

City of Manassas

<b>Concrete Items</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
VDOT Std. CG-2	0	L.F.	\$33.00	\$
VDOT Std. CG-3	0	L.F.	\$33.00	\$
VDOT Std. CG-6 / CG-6R	0	L.F.	\$42.00	\$
VDOT Std. CG-7	0	L.F.	\$33.00	\$
VDOT Std. MS-1	0	L.F.	\$89.00	\$
VDOT Std. MS-1A	0	L.F.	\$103.00	\$
VDOT Std. Sidewalk (4' Wide)	0	L.F.	\$44.00	\$
VDOT Std. Sidewalk (5' Wide)	0	L.F.	\$51.00	\$
Misc. Concrete	0	C.Y.	\$720.00	\$
VDOT Std. CG-9 Entrance (30' Wide)	0	EA.	\$6,000.00	\$
VDOT Std. CG-10 Entrance (30' Wide)	0	EA.	\$5,000.00	\$
VDOT Std. CG-11 Entrance	0	EA.	\$4,000.00	\$
VDOT Std. CG-12 Ramp	0	EA.	\$5,000.00	\$
VDOT Std. Retaining Wall	0	C.Y.	\$865.00	\$
City Std. R-7 Commercial Entrance (30')	0	EA.	\$7,200.00	\$
City Std. R-7 Commercial Entrance (40')	0	EA.	\$10,800.00	\$
City Std. R-8 Commercial Entrance (30')	0	EA.	\$6,000.00	\$

City Std. R-8 Commercial Entrance (40')	0	EA.	\$8,400.00	\$
City Std. R-8 Commercial Entrance (50')	0	EA.	\$10,800.00	\$
<b>Concrete Items Subtotal</b>				<b>\$</b>

<b>Storm Sewer Structures</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
VDOT Std. EW-1 (15")	0	EA.	\$2,325.00	\$
VDOT Std. EW-1 (18")	0	EA.	\$2,350.00	\$
VDOT Std. EW-1 (21")	0	EA.	\$2,375.00	\$
VDOT Std. EW-1 (24")	0	EA.	\$2,400.00	\$
VDOT Std. EW-1 (27")	0	EA.	\$2,500.00	\$
VDOT Std. EW-1 (30")	0	EA.	\$2,600.00	\$
VDOT Std. EW-1 (33")	0	EA.	\$2,700.00	\$
VDOT Std. EW-1 (36")	0	EA.	\$2,800.00	\$
VDOT Std. EW-1 (42")	0	EA.	\$4,800.00	\$
VDOT Std. EW-1 (48")	0	EA.	\$5,040.00	\$
VDOT Std. EW-1 (54")	0	EA.	\$6,000.00	\$
VDOT Std. EW-1 (60")	0	EA.	\$6,600.00	\$
VDOT Std. EW-1 (66")	0	EA.	\$7,200.00	\$
VDOT Std. EW-1 (72")	0	EA.	\$9,000.00	\$
VDOT Std. EW-2 (15")	0	EA.	\$1,625.00	\$

VDOT Std. EW-2 (18")	0	EA.	\$1,750.00	\$
VDOT Std. EW-2 (21")	0	EA.	\$2,100.00	\$
VDOT Std. EW-2 (24")	0	EA.	\$2,150.00	\$
VDOT Std. EW-2 (27")	0	EA.	\$2,600.00	\$
VDOT Std. EW-2 (30")	0	EA.	\$2,800.00	\$
VDOT Std. EW-2 (33")	0	EA.	\$2,925.00	\$
VDOT Std. EW-2 (36")	0	EA.	\$3,050.00	\$
VDOT Std. EW-2 (42")	0	EA.	\$8,500.00	\$
VDOT Std. EW-2 (48")	0	EA.	\$8,750.00	\$
VDOT Std. EW-2 (54")	0	EA.	\$9,100.00	\$
VDOT Std. EW-2 (60")	0	EA.	\$9,300.00	\$
VDOT Std. EW-2 (66")	0	EA.	\$9,500.00	\$
VDOT Std. EW-2 (72")	0	EA.	\$12,881.00	\$
VDOT Std.ES-1 (15")	0	EA.	\$1,300.00	\$
VDOT Std.ES-1 (18")	0	EA.	\$1,400.00	\$
VDOT Std.ES-1 (21")	0	EA.	\$1,500.00	\$
VDOT Std.ES-1 (24")	0	EA.	\$1,600.00	\$
VDOT Std.ES-1 (27")	0	EA.	\$1,950.00	\$
VDOT Std.ES-1 (30")	0	EA.	\$2,100.00	\$
VDOT Std.ES-1 (33")	0	EA.	\$2,300.00	\$

