



Engineering & Public Works Department

SUBJECT: 2020 Alley and Brick Street Reconstruction Program

MEETING DATE: April 28, 2020

FROM: [Brigitte Ann Berger-Raish](#), P.E. Director of Engineering and Public Works
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BUDGET IMPACT:	Contract Cost:	\$845,072
	Budget:	\$939,000
	Over/(Under) Budget	(\$93,928)

This item is of an immediate and critical nature to prevent further degradation of the Village’s infrastructure; the construction must be performed during warm weather months and approval will provide for the project to begin in May and completed by August 2020.

Recommended Motion

Move to approve a contract in an amount not-to-exceed \$845,072 with Schroeder & Schroeder, Inc., Skokie, IL, for the 2020 Alley and Brick Street Reconstruction Program.

Background

Alley Reconstruction Program

The purpose of the Alley Reconstruction Program is to rehabilitate alleys that are in very poor condition. The typical scope of work consists of removing the existing pavement and base and replacement with a new gravel base and 8-inch concrete pavement. The work also includes sewer repairs/installation as needed, driveway apron replacements, intermittent curb and sidewalk repairs, pavement patching and parkway restoration.

The chart below shows the number of alleys constructed per year since 2015.

Number of Alleys Constructed per Year				
2015*	2016	2017	2018	2019
5	4.5	4	4	5

* MWRD grant for 4 green alleys

The Alley Reconstruction Program is designed and managed by Engineering staff. The Village utilizes field inspections to prioritize alley rehabilitation needs. The program goal is to reconstruct four alleys per year. Wilmette has 225 alleys so four alleys represents nearly 2% of the alley system. In 2019, the Village Board determined that an optimized budget for the 2020 Road Program was necessary to help improve the overall pavement condition of Village-owned streets. In order to increase Road Program funding, only three alleys were included in Base Bid Option 1.

The following alleys were selected for the 2020 program:

Alley ID Number	Entrances	Between
212	7th St/6th St	Central Ave/Washington Ave
232	9th St/8th St	Greenleaf Ave/Linden Ave
613	17th St/16th St	Walnut Ave/Forest Ave
620 ¹ (half alley)	Alley/17th St	Forest Ave/Lake Ave

¹ This alley was only included in Base Bid Option 2; the other half the alley was reconstructed in 2016.

Brick Street Reconstruction Program

The purpose of the Brick Street Reconstruction Program is to rehabilitate an existing brick street block that was previously overlaid with asphalt and is rated in very poor condition. The typical scope of work consists of removing the asphalt surface, replacing the stone base, re-laying the existing bricks, replacing the concrete curb, intermittent sidewalk repairs, minor sewer repairs, and parkway restoration. The 700 block of Forest Avenue is scheduled for reconstruction in 2020.

Although this rehabilitation will be completed by this contract, the work is funded from the Road Program – Street Resurfacing account [11202035-425250]. Of the \$2.75 million Road Program for 2020, \$350,000 is committed to brick overlay. Please see the road program information which can be found in Agenda Item 6.41

Brick Street Maintenance Program

The Brick Street Maintenance Program consists of removing and re-laying areas of settled brick pavers at various locations throughout the Village. The purpose of this program is to improve street rideability and safety. The program addresses severe depressions in the brick streets on a “worst-first” basis. The recommended award value includes the full bid amount of nearly 4,400 square feet of brick pavement.

Utility Patching Program

The purpose of the Utility Patching Program is to repair areas that have been temporarily patched by the Engineering and Public Works Department crews after repairing sewer lines or water main breaks. Patching work for brick streets will be conducted by this project.

Discussion

The bid document for the 2020 Alley & Brick Street Reconstruction Program was advertised and published on the Village website on March 12, 2020. Bids were opened April 2, 2020. The project had six (6) qualified bidders. The bid results are summarized below:

Contractor	Base Bid Option 1	Base Bid Option 2
Schroeder & Schroeder, Inc.	\$ 791,444.00	\$ 845,071.50
A Lamp Concrete Contractors	\$ 892,794.00	\$ 977,067.00
Triggi Construction, Inc.	\$ 951,518.00	\$1,013,277.50 *
Landmark Contractors, Inc.	\$ 993,277.85	\$1,061,355.20
Alliance Contractors, Inc.	\$1,046,067.00	\$1,121,014.00
M & J Asphalt Paving Co., Inc.	\$1,419,487.97	\$1,534,412.56 *
Engineers Estimate	\$ 934,683.00	\$ 990,905.00

