



UTILITY SEPARATION NOTES

APPLICABLE NOTES FROM THE CURRENT IN-PLACE REQUIREMENTS FOR DEPARTMENT OF VETERANS AFFAIRS FACILITIES: "SITE DEVELOPMENT DESIGN MANUAL - FEBRUARY 2013"

5.2 GENERAL UTILITY DESIGN REQUIREMENTS

5.2.1 CLEARANCES AND CROSSINGS

5.2.1.1 MINIMUM COVER FOR UNDERGROUND UTILITIES

5.2.1.2 MINIMUM DEPTH OF COVER

5.2.1.3 UTILITIES DISTRIBUTION TYPE

5.2.1.4 TRENCHES

5.2.2 HORIZONTAL CLEARANCE

5.2.2.1 WATER AND SANITARY SEWER

5.2.2.2 WATER AND CHILLED WATER

5.2.2.3 WATER AND STORM SEWER

5.2.2.4 DUCT BANKS AND PIPED UTILITIES

5.2.3 VERTICAL CLEARANCE

5.2.3.1 AT CROSSINGS OF POTABLE WATER MAINS AND SANITARY SEWERS, STORM SEWERS, RECLAIMED/REUSE MAINS, OR CHILLED WATER MAINS

5.2.3.2 AT CROSSINGS OF POTABLE WATER MAINS AND SANITARY SEWERS, STORM SEWERS, RECLAIMED/REUSE MAINS, OR CHILLED WATER MAINS

5.2.3.3 AT CROSSINGS OF POTABLE WATER MAINS AND SANITARY SEWERS, STORM SEWERS, RECLAIMED/REUSE MAINS, OR CHILLED WATER MAINS

LEGEND

	EXISTING	NEW
CONCRETE - STANDARD BROOM FINISH		
CONCRETE - STAINED BROOM FINISH		
STRUCTURAL DESIGN CONCRETE		
LIMITS OF CONSTRUCTION		
SIDEWALK		
8" HIGH CONSTRUCTION FENCE		
DECORATIVE COVERED FENCE		
WATER LINE		
TELECOMMUNICATIONS		
SANITARY SEWER LINE		
STORM DRAIN LINE		
UNDERGROUND ELECTRICAL LINE		
UNDERGROUND GAS LINE		
SANITARY SEWER MANHOLE		
STORM DRAIN MANHOLE		
SEWER/STORM PVC CLEAN-OUT		
STORM DRAIN INLET		
WATER VALVE		
UTILITY LINE CAP		
FIRE HYDRANT		
FIRE DEPARTMENT CONNECTION		
STREETLIGHT		
ELECTRICAL MANHOLE		
POST INDICATOR VALVE		
TELECOMMUNICATIONS MANHOLE		
SIDEWALK SCOPPER		
BOLLARD LIGHT - SEE SHEET LP201 FOR ADDITIONAL INFORMATION		
FLOOD LIGHT - SEE SHEET LP201 FOR ADDITIONAL INFORMATION		
WALL LIGHT - SEE SHEET LP201 FOR ADDITIONAL INFORMATION		

