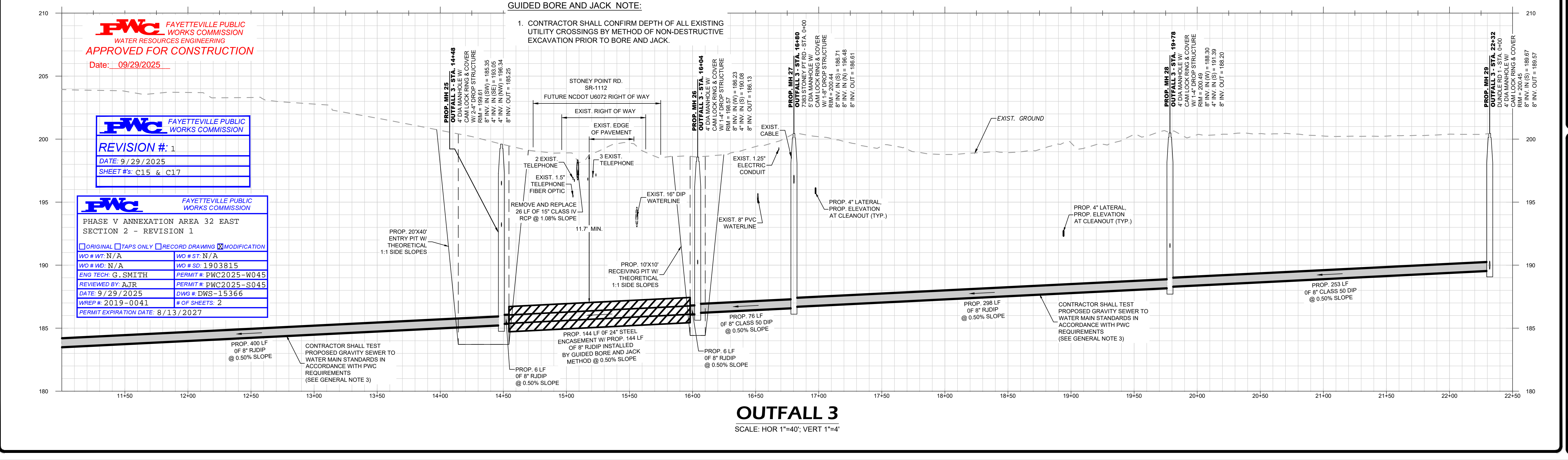
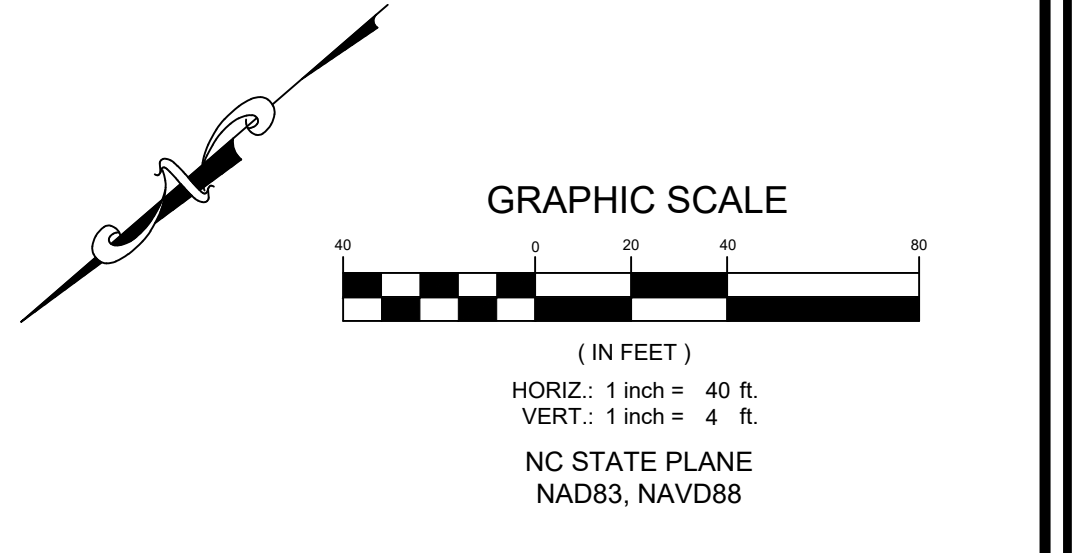


LEGEND	
--- W ---	PROP. UTILITY EASEMENT
--- W ---	PROP. SAN SEWER, CLEANOUT & MH
--- W ---	PROP. WATER LINE
--- TB ---	PROP. BORE & JACK W/ ENCASUREMENT
--- TCE ---	PROP. TEMP CONSTRUCTION ESMT.
--- ROE ---	PROP. RIGHT OF ENTRY
--- LOD ---	PROP. LIMIT OF DISTURBANCE
--- LOW ---	PROP. LIMIT OF WORK
--- TB ---	PROP. SILT / SAFETY FENCE
--- TB ---	EX. TOP OF BANK / TOP OF SLOPE
--- BB ---	EX. BOTTOM OF BANK / SLOPE
---	EX. WETLANDS / BANK BOUNDARY
---	EX. RIGHT-OF-WAY
---	EX. SANITARY SEWER & MANHOLE
---	EX. WATER LINE & WATER VALVE
---	EX. WATER LINE (RECORD DRAWING)
---	EX. GAS LINE / UNDERGROUND GAS
---	EX. ELECTRIC / UNDERGROUND ELEC.
---	EX. OVERHEAD ELECTRIC LINE
---	EX. TELEPHONE / UNDERGROUND TEL
---	EX. TELEPHONE LINE (RECORD DWG)
---	EX. CABLE TV / FIBER OPTIC LINE
---	EX. TRAFFIC SIGNAL LINE
---	EX. UNKNOWN UTILITY
---	EX. FENCE LINE
---	EX. FENCE LINE
---	EX. TREE LINE
---	EX. TREE / BUSH
---	EX. MAILBOX
---	EX. LAMP / LIGHT POLE
---	EX. SUE/SOIL BORING LOCATION
---	EX. SIGN
---	EX. IRF IRON ROD FOUND
---	EX. IRP IRON PIPE FOUND
---	EX. PKF PK NAIL FOUND
---	EX. CONCRETE MONUMENT
---	EX. CONTROL POINT
---	EX. UTILITY POLE
---	EX. TELE. PEDESTAL / MH
---	EX. HVAC PEDESTAL
---	PROP. REVERSE PLUMBING
---	PROP. BACKWATER VALVE
---	PROP. GRINDER PUMP
---	PROP. EX. HYDRANT
---	EX. WATER METER
---	EX. WELL HEAD
---	EX. SEPTIC TANK
---	EX. POWER POLE
---	EX. GUY WIRE
---	EX. ELECTRIC BOX / METER
---	EX. ELECTRIC TRANSFORMER
---	EX. CATV PEDESTAL
---	EX. DRAIN MH / CATCH BASIN

- GENERAL NOTE:**
- CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE PROPOSED SEWER LATERAL INSTALLATION WITH THE EXISTING UTILITIES. CONTRACTOR SHALL USE PWC STANDARD DETAIL S.12 SEWER SERVICE LATERAL UTILITY CONFLICT SEPARATION REQUIREMENTS ONLY WHEN APPROVED BY PWC PROJECT COORDINATOR.
  - CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ACCESS TO PET RESORT AT ALL TIMES DURING CONSTRUCTION BY USE OF TRAFFIC CONTROL OR TEMPORARY ACCESS DRIVE AT NO ADDITIONAL COST TO PWC.
  - SPECIAL TESTING REQUIRED FOR PROPOSED SEWER WITHIN 100-FOOT RADIUS OF A PRIVATE WELL. CONTRACTOR SHALL HYDROSTATICALLY PRESSURE TEST SEWER TO 150 PSI TO ASSURE WATER TIGHTNESS.

- SEPTIC TANK NOTE:**
- CONTRACTOR SHALL REPAIR ANY DAMAGE TO SEPTIC TANK AND/OR DRAIN FIELD, TO EXISTING OR BETTER CONDITION AND IN ACCORDANCE WITH ALL LOCAL AND STATE REGULATIONS, IMMEDIATELY UPON OCCURRENCE OF DAMAGE DURING CONSTRUCTION OF SEWER IMPROVEMENTS. CONTRACTOR SHALL PUMP AND HAUL SEPTIC CONTENTS AS NECESSARY DURING THE INTERIM BETWEEN SEPTIC SYSTEM DAMAGE AND REPAIR. NO SEPARATE PAYMENT.



**FWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
 WATER RESOURCES ENGINEERING  
 APPROVED FOR CONSTRUCTION  
 Date: 09/29/2025

**FWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
 REVISION #: 1  
 DATE: 9/29/2025  
 SHEET #s: C15 & C17

**FWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
 PHASE V ANNEXATION AREA 32 EAST  
 SECTION 2 - REVISION 1  
 ORIGINAL  TAPS ONLY  RECORD DRAWING  MODIFICATION  
 WD # WT: N/A WD # ST: N/A  
 WD # HD: N/A WD # SD: 1903815  
 ENG TECH: G. SMITH PERMIT #: PNC2025-W045  
 REVIEWED BY: AJR PERMIT #: PNC2025-S045  
 DATE: 9/29/2025 DWG #: DWS-15366  
 WRAP #: 2019-0041 # OF SHEETS: 2  
 PERMIT EXPIRATION DATE: 8/13/2027

**OUTFALL 3**  
 SCALE: HOR 1"=40'; VERT 1"=4'

DATE: 07/28/2025  
 SURVEY/GPS BY: M8C/GPI  
 DRAWN BY: VAR  
 CHECKED BY: AMH / MY  
 SCALE: 1/8" = 1'-0"  
 SHEET # 015

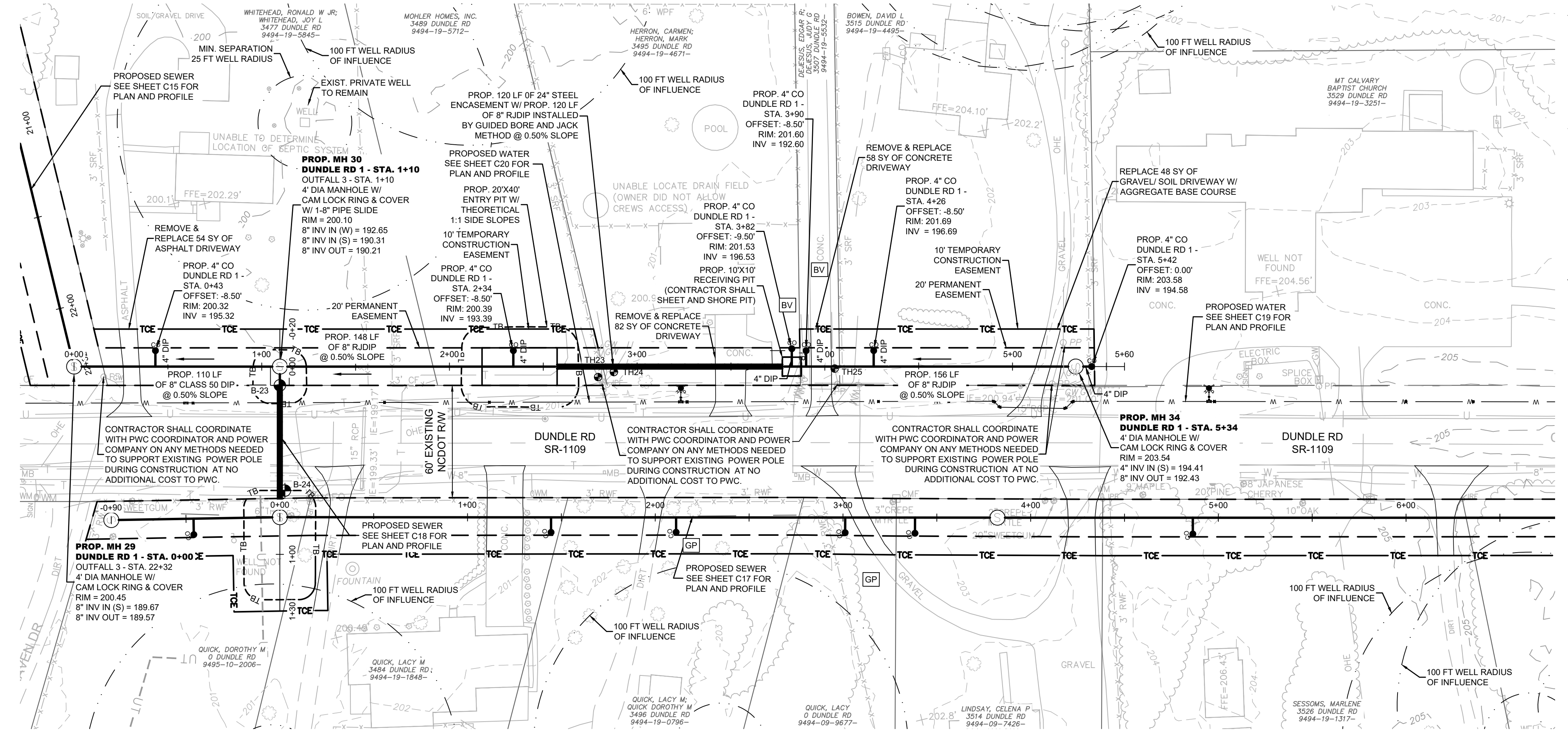
**DICKSON**  
 PROFESSIONAL ENGINEER  
 720 Corporate Center Drive  
 Raleigh, NC 27603  
 www.dicksoninc.com

**NORTH CAROLINA**  
 ENGINEER  
 049209  
 MICHAEL E. YOUNGER  
 09/11/2025

**SEWER MAIN - OUTFALL 3 - 11+00 TO END**  
 PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
 FAYETTEVILLE, NORTH CAROLINA

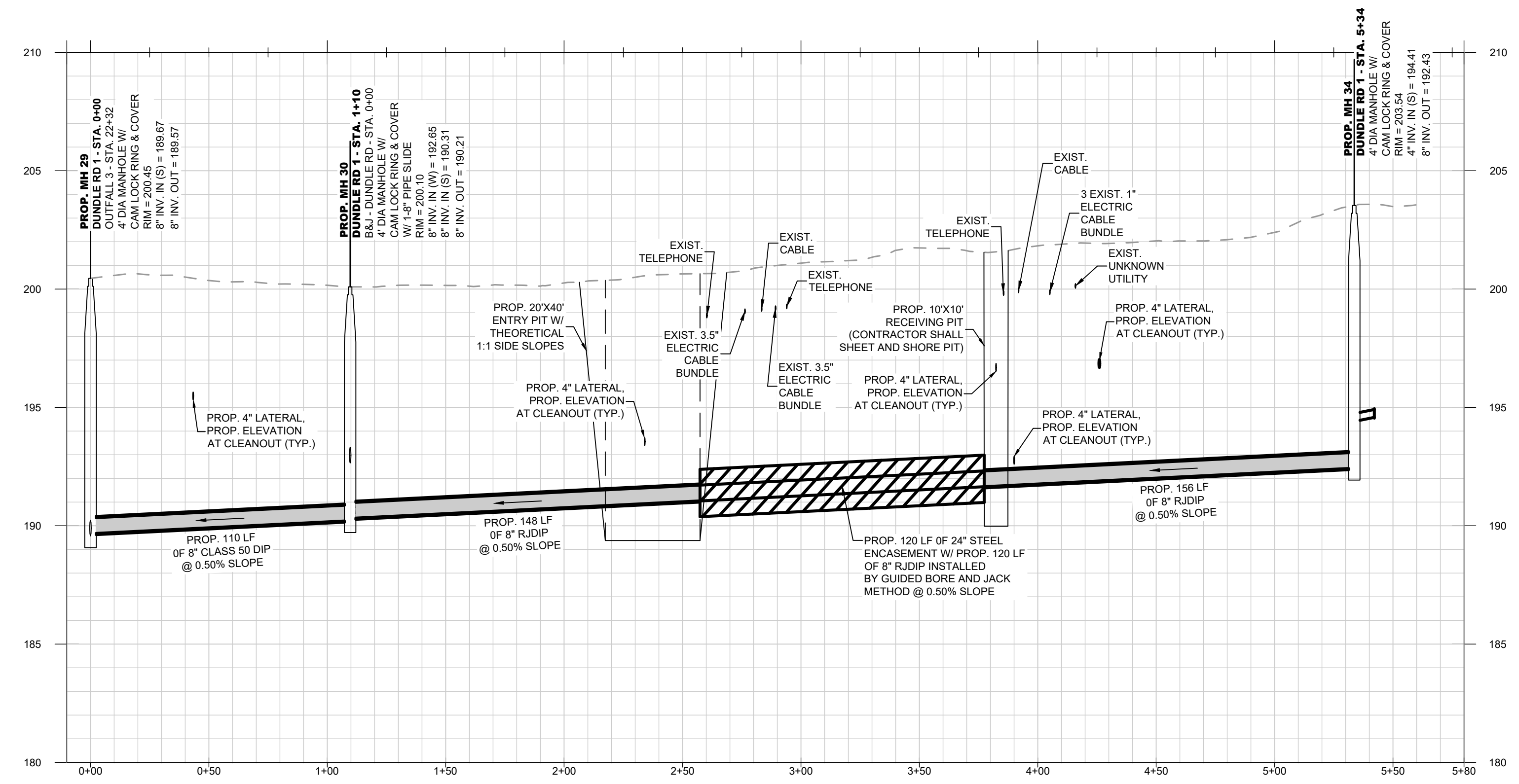
**FWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
 WATER RESOURCES ENGINEERING  
 P.O. Box 1088, Fayetteville, NC 28302  
 855 5th Wilmington Road, Fayetteville, NC 28301

2018008.00.PA



**LEGEND**

<ul style="list-style-type: none"> <li>--- PROP. UTILITY EASEMENT</li> <li>--- PROP. SAN SEWER, CLEANOUT &amp; MH</li> <li>--- PROP. WATER LINE</li> <li>--- PROP. BORE &amp; JACK W/ ENCASEMENT</li> <li>--- PROP. BORE PIT TOP OF BANK</li> <li>--- PROP. TEMP CONSTRUCTION ESMT.</li> <li>--- PROP. RIGHT OF ENTRY</li> <li>--- PROP. LIMIT OF DISTURBANCE</li> <li>--- PROP. LIMIT OF WORK</li> <li>--- PROP. SILT / SAFETY FENCE</li> <li>--- EX. TOP OF BANK / TOP OF SLOPE</li> <li>--- EX. BOTTOM OF BANK / SLOPE</li> <li>--- EX. WETLANDS / WETL BOUNDARY</li> </ul>	<ul style="list-style-type: none"> <li>--- EX. RIGHT-OF-WAY</li> <li>--- EX. SANITARY SEWER &amp; MANHOLE</li> <li>--- EX. WATER LINE &amp; WATER VALVE</li> <li>--- EX. WATER LINE (RECORD DRAWING)</li> <li>--- EX. GAS LINE / UNDERGROUND GAS</li> <li>--- EX. ELECTRIC / UNDERGROUND ELEC.</li> <li>--- EX. OVERHEAD ELECTRIC LINE</li> <li>--- EX. TELEPHONE / UNDERGROUND TEL.</li> <li>--- EX. TELEPHONE LINE (RECORD DWG)</li> <li>--- EX. CABLE TV / FIBER OPTIC LINE</li> <li>--- EX. TRAFFIC SIGNAL LINE</li> <li>--- EX. UNKNOWN UTILITY</li> <li>--- EX. FENCE LINE</li> <li>--- EX. FENCE LINE</li> <li>--- EX. TREE LINE</li> </ul>	<ul style="list-style-type: none"> <li>RP PROP. REVERSE PLUMBING</li> <li>BV PROP. BACKWATER VALVE</li> <li>GP PROP. GRINDER PUMP</li> <li>UG PROP. / EX. HYDRANT</li> <li>WM EX. WATER METER</li> <li>ST EX. SEPTIC TANK</li> <li>PP EX. POWER POLE</li> <li>A EX. GUY WIRE</li> <li>E EX. ELECTRIC BOX / METER</li> <li>TR EX. ELECTRIC TRANSFORMER</li> <li>CP EX. CATV PEDESTAL</li> <li>CB EX. DRAIN MH / CATCH BASIN</li> </ul>	<ul style="list-style-type: none"> <li>EX. TREE / BUSH</li> <li>MB MAILBOX</li> <li>LAMP / LIGHT POLE</li> <li>SUE/SOIL BORING LOCATION</li> <li>SIGN</li> <li>IRF IRON ROD FOUND</li> <li>IPF IRON PIPE FOUND</li> <li>PKF PK NAIL FOUND</li> <li>CONCRETE MONUMENT</li> <li>CONTROL POINT</li> <li>EX. UTILITY POLE</li> <li>EX. TELE. PEDESTAL / MH</li> <li>EX. HVAC PEDESTAL</li> </ul>
--	--	---	--

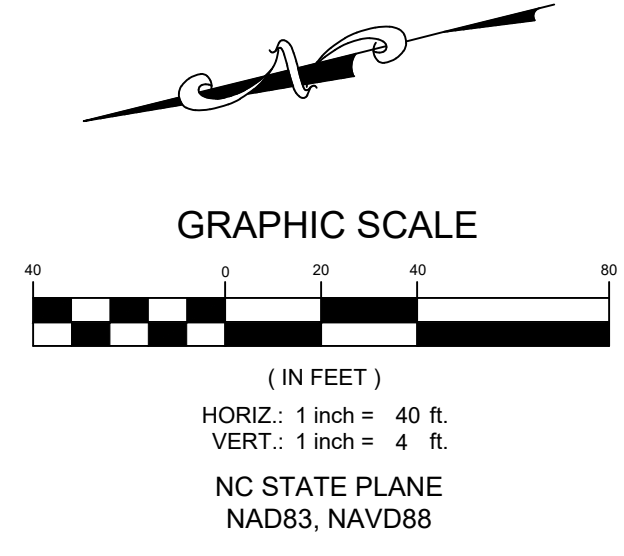


**DUNDLE RD 1**  
SCALE: HOR 1"=40'; VERT 1"=4'

**GENERAL NOTE:**  
1. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE PROPOSED SEWER LATERAL INSTALLATION WITH THE EXISTING UTILITIES. CONTRACTOR SHALL USE PWC STANDARD DETAIL S.12 SEWER SERVICE LATERAL UTILITY CONFLICT SEPARATION REQUIREMENTS ONLY WHEN APPROVED BY PWC PROJECT COORDINATOR.

**SEPTIC TANK NOTE:**  
1. CONTRACTOR SHALL REPAIR ANY DAMAGE TO SEPTIC TANK AND/OR DRAIN FIELD, TO EXISTING OR BETTER CONDITION AND IN ACCORDANCE WITH ALL LOCAL AND STATE REGULATIONS. IMMEDIATELY UPON OCCURRENCE OF DAMAGE DURING CONSTRUCTION OF SEWER IMPROVEMENTS. CONTRACTOR SHALL PUMP AND HAUL SEPTIC CONTENTS AS NECESSARY DURING THE INTERIM BETWEEN SEPTIC SYSTEM DAMAGE AND REPAIR. NO SEPARATE PAYMENT.

**DRIVEWAY NOTE:**  
1. CONTRACTOR SHALL REPLACE CONCRETE DRIVEWAY FROM EXISTING EXPANSION/CONSTRUCTION TO EXPANSION/CONSTRUCTION JOINT FOR ALL REMOVAL AND REPLACEMENT OF CONCRETE SIDEWALKS AND OR DRIVEWAYS. QUANTITIES HAVE BEEN ESTIMATED SINCE ACTUAL LOCATIONS OF EXPANSION JOINTS MAY VARY.