* As corrected

Schroeder & Schroeder, Inc. submitted the lowest qualified bid of \$845,071.50 (Base Bid Option 2). Schroeder & Schroeder has previous construction experience in Wilmette, serving as general contractor for the Curb and Sidewalk Programs since 2015 and the alley program in 2014, 2016, and 2018. These projects were completed to the satisfaction of Engineering staff. Based on their competitive bid and previous work experience, the Engineering and Public Works Department recommends awarding the 2020 Alley & Brick Street Reconstruction Program Base Bid Option 2, which includes an additional half alley, to Schroeder & Schroeder, Inc.

Schedule

The 2020 Alley and Brick Street Reconstruction Program is scheduled to begin in early-May and be completed by end-August 2020.

Budget Impact

The 2020 Alley and Brick Street Reconstruction Program is allocated to various accounts within the general, water, sewer and motor fuel tax funds. A component of the general fund dollars has dedicated revenues allocated towards brick street resurfacing associated with the annual road program. Work associated with this contract are a component of the below accounts and are within the FY 2020 budget.

Description	2020 Budget	Contract Amount	Account Number
Alley Maintenance Program	\$450,000	\$409,700	11202035-425200
Street Resurfacing (Dedicated Revenue)	\$350,000	\$339,272	11202035-425250
Brick Street Maintenance	\$110,000	\$67,100	11202035-425230
Utility Street Patching - Sewer	\$11,000	\$11,000	40807090-421000
Utility Street Patching - Water	\$18,000	\$18,000	41838090-421000
Total	\$939,000	\$845,072	

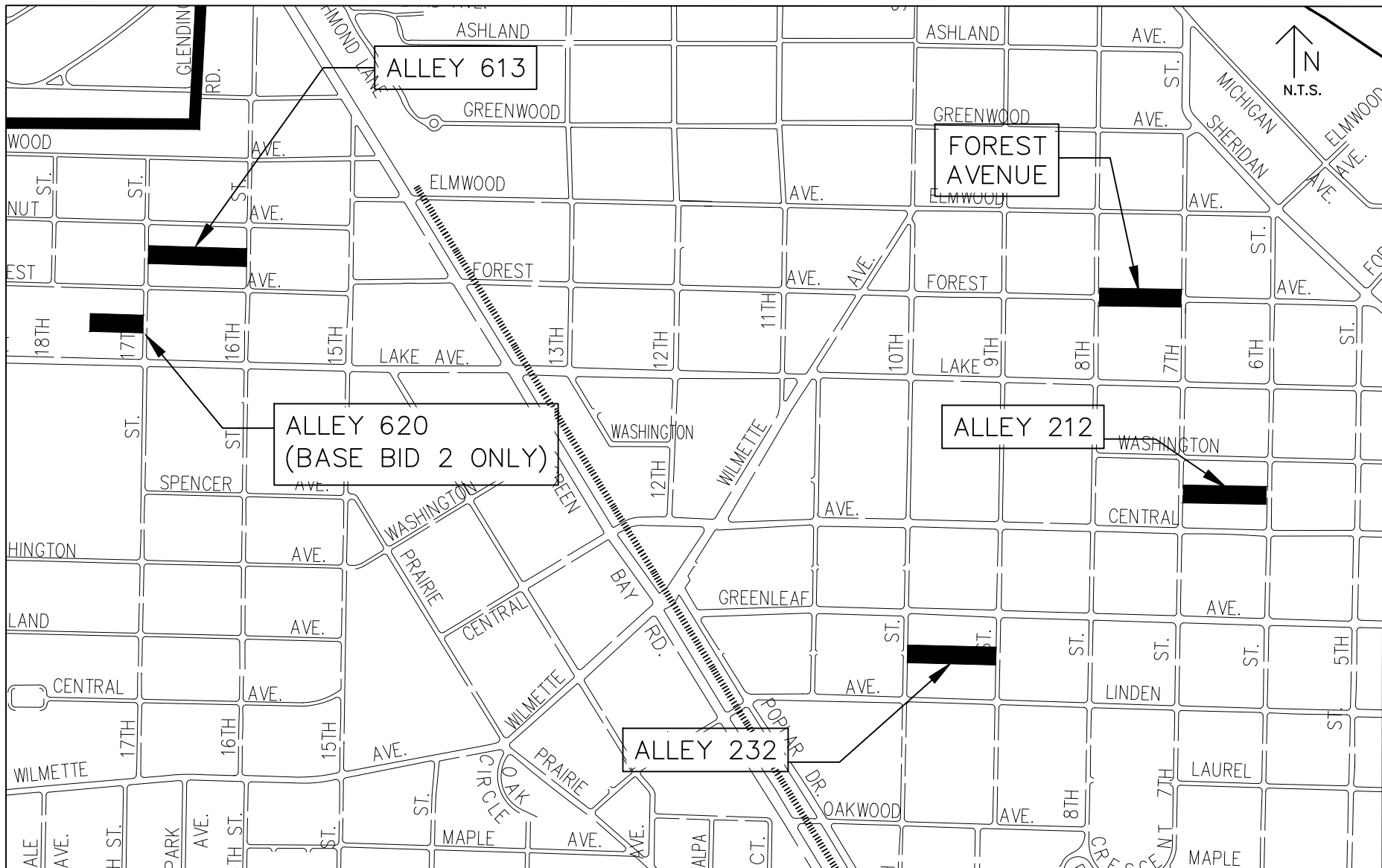
Note: An additional \$20,000 expense will be incurred later this year for the purchase of bricks.