VDOT Std.ES-1 (36")	0	EA.	\$2,800.00	\$
VDOT Std.ES-1 (42")	0	EA.	\$7,000.00	\$
VDOT Std.ES-1 (48")	0	EA.	\$7,400.00	\$
VDOT Std.ES-1 (54")	0	EA.	\$7,800.00	\$
VDOT Std.ES-1 (60")	0	EA.	\$8,200.00	\$
VDOT Std.ES-1 (66")	0	EA.	\$8,600.00	\$
VDOT Std.ES-1 (72")	0	EA.	\$9,850.00	\$
VDOT Std.DI-1	0	EA.	\$6,900.00	\$
VDOT Std.DI-2	0	EA.	\$6,900.00	\$
VDOT Std.DI-3 (A,B,C)	0	EA.	\$7,300.00	\$
VDOT Std.DI-3 (D)	0	EA.	\$7,300.00	\$
VDOT Std.DI-3 (E)	0	EA.	\$7,300.00	\$
VDOT Std. DI-3 (F)	0	EA.	\$7,300.00	\$
VDOT Std. DI-5	0	EA.	\$7,200.00	\$
VDOT Std.DI-7	0	EA.	\$9,000.00	\$
VDOT Std.MH-1 Manhole	0	EA.	\$6,500.00	\$
VDOT Std.MH-2 Manhole	0	EA.	\$6,500.00	\$
VDOT Std. DI-9	0	EA.	\$2,500.00	\$
VDOT Std.JB-1	0	EA.	\$7,175.00	\$
<b>Storm Structure Items Subtotal</b>				<b>\$</b>

<b>Storm Sewer Pipe / Ditches</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
15" RCP	0	L.F.	\$120.00	\$
18" RCP	0	L.F.	\$150.00	\$
21" RCP	0	L.F.	\$175.00	\$
24" RCP	0	L.F.	\$200.00	\$
27" RCP	0	L.F.	\$225.00	\$
30" RCP	0	L.F.	\$250.00	\$
33" RCP	0	L.F.	\$275.00	\$
36" RCP	0	L.F.	\$300.00	\$
42" RCP	0	L.F.	\$325.00	\$
48" RCP	0	L.F.	\$350.00	\$
54" RCP	0	L.F.	\$550.00	\$
60" RCP	0	L.F.	\$600.00	\$
66" RCP	0	L.F.	\$650.00	\$
72" RCP	0	L.F.	\$675.00	\$
84" RCP	0	L.F.	\$700.00	\$
23"x 14" ERCP	0	L.F.	\$200.00	\$
30"x 19" ERCP	0	L.F.	\$200.00	\$
34"x 22" ERCP	0	L.F.	\$225.00	\$

38"x 24" ERCP	0	L.F.	\$400.00	\$
42"x 27" ERCP	0	L.F.	\$425.00	\$
45"x 29" ERCP	0	L.F.	\$450.00	\$
49"x 32" ERCP	0	L.F.	\$475.00	\$
53"x 34" ERCP	0	L.F.	\$500.00	\$
60"x 38" ERCP	0	L.F.	\$765.00	\$
68"x 43" ERCP	0	L.F.	\$916.00	\$
76"x 48" ERCP	0	L.F.	\$1,100.00	\$
83"x 53" ERCP	0	L.F.	\$1,320.00	\$
12" HDPE	0	L.F.	\$60.00	\$
15" HDPE	0	L.F.	\$100.00	\$
18" HDPE	0	L.F.	\$128.00	\$
24" HDPE	0	L.F.	\$150.00	\$
30" HDPE	0	L.F.	\$175.00	\$
36" HDPE	0	L.F.	\$195.00	\$
42" HDPE	0	L.F.	\$204.00	\$
48" HDPE	0	L.F.	\$210.00	\$
60" HDPE	0	L.F.	\$300.00	\$
VDOT Std. Box Culvert	0	C.Y.	\$900.00	\$
VDOT Std. Underdrain (Sidewalk)	0	L.F.	\$24.00	\$