DATE: 07/28/2025	REVISIONS:
SURVEY/GPS BY: MBO/GPI	
DRAWN BY: VAR	
CHECKED BY: #	
SCALE: HOR: 1"=40'	
VERT: 1"=4'	

**WICKSON**  
Professional Engineers  
Urban Development + Water Resources  
720 Corporate Center Drive  
Fayetteville, NC 28302  
P: 910.782.0485  
www.wickson.com

SHEET # C16



**SEWER MAIN - DUNDLE RD 1**  
PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
FAYETTEVILLE, NORTH CAROLINA

**PUBLIC WORKS COMMISSION**  
OF THE CITY OF FAYETTEVILLE

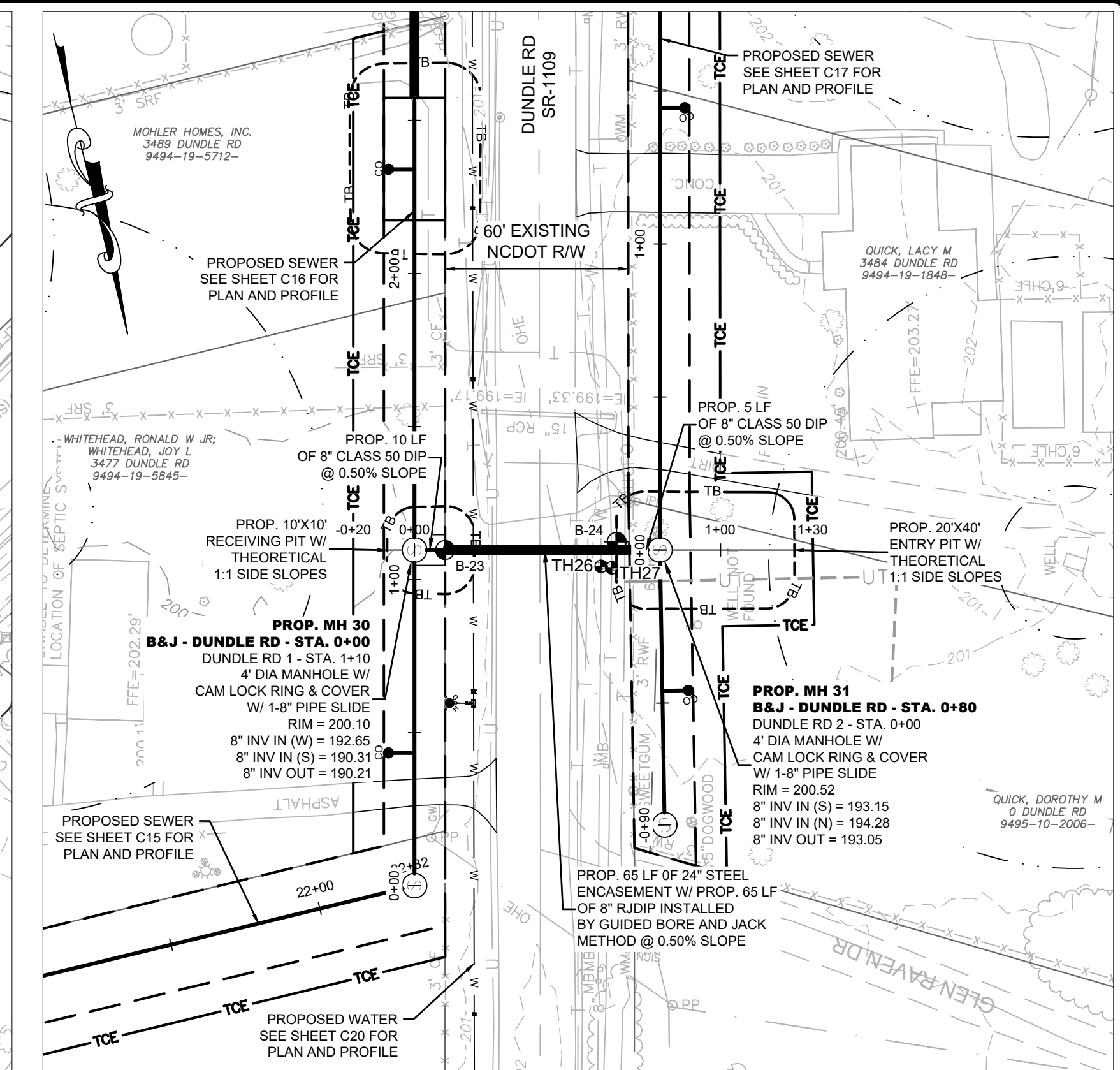
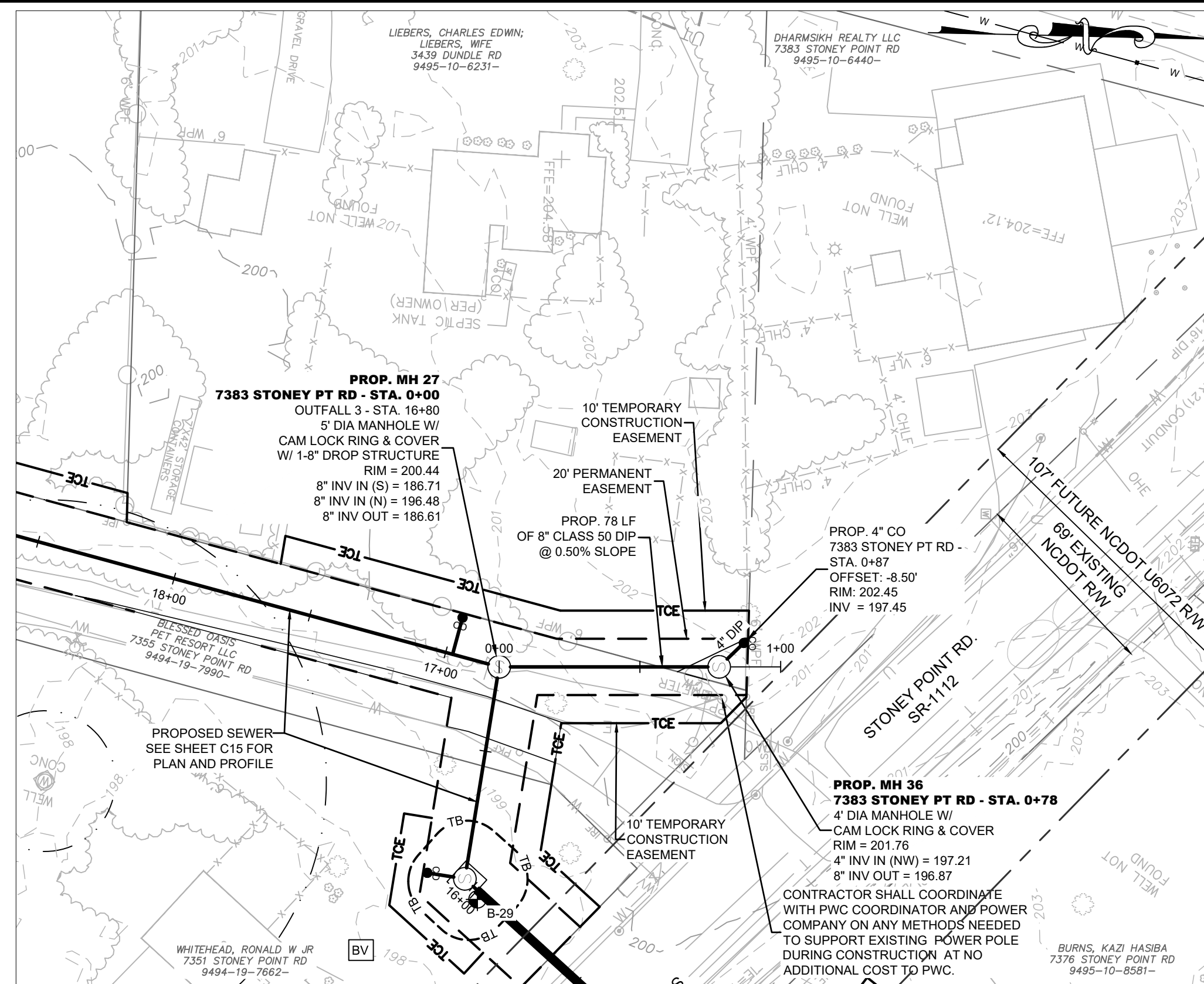
**WATER RESOURCES ENGINEERING**

P.O. Box 1081, Fayetteville, NC 28302  
855 Old Wilmington Road, Fayetteville, NC 28301

**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
WATER RESOURCES ENGINEERING  
APPROVED FOR CONSTRUCTION  
Date: 07/31/2025

2018008.00.PA





LEGEND							
--- U ---	PROP. UTILITY EASEMENT	--- SS ---	EX. RIGHT-OF-WAY	RP	PROP. REVERSE PLUMBING	⊗	EX. TREE / BUSH
--- W ---	PROP. SAN SEWER, CLEANOUT & MH	--- W ---	EX. SANITARY SEWER & MANHOLE	BV	PROP. BACKWATER VALVE	⊗	MAILBOX
--- W ---	PROP. WATER LINE	--- W ---	EX. WATER LINE & WATER VALVE	GP	PROP. GRINDER PUMP	⊗	LAMP / LIGHT POLE
--- TB ---	PROP. BORE & JACK W/ ENCASUREMENT	--- W(R) ---	EX. WATER LINE (RECORD DRAWING)	⊗	PROP. / EX. HYDRANT	⊗	SUE/SOIL BORING LOCATION
--- TB ---	PROP. BORE PIT TOP OF BANK	--- G ---	EX. GAS LINE / UNDERGROUND GAS	⊗	EX. WATER METER	⊗	SIGN
--- TCE ---	PROP. TEMP CONSTRUCTION ESMT.	--- UG ---	EX. ELECTRIC / UNDERGROUND ELEC.	⊗	EX. WELL HEAD	⊗	IRON ROD FOUND
--- ROE ---	PROP. RIGHT OF ENTRY	--- UE ---	EX. OVERHEAD ELECTRIC LINE	⊗	EX. SEPTIC TANK	⊗	IRON PIPE FOUND
--- LOD ---	PROP. LIMIT OF DISTURBANCE	--- CHFE ---	EX. TELEPHONE / UNDERGROUND TEL.	⊗	EX. POWER POLE	⊗	PKF NAIL FOUND
--- LOW ---	PROP. LIMIT OF WORK	--- UT ---	EX. TELEPHONE LINE (RECORD DWG)	⊗	EX. GUY WIRE	⊗	CONCRETE MONUMENT
--- TB ---	PROP. SILT / SAFETY FENCE	--- FO ---	EX. CABLE TV / FIBER OPTIC LINE	⊗	EX. ELECTRIC BOX / METER	⊗	CONTROL POINT
--- TB ---	EX. TOP OF BANK / TOP OF SLOPE	--- TS ---	EX. TRAFFIC SIGNAL LINE	⊗	EX. ELECTRIC TRANSFORMER	⊗	EX. UTILITY POLE
--- BB ---	EX. BOTTOM OF BANK / SLOPE	--- U ---	EX. UNKNOWN UTILITY	⊗	EX. CATV PEDESTAL	⊗	EX. TELE. PEDESTAL / MH
---	EX. WETLANDS / WETL BOUNDARY	---	EX. FENCE LINE	⊗	EX. DRAIN MH / CATCH BASIN	⊗	EX. HVAC PEDESTAL

**GENERAL NOTE:**

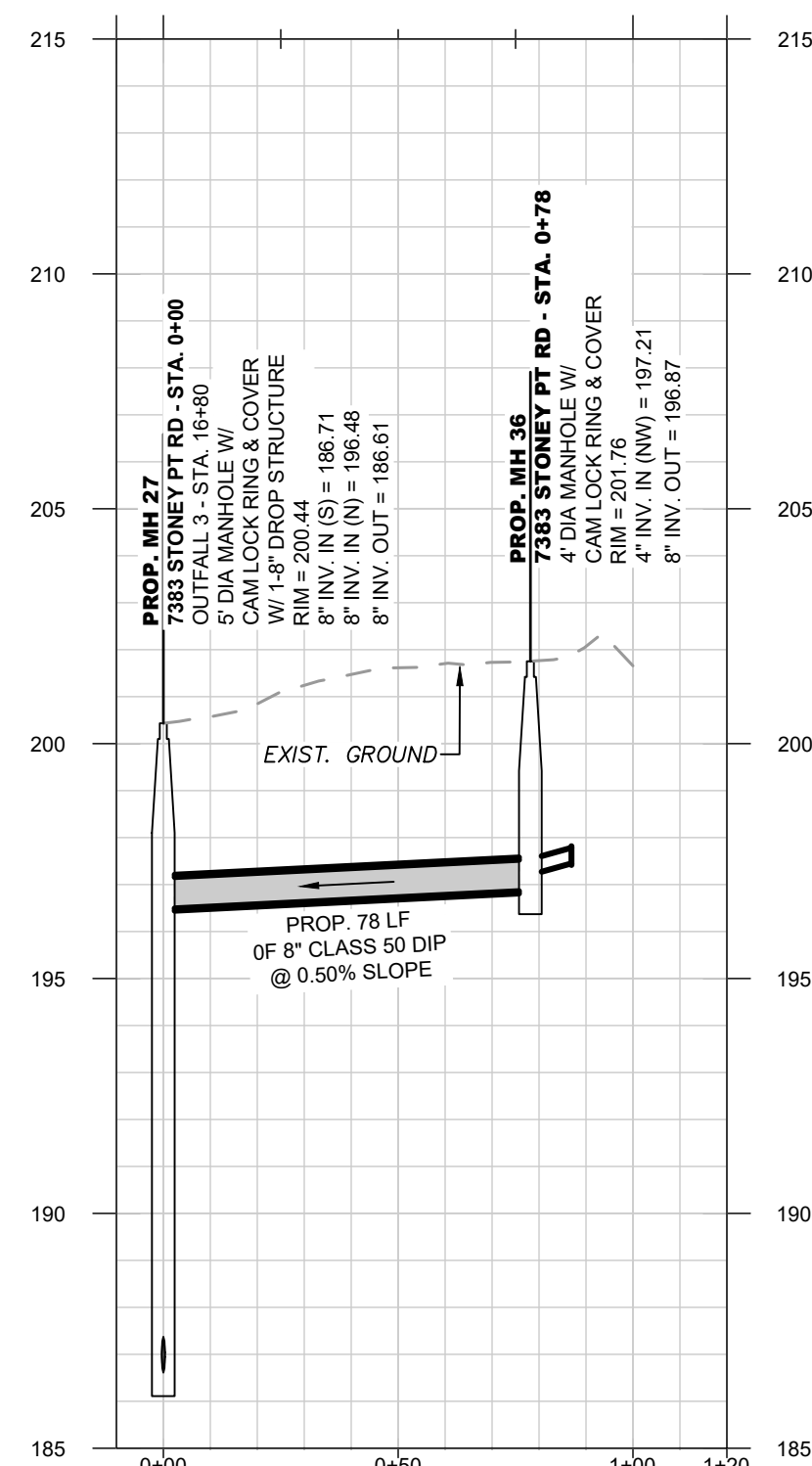
- CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE PROPOSED SEWER LATERAL INSTALLATION WITH THE EXISTING UTILITIES. CONTRACTOR SHALL USE PWC STANDARD DETAIL S.12 SEWER SERVICE LATERAL. UTILITY CONFLICT SEPARATION REQUIREMENTS ONLY WHEN APPROVED BY PWC PROJECT COORDINATOR.

**SEPTIC TANK NOTE:**

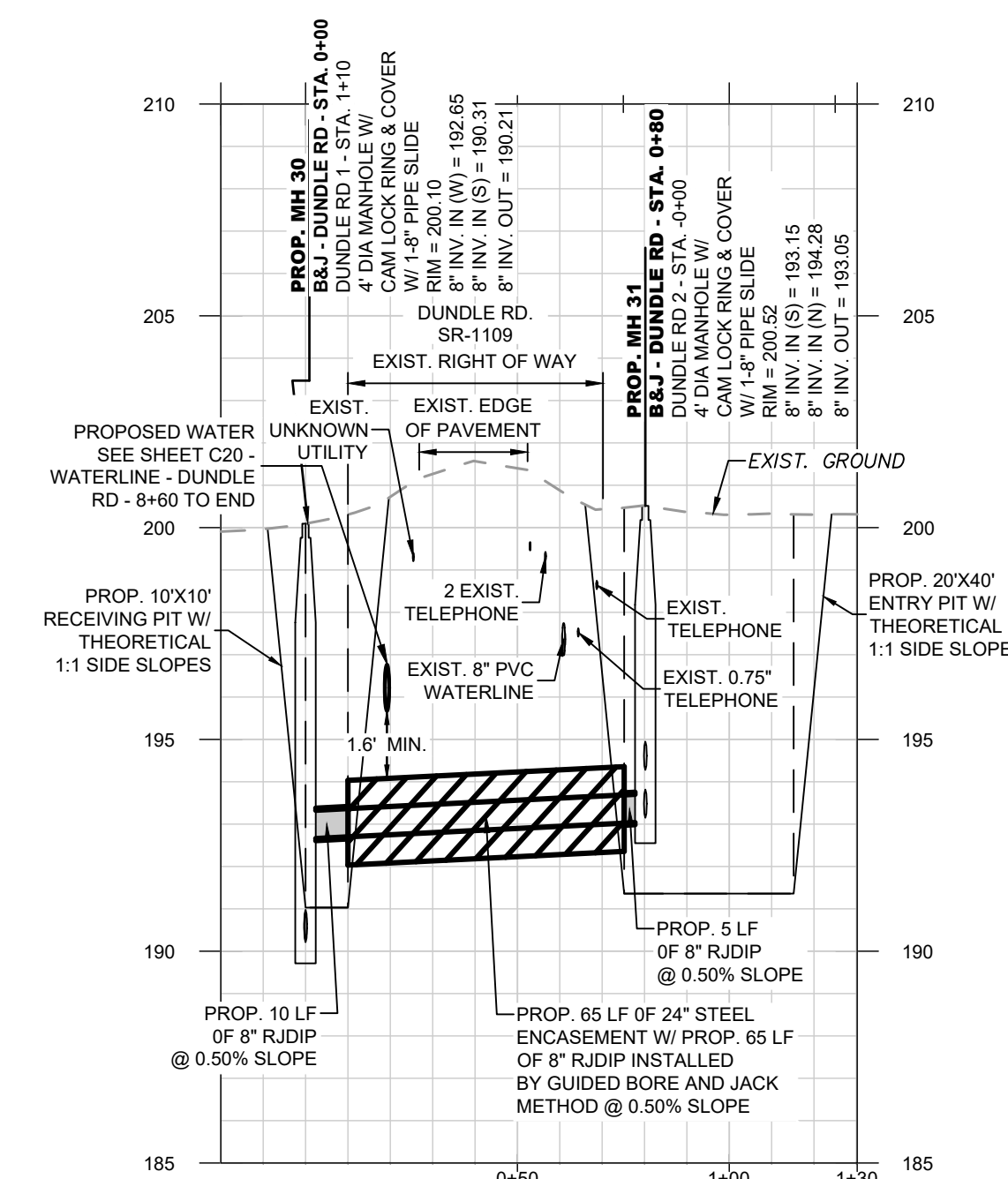
- CONTRACTOR SHALL REPAIR ANY DAMAGE TO SEPTIC TANK AND/OR DRAIN FIELD, TO EXISTING OR BETTER CONDITION AND IN ACCORDANCE WITH ALL LOCAL AND STATE REGULATIONS, IMMEDIATELY UPON OCCURRENCE OF DAMAGE DURING CONSTRUCTION OF SEWER IMPROVEMENTS. CONTRACTOR SHALL PUMP AND HAUL SEPTIC CONTENTS AS NECESSARY DURING THE INTERIM BETWEEN SEPTIC SYSTEM DAMAGE AND REPAIR. NO SEPARATE PAYMENT.

**GUIDED BORE AND JACK NOTE:**

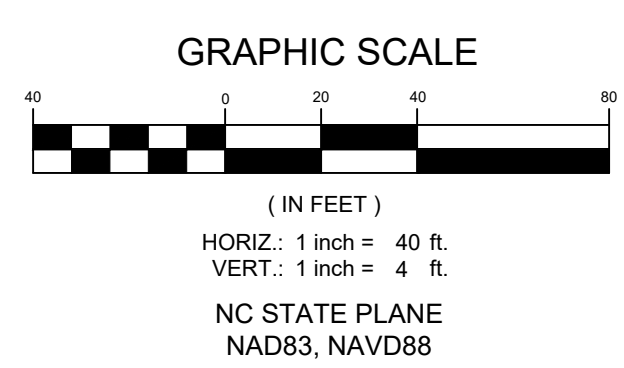
- CONTRACTOR SHALL CONFIRM DEPTH OF ALL EXISTING UTILITY CROSSINGS BY METHOD OF NON-DESTRUCTIVE EXCAVATION PRIOR TO BORE AND JACK.



**7383 STONEY PT RD**  
SCALE: HOR 1"=40'; VERT 1"=4'



**B&J - DUNDLE RD**  
SCALE: HOR 1"=40'; VERT 1"=4'



**FWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
WATER RESOURCES ENGINEERING  
APPROVED FOR CONSTRUCTION  
Date: 07/31/2025

DATE: 07/28/2025	REVISIONS:
SURVEY/GPS BY: M8C/GPI	
DRAWN BY: VAR	
CHECKED BY: AMH / MY	
SCALE: HOR: 1"=40'	
VERT: 1"=4'	

DATE: 07/28/2025  
SURVEY/GPS BY: M8C/GPI  
DRAWN BY: VAR  
CHECKED BY: AMH / MY  
SCALE: HOR: 1"=40'  
VERT: 1"=4'

**WICKSON**  
Professional Engineers  
7920 Corporate Center Drive  
Fayetteville, NC 28302  
910.782.0485  
www.wickson.com

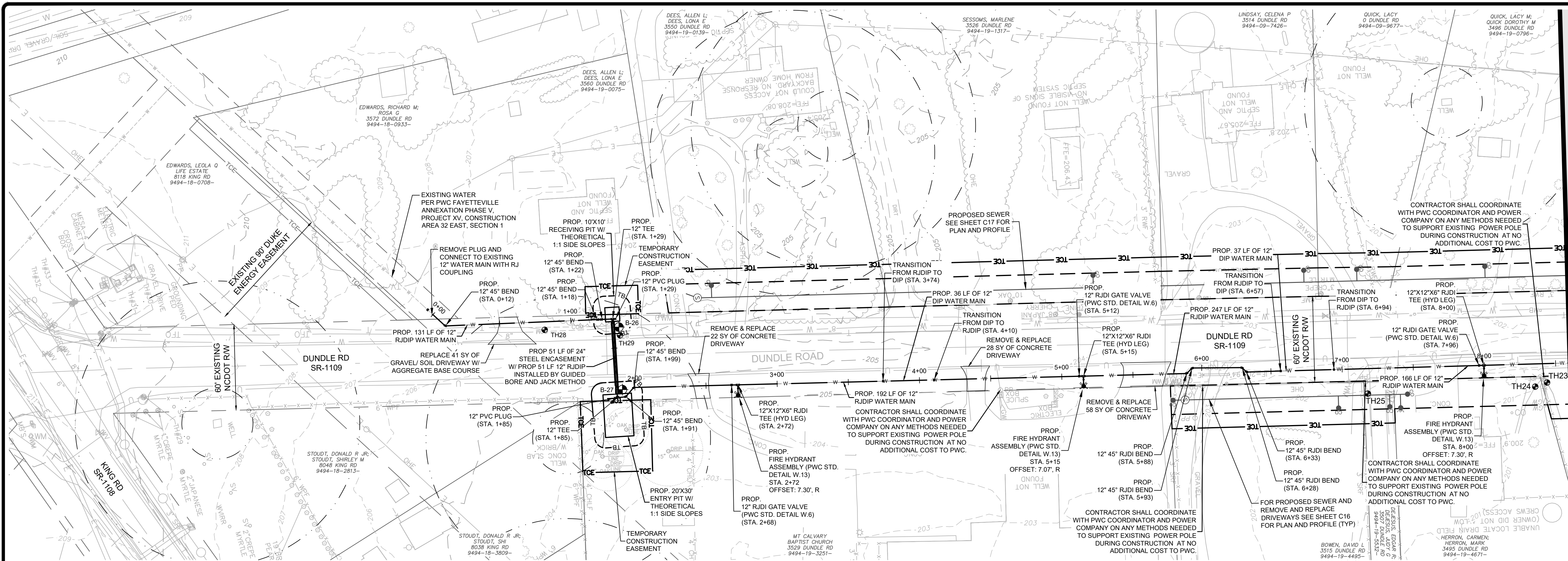


DATE: 07/28/2025  
SHEET # C18

**SEWER - 7383 STONEY PT RD - B&J**  
PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
FAYETTEVILLE, NORTH CAROLINA

**FWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
WATER RESOURCES ENGINEERING  
P.O. Box 1088, Fayetteville, NC 28302  
855 5th Wilmington Road, Fayetteville, NC 28301

2018008.00.RA

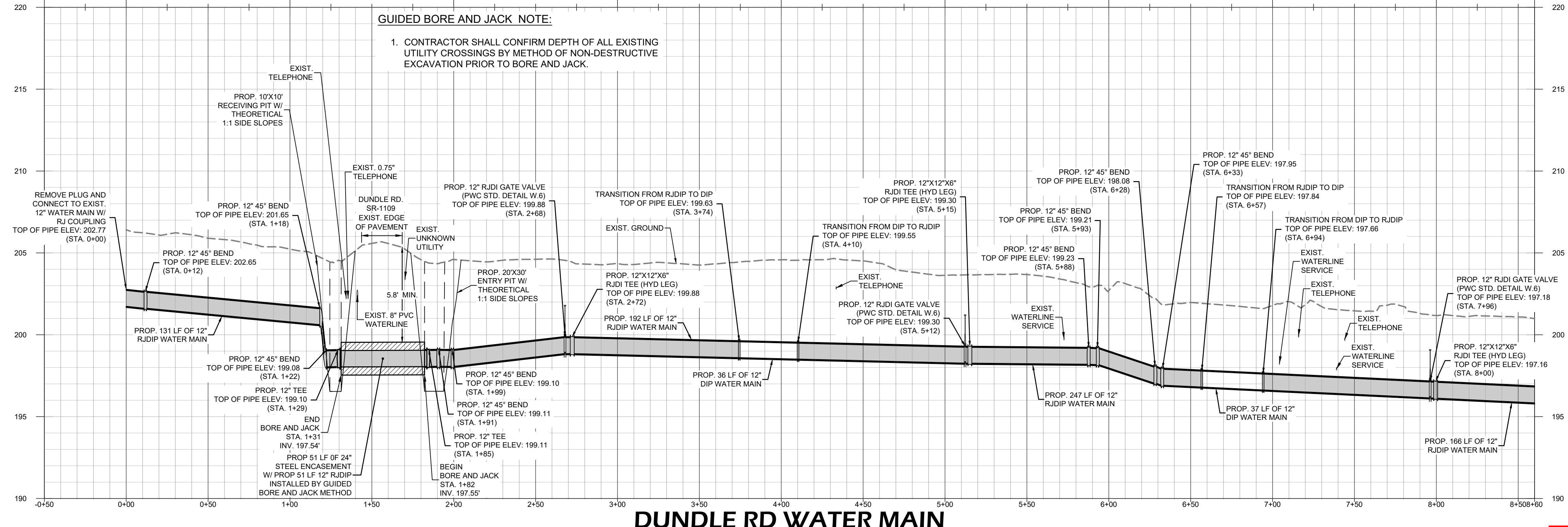
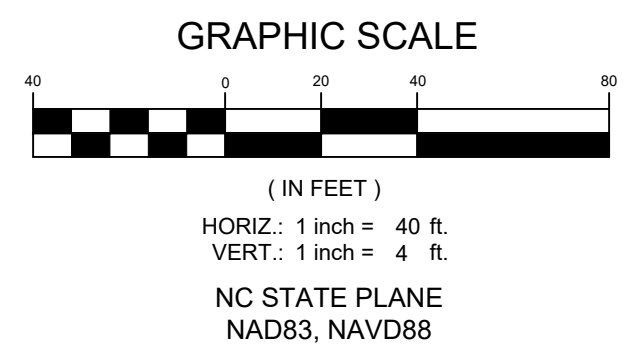


**LEGEND**

PROF. UTILITY EASEMENT	EX. RIGHT-OF-WAY	RP	PROF. REVERSE PLUMBING	EX. TREE / BUSH
PROF. SAN SEWER, CLEANOUT & MH	EX. SANITARY SEWER & MANHOLE	MB	PROF. BACKWATER VALVE	EX. MAILBOX
PROF. WATER LINE	EX. WATER LINE & WATER VALVE	GP	PROF. GRINDER PUMP	EX. LAMP / LIGHT POLE
PROF. BORE & JACK W/ ENCASUREMENT	EX. WATER LINE (RECORD DRAWING)	WV	PROF. / EX. HYDRANT	EX. SIGN
PROF. BORE PIT TOP OF BANK	EX. GAS LINE / UNDERGROUND GAS	UE	EX. WATER METER	EX. SIGN / SOIL BORING LOCATION
PROF. TEMP CONSTRUCTION ESMT.	EX. ELECTRIC / UNDERGROUND ELEC.	UE	EX. WELL HEAD	EX. IRON ROD FOUND
PROF. RIGHT OF ENTRY	EX. OVERHEAD ELECTRIC LINE	UE	EX. SEPTIC TANK	EX. IRON PIPE FOUND
PROF. LIMIT OF DISTURBANCE	EX. TELEPHONE / UNDERGROUND TEL.	UT	EX. POWER POLE	EX. PK / NAIL FOUND
PROF. LIMIT OF WORK	EX. TELEPHONE LINE (RECORD DWG)	UT	EX. GUY WIRE	EX. CONCRETE MONUMENT
PROF. SILT / SAFETY FENCE	EX. CABLE TV / FIBER OPTIC LINE	UT	EX. ELECTRIC BOX / METER	EX. CONTROL POINT
EX. TOP OF BANK / TOP OF SLOPE	EX. TRAFFIC SIGNAL LINE	UT	EX. ELECTRIC TRANSFORMER	EX. EX. UTILITY POLE
EX. BOTTOM OF BANK / SLOPE	EX. FENCE LINE	UT	EX. CATV PEDESTAL	EX. EX. TELE. PEDESTAL / MH
EX. WETLANDS / WETL BOUNDARY	EX. TREE LINE	UT	EX. DRAIN MH / CATCH BASIN	EX. EX. HVAC PEDESTAL

**DRIVEWAY NOTE:**

1. CONTRACTOR SHALL REPLACE CONCRETE DRIVEWAY FROM EXISTING EXPANSION/CONSTRUCTION TO EXPANSION/CONSTRUCTION JOINT FOR ALL REMOVAL AND REPLACEMENT OF CONCRETE SIDEWALKS AND OR DRIVEWAYS. QUANTITIES HAVE BEEN ESTIMATED SINCE ACTUAL LOCATIONS OF EXPANSION JOINTS MAY VARY.



