# REQUEST FOR COUNCIL ACTION

MEETING DATE: 1/22/03 55

| AGENDA SECTION: | ORIGINATING DEPT: | ITEM NO. |
|---|---|---|
| CONSENT AGENDA | Public Works | D-22 |

**ITEM DESCRIPTION:** Feasibility Report for Sanitary Sewer and Watermain to Serve the Crystal Springs Subdivision Area, J9787

**PREPARED BY:** J. Loehr

This is the Feasibility Report for the construction of sanitary sewer and watermain to serve the Crystal Springs Subdivision Area in a project described as follows:

**Project No. M1-26, J9787**
**"Sanitary Sewer and Watermain Extension to Serve the Crystal Springs Subdivision Area."**

The estimated construction costs and expense of this project are as follows:

| | |
|---|---|
| Sanitary Sewer and Watermain | $ 491,297 |
| Service Connections | 64,615 |
| Restoration | 337,907 |
| Sub-Total | $ 893,819 |
| Engineering/Interest/Contingencies | 268,146 |
| Total Estimated Project Cost | $1,161,965 |

The Crystal Springs Area sanitary sewer and watermain extension project is included in the 2003 Capital Budget.

The Crystal Springs Subdivision Area is included in Orderly Annexation Agreement #5 between Marion Township and the City of Rochester. Annexation of the Crystal Springs Subdivision Area will occur no sooner than January 1st of the year 5 years after a sanitary sewer and watermain extension project is substantially completed to serve the Area.

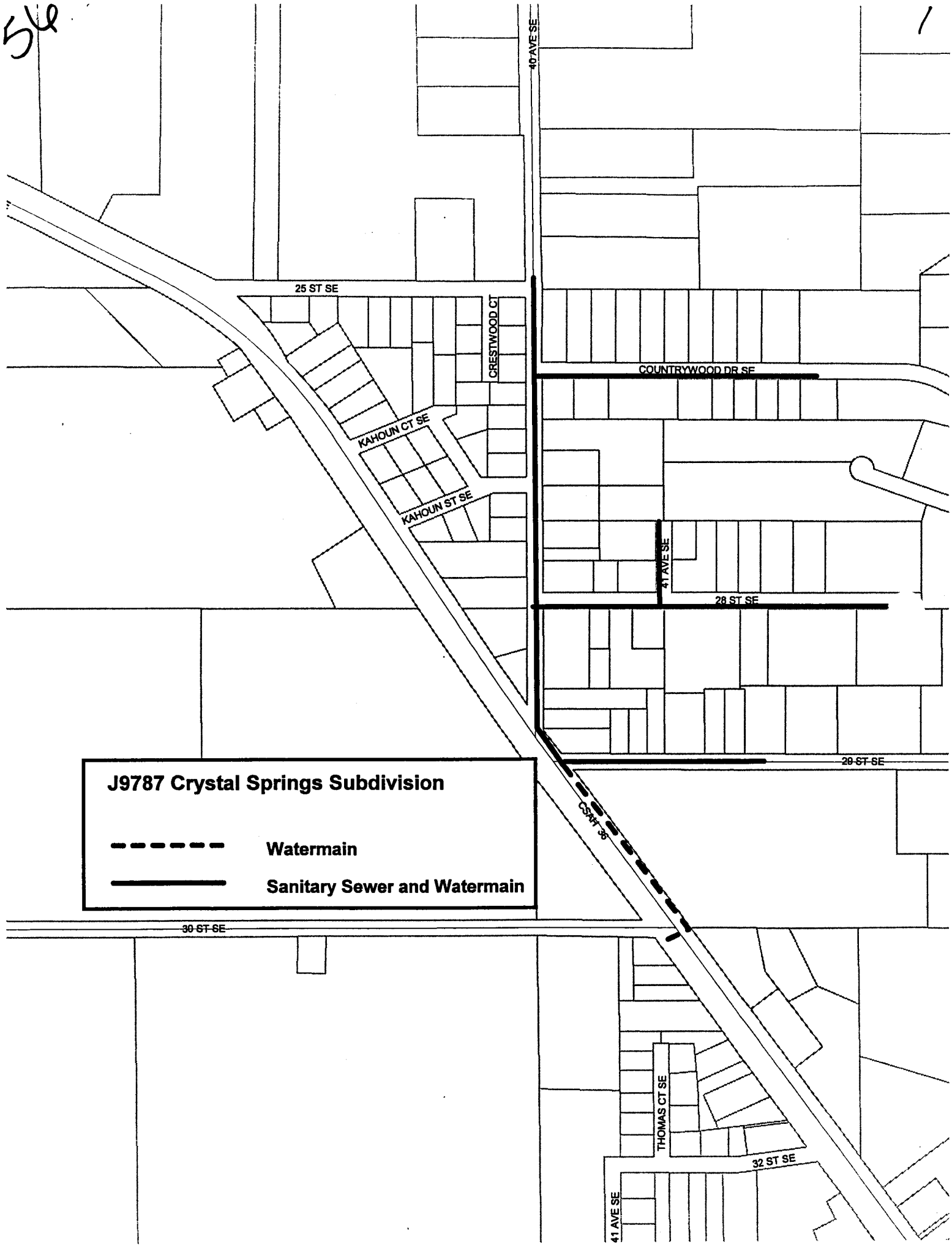
The project is proposed to be funded from Sanitary Sewer and Watermain Connection Charges (Utility Connection Agreements), future charges to undeveloped land that is located adjacent to the project, RPU share for oversize watermain costs and Marion Road SE watermain crossing, project cost transfer to J9604 SE Area Trunk Watermain, and Sales Tax Revenue appropriated to the Water Quality Protection Program.

