

WOLFE BRANCH UTILITY DISTRICT

Morgan County, Tennessee

WATER LINE ADDITIONS

CONTRACT 298

1998

1998
Sanbelt Cont

LOCATION MAP



PROJECT LOCATION

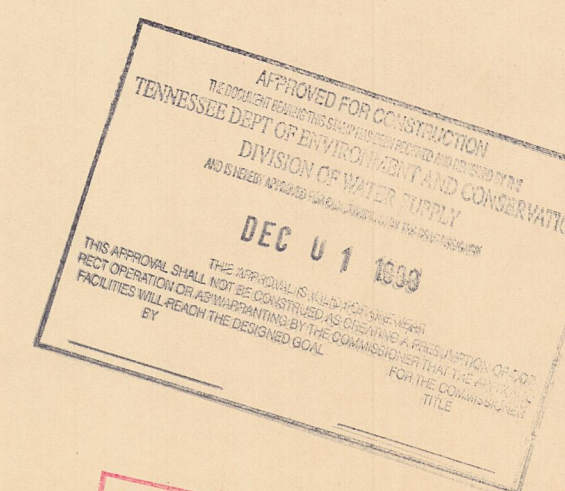
Project Engineer



PLANS APPROVED BY
Donald Painter
DONALD PAINTER, MANAGER
WOLFE BRANCH UTILITY DISTRICT

SHEET INDEX

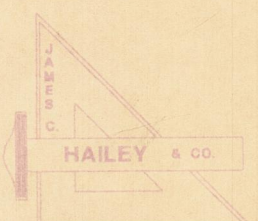
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WATER LINE ADDITIONS (147 SE)	3
WATER LINE ADDITIONS (147 NE)	4
WATER LINE ADDITIONS (147 NW)	5
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WS 98 1650

SET NUMBER *WPAD*

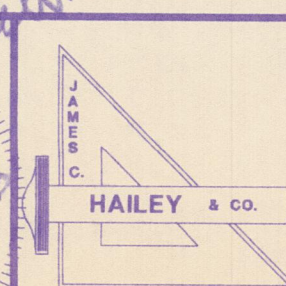
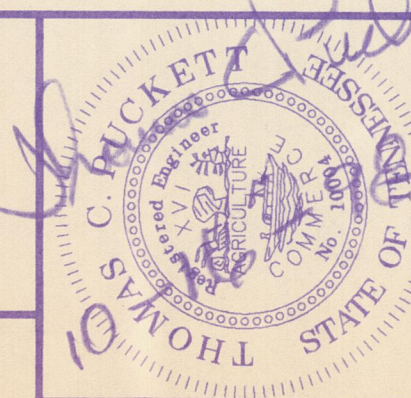
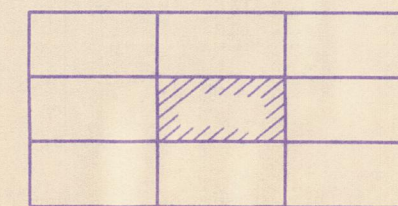
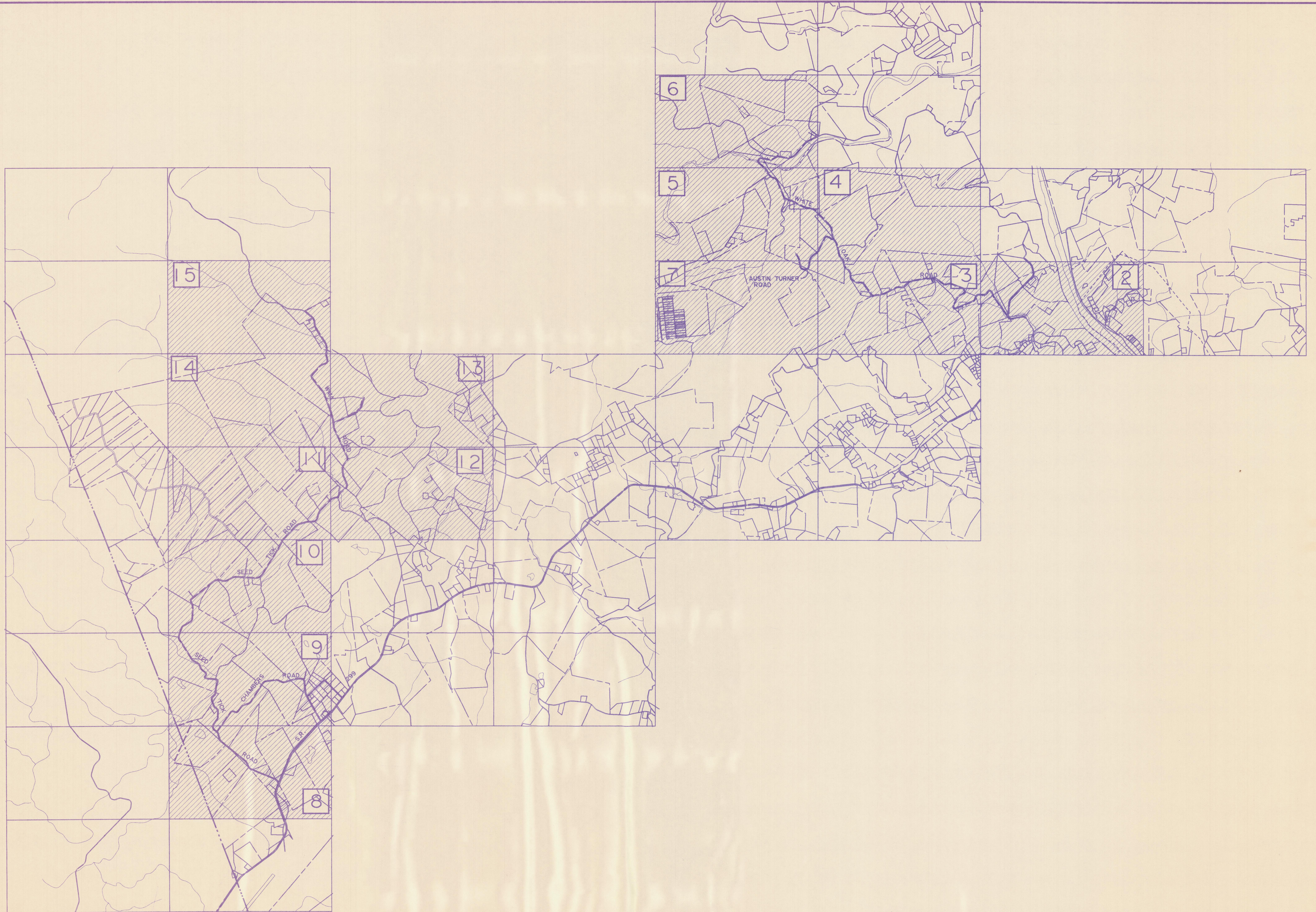
JCH PROJECT NO. 96185



JAMES C. HAILEY & CO.

2622 OLD LEBANON ROAD - SUITE 200

NASHVILLE, TENNESSEE



WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

KEY MAP

DESIGN	DRAWN	CHECKED	DATE	SCALE	PROJECT NO.
TCP	LLB	TCP	JULY 1998	1" = 200'	96185



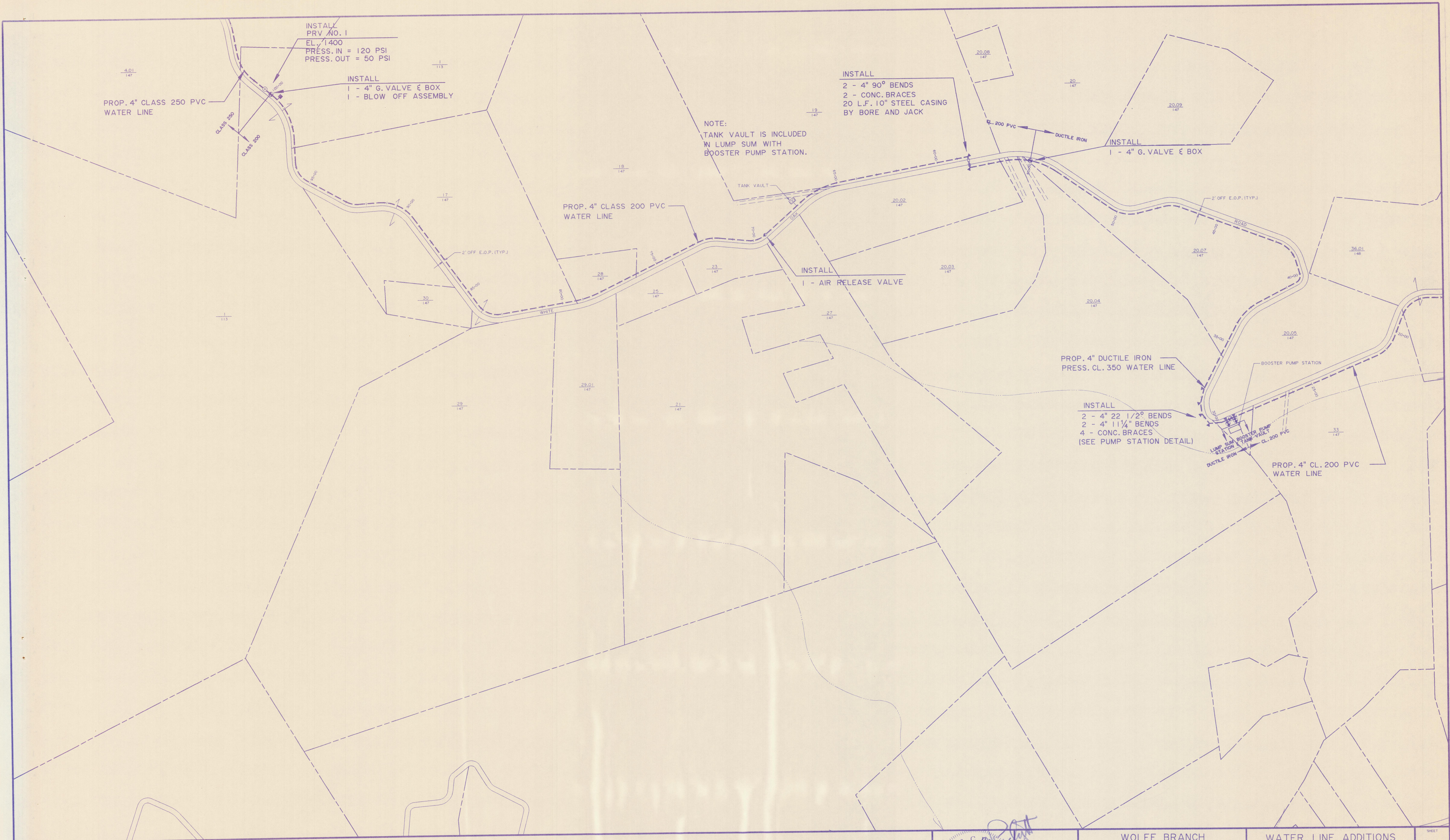
LLB & Associates, Inc. 11/1/98

147 NE			4		
147 SE	148 SW		3	2	

HAILEY & CO.