REGIONS

DATE	07/28/2025
SURVEY/GPS BY	MBC/GPI
DRAWN BY	EW/N
CHECKED BY	AMH
SCALE	1"=40' H, 1"=4' V

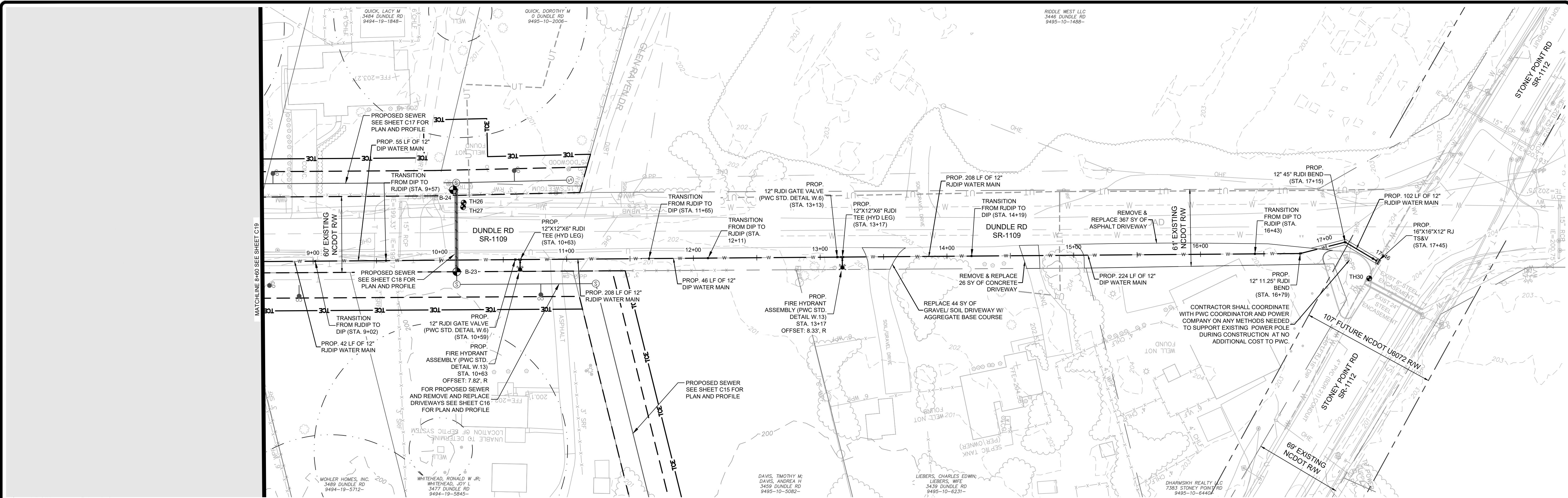
DATE: 07/28/2025  
 SURVEY/GPS BY: MBC/GPI  
 DRAWN BY: EW/N  
 CHECKED BY: AMH  
 SCALE: 1"=40' H, 1"=4' V



**WATERLINE - DUNDLE RD - 0+00 TO 8+60**  
**PHASE V, ANNEXATION AREA 32 EAST SECTION 2**  
 FAYETTEVILLE, NORTH CAROLINA

**PUBLIC WORKS COMMISSION**  
 OF THE CITY OF FAYETTEVILLE  
**FAYETTEVILLE WATER RESOURCES ENGINEERING**  
 P.O. Box 1085, Fayetteville, NC 28302  
 855 Old Wilmington Road, Fayetteville, NC 28301

**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
 WATER RESOURCES ENGINEERING  
**APPROVED FOR CONSTRUCTION**  
 Date: 07/31/2025

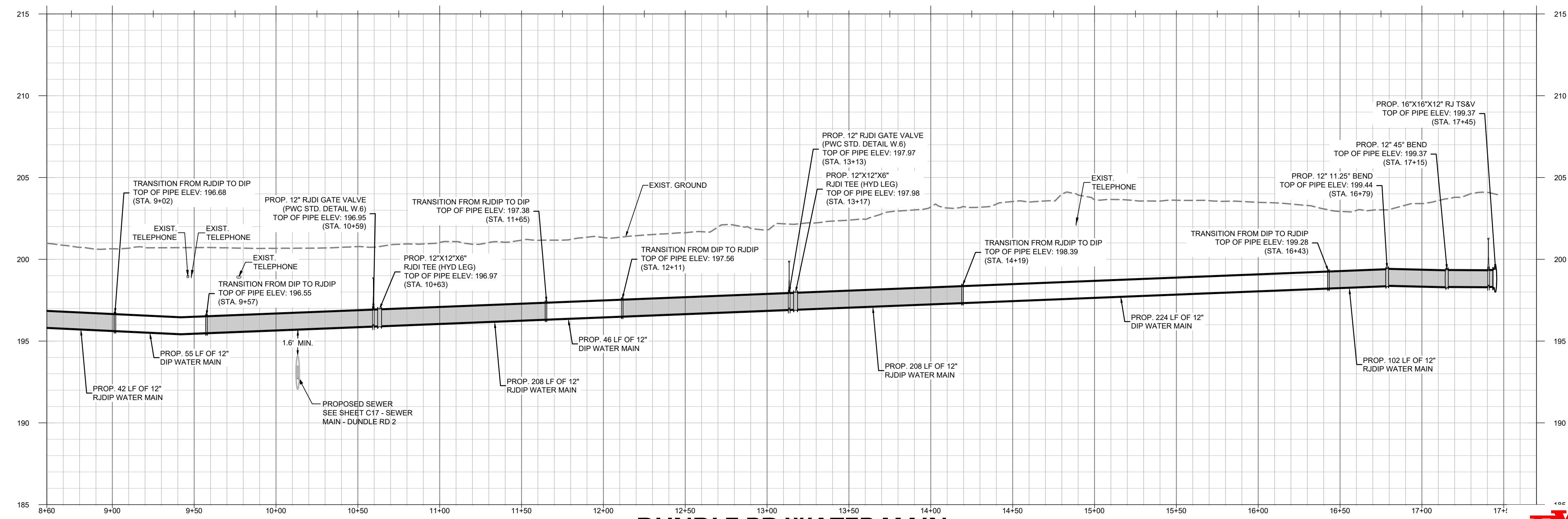
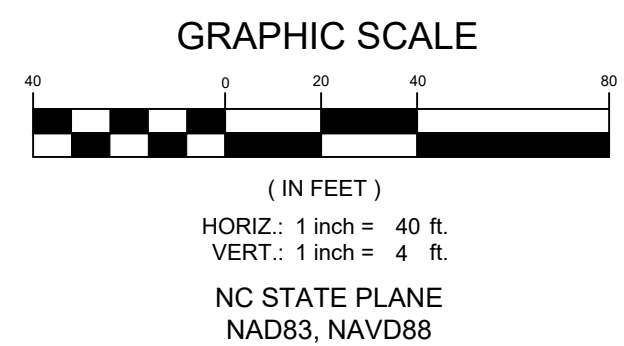


**LEGEND**

PROPOSED UTILITY EASEMENT	EX. RIGHT-OF-WAY	RP	PROP. REVERSE PLUMBING	EX. TREE / BUSH
PROP. SAN SEWER, CLEANOUT & MH	EX. SANITARY SEWER & MANHOLE	MB	PROP. BACKWATER VALVE	EX. MAILBOX
PROP. WATER LINE	EX. WATER LINE & WATER VALVE	GP	PROP. GRINDER PUMP	EX. LAMP / LIGHT POLE
PROP. BORE & JACK W/ ENCASMENT	EX. GAS LINE / UNDERGROUND GAS	W	PROP. / EX. HYDRANT	EX. SUE/SOIL BORING LOCATION
PROP. BORE PIT TOP OF BANK	EX. ELECTRIC / UNDERGROUND ELEC.	W(R)	EX. WATER METER	EX. SIGN
TCE	EX. OVERHEAD ELECTRIC LINE	UC	EX. WELL HEAD	EX. IRON ROD FOUND
ROE	EX. TELEPHONE / UNDERGROUND TEL.	UE	EX. SEPTIC TANK	EX. IRON PIPE FOUND
LOD	EX. TELEPHONE LINE (RECORD DWG)	OHE	EX. POWER POLE	EX. PK NAIL FOUND
LOW	EX. CABLE TV / FIBER OPTIC LINE	UT	EX. GUY WIRE	EX. CONCRETE MONUMENT
PROP. SILT / SAFETY FENCE	EX. TRAFFIC SIGNAL LINE	TV	EX. ELECTRIC BOX / METER	EX. CONTROL POINT
EX. TOP OF BANK / TOP OF SLOPE	EX. UNKNOWN UTILITY	TS	EX. ELECTRIC TRANSFORMER	EX. UTILITY POLE
EX. BOTTOM OF BANK / SLOPE	EX. FENCE LINE	TS	EX. CATV PEDESTAL	EX. TELE. PEDESTAL / MH
BB	EX. FENCE LINE	U	EX. DRAIN MH / CATCH BASIN	EX. EX. HVAC PEDESTAL
EX. WETLANDS / WETL BOUNDARY	EX. TREE LINE			

**DRIVEWAY NOTE:**

1. CONTRACTOR SHALL REPLACE CONCRETE DRIVEWAY FROM EXISTING EXPANSION/CONSTRUCTION TO AND REPLACEMENT OF CONCRETE SIDEWALKS AND OR DRIVEWAYS. QUANTITIES HAVE BEEN ESTIMATED SINCE ACTUAL LOCATIONS OF EXPANSION JOINTS MAY VARY.



DATE	07/28/2025
DESIGNED BY	AMH
DRAWN BY	AMH
CHECKED BY	AMH
SCALE	HOR: 1"=40' VERT: 1"=4'

DATE: 07/28/2025  
SURVEY/GPS BY: M8C/GPI  
DRAWN BY: EWIN  
CHECKED BY: AMH  
SCALE: HOR: 1"=40'  
VERT: 1"=4'