CONSTRUCTION NOTES LEGEND

(1)	CONSTRUCT CONCRETE ELECTRICAL DUCT BANK - SEE DETAIL E, SHEET E-501
(2)	CONSTRUCT CONCRETE COMMUNICATION DUCT BANK - SEE DETAIL E, SHEET E-501
(3)	CONSTRUCT ELECTRICAL/TELECOM MANHOLE - SEE DETAIL C5, SHEET C502
(4)	CONSTRUCT COMMUNICATION PULLBOX - SEE DETAIL B3, SHEET C502
(5)	CONSTRUCT 6" ELBOW W/ 6" PVC REDUCER AND CAP FOR IRR CONNECTION - SEE DETAIL F1, SHEET C505
(6)	CONSTRUCT 6" PVC SANITARY SEWER LATERAL - SEE DETAIL B3, SHEET C501
(7)	CONSTRUCT 6" SANITARY SEWER W/ CONNECTION TO EXISTING DIP SEWER MAIN
(8)	W/ FERRON 6" WYE TAP SADDLE TSW-6 OR APPROVED EQUIV. - SEE DETAIL C3, SHEET C504
(9)	CONSTRUCT 8" PVC STORM DRAIN PIPE - SEE DETAIL B3, SHEET C501
(10)	CONSTRUCT 12" DIAMETER, 4" THICK CONCRETE COLLAR AROUND STAND PIPE AT FINISH GRADE
(11)	CONSTRUCT 3" TYPE "K" COPPER WATER SERVICE LATERAL - SEE DETAIL C8, SHEET C502
(12)	CONSTRUCT DOMESTIC WATER SERVICE CONNECTION - SEE DETAIL C8, SHEET C502
(13)	CONSTRUCT FIRE HYDRANT CONNECTION - SEE DETAIL F1, SHEET C502
(14)	CONSTRUCT FIRE DEPARTMENT CONNECTION - SEE SHEET F510 FOR ADDITIONAL INFORMATION
(15)	CONSTRUCT POST INDICATOR VALVE - SEE DETAIL F6, SHEET C502
(16)	CONSTRUCT 6" DUCTILE IRON FIRE CONNECTION AND 6" DUCTILE IRON FIRE LINE
(17)	CONSTRUCT 48" STORM DRAIN MANHOLE - SEE DETAIL C1, SHEET C504
(18)	CONSTRUCT 6" PVC SANITARY OR 8" PVC STORM DRAIN CLEAN-OUT - SEE DETAIL C3, SHEET C504
(19)	CONSTRUCT 18"x18" CATCH BASIN - SEE DETAIL B3, SHEET C504
(20)	CONSTRUCT 100W STREET LIGHT - SEE DETAIL B5, SHEET C502
(21)	CONSTRUCT 2" 3/4" PVC ELECTRICAL CONDUIT - SEE DETAIL B3, SHEET C501
(22)	CONSTRUCT 3/4" PVC ELECTRICAL CONDUIT - SEE DETAIL B3, SHEET C501
(23)	FREE STANDING ELECTRICAL/TELECOMMUNICATIONS CABINET ON CONCRETE PAD - SEE SHEET E5100
(24)	CONSTRUCT 6" PVC STORM DRAIN PIPE UNDER SIDEWALK - SEE DETAIL C8, SHEET C504
(25)	CONNECT S.D. PIPE TO EXISTING STORM DRAIN MANHOLE - SEE DETAIL C1, SHEET C501
(26)	CONSTRUCT 1" PVC ELECTRICAL CONDUIT - SEE DETAIL B3, SHEET C501
(27)	CONNECT NEW CONCRETE ELECTRICAL / TELECOM DUCT TO EXISTING CONC. DUCT - SEE DETAIL F5, SHEET C505
(28)	CONSTRUCT NEW CONDUITS WITH EXISTING CONCRETE ELECTRICAL DUCT - SEE SHEET E5100A
(29)	CONSTRUCT NEW LIGHTED BOLLARD - SEE SHEET L201 FOR ADDITIONAL INFORMATION
(30)	CONSTRUCT NEW PLANTER BOLLARDS AND DECORATIVE BOLLARDS - SEE SHEETS LP101 AND LP301

CIVIL SHEET ABBREVIATIONS

ABBREV	DESCRIPTION	ABBREV	DESCRIPTION	ABBREV	DESCRIPTION
ABC	AGGREGATE BASE COURSE	FF	FACE TO FACE	SD	STORM DRAIN
AC	ASPHALT CONCRETE	FF EL	FINISH FLOOR ELEVATION	SDM	STORM DRAIN MANHOLE
AD	ASPHALTIC CONCRETE	FG	FINISH GRADE	SECT	SECTION
ADP	ASPHALTIC PORTLAND CEMENT CONCRETE	FI	FIRE HYDRANT	SF	SQUARE FOOT (FEET)
ADP	ASPHALTIC PORTLAND CEMENT CONCRETE	FL	FLOW LINE	SHDR	SHOULDER
AGG	AGGREGATE	FM	FACE OF MANHOLE	SHM	STREAM MANHOLE
APPROX	APPROXIMATE	FOC	FACE OF CURB	SP EL	SPOT ELEVATION
ASPH	ASPHALT	FT	FEET OR FOOT	SPEC	SPECIFICATION
ASBY	ASSEMBLY	FTG	FOOTING	SQ YD	SQUARE YARD
AVE	AVENUE	HC	HANDICAP	SS	SANITARY SEWER
BACK	BACK OF CURB	HCP	HANDICAPPED	SSM	SANITARY SEWER MANHOLE
BENT	BENT	HPE	HIGH DENSITY POLYETHYLENE	ST	STREET
BITUM	BITUMINOUS	HRGL	HANDRAIL	STL	STREETLIGHT
BLDG	BUILDING	HORIZ	HORIZONTAL	STA	STATION
BLVD	BOULEVARD	HTM	HORIZONTAL	STD	STANDARD
BM	BENCHMARK	ID	INSIDE DIAMETER OR INSIDE DIMENSION	STM	STREAM
BRG	BEARING	INCO	INFORMATION	STW	STREET
CB	CATCH BASIN	INVT	INVERT	SW	SIDEWALK
CIP	CONCRETE IN PLACE	INVT EL	INVERT ELEVATION	SWR	SEWER
CL	CLASS	INVT SYMB	INVERT SYMBOL	SWM	SEWER MANHOLE
CL	CLASS	LAT	LATITUDE	TAN	TANGENT
CL	CLASS	LF	LINEAR FEET (FOOT)	TC	TOP OF CURB
CL	CLASS	LOC	LOCATION	TD	TRENCH DRAIN
CL	CLASS	LP	LOW POINT	TE	TOP ELEVATION
CMU	CONCRETE MASONRY UNIT	LS	LINEAR FEET	TH	THICKNESS
CO	SEWER CLEAN OUT	LOC	LOCATION	THU	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE	LP	LOW POINT	THW	THROUGH
CO	CONCRETE	LS	LINEAR FEET	THW	THROUGH
CO	CONCRETE	LOC	LOCATION	THW	THROUGH
CO	CONCRETE				