

GENERAL NOTES

LEGEND		
DESCRIPTION	EXISTING	PROPOSED
5' OR 10' CONTOUR LINE		
1' OR 2' CONTOUR LINE		
RIGHT-OF-WAY		
SILT FENCE		
INLET PROTECTION		
EDGE OF PAVEMENT		
STORM SEWER		
STORM DRAIN		
SANITARY SEWER		
WATER MAIN		
GAS LINE		
OVERHEAD ELECTRIC		
SAW. SEWER TO BE ABANDONED		
EDGE OF STREAM		
UNDERGROUND FIBER OPTIC		
GRADE		
FENCE		
PROPERTY LINE		
SURVEY POINT		
UTILITY POLE		
LIGHT POLE		
CLEANOUT		
CATCH BASIN		
HYDRANT		
WATER METER		
WATER VALVE/CONTROL VALVE		
SANITARY MANHOLE		
STORM MANHOLE		
SIGN - SINGLE FACED		
SIGN - DOUBLE FACED		
MAIN PROPERTY LINE		
MINOR PROPERTY LINE		
LIMIT OF DEMOLITION		
PERMANENT UTILITY EASEMENT		
TEMPORARY CONSTRUCTION EASEMENT		
DWELLING OR BUILDING		
TREES, SHRUBS, BUSHES		
DETAIL CALLOUT		DETAIL IDENTIFICATION NO. SHEET NO. WHERE DETAIL IS SHOWN
DETAIL IDENTIFICATION NO.		DETAIL TITLE

NOTE: SOME FEATURES IN THE LEGEND MAY NOT HAVE BEEN USED

1. THE "OWNER" IS THE WESTERN VIRGINIA WATER AUTHORITY (AUTHORITY). THE TERMS "OWNER" AND "AUTHORITY" ARE USED INTERCHANGEABLY IN THESE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY'S ENGINEERING COORDINATOR, MARK SINK, AT 540-537-3460 AT LEAST THREE (3) DAYS PRIOR TO CONSTRUCTION.
3. A PRE-CONSTRUCTION CONFERENCE SHALL BE SCHEDULED AT LEAST ONE (1) DAY PRIOR TO ANY CONSTRUCTION.
4. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SAFETY AND FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL HEALTH AND SAFETY CODES, LAWS, REGULATIONS AND ORDINANCES INCLUDING, BUT NOT LIMITED TO THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
5. CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS PRIOR TO COMMENCING WORK AND SHALL NOTIFY OWNER IMMEDIATELY OF ANY DISCREPANCIES.
6. SEWER LATERALS ARE SHOWN IN ASSUMED LOCATIONS. CONTRACTOR SHALL COORDINATE WITH THE AUTHORITY FOR LATERING OF ALL LATERALS PRIOR TO CONSTRUCTION. CONTRACTOR TO VERIFY ACTIVE LATERALS WITH THE AUTHORITY'S ASSISTANCE. CONTRACTOR SHALL LOCATE EXISTING ACTIVE LATERALS AND REPLACE LATERAL AND CLEANOUT AT PROPERTY LINE AND CONNECT TO EXISTING PRIVATE LATERAL. LATERALS SHALL BE INSTALLED WITH MINIMUM COVER OF 3" TO A MINIMUM SLOPE OF 0.005 DIAMETER LATERALS AND 2.0% FOR 4-INCH LATERALS. ALL LATERALS SHALL BE EQUAL TO OR GREATER THAN THE DIAMETER AT THE PROPERTY LINE.
7. ALL EXISTING UTILITIES MAY OR MAY NOT BE SHOWN IN THEIR EXACT LOCATION. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES AND DETERMINE ALL INVERTS PRIOR TO CONSTRUCTION TO ALLOW FOR ADJUSTMENTS DUE TO CONFLICTS WITH OTHER UTILITIES. THE CONTRACTOR SHALL COMPLY WITH THE VIRGINIA STATE WATER WORKS REGULATION SECTION 12VAC5-590-1150, AND THE VIRGINIA STATE SEWAGE COLLECTION AND TREATMENT REGULATIONS WHERE LINES CROSS.
8. THE CONTRACTOR SHALL HAVE A VALID MISS UTILITY TICKET PRIOR TO EXCAVATION, CONTACT MISS UTILITY AT 1-800-552-7001.
9. PRIOR TO CONSTRUCTION IN THE RIGHT-OF-WAY, ALL APPLICABLE PERMITS FROM THE GOVERNING JURISDICTIONS AND/OR AGENCIES MUST BE OBTAINED AND A COPY KEPT ON THE PROJECT SITE. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES OF SUCH, PRIOR TO COMMENCING WORK.
10. CONTRACTOR SHALL OBTAIN AND PAY ALL FEES FOR REQUIRED PERMITS FROM ROANOKE COUNTY OR GOVERNING JURISDICTION WHEREVER APPLICABLE.