**COUNCIL ACTION REQUESTED:**

1. Adopt a resolution accepting the Feasibility Report.
2. Adopt a resolution establishing a Project Hearing for February 19, 2003.

Attachments: Feasibility Report
Location Map

**COUNCIL ACTION:** Motion by:_____ Second by:_____ to:



J9787 Crystal Springs Subdivision
Watermain
Sanitary Sewer and Watermain
40 AVE SE
25 ST SE
CRESTWOOD CT
COUNTRYWOOD DR SE
KAHOUN CT SE
KAHOUN ST SE
41 AVE SE
28 ST SE
29 ST SE
CSAH 36
30 ST SE
THOMAS CT SE
32 ST SE
41 AVE SE

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# REPORT ON THE FEASIBILITY OF PROPOSED LOCAL IMPROVEMENT PROJECT

# TO SERVE THE CRYSTAL SPRINGS SUBD. AREA.

January 22, 2003

Honorable Mayor & Common Council
City of Rochester, Minnesota

A petition for sanitary sewer and watermain to serve the Crystal Springs Subdivision Area was forwarded by the City Council at their meeting of July 7, 1999 to the Public Works Department for the preparation of a Feasibility Report. The petition was checked and found to be in proper form and was signed by 30 of 53 property owners of lots containing a single-family residential dwelling or a developed commercial lot that contains a structure. That represents 56.6% of the single-family residential lots and developed commercial lots within the Crystal Springs Subdivision Area that are eligible to participate in the City of Rochester, Water Quality Protection Program (WQPP) adopted by the City Council on December 21, 1999.

Five owners of developed single-family residential lots located along 29th Street SE and within the original Crystal Springs petition area submitted a notice to the WQPP Project Manager that they DO NOT desire to participate in the sanitary sewer and water project proposed for the Crystal Springs area. Two of the property owners originally petitioned for sanitary sewer and watermain however, they have since reconsidered. The five lots are located on the east end of the project limits. RPU has indicated to the WQPP Project Manager that they are unable to provide adequate water pressure to serve these five lots. The Department of Public Works recommends that these five lots should not be included in the Crystal Springs project.

One property owner of a developed single-family residential lot located on the east end of Countrywood Drive SE was not included in the original Crystal Springs petition area. This property owner has verbally requested of the WQPP Project Manager that the city serve his property with sanitary sewer and watermain in conjunction with the Crystal Springs project.

With the removal of five developed single-family residential lots from the project and the addition of one developed single-family residential lot to the project the Crystal Springs petition now indicates that 29 of 49 owners of lots containing an existing single-family residential dwelling or a commercial structure desire to have city sanitary sewer and watermain extended to serve the Crystal Springs Subdivision Area. This represents 59.8 percent of the developed single-family residential lots or developed commercial lots within the Crystal Springs area that are eligible to participate in the WQPP. In addition seven undeveloped lots located within the Crystal Springs area can be served by city sewer and water in conjunction with the project.

