



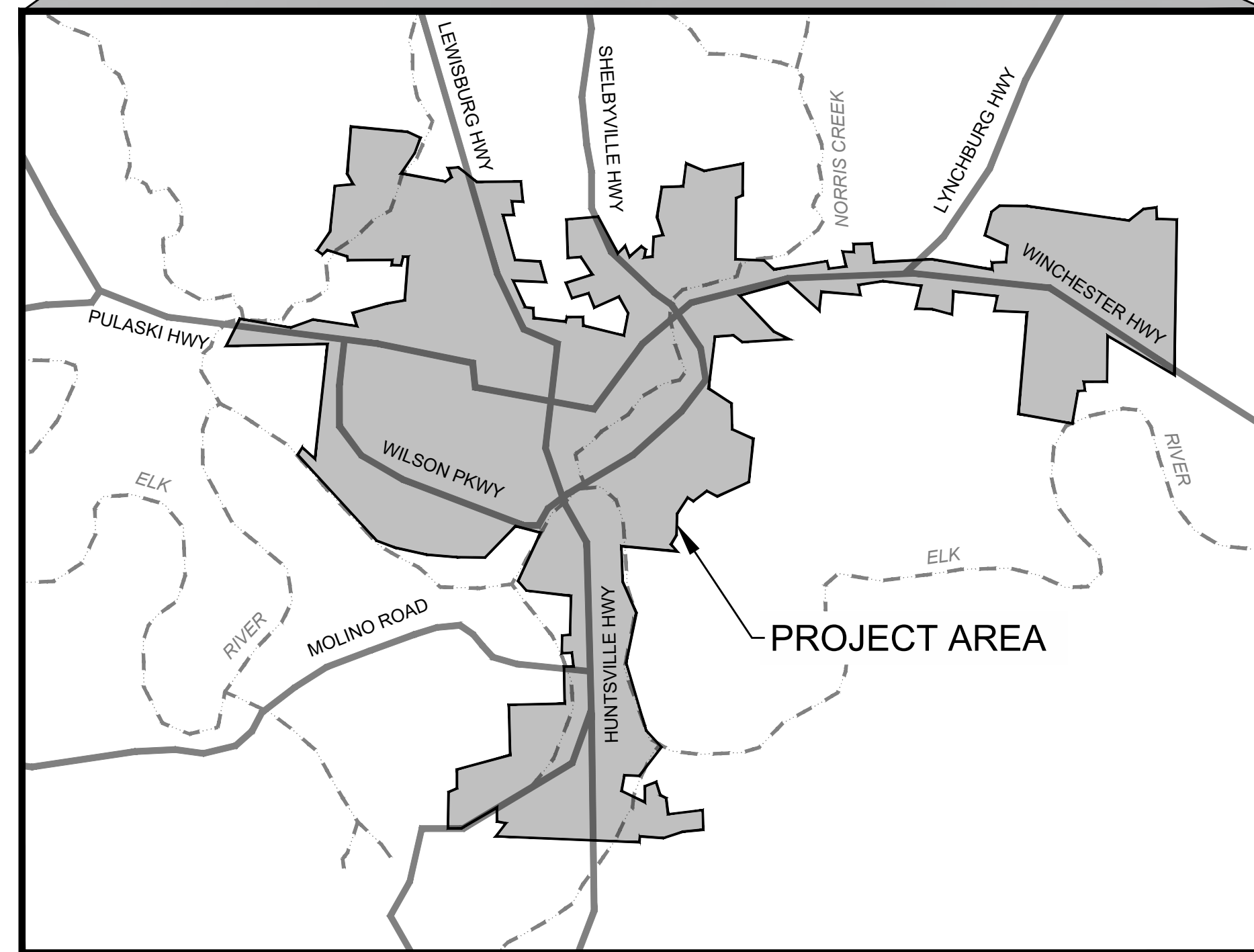
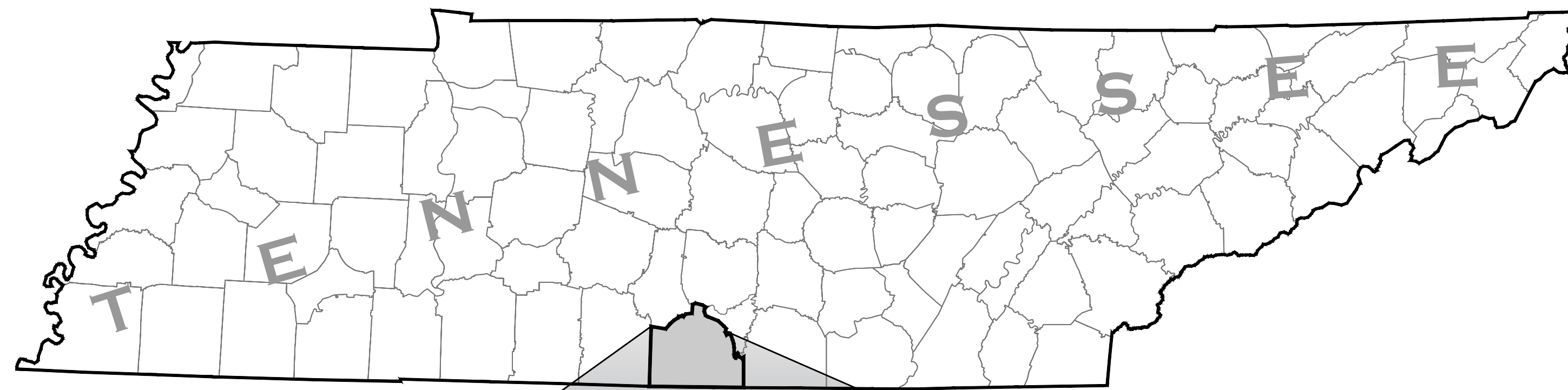
# FAYETTEVILLE PUBLIC UTILITIES

# 2021 WATER SYSTEM IMPROVEMENTS

# WATER MAIN REPLACEMENTS

CITY OF FAYETTEVILLE, LINCOLN COUNTY, TENNESSEE

SRF PROJECT # : DWB22 2024-263



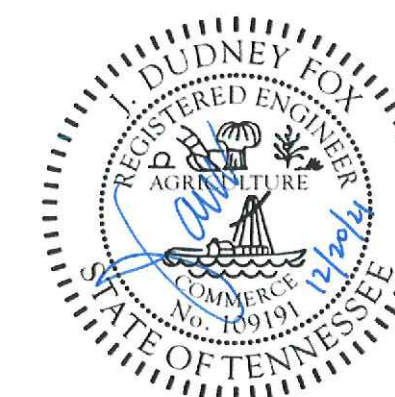
VICINITY MAP

NOT TO SCALE

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## PROJECT TEAM



CIVIL  
**FOXPE, LLC**  
 2711 BERRYWOOD DRIVE  
 NASHVILLE, TENNESSEE 37204

**FAYETTEVILLE PUBLIC UTILITIES**  
 2021 WATER SYSTEM IMPROVEMENTS WATER MAIN REPLACEMENTS



FILE: \\ACTIVE\1600-FPU\22\_srf\water\_system\_improvements\1\_IMAGES\CAD\contract 1 - water line replacements\fp\_u\_2021\_primary.dwg set - 110421600\_General Sheets\_WL\_Project - PLOT DATE: 2024-08-02