COVID-19 Consideration: The contract award recommendation is for the entire bid amount; however, the Village reserves the right to reduce the amount of work in the awarded contract until early June. At that time, staff will prepare options for up to \$172,000 in contract value reductions for Village Board consideration. Options will include deferral of Alley 212 (full alley) at \$118,000 and/or Alley 620 (half alley) at \$54,000.

Documents Attached

1. Alley Map
2. CIP Sheet – Alley Program
3. CIP Sheet –Road Program
4. Bid Tabulation

2020 ALLEY AND BRICK STREET RECONSTRUCTION PROGRAM



NOTE: BRICK MAINTENANCE PATCHING AND UTILITY PATCHING AT VARIOUS LOCATIONS IN THE VILLAGE AND WILL BE MARKED OUT IN THE FIELD BY ENGINEERING STAFF DURING CONSTRUCTION

DESIGN: DPS
DATE: 4-21-2020
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SCALE: NOT TO SCALE

Alley Reconstruction Program Streets, Sidewalks and Alleys	2020	\$550,000	Operating
	2021	\$567,000	
	2022	\$584,000	
	2023	\$602,000	
	2024	\$620,000	

- X Critical
- Recommended
- Contingent on Funding

Original Purchase Date & Cost
Unknown

Funding History

Year	Amount	Source
2019	\$552,100 ¹	Operating
2018	\$529,763	Operating
2017	\$587,670 ²	Operating
2016	\$515,000	Operating
2015	\$836,500 ³	Operating
2014	\$273,000	Operating
2013	\$900,000	Bond
2012	\$355,000	Operating



¹ Storm sewer was installed in 2 of the 5 alleys.

² Storm sewer was installed in 3 of the 4 alleys.

³ Includes \$130,000 from MWRD for green infrastructure improvements.

With the passage of the increased Home Rule Sales Tax in 2014, a portion of the proceeds was dedicated for street, sidewalk, and alley programs. As a result of the increased revenue, the Board allocated approximately \$515,000 annually with the goal of repairing all failed and poor alleys by 2022.

Project Description & Justification

The purpose of this program is to reconstruct alleys owned and maintained by the Village. The Village currently maintains 226 alleys, made up of the following surface types:

Surface Type	Total Alleys
Asphalt Cement (AC)	110
Concrete (PCC)	111
Green Alleys	4
Brick Alleys	1

The scope of work for this program consists of designing new alley pavement sections to extend the service life of the alley, minimize the impact to adjacent properties, and improve the drainage in the public Right-of-Way. All alleys are preferred to drain by overland flow. In cases where overland flow cannot not be achieved, however, the drainage designs will utilize storm sewers. The impact of adding storm sewer is significant in terms of cost, so this feature is used as a last resort.