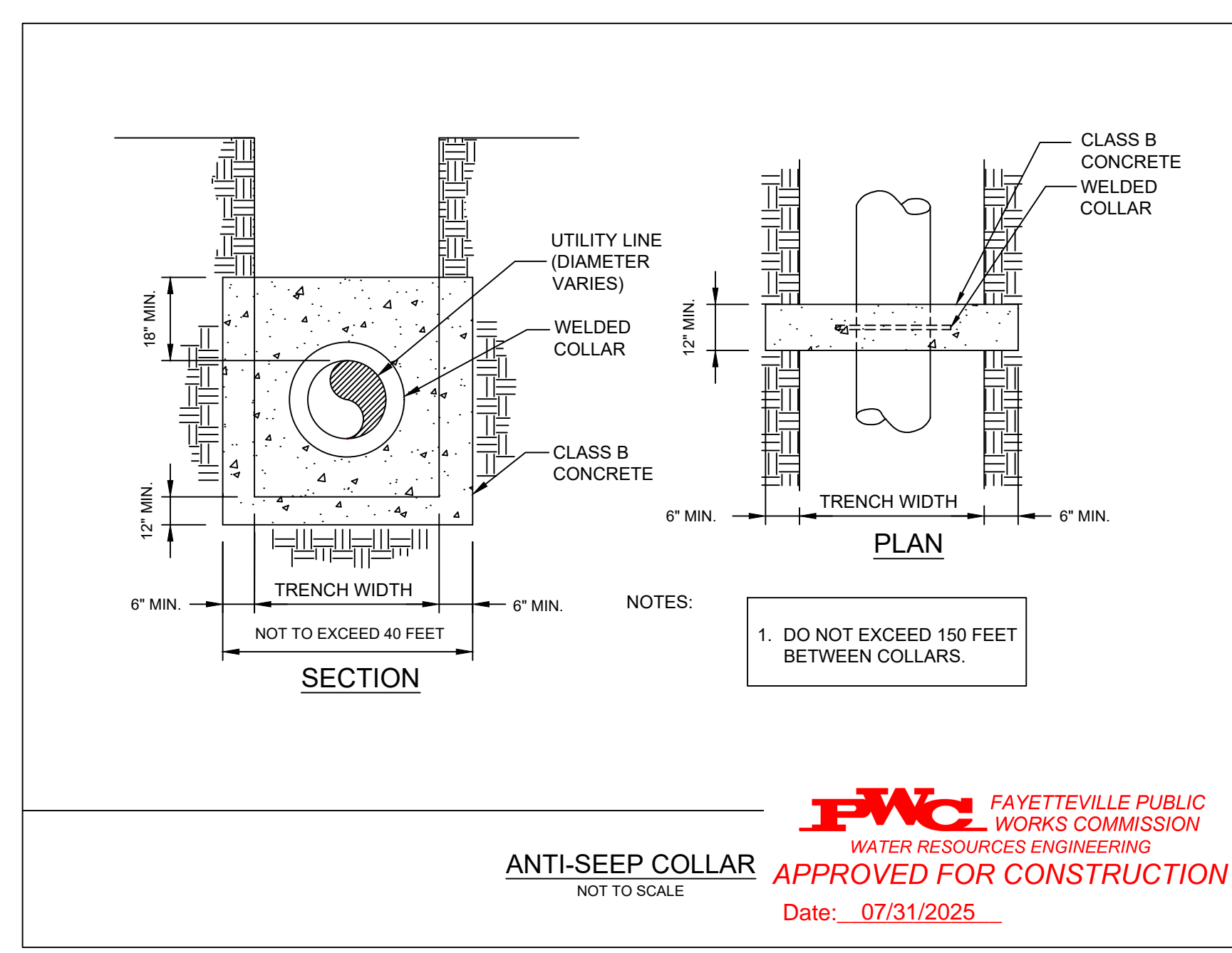
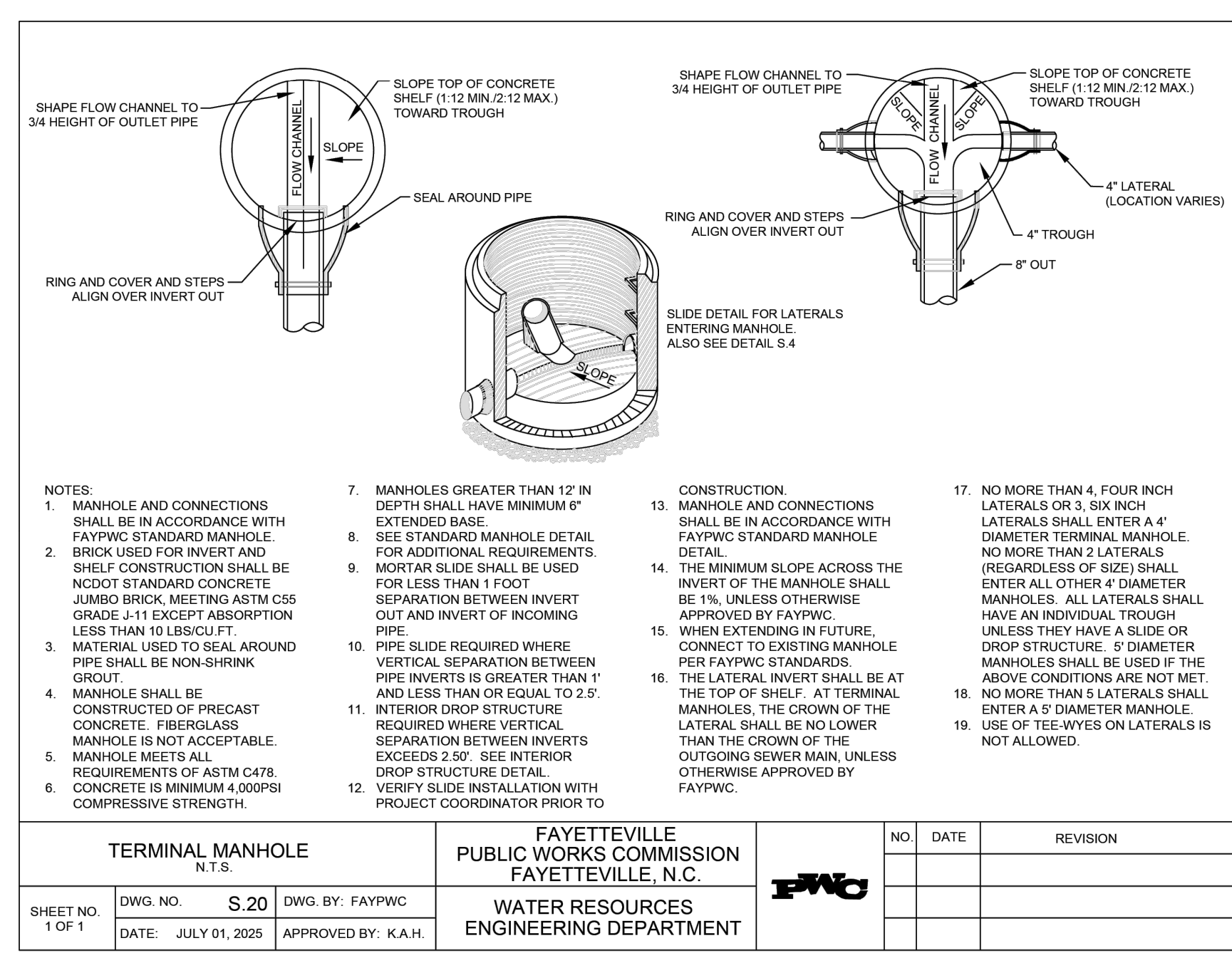
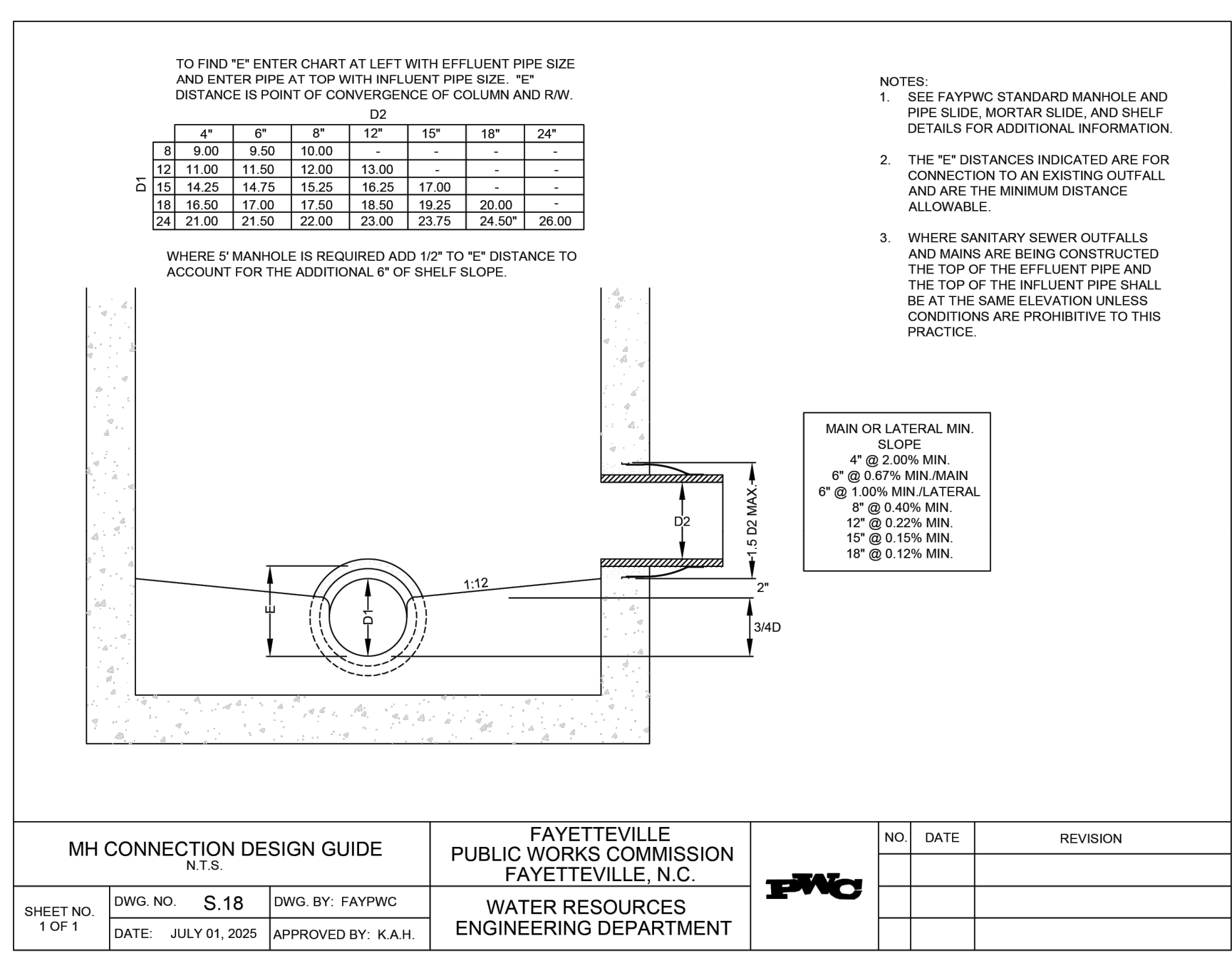
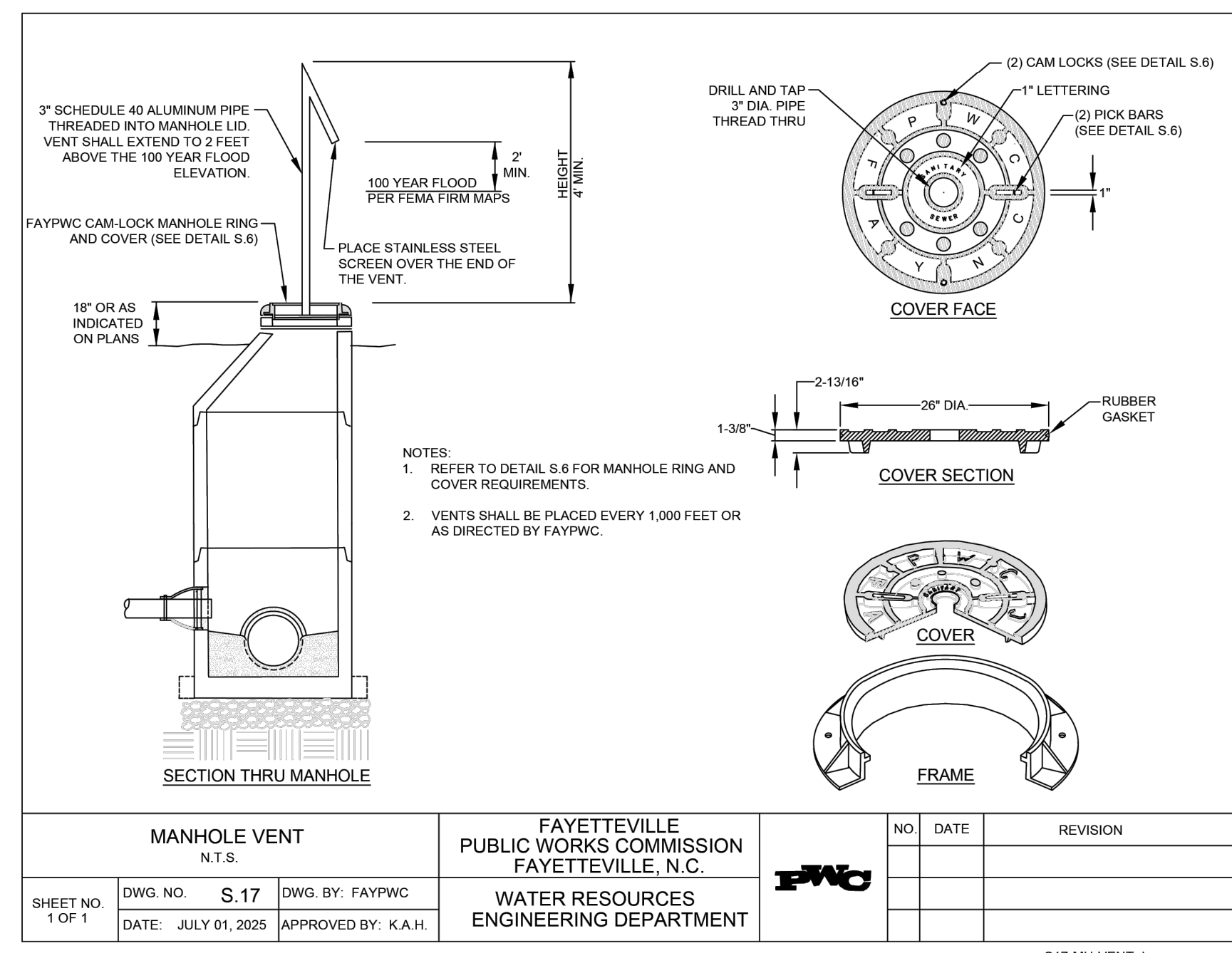
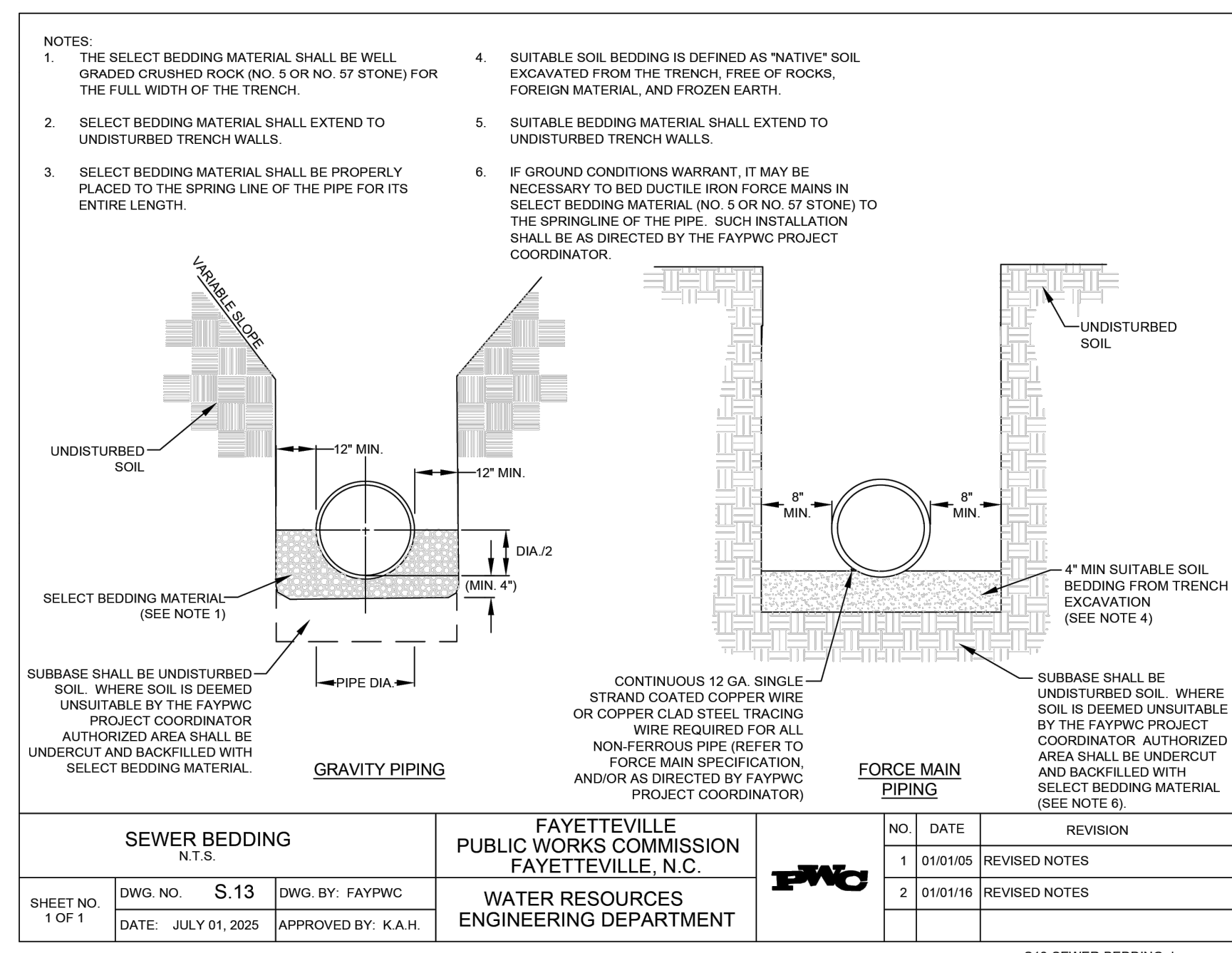
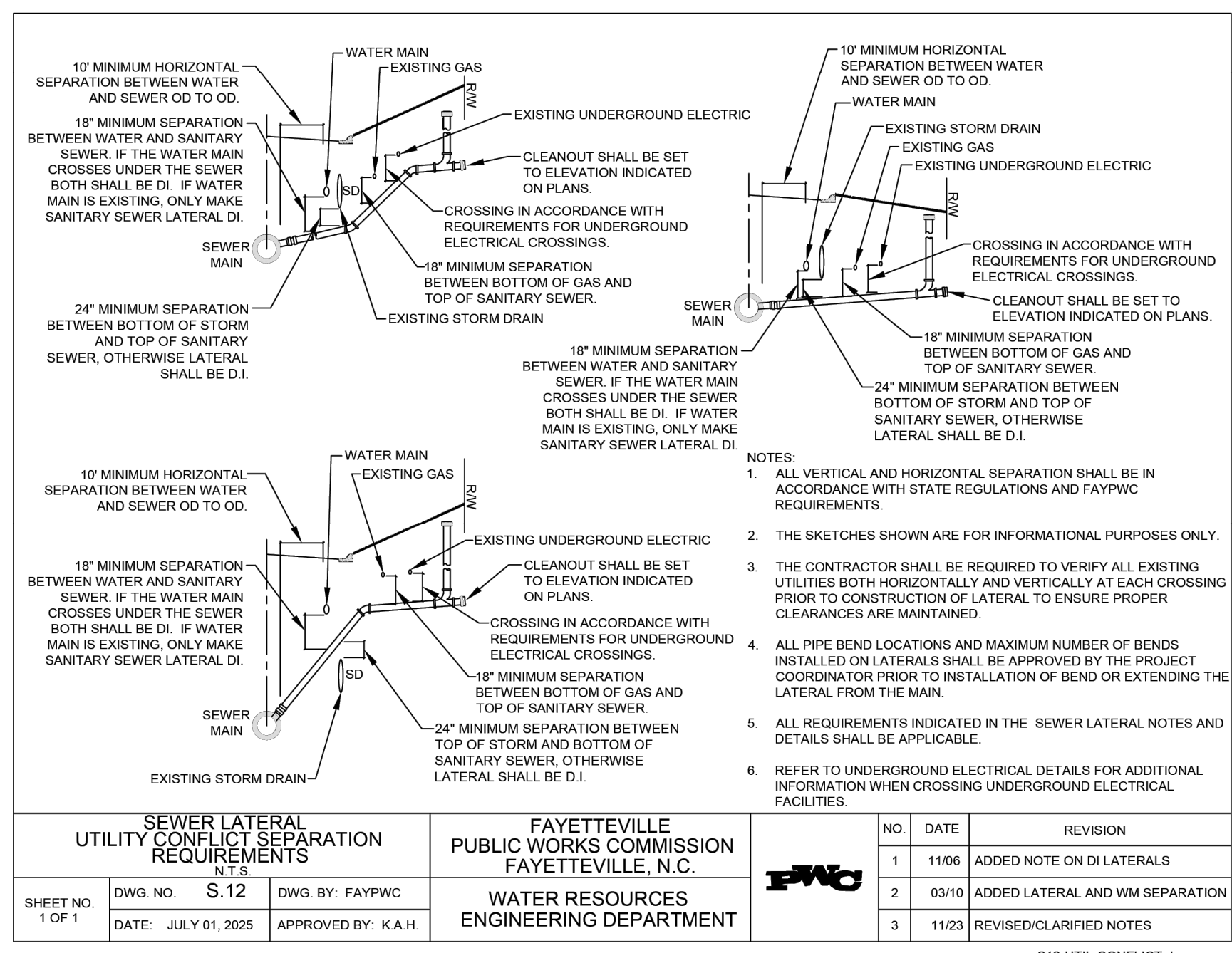
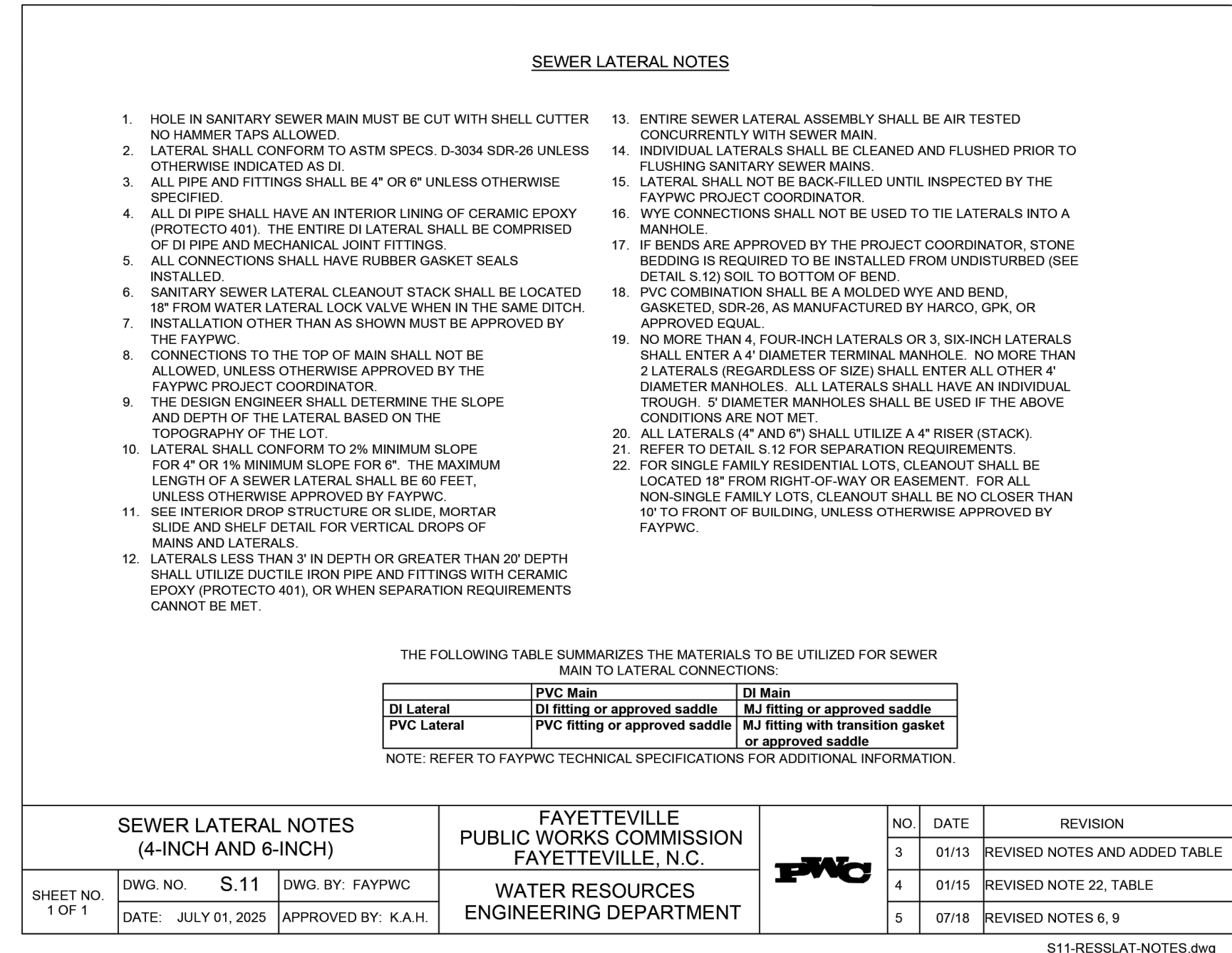
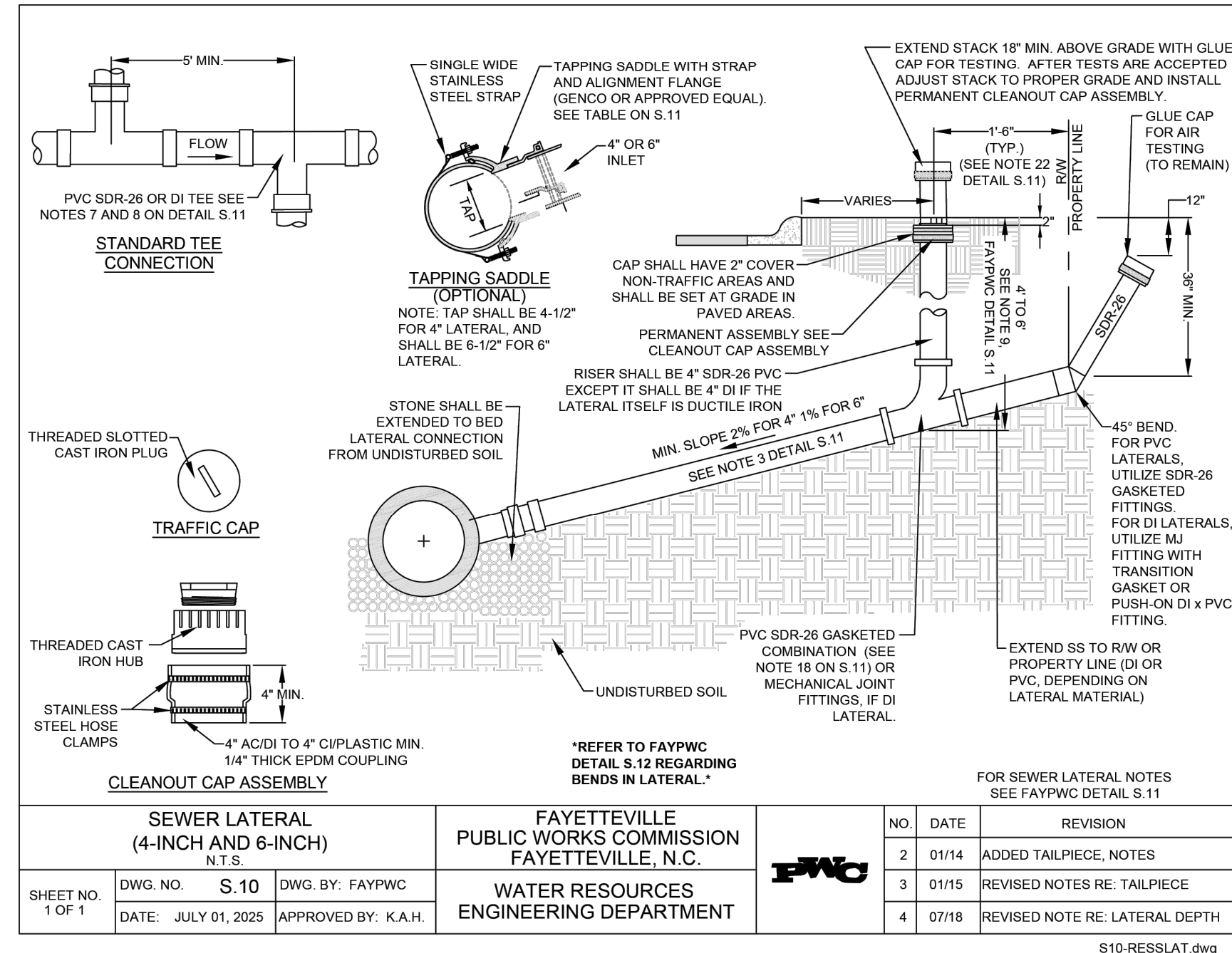
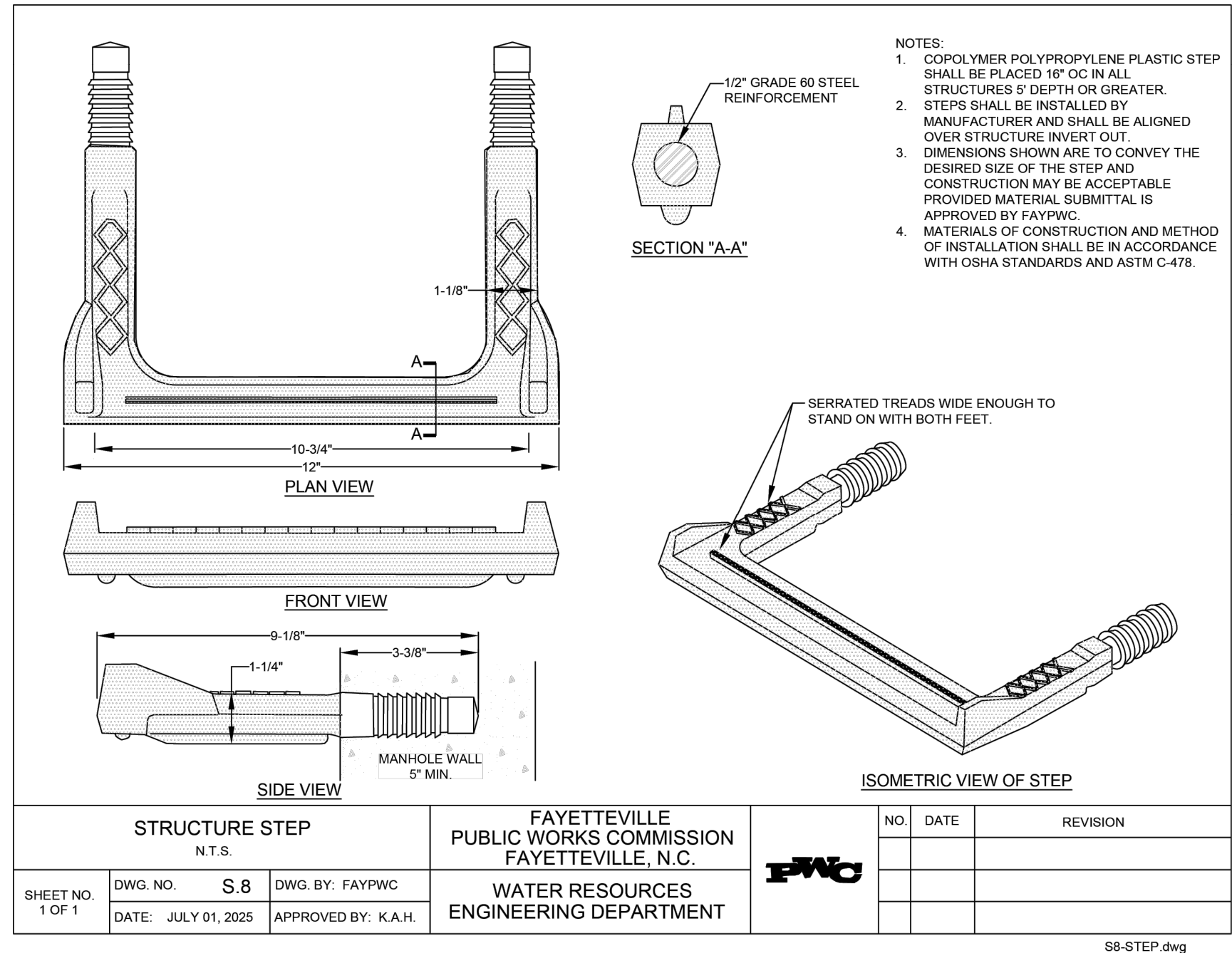


**WATERLINE - DUNDLE RD - 8 + 60 TO END**  
PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
FAYETTEVILLE, NORTH CAROLINA

**PUBLIC WORKS COMMISSION**  
OF THE CITY OF FAYETTEVILLE  
**PWC WATER RESOURCES ENGINEERING**  
P.O. Box 1081, Fayetteville, NC 28302  
855 5th Wilmington Road, Fayetteville, NC 28301

**PWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
WATER RESOURCES ENGINEERING  
APPROVED FOR CONSTRUCTION  
Date: 07/31/2025





DATE: 07/28/2025  
SURVEY/GPS BY: MBC/GPI  
DRAWN BY: VAR  
CHECKED BY: AHM / MY  
SCALE: 1/8" = 1'-0"  
SHEET # 62

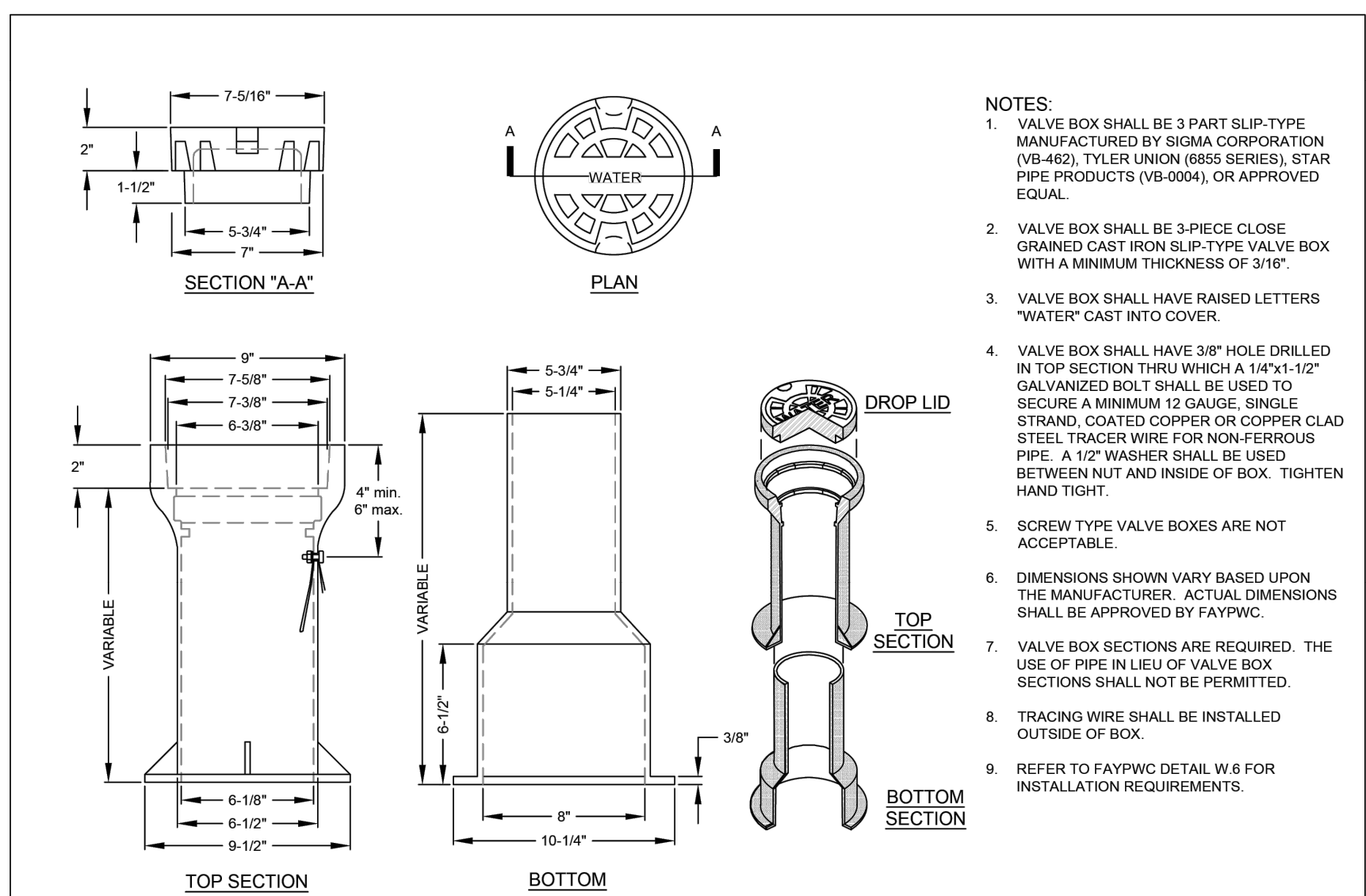


**SEWER DETAILS**  
PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
FAYETTEVILLE, NORTH CAROLINA

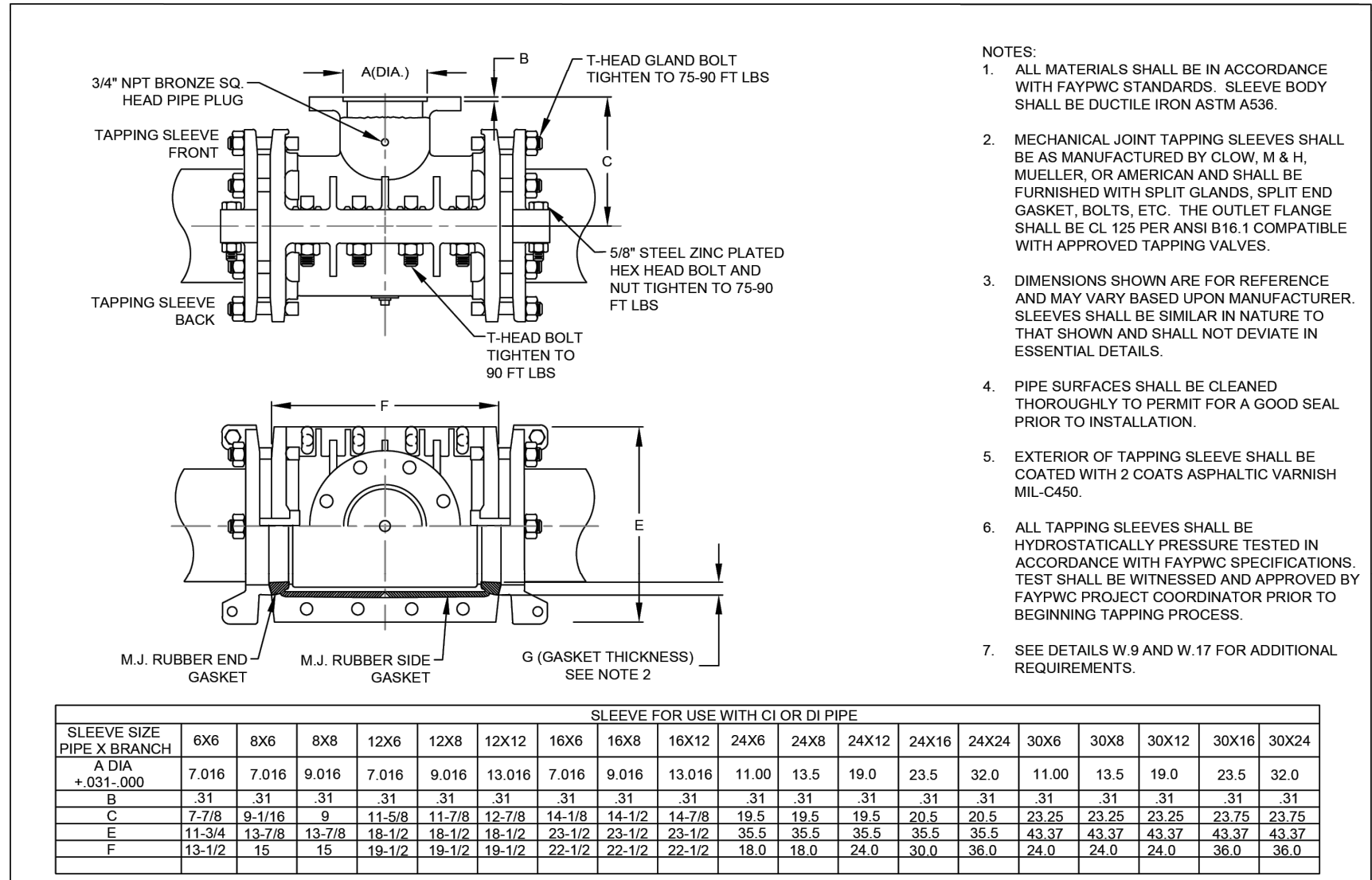
**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
WATER RESOURCES ENGINEERING  
P.O. Box 1088, Fayetteville, NC 28302  
855 Old Wilmington Road, Fayetteville, NC 28301

- ALL WATER MAINS, LATERALS AND APPURTENANCES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH FAYPWC STANDARDS.
- CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE FOR ALL WATER OUTAGES.
- CONSTRUCTION STAKING IS REQUIRED FOR ALL FAYPWC WATER AND SEWER UTILITY INSTALLATIONS. CUT SHEETS, SIGNED AND SEALED BY A N.C. P.E. SHALL BE PROVIDED TO THE FAYPWC WATER RESOURCES ENGINEERING DEPARTMENT AND THE CONTRACTOR IN ADVANCE OF CONSTRUCTION FOR FAYPWC WATER AND SEWER UTILITIES.
- CONTRACTOR SHALL MAINTAIN A COPY OF THE SIGNED AND SEALED CUT SHEET ON THE JOB SITE. CONSTRUCTION ON FAYPWC WATER AND SEWER UTILITIES CANNOT BEGIN UNTIL THE CONTRACTOR POSSESSES, ON SITE, A SIGNED AND SEALED CUT SHEET FROM THE PROFESSIONAL LAND SURVEYOR.
- ALL NEW WATER AND SEWER MAINS, LATERALS AND APPURTENANCES SHALL BE TESTED AND/OR DISINFECTED IN ACCORDANCE WITH FAYPWC STANDARDS PRIOR TO FLAYING INTO SERVICE.
- CONTRACTOR SHALL COORDINATE TESTING AND INSPECTION WITH THE FAYPWC PROJECT COORDINATOR.
- CONTRACTOR SHALL REPAIR ALL WATER, LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL REPORT IMMEDIATELY ALL WATER MAIN AND LATERAL BREAKS TO THE FAYPWC PROJECT COORDINATOR. THE CONTRACTOR SHALL NOTIFY IMMEDIATE REPAIRS IN ACCORDANCE WITH FAYPWC STANDARDS. CONTRACTOR SHALL NOT OPERATE FAYPWC WATER MAIN VALVES WITHOUT FAYPWC APPROVAL AND SHALL COORDINATE ALL VALVE CLOSINGS WITH FAYPWC.
- THE CONTRACTOR SHALL NOT USE HOUSE HOSE EBBS OR ANY OTHER METHOD OF BLOW OFF WHICH ALLOWS DOMESTIC WATER CONTAINING SEDIMENTS OR HIGH LEVELS OF CHLORINE TO PASS THROUGH RESIDENT'S METERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ALLOWING WATER TO ENTER RESIDENT'S PLUMBING SYSTEM, SUCH AS WATER HEATERS, STAINED CLOTHING, CLOGGED SCREENS, ETC.
- TRANSFER OF WATER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:
  - INSTALL, TEST AND STERILIZE NEW MAIN AND LATERALS. LATERALS SHALL BE INSTALLED BY INSIDE RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY FAYPWC.
  - TRANSFER EXISTING METERS TO NEW METER BOX AND TIE NEW WATER LATERAL TO EXISTING DOMESTIC SERVICE UTILIZING BRASS FITTINGS. SAME METER NUMBER SHALL BE INSTALLED ON SAME ADDRESS AND/OR CUSTOMER. BLOW OFF SERVICE AT HOSE BIBB ON HOUSE ONLY AFTER METER HAS BEEN TRANSFERRED.
  - AFTER ALL SERVICES ARE TRANSFERRED TO THE NEW SYSTEM, SHUT OFF VALVE ON EXISTING SYSTEM AND ABANDON EXISTING MAINS IN ACCORDANCE WITH FAYPWC REQUIREMENTS.
  - CONTRACTOR SHALL SUPPLY NEW METER BOXES AND DISPOSE OF EXISTING METER BOXES.

