

RESOLUTION 18-28

**A RESOLUTION AUTHORIZING THE REIMBURSEMENT OF OVERSIZING
COST FOR SEWER COLLECTION PIPE ASSOCIATED
WITH THE CROOKED CREEK SUBDIVISION**

WHEREAS, Section 18-145 Title 18 of the Spring Hill Municipal Code addresses oversizing reimbursements to developers installing oversized water or sewer pipelines; and

WHEREAS, the Crooked Creek Subdivision is required by the City to install oversized sewer collection pipe; and

WHEREAS, the oversizing reimbursement shall be calculated at 2-1/4 times the difference of invoiced cost of materials delivered to the project site for the sizing of as required by the city of a water distribution or wastewater collection pipe and materials over and above the cost of the same materials for such water distribution or wastewater collection pipe otherwise reasonable sized for the project and all the surrounding lands.

NOW, THEREFORE, in consideration of the premises and recitals hereinabove set forth, which are incorporated herein by reference, the oversizing reimbursement for the Crooked Creek Subdivision shall be calculated at 2-1/4 times the difference of invoiced cost of materials delivered to the project site for the sizing of as required by the city of the wastewater collection pipe and materials over and above the cost of the same materials for wastewater collection pipe otherwise reasonable sized for the project and all the surrounding land also owned by the developer .

BE IT FURTHER RESOLVED, that the City shall reimburse Crooked Creek Subdivision Crooked Creek \$29,705.13 for 546 feet of oversized 18-inch diameter sewer pipe (8-inch diameter to 18-inch diameter) for Phase 2 and \$56,363.58 for 1036 feet of oversized 18-inch diameter sewer pipe (8-inch diameter to 18-inch diameter) for Phase 3.

Passed and adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 19th day of March, 2018.



Rick Graham, Mayor

ATTEST:



April Goad, City Recorder

LEGAL FORM APPROVED:



Patrick Carter, City Attorney

March 5, 2018

MEMO TO: Victor Lay, City Administrator

FROM: Philip Stuckert, P.E. Infrastructure Director
Jim Vrdoljak, Wastewater Supervisor

SUBJECT: Reimbursement to Crooked Creek Development for installing Oversized Sewer Pipelines.

Recommendation: That the Board of Mayor and Aldermen adopt a resolution authorizing reimbursement cost to the Crooked Creek Development associated with installing oversized sewer collection pipelines in the amount of \$29,705.13 for Phase 2 and \$56,363.58 for Phase 3.

Summary:

The Developers of Crooked Creek Subdivision, located in the southeast part of the city, desire to continue building out Crooked Creek Subdivision. Staff identifies the need to oversize the eight-inch diameter sewer pipe as the Subdivision is extended easterly to Interstate 65. Staff recommends oversizing the eight-inch pipe to eighteen inches diameter to accommodate future sewer flows.

Section 18-145 identifies the need to oversize water and sewer pipes to accommodate city growth with efficient design and expansion of its underground utilities.

City staff wishes to reimburse Crooked Creek Subdivision in accordance with procedures outlined in Section 18-145, Title 18 of the Spring Hill Municipal Code and specifically using an agreed upon ratio of 2-1/4 times the difference of invoiced cost of materials delivered to the project site for the sizing of as required by the City of a water distribution or wastewater collection pipe and materials over and above the cost of the same materials for such water distribution or wastewater collection pipe otherwise reasonable sized for the project and all the surrounding lands which may be developed.

The estimated oversizing charges for Crooked Creek Phase 2 oversized 18-inch diameter sewer pipe (8-inch diameter to 18-inch diameter) of 546 feet is \$29,705.13.

The estimated oversizing charges for Crooked Creek Phase 3 oversized 18-inch diameter sewer pipe (8-inch diameter to 18-inch diameter) of 1036 feet is \$56,363.58.

Funds for oversizing wastewater collection system will come from the capital budget of the Wastewater Collection Cost Center. Sufficient funds are available from the decision by the Board

of Mayor and Aldermen not to fund the removal of the Newport Crossing Sewer Lift Station which left nearly \$300,000 remaining in the capital fund.

