

EFFECTIVE DATE: MARCH 15, 2017

COUNTY OF PRINCE WILLIAM  
DEPARTMENT OF PUBLIC WORKS  
UNIT PRICE LIST

FOR  
PERFORMANCE BONDS, LANDSCAPE ESCROWS, AND SILTATION &  
EROSION CONTROL ESCROWS

PROJECT NAME: WAWA - SUDLEY ROAD

P.W.C. FILE # SPR2018-00429504 DATE PREPARED 02/06/2019

NOTE: THIS FORM IS TO BE USED TO ESTIMATE PERFORMANCE BOND, LANDSCAPING ESCROW  
AND SOIL EROSION ESCROW PRICES POSTED WITH PRINCE WILLIAM COUNTY. THESE PRICES DO  
NOT INCLUDE ITEMS THAT ARE TO BE BONDED SEPARATELY WITH THE VIRGINIA DEPARTMENT  
OF TRANSPORTATION.

1. MOBILIZATION/DEMOBILIZATION OF CONSTRUCTION EQUIPMENT

MOBILIZATION/DEMOBILIZATION @ LUMP SUM SUB-TOTAL \$ 15,000 (MIN)

2. STORM DRAINAGE

A. STRUCTURES

QUANTITY COST  
4 DI-1 @ \$3,970 EA 15,880  
DI-4 @ 3,500 EA 14,000  
MH-1 @ 3,000 EA 3,000  
MH-2 @ 3,500 EA 3,500  
DI-7 @ 4,000 EA 4,000  
DI-12\* @ 4,000 EA 4,000  
SUB-TOTAL \$ 25,000

B. CONCRETE PIPE

QUANTITY COST  
12" @ \$40 LF 480  
15" @ 45 LF 675  
18" @ 50 LF 900  
24" @ 60 LF 1,440  
27" @ 65 LF 1,755  
30" @ 75 LF 2,250  
33" @ 110 LF 3,630  
36" @ 120 LF 4,320  
42" @ 140 LF 5,880  
48" @ 140 LF 6,720  
54" @ 200 LF 8,400  
60" @ 240 LF 10,080  
66" @ 300 LF 19,800  
72" @ 350 LF 25,200  
SUB-TOTAL \$ 100,000

C. END WALLS

QUANTITY COST  
12" @ \$900 EA 900  
15" @ 1,100 EA 1,650  
18" @ 1,300 EA 2,340  
21" @ 1,500 EA 3,150  
24" @ 1,700 EA 4,080  
27" @ 1,900 EA 5,130  
30" @ 2,100 EA 6,300  
33" @ 2,300 EA 7,590  
36" @ 2,800 EA 10,080  
42" @ 4,000 EA 16,800  
48" @ 4,200 EA 20,160  
54" @ 5,000 EA 27,000  
60" @ 5,500 EA 33,000  
66" @ 6,000 EA 39,600  
72" @ 7,500 EA 52,500  
SUB-TOTAL \$ 200,000

D. END SECTIONS (ES - 1)

QUANTITY COST  
12" @ \$550 EA 6,600  
15" @ 580 EA 8,700  
18" @ 700 EA 12,600  
24" @ 870 EA 10,440  
27" @ 900 EA 2,430  
30" @ 1,130 EA 3,390  
33" @ 1,500 EA 4,950  
36" @ 1,900 EA 6,840  
SUB-TOTAL \$ 50,000

E. CORRUGATED METAL PIPES

QUANTITY COST  
12" @ \$30 LF 360  
15" @ 35 LF 525  
18" @ 45 LF 810  
24" @ 55 LF 1,320  
30" @ 65 LF 1,950  
36" @ 90 LF 3,240  
42" @ 100 LF 4,200  
48" @ 115 LF 5,520  
54" @ 130 LF 7,020  
60" @ 150 LF 9,000  
SUB-TOTAL \$ 30,000