## CONCRETE

1. CONCRETE WORK SHALL BE IN CONFORMANCE WITH THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," (ACI 318-11).
2. CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES:

CONCRETE CLASS	CONC. WEIGHT (PCF)	28 DAYS STRENGTH (PSI)	MAX. W/C RATIO	CEMENT TYPE	MAX. PERCENT FLY ASH	MAX. AGG. SIZE	AIR CONTENT
A	NWC 140-150	4,000	0.45	I OR II	25%	1"	6% +/- 1-1/2%
B	NWC 140-150	3,000	0.50	I OR II	25%	1"	6% +/- 1-1/2%

CLASS 'A' CONCRETE SHALL BE USED FOR ALL CONCRETE WORK, EXCEPT WHERE CLASS 'B' CONCRETE IS SPECIFICALLY CALLED FOR IN SPECIFICATIONS.

3. MAXIMUM CONCRETE SLUMP SHALL BE 4 INCHES WITHOUT A HIGH-RANGE WATER-REDUCING ADMIXTURE (HRWR) OR 8 INCHES WITH HRWR AT POINT OF DEPOSIT.
4. SIZE OF AGGREGATE AND GRADATION SHALL CONFORM TO ASTM C33 FOR NORMAL WEIGHT CONCRETE.
5. THE COMBINED TOTAL MASS PERCENT OF DELETERIOUS SUBSTANCES, INCLUDING, BUT NOT LIMITED TO, COAL AND LIGNITE, FOR BOTH COARSE AND FINE AGGREGATES SHALL BE LIMITED TO 0.5% AS DETERMINED BY ASTM C123.
6. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED DURING PLACEMENT.
7. CHAMFER EXPOSED CORNERS OF BEAMS, COLUMNS AND WALLS 3/4 INCH, U.N.O.
8. THE STRUCTURAL ENGINEER SHALL APPROVE THE LOCATION OF ALL CONSTRUCTION JOINTS NOT LOCATED ON THE DRAWINGS.
9. SLAB-ON-GRADE SAW CUT CONTROL JOINTS SHALL BE MADE PER THE ACI 301 EARLY-ENTRY DRY-CUT PROCESS U.N.O. SEE DETAILS FOR ADDITIONAL CONTROL JOINT REQUIREMENTS.
10. CONDUITS AND PIPES SHALL NOT BE EMBEDDED LONGITUDINALLY IN CONCRETE MEMBERS, INCLUDING SLABS. ALUMINUM CONDUITS AND PIPES SHALL NOT BE IN CONTACT WITH CONCRETE.
11. ALL EMBEDDED ALUMINUM ITEMS IN CONTACT WITH CONCRETE (GUARDRAIL SUPPORTS, HATCH FRAMES, SLIDE GATE FRAMES, ETC.) SHALL BE SHOP PAINTED WITH TWO 10-MIL COATS OF 46-465 H.B. TNEMECOL BY TNEMEC OR EQUAL. ANY DEFECTS IN THE COATING SHALL BE REPAIRED.
12. ALL REINFORCING STEEL AND ITEMS TO BE EMBEDDED IN CONCRETE (INCLUDING ANCHOR RODS) SHALL BE LOCATED AND SECURELY TIED IN PLACE PRIOR TO PLACING CONCRETE. "WET-SETTING" OF REINFORCING STEEL OR EMBEDDED ITEMS IN FLUID CONCRETE IS NOT PERMITTED AND SHALL BE CAUSE FOR REJECTION OF INSTALLED WORK.
13. THE CONTRACTOR SHALL VERIFY THE COMPATIBILITY AND ALLOWABLE USE OF CONCRETE CURING METHODS WITH APPLICABLE FLOORING MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
14. CONCRETE SHALL BE MAINTAINED ABOVE 50°F AND IN A MOIST CONDITION FOR AT LEAST THE FIRST 7 DAYS AFTER PLACEMENT. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
15. WHEN AIR TEMPERATURE HAS FALLEN TO OR IS EXPECTED TO FALL BELOW 40°F AT ANY TIME DURING THE FIRST THREE DAYS FOLLOWING PLACEMENT, MAINTAIN CONCRETE MIXTURE TEMPERATURE WITHIN THE TEMPERATURE RANGE REQUIRED BY ACI 301.

## GRADING & EXCAVATION

1. WHEN SPECIFIC GRADING REQUIREMENTS ARE NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL GRADE ALL AREAS WITHIN THE LIMITS OF CONSTRUCTION, OR OTHERWISE DISTURBED BY CONSTRUCTION.
2. THE CONTRACTOR SHALL PERFORM ALL NECESSARY STRIPPING OF EXISTING TOPSOIL ON THE JOBSITE.
3. NEWLY GRADED, EARTH AREAS NOT TO BE PAVED, RIP-RAPPED, OR STABILIZED, SHALL BE SEEDED IN ACCORDANCE WITH THE SPECIFICATIONS. PRIOR TO SEEDING, A FOUR INCH LAYER OF TOPSOIL SHALL BE PLACED ON THESE AREAS IN ACCORDANCE WITH SAID SPECIFICATIONS.
4. THE CONTRACTOR IS TO LEGALLY DISPOSE OF, AT HIS OWN EXPENSE, ALL UNSUITABLE AND/OR SURPLUS, EXCAVATED MATERIAL.
5. EXCAVATION ADJACENT TO EXISTING PAVEMENT SHALL BE MADE TO A NEAT LINE.
6. NO TREES SHALL BE REMOVED WITHOUT OWNER'S PERMISSION. ALL TREES THAT ARE CUT OR KNOCKED DOWN WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED AND DISPOSED OF OFF-SITE AT THE CONTRACTOR'S EXPENSE. BURNING IS NOT PERMITTED, EXCEPT AS PROVIDED IN THE SPECIFICATIONS.