WATER UTILITY NOTES		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. W.1	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	01/01/18	ADDED NOTES 6, 8
	DATE: JULY 01, 2025	APPROVED BY: K.A.H.		2	06/01/21	ADDED NOTES 1-7 AND RENUMBERED
				3	11/23	REVISED NOTES 10, 14



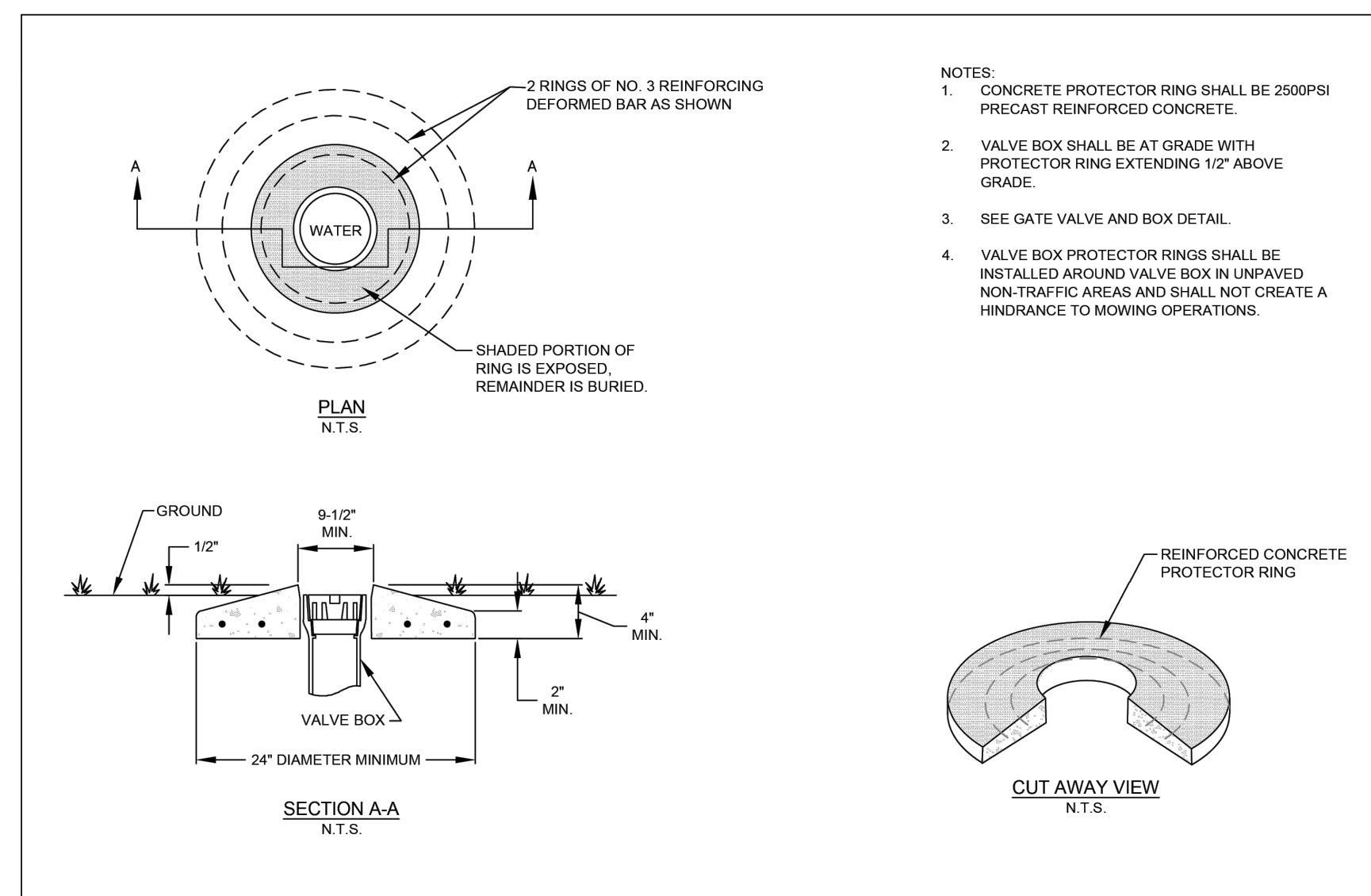
VALVE BOX N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.7	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	07/09	ADDED NOTES 7, 8, AND CLARIFIED NOTES
	DATE: JULY 01, 2025	APPROVED BY: K.A.H.		2	01/14	REVISED NOTES 1, 4, 6



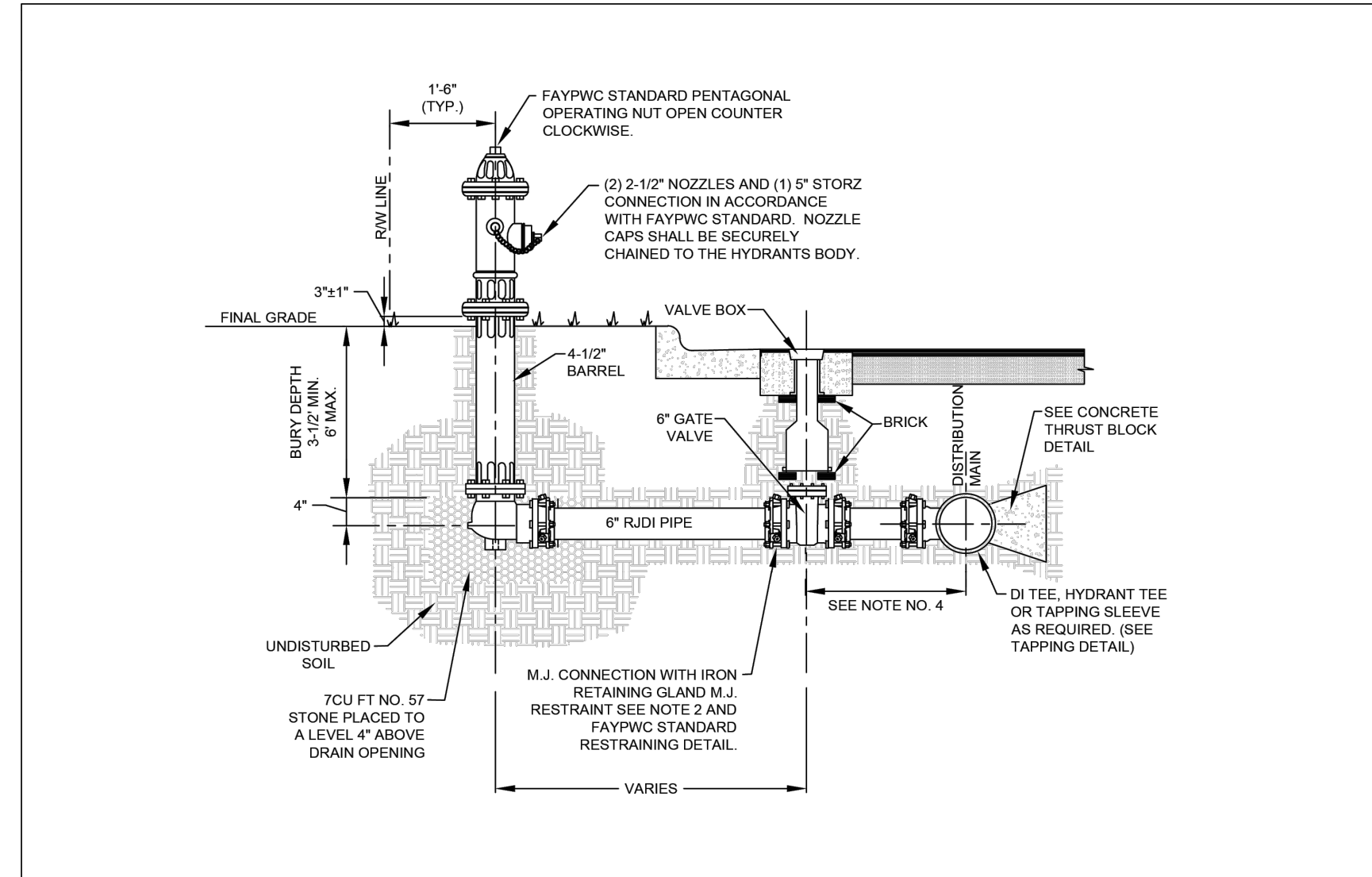
DUCTILE IRON TAPPING SLEEVE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.10	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	07/09	REVISED NOTE 6 (REMOVED NOTE 6)
	DATE: JULY 01, 2025	APPROVED BY: K.A.H.		2	07/13	REVISED NOTES 6, 7

- CROSSING STORM DRAINAGE LINES:** A MINIMUM OF 12 INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN A WATER LINE CROSSING OVER A STORM DRAINAGE LINE UNLESS DUCTILE IRON PIPE IS USED. IN ADDITION, THREE AND A HALF (3 1/2) FEET OF COVER MUST BE MAINTAINED OVER THE WATER MAIN OR IT SHALL BE DUCTILE IRON 12" DUCTILE IRON PIPE IS USED THEN TWO AND A HALF (2 1/2) FEET OF COVER MUST BE MAINTAINED OVER THE WATER MAIN AND A MINIMUM OF 12 INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND THE STORM DRAINAGE LINE. WHERE A WATER MAIN CROSSES UNDER A STORM DRAINAGE LINE THE MINIMUM OF TWELVE (12) INCHES OF VERTICAL SEPARATION SHALL BE MAINTAINED AND THE WATER MAIN SHALL BE DUCTILE IRON FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING.
- WATER OUTAGES:** THE CONTRACTOR SHALL SCHEDULE A COORDINATION MEETING WITH THE FAYPWC PROJECT COORDINATOR AND PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO ANY PLANNED WATER OUTAGE. THE COORDINATION MEETING SHALL BE CONDUCTED PRIOR TO ANY WORK BEING INITIATED. ADDITIONALLY, THE CONTRACTOR SHALL LOCATE (VERTICALLY AND HORIZONTALLY) ANY UTILITIES WITHIN THE WORK AREA IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS. THE LOCATIONS OF ALL UTILITIES WITHIN THE WORK AREA SHALL BE DETERMINED PRIOR TO THE COORDINATION MEETING. ANY CONFLICTS WITH THE PENDING WORK AND THE EXISTING UTILITIES SHALL BE IDENTIFIED AND A PLAN FOR RESOLVING ANY CONFLICTS SHALL BE PRESENTED. THE CONTRACTOR HAS A GOOD UNDERSTANDING OF THE REQUIREMENTS RELATED TO THE PENDING OUTAGE, VERIFY THAT THERE ARE NO UTILITY CONFLICTS THAT WILL PREVENT THE WORK FROM BEING COMPLETED. ALL EQUIPMENT IS IN GOOD WORKING ORDER, ALL EQUIPMENT IS FUNCTIONAL, ALL MATERIALS ARE ON SITE, ALL NECESSARY TOOLS ARE ON SITE, DISCUSS ANY NECESSARY CONTINGENCY PLANS, AND ANY OTHER ITEMS NECESSARY TO ENSURE THAT THE FAYPWC PROJECT COORDINATOR AND/OR PROJECT ENGINEER RESERVE THE RIGHT TO CANCEL OR POSTPONE THE OUTAGE AT ANY GIVEN TIME, IF DEEMED NECESSARY.

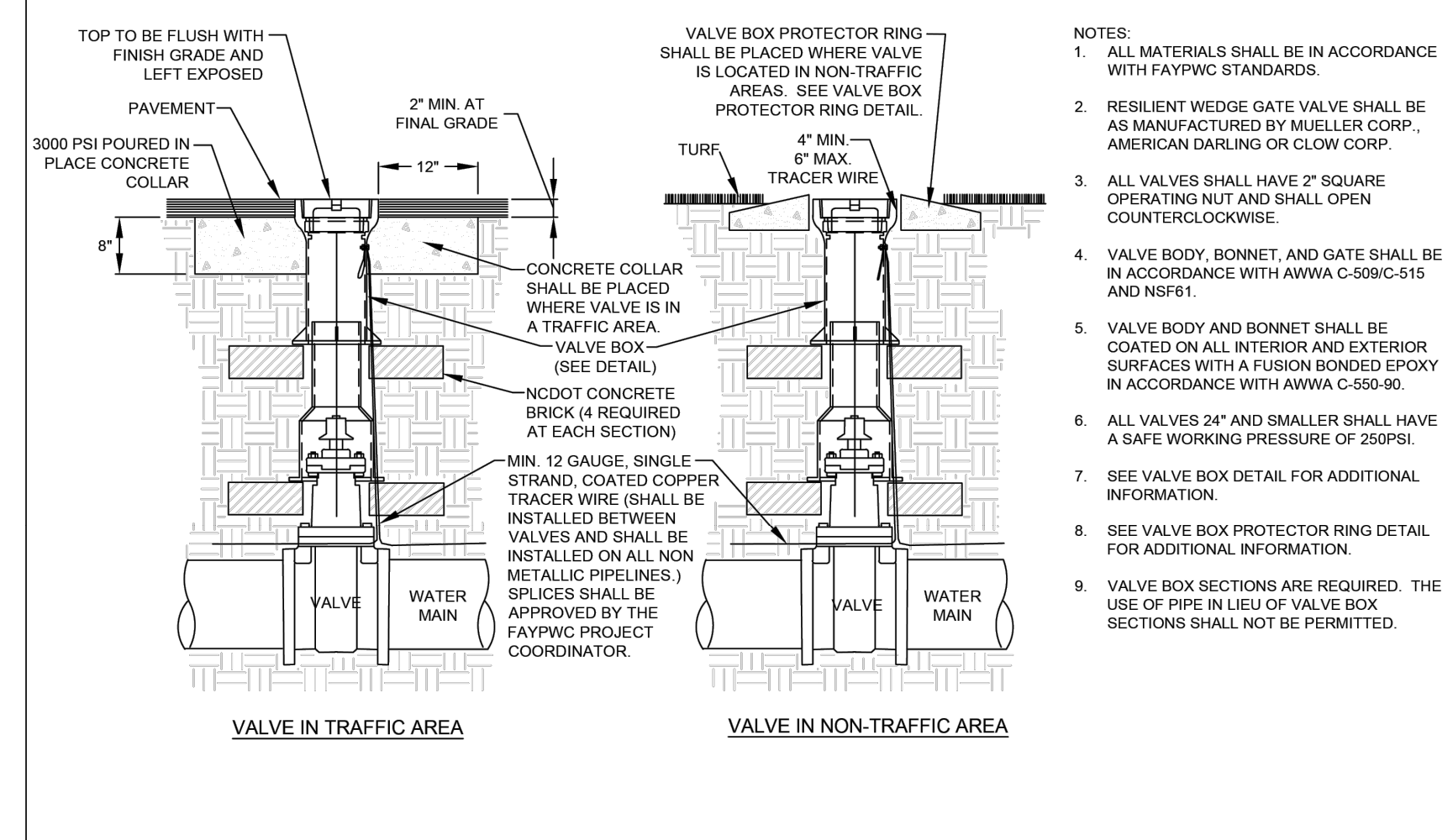
WATER UTILITY NOTES		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 2 OF 2	DWG. NO. W.1	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	01/01/18	ADDED NOTES 6, 8
	DATE: JULY 01, 2025	APPROVED BY: K.A.H.		2	06/01/21	ADDED NOTES 1-7 AND RENUMBERED
				3	11/23	REVISED NOTES 10, 14



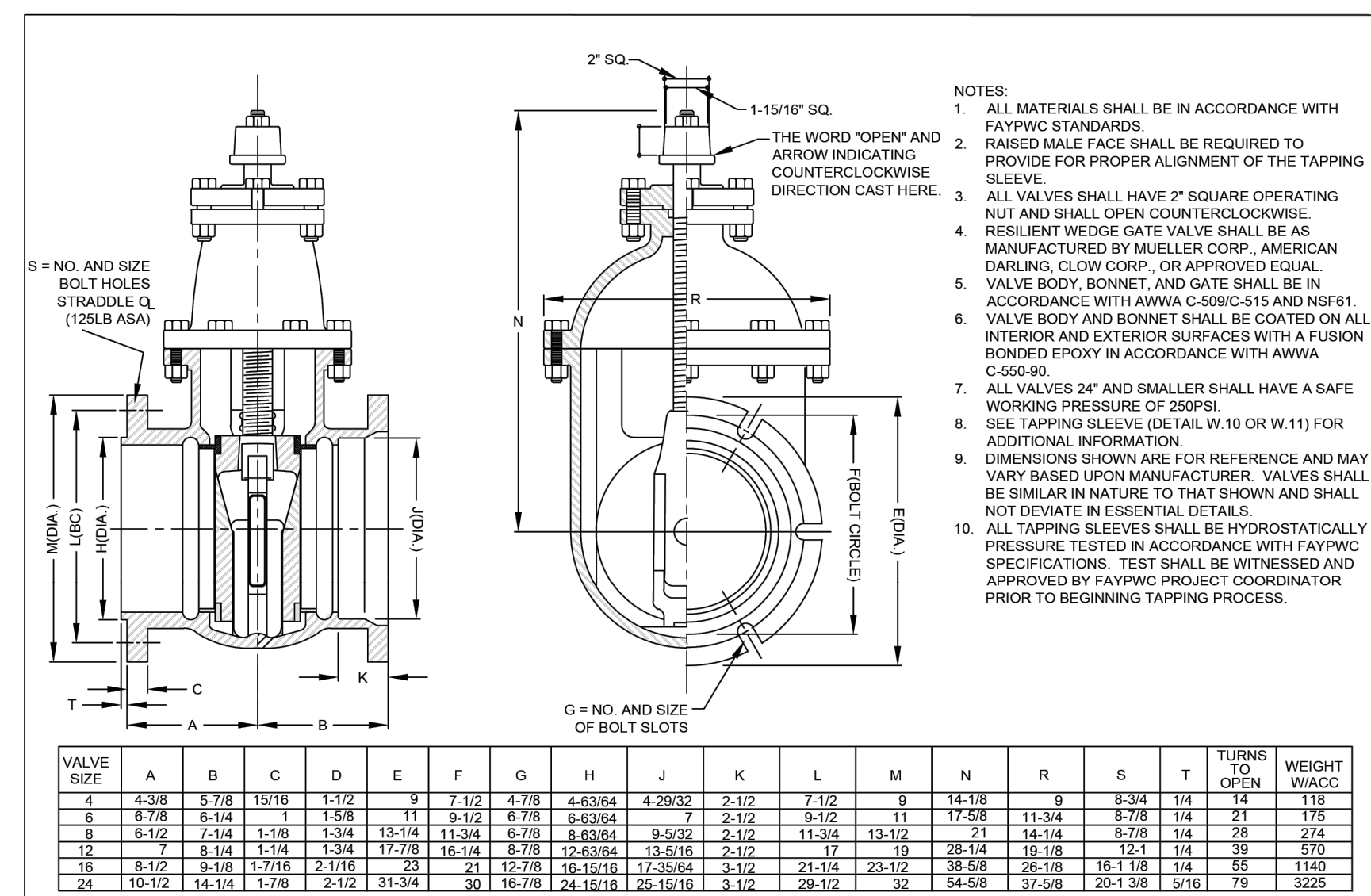
VALVE BOX PROTECTOR RING N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.8	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	07/01	ADDED NOTES 1, 2, 3, 4
	DATE: JULY 01, 2025	APPROVED BY: K.A.H.				



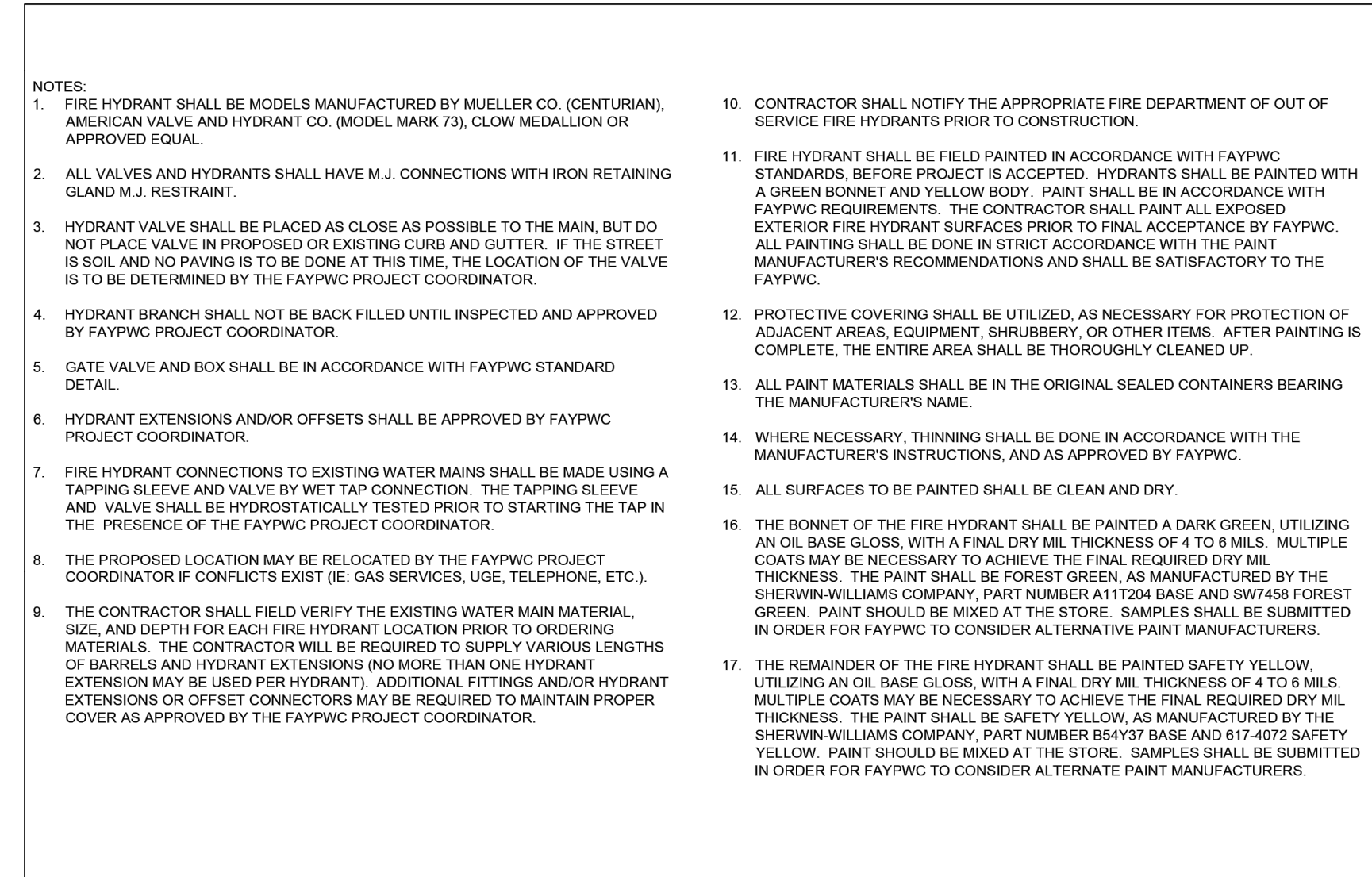
FIRE HYDRANT AND VALVE INSTALLATION N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. W.13	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	08/25/23	REVISED NOTES 16 AND 17
	DATE: JULY 01, 2025	APPROVED BY: K.A.H.		2	07/01/09	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL
				3	07/01/16	REVISED NOTES



GATE VALVE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.6	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	6/06	ADDED NOTE NO. 9
	DATE: JULY 01, 2025	APPROVED BY: K.A.H.		2	7/09	CLARIFIED NOTES



TAPPING VALVE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.9	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	07/09	ADDED NOTE 10, REVISED 4 AND 5
	DATE: JULY 01, 2025	APPROVED BY: K.A.H.		2	07/13	REVISED NOTES 4, 8, 10



FIRE HYDRANT AND VALVE INSTALLATION N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 2 OF 2	DWG. NO. W.13	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	08/25/23	REVISED NOTES 16 AND 17
	DATE: JULY 01, 2025	APPROVED BY: K.A.H.		2	07/01/09	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL
				3	07/01/16	REVISED NOTES

**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
**WATER RESOURCES ENGINEERING**  
**APPROVED FOR CONSTRUCTION**  
 Date: 07/31/2025

BY: \_\_\_\_\_ DATE: 07/28/2025

DATE: 07/28/2025

SURVEY/GPS BY: M.B.C./G.P.I.