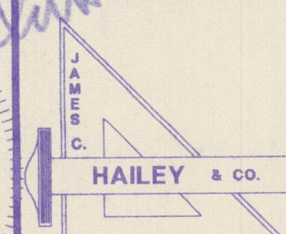
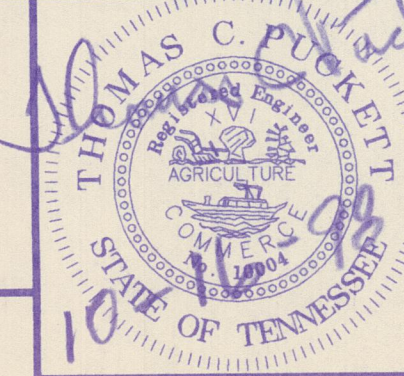
WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee			WATER LINE ADDITIONS WHITE OAK ROAD		
DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185

SHEET
2
148 S.



147 NW	147 NE	
147 SW	147 SE	148 SW

5	4	
7	3	2



WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee		
DESIGN	DRAWN	CHECKED
TCP	LLB	TCP

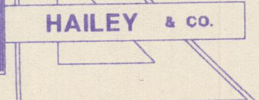
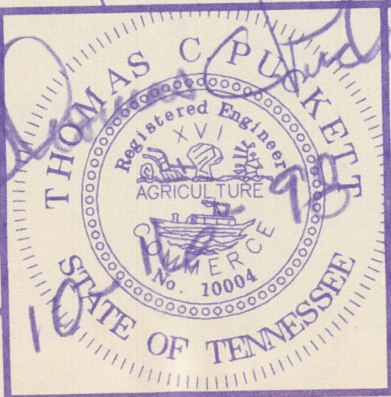
WATER LINE ADDITIONS WHITE OAK ROAD		
DATE	SCALE	PROJECT NO.
JULY 1998	1" = 200'	96185

SHEET
3
147 SE



138 SW		
147 NW	147 NE	
147 SW	147 SE	148 SW

6		
5	4	
7	3	2



WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee			WATER LINE ADDITIONS WHITE OAK ROAD			SHEET 4
DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185	



	138 SW	
	147 NW	147 NE
	147 SW	147 SE

6	
5	4
7	3

WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

DESIGN TCP	DRAWN LLB	CHECKED TCP
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DATE
JULY 1998

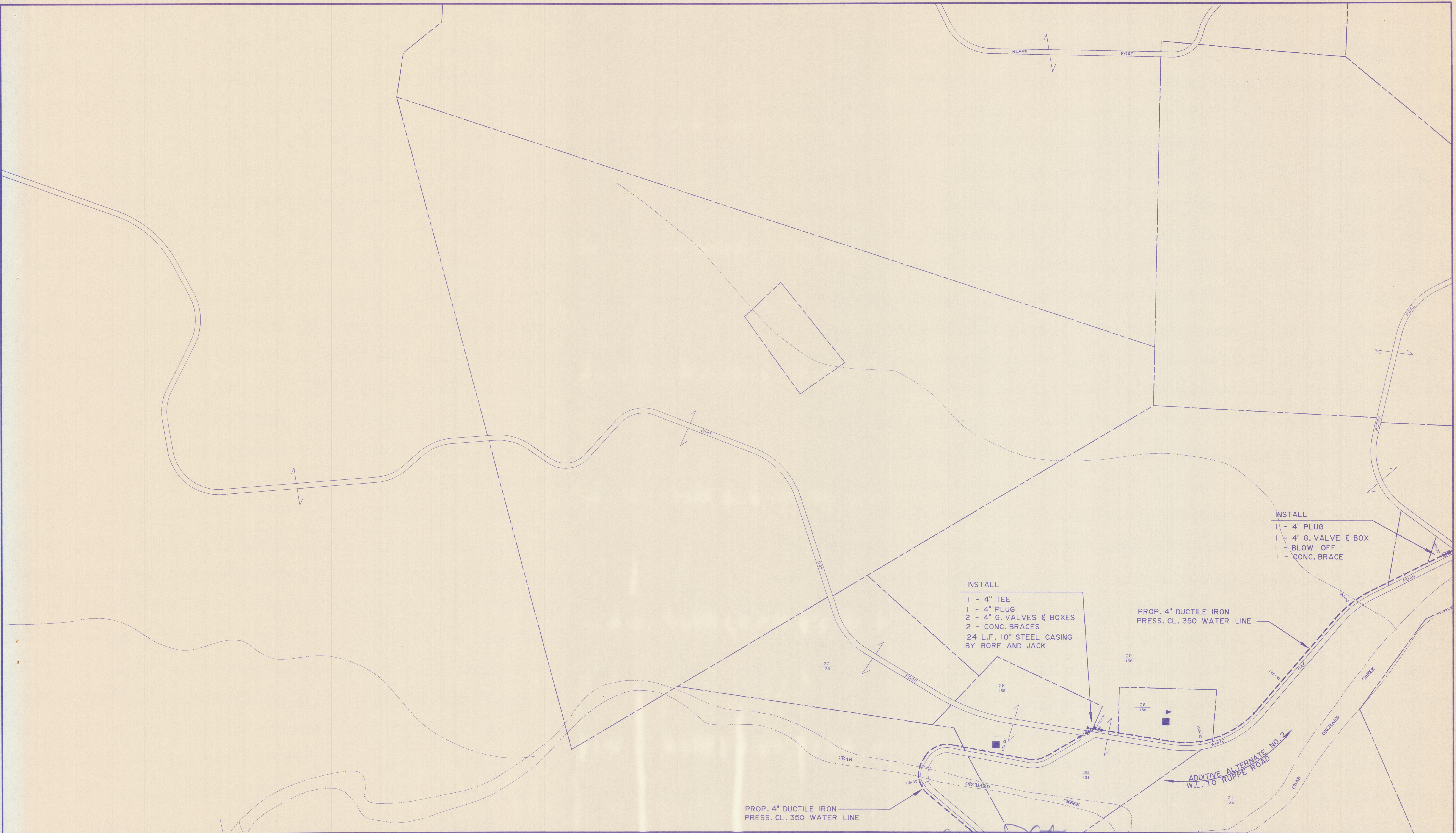
SCALE
1" = 200'

PROJECT NO.
96185

WATER LINE ADDITIONS
WHITE OAK ROAD

SHEET
5

CONTRACT 298 SHEET 5 OF 18



INSTALL
1 - 4" PLUG
1 - 4" G. VALVE & BOX
1 - BLOW OFF
1 - CONC. BRACE

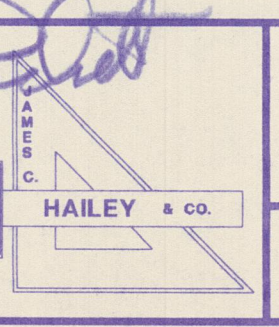
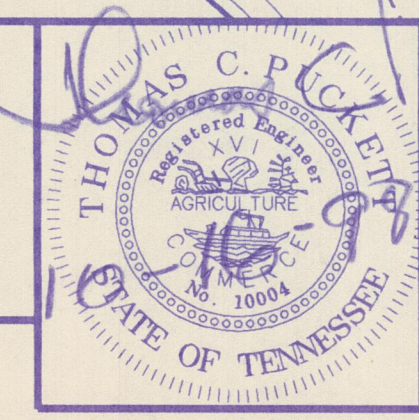
INSTALL
1 - 4" TEE
1 - 4" PLUG
2 - 4" G. VALVES & BOXES
2 - CONC. BRACES
24 L.F. 10" STEEL CASING
BY BORE AND JACK

