



March 9, 2023

Mr. Cris Papierniak  
Public Works Director  
Village of Arlington Heights, IL  
222 North Ridge Avenue  
Arlington Heights, IL 60005

Subject: Algonquin Road Sewer Capacity Improvement Preliminary Design

Dear Mr. Papierniak:

RJN Group, Inc. (RJN) is pleased to provide this proposal to the Village of Arlington Heights (Village) to evaluate options for improving the capacity of the sanitary sewer on Algonquin Road and Dempster Street shown in the attached exhibit.

### **Key Project Goals and Objectives**

Flow metering and modeling performed by RJN for assessment of sewer capacity related to a redevelopment project in the Village indicated that the current 18" sewer along Algonquin Road and Dempster Street between Cedar Glen Drive and Busse Road is undersized for the current tributary area as well as for the area with the proposed redevelopment. The Village has received conceptual approval from Metropolitan Water Reclamation District of Greater Chicago (MWRD) to increase the capacity of the sanitary sewers on Algonquin Road and Dempster Street from 18" to 24" diameter.

This preliminary design will evaluate the following:

- Routings:
  - Existing routing with discharge at Busse/Dempster
  - Potential alternate routings
- Various options for capacity improvement (increase existing diameter, parallel sewer option, etc.)
- Feasibility of various construction methods
  - Open Cut
  - Pipe Bursting
  - Boring and Jacking through intersections.

This project will also provide a report that will include the preliminary costs of the options evaluated.

### **Assuring Quality and Safety**

RJN is committed to providing **quality** deliverables. The data, analysis, and recommendations provided by RJN will be used to make decisions going forward. RJN's use of QC tools in our in-house data management software, as well as our corporate training and QA processes in place will ensure that results and recommendations will provide value to the Village.

As an employee-owned firm, RJN's commitment to the **safety** of our employees and of the community is paramount. That commitment to safety is demonstrated in our internally-developed and audited safety program where our goal is to have all field staff, engineers, and project managers "RJN Safety Certified." Included in the certification is confined-space entry training, temporary traffic control, OSHA 10-hour, fall protection, and many more.

### **Price and Schedule Summary**

This project will be invoiced on a Time and Material Basis for a total base fee of \$59,500. The project is expected to be completed by June 30, 2023. Complete Scope of Services, Pricing, Schedule, and Project Map are provided in the following exhibits:

- Exhibit A – Scope of Services
- Exhibit B – Pricing
- Exhibit C – Schedule
- Exhibit D – Project Map

It is our pleasure to submit this proposal to continue the work in this area of Arlington Heights. We are looking forward to the opportunity to work with the Village of Arlington Heights on this important project. Please feel free to contact Karol Giokas at 630.364.4362 if you would like to discuss this proposal or have any questions.

Sincerely,



Yann Gallin  
Principal Project Manager



Karol G. Giokas, P.E.  
Senior Project Manager



## **EXHIBIT A**

### **SCOPE OF SERVICES**

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RJN is proposing the following scope of services to evaluate capacity improvement options for the sanitary sewer along Algonquin Road and Dempster Street for Arlington Heights.

The previous study by RJN evaluated the existing sewer on Algonquin Road and its ability to convey additional flows from proposed developments in the south of Arlington Heights. The current Village interceptor sewer is 18" and carries flows on Algonquin Road and then Dempster Street to a connection with the MWRD sewer on Busse Road, shown in the attached exhibit.

The evaluation indicated that the current sewer, at its existing slope, was inadequate for current flows, and would require upsizing to 24" to convey the new and existing flows. A preliminary approval was requested of MWRD for this upsizing, and this was received on July 21, 2022.

#### **Data Gathering**

1. Obtain JULIE locates and evaluate conflicts for open cut and bursting/drilling
2. Review details of existing connection to MWRD at Dempster/Busse
3. Evaluate potential connection to alternate MWRD structures, including at Algonquin/Busse
4. Confirm any unknown inverts.
5. On-site data gathering as needed.

