

# ABBREVIATIONS

ABAN	ABANDON OR ABANDONED	MECH	MECHANICAL
ABUT	ABUTMENT	MFR	MANUFACTURER
ADJ	ADJACENT	MH	MANHOLE, MOUNTING HEIGHT
AGGR	AGGREGATE	MIN	MINIMUM
AHR	ANCHOR	MJ	MECHANICAL JOINT
ANC	ANCHOR	MON	MONUMENT
APPROX	APPROXIMATE	MTL	METAL
BIT	BITUMINOUS	N & C	NAIL AND CAP
BJ	BELL JOINT	NIC	NOT IN CONTRACT
BL	BASE LINE	NO	NUMBER
BEG	BEGIN OR BEGINNING	NPW	NON POTABLE WATER
BLDG	BUILDING	NTS	NOT TO SCALE
BM	BENCH MARK, BEAM	OC	ON CENTERS
BSP	BLACK STEEL PIPE	OD	OUTSIDE DIAMETER
BV	BUTTERFLY VALVE	PC	POINT OF CURVE
C & G	CURB AND GUTTER	PCC	POINT OF COMPOUND CURVE
CI	CAST IRON	PER	PERIMETER
CL	CENTER LINE	PERF	PERFORATED
CONST	CONSTRUCTION	PERP	PERPENDICULAR
CMP	CORRUGATED METAL PIPE	PI	POINT OF INTERSECTION
CMU	CONCRETE MASONRY UNITS	PL	PLATE, PROPERTY LINE
CND	CONDUIT	POL	POINT ON LINE
CO	CLEANOUT	PT	POINT OF TANGENCY
COMB	COMBINATION	POT	POINT ON TANGENT
CONC	CONCRETE (PORTLAND CEMENT)	PRC	POINT OF REVERSE CURVE
CONN	CONNECT, CONNECTION	PSI	POUNDS PER SQUARE INCH
CONTR	CONTRACTOR	PT	POINT OF TANGENT
CONV	CONVEYOR	PVC	POLYVINYL CHLORIDE
OR STONE	CRUSHED STONE	PVI	POINT OF VERTICAL INTERSECTION
CTR	CENTER	PVMT	PAVEMENT
CULV	CULVERT	R	RADIUS, RISER
D	DEPTH OR DEGREE OF CURVE	RR	RAILROAD
DI	DROP INLET, DUCTILE IRON	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	RD	ROAD
DM	DIMENSION	RDCR	REDUCER
DISC	DISCONNECT	REINF	REINFORCE, REINFORCEMENT
DMH	DROP MANHOLE	REF	REFERENCE
DN	DOWN	REL	RELOCATED
DTL	DETAIL	REQD	REQUIRED
DWL	DWELLING	REV	REVISION
DWG	DRAWING	RTE	ROUTE
EA	EACH	RT	RIGHT
E.B.L.	EASTBOUND LANE	R/W	RIGHT OF WAY
EL. ELEV	ELEVATION	S	SANITARY SEWER, SOUTH, STORY, SWITCH
ELEC	ELECTRICAL	SAN	SANITARY
ENGR	ENGINEER	SD	STORM DRAIN
ENTR	ENTRANCE	SECT	SECTION
EOL	END OF LINE	SER	SERVICE
EP	EDGE OF PAVEMENT	SH	SHEET
EQ	EQUAL	SPEC	SPECIFICATION
EQPT	EQUIPMENT	SPECS	SPECIFICATIONS
EW	EACH WAY, ENDWALL	SS	SQUARE
EXIST	EXISTING	SSTL	STAINLESS STEEL
FES	FLARED END SECTION	STR	STREET
FF	FINISH FLOOR	STA	STATION
FFE	FINISHED FLOOR ELEVATION	STD	STANDARD
FIG	FIGURE	STL	STEEL
FL	FLOOR	STRUCT	STRUCTURAL
FLEX	FLEXIBLE	SUR	SURVEY
FLG	FLANGE	T & B	TOP AND BOTTOM
FT	FOOT	TDC	TURNED DOWN CURB
FTG	FOOTING	TELE	TELEPHONE
FUT	FUTURE	TEMP	TEMPORARY
GAL	GALLON	THK	THICK
GALV	GALVANIZED	TRTD	TREATED
GAR	GARAGE	TV	TELEVISION
GND	GROUND	TW	TOP OF WALL
GR	GRAVEL	TYP	TYPICAL
GOVT	GOVERNMENT	UG	UNDERGROUND
GPM	GALLONS PER MINUTE	UON	UNLESS OTHERWISE NOTED
GRTG	GRATING	UNITED STATES COAST AND	GEODETIC SURVEY
GV	GATE VALVE	U.S.C.&G.S.	
HB	HOSE BIBB	V. VAL	VALVE, VENT
HOR, HORIZ	HORIZONTAL	VC	VERTICAL CURVE
HPT	HIGH POINT	VERT	VERTICAL
HYD	HYDRANT	VOL	VOLUME
ID	INSIDE DIAMETER	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
IN	INCH	V.S.D.	VERTICAL SIGHT DISTANCE
INSUL	INSULATION	W.B.L.	WESTBOUND LANE
INV	INVERT	W	WIDE FLANGE, WIDE, WASTE, WATER
IP	IRON PIN	W/	WITH
L	LENGTH, LONG	WL	WATER LINE
LF	LINEAL FOOT	W/O	WITHOUT
LG	LONG	WS	WATER SURFACE
LP	LIGHT POLE	WT	WATERTIGHT, WEIGHT
LR	LONG RADIUS	WVDH	WEST VIRGINIA DEPARTMENT OF HIGHWAYS
LT	LEFT	COR	CORNER
MAS	MASONRY	DW, D/W	DRIVEWAY
MATL	MATERIAL	PP	POWER POLE
MAX	MAXIMUM	TP	TELEPHONE POLE
MB	MAIL BOX	S/W	SIDEWALK