PROP. 4" DUCTILE IRON
PRESS. CL. 350 WATER LINE

PROP. 4" DUCTILE IRON
PRESS. CL. 350 WATER LINE

ADDITIVE ALTERNATE NO. 2
W.L. TO RUPPE ROAD

	138 SW			6	
	147 NW	147 NE		5	4

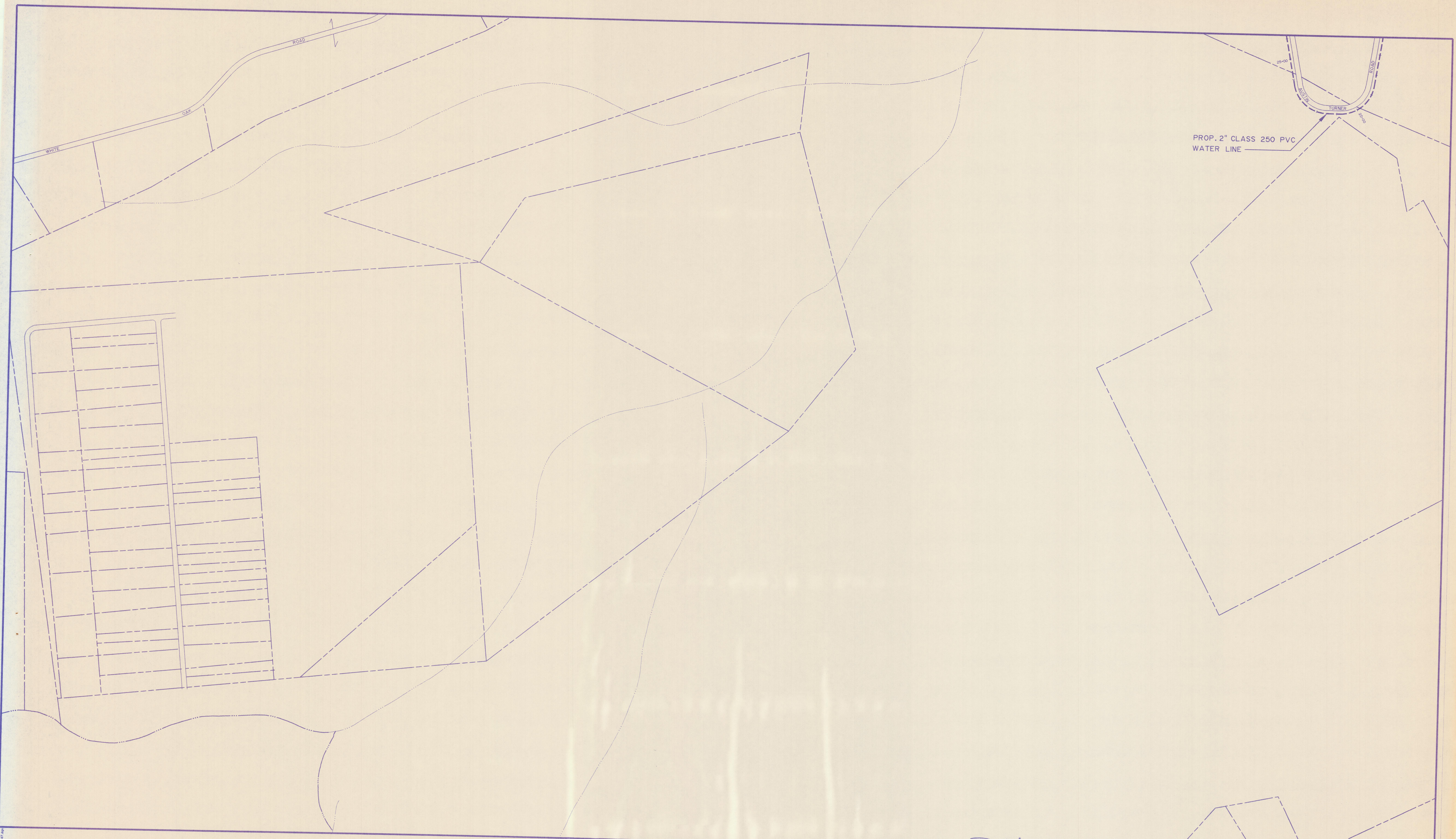


WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

WATER LINE ADDITIONS
WHITE OAK ROAD

DESIGN	DRAWN	CHECKED	DATE	SCALE	PROJECT NO.
TCP	LLB	TCP	JULY 1998	1" = 200'	96185

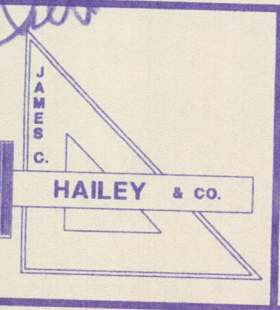
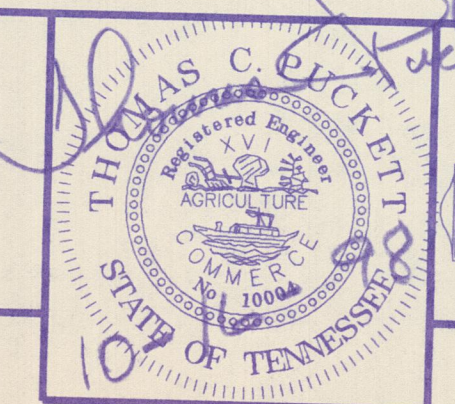
SHEET
6
138 SW



PROP. 2" CLASS 250 PVC
WATER LINE

	147 NW	147 NE
	147 SW	147 SE

	5	4
	7	3



WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee			WATER LINE ADDITIONS WHITE OAK ROAD		SHEET 7 147 SW
DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	
			PROJECT NO. 96185		

INSTALL
1 - 6" x 4" TEE
1 - 4" G. VALVE & BOX
2 - 6" G. VALVES & BOXES
1 - CONC. BRACE
24 L.F. 10" STEEL CASING
BY BORE AND JACK

PROP. 4" CL. 200 PVC
WATER LINE

CONNECT TO EXIST. 4" W.L.
INSTALL
1 - 6" x 4" REDUCER
1 - 6" G. VALVE & BOX

PROP. 6" CL. 200 PVC
WATER LINE

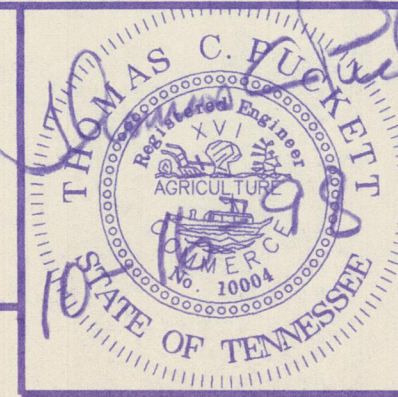
EXIST. 2" BLOW OFF

MORGAN
CUMBERLAND

COUNTY
COUNTY

	158 SE	
	162 NE	

	9	
	8	



HAILEY & CO.

WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

DESIGN
TCP

DRAWN
LLB

CHECKED
TCP

DATE
JULY 1998

SCALE
1" = 200'

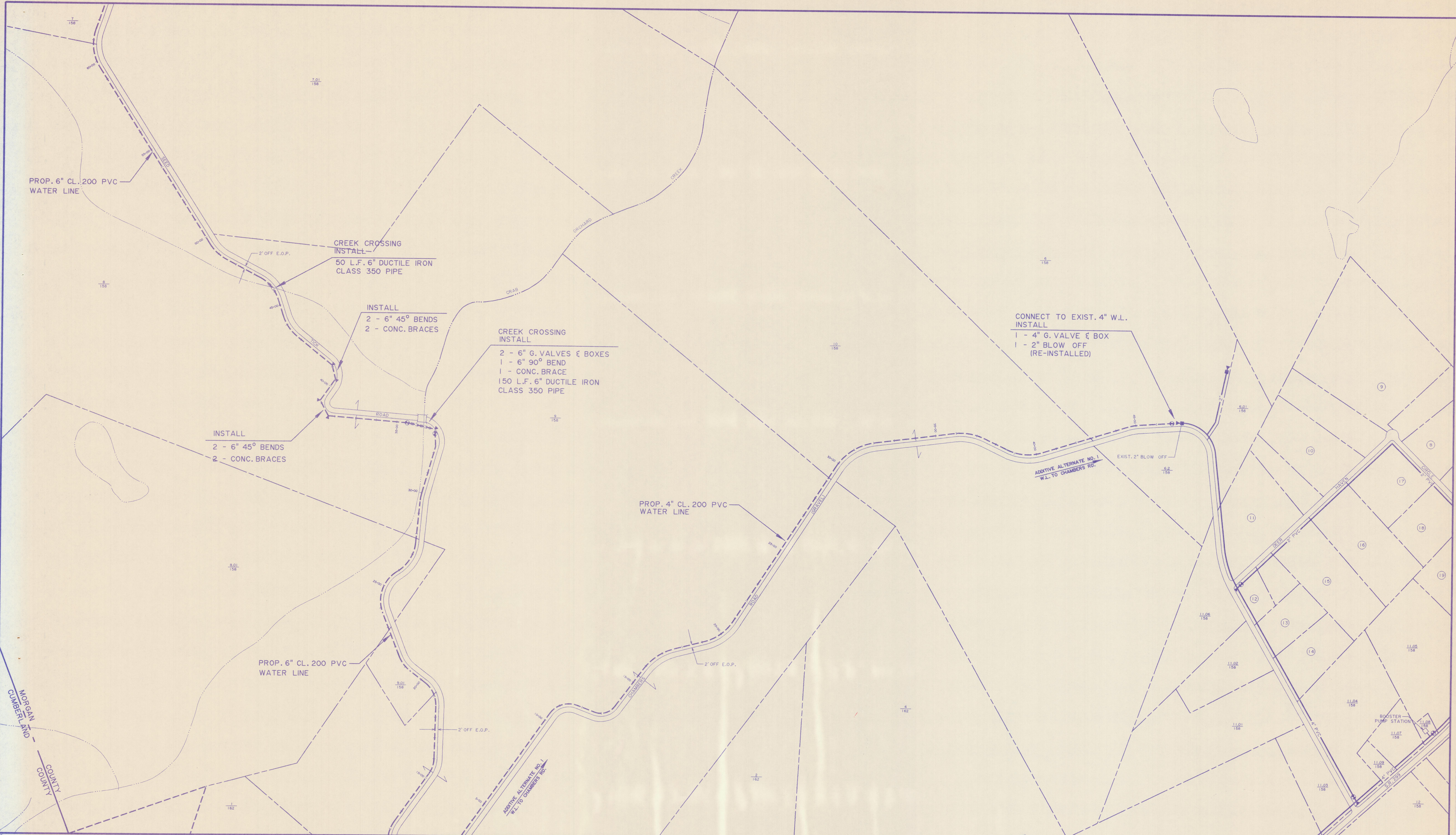
PROJECT NO.
96185

WATER LINE ADDITIONS
SEED TICK ROAD AND
WMA ROAD

SHEET

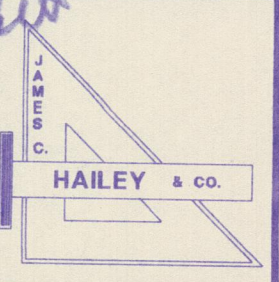
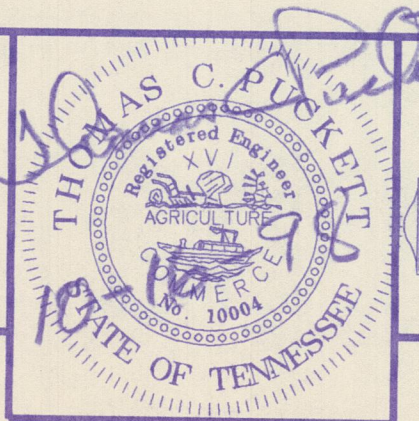
8

