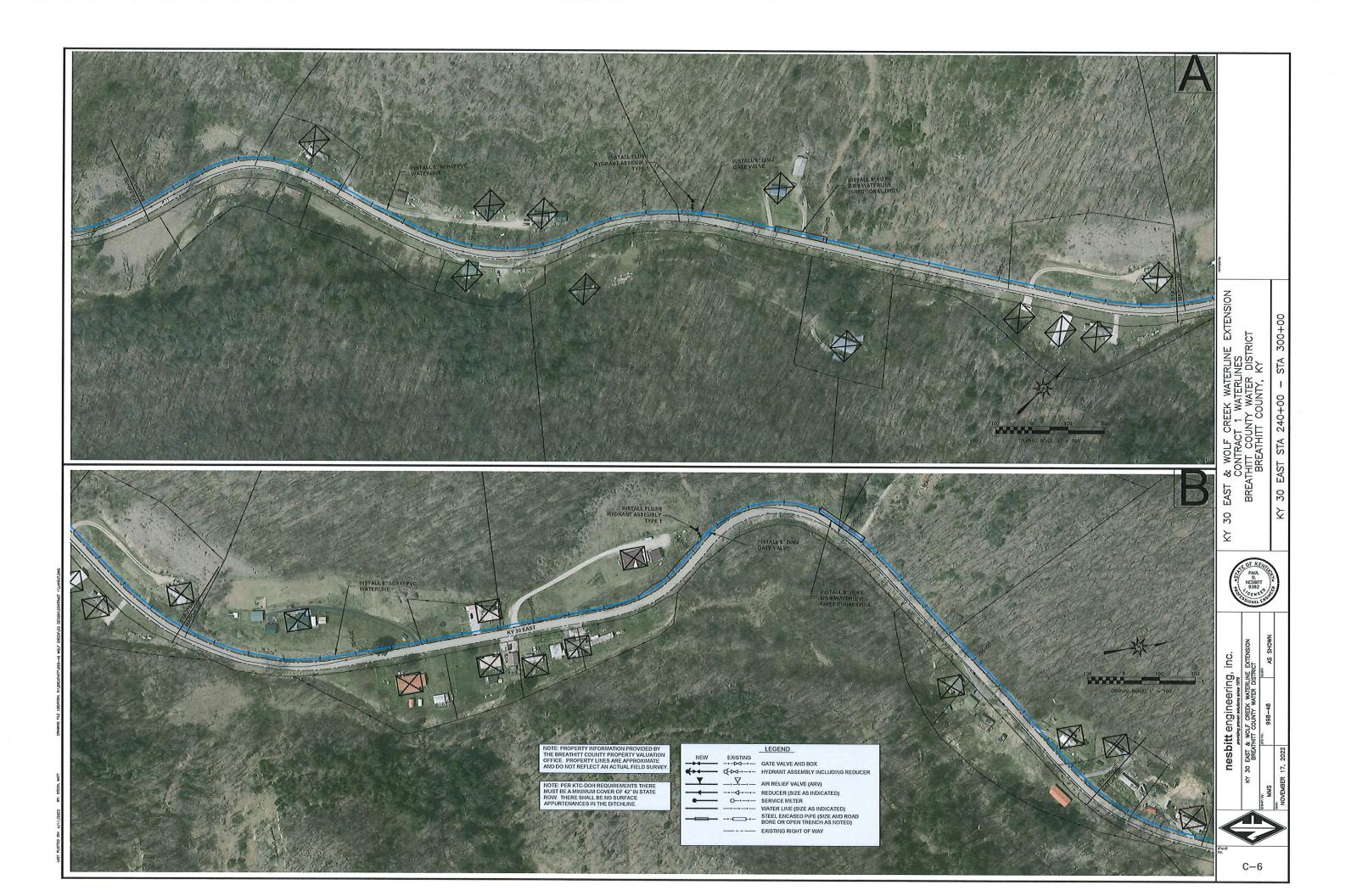


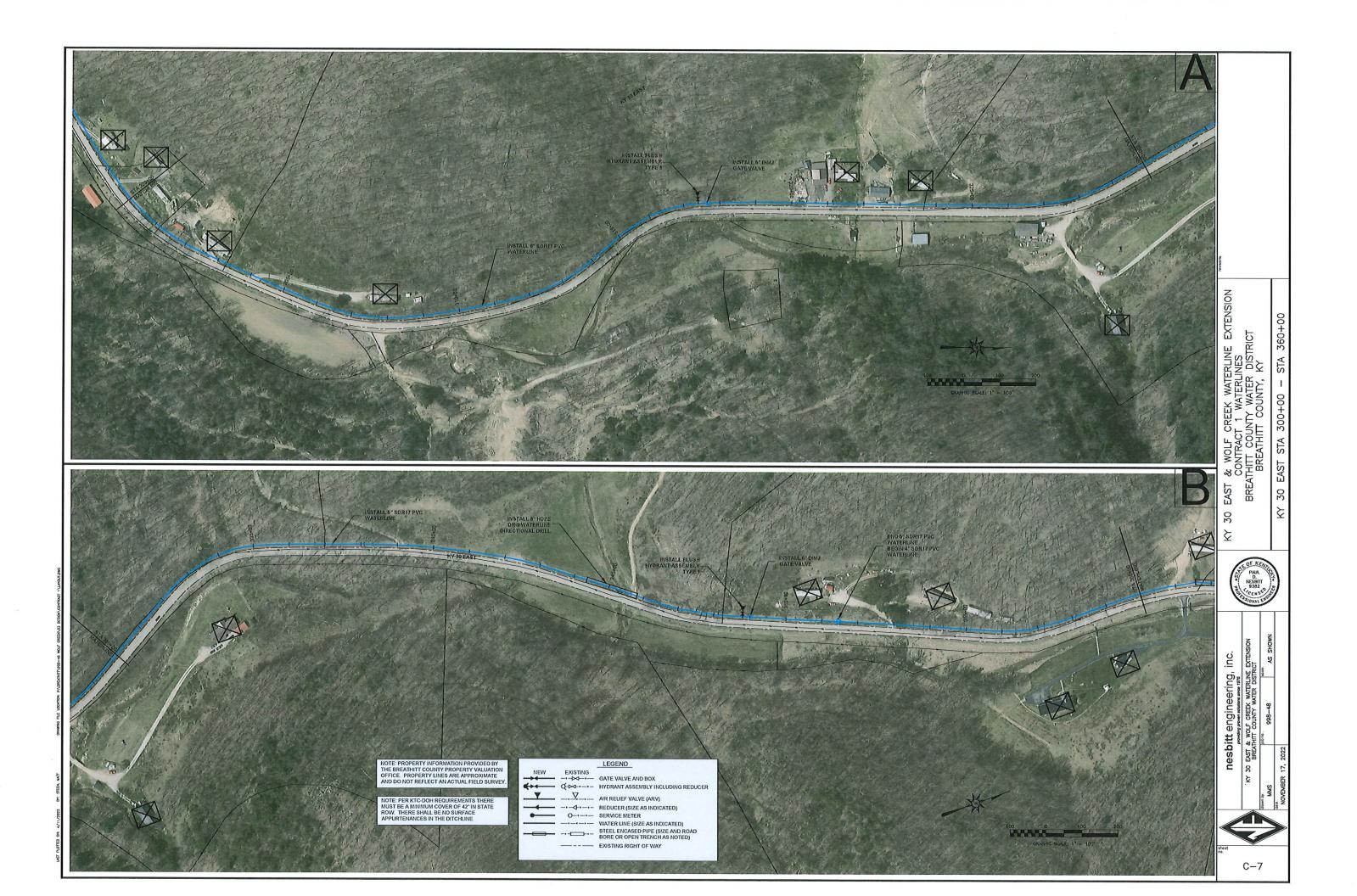


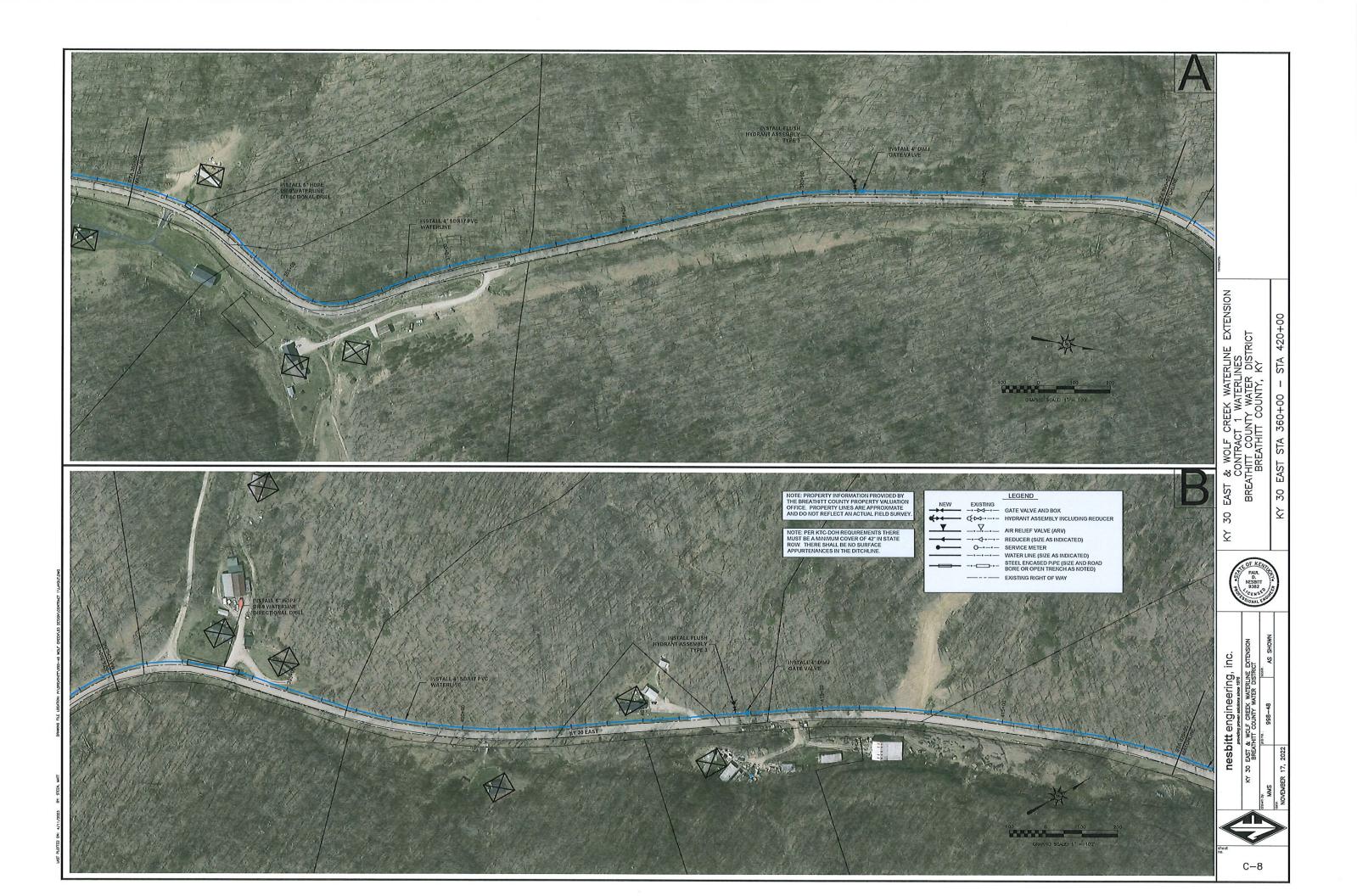






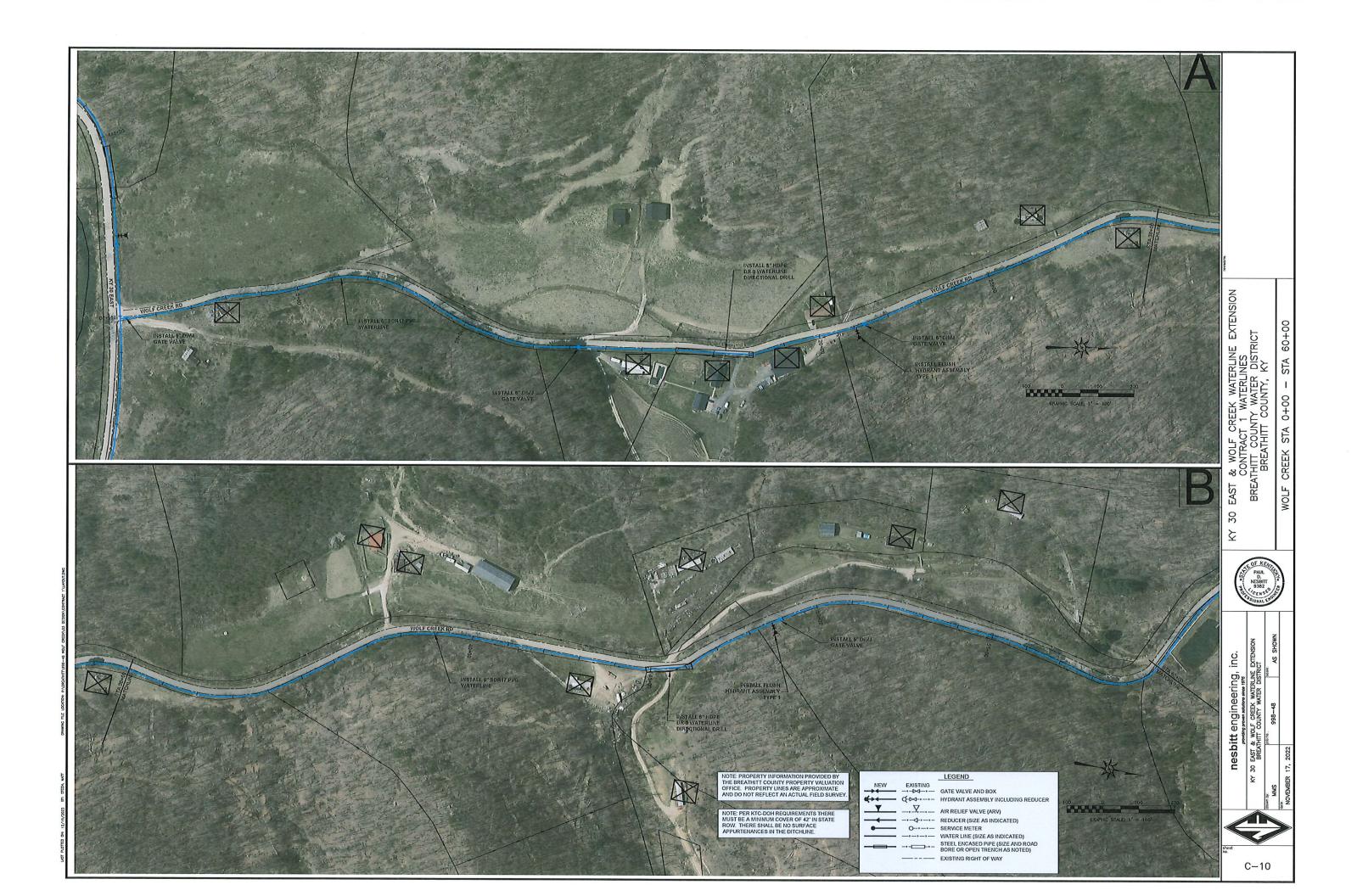


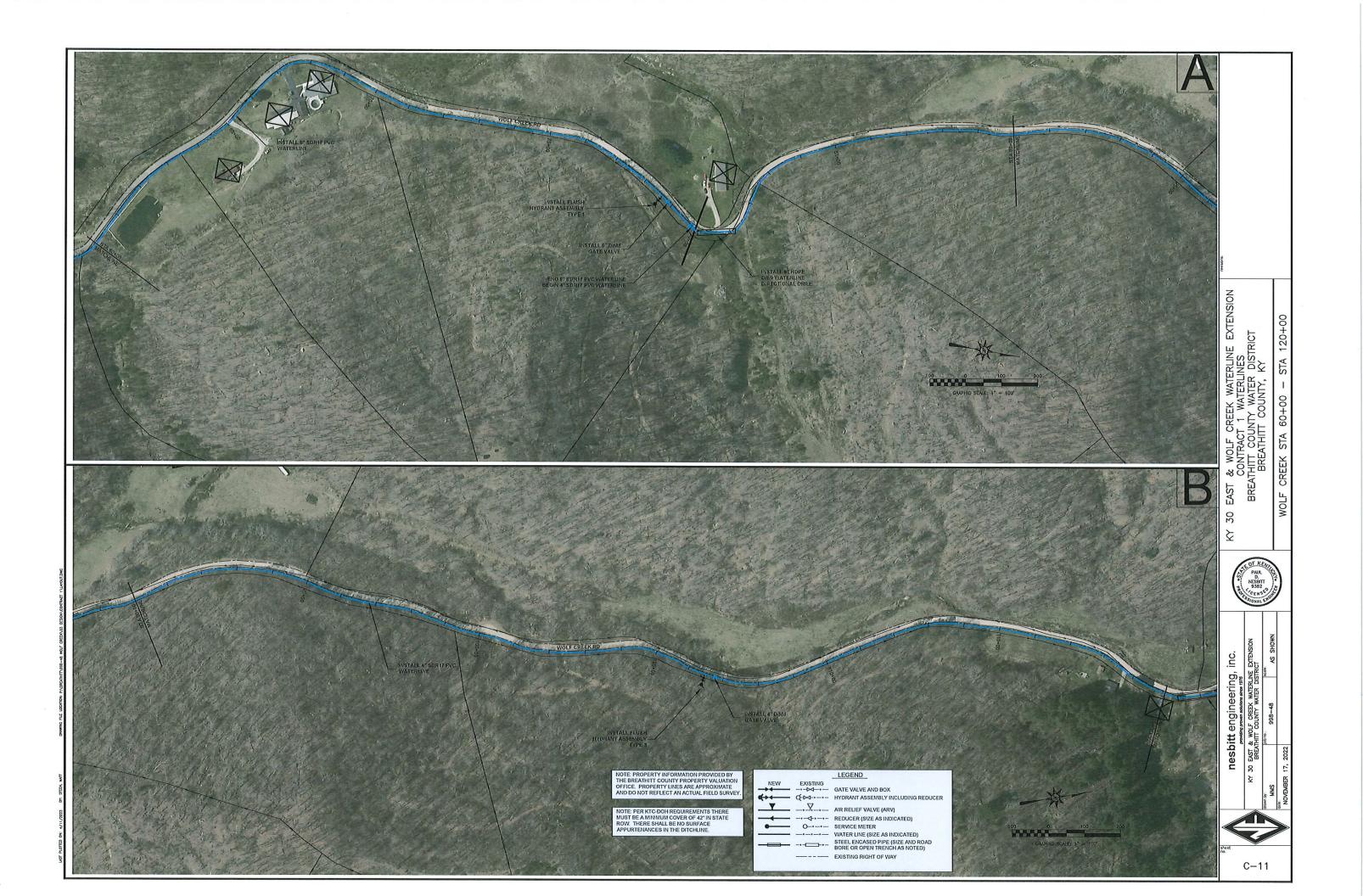


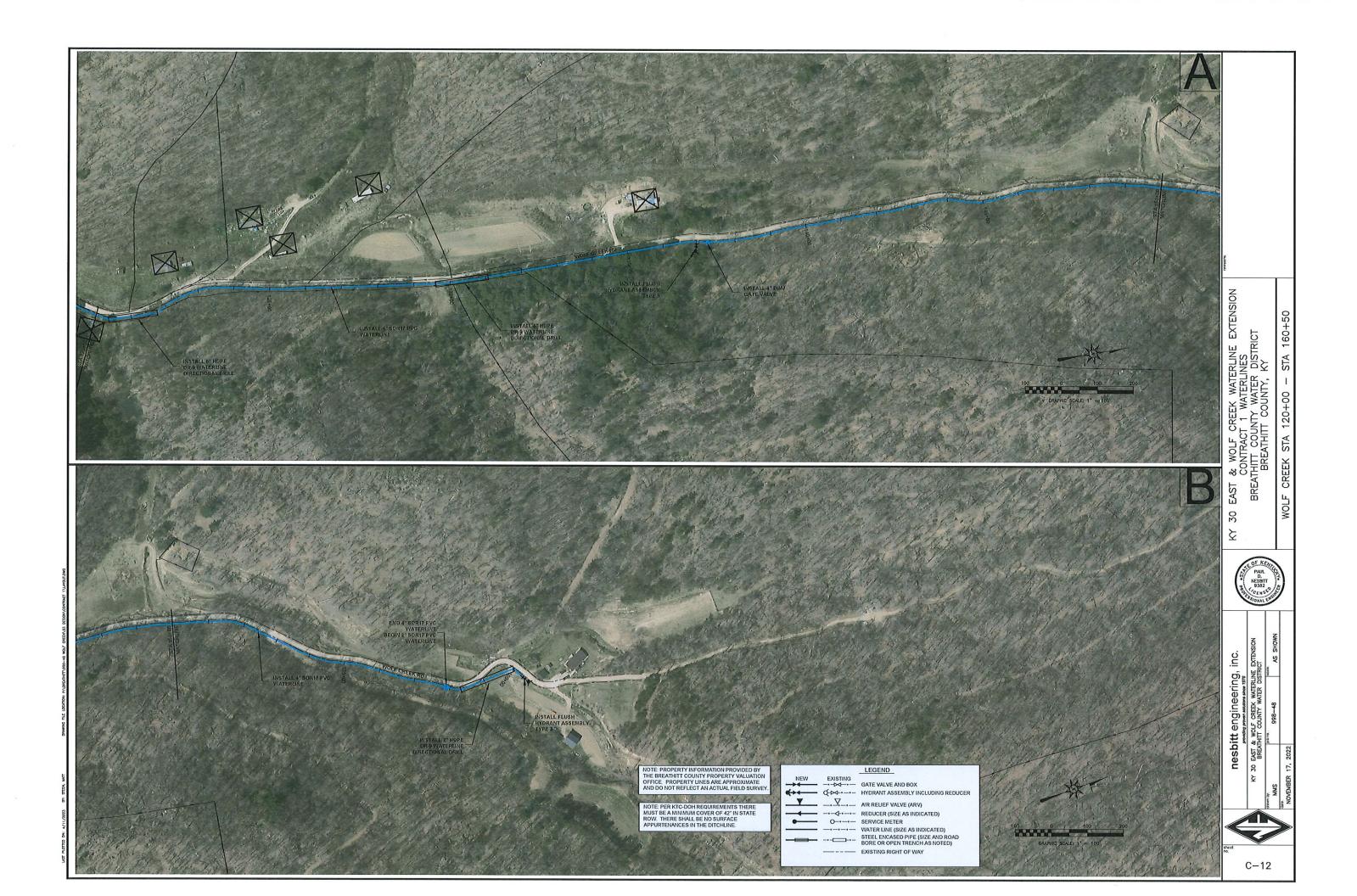




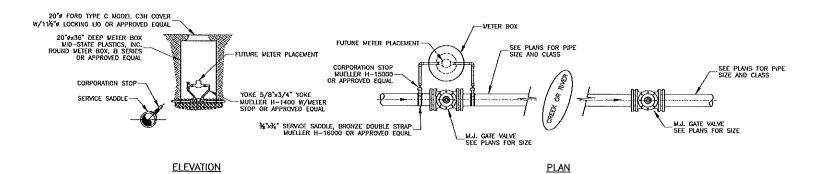