F. END SECTION (ES - 2)

QUANTITY COST  
15" @ \$400 EA 6,000  
18" @ 420 EA 5,040  
24" @ 480 EA 5,760  
30" @ 650 EA 1,950  
36" @ 1,100 EA 3,960  
42" @ 1,400 EA 5,880  
48" @ 1,800 EA 8,640  
SUB-TOTAL \$ 37,000

G. AD N-12 (HDPE)

QUANTITY COST  
12" @ \$35 LF 420  
15" @ 45 LF 675  
18" @ 60 LF 1,080  
24" @ 85 LF 2,040  
30" @ 95 LF 1,170  
36" @ 105 LF 1,170  
42" @ 115 LF 1,305  
48" @ 125 LF 1,500  
60" @ 165 LF 9,900  
SUB-TOTAL \$ 17,370

H. STORMWATER MANAGEMENT FACILITIES

COST ESTIMATES FOR IMPERMEABLE TREATED  
NON-PROPRIETARY BMP @ BY ITEMIZED COST  
PROPRIETARY BMP @ BY ITEMIZED COST

I. MISCELLANEOUS STORMWATER MANAGEMENT

SOD FERTILIZER & MULCH @ \$ 1.50 SY  
SOD @ 6.00 SY  
HYDRAULIC CEM. CONC. - 4" DEPTH @ 6.00 SF  
BITUMINOUS CONCRETE - 1" DEPTH @ 5.00 SY  
RIP-RAP @ 7.00 SF  
GROUTED RIP-RAP @ 9.00 SF  
EROSION CONTROL STONE (EC-1) @ \$113.00 TON  
#57 - COARSE AGGREGATE @ 28.00 TON  
4' HIGH CHAIN LINK FENCE INCLUDING BRACES, END POSTS AND GATE @ 19.00 LF  
6' HIGH CHAIN LINK FENCE INCLUDING BRACES, END POSTS AND GATE @ 37.00 LF  
SWM SIGN (WATER RISES RAPIDLY) (MINIMUM 3 SIGNS PER FACILITY) @ 390 EA  
ACCESS ROAD @ BY ITEMIZED COST  
SUB-TOTAL \$

J. MISCELLANEOUS DRAINAGE ITEMS

QUANTITY COST  
BOX CULVERT @ \$ 727 CY OF CONC.  
ENERGY DISSIPATER @ \$ 1,953 EA  
WING WALLS @ \$ 860 CY OF CONC.  
OIL WATER SEPARATOR @ \$ 4,500 EA  
DITCHES @ \$ 7.00 LF  
ROADSIDE STANDARD DITCHES (SEED, FERTILIZE AND MULCH) @ 9.00 LF  
SOD DITCHES @ 8.00 SF  
PAVED DITCHES @ 14.00 SF  
FILTER CLOTH FABRIC & GABION STONE @ 7.00 SF  
RIP-RAP @ 9.00 SF  
GROUTED RIP-RAP @ 10.00 SF  
PAVED FLUMES @ 250/HR (MINIMUM 8 HRS) @ 2,000  
SUB-TOTAL \$ 6,500

3. CONSTRUCTION WITHIN THE RIGHT-OF-WAY AND/OR EASEMENTS

A. SITE WORK

QUANTITY COST  
CLEAR & GRUB @ \$11,860 AC  
EXCAVATION @ 26.00 CY  
EMBANKMENT\*\* (CUT AND FILL) @ 10.00 CY  
EMBANKMENT\*\* (HAUL OFF) @ 36.00 CY  
FINAL GRADING @ \$ 5,000 AC  
ROCK EXCAVATION @ \$ 64.00 CY  
SLOPE STABILIZATION-HYDROSEEDING (3:1 OR FLATTER) \$1,000 MIN. @ \$ 1.00 SY (UP TO 1 AC)  
SLOPE STAB. - JUTE MESH, MATTING, BLANKETS, ETC. (BETWEEN 2:1 TO 3:1) \$200 MIN. @ 6.00 SY  
SLOPE STAB. - SOD (BETWEEN 2:1 TO 3:1) \$200 MIN. @ 8.00 SY  
STEEP SLOPES (GRADING AND STABILIZATION WITH JUTE MESH, NETTING, BLANKETS, ETC.) @ 17.00 SY  
SUB-TOTAL \$