162 NE



MORGAN
CUMBERLAND
COUNTY

158 NE	10
158 SE	9
162 NE	8

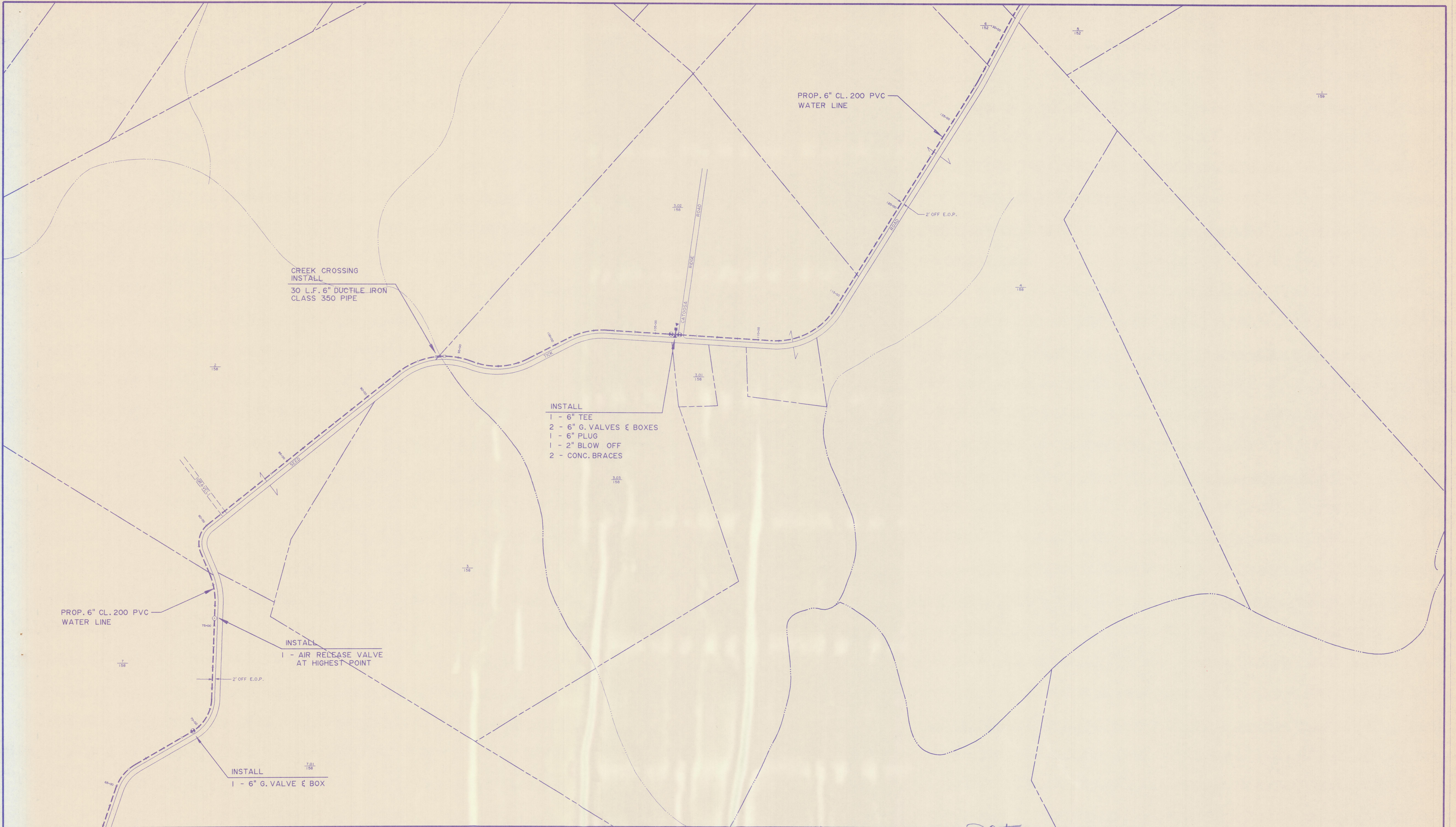


WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

WATER LINE ADDITIONS
SEED TICK ROAD AND
WMA ROAD

SHEET
9
158 SE

DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185
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SEE 96185.dwg 10/1/98 1:42:40

152 SE	153 SW	11	12
158 NE		10	
158 SE		9	

THOMAS J. KELLEY
REGISTERED ENGINEER
NO. 20904
STATE OF TENNESSEE

HAILEY & CO.

WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee			WATER LINE ADDITIONS SEED TICK ROAD AND WMA ROAD			SHEET 10
DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185	158 NE

CONTRACT 298 SHEET 10 OF 18



102 NE

102 SE

103 NW

103 SW

103 NE

14

11

10

13

12

THOMAS C. RILEY

REGISTERED ENGINEER

AGRICULTURE

1994

STATE OF TENNESSEE

HAILEY & CO.

INC.

WOLFE BRANCH

UTILITY DISTRICT

Morgan County, Tennessee

DESIGN

TCP

DRAWN

LLB

CHECKED

TCP

WATER LINE ADDITIONS

SEED TICK ROAD AND

WMA ROAD

DATE

JULY 1998

SCALE

1" = 200'

PROJECT NO.

96185

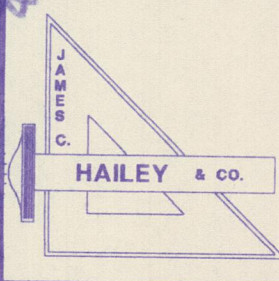
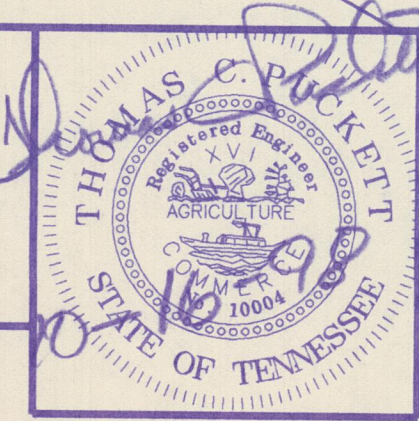
SHEET

12

153 SW



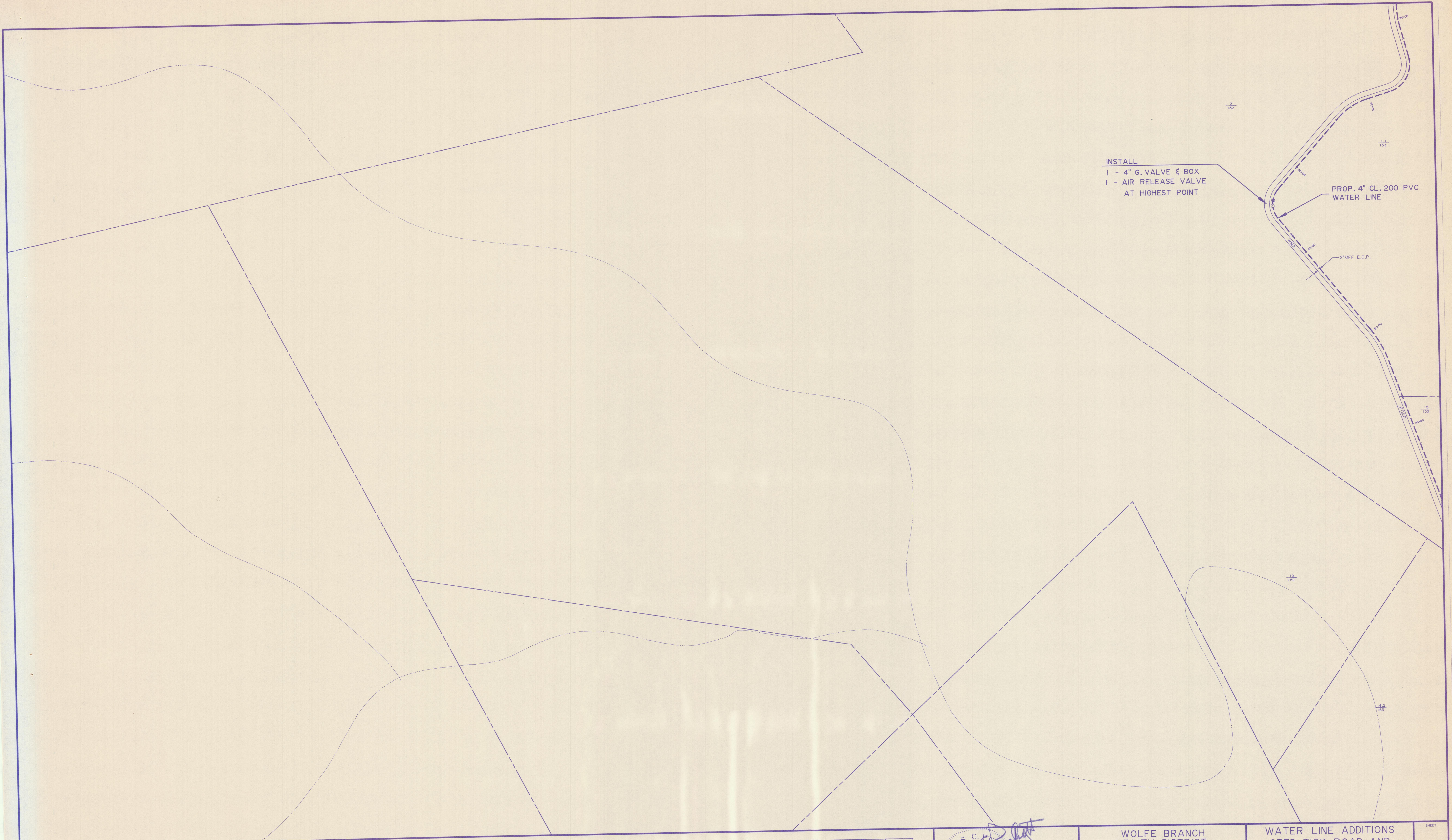
145 SE			15		
152 NE	153 NW		14	13	
152 SE	153 SW		11	12	



WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee		
DESIGN TCP	DRAWN LLB	CHECKED TCP

WATER LINE ADDITIONS SEED TICK ROAD AND WMA ROAD	
DATE JULY 1998	PROJECT NO. 96185

SHEET
13
153 NW



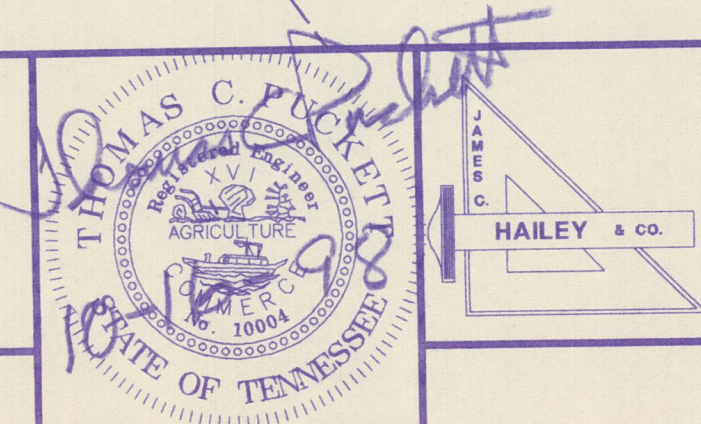
INSTALL
1 - 4" G. VALVE & BOX
1 - AIR RELEASE VALVE
AT HIGHEST POINT

PROP. 4" CL. 200 PVC
WATER LINE

2' OFF E.O.P.

LLB: Drawings with this sheet are for the use of the State of Tennessee only.