11. ACCESS TO PRIVATE, PUBLIC, AND COMMERCIAL BUSINESSES AFFECTED BY THE UTILITY CONSTRUCTION SHALL BE MAINTAINED AT ALL TIMES DURING THEIR RESPECTIVE NORMAL BUSINESS HOURS.
12. WORK IN THE RIGHT-OF-WAY IS TO BE PERFORMED PER ROANOKE COUNTY, VDOT, OR GOVERNING JURISDICTION EXCAVATION AND RESTORATION STANDARDS, AS APPLICABLE.
13. CONTRACTOR SHALL PROVIDE ANY SHORING REQUIRED TO PROTECT EXISTING UTILITIES DURING EXCAVATION FOR INSTALLATION OF PROPOSED STRUCTURES AND UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING DESIGN. DESIGN SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE COMMONWEALTH OF VIRGINIA. ALL ANTICIPATED COSTS FOR SHORING AND DESIGN SHALL BE INCLUDED IN THE CONTRACTOR'S BASE BID PRICE.
14. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE AUTHORITY AVAILABLE AT WWW.WESTERNVIAWATER.ORG OR BY CONTACTING THE AUTHORITY AT 540-853-5700. THE PROJECT SHALL ALSO COMPLY WITH THE GOVERNING JURISDICTION'S STANDARDS AND OTHER AGENCY STANDARDS (E.G., VDOT, DE, DCR, VDH, ETC.) WHERE APPLICABLE.
15. CONTRACTOR SHALL PROVIDE A COPY OF THE CONTRACTOR'S DESIGNATED CERTIFIED VIRGINIA RESPONSIBLE LAND DISTURBER CERTIFICATE TO THE OWNER PRIOR TO CONSTRUCTION.
16. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING ALL VEHICLES AND EQUIPMENT PRIOR TO ENTERING PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE STREETS ARE KEPT IN A CLEAN, MUD- AND DUST-FREE CONDITION AT ALL TIMES.
17. CONSTRUCTION DEBRIS SHALL BE CONTAINERIZED IN ACCORDANCE WITH THE VIRGINIA LITTER CONTROL ACT. PRIOR TO COMMENCING WORK, THE CONTRACTOR'S CERTIFIED RESPONSIBLE LAND DISTURBER SHALL OBTAIN AN EROSION AND SEDIMENT CONTROL PERMIT FROM THE LOCAL GOVERNMENT JURISDICTION AND STORMWATER MANAGEMENT PERMIT FROM DOR (IF REQUIRED). ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND SHALL BE INSTALLED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND PROPERTIES DURING CONSTRUCTION AND SHALL MAINTAIN SAFE ACCESSIBILITY TO FIRE HYDRANTS AT ALL TIMES.
18. THE CONTRACTOR SHALL NOT EXCAVATE MORE TRENCH LENGTH THAN CAN BE RESTORED WITHIN THE SAME WORK DAY. ALL TRENCHES SHALL BE BACKFILLED OR PLATED AT THE END OF EACH WORK DAY OR WHEN THE CONTRACTOR IS NOT ON SITE.
19. CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION, INCLUDING ACCESS AND SITE ROADWAYS, DITCHES, DRAINAGE STRUCTURES AND OTHER EXISTING FEATURES TO THEIR ORIGINAL CONDITION OR TO A CONDITION SATISFACTORY TO THE OWNER.
20. CONSTRUCTION CREWS MUST ALLOW FOR SOLID WASTE MANAGEMENT TO SERVICE TRASH, RECYCLING, BULK, AND BRUSH FOR THE ENTIRE PROJECT AREA.
21. SEWER PIPE MATERIAL SHALL BE PER AUTHORITY STANDARDS UNLESS OTHERWISE INDICATED ON THE PLANS.
22. PROFILES SHOW SEWER LENGTH FROM MANHOLE CENTER TO MANHOLE CENTER. HOWEVER, PAYMENT SHALL BE MADE FOR LENGTH FROM INSIDE MANHOLE TO INSIDE MANHOLE.
23. SEWER SLOPES ARE CALCULATED BASED ON SEWER LENGTH FROM MANHOLE CENTER TO MANHOLE CENTER. MANHOLE PENETRATION INVERTS AND SEWER SLOPES SHALL BE COORDINATED IN THE FIELD.
24. CONTRACTOR SHALL BE RESPONSIBLE FOR THE STAKING AND LAYOUT OF ALL PROPOSED STRUCTURES AND IMPROVEMENTS.
25. PORTIONS OF THE SANITARY SEWER TO BE REPLACED MAY PASS UNDER EXISTING STORM SEWER SYSTEMS. DURING CONSTRUCTION, CONTRACTOR SHALL PROTECT, SUPPORT, AND/OR REMOVE/REPLACE EXISTING PIPE. CONTRACTOR IS RESPONSIBLE TO PERFORM THESE TASKS ONLY DURING DRY WEATHER TO AVOID COMPROMISING OF STORM SEWER SYSTEM DURING A RAINFALL EVENT.