B. SUBBASE AND BASE COURSE ITEMS (FOR STREETS DEDICATED FOR PUBLIC USE) IDENTIFY QUANTITIES SEPARATELY FOR EACH SHEET

QUANTITY COST  
SUBGRADE PREPARATION @ \$ 3.00 SY  
SUBBASE & BASE COURSE @ 2.50 SY PER INCH DEPTH  
AGGREGATE (2 1/2" @ 5.50 SY PER INCH DEPTH  
BITUMINOUS CONCRETE @ 16.50 SY PER INCH DEPTH  
REINFORCED CONCRETE PAVEMENT @ 8.50 SY (4" DEPTH)  
GRAVEL SHOULDERS @ 20.50 SY (6" DEPTH)  
SOIL CEM. STABILIZATION (4%) @ 15.00 SY (6" DEPTH)  
LIME STABILIZATION (10%) @ 5.00 SY PER INCH DEPTH  
CEMENT TREATED AGGREGATE UNDERDRAINS:  
UD-1 @ 16.00 LF  
UD-2 @ 19.00 LF  
UD-3 @ 19.00 LF  
UD-4 @ 21.00 LF  
SUB-TOTAL \$

C. ENTRANCES AND PIPE STEMS

QUANTITY COST  
DE-1 @ \$1,800 EA  
DE-2 @ 1,950 EA  
DE-3 @ 2,000 EA  
DE-4 @ 2,000 EA  
PP-1 (1 LOT) @ 2,000 EA  
PP-1 (2 - 5 LOTS) @ 2,000 EA  
PP-2 (1 LOT) @ 1,200 EA  
PP-2 (2 - 5 LOTS) @ 1,800 EA  
CG-60 OR EQUAL - 30" WIDTH @ 1,500 EA  
CG-60 OR EQUAL - 40" WIDTH @ 1,800 EA  
CG-10A OR EQUAL - 30" WIDTH @ 5,300 EA  
CG-10A OR EQUAL - 40" WIDTH @ 3,900 EA  
CG-11 - CONCRETE ENTRANCE @ 55 LF  
VALLEY GUTTER @ 55 LF  
PIPESTEM DRIVEWAY - 10' @ 70 LF  
PIPESTEM DRIVEWAY - 15' @ 70 LF  
SUB-TOTAL \$

D. MISCELLANEOUS CONSTRUCTION ITEMS

QUANTITY COST  
SIDEWALK (5' WIDTH) @ \$ 34 LF  
HEADER CURB @ 20 LF  
GUTTER @ 25 LF  
CONCRETE AGGREGATE @ 2,000 EA  
BICYCLE TRAIL / WALKWAY @ 9.00 SF  
RAISED CONCRETE MEDIAN @ 70 SY  
TRAIL (WOOD CHIP) @ 19 SY  
TRAIL (STONE DUST) @ 19 SY  
RETAINING WALLS @ 29 SF  
CRIB @ 38 SF  
REINFORCED EARTH @ 42 SF  
REINFORCED CONCRETE @ 62 SF  
EXCAVATION FOR TIEBACKS @ 25 CY  
IN WALLS IN CUT AREAS @ 15 SF  
ANTI-GRAFFITI PAINT (CONCRETE RETAINING WALLS ONLY) (MIN \$2,500) @ 39 LF  
GUARDRAIL @ 2,680 EA  
GR-7 NCHRP 350 @ 3,640 EA  
GR-8 @ 398 EA  
ADDRESS SIGN (ENTRANCE TO PIPESTEMS) @ 410 EA  
STREET NAME SIGN @ 392 EA  
TRAFFIC CONTROL SIGN @ 342 EA  
BUS STOP SIGN @ 17,284 EA  
BUS SHELTER @ 152 LF  
TRAFFIC SIGNAL (LUMP SUM) @ 649 EA  
HC PARKING SPACE SIGN @ 305 EA  
BIKE RACK @ 64 EA  
ROADSIDE DELINEATORS (ED-1) @ 102 LF  
HAND RAIL (HR-1) @ 2.00 SF  
PAVEMENT MARKING (PAINT) @ 6.00 SF  
PAVEMENT MARKING (THERMOPLASTIC) @ 1,500 EA  
TRAFFIC BARRICADE (TB-1) @ 5,500 EA  
STREET LIGHTING @ (MIN. \$40,000)  
UTILITIES RELOCATION (OR PROVIDE AN ESTIMATE FROM UTILITY COMPANY)  
VDOT STREET ACCEPTANCE PACKAGE @ \$5,000 LS  
P.E. CERTIFIED "AS-BUILT" PLANS @ LUMP SUM (MIN. \$12,000) @ 12,000  
SUB-TOTAL \$ 18,082