	140 SE			15	
	152 NE	153 NW		4	13
	152 SE	153 SW		11	12

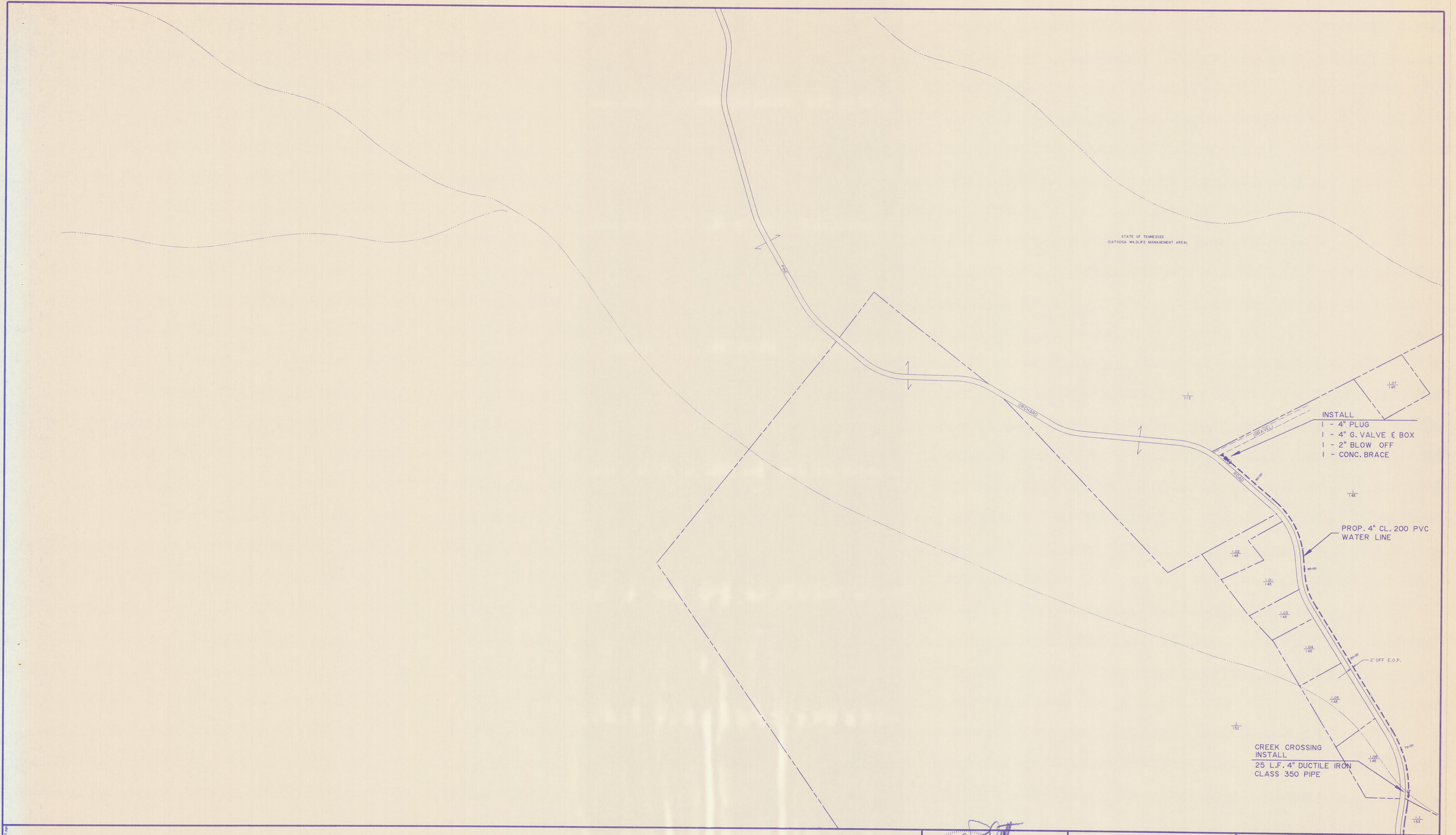


WOLFE BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

WATER LINE ADDITIONS
SEED TICK ROAD AND
WMA ROAD

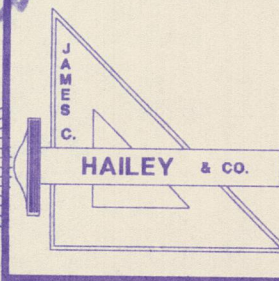
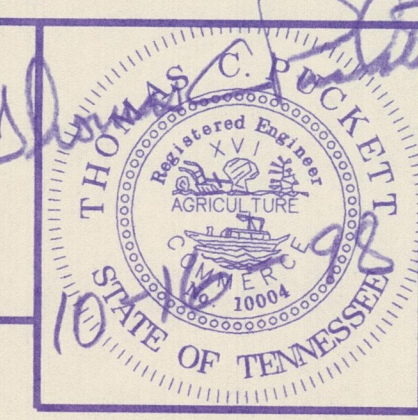
DESIGN	DRAWN	CHECKED	DATE	SCALE	PROJECT NO.
TCP	LLB	TCP	JULY 1998	1" = 200'	96185

SHEET
14
152 NE

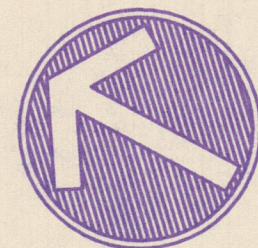


LLB - 8/20/98 11:00 AM 11/15/98 11:00 AM

145 SE	15
152 NE	153 NW
14	13



WOLFE BRANCH UTILITY DISTRICT Morgan County, Tennessee			WATER LINE ADDITIONS SEED TICK ROAD AND WMA ROAD		SHEET 15
DESIGN TCP	DRAWN LLB	CHECKED TCP	DATE JULY 1998	SCALE 1" = 200'	PROJECT NO. 96185



INSTALL 8" CRUSHED STONE
PARKING AREA AS DIRECTED
BY ENGINEER

INSTALL
2 - 4" X 4" TEE
1 - 4" GATE VALVE & BOX
3 - CONC. BRACES

INSTALL
1 - 4" 22 1/2° BEND
1 - CONC. BRACE

INSTALL
2 - 4" 11 1/4° BEND
2 - CONC. BRACE

TYP. 2' FROM
EDGE OF
PAVEMENT

WHITEOAK ROAD

INSTALL
1 - 4" 22 1/2° BEND
1 - CONC. BRACE

PROPOSED 4" PRESSURE CLASS 350
DUCTILE IRON WATERLINE

BENCHMARK - SPIKE IN 8" MAPLE
ELEV. = 1222.87, TAKEN FROM T.V.A.
QUAD MAP

PROPOSED 4"
PVC WATERLINE
(CLASS 200 PVC)

PROPOSED UNDERGROUND
ELECTRICAL CONDUIT

PULLBOX

INSTALL
1 - 11 1/4° BEND
1 - CONC. BRACE

4" CLASS 350 D.I.

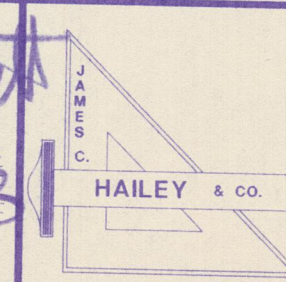
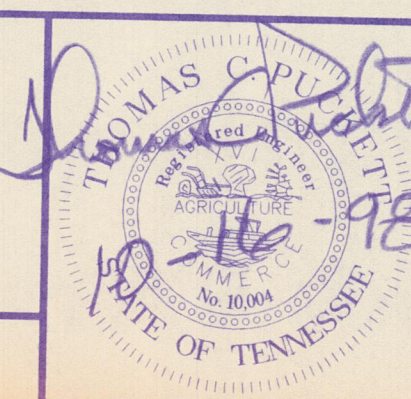
INSTALL
1 - 4" X 4" TEE
1 - 4" 90° BEND
2 - CONC. BRACES

PROPOSED PUMPSTATION
FINISHED FLOOR ELEVATION = 1217.00'

SITE PLAN

SCALE: 1" = 10'-0"