## EROSION & SEDIMENT CONTROL

1. ALL LOCAL, STATE, AND FEDERAL EROSION CONTROL REQUIREMENTS SHALL BE FOLLOWED DURING CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO CONTROL EROSION AND WATER POLLUTION THROUGH THE CONSTRUCTION PERIOD. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE IN PLACE BEFORE EARTH MOVING OPERATIONS BEGIN. CLEARING AND GRUBBING SHALL BE HELD TO A MINIMUM WIDTH NECESSARY TO ACCOMMODATE CONSTRUCTION SLOPES. EMBANKMENTS AND EXCAVATED AREAS SHALL BE PROMPTLY STABILIZED TO MINIMIZE EROSION. EROSION CHECKS AND SILT FENCE SHALL BE USED ALONG THE TOE OF FILL SLOPES, IN DITCHES, AND IN OTHER AREAS WHERE EROSION IS A PROBLEM AND SILT-LADEN RUNOFF MAY ENTER A STREAM OR ADJACENT PROPERTY.
2. ANY STOCKPILED SOIL OR FILL MATERIAL SHALL BE LOCATED AND TREATED IN A MANNER TO PREVENT SILT ENTERING STREAMS. NO EXCAVATED MATERIAL SHALL BE DISCHARGED INTO DITCHES. THE CONTRACTOR SHALL DISPOSE OF ALL EXCAVATED MATERIAL IN A LOCATION, APPROVED BY THE ENGINEER, ABOVE THE NORMAL HIGH WATER ELEVATION.
3. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL EROSION CONTROL PROVISIONS AS SET FORTH IN THE EROSION & SEDIMENT CONTROL HANDBOOK AVAILABLE FROM THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.
4. THE CONTRACTOR SHALL MAINTAIN THE EROSION CONTROL MEASURES THROUGHOUT THE LENGTH OF THE CONTRACT AS REQUIRED.
5. THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION AND WATER CONTROL MEASURES (SUCH AS BERMS, SEDIMENT BASINS, SLOPE DRAINS, AND SILT FENCES) AS DIRECTED BY THE ENGINEER.
6. NO EARTH OR OTHER ERODIBLE MATERIAL SHALL BE USED TO DIVERT STREAM FLOW OR TO CONSTRUCT COFFERDAMS. CLEAN CUT ROCK WITH FINES MAY BE USED, OR, IN THE CASE OF COFFERDAMS, STEEL SHEETING OR SAND BAGS IS PERMISSIBLE. WATER OR SEDIMENT ISOLATED BY COFFERDAMS SHALL BE PUMPED INTO SEDIMENT BASINS ON THE BANK OF THE STREAM.

## UTILITIES

1. LOCATIONS OF UTILITIES, PUBLIC AND/OR PRIVATE, ARE APPROXIMATE ONLY, AND THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD. IT IS POSSIBLE THAT SOME EXISTING FACILITIES ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITY FACILITIES LOCATED AND MARKED PRIOR TO THE BEGINNING OF CONSTRUCTION.
2. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY OWNERS PRIOR TO INTERRUPTING ANY ELECTRICAL, COMMUNICATIONS, GAS, WATER, OR SEWER SERVICES. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY CUSTOMERS AT LEAST 24 HOURS BEFORE INTERRUPTING THE CUSTOMERS' SERVICE. WHERE INDIVIDUAL SERVICES ARE TO BE DISCONTINUED FOR MORE THAN 8 HOURS, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR PROVIDING TEMPORARY SERVICE SATISFACTORY TO THE AFFECTED CUSTOMER. THE REPAIR OR REPLACEMENT OF UTILITY COMPONENTS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF THE UTILITY OWNER. NO SEPARATE PAYMENT SHALL BE MADE FOR THESE ACTIVITIES.
3. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. SHOULD SPECIAL EQUIPMENT BE REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR SHALL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FOR FURNISHING SPECIAL EQUIPMENT SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
4. ANY EXISTING STORM DRAINAGE PIPING DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AS RAPIDLY AS POSSIBLE AND THEN BE INSPECTED BY ITS RESPECTIVE OWNER.
5. IF ANY UTILITIES ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY'S OWNER. REPAIR OF THE UTILITY SHALL THEN BE ACCORDING TO THE OWNER'S INSTRUCTIONS, AND ALL COST PAID FOR BY CONTRACTOR.

## MISCELLANEOUS

1. THE ENGINEER SHALL HAVE THE AUTHORITY TO DESIGNATE AND/OR LIMIT AREAS OF CONSTRUCTION.
2. THE OWNER MAKES NO REPRESENTATIONS ABOUT SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED WITHIN THE LIMITS OF THE PROJECT. THE CONTRACTOR SHOULD SATISFY HIMSELF BY ON-SITE INSPECTIONS, CORE DRILLINGS, OR OTHER METHODS, OF THE SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED. THE RISK OF ENCOUNTERING AND CORRECTING UNFAVORABLE SUBSURFACE CONDITIONS SHALL BE BORNE SOLELY BY THE CONTRACTOR.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL FIELD LAYOUTS.
4. ALL SALVAGEABLE MATERIAL FROM EXISTING PIPING AND STRUCTURES SHALL REMAIN PROPERTY OF THE OWNER. SAID MATERIAL SHALL BE CLEANED AND THEN DELIVERED TO THE OWNER AT A LOCATION DESIGNATED BY THE ENGINEER.
5. ALL UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER OR THROUGH TESTING, IS TO BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.
6. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING AT HIS OWN EXPENSE ANY AND ALL DAMAGE THAT MAY OCCUR INSIDE AND OUTSIDE THE LIMITS OF THIS PROJECT AS A RESULT OF CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PAYMENT FOR TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND ORDERING APPROPRIATE TESTS AS REQUIRED. THE TESTING COMPANIES SHALL BE APPROVED BY OWNER AND ENGINEER.
8. THE CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF THE PROJECT WITHIN THIRTY (30) DAYS AFTER SUBSTANTIAL COMPLETION OF THE WORK. ("SUBSTANTIAL COMPLETION" SHALL BE DEFINED BY THE SPECIFICATIONS). THE OWNER RESERVES THE RIGHT TO WITHHOLD RETAINAGE UNTIL RECEIVING A COMPLETE SET OF SAID RECORD DRAWINGS.
9. SHOULD THERE BE A CONFLICT BETWEEN THESE GENERAL NOTES, CONTRACT DRAWINGS, AND/OR SPECIFICATIONS, THE MOST RESTRICTIVE INTERPRETATION IN FAVOR OF THE OWNER SHALL PREVAIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY CLARIFICATION OR INTERPRETATION OF GENERAL NOTES, CONTRACT DRAWINGS, AND/OR SPECIFICATIONS, IN ADVANCE AND IN WRITING, FROM THE ENGINEER.