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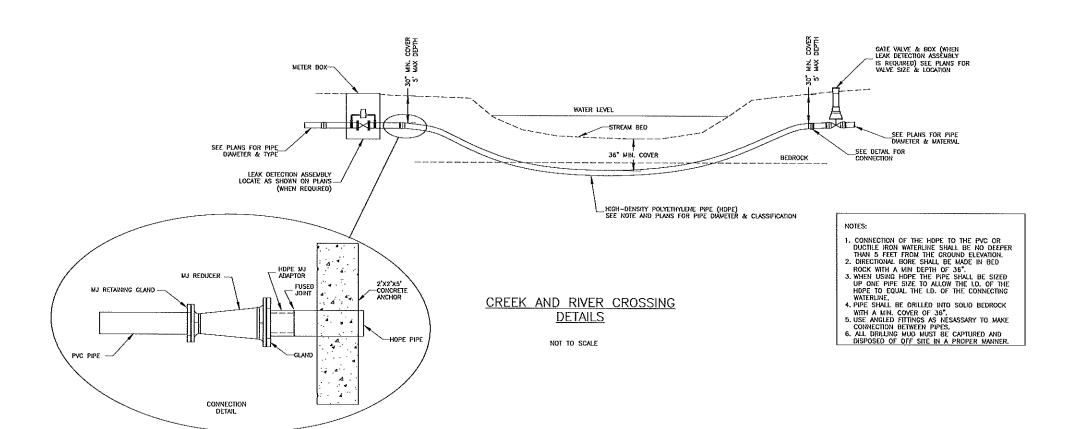


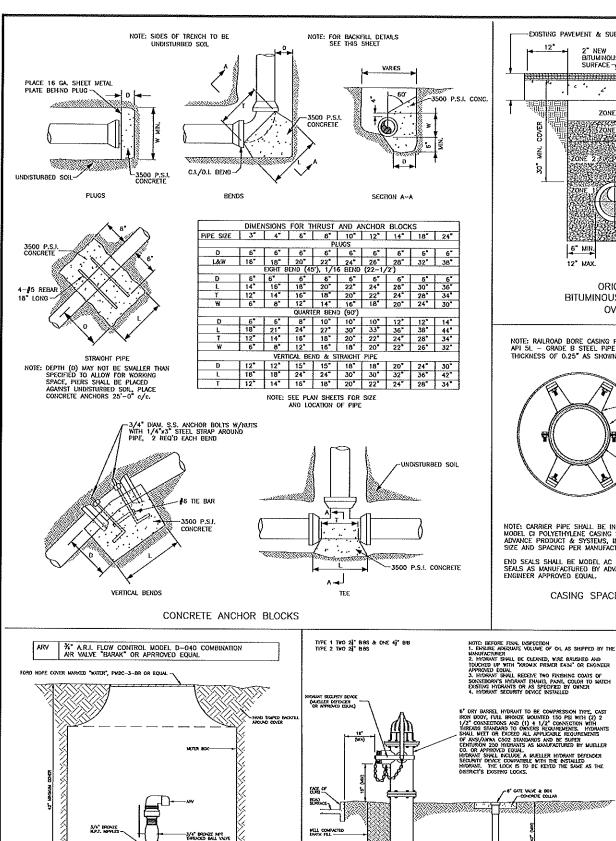


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# LEAK DETECTION ASSEMBLY



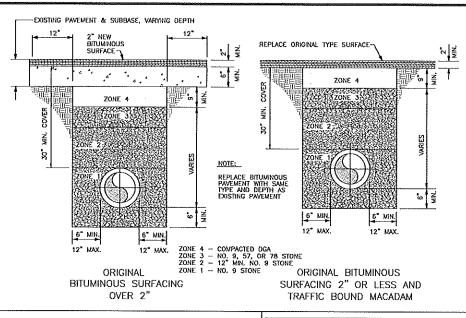


H CREATED STORE OR SWILL PRUST BLOCK WAS 3/4 CU YO OF CONCRETE

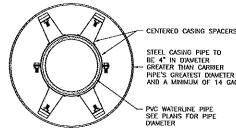