REF. TOPOGRAPHIC MAP BY:
DAVID B. GIBSON & ASSOCIATES
KINGSTON, TENNESSEE
DATED: 7- 09 - 1998



WOLF BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

WHITEOAK ROAD
PUMPSTATION - SITE PLAN

DESIGN
TCP

DRAWN
BCF

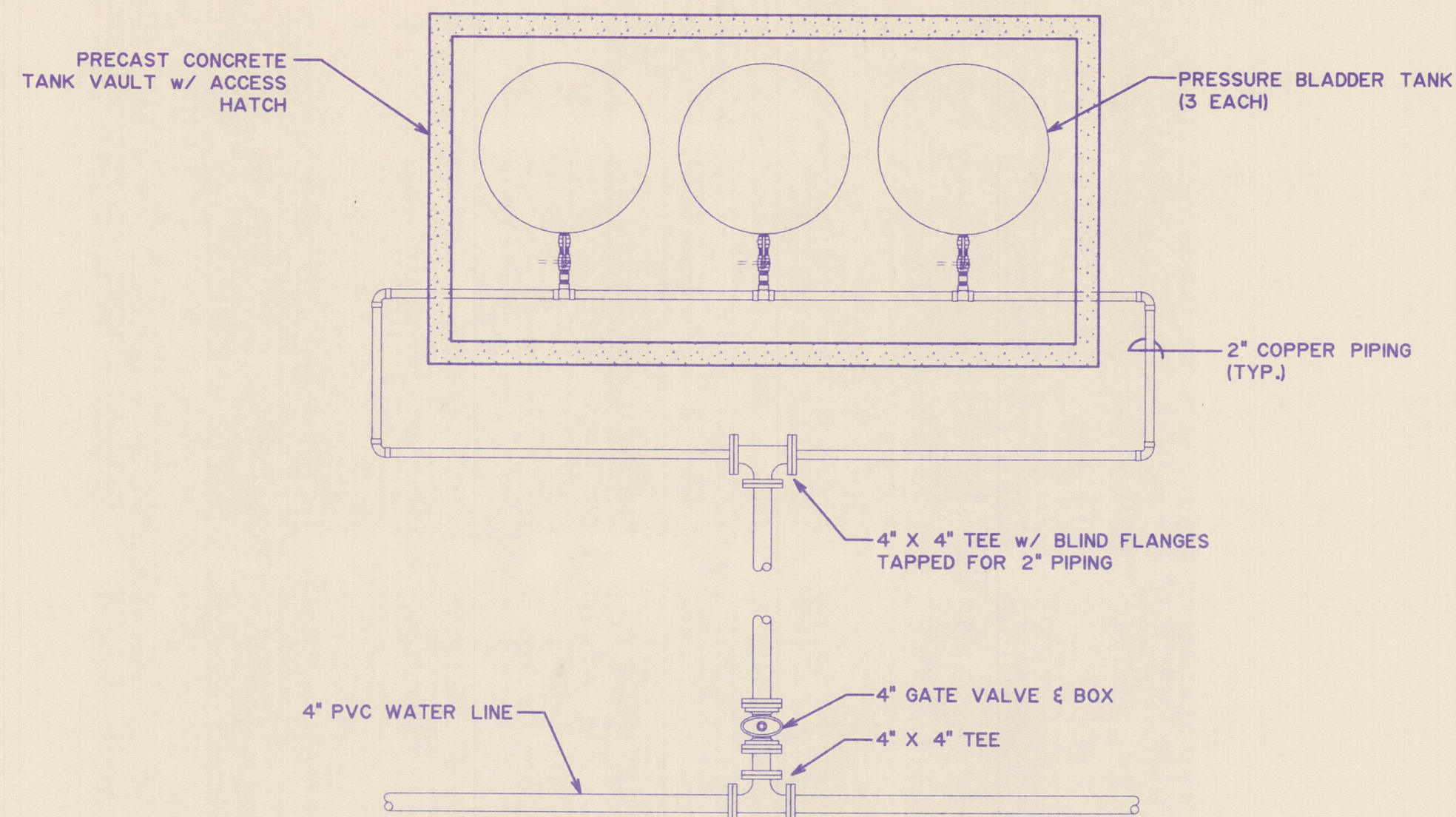
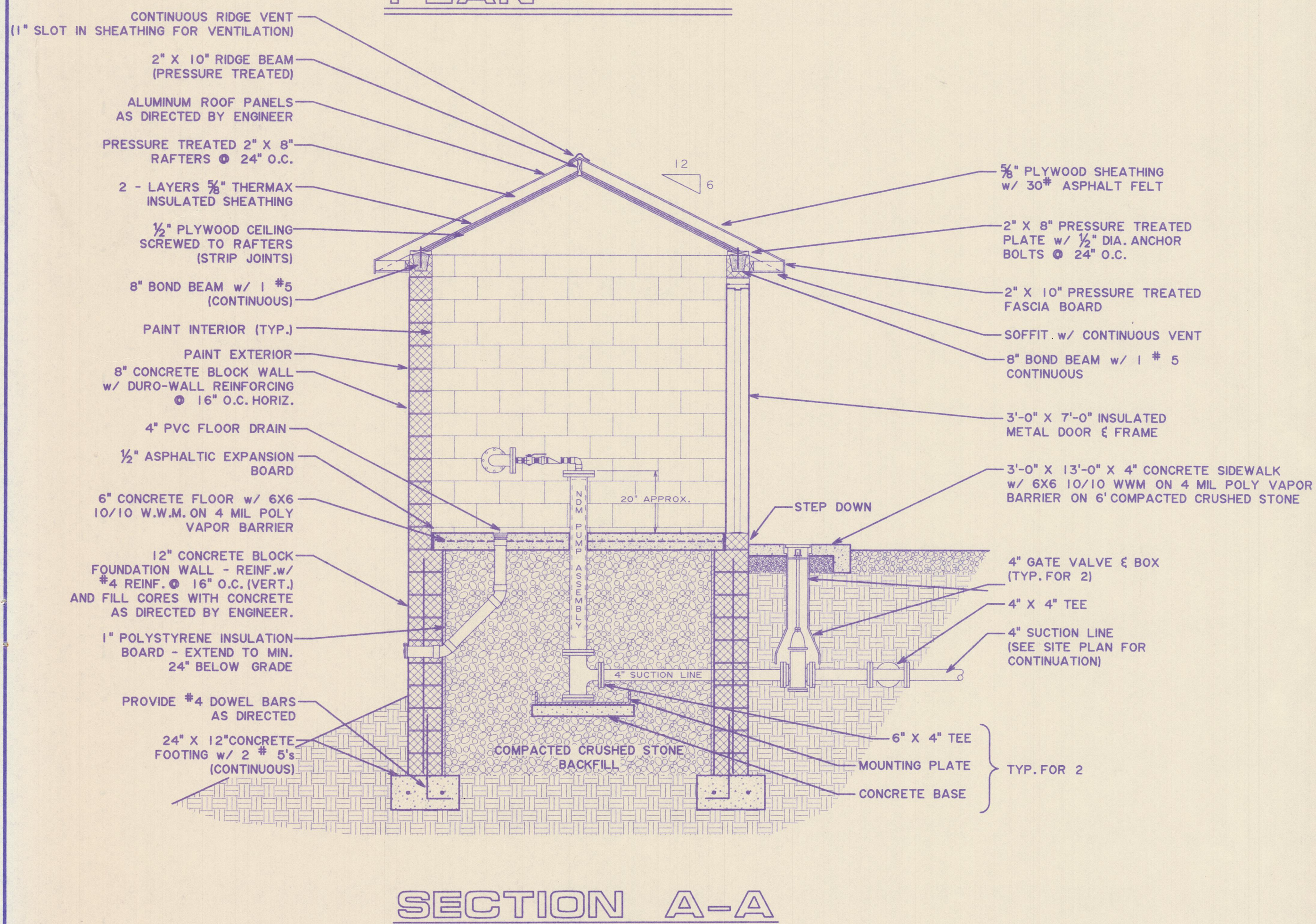
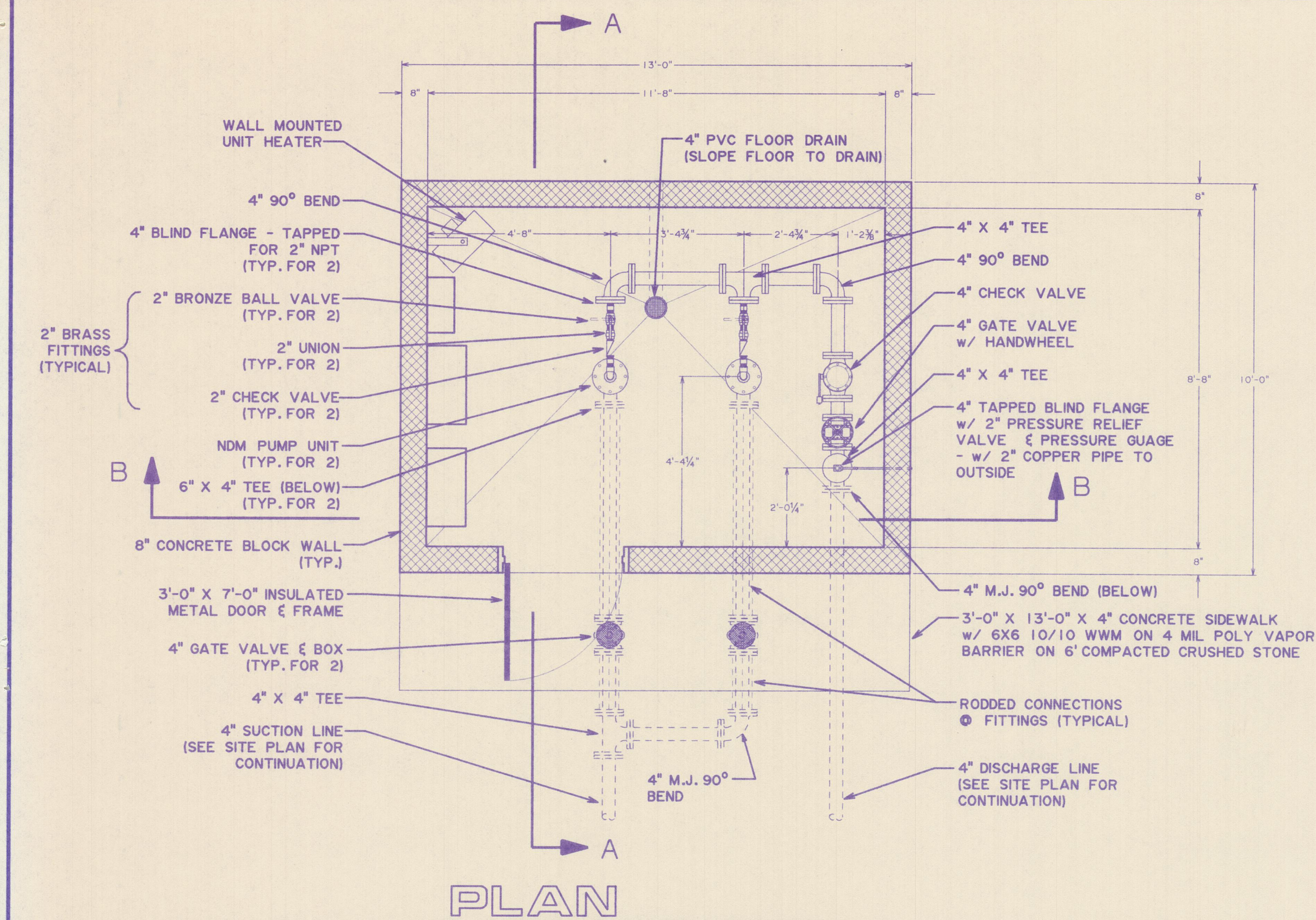
CHECKED
TCP

DATE
OCT. 1998

SCALE
1"=10'-0"

PROJECT NO.
96185

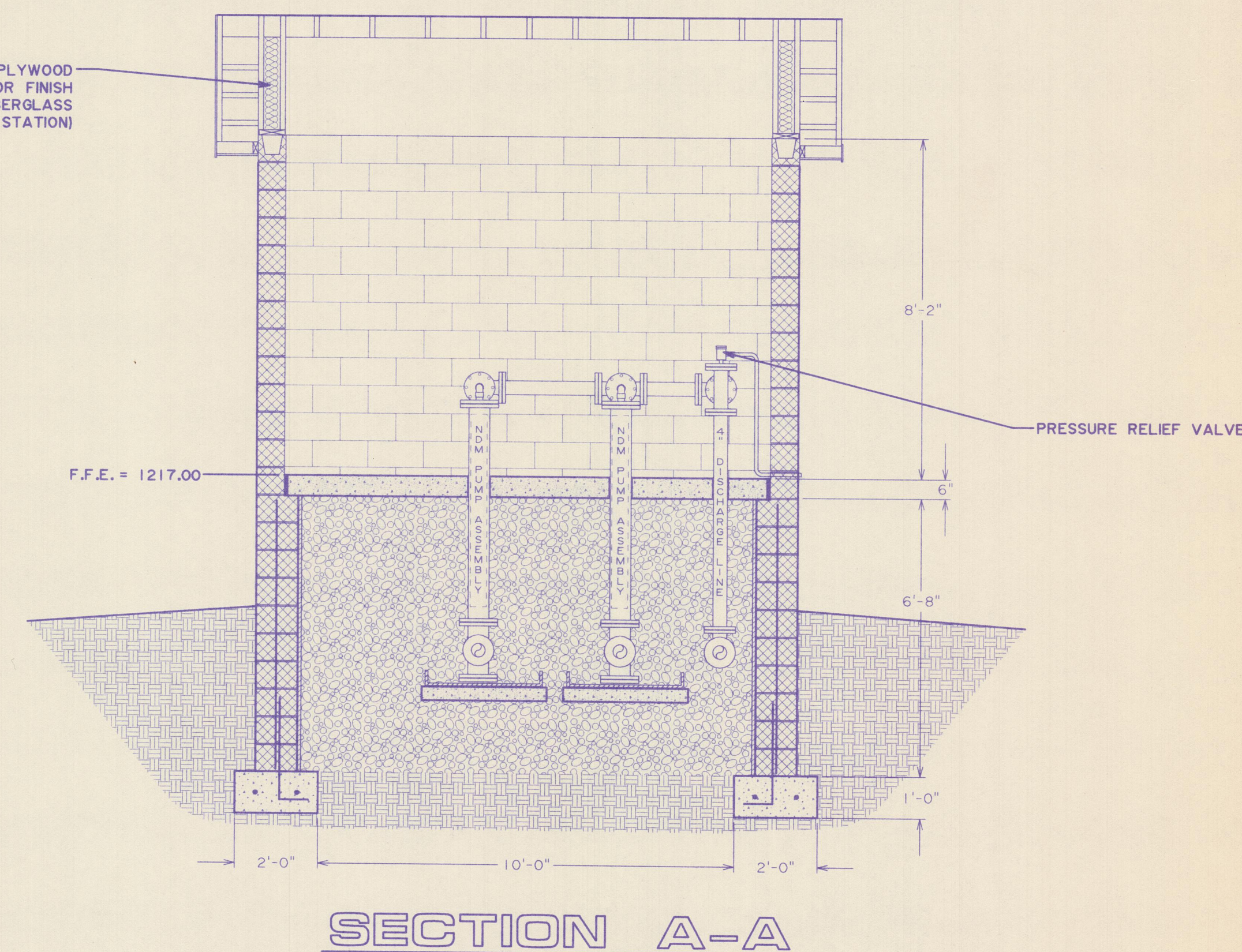
SHEET
16
of
18



WHITE OAK ROAD PRESSURE TANK STATION

N.T.S.