4. SANITARY SEWER & WATER LINE CONSTRUCTION

WATER MAIN QUANTITY COST  
4" @ 50 LF  
6" @ 65 LF  
8" @ 72 LF  
12" @ 108 LF  
16" @ 140 LF  
18" @ 160 LF  
4" OR 6" RW VALVE (WITH ACCESSORIES) @ 1,000 EA  
8" OR 12" RW VALVE (WITH ACCESSORIES) @ 2,500 EA  
16" OR 24" RW VALVE (WITH ACCESSORIES) @ 6,000 EA  
FIRE HYDRANT ASSEMBLY @ 8,000 EA  
STANDARD METER CROCK & APPURTENANCES @ 2,000 EA  
METER VAULT & APPURTENANCES @ 10,500 EA  
WATER MAIN BLOW-OFF ASSEMBLY (3' METER OR LARGER) @ 2,500 EA  
AIR RELEASE ASSEMBLY @ 3,500 EA  
DEAD END ANCHOR SYSTEM @ 7,500 EA  
SUB-TOTAL \$ 7,500

SANITARY SEWER PIPE LINE

QUANTITY COST  
1.5" @ 30 LF  
8" @ 70 LF  
8" @ 80 LF  
10" @ 85 LF  
10" @ 90 LF  
12" @ 145 LF  
12" @ 150 LF  
15" @ 190 LF  
4" DIA. SANITARY SEWER MANHOLE @ 10,000 EA  
5" DIA. SANITARY SEWER MANHOLE @ 10,000 EA  
STREET MANHOLE FRAME & COVER ASSEMBLY @ 1,000 EA  
EASEMENT MANHOLE FRAME & COVER ASSEMBLY @ 1,000 EA  
ABANDONMENT OF MANHOLE @ 250 VF  
4" @ 40 LF  
4" @ 50 LF  
6" @ 60 LF  
6" @ 65 LF  
LPFM FLUSHING STATION @ 2,500 EA  
SEWERAGE AIR RELEASE/VACUUM @ 3,500 EA  
STEEL CASING @ 500 LF  
GREASE TRAP (500 GAL. MINIMUM) @ 4,500 EA  
SUB-TOTAL \$ 31,240

5. MISCELLANEOUS COSTS

A. ADMINISTRATIVE COST - 10% OF THE TOTAL CONSTRUCTION COST, NOT TO EXCEED \$50,000 @ \$11,319.20  
B. INFLATION COST - COMPOUNDED ANNUALLY AT 3.0% PER YEAR OF THE TOTAL CONSTRUCTION COST @ 3,395.76  
TOTAL PERFORMANCE BOND AMOUNT \$ 127,906.96

6. LANDSCAPING ESCROWS\*

A. DECIDUOUS TREES QUANTITY COST  
5'-6" @ 165 EA  
1'-1 1/2" OR 1 1/2"-2" @ 166 EA  
2'-2 1/2" OR 2 1/2"-3" @ 250 EA  
3'-3 1/2" OR 3 1/2"-4" @ 450 EA  
SUB-TOTAL \$ 10,650