VDOT Std. Underdrain (Roadway)	0	L.F.	\$21.00	\$
VDOT Std. Paved Ditch / Gutter	0	S.Y.	\$94.00	\$
VDOT Std. Rip Rap (Dry)	0	S.Y.	\$84.00	\$
VDOT Std. Rip Rap (Grouted)	0	S.Y.	\$94.00	\$
[*Pipe Includes Bedding Material (#57 Stone)	0			
Excavation and Backfill with 2' Cover]	0			
<b>Storm Pipe / Ditches Items Subtotal</b>				<b>\$</b>

<b>Stormwater Management/ BMP Facilities</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
<i>Non-Proprietary BMP (Engineer Estimate for all SWM)</i>				
Dry Retention Pond	0	EA.	By Itemized Cost	\$
Dry Extended Retention Pond	0	EA.	By Itemized Cost	\$
Wet Pond/Wetlands	0	EA.	By Itemized Cost	\$
Bioswale	0	EA.	By Itemized Cost	\$
Vegetated Grass Channel	0	EA.	By Itemized Cost	\$
Micro-Bio-Retention (Raingarden)	0	EA.	By Itemized Cost	\$
Infiltration Practices without Sand	0	EA.	By Itemized Cost	\$
Infiltration Practices with Sand	0	EA.	By Itemized Cost	\$
Filtering Practices with Sand Below Ground	0	EA.	By Itemized Cost	\$
Filtering Practices with Sand Above Ground	0	EA.	By Itemized Cost	\$

<i>Permeable Pavement Level 2 Design</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Vegetated Roof Level 1 Design</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Vegetated Roof Level 2 Design</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Soil Compost Amendment</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Rooftop Impervious Surface Disconnection</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Sheet Flow to a Vegetated Filter Strip</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Proprietary/Manufactured BMP - Manufacturer's Certified Cost Plus Construction Cost</i>				
<i>Aqua-Swirl Stormwater Treatment System</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>BaySeparator</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Continuous Defective Separator (CDS)</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Downstream Defender</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Hydroguard</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Stormceptor MAX</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Stormceptor OSR</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Stormceptor STC</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>StormPro</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Storm Water Quality Unit</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>V2B1</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>The Vortechs System</i>	0	EA.	<i>By Itemized Cost</i>	\$
<i>Aqua -Filter Stormwater Filtration System</i>	0	EA.	<i>By Itemized Cost</i>	\$



Storm Tech Isolater Row	0	EA.	By Itemized Cost	\$
Up-Flo Filter with CPZ Media	0	EA.	By Itemized Cost	\$
The Stormwater Management StormFilter w/ ZPG Media	0	EA.	By Itemized Cost	\$
BayFilter Stormwater Cartridge System	0	EA.	By Itemized Cost	\$
Filterra Bioretention Systems	0	EA.	By Itemized Cost	\$
Jellyfish Filter	0	EA.	By Itemized Cost	\$
Modular Wetland System Linear (MWS-Linear)	0	EA.	By Itemized Cost	\$
Perk Filter	0	EA.	By Itemized Cost	\$
The Stormwater Management StormFilter w/ Phosphosorb Media	0	EA.	By Itemized Cost	\$
<b>Stormwater Management/BMP Facilities Cost Estimates per Impervious Acre Treated Subtotal</b>				<b>\$</b>

