

Figure 180.2

Utility Vertical Depth /Encasement Requirements on MoDOT R/W				
Utility	Size	Depths		Minimum Required Encasement Material
		Parallel	Crossing	
cable tv (coaxial non-fiber)	N/A	24"	30"	Duct (enclosed tubular casing or raceway)
electric	N/A	30"	30"	Duct (enclosed tubular casing or raceway)
copper cable	N/A	24"	30"	Duct (enclosed tubular casing or raceway)
fiber optic cable	N/A	30"	42"	smooth wall, welded steel pipe
fiber optic cable	N/A	30"	72"	polyethylene (PE) plastic and traceable
natural gas pipeline of (PE) plastic	> 6"	30"	30"	smooth wall, welded steel pipe
natural gas pipeline of (PE) plastic	> 6"	30"	72"	smooth wall, welded steel pipe
natural gas pipeline of (PE) plastic	6"	30"	72"	none, traceable
sewer	N/A	30"	30"	None ¹ otherwise smooth wall, welded steel pipe
water	2"	42"	42"	none, if copper, Type K
water	> 2"	42"	42"	smooth wall, welded steel pipe
welded steel pipelines	N/A	30"	30"	None ²
<p>¹Material made of vitrified clay, reinforced concrete, or cast iron, except when installation procedures would produce voids in the roadbed, heavy fills or installations under pressure.</p> <p>²Carrying gaseous or liquid petroleum products that are cathodically protected against corrosion and triple coated in accordance with accepted pipeline construction standards.</p> <p>Conduits permitted for encasement shall be new material or equivalent and shall conform to the requirements of the latest revision of the MHTC Standard Specifications for:</p> <ul style="list-style-type: none"> reinforced concrete pipe culvert vitrified clay culvert pipe cast iron or ductile iron pipe corrugated metal culvert pipe only where design practices would permit its use as a crossroad culvert corrugated metal sectional plate culvert pipe <p>Smooth wall, welded steel pipe with a minimum wall thickness will be permitted as follows:</p>				

Casing Diameter (Inches)	Minimum Wall Thickness
less than 6	0.188 (preferred)
6, 8, 10, 12, 14, 16	0.188
18, 20, 22	0.250
24, 26	0.281
28, 30, 32, 34	0.312
36, 38, 40, 48	0.344