B. EVERGREEN TREES QUANTITY COST  
5'-6" @ 125 EA  
11' @ 175 EA  
7'-7" @ 300 EA  
8'-10" @ 400 EA  
SUB-TOTAL \$ 1,925

C. SHRUBS QUANTITY COST  
16"-24" @ \$45 EA  
24"-30" @ \$55 EA  
SUB-TOTAL \$ 8,745

D. ORNAMENTAL QUANTITY COST  
1 Gal. (#1) @ \$10 EA  
2 Gal. (#2) @ \$22 EA  
3 Gal. (#3) @ \$30 EA  
SUB-TOTAL \$ 62

E. PERENNIAL QUANTITY COST  
16"-24" @ \$9 EA  
SUB-TOTAL \$

F. REFORESTATION QUANTITY COST  
# OF ACRES @ \$11,700 AC  
TOTAL LANDSCAPE ESCROW AMOUNT \$ 21,470

7. SILTATION AND EROSION CONTROL ESCROWS

QUANTITY COST  
DIVERSION DIKE @ \$ 6 LF  
CLEANING OUT SWM FACILITIES, SILT TRAPS AND SILT BASINS @ 500/HR LUMP SUM (MIN. \$20,000) @ 20,000  
SILT FENCE: 0-1000' @ 6 LF  
SILT FENCE: 1001-10,000' @ 6 LF  
SUPER SILT FENCE: 0-1000' @ 20 LF  
SUPER SILT FENCE: 1001-10,000' @ 10 LF  
SUPER SILT FENCE: 10,000' + @ 7 LF  
SOD @ 6 SY  
SEED, FERTILIZER & MULCH (\$200 MIN. (TEMP & PERMANENT)) @ 1.50 SY @ 3,907.50  
STEEP SLOPES (GRADING AND STABILIZATION WITH JUTE MESH, NETTING, BLANKETS, ETC. COARSE AGGREGATES (#1 OR #2)) @ 28 TON  
INLET PROTECTION @ 165 EA @ 2,310  
CHECK DAM @ 175 EA @ 1,125  
TEMP. CONST. ENTRANCE @ 1,150 EA @ 2,300  
TEMP. SEDIMENT TRAP @ 1,000 EA (DRAINAGE AREA UP TO 1 AC.) @ 1,500 EA (DRAINAGE AREA 1-2 AC.) @ 2,000 EA (DRAINAGE AREA 2-3 AC.)  
TEMPORARY SEDIMENT BASIN: CHANNEL DIVERSION @ 20 LF  
6' CHAIN LINK SAFETY FENCE @ 3.00 LF  
4' PLASTIC ORANGE SAFETY FENCE @ 750 EA SINGLE FAMILY LOT  
STOCKPILE REMOVAL @ 25 CY  
REMOVAL OF EROSION CONTROL MEASURES @ AC (min. \$500) @ 500  
LEVEL SPREADER @ BY ITEMIZED COST  
SUB-TOTAL \$ 53,827.50  
ADMINISTRATIVE COST (10% OF TOTAL COST) \$ 5,382.75  
TOTAL SILTATION & EROSION CONTROL ESCROW AMOUNT \$ 59,210.25

I HEREBY CERTIFY THAT THE ABOVE IS MY BEST ESTIMATE OF THE QUANTITIES AND CURRENT COST OF BONDABLE IMPROVEMENTS, LANDSCAPING ITEMS, AND SILTATION & EROSION CONTROL ESCROW IN THIS SUBDIVISION OR SITE PLAN.

PREPARER'S SIGNATURE Ross Stevens (703) 674-1321 TELEPHONE #  
NAME (PRINT) Kimley-Horn COMPANY OR FIRM

Kimley-Horn logo and project information including project name, date, and scale.

Professional Engineer seal for Ross Stevens, License No. 047498, dated 02/06/2019.

Project title: WAWA - SUDLEY ROAD, FRONTIER DEVELOPMENT, PRINCE WILLIAM COUNTY, VA. Includes sheet number C-110.