## Feasibility Report

We report that the above referenced project is feasible and recommend its construction. The location of this project is within an area of existing single-family residential development and existing commercial development that currently lacks public sanitary sewer and watermain. A majority of the septic systems and wells within the Area were constructed prior to the State of Minnesota and Olmsted County having any requirements or standards for construction of septic systems and wells. The lots are typically under ½ acre in size and are unable to absorb the nitrates created from the septic systems. There is an increasing threat of contamination to the City of Rochester's ground water supply as the existing septic systems and wells begin to fail. This project would allow property owners of lots containing existing single-family residential dwellings and developed commercial lots to connect to public sanitary sewer and water systems rather than

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replacing their old systems when they fail. This project also allows the undeveloped single-family residential lots and undeveloped commercial lots to develop with public sewer and watermain

The costs of this project are proposed to be recovered through Sanitary Sewer and Watermain Connection Charges (Utility Connection Agreements), future charges to undeveloped land that is located adjacent to the project, RPU share for oversize watermain costs and Marion Road SE crossing, project cost transfer to J9604 SE Area Trunk Watermain, and Sales Tax Revenue appropriated to the City of Rochester, Water Quality Protection Program.

The proposed project consists of the installation of an 8-inch sanitary sewer lines, 8 and 12-inch watermain lines, and sanitary sewer and water service connections throughout the Crystal Springs Subdivision Area.

City sanitary sewer is available to serve the Crystal Springs area on the west side of Marion Road SE at the intersections of Kahoun's Court and 29th Street SE. Sanitary sewer will be extended from these locations in conjunction with the Kahoun's sanitary sewer and watermain project to 40th Avenue SE. The Kahoun's project is scheduled for 2003. The Crystal Springs project will extend sanitary sewer and watermain from 40th Avenue SE into the Crystal Springs area.

Trunk watermain is currently located at the intersection of 30th Avenue and Marion Road SE. Trunk watermain is scheduled to be extended from that location in the Spring of 2003 to serve the Crystal Springs Area and other subdivisions in Marion Township that are located between 30th Avenue and the Crystal Springs Subdivision area that have requested the extension of city sanitary sewer and watermain through the City of Rochester Water Quality Protection Program Area.

**Applicable Connection Charge Rates and per Lot Caps**

The Crystal Springs Subdivision Area petition was received on May 7, 1999. On August 1st of each year the Water Quality Protection Program rates and per lot caps were adjusted by the change in the Engineering News Record Construction Cost Index as measured in the Minneapolis/St. Paul area during the preceding 12-months, the Department of Public Works recommends that the sanitary sewer and watermain connection charges for this project be based on the connection charge rates and per lot caps in affect at the time the petition was received by the City as follows:

- Maximum sanitary sewer and water connection charge rate of $66.30 per foot of frontage.

- Maximum sewer and water connection charge per lot cap for a developed lot that contains a habitable single family dwelling unit shall be as follows:

  1) maximum $8,160 per lot for any developed lot 1/2 acre or less.
  2) $8,160 per lot, plus $0.19 per square foot for any developed lot greater than ½ acre up to 1-1/2 acre.
  3) maximum $16,320 per lot for any developed lot 1-1/2 acre or larger.

- Maximum sewer and water connection charge based on 300 feet of frontage for a developed commercial lot.

The estimated construction costs and expenses of the project made without completed plans or survey are as follows:

| | | |
|---|---|---|
| Sanitary Sewer and Watermain | | $ 638,686 |
| Sewer Service Connection Stub-Outs | $750 per service x 56 services | $ 42,000 |
| Water Service Connection Stub-out | $750 per service x 56 services | $ 42,000 |
| Restoration | | $ 439,279 |
| Estimated Cost of the Project | | $ 1,161,965 |

The estimated project costs are proposed to be funded as follows:

| | |
|---|---|
| Utility Connection Agreements | $ 467,295 |
| Future Charges to New Development | $ 86,435 |
| RPU Share for Oversize Watermain and Marion Road SE Crossing | $ 30,999 |
| Trunk Watermain Costs (Transfer to J9604) | $ 34,502 |
| Sales Tax Revenue (see below) | $ 542,734 |
| Estimated Project Costs | $ 1,161,965 |