<b>Water Mains / Related Items</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
Fire Hydrant Assembly	0	EA.	\$9,200.00	\$
4" DIP Water Main	0	L.F.	\$90.00	\$
6" DIP Water Main	0	L.F.	\$90.00	\$
8" DIP Water Main	0	L.F.	\$140.00	\$
12" DIP Water Main	0	L.F.	\$160.00	\$
4" WV&G Valve	0	EA.	\$1,300.00	\$
6" WV&G Valve	0	EA.	\$1,500.00	\$
8" WV&G Valve	0	EA.	\$2,500.00	\$

12" WV&G Valve	0	EA.	\$3,000.00	\$
4" Wet Tap	0	EA.	\$5,500.00	\$
6" Wet Tap	0	EA.	\$6,500.00	\$
8" Wet Tap	0	EA.	\$7,500.00	\$
12" Wet Tap	0	EA.	\$8,500.00	\$
Water Service (less than 1")	0	EA.	\$2,000.00	\$
Water Service (1")	0	EA.	\$2,400.00	\$
Water Service (1 1/2" - 2")	0	EA.	\$4,000.00	\$
Water Service (3" or larger)	0	EA.	\$0.00	\$
<b>Water Main / Related Items Subtotal</b>				<b>\$</b>

<b>Sanitary Sewer / Related Items</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
4" Sanitary Sewer (Plastic)	0	L.F.	\$50.00	\$
6" Sanitary Sewer (Plastic)	0	L.F.	\$100.00	\$
8" Sanitary Sewer (Plastic)	0	L.F.	\$125.00	\$
12" Sanitary Sewer (Plastic)	0	L.F.	\$145.00	\$
8" Ductile Iron Sanitary Sewer	0	L.F.	\$125.00	\$
12" Ductile Iron Sanitary Sewer	0	L.F.	\$185.00	\$
Core-Bore Existing Manhole	0	EA.	\$2,500.00	\$
VDOT Std. MH-1 Manhole (6' Deep)	0	EA.	\$12,000.00	\$

VDOT Std. MH-2 Manhole (6' Deep)	0	EA.	\$14,000.00	\$
Drop Connection	0	EA.	\$2,000.00	\$
<b>San.Sew./Related Items Subtotal</b>				<b>\$</b>

<b>Pavement / Paving Items</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
Bituminous Concrete Type SM-9.5	0	S.Y./inch	\$25.80	\$
Bituminous Concrete Type BM-25.0	0	S.Y./inch	\$12.00	\$
Intermediate Course Type IM-19.0A	0	S.Y./inch	\$18.00	\$
Class A Prime & Double Seal (Surface)	0	S.Y.	\$7.80	\$
Aggregate Base Type 21-A	0	S.Y./inch	\$30.00	\$
Asphalt Curb (6" High)	0	L.F.	\$25.00	\$
Asphalt Trail w/ 4" Aggr. Base	0	S.Y.	\$70.00	\$
Asphalt Milling	0	S.Y./inch	\$4.80	\$
Gravel Shoulders (4" Depth)	0	S.Y.	\$15.00	\$
Pavement Restoration	0	EA.	\$15,000.00	\$
<b>Pavement/Paving Items Subtotal</b>				<b>\$</b>

<b>Landscaping</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
Deciduous Tree (2.5" cal.)	0	EA.	\$1,000.00	\$
Evergreen Tree (6'-7')	0	EA.	\$400.00	\$
Shrub (30"-36")	0	EA.	\$100.00	\$

Seed and Mulch (Fescue)	0	/ AC	\$7,250.00	\$
Sod (Fescue)	0	S.Y.	\$9.00	\$
Landscape Timbers (P.T.)	0	L.F.	\$40.00	\$
<b>Landscaping Items Subtotal</b>				<b>\$</b>

<b>Retaining Walls</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
Timber	0	S.F.	\$40.80	\$
Crib	0	S.F.	\$52.80	\$
MSE/Geogrid	0	S.F.	\$60.00	\$
Gravity Wall	0	S.F.	\$86.40	\$
Excavation for tiebacks in walls in cut areas	0	C.Y.	\$34.80	\$
Anti-Graffiti Paint	0	S.F.	\$21.60 (Min. \$2,500)	\$