26. ALL DISTURBED AREAS SHALL BE RETURNED TO LIKE OR BETTER CONDITION WHETHER THEY ARE GRASSED, LANDSCAPED, GRAVELED OR OTHER. ANY DISTURBED PLANTINGS SHALL BE REPLACED BY LIKE SPECIES.
27. ANY FENCING DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE IMMEDIATELY REPLACED OR SUPPLEMENTED BY TEMPORARY FENCING TO MAINTAIN A SECURE SITE THROUGHOUT CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, FENCING SHALL BE RESTORED TO ORIGINAL CONDITIONS.
28. A MINIMUM OF 18" HORIZONTAL SEPARATION AND 10' VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN UTILITIES AT ALL PIPE CROSSINGS.
29. ANY TREES GREATER THAN 2" IN DIAMETER SHALL NOT BE REMOVED WITHOUT WRITTEN PERMISSION FROM THE AUTHORITY.
30. THE CONTRACTOR SHALL PERFORM ALL MANHOLE CONNECTIONS. THE CORING AND BOOT INSTALLATION SHALL BE INSPECTED AND APPROVED BY AN AUTHORITY CONSTRUCTION INSPECTOR PRIOR TO ACTIVATING SEWER SERVICE. THE CONTRACTOR SHALL CONTACT THE AUTHORITY'S CONSTRUCTION INSPECTOR RESPONSIBLE FOR THE PROJECT AT LEAST ONE (1) DAY PRIOR TO INITIATING THE MANHOLE CONNECTION.
31. THE CONTRACTOR SHALL SUPPLY THE AUTHORITY WITH CORRECT AS-BUILT PLANS BEFORE SUBSTANTIAL COMPLETION WILL BE GRANTED.
32. HORIZONTAL DATUM IS VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 83. VERTICAL DATUM IS NAVD 88.
33. FIELD CHANGES SHALL BE APPROVED BY THE AUTHORITY'S ENGINEERING DIVISION PRIOR TO SUCH CONSTRUCTION.
34. ALL WORK TO BE CONTAINED WITHIN THE EXISTING RIGHT OF WAY AND/OR EASEMENTS.
35. ALL EXCAVATION, INCLUDING ROCK, SHALL BE UNCLASSIFIED. NO ADDITIONAL PAYMENT WILL BE MADE FOR ROCK. PER WWW.STANDARD.SPECS, SECTION CS-6, "ALL ROCK EXCAVATION SHALL BE PAID FOR AS AN INCIDENTAL PART OF THE ITEMS ON WHICH THE WORK IS DONE".
36. ALTHOUGH SUCH WORK MAY NOT BE SPECIFICALLY SHOWN, THE CONTRACTOR SHALL FURNISH AND INSTALL ANY SUPPLEMENTAL OR MISCELLANEOUS ITEMS, APPURTENANCES AND DEVICES INCIDENTAL TO OR NECESSARY FOR A SOUND AND COMPLETELY OPERATIONAL INSTALLATION.
37. EXISTING PIPING THAT IS NOT TO BE REUSED CAN BE ABANDONED IN PLACE. ABANDONED PIPES THAT HAVE CONVEYED SEWAGE SHALL BE ABANDONED IN ACCORDANCE WITH THE VIRGINIA SOLID WASTE REGULATIONS.
38. THE PLANS AND SPECIFICATIONS SHALL GOVERN FOR THIS PROJECT; HOWEVER, IF THESE DOCUMENTS DO NOT COVER A PARTICULAR ITEM OR PORTION OF THE WORK, THE WESTERN VIRGINIA REGIONAL DESIGN AND CONSTRUCTION STANDARDS, LATEST EDITION SHALL BE FOLLOWED.
39. THE CONTRACTOR SHALL FIELD VERIFY SIZE, LOCATION, AND INVERT OF ALL LATERALS, SUBMANS, AND MAINS ENTERING MANHOLES AND PROVIDE INFORMATION AS PART OF THE SHOP DRAWINGS SUBMITTAL.