## PROJECT SPECIFIC NOTES

1. CONTRACTOR TO VERIFY ELEVATIONS OF EXISTING STRUCTURES PRIOR TO SUBMITTAL OF EQUIPMENT OR MATERIALS.
2. REPLACE ALL EXISTING PAVEMENT IN STREETS, DRIVEWAYS, OR PARKING AREAS WHICH IS REMOVED, DESTROYED, OR DAMAGED BY CONSTRUCTION OF IMPROVEMENTS.
3. CONTRACTOR SHALL NOT DISTURB, CUT, OR DAMAGE ANY NEWLY PLACED SIDEWALKS AROUND CITY SQUARE.

## ABBREVIATIONS

### GENERAL

ABV	ABOVE	GAL	GALLON	R	RISER
AD	AREA DRAIN	GALV	GALVANIZED	RAD	RADIUS
ADJ	ADJUSTABLE	GND	GROUND	RD	ROOF DRAIN
AFF	ABOVE FINISH FLOOR	GV	GATE VALVE	REF	REFERENCE
ALT	ALTERNATE			REINF	REINFORCED
APPROX	APPROXIMATE	HC	HANDICAPPED	REQ	REQUIRED
ARCH	ARCHITECT	HDWR	HARDWARE	RM	ROOM
		HT	HEIGHT	RO	ROUGH OPENING
		HORIZ	HORIZONTAL		
		HR	HOUR	S	SOUTH
B&J	BORE AND JACK			SC	SERVICE CONNECTION
BET	BETWEEN			SCHED	SCHEDULED
BGS	BELOW GRADE SURFACE	ID	INNER DIAMETER	SEAL	SEALANT
BLDG	BUILDING	INSUL	INSULATION	SECT	SECTION
BLW	BELOW	INT	INTERIOR	SF	SQUARE FOOT
BO	BOTTOM OF			SHT	SHEET
BOT	BOTTOM	KILO	KILOGRAM	SIM	SIMILAR
				SPEC	SPECIFICATION
CLG	CEILING	LB(S)	POUNDS	SQ	SQUARE
CLR	CLEAR	LDG	LANDING	SS	SANITARY SEWER
CONC	CONCRETE	LF	LINEAR FOOT	STD	STANDARD
CONT	CONTINUOUS	LT	LIGHT	STOR	STORAGE
CTR	CENTER			STRUCT	STRUCTURAL
				SUSP	SUSPENDED
DBL	DOUBLE	MAX	MAXIMUM	SYM	SYMMETRICAL
DET	DETAIL	MECH	MECHANICAL		
DIA	DIAMETER	MEMB	MEMBRANE		
DIM	DIMENSION	MFR	MANUFACTURER		
DN	DOWN	MIN	MINIMUM	TEL	TELEPHONE
DR	DOOR	MISC	MISCELLANEOUS	THK	THICK
DS	DOWN SPOUT	MJ	MECHANICAL JOINT	THR	THRESHOLD
DWG	DRAWING	MTD	MOUNTED	TO	TOP OF
				TPY	TYPICAL
E	EAST	N	NORTH		
EA	EACH	NIC	NOT IN CONTRACT	UC	UNDERCUT
ELECT	ELECTRIC(AL)	NO	NUMBER	UNFIN	UNFINISHED
ELEV	ELEVATION	NOM	NOMINAL	UNO	UNLESS NOTED OTHERWISE
EMER	EMERGENCY	NTS	NOT TO SCALE	UTIL	UTILITY
ENCL	ENCLOSURE				
EQ	EQUAL	OA	OVERALL	VERT	VERTICAL
ETR	EXISTING TO REMAIN	OC	ON CENTER (DIMENSION)	VIF	VERIFY IN FIELD
EXST	EXISTING	OC	OPEN CUT (METHOD)		
EQUIP	EQUIPMENT	OD	OUTSIDE DIAMETER	W	WEST
		OFF	OFFICE	WT	WEIGHT
FA	FIRE ALARM	OPG	OPENING	W/	WITH
FD	FLOOR DRAIN	OPP	OPPOSITE	W/O	WITHOUT
FH	FIRE HYDRANT			WP	WATERPROOF
FIN	FINISH	PNT	POINT		
FLR	FLOOR	PR	PAIR		
FT	FOOT OR FEET	PTD	PAINTED		
FO	FACE OF				

### PIPE MATERIALS

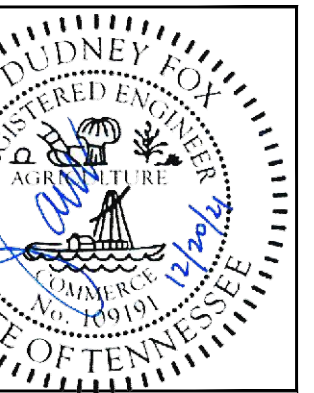
BSP	BLACK STEEL PIPE
CIP	CAST IRON PIPE
CISP	CAST IRON SOIL PIPE
CMP	CORRUGATED METAL PIPE
CP	CONCRETE PIPE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CSP	CARBON STEEL PIPE (SEAMLESS)
CJ	COPPER
DIP	DUCTILE IRON PIPE
FRP	FIBERGLASS REINFORCED PIPE
GIP	GALVANIZED IRON PIPE
GSP	GALVANIZED STEEL PIPE
HDPE	HIGH DENSITY POLYETHYLENE
IP	IRON PIPE
PB	POLYBUTYLENE
PCP	PRESTRESSED CONCRETE PRESSURE
PE	POLYETHYLENE
PP	POLYPROPYLENE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
RH	RUBBER HOSE
SSTL	STAINLESS STEEL
STL	STEEL (FABRICATED)
VCP	VITRIFIED CLAY PIPE

### VALVE TYPES

ARV	AIR RELEASE VALVE
BLV	BALL VALVE
BFV	BUTTERFLY VALVE
CNV	CONE VALVE
CV	CHECK VALVE
DV	DIAPHRAGM VALVE
GV	GATE VALVE
GBV	GLOBE VALVE
KV	KNIFE VALVE
MO	MOTOR OPERATED VALVE
MV	MUD VALVE
NV	NEEDLE VALVE
PHV	PINCH VALVE
PV	PLUG VALVE
PRV	PRESSURE REDUCING VALVE

### JOINT TYPES

CC	CORRUGATED COUPLING
CPL	COUPLING
FLG	FLANGE
FRJ	FLEXIBLE RUBBER EXPANSION JOINT
MJ	MECHANICAL JOINT
OR	"O" RING
PE	PLAIN END
PO	PUSH ON
RJ	RESTRAINED JOINT
SW	SOLVENT WELD
SWT	SWEAT
NPT	THREADED