DRAWN BY: VAR

CHECKED BY: A.H.L. / M.Y.

SCALE: 1/8" = 1'-0"

SHEET # 63

**WICKSON**  
 Transportation & Water Resources  
 Urban Development & Operations  
 770 Corporate Center Drive  
 Raleigh, NC 27603  
 (919) 276-0486  
 www.wickson.com

**SEAL**  
 PROFESSIONAL ENGINEER  
 049209  
 MICHAEL E. YOUNGBLOOD  
 07/28/2025

**WATER DETAILS**  
 PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
 FAYETTEVILLE, NORTH CAROLINA

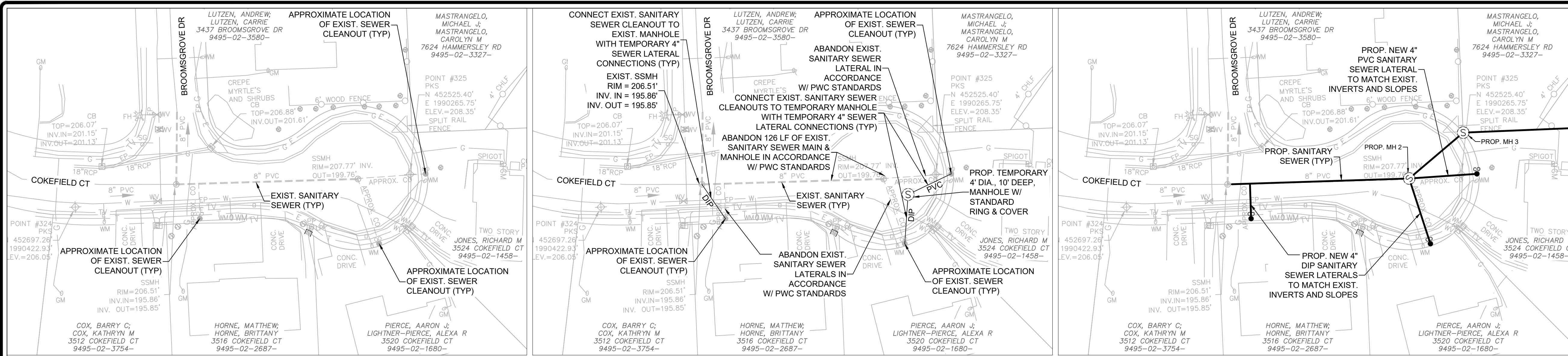
**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
 WATER RESOURCES ENGINEERING  
 P.O. Box 1088, Fayetteville, NC 28301  
 855 6th Wilmington Road, Fayetteville, NC 28301

20180008.00.PA

PWC DWG # DWS-15366







**EXISTING CONDITIONS GENERAL NOTE:**  
 1. EXISTING CLEAN OUT INFORMATION IS APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY PRIOR TO CONSTRUCTION.

**EXISTING CONDITIONS**  
 NOT TO SCALE

**TEMPORARY DESIGN GENERAL NOTE:**  
 1. CONTRACTOR SHALL FIELD LOCATE TEMPORARY LATERALS AND MANHOLE AS DIRECTED BY PWC PROJECT COORDINATOR.

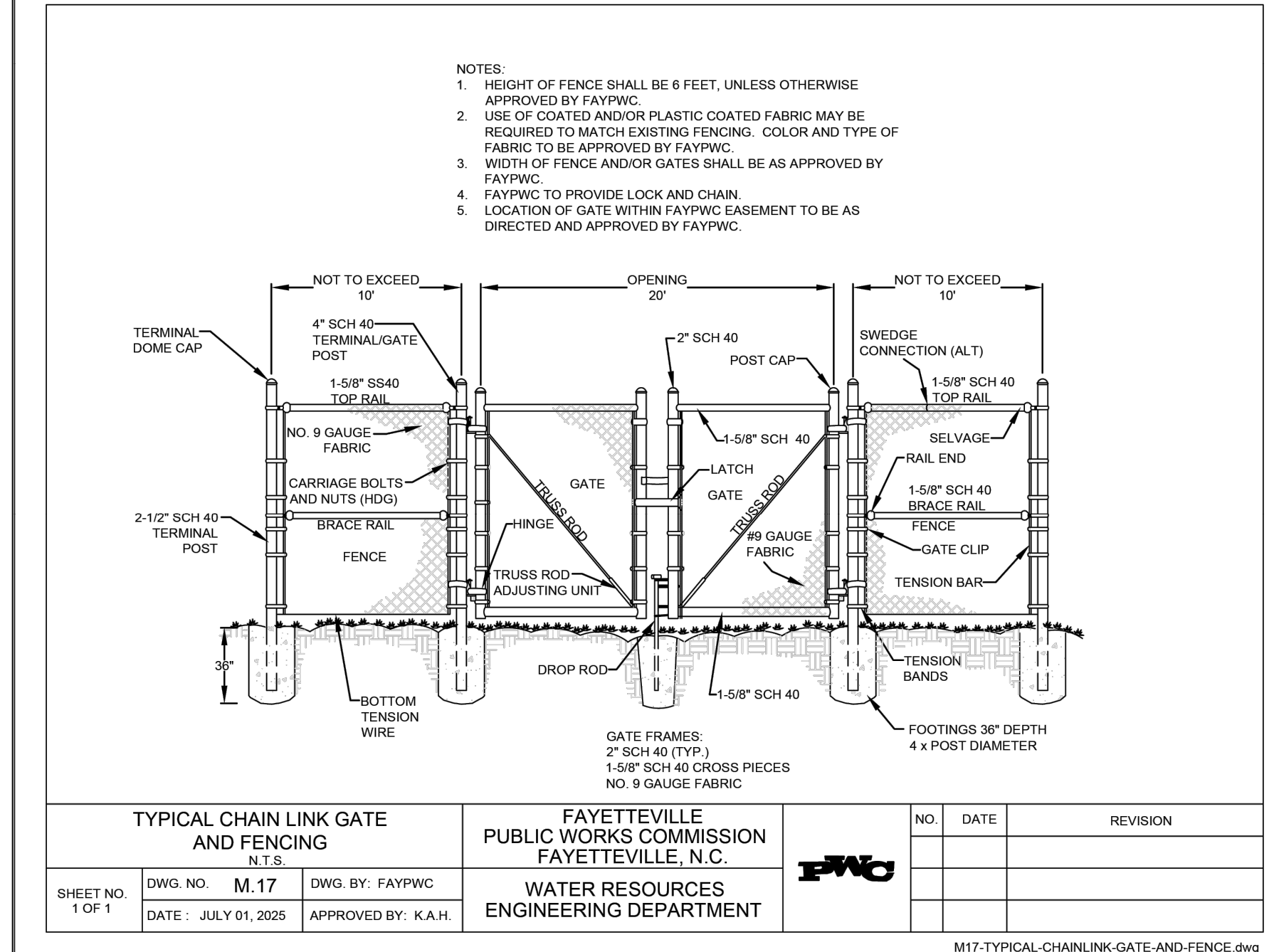
**TEMPORARY LAYOUT**  
 NOT TO SCALE

**1**  
**G6** SCHEMATIC DETAIL OF TEMPORARY SANITARY SEWER SERVICES FOR COKEFIELD CT  
 NOT TO SCALE

**FINAL DESIGN GENERAL NOTE:**  
 1. SEE SHEET C9 FOR DESIGN INFORMATION ON SEWER MAIN AND NEW LATERALS FOR 3516, 3520, AND 3524 COKEFIELD CT.

**FINAL LAYOUT**  
 NOT TO SCALE

- CONSTRUCTION PHASING NOTES:**
1. INSTALL 4-FOOT DIAMETER, 10-FOOT DEEP TEMPORARY MANHOLE WITH STANDARD RING AND COVER IN COKEFIELD CT AS SHOWN ON PLANS.
  2. CONNECT EXISTING SEWER LATERALS FROM 3520 AND 3524 COKEFIELD CT TO TEMPORARY MANHOLE.
  3. CONNECT EXISTING SEWER LATERAL FROM 3516 COKEFIELD CT TO EXISTING MANHOLE.
  4. CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING, HAULING AND PROPER DISPOSAL OF WASTE TO MAINTAIN SEWER SERVICE THROUGHOUT CONSTRUCTION. AT NO ADDITIONAL COST TO PWC
  5. INSTALL NEW MH 2 IN COKEFIELD CT AS INDICATED ON THE PLANS.
  6. INSTALL PROPOSED SANITARY SEWER MAIN FROM EXISTING MH (LOCATED AT COKEFIELD CT & BROOMSGROVE DR INTERSECTION) TO NEW MH 3 AS INDICATED ON THE PLANS.
  7. INSTALL NEW SANITARY SEWER LATERALS TO SERVE 3516, 3520, AND 3524 COKEFIELD CT AS SHOWN ON PLANS.
  8. COMPLETE TESTING OF MAIN, LATERALS, AND MANHOLE IN ACCORDANCE WITH PWC REQUIREMENTS.
  9. WHEN SEGMENT IS COMPLETE IN PLACE, TESTED, AND READY FOR SERVICE, THE PARCELS AT 3516, 3520, AND 3524 COKEFIELD CT SHALL BE CONNECTED TO THE NEW SEWER LATERALS AS DIRECTED BY THE PROJECT COORDINATOR AND EXISTING LATERALS SHALL BE ABANDONED OR REMOVED IN ACCORDANCE WITH PWC STANDARDS.



TYPICAL CHAIN LINK GATE AND FENCING		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. M.17	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT			
DATE: JULY 01, 2025	APPROVED BY: K.A.H.					

**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
**WATER RESOURCES ENGINEERING**  
**APPROVED FOR CONSTRUCTION**  
 Date: 07/31/2025

REGIONS

DATE: 07/28/2025

SURVEY/GPS BY: MBC/GPI

DRAWN BY: VAR

CHECKED BY: AMH / MY

SCALE: 1/8\"/>

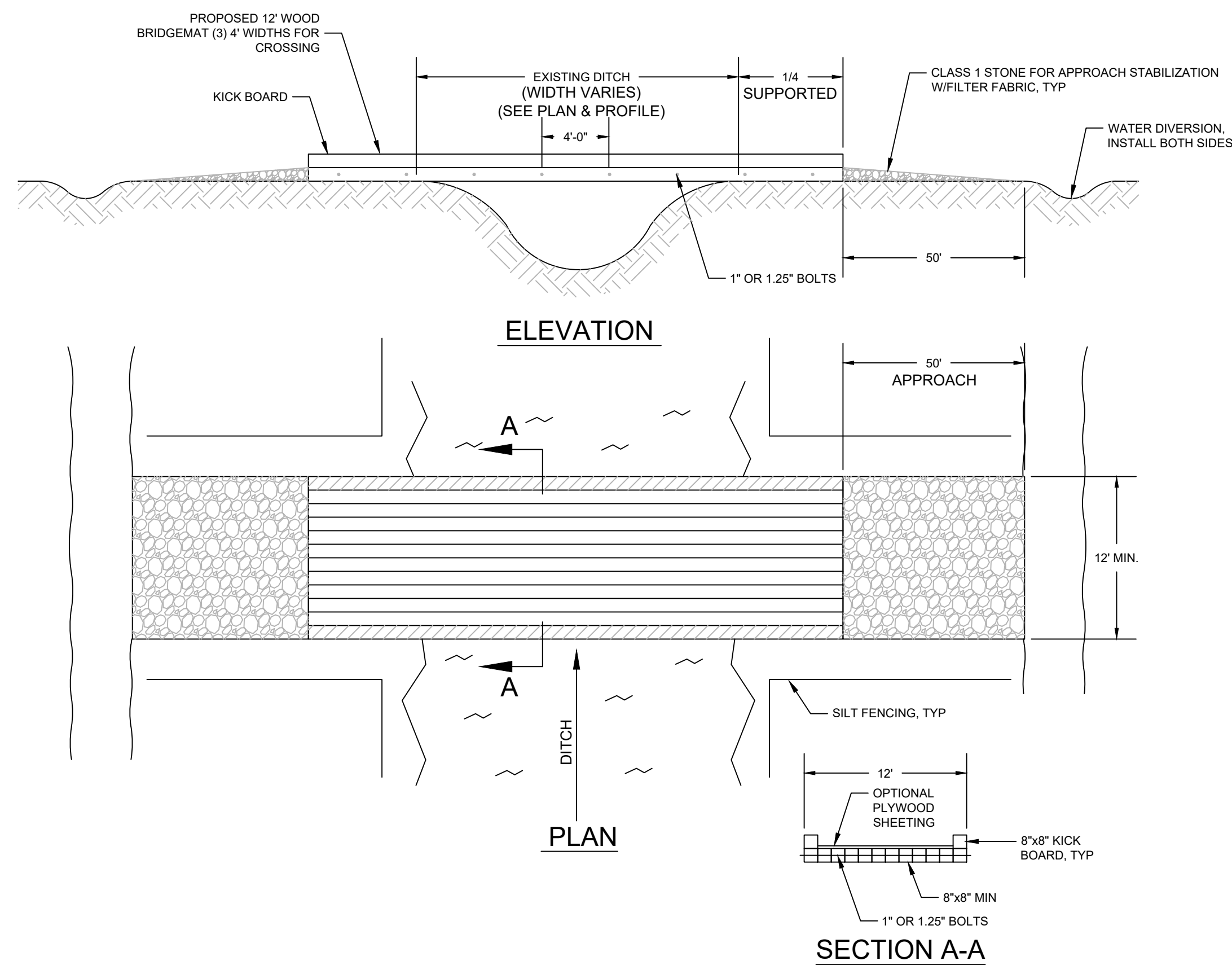


**MISCELLANEOUS DETAILS**  
 PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
 FAYETTEVILLE, NORTH CAROLINA

**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
**WATER RESOURCES ENGINEERING**  
 P.O. Box 1085, Fayetteville, NC 28302  
 855 0th Wilmington Road, Fayetteville, NC 28301

2018008.00.PA





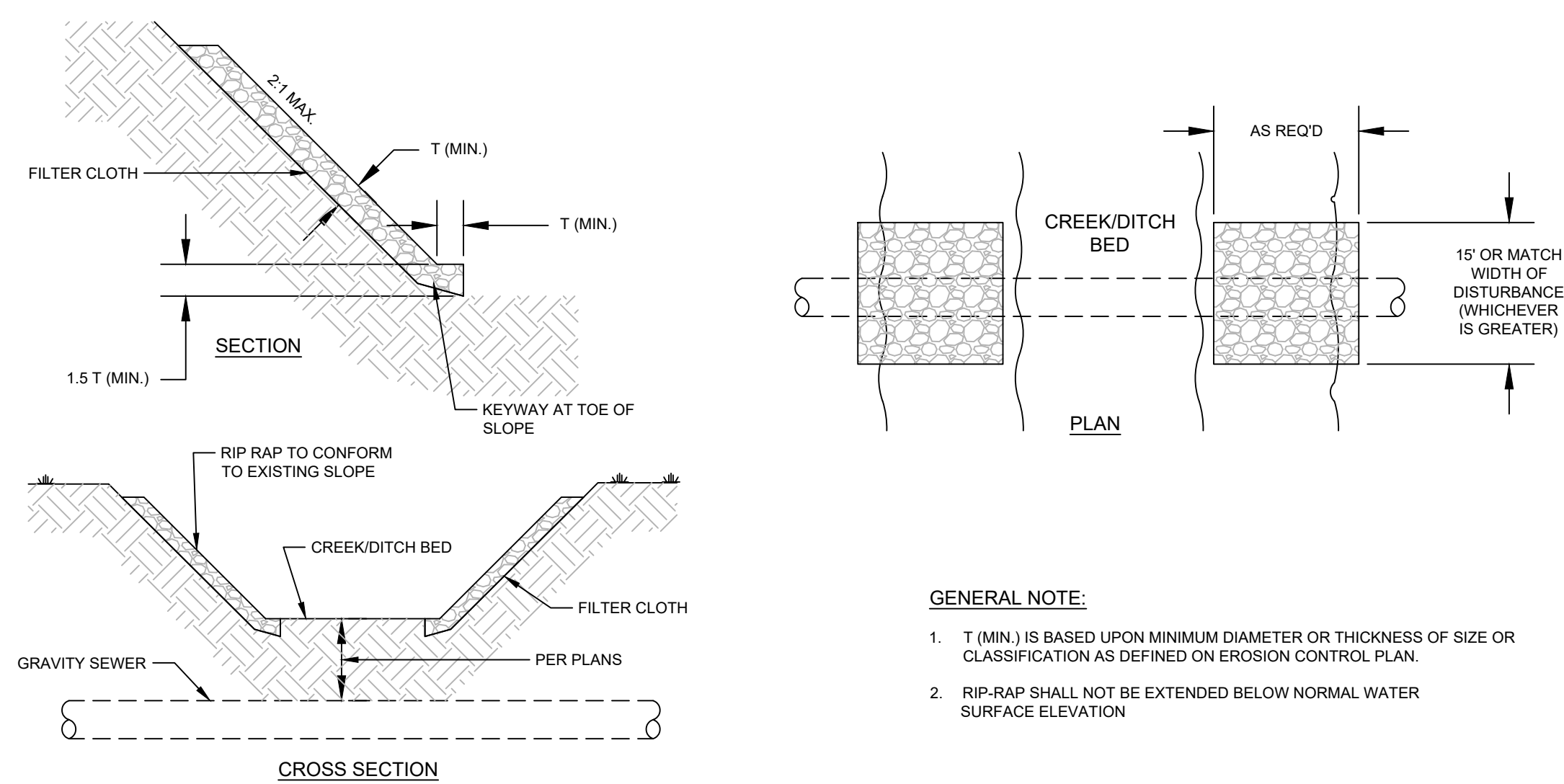
**GENERAL NOTES:**

1. INSTALL TO CREATE A MINIMUM 12 FT CROSSING WIDTH OR LARGER WIDTH FOR CONSTRUCTION EQUIPMENT.
2. PERIODICALLY CHECK MAT HARDWARE, RETIGHTEN AS REQUIRED TO MAINTAIN STRENGTH AND INTEGRITY.
3. REMOVE ANY DEBRIS THAT ENTERS DRAINAGE WAY.
4. CONTRACTOR RESPONSIBLE FOR SIZING STRUCTURAL COMPONENTS OF MAT TO CARRY ALL CONSTRUCTION LOADS INCLUDING EQUIPMENT AND MATERIAL.

**SEQUENCE NOTES:**

1. MAT SHALL BE INSTALLED PRIOR TO CONSTRUCTION. LOCATION OF MAT AT EACH CROSSING SHALL BE COORDINATED BY CONTRACTOR SO IT DOES NOT CONFLICT WITH SEWER EXCAVATION AND IT RESIDES WITHIN LIMITS OF DISTURBANCE (LOD).
2. MAT SHALL REMAIN IN PLACE UNTIL ALL DOWNSTREAM (IN TERMS OF SEWER FLOW) WORK HAS BEEN COMPLETED, RESTORED AND DEEMED ACCEPTABLE AND CONTRACTOR NO LONGER NEEDS ACCESS OVER DITCH.

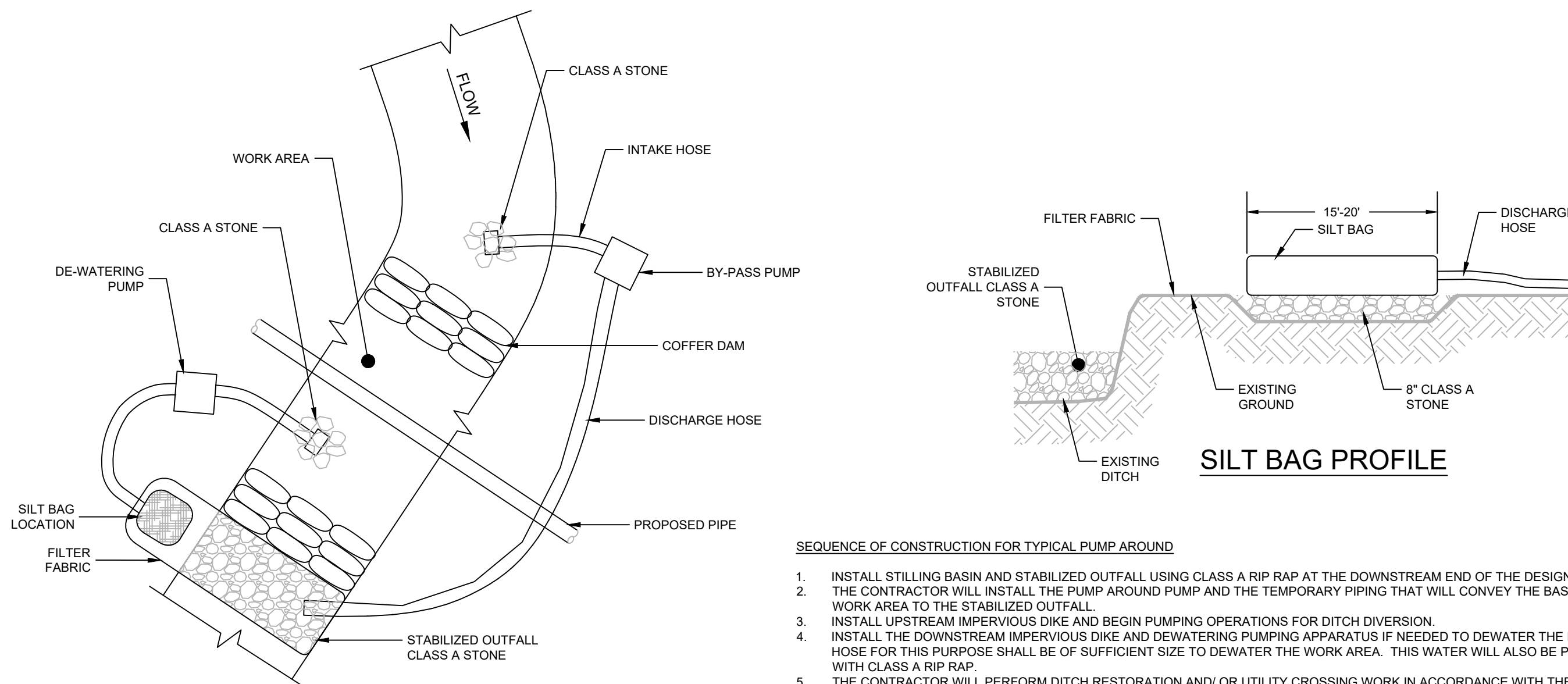
**1 G8 TEMPORARY DITCH CROSSING (BRIDGE MAT)**  
NOT TO SCALE



**GENERAL NOTE:**

1. T (MIN.) IS BASED UPON MINIMUM DIAMETER OR THICKNESS OF SIZE OR CLASSIFICATION AS DEFINED ON EROSION CONTROL PLAN.
2. RIP-RAP SHALL NOT BE EXTENDED BELOW NORMAL WATER SURFACE ELEVATION.