Amount of sales tax revenue required for the Project

| | |
|---|---|
| Sales Tax (Rate Cap and per Lot Cap) | $ 469,234 |
| Sales Tax (Sewer Service Stub-Out Allowances) 49 services x $750/serv. | $ 36,750 |
| Sales Tax (Water Service Stub-Out Allowances) 49 services x $750/serv. | $ 36,750 |
| Estimated Amount of Sales Tax Funding Required for Construction of Project | $ 542,734 |

Estimated additional sales tax revenue required for work on private property

Of the 56 lots within the project area 49 lots contain a single-family residential dwelling or an existing commercial structure. These lots are eligible for *Allowances* through the Water Quality Protection Program as follows:

| | | |
|---|---|---|
| Sewer Service Lateral | 49 lots x $1,000 per lot | $ 49,000 |
| Water Service Lateral | 49 lots x $1,000 per lot | $ 49,000 |
| Well Closure | 49 lots x $1,100 per lot | $ 49,000 |
| Septic Closure | 49 lots x $ 500 per lot | $ 24,500 |
| Estimated Amount of Sales Tax Revenue Required for *Allowances* for Work on Private Property | | $ 171,500 |

Estimated sales tax revenue required for construction of Project and *Allowances*

| | |
|---|---|
| Estimated Amount Sales Tax Revenue for Construction of the Project | $ 552,734 |
| Estimated Amount of Sales Tax Revenue Required for *Allowances* | $ 171,500 |
| Estimated Amount of Sales Tax Revenue Required for Construction of the Project and *Allowances* for Work on Private Property | $ 724,234 |

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We recommend that the necessary funding to construct sanitary sewer, watermain and service connections in the Crystal Springs Subdivision Area be done so in accordance with the City of Rochester's existing sanitary sewer and watermain connection charge policies and the Water Quality Protection Program. Property owners that desire to participate in the Water Quality Protection Program and the benefits contained therein, are required to:

1. Enter into a Utility Connection Agreement with the City within three (3) years of the date the City initiates the project.
2. Connect the existing single-family residential dwelling or existing developed commercial property to the public sewer and water systems within five (5) years of the date of project initiation.
3. Consent to annexation of their property consistent with the conditions of an Orderly Annexation Agreement between the City and Marion Township.

Submitted for your consideration:

James M. Loehr
Water Quality Protection Program
Project Manager

Richard W. Freese, P.E.
Director of Public Works
City Engineer

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BUDGET AND ASSESSMENT SCHEDULE
FOR CONSTRUCTION CONTRACT

Project No: M1-26
J No: 9787

Date (Orig.) 01/22/2003

Description: Sanitary Sewer & Watermain Extension to Serve the Crystal Springs Subdivision Area

| | Project Budget | Contract Cost | Final Cost |
|---|---|---|---|
| Construction | | | |
| Sanitary Sewer & Watermain | $ 491,297 | | |
| Service Connections | 64,615 | | |
| Restoration | 337,907 | | |
| Sub-Total | $ 893,819 | | |
| Engineering/Interest/Contingency | 268,146 | | |
| Total Construction & Expense | $1,161,965 | | |
| Cost Distribution | | | |
| Anticipated Utility Connection Agreements | $ 467,295 | | |
| Charges for Future New Development | $ 86,435 | | |
| RPU Share Oversize Watermain & Marion Road SE Watermain Crossing | $ 30,999 | | |
| Transfer to J9604 SE Area Trunk Watermain | $ 34,502 | | |
| Sales Tax Funding | $ 542,734 | | |
| TOTAL | $1,161,965 | | |