TYPICAL AIR RELIEF VALVE ASSEMBLY

OF CHAPTED

FLUSHING HYDRANT ASSEMBLY, TYPE 1 & 2



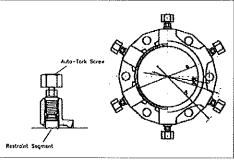
NOTE: RAILROAD BORE CASING PIPE SHALL BE A 16" DIAMETER, API 5L — GRADE B STEEL PIPE WITH A MINIMUM WALL THICKNESS OF 0.25" AS SHOWN ON THE PLANS.



NOTE: CARRIER PIPE SHALL BE INSTALLED WITHIN CASING PIPE USING MODEL CI POLYETHILENE CASING SPACERS AS MANUFACTURED BY ADVANCE PRODUCT & SYSTEMS, INC. OR ENGINEER APPROVED EQUAL. SIZE AND SPACING PER MANUFACTURERS RECOMMENDATIONS.

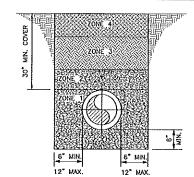
END SEALS SHALL BE MODEL AC PULL-ON OR AW WRAP-AROUND END SEALS AS MANUFACTURED BY ADVANCE PRODUCT & SYSTEMS, INC. OR ENGINEER APPROVED EQUAL.