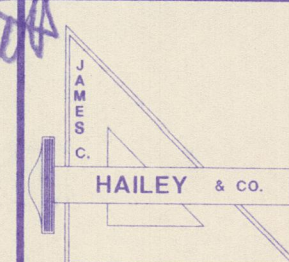
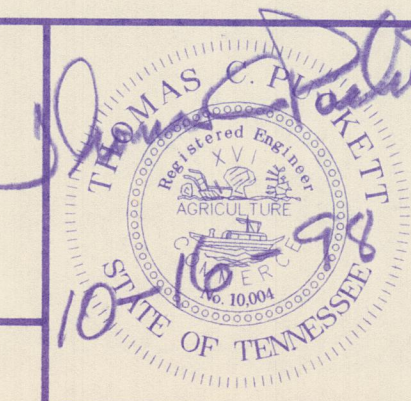
GABLE ENDS - T1-11 EXTERIOR PLYWOOD ON 2" X 4" STUDS @ 16" O.C., INTERIOR FINISH 5/8" EXTERIOR PLYWOOD & R11 FIBERGLASS BATT INSULATION (TYP. EACH END OF STATION)



NOTES

1. ALL PIPING ON DISCHARGE TO BE 250 POUND FLANGE.
2. ALL WATER LINES TO CONFORM TO TECHNICAL SPECIFICATIONS FOR WATER SUPPLY FACILITIES.
3. ALL PIPING, VALVES, FITTINGS, PUMPS, ETC., TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATION, OR AS DIRECTED.
4. ALL PIPING, VALVES, FITTINGS, PUMPS, AND EQUIPMENT TO BE PAINTED AS PER SPECIFICATION, OR AS DIRECTED.
5. ALL EXCAVATION UNDER PUMP STATION TO BE BACKFILLED WITH COMPACTED CRUSHED STONE.
6. FINISH GRADE TO BE APPROVED BY ENGINEER.
7. PUMPS SHALL BE MEYERS RANGER SERIES OR APPROVED EQUAL.
8. PUMPS SHALL BE RATED AT 40 GPM, AT 320 TDH. WITH MINIMUM EFFICIENCY OF 73 PER CENT.
9. ALL PIPING AND FITTINGS IN AND UNDER PUMP STATION TO BE FLANGED W/ RODDED CONNECTIONS.
10. PREFABRICATED WATER BOOSTER PUMPING SYSTEM INCLUDING: DUPLEX SUBMERSIBLE MULTISTAGE TURBINE PUMPS, PUMP CHAMBERS, VALVES, PIPING, PRESSURE SENSING AUTOMATIC PUMP CONTROLS, SEPARATE PRESSURE TANK STATION CONCRETE VAULT, PRESSURE, BLADDER TANKS, ETC., TO BE AS MANUFACTURED BY:

NDM SERVICE ASSOCIATES, INC.
P.O. BOX 498
CHARLESTON, TENNESSEE 37310
(423) 336-5563



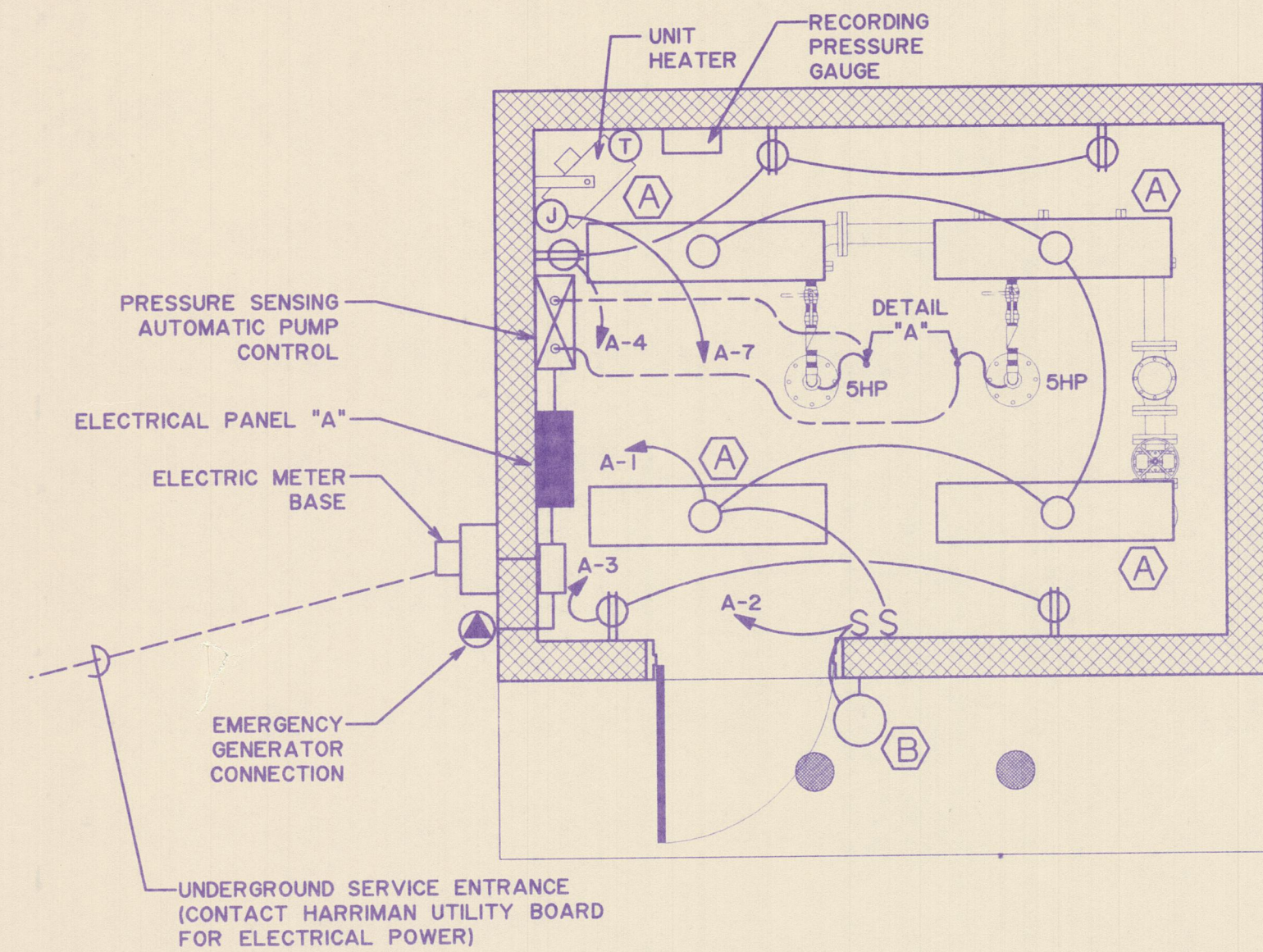
WOLF BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

DESIGN: TCP DRAWN: BCF CHECKED: TCP

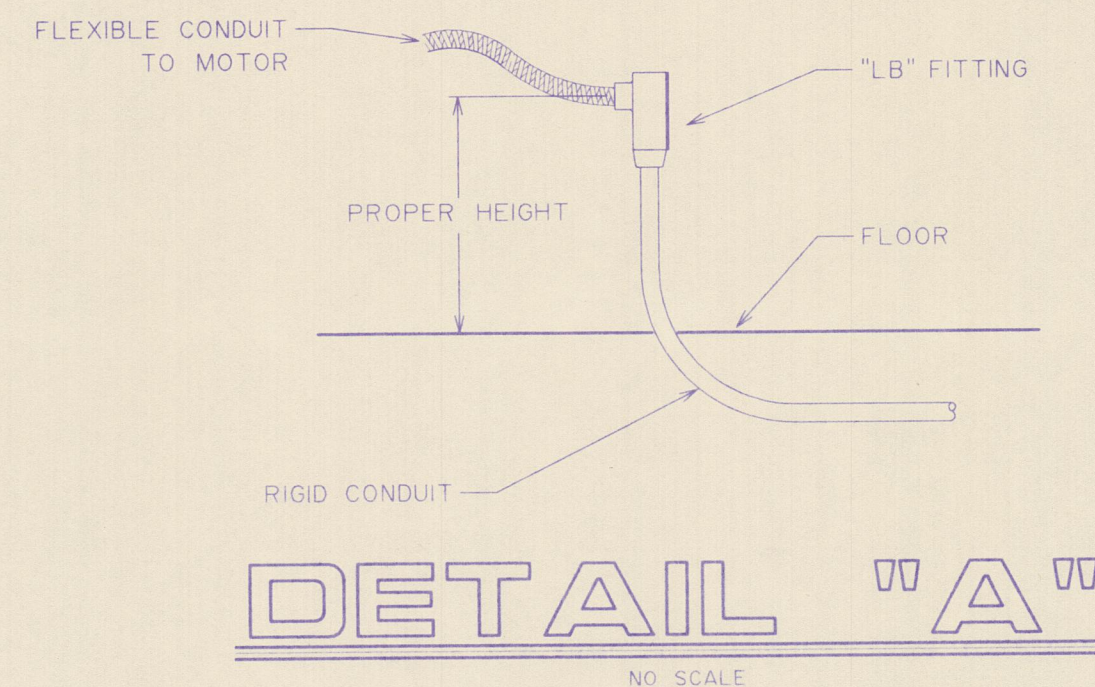
WHITEOAK ROAD
PUMPSTATION PLAN
SECTIONS & DETAILS