40. ALL MANHOLE COVERS SHALL BE BOLT-DOWN UNLESS OTHERWISE NOTED.
41. CONTRACTOR SHALL PROVIDE SIGNAGE NOTIFYING PARK PATRONS TO EXERCISE CAUTION DUE TO PRESENCE OF HEAVY EQUIPMENT.
42. CONTRACTOR SHALL PROVIDE GRAVEL ON ACCESS DRIVE.

ASISO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	CIP	CAST IRON PIPE	GV	GATE VALVE	PL	PROPERTY LINE	SF	SQUARE FOOT OR SQUARE FEET
ABS	ASBESTOS PIPE	CL	CLASS OR CENTERLINE	HDPE	HIGH DENSITY POLYETHYLENE PIPE	PC	POINT OF CURVATURE	SHT	SHEET
ASB	ASBESTOS	CM	CORRUGATED METAL PIPE	HORIZ	HORIZONTAL	PERM	PERMANENT UTILITY EASEMENT	SSM	SANITARY SEWER MANHOLE
ACR	ACRE	CND	CLEANOUT	HP	HIGH PRESSURE	PF	PERFORATED	SPCS	SPECIFICATIONS
ACCM	ASPHALT COATED CORRUGATED METAL	CONC	CONCRETE	HR	HAND RAIL OR HOUR	PP	PERPENDICULAR	SS	SANITARY SEWER
AFB	ABOVE FINISHED FLOOR	CSP	CORRUGATED STEEL PIPE	HT	HEIGHT	PPP	POWER POLE, POWER PANEL	STA	STATION OR STATIONARY
ALT	ALTERNATE	CTR	CENTER	HW	HEADWALL	PPM	PARTS PER MILLION	STD	STANDARD
AZD	AIRPORT SAFETY ZONE	CULV	CULVERT	HYD	HYDRAUNT	PRC	POINT OF REVERSE CURVATURE	STMH	STORM MANHOLE
APPROX	APPROXIMATE	CV	CHECK VALVE	IN	INCH(ES)	PSF	POUNDS PER SQUARE FOOT	SY	SQUARE YARD
ASPH	ASPHALT	CY	CUBIC YARD	IP(F)	IRON PIPE (FOUND)	PT	POINT PER SQUARE INCH	TAN	TANGENT
AWG	AMERICAN WIRE GAUGE	D	DRAIN	INV	INVERT	PI	POINT OR POINT OF TANGENCY	TC	TOP OF CURB
BL	BASILINE	DI	DROP INLET	JB	JUNCTION BOX	PV	POINT OF VERTICAL CURVATURE OR POLYVINYL CHLORIDE	TEL	TEMPORARY CONSTRUCTION EASEMENT
BB	BOTTOM OF BANK OR BERM	DIA	DIAMETER	LAT	LATITUDE	PVC	POINT OF VERTICAL INTERSECTION	TEL	TELEPHONE
BC	BOTTOM OF CURB	DIP	DIRECTED IRON PIPE	LB	POUND	PWT	POINT OF VERTICAL INTERSECTION	TEMP	TEMPORARY
BFE	BASINEMENT FLOOR ELEVATION	DWG	DRAWING	LF	LINEAR FOOT OR LINEAR FEET	PVT	POINT OF VERTICAL TANGENCY	TR	TOP OF FRAME
BLDG	BUILDING	E	EAST	LONG	LONGITUDE	PWR	POWER	TRANS	TRANSFORMER OR TRANSVERSE
BM	BENCHMARK	EA	EACH	LP	LAMP POST, LIGHT POLE, LIGHT PANEL	R	RADIUS	TV	TELEVISION
BOT	BOTTOM	EXP	EXPANSION JOINT	OR	OR LOW POINT	RAD	RADIAL	TYP	TYPICAL
BSEMT	BASEMENT	ELEC	ELECTRIC	LT	LEFT	RCF	REINFORCED CONCRETE PIPE	UG, U/D	UNDERGROUND
BVC	BEGINNING OF VERTICAL CURVE	ELEV	ELEVATION	MFR	MANUFACTURER	RO	ROAD DRAIN	U(ND)G	UNDERGROUND
BW	BOTTOM OF WALL	EOP	EDGE OF PAVEMENT	MH	MANHOLE	REINF	REINFORCING	UTIL	UTILITY
C	CHORD	EX	EXISTING	MIN	MINIMUM	REOF	REQUIRED	VC	VERTICAL CURVE
CAP	CORRUGATED ALUMINUM PIPE	FOUND	FOUNDATION	MISC	MISCELLANEOUS	ROW	RIGHT-OF-WAY	WCP	WETTED CLAY PIPE
CB	CATCH BASIN	FNE	FINISHED FLOOR ELEVATION	MJ	MECHANICAL JOINT	RR	RAILROAD	VERT	VERTICAL
CF	CUBIC FOOT OR CUBIC FEET	FT	FOOT OR FEET	MON	MONUMENT	RT	RIGHT	VOL	VOLUME
CFM	CUBIC FEET PER MINUTE	GAL	GALLON	N	NORTH	RW	RETAINING WALL	W	WEST
CI	CURB INLET	GPM	GALLONS PER MINUTE	NC	NOT IN CONTRACT	S	SOUTH	WTH	WITH
		GRD	GROUND OR GRADE	O/S	OFFSET	SOH	SCHEDULE	W/O	WITHOUT