CASING SPACER DETAIL



MJ Retainer Gland Joint Restraint

1. MJ RETAINER GLAND JOINT RESTRAINTS SHALL BE USED ALONG WITH CONCTETE ANCHOR BLOCKS AT ALL FITTINGS AS REQUIRED



PIPE LAID IN ROCK OR EARTH TRENCH

1. COVER UP TO AND INCLUDING ZONE 4 SHALL BE ESTABLISHED BEFORE TRENCH EXCAVATION.

2. ZONE 4 - 6" MIN. CONSOLIDATION EARTH BACKFILL INCLUDING TOPSOIL, NO ROCK ALLOWED.

3. ZONE 3 — CONSCUDATED SOIL, (NO ROCK GREATER THAN 6" DIAMETER) NO. 9, 57 OR 78 STONE MARKING TAPE SHALL BE PLACED AT THE BOTTOM OF THIS ZONE

4. ZONE 2 - FROM THE SPRINGUNE
OF THE PIPE TO A DISTANCE 12
INCHES ABOVE THE PIPE, THE
CONTRACTOR SHALL USE THE SAME
MATERIAL AS SPECIFIED FOR BEDDING.
COMPACTION IS REQUIRED IN AREAS
SUBJECT TO TRAFFIC. TRACER WIRE
SHALL BE LOCATED ON THE TOP. OF
THE PIPE.

5. ZONE 1 — BEODING MATERIAL, IN EARTH EXCAVATION AREAS, SHALL BE CLEAN EARTH, FREE FROM FOCKS, DEBRIS OR OTHER FOREIGN MATERIAL. THE CONTRACTOR STONE, SAND OR GRAVEL AS BEODING MATERIAL WHERE ROCK EXCAVATION IS ENCOUNTERED.

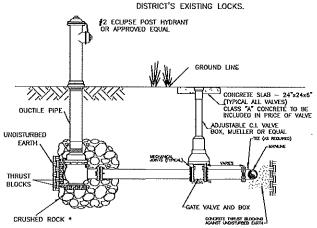
Hydrants shall be self-draining, non-freezing, compression type with  $2\!-\!3/16$  main valve opening. Outlet shall be  $2\!-\!1/2$ 

Hydrants shall have a ductile iron pipe riser with a cost iron stock top, and non-turning operating rod. Principal interior operating parts shall be brass and removable from the hydrant for servicing without excavating the hydrant.

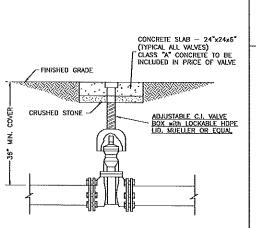
Hydrants shall be set in 4 cubic feet of crushed stone to allow for proper drainage of the hydrant. Recommendations of the AWWA should be followed when installing the hydrants.

Post hydrants shall be Eclipse No. 2 Post Hydrants as manufactured by John C. Kupferle Foundry Company, St. Louis, MO. OR APPROVED EQUAL.

HYDRANT SHALL INCLUDE A SECURITY LOCKING DEVICE COMPATIBLE WITH THE INSTALLED HYDRANT. THE LOCK IS TO BE KEYED THE SAME AS THE



FLUSHING HYDRANT ASSEMBLY, TYPE 3



STOP-MUELLER H-15000 (%"x"4") OR APPROVED EQUAL TYPICAL GATE VALVE ASSEMBLY

# METER SETTING

1. YOKE-5/8'x3/4" MUELLER
H-1400 WITH METER STOP OR
APPROVED EQUAL
2. METER BOX-18'8x24" DEEP,
MID-STATE PLASTICS, INC.
ROUND METER BOX, B SERIES
OR APPROVED EQUAL
3. COVER-18'9 FORD HOPE
PMBC-3-BB LOCKING LID OR
APPROVED EQUAL
4. METER-SEE SECIEDATIONS 4. METER—SEE SPECIFICATIONS 5. INDIVIDUAL PRESSURE REDUCING VALVE (IPRV) WATTS MODEL 25AUB(2"), WILKENS MODEL 600 (%-1") BOTH W/S.S. STRAINER, ADJUSTABLE PRESSURE RANGE 25-75 P.S.I., OUTLET PRESSURE SET AT 50 P.S.I. OR APPROVED

EQUAL

6. NO PREFAB SETTER TUB

8. NO PREFAB SETTER TUB

8. NO PREFAB SETTER TUB

8. NO PREFAB SETTER TUB

9. NO PREFAB SETTER

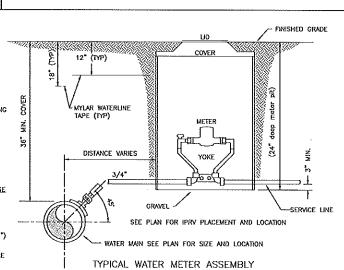
10. NO PREFAB SETTER

10. NO PREFAB

10. NO

TIE TO WATER MAIN GROUND KEY CORPORATION

SERVICE SADDLE-BRONZE DOUBLE STRAP MUELLER H-16000 OR APPROVED EQUAL



Ë engineering,

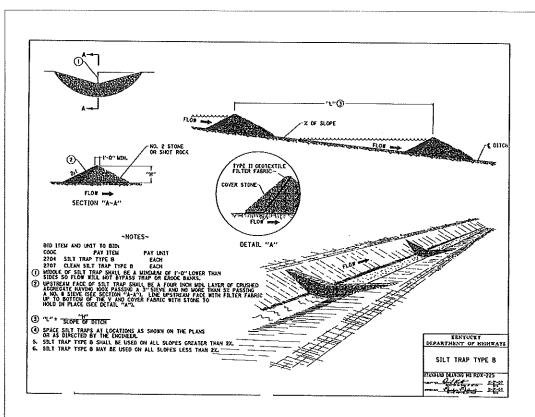
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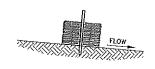
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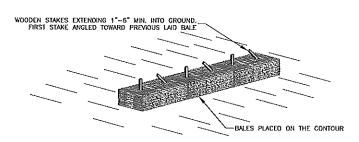
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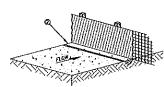
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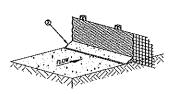








ALTERNATE 1



# ALTERNATE 2

NOTE: TEMPORARY BALE SILT CHECKS SHALL BE PLACED WHERE NEEDED TO PROVIDE PROPER EROSION CONTROL UNTIL REVEGETATION IS COMPLETED.

STRAW BALE SILT CHECK SEDIMENTATION CONTROL NOT TO SCALE

NOTES

1. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

2. THE BOTTOM 12 INCHES OF FABRIC SHALL BE BURIED IN A 6 INCH SERCH CUE INTO THE GROUND OR COVERED BY 6 INCHES OF FILL MATERIAL, TO PREVENT SEDIMENT ESCAPING UNDER FENCE.

ALL EARTHWORK SHALL BE ON THE UPSTREAM SIDE OF FENCE.

SILT CHECK FENCE SEDIMENTATION CONTROL EAST & WOLF CREEK WATERLINE EXTENSION BREATHITT COUNTY WATER DISTRICT 1137 Main Street Jackson, KY 41339 30

CONTROL &

nesbitt engineering, inc.