FAYETTEVILLE PUBLIC UTILITIES  
2021 WATER SYSTEM  
IMPROVEMENTS WATER  
MAIN REPLACEMENTS  
1600-022



NORTH	DRAWN BY <b>CAJ</b>
	APPROVED BY <b>JDF</b>

DATE	ISSUE

TITLE <b>GENERAL NOTES</b>
DRAWING NO. <b>G2.0</b>



# CIVIL

EXISTING		PROPOSED	
GAS LINE		GAS LINE	
GAS LINE ABANDONED			
WATER LINE		WATER LINE	
WATER LINE ABANDONED			
SANITARY SEWER		SANITARY SEWER	
SANITARY SEWER ABANDONED			
FORCEMAIN		FORCEMAIN	
FORCEMAIN ABANDONED			
STORM SEWER		STORM SEWER	
OVERHEAD ELECTRIC		PERFORATED PIPE	
UNDERGROUND ELECTRIC			
FIBER OPTICS			
BUILDING/STRUCTURE		BUILDING/STRUCTURE	
ROADWAY		ROADWAY	
ROADWAY CENTERLINE		ROADWAY CENTERLINE	
SIDEWALK/CONCRETE		SIDEWALK/CONCRETE	
CONTOUR (MAJOR)		CONTOUR (MAJOR)	
CONTOUR (MINOR)		CONTOUR (MINOR)	
DITCH LINE		DITCH LINE	
STREAM			
PROPERTY LINE			
EASEMENT			
AIR RELEASE VALVE		AIR RELEASE VALVE	
SANITARY SEWER MANHOLE		SANITARY SEWER MANHOLE	
CLEANOUT		CLEANOUT	
CATCH BASIN		CATCH BASIN	
DRAINAGE MANHOLE		DRAINAGE MANHOLE	
HEADWALL		HEADWALL	
WATER METER BOX		WATER METER BOX	
VALVE		VALVE	
HYDRANT		HYDRANT	
CAP		CAP	
POWER POLE		POWER POLE	
LIGHT POLE		LIGHT POLE	
GUY		GUY	
COMMUNICATIONS MANHOLE		COMMUNICATIONS MANHOLE	

# PROCESS

PIPING & STRUCTURE	
EXISTING	NEW
PIPING	
STRUCTURE	

VALVES & FITTINGS	
SINGLE LINE	DOUBLE LINE
BALL VALVE (BLV)	
BUTTERFLY VALVE (BFV)	
PLUG VALVE (PV)	
CHECK VALVE (CV)	
GATE VALVE (GV)	
KNIFE GATE VALVE (KGV)	
SOLENOID VALVE (SV)	
NEEDLE VALVE (NV)	
FLUSHING CONNECTION W/ QUICK DISCONNECT	
PIPING	
WELDED JOINT	
FLANGED JOINT	
MECHANICAL JOINT	
PUSH-ON	
FLANGE ADAPTER (FA)	
RESTRAINED FLANGE ADAPTER (RFA)	
EXPANSION COUPLING	

PIPE LINE IDENTIFICATION	

# MISCELLANEOUS

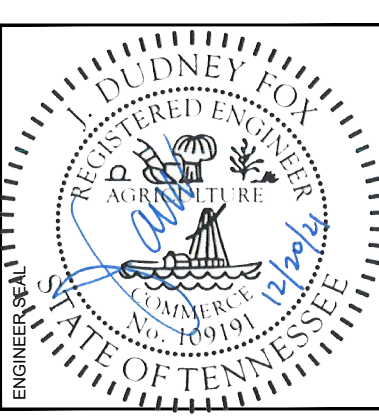
EROSION CONTROL	
SILT FENCE	
RIP-RAP	
INLET PROTECTION	
CHECK DAM	
EROSION EEL / WATTLE	
CONSTRUCTION ENTRANCE	

DEMOLITION	
STRUCTURE/EQUIPMENT	
PIPING (SINGLE LINE)	
PIPING (DOUBLE LINE)	

DRAWING ANNOTATION	
DETAIL MARKER	
SECTION MARKER	
ELEVATION MARKER	
EQUIPMENT MARKER	
SHEET SPECIFIC NOTE MARKER	
REVISION CLOUD & MARKER	
CENTERLINE	



FAYETTEVILLE PUBLIC UTILITIES  
 2021 WATER SYSTEM  
 IMPROVEMENTS WATER  
 MAIN REPLACEMENTS  
 1600-022



NORTH  
 DRAWN BY: CAJ  
 APPROVED BY: JDF

DATE	ISSUE

TITLE: LEGEND & SYMBOLOGY  
 DRAWING NO.: G3.0

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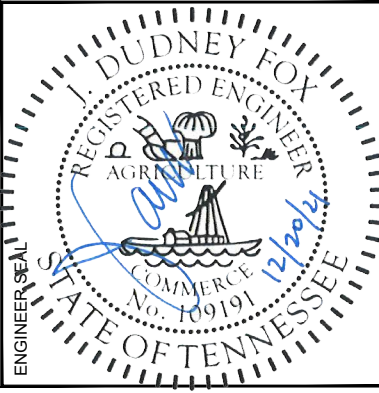
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FAYETTEVILLE PUBLIC UTILITIES  
2021 WATER SYSTEM  
IMPROVEMENTS WATER  
MAIN REPLACEMENTS  
1600-022



NORTH  
DRAWN BY  
CAJ  
APPROVED BY  
JDF

DATE	ISSUE

TITLE  
OVERALL  
LOCATION MAP  
DRAWING NO.  
C0.0

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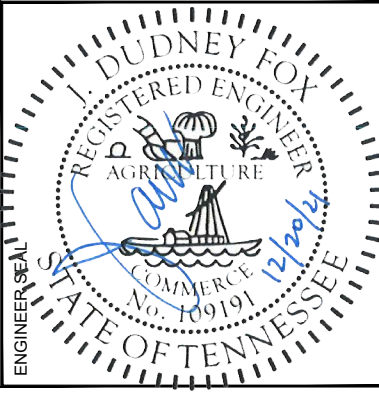
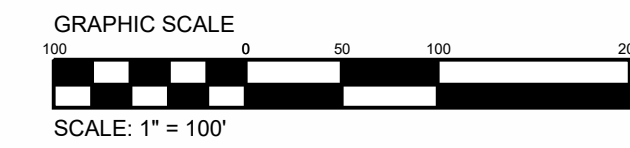


**GENERAL NOTES:**

1. EX. PROPERTY LINES, EDGE OF PAVEMENT, & UTILITIES DERIVED FROM GIS DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY FIELD CONDITIONS PRIOR TO CONSTRUCTION. MAJOR CONFLICTS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY.
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**ABANDONMENT NOTES:**

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3. HYDRANTS ON WATERLINES TO BE ABANDONED ARE TO BE REMOVED & SCRAPPED OFF SITE.
4. VALVE BOXES ON WATERLINES TO BE ABANDONED ARE TO BE FILLED W/ CONCRETE.