**5 G8 STREAM BANK STABILIZATION**  
NOT TO SCALE



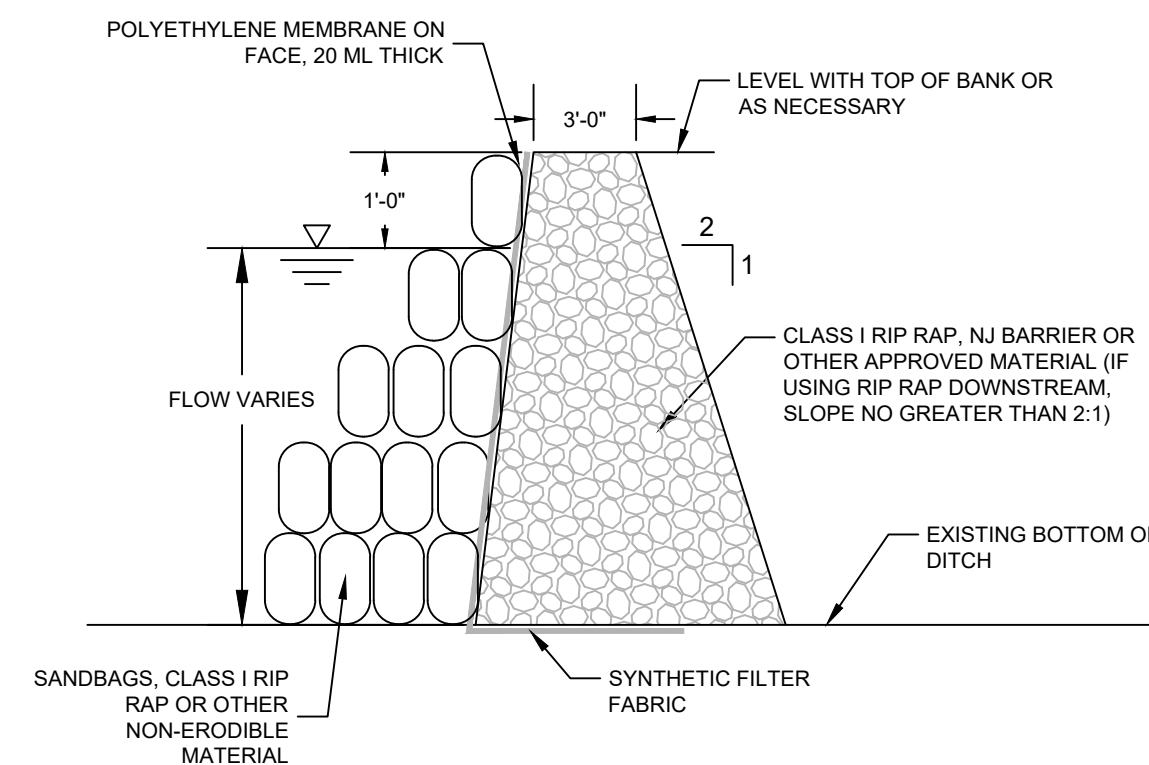
**SEQUENCE OF CONSTRUCTION FOR TYPICAL PUMP AROUND**

1. INSTALL STILLING BASIN AND STABILIZED OUTFALL USING CLASS A RIP RAP AT THE DOWNSTREAM END OF THE DESIGNATED PROJECT WORKING AREA.
2. THE CONTRACTOR WILL INSTALL THE PUMP AROUND PUMP AND THE TEMPORARY PIPING THAT WILL CONVEY THE BASE FLOW FROM UPSTREAM OF THE WORK AREA TO THE STABILIZED OUTFALL.
3. INSTALL UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR DITCH DIVERSION.
4. INSTALL THE DOWNSTREAM IMPERVIOUS DIKE AND DEWATERING PUMPING APPARATUS IF NEEDED TO DEWATER THE ENTRAPPED AREA. THE PUMP AND HOSE FOR THIS PURPOSE SHALL BE OF SUFFICIENT SIZE TO DEWATER THE WORK AREA. THIS WATER WILL ALSO BE PUMPED TO AN OUTFALL STABILIZED WITH CLASS A RIP RAP.
5. THE CONTRACTOR WILL PERFORM DITCH RESTORATION AND/ OR UTILITY CROSSING WORK IN ACCORDANCE WITH THE PLAN AND FOLLOWING THE GENERAL CONSTRUCTION SEQUENCE.
6. THE CONTRACTOR WILL EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF THE IMPERVIOUS DIKE. WHEN DEWATERING AREA, ALL DIRTY WATER MUST BE PUMPED THROUGH A SILT BAG. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE/PIPING STARTING WITH THE DOWNSTREAM DIKE FIRST.
7. ONCE THE WORKING AREA IS COMPLETED, REMOVE ALL RIP RAP AND IMPERVIOUS DIKES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH DITCH STABILIZATION REQUIREMENTS AS INDICATED ON EROSION/ SEDIMENTATION PLANS.
8. ALL WORK IN DITCH MUST BE COMPLETED BEFORE REMOVING IMPERVIOUS DIKE.

**NOTES:**

1. EXCAVATION SHALL BE PERFORMED ONLY IN DRY AND/OR ISOLATED SECTIONS OF CHANNEL.
2. IMPERVIOUS DIKES SHOULD BE USED TO ISOLATE WORK AREAS FROM DITCH FLOW.
3. THE CONTRACTOR SHALL NOT DISTURB MORE AREA THAN CAN BE STABILIZED IN ONE WORKING DAY. A MAXIMUM OF 1000 FEET MAY BE DISTURBED AT ANY ONE TIME.
4. THE BY-PASS PUMP SHOULD ADEQUATELY CONVEY MINIMUM 450 GALLONS / MINUTE UNLESS OTHERWISE SPECIFIED.
5. DIKE MUST BE CONSTRUCTED OF NON-ERODIBLE MATERIALS SUCH AS SANDBAGS, SEE COFFER DAM DETAIL.

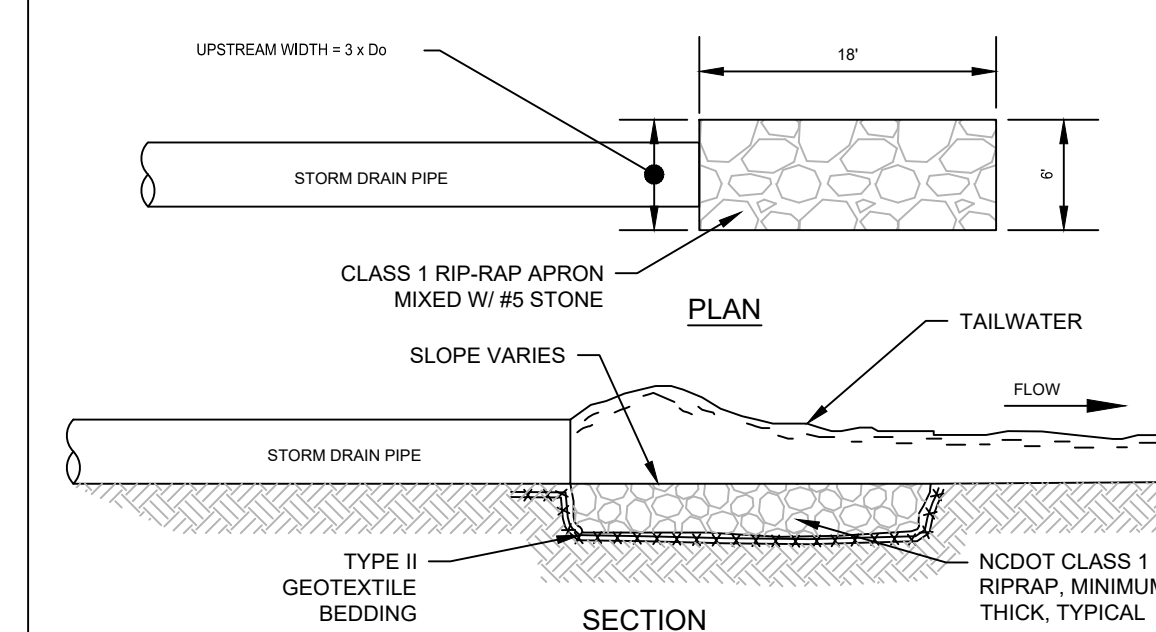
**2 G8 DITCH PUMP AROUND**  
NOT TO SCALE



**NOTES:**

1. CONTRACTOR SHALL INSTALL COFFER DAM WITH BYPASS ARRANGEMENTS ALONG DITCH PRIOR TO SEWER INSTALLATION TO ENSURE DRY CONDITIONS. SEE DITCH PUMP AROUND DETAIL.
2. CONTRACTOR SHALL FOLLOW CONSTRUCTION SEQUENCE AS NOTED ON CONTRACT DRAWINGS.

**3 G8 COFFER DAM**  
NOT TO SCALE



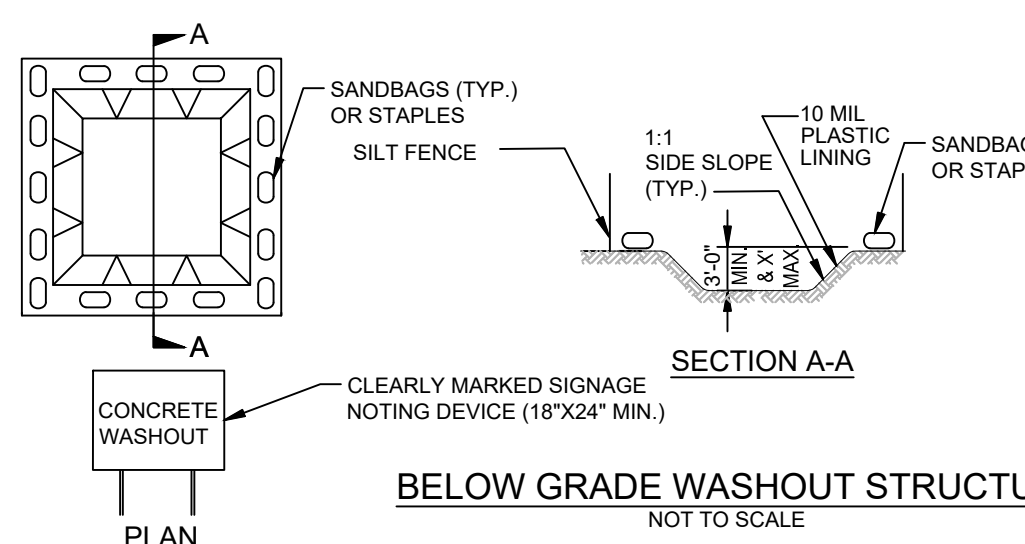
**NOTES:**

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS. RIPRAP INSTALLED ON SLOPES SHALL BE EXTENDED TO THE TOE OF SLOPE.
3. GEOTEXTILE BEDDING, MUST MEET NCDOT SPECIFICATIONS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
4. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER. RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD, ANGULAR, HIGHLY WEATHER-RESISTANT AND WELL GRADED.
5. CONSTRUCT THE APRON GRADE AS SHOWN ON PLAN WITH NO OVER FALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
6. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH.
7. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

**MAINTENANCE**

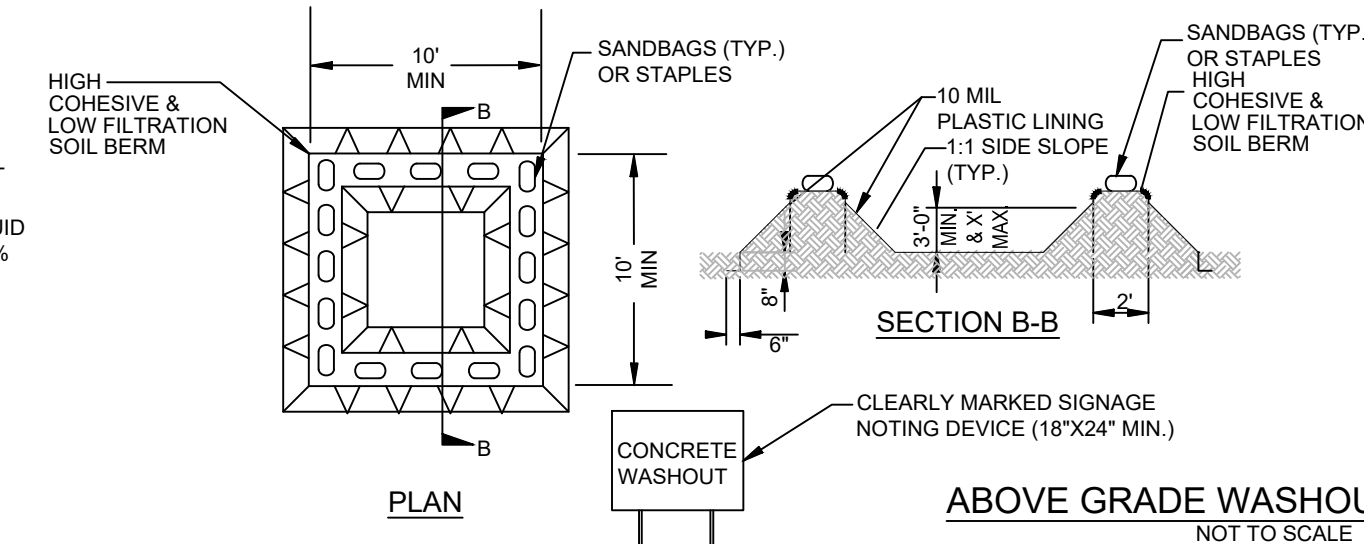
RIPRAP OUTLET STRUCTURES SHALL BE INSPECTED ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

**4 G8 TEMPORARY RIP-RAP OUTLET PROTECTION**  
NOT TO SCALE



- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
  2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY.
  3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

**BELOW GRADE WASHOUT STRUCTURE**  
NOT TO SCALE



- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
  2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
  3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

**ABOVE GRADE WASHOUT STRUCTURE**  
NOT TO SCALE

**6 G8 ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER**  
NOT TO SCALE

**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
WATER RESOURCES ENGINEERING  
APPROVED FOR CONSTRUCTION  
Date: 07/31/2025

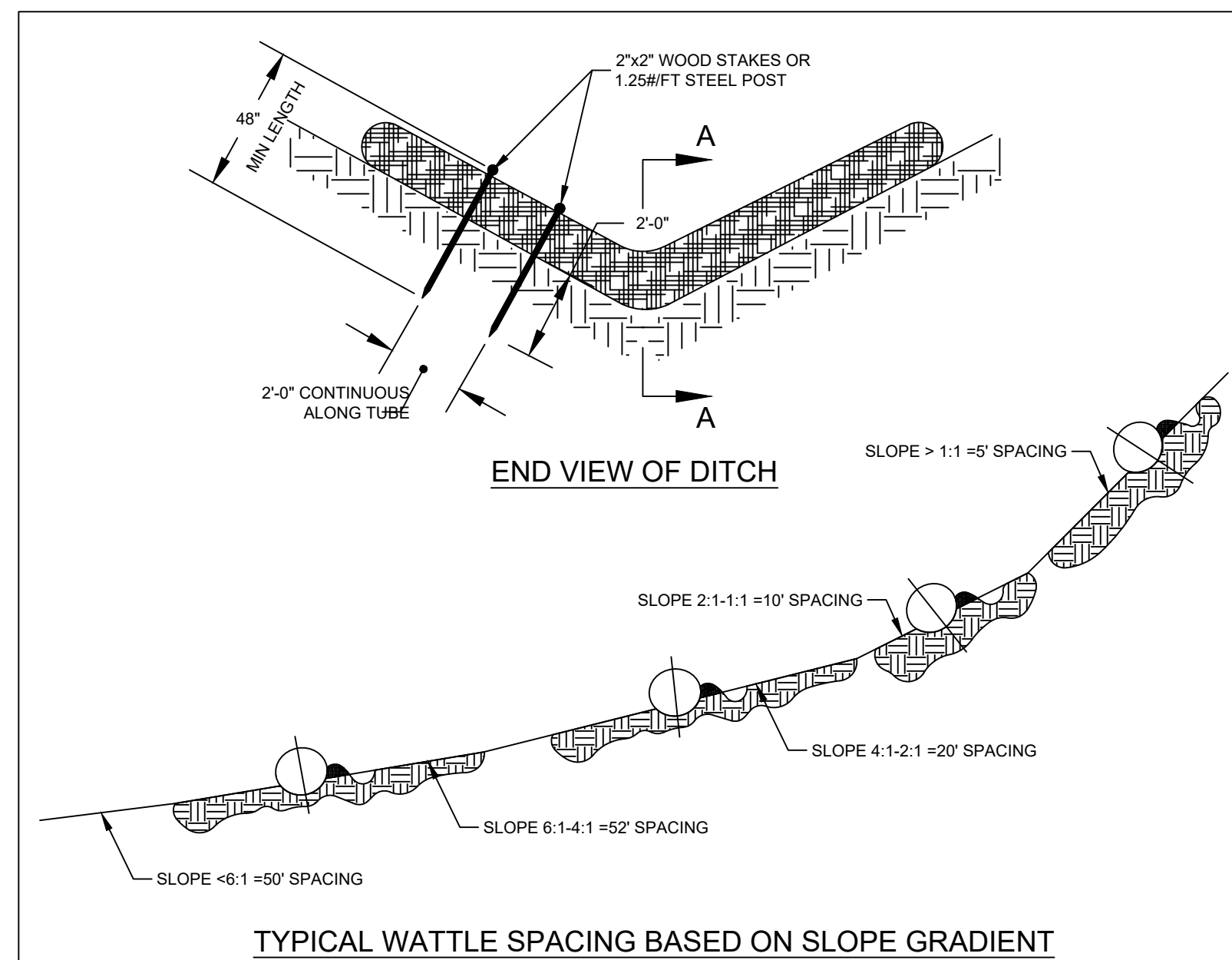
DATE:	07/28/2025
DESIGNED BY:	AMH / MY
CHECKED BY:	AMH / MY
DRAWN BY:	VAR
SURVEY/GPS BY:	MBC/GPI
REVISIONS:	

**WICKSON**  
Professional Engineer  
770 Corporate Center Drive  
Fayetteville, NC 28302  
P.O. Box 1087 Fayetteville, NC 28302  
www.wickson.com  
Tel: 704.336.8800

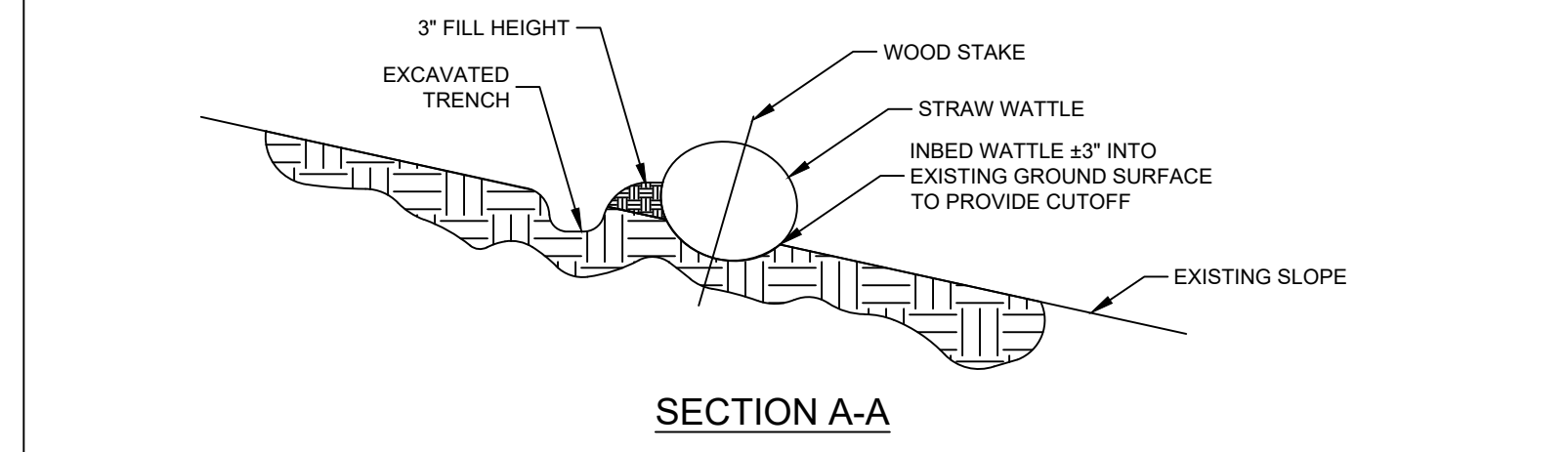


**EROSION CONTROL DETAILS**  
PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
FAYETTEVILLE, NORTH CAROLINA

**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
WATER RESOURCES ENGINEERING  
APPROVED FOR CONSTRUCTION  
Date: 07/31/2025



TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT



SECTION A-A

1 G9 TEMPORARY STRAW WATTLE NOT TO SCALE

**WATTLE DESCRIPTION**  
 WATTLES ARE ELONGATED TUBES OF COMPACTED GEOTEXTILES, CURLED EXCELISOR WOOD, NATURAL COCONUT FIBER OR HARDWOOD MULCH STRAW, PINE NEEDLE AND LEAF MULCH-FILLED SEDIMENT TUBES ARE NOT PERMITTED UNDER THIS SPECIFICATION.

**WHEN AND WHERE TO USE IT:**  
 INSTALL SEDIMENT TUBES ALONG CONTOURS, IN DRAINAGE CONVEYANCE SWALES, AND AROUND INLETS TO HELP REDUCE THE EFFECTS OF SOIL EROSION BY ENERGY DISSIPATION AND RETAIN SEDIMENT.

**MATERIALS**  
 WATTLES FOR DITCH CHECKS AND TYPE A INLET STRUCTURE FILTERS EXHIBIT THE FOLLOWING PROPERTIES: PRODUCED BY A MANUFACTURER EXPERIENCED IN WATTLE MANUFACTURING. COMPOSED OF COMPACTED GEOTEXTILES, CURLED EXCELISOR WOOD, NATURAL COCONUT FIBERS, HARDWOOD MULCH OR A MIX OF THESE MATERIALS ENCLOSED BY A FLEXIBLE NETTING MATERIAL. STRAW, STRAW BALETS, PINE NEEDLES AND LEAF MULCH ARE NOT ALLOWED UNDER THIS SPECIFICATION. UTILIZES OUTER NETTING THAT CONSISTS OF SEAMLESS, HIGH-DENSITY POLYETHYLENE MATERIALS TREATED WITH ULTRAVIOLET STABILIZERS OR A SEAMLESS, HIGH-DENSITY POLYETHYLENE NON-DEGRADABLE MATERIALS. DIAMETER RANGING FROM 18-INCHES TO 24-INCHES. CURLED EXCELISOR WOOD, OR NATURAL COCONUT ROLLED EROSION CONTROL PRODUCTS (RECS) THAT ARE ROLLED-UP TO CREATE A SEDIMENT TUBE ARE NOT ALLOWED UNDER THIS SPECIFICATION.

**INSTALLATION:**

- INSTALL OVER BARE SOIL, MULCHED AREAS OR EROSION CONTROL BLANKETS. THE MINIMUM DIAMETER SHOULD BE 18 INCHES.
- BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A TRENCH 20% OF TUBE DIAMETER 4\"/>

**INSPECTION AND MAINTENANCE:**

CHECK DAMS SHOULD BE INSPECTED EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER EACH STORM THAT PRODUCES 1/4-INCHES OR MORE OF RAIN TO ENSURE CONTINUED EFFECTIVENESS.

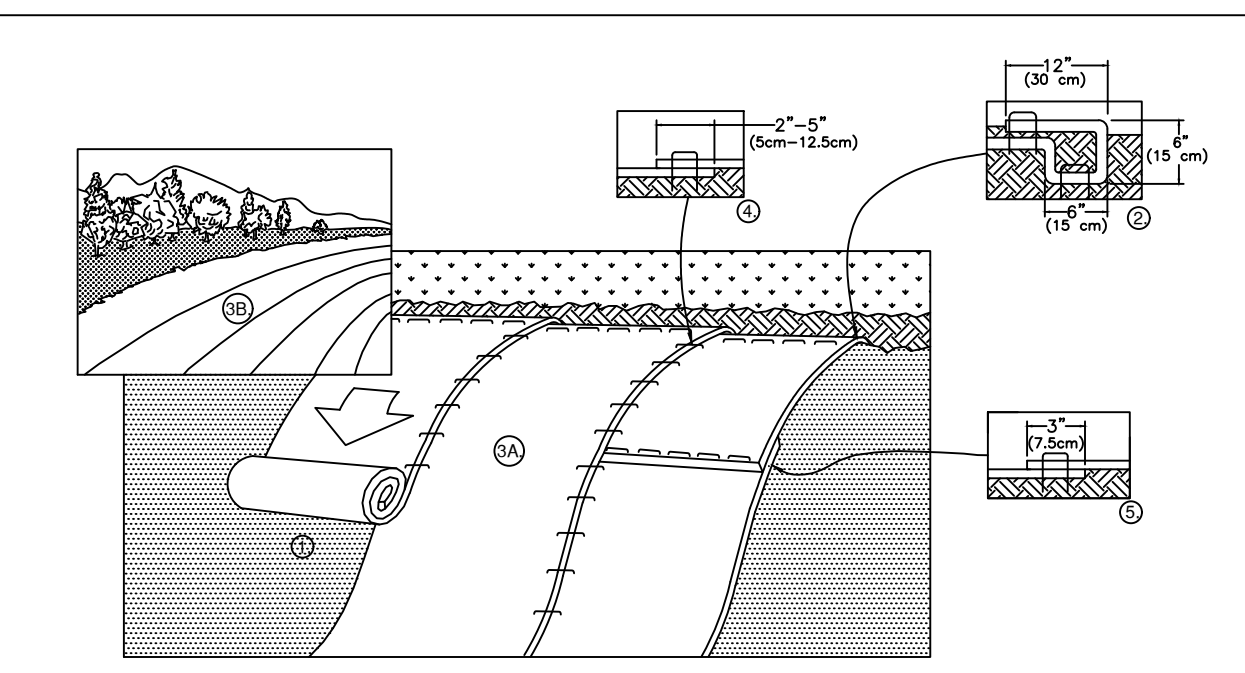
LARGE DEBRIS, TRASH, AND LEAVES SHOULD BE REMOVED.

IF EROSION CAUSES THE EDGES TO FALL TO A HEIGHT EQUAL TO OR BELOW THE HEIGHT OF THE CENTER, REPAIRS SHOULD BE MADE IMMEDIATELY.

REMOVE ACCUMULATED SEDIMENT FROM THE UPSTREAM SIDE OF THE SEDIMENT TUBE WHEN THE SEDIMENT HAS REACHED A HEIGHT OF APPROXIMATELY ONE-THIRD OF THE EXPOSED HEIGHT OF THE TUBE (MEASURED AT THE CENTER).

ACCUMULATED SEDIMENT SHOULD BE REMOVED PRIOR TO REMOVING SEDIMENT TUBES.

WATTLE REMOVAL SHOULD BE COMPLETED ONLY AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN COMPLETELY STABILIZED. PERMANENT VEGETATION SHOULD REPLACE AREAS FROM WHICH GRAVEL, STONE, SEDIMENT TUBES, OR OTHER MATERIALS HAVE BEEN REMOVED.



- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6\"/>

NOTE:  
 \*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6\"/>

2 G9 SLOPE STABILIZATION WITH JUTE NET NOT TO SCALE

**GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT**

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

**SECTION E: GROUND STABILIZATION**

Site Area Description	Required Ground Stabilization Timeframes	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

**Note:** After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

**GROUND STABILIZATION SPECIFICATION**

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li>Roll-on erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul style="list-style-type: none"> <li>Permanent grass seed covered with straw or other mulches and tackifiers</li> <li>Geotextile fabrics such as permanent soil reinforcement matting</li> <li>Hydroseeding</li> <li>Shrubs or other permanent plantings covered with mulch</li> <li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li> <li>Structural methods such as concrete, asphalt or retaining walls</li> <li>Roll-on erosion control products with grass seed</li> </ul>

- POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**
- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
  - Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
  - Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
  - Provide ponding area for containment of treated Stormwater before discharging offsite.
  - Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

- EQUIPMENT AND VEHICLE MAINTENANCE**
- Maintain vehicles and equipment to prevent discharge of fluids.
  - Provide drip pans under any stored equipment.
  - Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
  - Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
  - Remove leaking vehicles and construction equipment from service until the problem has been corrected.
  - Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

- LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**
- Never bury or burn waste. Place litter and debris in approved waste containers.
  - Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
  - Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
  - Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
  - Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
  - Anchor all lightweight items in waste containers during times of high winds.
  - Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
  - Dispose waste off-site at an approved disposal facility.
  - On business days, clean up and dispose of waste in designated waste containers.