DATE: OCT. 1998 SCALE: 3/8" = 1'-0" PROJECT NO.: 96185

SHEET
17
of
18



PLAN

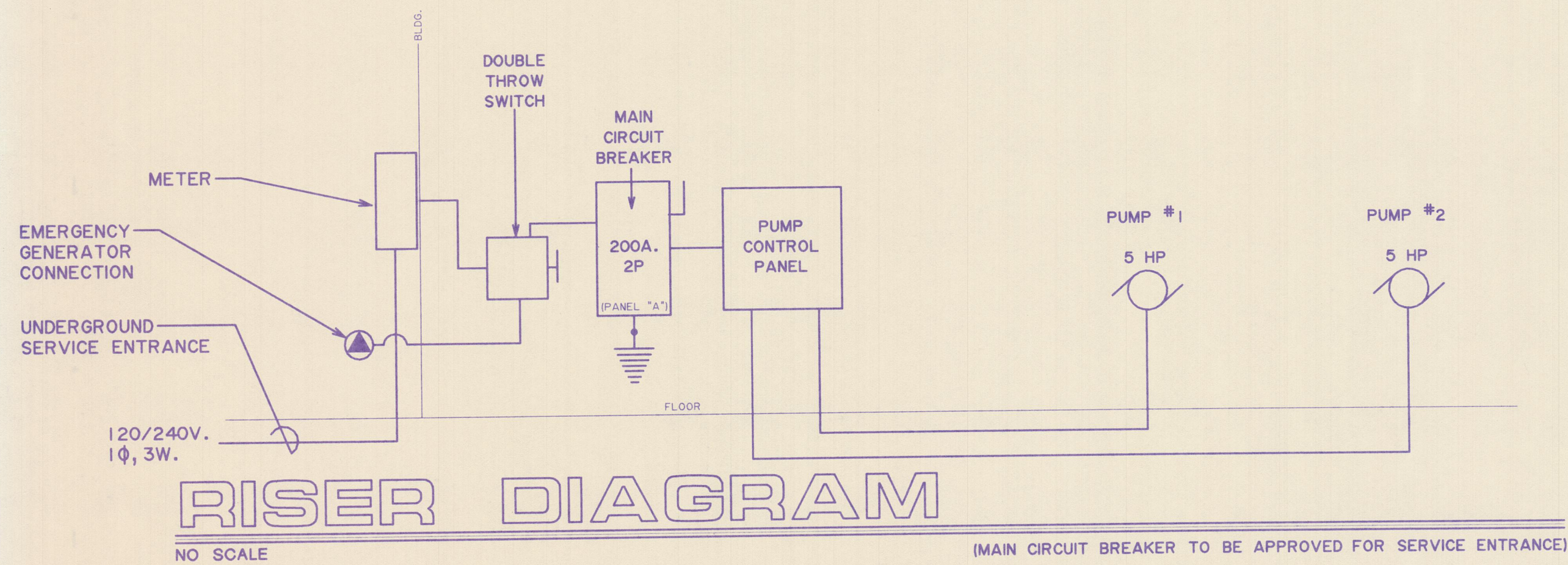


ELEC. SYMBOLS

- O OVERHEAD OUTLET FOR LIGHT FIXTURE
- HO WALL OUTLET WITH LIGHT FIXTURE
- FLUORESCENT LIGHT FIXTURE
- S₃ THREE WAY LIGHT SWITCH IN WALL, 50" A.F.F.
- S₂ MOTOR SWITCH
- CONCEALED CONDUIT RUN OVERHEAD
- CONDUIT RUN UNDERFLOOR OR UNDERGROUND
- CONDUIT RUN EXPOSED OVERHEAD
- FLEXIBLE CONDUIT
- MARKS INDICATE NO. OF #12 WIRES IN CONDUIT, IF MORE THAN TWO
- ARROWS INDICATE NUMBER OF CIRCUITS IN HOMERUN
- LIGHTING AND APPLIANCE PANELBOARD
- JUNCTION BOX
- MOTOR CONTROLLER
- THERMOSTAT - EQUAL TO HONEYWELL # T6052
- DUPLEX 120V. RECEPTACLE, 18" A.F.F., U.O.N.
- ELECTRIC UNIT HEATER
- MOTOR - HORSEPOWER INDICATED
- LIGHT FIXTURE IDENTIFICATION
- CONDUIT WITH CONTROL WIRES AS NEEDED.
- A.F.F. ABOVE FINISHED FLOOR
- U.O.N. UNLESS OTHERWISE NOTED
- RECEPTACLE TO RECEIVE EMERGENCY POWER FROM EMERGENCY GENERATOR, HUBBELL 60 AMP., 480V. 4P, 5W., # 26520 WITH #26401, #26402, AND # 26404 BOX AND ANGLE. FURNISH PROPER PLUG TO OWNER.
- 200A., 480V. DOUBLE THROW SWITCH - SQUARE D # 82344

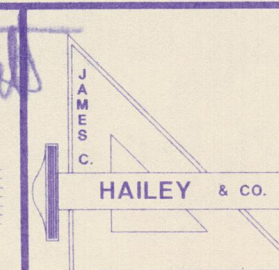
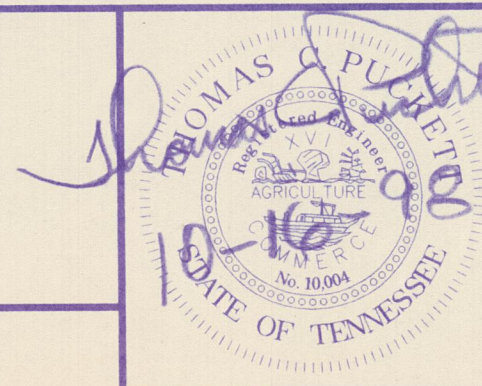
ELECTRICAL NOTES

- ELECTRICAL WORK TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND AUTHORITIES. NEW MATERIALS TO HAVE UNDERWRITERS LABELS WHERE APPLICABLE. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY ALL INSPECTION FEES INVOLVED.
- THE WORK SHALL BE INSTALLED COMPLETE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND LEFT IN PROPER OPERATING CONDITION. ALL ITEMS INDICATED SHALL BE NEW UNLESS OTHERWISE NOTED. INSTALLATIONS SHALL BE GUARANTEED FOR ONE (1) YEAR FROM ACCEPTANCE IN CASE OF FAULTY OR INCOMPLETE WORKMANSHIP, MATERIALS, OR EQUIPMENT.
- PROVIDE ALL ELECTRICAL CIRCUITS AND CONNECTIONS FOR ITEMS INDICATED INCLUDING CONTROL WIRING. CONSULT OTHER SECTIONS OF THE SPECIFICATIONS AND DRAWINGS AS NEEDED.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ELECTRICAL MATERIALS AND EQUIPMENT INDICATED OR NEEDED EXCEPT EQUIPMENT, MOTORS, CONTROL PANELS, AND CONTROL ITEMS SPECIFIED TO BE FURNISHED BY OTHERS. ITEMS TO BE AS SPECIFIED OR APPROVED EQUAL.
- CONDUITS, FITTINGS AND BOXES SHALL BE GALVANIZED RIGID STEEL, OR IMC. WIRE SHALL BE COPPER WITH THW OR THWN INSULATION OR AS NOTED, MINIMUM SIZE #12. CONDUITS LEFT EMPTY SHALL HAVE FISH WIRE. CONDUIT IN FLOOR OR UNDERGROUND SHALL BE PVC COATED. PROVIDE CONTROL WIRE AS REQUIRED.
- PRESSURE SENSING AUTOMATIC PUMP CONTROL AS MANUFACTURED BY PUMP SYSTEM SUPPLIER. PUMP CONTROL PANEL SHALL CONTAIN APPROPRIATE INDIVIDUAL CIRCUIT BREAKERS FOR TWO PUMPS, AND FOR CONTROL SYSTEM CIRCUITS.
- DUPLEX SUBMERSIBLE TURBINE PUMPS TO BE MEYERS, RANGER SERIES.
- UNIT HEATER SHALL BE EQUAL TO BERKO, WALL MOUNTED 7 FEET ABOVE FLOOR, 5KW, 240 VOLTS, 1 PHASE WITH INTEGRAL THERMOSTAT, TRANSFORMER AND RELAY.
- PROVIDE LIGHT FIXTURES AS SCHEDULED OR APPROVED EQUAL, COMPLETE WITH NEW LAMPS AND MOUNTING DEVICES.
- RECEPTACLES SHALL BE HUBBELL #8252. LIGHT SWITCHES SHALL BE HUBBELL # 1123, WALL PLATES SHALL BE STAINLESS STEEL.
- CONTACT THE ELECTRICAL POWER DISTRIBUTOR AND ARRANGE FOR THE UNDERGROUND SERVICE AS SHOWN. PAY ANY CHARGES INVOLVED.
- PROVIDE A DOUBLE THROW TRANSFER SWITCH TO MANUALLY TRANSFER TO EMERGENCY GENERATOR RECEPTACLE WHEN NORMAL ELECTRICAL SERVICE IS OUT.
- 120 / 240 VOLT PANELBOARD TO BE SQUARE D "QO" LOAD CENTER, WITH DOOR.
- RECORDING PRESSURE GAUGE TO BE AS MANUFACTURED BY DICKSON INSTRUMENTS, WITH 8" DIAMETER CIRCULAR CHART, 7 - DAY MODEL, PRESSURE RANGE 0 - 200 PSI.



LIGHTING FIXTURE SCHEDULE						
TYPE	MANUFACTURER		CATALOG NUMBER	NUMBER & SIZE LAMPS	MOUNT	REMARKS
(A)	LITHONIA # AF240120ES			2 - 40W., RS. CW	SURFACE MOUNT - CEILING	HEAVY DUTY - TURRET TYPE
(B)	LITHONIA # TWL 70S 120		PE1	1 - 70W. - H.P.S.	WALL MOUNT - 6'-0" A.F.F.	PHOTO CONTROLLED

PANEL - "A"									
VOLTAGE - 120/240 V, 1Ø 3W					200A., 2P. MAIN CIR. BKR				
SURFACE MOUNT					10,000 A.I.C.				
CIRC.	SERVING	POLES	KVA LOAD	AMP. TRIP		POLES	KVA LOAD	AMP. TRIP	
1	LIGHTS	1	1.1	20	2	LIGHTS	1	0.6	20
3	RECEPTACLES - GFI	1	1.0	20	4	RECEPTACLES - GFI	1	1.0	20
5	PUMP CONTROL	2	14.4	100	6	SPARE	1	-	20
7		-	-	-	8	SPARE	1	-	20
9	UNIT HEATER	2	5.0	30	10	SPARE	1	-	20
11		-	-	-	12	SPARE	1	-	20



WOLF BRANCH
UTILITY DISTRICT
Morgan County, Tennessee

DESIGN: TCP
CHECKED: TCP

WHITEOAK ROAD
PUMPSTATION
ELECTRICAL PLAN

DATE: OCT. 1998
SCALE: 3/8" = 1'-0"
PROJECT NO.: 96185

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