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 2021 WATER SYSTEM  
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 MAIN REPLACEMENTS  
 1600-022



NORTH

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 APPROVED BY: JDF

DATE	ISSUE

TITLE: PLAN VIEW  
 DRAWING NO.: C1.0

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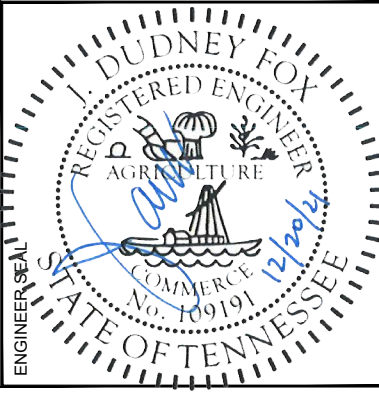
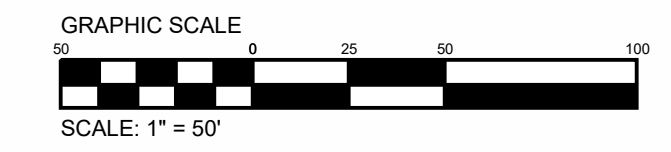


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 2021 WATER SYSTEM  
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**JDF**

DATE	ISSUE

TITLE  
**PLAN VIEW**  
 DRAWING NO.  
**C2.0**

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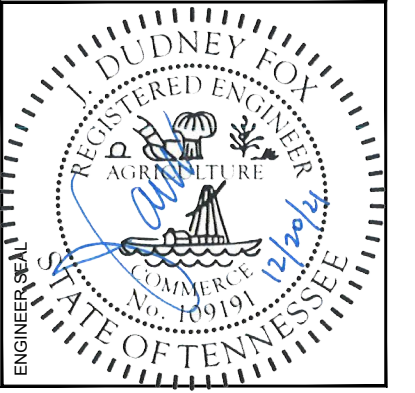
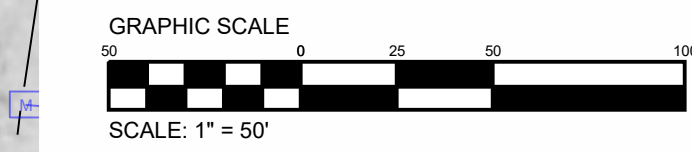


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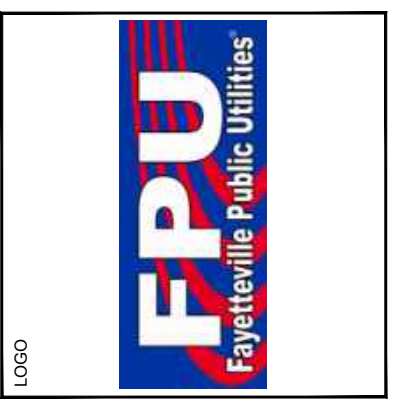
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TITLE  
**PLAN VIEW**  
 DRAWING NO.  
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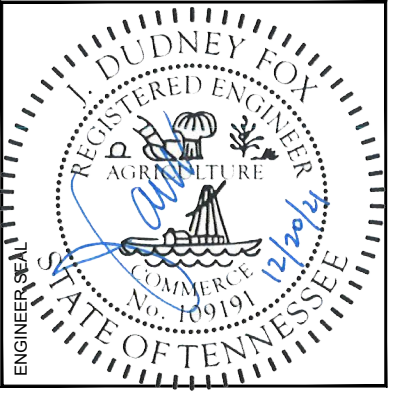
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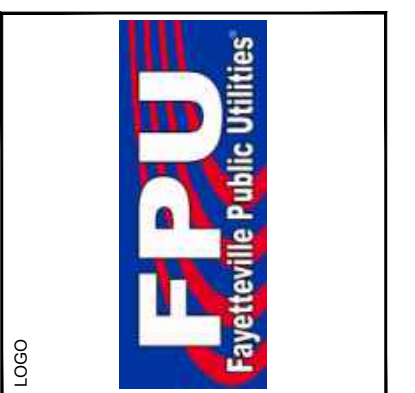
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GRAPHIC SCALE  
SCALE: 1" = 50'



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TITLE: PLAN VIEW  
DRAWING NO.: C4.0

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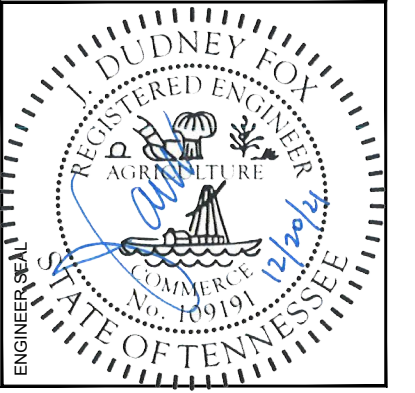
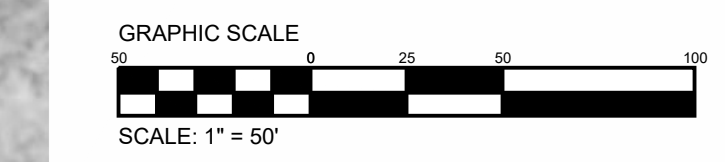