ros est & wor creek watering brension

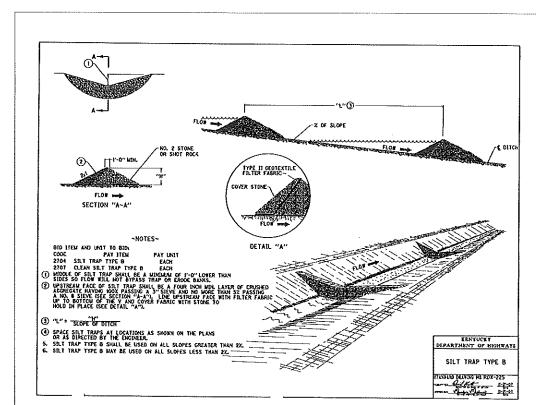
RR 30 Est & wor creek watering

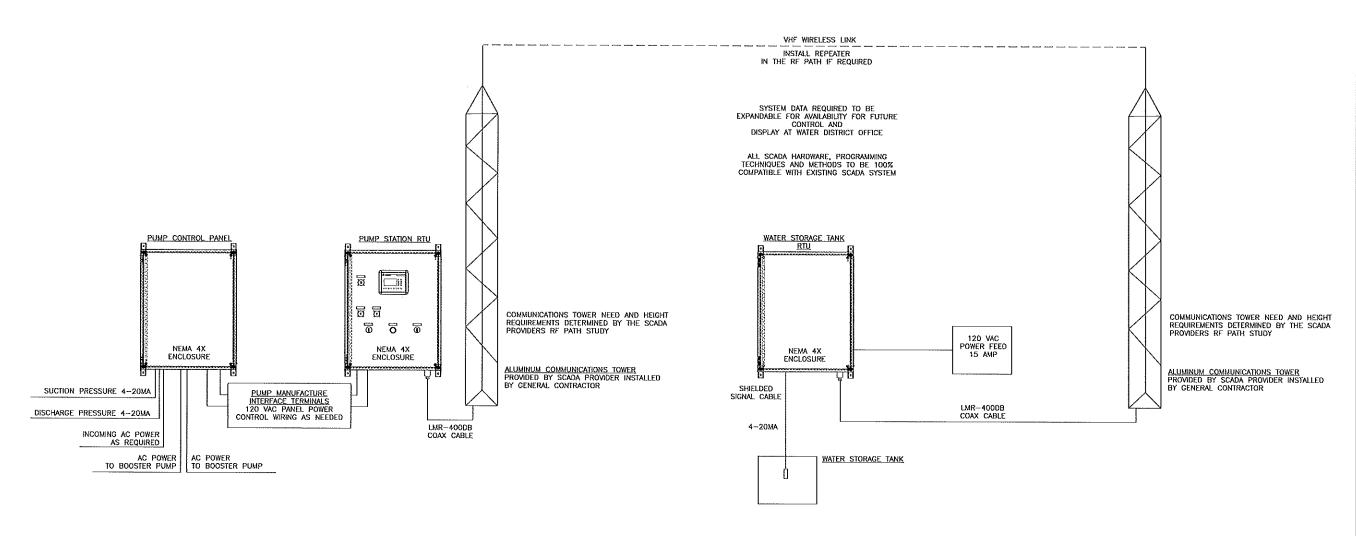
BRATHING COUNTY WATER DISTRICT

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EAST & WOLF CREEK WATERLINE EXTENSION CONTRACT 1 — WATERLINE BREATHITT COUNTY WATER DISTRICT BREATHITT COUNTY, KENTUCKY

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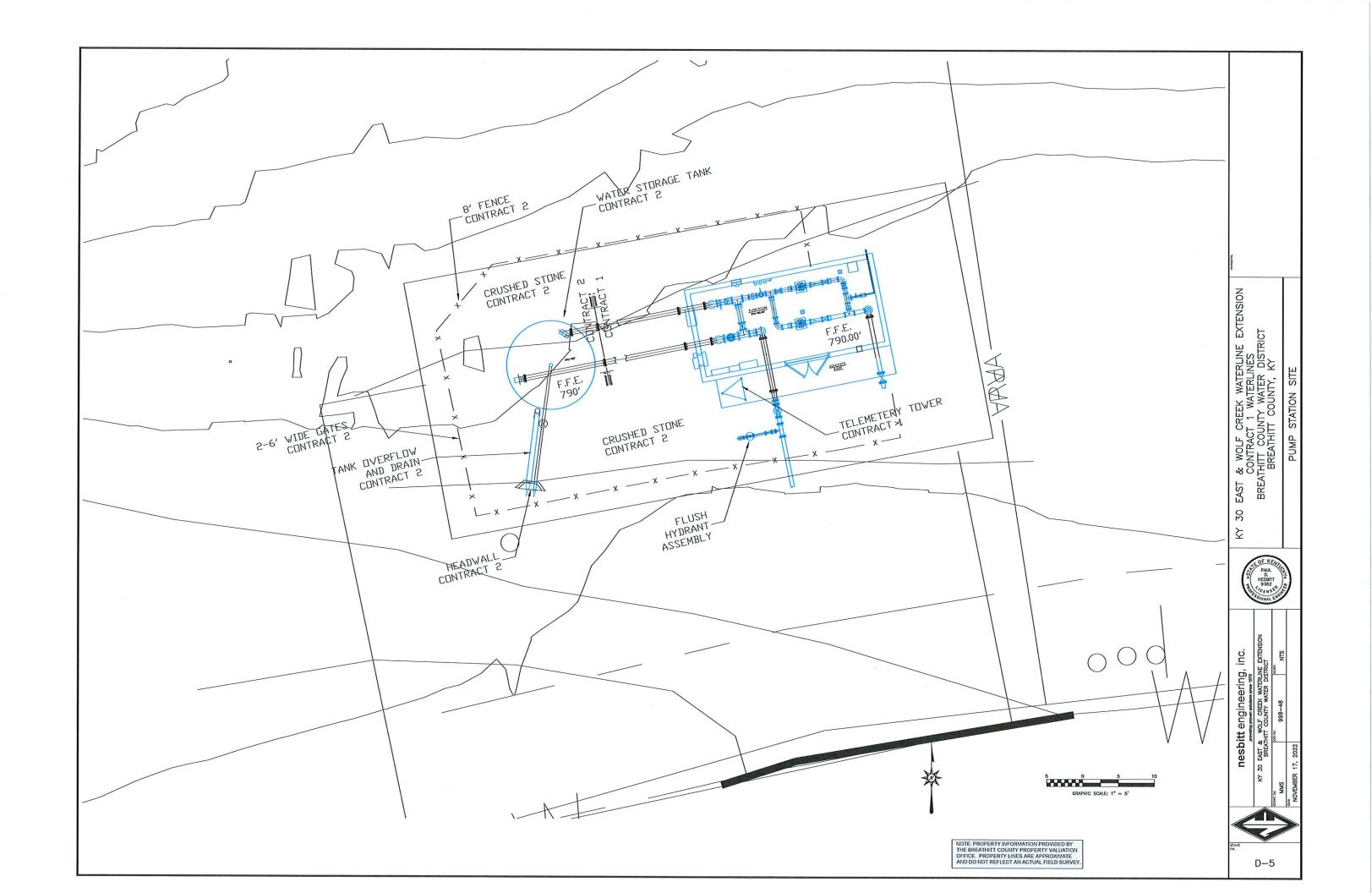
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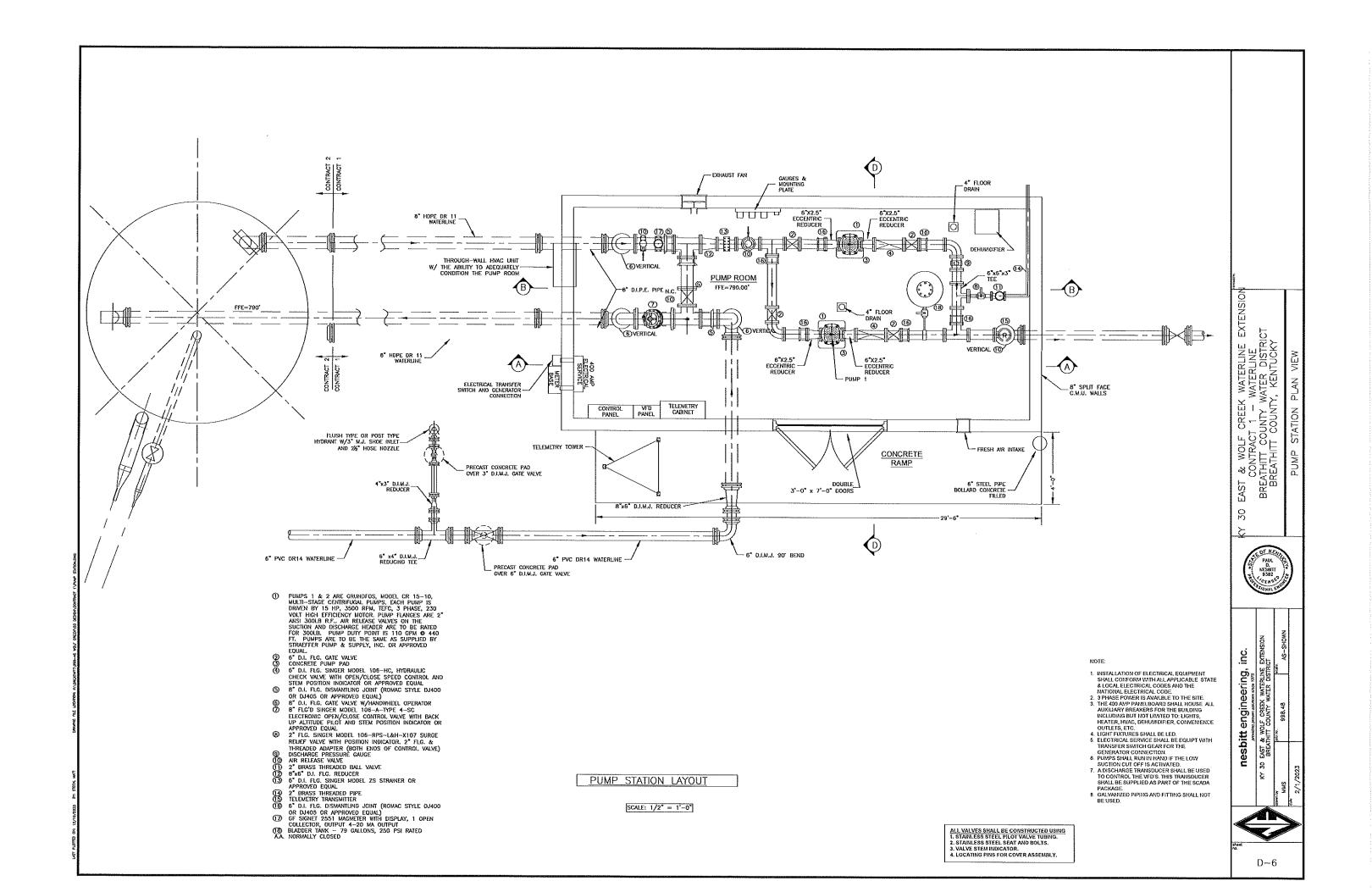
KY 30 EAST & WOLF CREEK WATERLINE ENTENSION
BERAHIT COUNTY WATER DISTRICT