Pavement Rehabilitation Strategy

This program rehabilitates alleys on a “worst-first” basis. Similar to the road program, each alley is inspected by the Engineering Division periodically and is assigned a pavement condition index (PCI) rating. These ratings corresponds to the following surface conditions:

Surface Condition	PCI Rating
Excellent	100 - 86
Good	85-71
Fair	70-56
Poor	55-41
Very Poor	40-26
Serious	25-0

The Department will conduct full alley inventory inspections every three years, in addition to more frequent inspections of alleys slated for rehabilitation within the next three to five years. This process will ensure that the alleys with the worst pavement conditions are rehabilitated first. Engineering will select three to four alleys per year for the reconstruction program. The scope of work for this program will include alternate bid options for area patching and additional alleys in order to maximize the program budget.

In 2018, the Engineering Division inspected the pavement surfaces of the entire alley inventory. The overall PCI rating was 74, indicating that the average pavement conditions are “good”. This assessment would indicate that the program is adequately managing the Village’s alley assets. At the current funding levels, all “serious” and “very poor” alleys will be completed by 2020. Below is the estimated funding to complete four alleys per year, depending on alley sizes.

Year	Construction¹	Engineering²	Total
2020	\$524,000	\$26,000	\$550,000
2021	\$540,000	\$27,000	\$567,000
2022	\$556,000	\$28,000	\$584,000
2023	\$573,000	\$29,000	\$602,000
2024	\$590,000	\$30,000	\$620,000

¹ Construction funding increases 3% annually to account for inflation.

² Engineering (land survey, environmental, geotechnical, and construction material testing services) is estimated at 5% (alleys require more construction material testing than roads)

Green Alleys

In 2015 the Village of Wilmette received a grant from the Metropolitan Water Reclamation District of Greater Chicago (MWRD) to build four green alleys. Upon review of the project details, cost estimate, and storm water storage benefits, MWRD determined that the project would reduce flooding and the

burden on the combined sewer system during rain events. A grant was awarded in the amount of \$130,000 to partially fund the installation of green alleys in Wilmette. The grant contribution of \$130,000 reflected the cost differential to incorporate green infrastructure improvements compared to the conventional concrete alley design.

The Municipal Services Committee (MSC) discussed the success of the 2015 program which has performed very well during rain events. Residents have reported the green alleys have significantly better drainage than the original asphalt or concrete alleys. The MSC recommended staff seek additional green infrastructure grant funds from MWRD, however staff is still evaluating the operational costs associated with properly maintaining green alleys to ensure they continue to perform optimally.

Project Update

The Engineering Division revised the CIP content and updated funding amounts for 2020-2024.

Project Alternative

The alternative is to temporarily patch the alleys with cold-mix asphalt, however this material needs to be replaced on a bi-annual or more frequent basis. A hot-mix asphalt or concrete patching program would provide another intermediate option to repair and extend the service life of the alley pavement. The asphalt patching should last about five to ten years on a stable base, whereas the concrete patching lifespan can be decades.

Operating Budget Impact

Is this purchase *routine* X or *non-routine*?

ROUTINE	
Department Budget	Engineering
Account Number Description	Alley Replacement Program
Account Number	11202035-425200

Brick Street Repairs	2020	\$110,000	Operating
Streets, Sidewalks and Alleys	2021	\$113,000	
	2022	\$116,000	
	2023	\$119,000	
	2024	\$123,000	

X	Critical
-	Recommended
-	Contingent on Funding

Types of Maintenance



Original Purchase Date & Cost

Unknown

Funding History

2019	\$140,000	Operating
2018	\$136,000	Operating
2017	\$136,000	Operating
2016	\$136,000	Operating
2015	\$50,000	Dedicated revenues
2014	\$40,000	Dedicated revenues
2013	\$40,000	Dedicated revenues
2012	\$132,000	Dedicated revenues

Project Description & Justification

This is an annual maintenance program to repair and relay brick pavers that have settled in various locations throughout the Village. In addition, the areas where the edge of pavement has fallen below the gutter line will be repaired. This settlement creates trip hazards, drainage problems, and vehicle damage.

In 2020, Village staff will be conducting a condition evaluation of the entire brick street inventory to update patching and complete renovation schedules.

Project Update

The funding request for 2020 has been decreased from \$140,000 to \$110,000 and, \$123,000 has been added to 2024. Costs have been updated to reflect an annual 3% price index.

Project Alternative

The alternative is to defer maintenance that can lead to increased liability resulting from car damage caused by settled pavers.

Operating Budget Impact

Is this purchase *routine* X or *non-routine*?

ROUTINE	
Department Budget	Engineering
Account Number Description	Brick Street Repair
Account Number	11202035-425230