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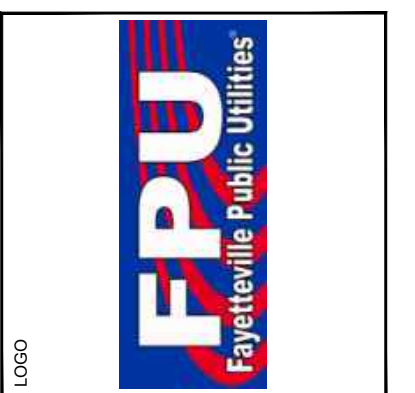
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TITLE PLAN VIEW  
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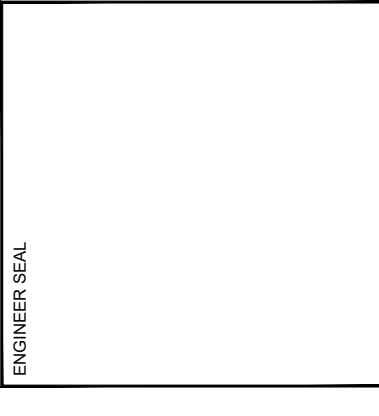
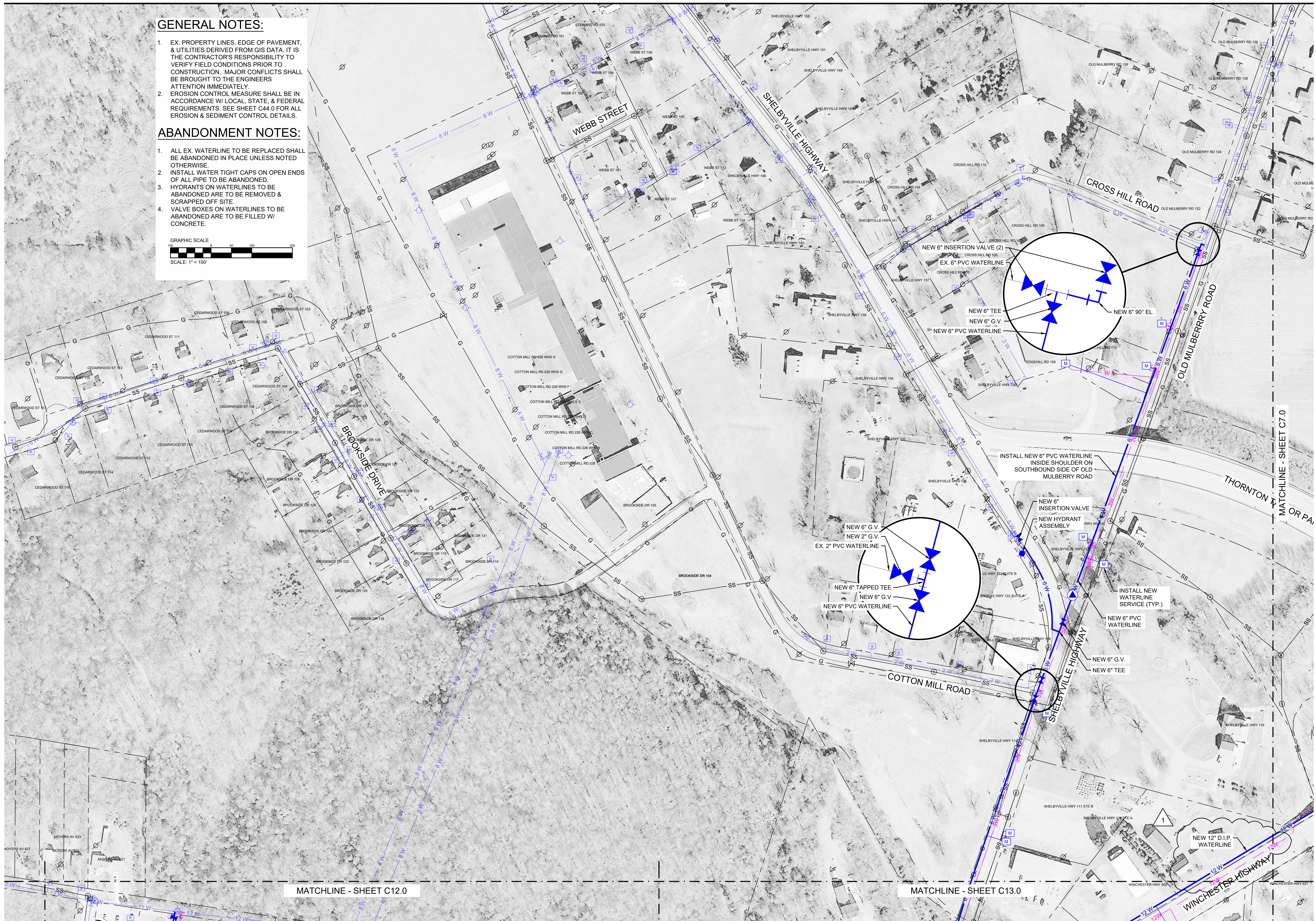
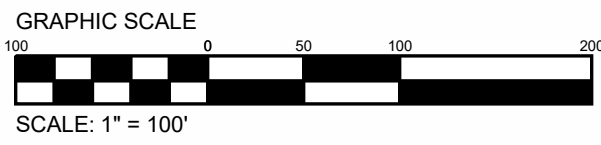