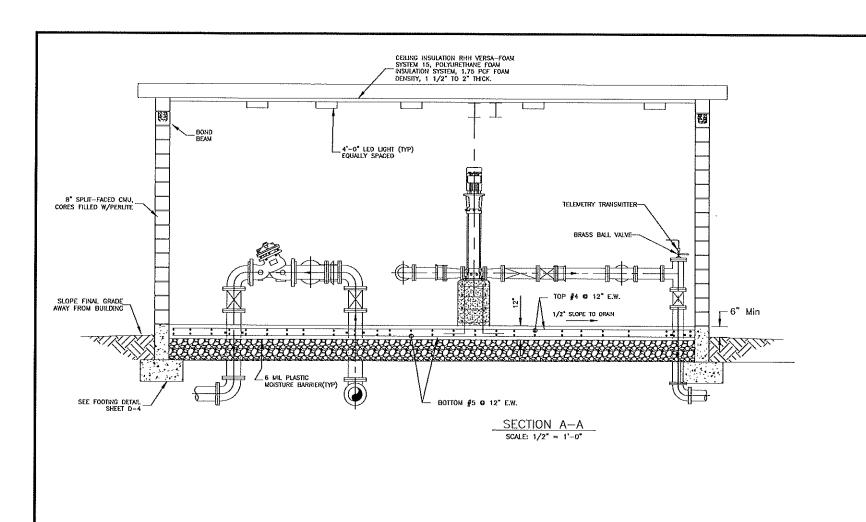
AS REAL MATERIAL ENTENSION

AS BERAHIT COUNTY WATER DISTRICT

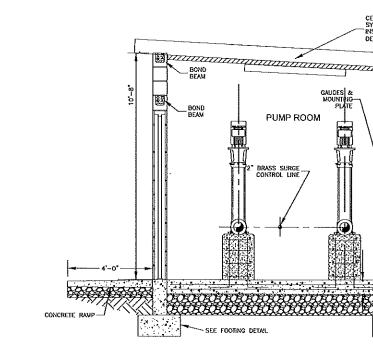
MOT TO SCAL







CEILING INSULATION RHH YERSA-FOAN SYSTEM 15, POLYURETHANE FOAM "INSULATION SYSTEM, 1,75 PCF FOAM DENSITY, 1 1/2" TO 2" THICK.



-6" Min

CEIUNG INSULATION RHH VERSA-FOAM SYSTEM 15, POLYURETHANE FOAM "INSULATION SYSTEM, 1.75 PCF FOAM DENSITY, 1 1/2" TO 2" THICK, Mannana and a second a second and a second a B" SPLIT-FACED CMU, CORES FILLED W/PERLITE 

> SECTION D-D SCALE: 1/2" = 1'-0"

EAST & WOLF CREEK WATERLINE EXTENSION BREATHITT COUNTY WATER DISTRICT nesbitt engineering, inc. R

