

ABAN	ABANDON, ABANDONED
ABUT	ABUTMENT
ADJ	ADJACENT
AGGR	AGGREGATE
ANC	ANCHOR
APPROX	APPROXIMATE
BIT	BITUMINOUS
BJ	BELL JOINT
BL	BASE LINE
BEG	BEGIN, BEGINNING
BLDG	BUILDING
BM	BENCH MARK
BSP	BLACK STEEL PIPE
BF	BUTTERFLY VALVE
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
C & G	CURB AND GUTTER
CI	CAST IRON
	CENTER LINE
CONST	CONSTRUCTION
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNITS
CND	CONDUIT
CO	CLEANOUT
COMB	COMBINATION
CONC	CONCRETE (PORTLAND CEMENT)
CONN	CONNECT, CONNECTION
CONTR	CONTRACTOR
CONV	CONVEYOR
COR	CORNER
CR STONE	CRUSHED STONE
	CENTER
CULV	CULVERT
D	DEPTH OR DEGREE OF CURVE
DE	DRAINAGE EASEMENT
DI	DROP INLET, DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DMH	DROP MANHOLE
DN	DOWN
DTL	DETAIL
DWL D/W	DRIVEWAY
DWL	DWELLING
DWG	DRAWING
E	EACH
E.B.L.	EASTBOUND LANE
EL. ELEV	ELEVATION
ELEC	ELECTRICAL
ENGR	ENGINEER
ENTR	ENTRANCE
EOL	END OF LINE
EP	EDGE OF PAVEMENT
EQ	EQUAL
EQPT	EQUIPMENT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EW	EACH WAY, ENDWALL
EXIST	EXISTING
FES	FLARED END SECTION
FF	FINISH FLOOR
FF	FINISHED FLOOR ELEVATION
FIG	FIGURE
FL	FLOOR
FLEX	FLEXIBLE
FLG	FLANGE
FT	FOOT
FTG	FOOTING
FUT	FUTURE
GAL	GALLON
GALV	GALVANIZED
GAR	GARAGE
GND	GROUND
GR	GRAVEL
GOVT	GOVERNMENT
GPM	GALLONS PER MINUTE
GRTG	GRATING
GV	GATE VALVE
H&T	HUB AND TAC
HORIZ	HORIZONTAL
HPT	HIGH POINT
HYD	HYDRANT
ID	INSIDE DIAMETER
IN	INCH
INSUL	INSULATION
INV	INVERT
IP	IRON PIN (FOUND OR SET NOTED)
L	LENGTH, LONG
LF	LINEAL FOOT
LONG	LONG
LP	LIGHT POLE
LR	LONG RADIUS
LT	LEFT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MAIL BOX
MBL	MINIMUM BUILDING LINE

EXISTING	NEW	DESCRIPTION
		BUILDING WITH PORCH OR STOOP
		FOUNDATION ONLY
		CONTOUR, CONTOUR WITH ELEVATION
		SPOT ELEVATION
		CONCRETE CURB
		CONCRETE CURB & GUTTER
		CONCRETE WALK OR SLAB
		PAVEMENT
		UNPAVED OR GRAVEL ROAD
		CONSTRUCTION EASEMENT
		PERMANENT EASEMENT
		TREE LINE
		TREE OR SHRUB
		FENCE (EXISTING OR PROPOSED NOTED)
		CENTERLINE CREEK, SWALE, DITCH
		PROPERTY LINE
		CENTERLINE OR BASELINE
		FIELD SURVEY TRAVERSE POINT
		P.C. OR P.T.
		GEOLOGIC BORE HOLE
		BENCH MARK (EXISTING OR SET NOTED)
		STORM DRAIN AND ENDWALL
		SANITARY SEWER
		FORCE MAIN
		GAS MAIN OR SERVICE LINE
		WATER MAIN OR SERVICE LINE
		OVERHEAD ELECTRICAL LINE
		OVERHEAD TELEPHONE LINE
		UNDERGROUND ELECTRICAL LINE
		UNDERGROUND TELEPHONE LINE
		PIPE FITTINGS
		FIRE HYDRANT
		GATE VALVE
		CLEANOUT
		MANHOLE
		DROP INLET (CURB AND GRATING TYPES)
		WM - WATER METER
		DWM - DOUBLE WATER METER
		TELEPHONE POLE, GUY AND ANCHOR
		POWER POLE, GUY AND ANCHOR
		LIGHT POLE
		TELEPHONE PEDESTAL
		BURIED TELEPHONE VAULT
		PAVED DITCH
		STORM PIPE (SIZE / TYPE NOTED)
		CULVERT WITH FLARED END SECTION
		AIR RELEASE VALVE / VAULT ASSEMBLY
		BLOW OFF VALVE / VAULT ASSEMBLY
		STEEL ENCASEMENT
		CONCRETE ENCASEMENT
		ABANDON OR REMOVE
		LIMITS OF CONSTRUCTION