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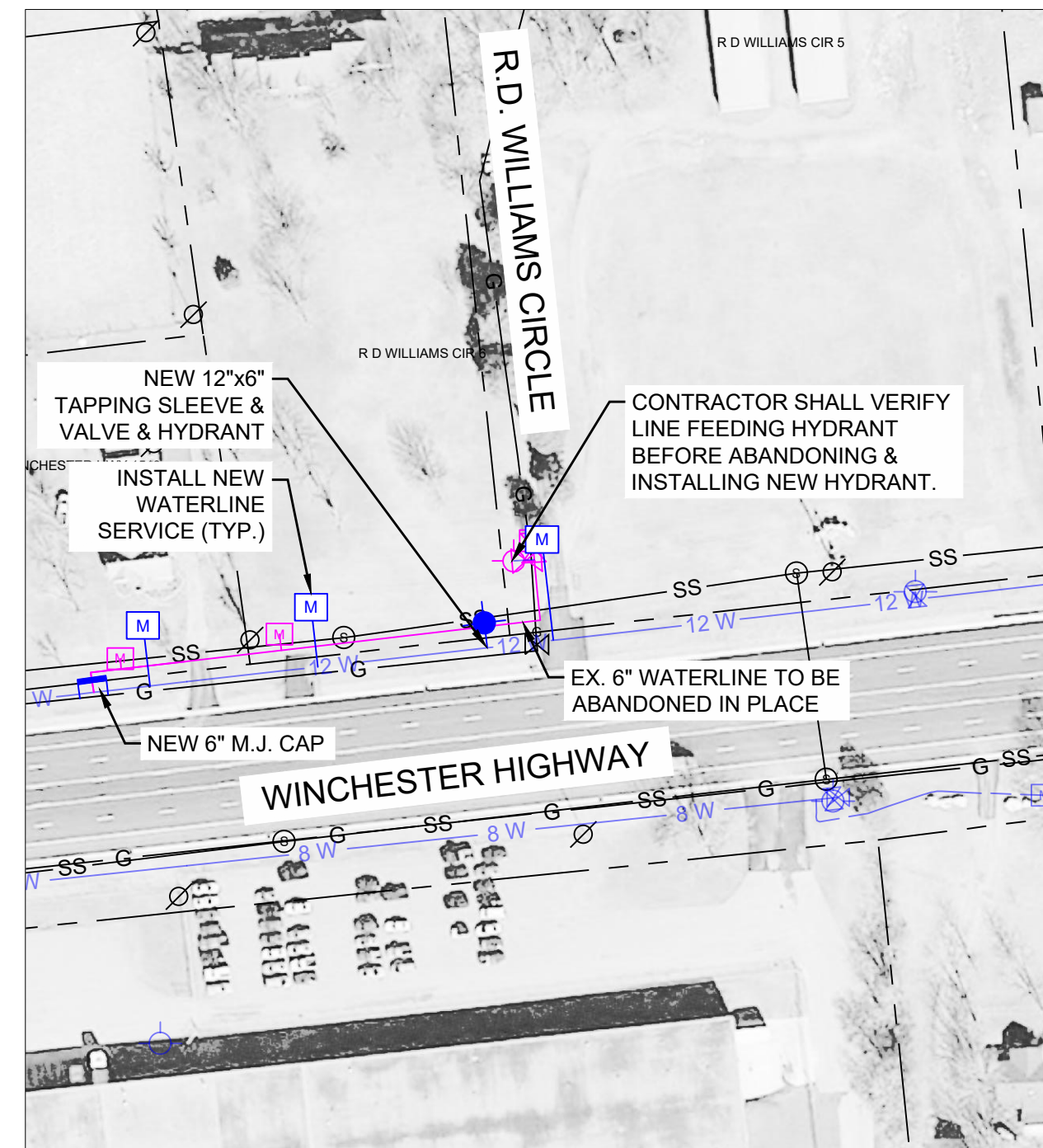
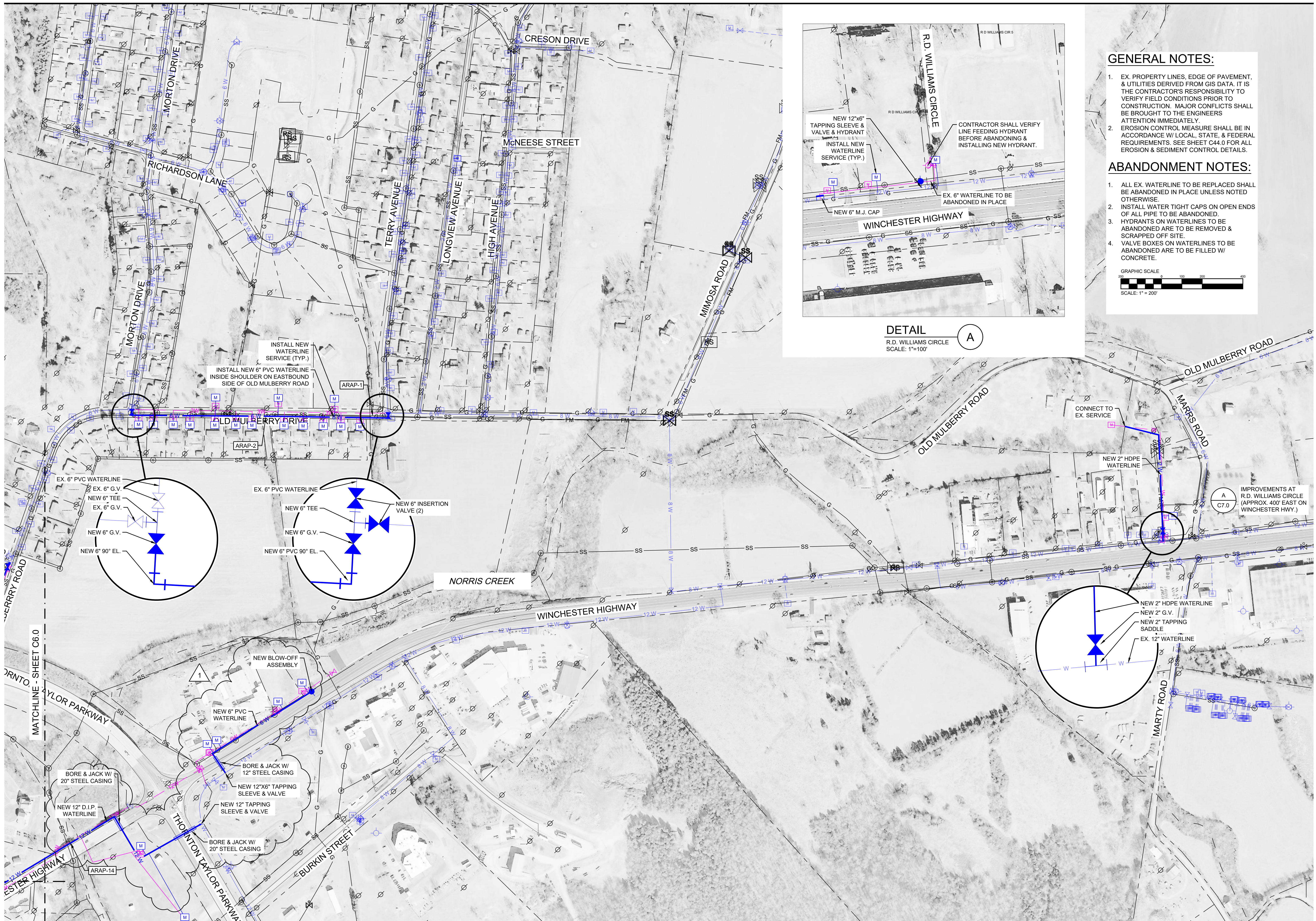
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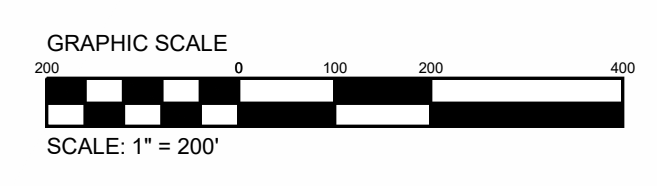
**DETAIL A**  
R.D. WILLIAMS CIRCLE  
SCALE: 1" = 100'

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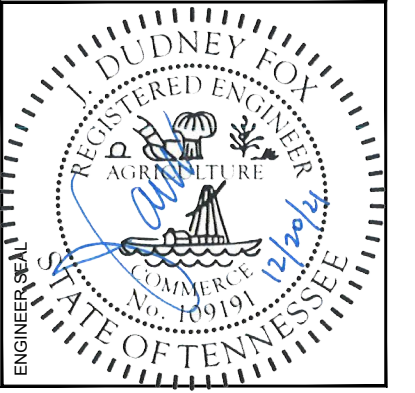
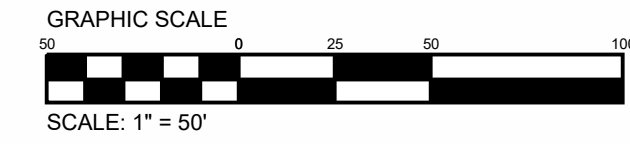


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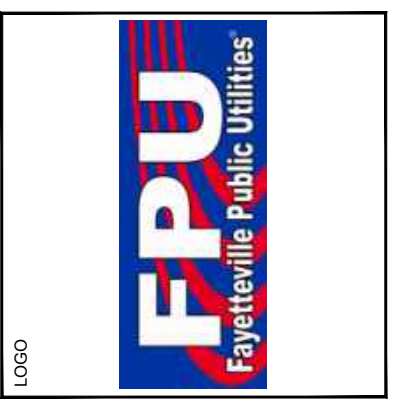
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