- PAINT AND OTHER LIQUID WASTE**
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
  - Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
  - Contain liquid wastes in a controlled area.
  - Containment must be labeled, sited and placed appropriately for the needs of site.
  - Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

- PORTABLE TOILETS**
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. A 50-foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
  - Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
  - Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

- EARTHEN STOCKPILE MANAGEMENT**
- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
  - Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
  - Provide stable stone access point when feasible.
  - Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION A: SELF-INSPECTION**

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts.
(2) E&S Measures	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. Identification of the measures inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Indication of whether the measures were operating properly. 5. Description of maintenance needs for the measure. 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. Identification of the discharge outfalls inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration. 5. Indication of visible sediment leaving the site. 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. Action taken to clean up or stabilize the sediment that has left the site limits. 2. Description, evidence, and date of corrective actions taken, and 3. An expansion as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. The phase of grading (installation of perimeter E&S Measures, clearing and grubbing, installation of storm drainage facilities, construction of all land-disturbing activity, completion or redevelopment, permanent (non-erosion)). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.
(6) Ground stabilization measures	After each phase of grading	

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION B: RECORDKEEPING**

**1. E&S Plan Documentation**

The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&S Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S Plan.	Initial and date each E&S Measure on a copy of the approved E&S Plan or complete, date and sign an inspection report that lists each E&S Measure shown on the approved E&S Plan. This documentation is required upon the initial installation of the E&S Measures or if the E&S Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S Plan.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&S Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S Measures.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

**2. Additional Documentation**

In addition to the E&S Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This general permit as well as the certificate of coverage, after it is received.
- Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION C: REPORTING**

**1. Occurrences that must be reported**

Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
- Oil spills if:
  - They are 25 gallons or more,
  - They are less than 25 gallons but cannot be cleaned up within 24 hours,
  - They cause sheen on surface waters (regardless of volume), or
  - They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref. 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref. 40 CFR 302.4) or G.S. 143-215.85.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

**2. Reporting Timeframes and Other Requirements**

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li> <li><b>A report of at least ten days before the date of the bypass</b>, if possible. This report shall include an evaluation of the anticipated quality and effect of the bypass.</li> </ul>
(b) Oil spills and release of hazardous substances per item 1(b)-(c) above	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification. This notification shall include information about the date, time, nature, volume and location of the spill or release.</li> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, a report that contains a description of the noncompliance, and its causes; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(i)(6)].</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, a report that contains a description of the noncompliance, and its causes; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(i)(6)].</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(i)(7)]	<ul style="list-style-type: none"> <li><b>Within 24 hours</b>, an oral or electronic notification.</li> <li><b>Within 7 calendar days</b>, a report that contains a description of the noncompliance, and its causes; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(i)(6)].</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

**CONCRETE WASHOUTS**

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixes in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

**HERBICIDES, PESTICIDES AND RODENTICIDES**

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

**HAZARDOUS AND TOXIC WASTE**

- Create designated hazardous waste collection area on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

DATE: 07/28/2025  
 SURVEY/GPS BY: MBO/GPL  
 DRAWN BY: VAR  
 CHECKED BY: AMH / MY  
 SCALE: 1/8\"/>

**WICKSON**  
 PROFESSIONAL ENGINEERING  
 TRANSPORTATION & WATER RESOURCES  
 770 Corporate Center Drive  
 Raleigh, NC 27603  
 (919) 733-3300  
 www.wickson.com

**STATE OF NORTH CAROLINA**  
 DIVISION OF CONSTRUCTION  
 ENGINEER  
 049209  
 07/28/2025

**EROSION CONTROL DETAILS**  
 PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
 FAYETTEVILLE, NORTH CAROLINA

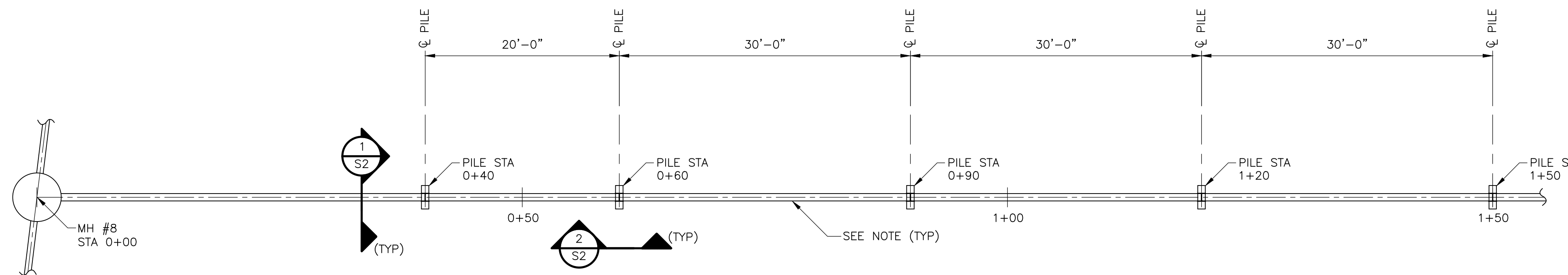
**PUBLIC WORKS COMMISSION**  
 OF THE CITY OF FAYETTEVILLE  
**WATER RESOURCES ENGINEERING**  
 P.O. Box 1088 Fayetteville, NC 28302  
 855 Old Wilmington Road, Fayetteville, NC 28301

**PWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
 WATER RESOURCES ENGINEERING  
 APPROVED FOR CONSTRUCTION  
 Date: 07/31/2025

**NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING**

EFFECTIVE: 04/01/19





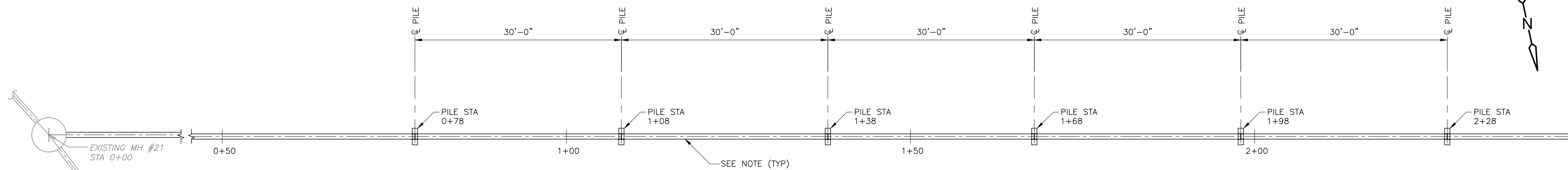
OUTFALL 2 AERIAL CROSSING

PLAN

1/8" = 1'-0"

NOTE:

1. SEE DETAIL A ON SHEET S2 FOR DUCTILE IRON CONNECTIONS ACROSS 20-FT AND 30-FT SPANS.



OUTFALL 3 AERIAL CROSSING

PLAN

1/8" = 1'-0"

GENERAL NOTES

DESIGN CRITERIA:

- A. CODES:
- 2018 NORTH CAROLINA STATE BUILDING CODE
  - AISC STEEL CONSTRUCTION MANUAL, FOURTEENTH EDITION

DESIGN LOADS:

- A. SNOW LOAD:
- GROUND SNOW LOAD,  $P_g$  10 PSF
  - SNOW LOAD IMPORTANCE FACTOR,  $I$  1.1
- B. WIND DESIGN DATA:
- RISK CATEGORY III
  - ULTIMATE DESIGN WIND SPEED 130 MPH
  - NORMAL DESIGN WIND SPEED 101 MPH
  - EXPOSURE CATEGORY C

- C. EARTHQUAKE:
- SEISMIC DESIGN CATEGORY C
  - SEISMIC IMPORTANCE FACTOR,  $I$  1.25
  - MAPPED SPECTRAL RESPONSE ACC,  $S_s$  0.237
  - MAPPED SPECTRAL RESPONSE ACC,  $S_1$  0.102
  - SPECTRAL RESPONSE COEFFICIENT,  $C_{sp}$  0.253
  - SPECTRAL RESPONSE COEFFICIENT,  $C_{s1}$  0.162
  - SITE CLASS D
  - RESPONSE MODIFICATION COEFFICIENT,  $R$  1.25
  - SEISMIC RESPONSE COEFFICIENT,  $C_s$  0.253
  - DESIGN BASE SHEAR  $C_s \cdot W$
  - BASE SEISMIC FORCE RESISTING SYSTEM: ALL OTHER SELF-SUPPORTING STRUCTURES, TANKS, OR VESSELS NOT COVERED ABOVE OR BY REFERENCE STANDARDS THAT ARE NOT SIMILAR TO BUILDING

- D. FLOOD DESIGN DATA:
- 0.2% ANNUAL CHANCE FLOOD (NO BASE FLOOD ELEVATION) ZONE X NAVD 88

GENERAL CONDITIONS:

- A. ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE CIVIL DRAWINGS AND SHOP DRAWINGS AND SPECIFICATIONS.
- B. THE CONTRACTOR SHALL REVIEW AND VERIFY DIMENSIONS SHOWN IN ALL PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT THE INSTALLATION OF THE FACILITY. SHOULD DISCREPANCIES APPEAR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING TO OBTAIN ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH THE WORK.

STRUCTURAL STEEL:

- A. DESIGN, FABRICATION, ERECTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST AISC SPECIFICATIONS AND DESIGN DRAWINGS.
- B. ALL STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED. REPAIR GALVANIZING PER SECTION 05500.
- C. ALL STRUCTURAL STEEL:
- H-PILES ASTM A572 GR 50
  - WIDE FLANGE SHAPES ASTM A992
  - PLATES AND ANGLES - ASTM A36
  - NUTS - ASTM A563
  - HARDENED STEEL WASHER - ASTM F436
  - ANCHOR RODS - ASTM F1554 GR 36
  - HIGH STRENGTH BOLTS - F3125 GR A325
- D. THE FABRICATOR SHALL DESIGN AND DETAIL ALL PARTS OF CONNECTIONS NOT FULLY DETAILED ON THE DESIGN DRAWINGS. THE NUMBER OF BOLTS AND OTHER SIMILAR ELEMENTS SHOWN ON THE DRAWING ARE PICTORIAL ONLY.
- E. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
- F. WELDED CONNECTIONS SHALL BE IN ACCORDANCE WITH THE LATEST AWS STRUCTURAL WELDING CODE REQUIREMENTS. ELECTRODES SHALL BE E-70XX.

FOUNDATIONS:

- A. STRUCTURES SHALL BE SUPPORTED BY DEEP FOUNDATIONS AS SHOWN. THE STEEL H-PILES MUST BE INSTALLED TO A TIP ELEVATION NO HIGHER THAN THE ELEVATION SHOWN IN TABLE FOR A DESIGN COMPRESSIVE CAPACITY OF 4.0 KIPS AND DESIGN LATERAL CAPACITY OF 1.6 KIPS WITH A MAXIMUM LATERAL DEFLECTION OF 1.5 INCHES AT THE PILE HEAD.
- B. REFER TO SECTION 02350 "STEEL H-PILES" FOR H-PILE REQUIREMENTS.

GEOTECHNICAL REPORT:

- A. "REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION, FPWC ANNEXATION AREA 32 EAST SECTION 2," PREPARED BY FROEHLING & ROBERTSON, INC. (PROJECT NO. 66W-0027-0005), DATED JUNE 3, 2022.
- B. "ADDENDUM NO. 1, REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION, FPWC ANNEXATION AREA 32 EAST SECTION 2," PREPARED BY FROEHLING & ROBERTSON, INC. (PROJECT NO. 66W-0027-0005), DATED JANUARY 16, 2025.

OUTFALL 2 STEEL H-PILES		
STATION	T/PILE ELEVATION*	TIP ELEVATION
0+40	183.84'	162.00'
0+60	183.94'	162.00'
0+90	184.09'	162.00'
1+20	184.24'	162.00'
1+50	184.40'	162.00'

OUTFALL 3 STEEL H-PILES		
STATION	T/PILE ELEVATION*	TIP ELEVATION
0+78	176.42'	159.00'
1+08	176.57'	159.00'
1+38	176.73'	159.00'
1+68	176.88'	159.00'
1+98	177.03'	159.00'
2+28	177.18'	159.00'

\*FIELD VERIFY WITH CARRIER PIPE INVERT ELEVATIONS.

DATE	REVISIONS
9.07.2022	DATE
2.14.2025	ISSUED FOR BID
	SCALE: 1/8" = 1'-0"

DATE	7-SEPTEMBER-2022
SURVEY/GPS BY	MBC/GPI
DRAWN BY	PWD
CHECKED BY	JSB
SCALE	1/8" = 1'-0"

**WICKSON**  
 TRANSPORTATION & WATER RESOURCES  
 7750 Corporate Center Drive  
 Raleigh, NC 27615  
 www.wickson.com

PROFESSIONAL SEAL  
 JUSTIN S. BOYD  
 ENGINEER  
 STATE OF NORTH CAROLINA

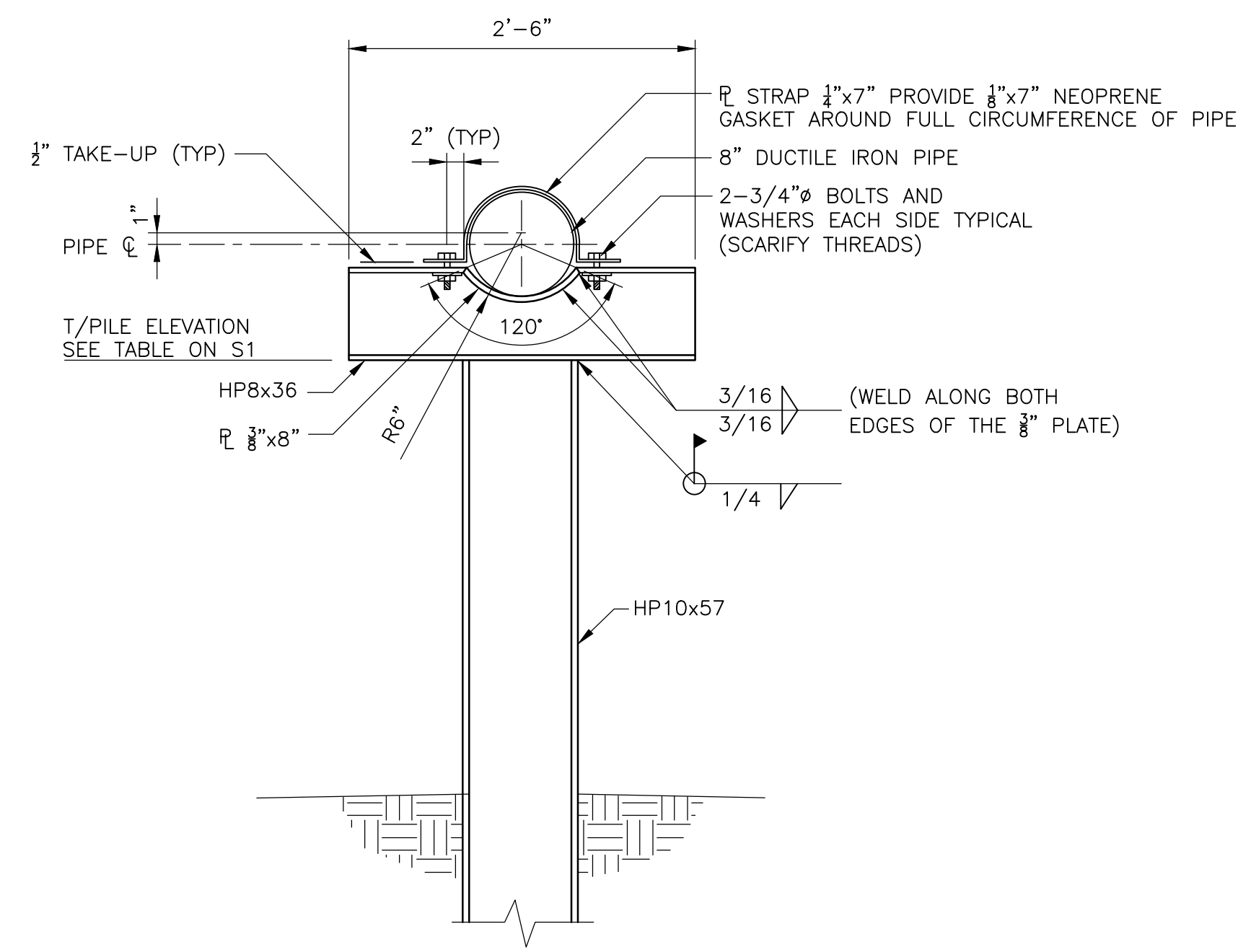
**OUTFALLS 2 & 3 AERIAL CROSSING PLANS AND NOTES**  
 PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
 FAYETTEVILLE, NORTH CAROLINA

**FPWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
**WATER RESOURCES ENGINEERING**  
 P.O. Box 1081, Fayetteville, NC 28302  
 655 Old Wilmington Road, Fayetteville, NC 28301

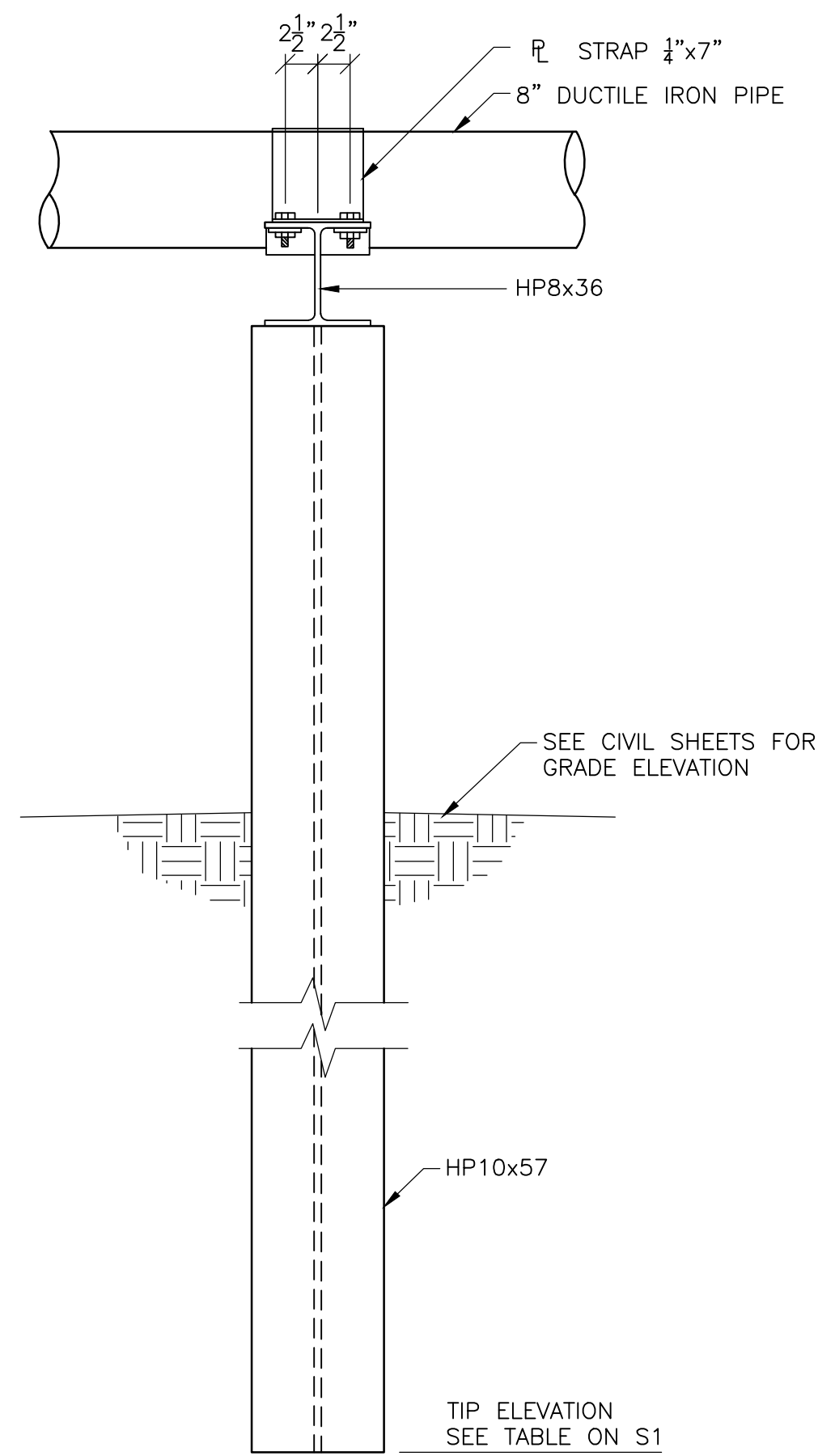
**CDM Smith**  
 5400 Glenwood Avenue, Suite 400  
 Raleigh, NC 27612  
 Tel: (919) 525-3500

APPROVED FOR CONSTRUCTION  
 Date: 07/31/2025

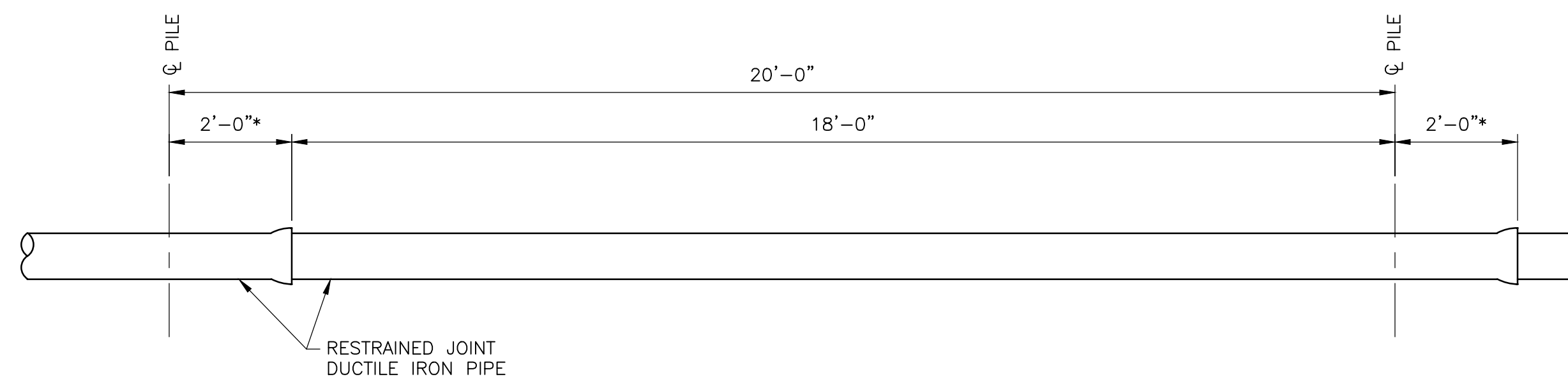
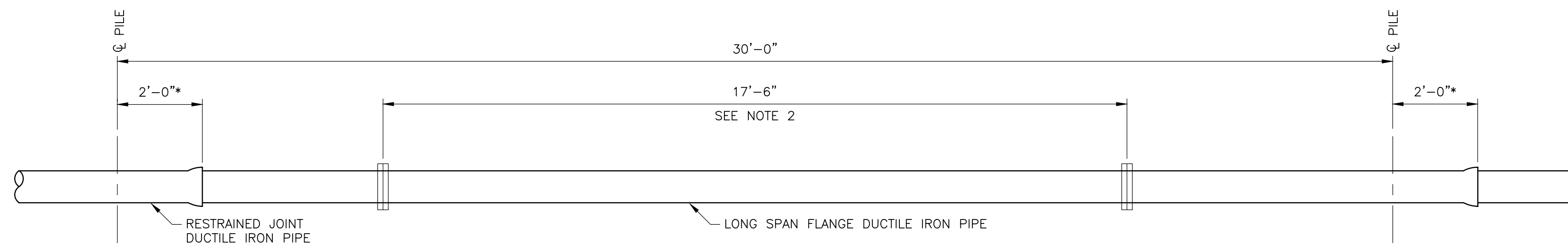
C:\w\66w\66w-0027\0005\0000.dwg 2/14/2025 10:23 AM



SECTION 1  
NTS



SECTION 2  
NTS



LONG SPAN PIPE  
DETAIL A  
1/2" = 1'-0"

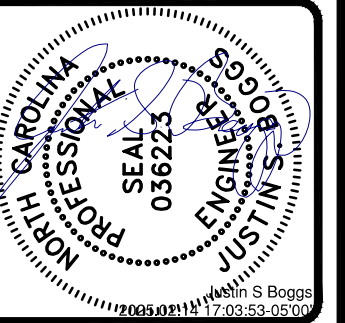
LONG SPAN PIPE NOTES:

1. PIPE SUPPORTS NOT SHOWN FOR CLARITY.
2. FOR 30 FT SPANS, LONG SPAN FLANGE PIPE MUST BE USED AT THE CENTER OF THE SPAN. COORDINATE PIPING LAYOUT, INCLUDING PIPE LENGTHS, WITH PIPE SUPPLIER.
3. DUCTILE IRON PIPE USED FOR AERIAL CROSSINGS MUST BE CLASS 53.
4. \* INDICATES APPROXIMATE DIMENSION UNLESS OTHERWISE RECOMMENDED BY PIPE SUPPLIER.

DATE	REVISIONS
9.07.2022	PIPE DESIGN
2.14.2025	FINAL DESIGN
	ISSUED FOR BID
	FOR BIDDING
	ISSUED FOR BID

DATE	7-SEPTEMBER-2022
SURVEY/GPS BY	MBC/GPI
DRAWN BY	PWD
CHECKED BY	JSB
SCALE	VERT. 1"=4'

**WICKSON**  
 TRANSPORTATION & WATER RESOURCES  
 7750 Corporate Center Drive  
 Raleigh, NC 27615  
 www.wickson.com



**OUTFALLS 2 & 3 AERIAL CROSSING DETAIL AND SECTIONS**  
 PHASE V, ANNEXATION AREA 32 EAST SECTION 2  
 FAYETTEVILLE, NORTH CAROLINA

**FAYETTEVILLE PUBLIC WORKS COMMISSION**  
**WATER RESOURCES ENGINEERING**  
 P.O. Box 1081, Fayetteville, NC 28302  
 655 Old Wilmington Road, Fayetteville, NC 28301

**FWC** FAYETTEVILLE PUBLIC WORKS COMMISSION  
 WATER RESOURCES ENGINEERING  
**APPROVED FOR CONSTRUCTION**  
 Date: 07/31/2025

**CDM Smith**  
 5400 Glenwood Avenue, Suite 400  
 Raleigh, NC 27612  
 Tel: (919) 525-3500