

WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS			WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS			WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS			WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS			WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE	DESCRIPTION	W-07	REVISION DATE	DESCRIPTION	S-30	REVISION DATE	DESCRIPTION	S-31	REVISION DATE	DESCRIPTION	W-08	REVISION DATE	DESCRIPTION	W-16
07/01/04			07/01/04			07/01/04			07/01/04			07/01/04		
03/01/06			03/01/06			03/01/06			03/01/06			03/01/06		
	SAMPLING STRUCTURE DETAIL			BEDDING AND BACKFILL OUTSIDE OF PAVED AREAS			BEDDING AND BACKFILL UNDER PAVEMENT AND RIGHT-OF-WAY			WATER LINE VALVE INSTALLATION			INSTALLATION DETAIL FOR ALL FRAMES AND COVERS	
<p>NOTES:</p> <ol style="list-style-type: none"> <li>1. NOT ACCEPTABLE FOR USE IN TRAFFIC AREAS OR AREAS SUBJECT TO FLOODING.</li> <li>2. VACUUM OR EXHAUSTION TESTING SHALL BE USED. VACUUM TESTING SHALL MEET THE SAME STANDARD FOR CONCRETE MANHOLES. EXHAUSTION TESTING SHALL HAVE NO LEAKAGE WITHIN 1 HOUR.</li> <li>3. "JUMBIK" WASTEWATER ACCESS CHAMBERS MAY BE SUBSTITUTED FOR TRAFFIC BEARING BOXES. BE REQUIRED IF INSTALLED IN TRAFFIC AREAS. TESTING OF "JUMBIK" SHALL BE APPLICABLE PLUMBING CODE FOR SEWER LATERALS.</li> <li>4. 2" DIA. CONCRETE WELL CASING 3000 PSI MAY BE SUBSTITUTED FOR ULTRA-HIGH STRENGTH JOINTS IN THE CASING PIPE MUST BE BY BELL &amp; SPUR CONNECTION WITH MASTIC.</li> <li>5. INVERT SHAPING CHANNEL SHALL BE 180 DEGREES THROUGH DUCTILE MANHOLES. NO ANGLES, RADIUS, ETC ARE ALLOWED IN SAMPLE MANHOLES.</li> </ol>			<p>NOTES:</p> <ol style="list-style-type: none"> <li>1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.</li> <li>2. ALL PVC PIPE SHALL BE BEDDED IN COMPACTED VDOT #57 OR #68 STONE.</li> <li>3. IN AREAS NOT SUBJECT TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS FROM BOTTOM OF TRENCH TO 1' ABOVE THE PIPE AND THE REMAINING SHALL BE PLACED IN 10" LIFTS AND SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.</li> <li>4. ALL SEWER LINE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL. BEDDING REQUIREMENTS FOR DUCTILE SEWER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.</li> <li>5. ALL EXCAVATIONS SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS: HAZARD RECOGNITION IN TRENCHING AND SHORING."</li> </ol>			<p>NOTES:</p> <ol style="list-style-type: none"> <li>1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.</li> <li>2. ALL PVC PIPE SHALL BE BEDDED IN COMPACTED VDOT #57 OR #68 STONE.</li> <li>3. IN ROANOKE COUNTY, THE CONTRACTOR SHALL REPLACE THE OPEN CUT WITH A MINIMUM TOP COURSE OF 1.5" (MINIMUM) VDOT SM-4.5A, BASE COURSE OF 6" VDOT SM-2.5A, AND SUBBASE OF 10" VDOT 21B, OR AS REQUIRED BY VDOT. IN ROANOKE CITY, CONTRACTOR SHALL REPLACE PAVEMENT AS REQUIRED BY CITY OF ROANOKE RIGHT OF WAY EXCAVATION AND RESTORATION STANDARDS.</li> <li>4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE AS SPECIFIED BY VDOT OR APPLICABLE LOCALITY.</li> <li>5. PRIOR TO CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM VDOT AND/OR APPLICABLE LOCALITY.</li> <li>6. IN AREAS SUBJECT TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS AND SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.</li> <li>7. ALL SEWER LINE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL. BEDDING REQUIREMENTS FOR DUCTILE SEWER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.</li> <li>8. BENCH/CUT ON EACH SIDE OF PAVEMENT, CITY OF ROANOKE EQUALS 12". VDOT RIGHT-OF-WAY EQUALS 6".</li> <li>9. ALL EXCAVATIONS SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS: HAZARD RECOGNITION IN TRENCHING AND SHORING."</li> </ol>			<p>NOTES:</p> <ol style="list-style-type: none"> <li>1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.</li> <li>2. ALL PVC PIPE SHALL BE BEDDED IN COMPACTED VDOT #57 OR #68 STONE.</li> <li>3. IN ROANOKE COUNTY, THE CONTRACTOR SHALL REPLACE THE OPEN CUT WITH A MINIMUM TOP COURSE OF 1.5" (MINIMUM) VDOT SM-4.5A, BASE COURSE OF 6" VDOT SM-2.5A, AND SUBBASE OF 10" VDOT 21B, OR AS REQUIRED BY VDOT. IN ROANOKE CITY, CONTRACTOR SHALL REPLACE PAVEMENT AS REQUIRED BY CITY OF ROANOKE RIGHT OF WAY EXCAVATION AND RESTORATION STANDARDS.</li> <li>4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE AS SPECIFIED BY VDOT OR APPLICABLE LOCALITY.</li> <li>5. PRIOR TO CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM VDOT AND/OR APPLICABLE LOCALITY.</li> <li>6. IN AREAS SUBJECT TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS AND SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.</li> <li>7. BEDDING REQUIREMENTS FOR DUCTILE WATER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.</li> <li>8. BENCH/CUT ON EACH SIDE OF PAVEMENT, CITY OF ROANOKE EQUALS 12". VDOT RIGHT-OF-WAY EQUALS 6".</li> <li>9. ALL EXCAVATIONS SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS: HAZARD RECOGNITION IN TRENCHING AND SHORING."</li> </ol>			<p>NOTES:</p> <ol style="list-style-type: none"> <li>1. FOR 6" FIRE LINE, EXTERIOR VAULT DIMENSIONS SHALL BE 6' X 6'.</li> <li>2. FOR 8" FIRE LINE, EXTERIOR VAULT DIMENSIONS SHALL BE 11' X 7'.</li> <li>3. VAULT TO BE FURNISHED AND INSTALLED BY WWA AT OWNER/DEVELOPERS EXPENSE.</li> </ol>		
<p>WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS</p> <p>REVISION DATE</p> <p>07/01/04</p> <p>03/01/06</p> <p>FIRE HYDRANT ASSEMBLY</p> <p>W-18</p>			<p>WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS</p> <p>REVISION DATE</p> <p>07/01/04</p> <p>03/01/06</p> <p>TAPPING SLEEVE AND VALVE</p> <p>W-23</p>			<p>WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS</p> <p>REVISION DATE</p> <p>07/01/04</p> <p>03/01/06</p> <p>BEDDING AND BACKFILL OUTSIDE OF PAVED AREAS</p> <p>W-24</p>			<p>WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS</p> <p>REVISION DATE</p> <p>07/01/04</p> <p>03/01/06</p> <p>BEDDING AND BACKFILL UNDER PAVEMENT AND RIGHT-OF-WAY</p> <p>W-25</p>			<p>WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS</p> <p>REVISION DATE</p> <p>07/01/04</p> <p>03/01/06</p> <p>WATER VAULT</p> <p>W-26</p>		