PAIR D. NESBITT 9382 CENSE

EXTENSI(

EAST & WOLF CREEK WATERLINE EX CONTRACT 1 — WATERLINE BREATHITT COUNTY WATER DISTRICT BREATHITT COUNTY, KENTUCKY

EAST

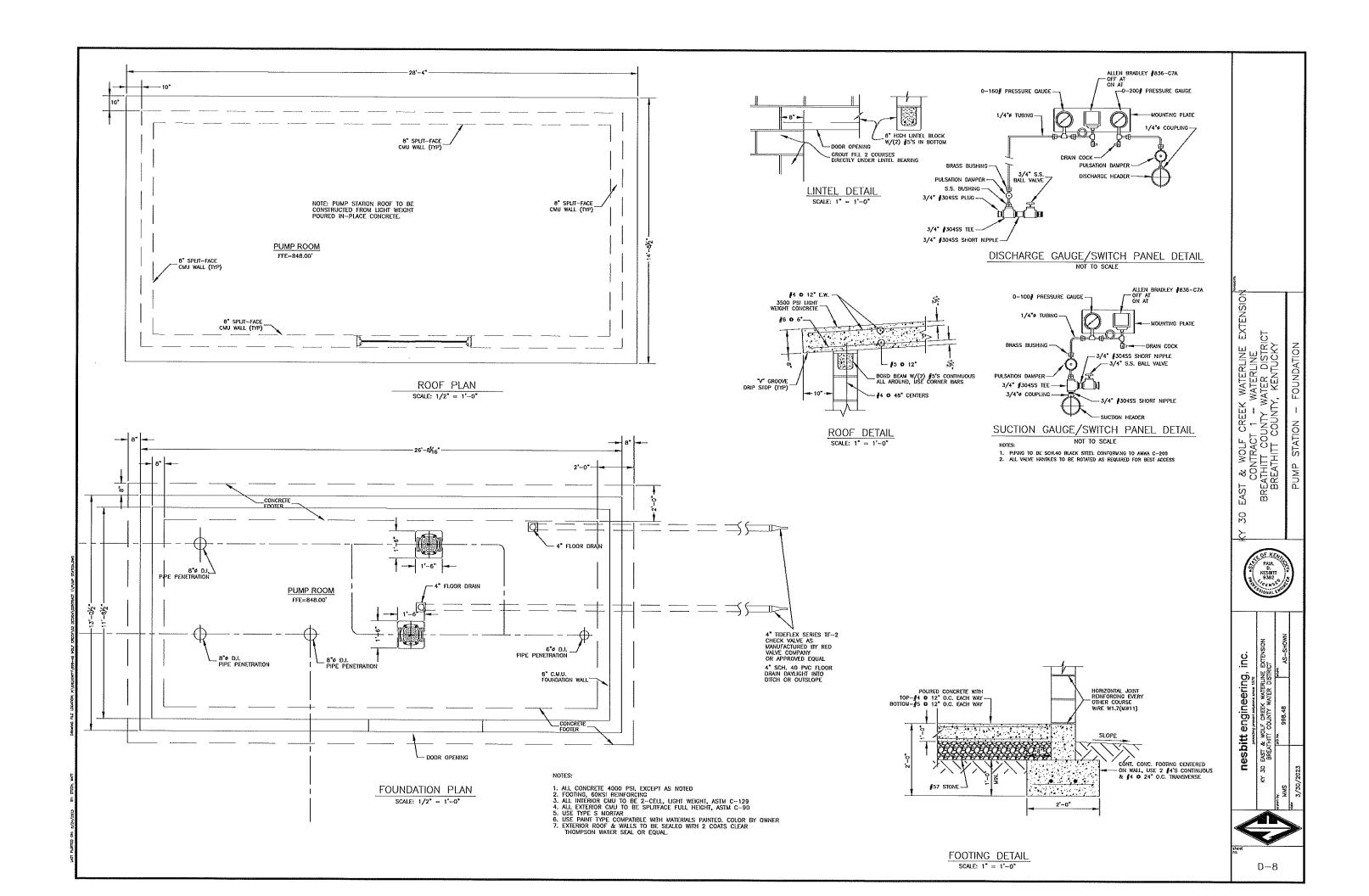
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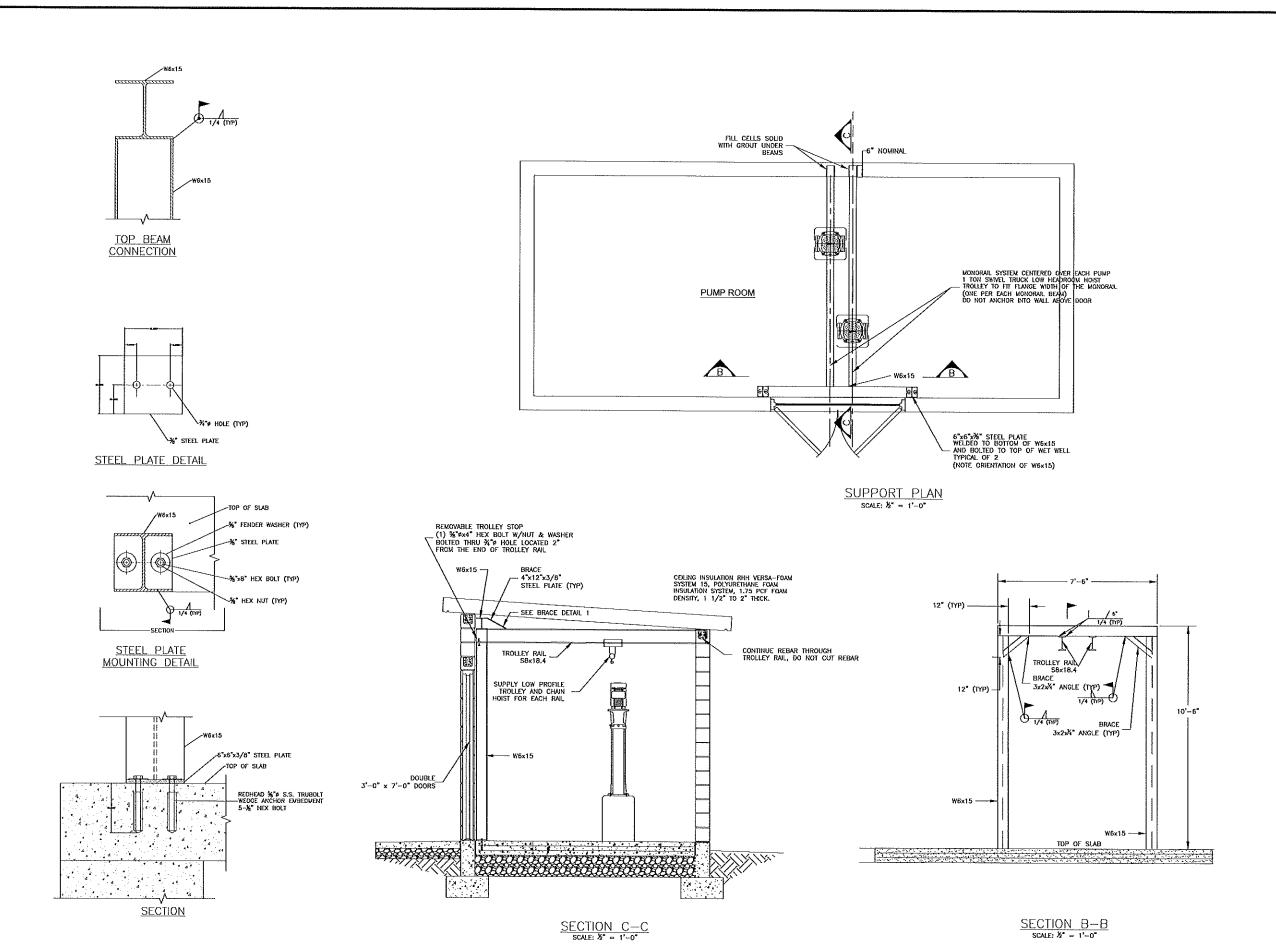
ALL VALVES SHALL BE CONSTRUCTED USING 1, STAINLESS STEEL PILOT VALVE TUBING. 2, STAINLESS STEEL SEAT AND BOLTS. 3, VALVE STEM INDICATOR. 4, LOCATING PINS FOR COVER ASSEMBLY.

D - 7

SLOPE FINAL GRADE AWAY FROM BUILDING 1/2" SLOPE TO DRAW 6 MIL PLASTIC
MOISTURE BARRIER(TYP) -X/X/X/X BOTTOM #5 @ 12" E.W. -see footing detail SECTION B-B SCALE: 1/2" = 1'-0"

8" SPLIT-FACED CMUL CORES FILLED W/PERLITE





EAST & WOLF CREEK WATERLINE EXTENSION CONTRACT 1 — WATERLINE BREATHITT COUNTY WATER DISTRICT BREATHITT COUNTY, KENTUCKY 30 PAUL D. NESBITT 93322

D-9

nesbitt engineering, inc.

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