THE LOCATION OF EXISTING UTILITIES, INCLUDING UNDERGROUND UTILITIES, IS INDICATED ON THE DRAWINGS IN SO FAR AS THEIR EXISTENCE AND LOCATION WERE KNOWN AT THE TIME OF PREPARATION OF THESE DRAWINGS, HOWEVER, NOTHING IN THESE CONTRACT DOCUMENTS SHALL BE CONSTRUED AS A GUARANTEE THAT SUCH UTILITIES ARE IN THE LOCATION INDICATED OR THAT THEY ACTUALLY EXIST OR THAT OTHER UTILITIES ARE NOT WITHIN THE AREA OF OPERATIONS. THE CONTRACTOR SHALL MAKE ALL NECESSARY INVESTIGATIONS TO DETERMINE THE EXISTENCE AND LOCATIONS OF SUCH UTILITIES. THE CONTRACTOR SHALL PAY FOR ANY DAMAGE TO AND FOR MAINTENANCE AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES.

EXISTING WATER LINE LOCATIONS BOTH HORIZONTAL AND VERTICAL ARE APPROXIMATE. THE LOCATION IS NOT THE RESULT OF A FIELD SURVEY.


THE CONTRACTOR IS DIRECTED TO DIG AND LOCATE ALL UTILITIES IN ADVANCE OF PIPELAYING TO ALLOW FOR ADJUSTMENTS DUE TO CONFLICTS WITH EXISTING UTILITIES. SHOULD A CONFLICT ARISE THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY.

THE CONTRACTOR IS REQUIRED TO NOTIFY "MISS UTILITY" AT 1-800-552-7001 AT LEAST TWO, BUT NOT MORE THAN TEN, WORKING DAYS IN ADVANCE OF CONSTRUCTION.

1. All new connections to existing sanitary sewer shall be made by the Western Virginia Water Authority.
2. Contractor shall seed and maintain all disturbed areas not covered by walks or pavement immediately upon completion of final grading
3. Contractor shall dig and locate all utilities in advance of the construction to allow for adjustments due to conflicts with utilities. All sanitary sewer and storm drain invert elevations shall be verified prior to construction. Any conflict shall be resolved prior to construction of the sewer line
4. Nothing in these contract documents shall be construed as a guarantee that such utilities are in the location indicated or that they actually exist or that other utilities are not within the area. The contractor shall make all necessary investigations to determine the existence and locations of such utilities.
5. The contractor shall protect and maintain all existing utilities and structures and shall be responsible for paying and/or repairing to owner's specifications for any damage.
6. The sanitary sewer line is sewer line is prone to surcharge during heavy rains. Contractor shall be prepared to reconnect the sewer line or pump around five (5) times the normal flow.
7. Contractor shall keep a set of plans for mark-ups during the construction phase to provide correct record drawings to the Western Virginia Water Authority (WVWA).
8. All construction materials and methods shall conform to the WVWA Standards.
9. Contractor shall make provisions to provide access to all properties during construction and shall maintain safe accessibility to fire hydrants at all times.
10. Streets closed to thru traffic. All home owners shall have access to their houses at all times.
11. Sidewalk and curb and gutter shall be cut to the nearest joint.
12. Traffic control shall be provided in accordance with the most recent MUTCD Manual and the VDOT Work Area Protection Manual. Notify the City Traffic Engineer, Mark Jamison (540) 853-2686 two weeks in advance of construction.
13. A Street Opening Permit shall be obtained from Roanoke City Engineering Department. Contact Jason Thomas at 853-2584.
14. A Lane Closure Permit must be obtained from Traffic Engineering. Contact Carrier Walter at 853-5473.
15. All pavement repairs shall be in accordance with City Of Roanoke Right of Way Excavation and Restoration Standards.
16. Contractor shall construct all manholes located within the roadway so that they are flush with the pavement.
17. Unprepared roadways opened to traffic shall have compacted aggregate material 21A or 21B flush with the adjacent roadway surface.
18. Contractor shall not excavate more trench length than can be worked within the same work day. In addition to the a/cfill requirements of the WVWA Standards, all trenches shall be backfilled or plated at the end of each work day. No trench shall remain open over night or when contractor is not on site

 **P.C.**

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Engineering
Architecture
Surveying
Landscape Design

FOREST HILL AVENUE
SANITARY SEWER IMPROVMENTS
CITY OF ROANOKE, VIRGINIA

NO.	DATE	DESCRIPTION	BY

**ABBREVIATIONS, LEGEND,
GENERAL NOTES.**

COMMONWEALTH OF VIRGINIA
 RICHARD C. WHITE
 NO. 020021
 2-14-05
 PROFESSIONAL ENGINEER

Designed By	CHW
Drawn By	CHW
Checked By	RCW
Approved By	RCW
Submitted By	RCW
Drawing	ABBV
Date	10-28-04
Scale	NONE
Commission No.	2938