A resolution is prepared for consideration by the Board of Mayor and Aldermen.

Crooked Creek Sewer Line Oversize Calculations
Comparing Contractor Installation Prices to Oversizing Ratio of 2.25
Prepared by City Staff
February 2018

Calculations are based on actual invoice prices provided by contractor
Note 20% will be added to pipe price to cover delivery, handling, etc.

PIPE AND GRAVEL COST PER INVOICE AND F.O.B. TO PROJECT SITE

8" PVC SDR26 14' joint – 5.10 per ln. ft.

18" PVC SDR26 14' joint – 25.25 per ln. ft.

#67 crushed stone – 21.75 per ton

PHASE 2 PIPE COST

546 ln. ft. 8" pipe @ 5.10 = \$2,784.60 + 20% = \$3,341.52

546 ln. ft. 18" pipe @ 25.25 = \$13,786.50 + 20% = \$16,543.80

Difference: 16,543.80 - 3,341.52 = **\$13,202.28**

Gravel formulas provided by contractor

8" – ln. ft. x 2.5 ditch width x 2.9 cf (total around pipe) = cf (cubic Ft.)

Cf / 27 = cy (cubic yards)

Cy x 1.5 = tons

PHASE 2 GRAVEL COST

8" – 546 ln. ft. X 2.5 X 2.9 = 3,958.50 cf

3,958.50 / 27 = 146.61 cy

146.61 cy x 1.5 = 219.92 ton

219.92 x \$21.75 = \$4,783.26

$$18'' - 546 \text{ ln. ft.} \times 3.0 \times 3.5 = 5,733 \text{ cf}$$

$$5,733 / 27 = 212.33 \text{ cy}$$

$$212.33 \times 1.5 = 318.50 \text{ ton}$$

$$318.50 \times \$21.75 = \$6,927.38$$

Difference - $\$6,937.38 - \$4,783.26 = \$2,154.12$ Between 8 and 18-inch pipe

PHASE 3 PIPE COST

$$1,036 \text{ ln. ft. } 8'' \text{ pipe @ } 5.10 = \$5,283.60 + 20\% = \$6,340.32$$

$$1,036 \text{ ln. ft. } 18'' \text{ Pipe @ } \$25.25 = \$26,159.00 + 20\% = \$31,390.80$$

Difference - $31,390.80 - 6,340.32 = \$25,050.48$ Between 8 and 18-inch pipe

PHASE 3 GRAVEL COST

$$8 - 1,036 \text{ ln. Ft.} \times 2.5 \times 2.9 = 7,511 \text{ cf}$$

$$7,511 / 27 = 278.19 \text{ cy}$$

$$278.19 \times 1.5 = 417.29 \text{ ton}$$

$$417.29 \times \$21.75 = \$9,076.06$$

$$18 - 1,036 \text{ ln. ft.} \times 3.0 \times 3.5 = 10,878 \text{ cf}$$

$$10,878 / 27 = 402.89 \text{ cy}$$

$$402.89 \times 1.5 = 604.34 \text{ tons}$$

$$604.34 \times \$21.75 = \$13,144.40$$

Difference - $13,144.40 - 9,076.06 = \$4,068.34$

Pipe & Gravel Cost per Phase

Phase 2

Pipe $\$13,202.28$ + gravel $\$2,154.12 = \$15,356.40$

Phase 3

Pipe $\$25,050.48$ + gravel $\$4,068.34 = \$29,118.82$

(Calculations to Determine Installation Costs using Oversizing Reimbursement)

Reimbursement Cost Using Oversizing Ratio of 2.25

Phase 2 pipe difference \$ 13,202.28 x 2.25 = \$29,705.13

Phase 3 pipe difference \$25,050.48 x 2.25 = \$56,353.68

Phase 2: City - \$29,705.13 –material difference \$15,536.40 = \$14,168.73 Remaining balance for labor and equipment to install materials for contractor (\$25.95 per foot)

Phase 3: City -\$56,353.68 – material difference \$29,118.82 = \$27,234.86 Remaining balance for labor and equipment to install materials for contractor (\$26.29 per foot)