# LEGEND / SYMBOLS

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
		LIMIT OF WORK LINE
		FIELD SURVEY TRAVERSE POINT
		P.O. OR P.T.
		GEOLOGIC BORE HOLE
		STORM DRAIN AND ENDWALL
		SANITARY SEWER
		FORCE MAIN
		GAS MAIN OR SERVICE LINE
		WATER MAIN OR SERVICE LINE
		OVERHEAD ELECTRICAL LINE
		UNDERGROUND TELEPHONE LINE
		UNDERGROUND ELECTRICAL LINE
		PIPE FITTINGS
		FIRE HYDRANT
		GATE VALVE
		CLEANOUT
		MANHOLE
		DROP INLET (CURB AND GRATE 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

# GENERAL NOTES

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 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.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT EROSION AND SEDIMENTATION FROM THE PROJECT SITE DOES NOT OCCUR. ALL EROSION CONTROL MEASURES SHOWN SHALL BE CONSIDERED THE MINIMUM AS DESCRIBED IN THE VIRGINIA EROSION CONTROL HANDBOOK.

ALL EXISTING WATERLINE SERVICE CONNECTIONS WHETHER SHOWN OR NOT SHALL BE CONNECTED TO THE NEW WATER AFTER THE NEW WATERLINE HAS BEEN PRESSURIZED AND DECHLORINATED.

TRAFFIC BARRICADES SHALL BE ERECTED DURING EXCAVATION AND INSTALLATION OF WATERLINES. VEHICLE TRAFFIC SHALL BE LIMITED TO THE CONTRACTOR, INSPECTOR, AND PERSONNEL NECESSARY TO COMPLETE THE WORK.

THE LOCATION OF THE SANITARY SEWER SERVICE CONNECTIONS AS SHOWN ON THESE CONSTRUCTION PLANS ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE AND VERIFY EXACT LOCATION. SOME SERVICE CONNECTIONS MAY NOT BE SHOWN.

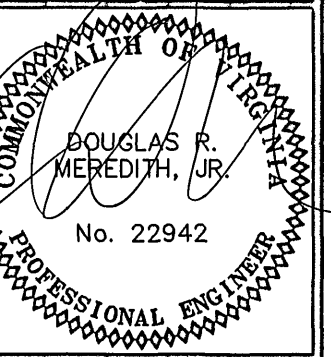
ALL CONSTRUCTION SHALL ADHERE TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION VIRGINIA WORK AREA PROTECTION MANUAL, LATEST EDITION.

**LMWP.C.**  
ENGINEERING-ARCHITECTURE-SURVEYING

102 ALBEMARLE AVE., S.E.  
ROANOKE, VIRGINIA 24013

FRANKLIN ROAD WATER MAIN  
REPLACEMENT PROJECT  
CITY OF ROANOKE, VIRGINIA

NO.	DATE	DESCRIPTION	BY



Designed By	DME
Drawn By	DME/JDC
Checked By	RCW
Approved By	DRM
Submitted By	DRM
Drawing	1497ABBR.DWG
Date	4/2/98
Scale	NONE
Commission No.	1497

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RECORD DRAWINGS 5/27/99

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