<b>Erosion &amp; Sediment Control</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
Clear and Grub	0	AC.	\$15,000.00	\$
Silt Fence	0	L.F.	\$8.00	\$
Super Silt Fence	0	L.F.	\$20.00	\$
Safety Fence	0	L.F.	\$7.00	\$
Sediment Trap	0	C.Y.	\$20.00	\$
Inlet Protection	0	EA.	\$360.00	\$
Outlet Protection	0	S.Y.	\$70.00	\$

Check Dam	0	EA.	\$450.00	\$
Diversion Berm	0	L.F.	\$12.00	\$
Construction Entrance w/ Wash Rack	0	EA.	\$4,000.00	\$
Temporary Seeding w/ Mulch	0	S.Y.	\$14.00	\$
Permanent Seeding w/ Mulch	0	S.Y.	\$1.75	\$
<b>Erosion/Sediment Items Subtotal</b>				<b>\$</b>

<b>Mobilization</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
	0	L.S.	\$0.00	\$

<b>Earthwork</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
Fill Material	0	C.Y.	\$50.00	\$
Excavation (Regular)	0	C.Y.	\$44.00	\$
Excavation (Rock)	0	C.Y.	\$125.00	\$
Material Stockpile	0	C.Y.	\$40.00	\$
<b>Earthwork Subtotal</b>				<b>\$</b>

<b>Traffic Control / Signals / Striping</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
Traffic Signal Pole Assembly	0	EA.	\$90,000.00	\$
Traffic Signal Controller and Cabinet	0	EA.	\$30,000.00	\$
Barricades / Barrels	0	EA.	\$54.00	\$
Temporary Line Painting / Striping (Type A)	0	L.F.	\$0.84	\$

<i>Permanent Line Painting / Striping (Type B)</i>	0	L.F.	\$1.50	\$
<i>Crosswalk Painting (6' Wide)</i>	0	L.F.	\$22.20	\$
<i>Stop Bar Painting (2' Wide)</i>	0	L.F.	\$13.00	\$
<i>Flow Arrow Painting</i>	0	EA.	\$180.00	\$
<i>VDOT Std. Guard Rail</i>	0	L.F.	\$55.00	\$
<i>Std. TB-1 Traffic Barricade</i>	0	EA.	\$2,000.00	\$
<i>Std. ED-1 Road Edge Delineators (Type 1)</i>	0	EA.	\$150.00	\$
<i>Std. ED-1 Road Edge Delineators (Type 2)</i>	0	EA.	\$132.00	\$
<i>Std. ED-1 Road Edge Delineators (Type 3)</i>	0	EA.	\$120.00	\$
<i>VDOT Std. Guard Rail Terminal (GR-7)</i>	0	EA.	\$4,000.00	\$
<b>Traffic Signals/Striping Subtotal</b>				\$

<b>Miscellaneous / Incidentals</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Total</b>
<i>Monument Sign</i>	0	L.S.	\$	\$
<i>Irrigation System</i>	0	L.S.	\$	\$
<i>Street Lights</i>	0	EA.	\$7,000.00	\$
<i>Parking Area Lights</i>	0	EA.	\$5,000.00	\$
<i>Std. 4' High Chain Link Fence</i>	0	L.F.	\$45.00	\$
<i>Std. 6' High Chain Link Fence</i>	0	L.F.	\$50.00	\$
<i>Std. 4' High Board on Board Fence</i>	0	L.F.	\$40.00	\$

<i>Std. 6' High Board on Board Fence</i>	<i>0</i>	<i>L.F.</i>	<i>\$60.00</i>	<i>\$</i>
<i>Street Name Signs</i>	<i>0</i>	<i>EA.</i>	<i>\$550.00</i>	<i>\$</i>
<i>Bike Rack</i>	<i>0</i>	<i>EA.</i>	<i>\$350.00</i>	<i>\$</i>
<b><i>Misc. / Incidental Items Subtotal</i></b>				<b><i>\$</i></b>

<b><i>Construction Cost Total</i></b>				<b><i>\$</i></b>
<b><i>Admin Cost (15% Construction Cost)</i></b>				<b><i>\$</i></b>
<b><i>Total Performance Bond Amount</i></b>				<b><i>\$</i></b>