Make Initial Disbursement from P. I. R. Fund

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| Item | Unit | Unit Cost | Quantity | Amount | | |
|---|---|---|---|---|---|---|
| **Sanitary Sewer** | | | | | | |
| 8" Sanitary Sewer | Lin. Ft. | $ 28 | 3,800 | $ 106,400 | | |
| Manhole | Each | $ 2,000 | 10 | $ 20,000 | | |
| Rock Excavation | Cu. Yd. | $ 50 | 1,000 | $ 50,000 | $ 176,400 | |
| **Watermain** | | | | | | |
| 6" Watermain | Lin Ft. | $ 25 | 238 | $ 5,950 | | |
| 8" Watermain | Lin. Ft. | $ 30 | 3,800 | $ 114,000 | | |
| 12" Watermain | Lin. Ft. | $ 35 | 970 | $ 33,950 | | |
| 6" GV & Box | Each | $ 600 | 17 | $ 10,200 | | |
| 8" GV & Box | Each | $ 800 | 7 | $ 5,600 | | |
| 12" GV & Box | Each | $ 1,300 | 2 | $ 2,600 | | |
| 6" Hydrant | Hydrant | $ 2,000 | 17 | $ 34,000 | | |
| WM Fittings | Pound | $ 4 | 470 | $ 1,880 | | |
| 12" MJ Watermain | Lin. Ft. | $ 35 | 75 | $ 2,625 | | |
| 24" Steel Casing | Lin Ft. | $ 160 | 75 | $ 12,000 | $ 222,805 | |
| **Service Connections** | | | | | | |
| 4" Sewer & 1" Water | Each | $ 1,150 | 56 | $ 64,400 | $ 64,400 | |
| **Restoration** | | | | | | |
| Aggregate Base | Cu. Yd. | $ 18 | 2,675 | $ 46,813 | | |
| Breaker Run | Cu. Yd. | $ 18 | 2,050 | $ 36,900 | | |
| Bituminous | Ton | $ 38 | 2,600 | $ 98,800 | | |
| Bituminous Roadway Removal | Sq. Yd. | $ 3 | 10,080 | $ 30,240 | | |
| Culverts | each | $ 600 | 10 | $ 6,000 | | |
| Sod | Sq. Yd. | $ 3 | 20,000 | $ 60,000 | | |
| Seeding | Acres | $ 2,000 | 2 | $ 3,000 | | |
| Erosion Control | Lump Sum | $ 10,000 | 1 | $ 10,000 | $ 291,753 | |
| | | | | | | |
| | | Sub-Total | | $ 755,358 | $ 755,358 | |
| | | | E.I.&C. | 30% | $ 226,607 | |
| | | **Project Cost Sub-total** | | | $ 981,965 | |
| | | 40th Avenue Costs from J9786 | | | $ 180,000 | |
| | | **Total Estimated Project Cost** | | | $ 1,161,965 | |
| | | | | | | |
| | | | | | | |
| **Project Funding Sources** | Utility Connection Agreements | | | $ 467,295 | | |
| | Future New Development | | | $ 86,435 | | |
| | RPU Share Oversize Watermain & Crossing | | | $ 30,999 | | |
| | Future WAC Transfer to J9604 | | | $ 34,502 | 1025 feet x $33.66 per foot | |
| | | | | | $ 619,231 | $ 542,734 |
| | | | | | | |
| | | | | | | |
| | **SAC & WAC *Allowances*** | | | | | |
| | | Rate/acre | Acres | | | |
| | SAC | $1,500 | 26 | $ 39,000 | | |
| | WAC | $2,000 | 26 | $ 52,000 | | |
| | | | | $ 91,000 | | $ 91,000 |
| | | | | | | |
| | ***Allowances* for Work on Private Property** | | | | | |
| | | Amount/Lot | No. of Lots | | | |
| | Sewer Lateral | $ 1,000.00 | 49 | $ 49,000 | | |
| | Water Lateral | $ 1,000.00 | 49 | $ 49,000 | | |
| | Well Closure | $ 1,000 | 49 | $ 49,000 | | |
| | Septic Closure | $ 500 | 49 | $ 24,500 | | |
| | | | | $ 171,500 | | $ 171,500 |
| | | | | | | |
| | | | | | | $ 805,234 |
| | Developed Lots | Undeveloped Lots | No. of Lots | | | |
| | 49 | 7 | 56 | Average per Lot Subsidy | | $ 14,379 |
| | | | | | | |
| | | | | | | |
| **RPU Share** | | | | | | |
| Over Size Watermain | Item | Unit | Unit Price | Quantity | Amount | |
| | 12" Watermain | feet | $ 8 | 970 | $ 7,760 | |
| | 12" GV & Box | each | $ 500 | 2 | $ 1,000 | |
| | Fittings | pounds | $ 4 | 115 | $ 460 | |
| | 12" MJ Watermain | lin. ft. | $ 35 | 75 | $ 2,625 | |
| | 24" Steel Casing | lin. ft. | $ 160 | 75 | $ 12,000 | |
| | | | **RPU Sub-Total** | | $ 23,845 | |
| | | | 30% E,I&C | | $ 7,154 | |
| | | | **RPU Share** | | $ 30,999 | |