#### **Stakeholders and Communications**

The sewer is in multiple jurisdictions and close coordination with all stakeholders will be required. It is anticipated that preliminary communications/meetings will be required with the following:

1. Village of Mount Prospect (VOMP)
2. Illinois Department of Transportation (IDOT)
3. Cook County Department of Transportation (CCDOT)
4. MWRD
5. Commonwealth Edison (ComEd)

Most of the proposed new sewer is located in Mount Prospect and would require coordination with VOMP. MWRD will need to approve any permit requests, and any new connections to the MWRD sewer would require approval from MWRD. Both Algonquin Rd and Busse Rd have recently been paved and IDOT will be sensitive to any construction within the pavement. Options to minimize this will be evaluated.

#### **Routing Evaluations**

The following initial options are expected to be evaluated, however additional or different options may become apparent as the study progresses. These options will be communicated with the Village for input and direction.

- 1. Algonquin from Cedar Glen Dr to Dempster St – Initial Options**
  - a) Upsizing from Cedar Glen to Dempster by open cut or pipe bursting
  - b) If VOMP/IDOT are in agreement to a potential parallel sewer on the south side of Algonquin, this will also be evaluated.
- 2. Dempster St from Algonquin Rd to Busse Rd (current MWRD connection) – Initial Options**
  - a) Upsizing by pipe bursting or open cut
  - b) Lining in lieu of upsizing one or both of these segments – an evaluation of the capacity with an improved “n” value will be made. Additionally, the model will be analyzed for surcharging implications for not upsizing these segment(s).
- 3. Algonquin Rd from Dempster St to Busse Rd (new MWRD connection)**
  - a) Extension of sewer on north side of Algonquin from Dempster to Busse.
  - b) New parallel sewer on south side of Algonquin from Dempster to Busse.

## **Costs**

RJN will reach out to local contractors for current pricing information. The costs of the various routings and options will be determined based on typical current construction costs.

## **Preliminary Design Report**

A report will be prepared that will include the following:

1. Options evaluated
2. Identified utility and construction challenges
3. Restrictions/preliminary approvals from individual stakeholders
4. Associated costs for options evaluated
5. Recommended option(s), including proposed alignments
6. Issues requiring follow-up
7. Permitting requirements

## **Project Management**

Project management services including up to two additional meetings with Village staff will be provided for the duration of the project.

## **Items Requested from the Village**

1. Current Village GIS, including all utilities in the area.
2. Current Intergovernmental agreements with any of the stakeholders listed above.
3. Assistance coordinating with other stakeholders.
4. Assistance with traffic control for on-site data collection

## **Items Not Included in this Proposal**

The following services would be part of the final design and are not included in this proposal:

1. Topographic survey and geotechnical services
2. Design plans and specifications
3. Formal permit submittals



## EXHIBIT B PRICING

The services provided for the Algonquin Road Sewer Capacity Improvement Preliminary Design will be invoiced on a time and materials basis as shown below.

Task	Type	Subtotal
Data Gathering	T&M	\$7,500.00
Stakeholder Coordination	T&M	\$11,000.00
Routing Evaluation	T&M	\$26,000.00
Preliminary Design Memo	T&M	\$11,000.00
Project Management	T&M	\$4,000.00
<b>TOTAL FEE</b>		<b>\$59,500.00</b>

### Hourly Rate Schedule

	Classification	2023 Rates*
<b>PD</b>	Project Director	\$250.00
<b>SPM</b>	Senior Project Manager	\$215.00
<b>PM</b>	Project Manager	\$185.00
<b>SCM</b>	Sr. Construction Manage	\$175.00
<b>CM</b>	Construction Manager	\$155.00
<b>CO</b>	Construction Observer	\$135.00
<b>SPE</b>	Senior Project Engineer	\$155.00
<b>PE</b>	Project Engineer	\$140.00
<b>EI</b>	Engineer I	\$120.00
<b>GSS</b>	GIS Specialist	\$120.00
<b>GIS</b>	GIS Analyst	\$105.00
<b>SDA</b>	Senior Data Analyst	\$120.00
<b>DA</b>	Data Analyst	\$100.00
<b>FM</b>	Field Manager	\$105.00
<b>FS</b>	Field Supervisor	\$95.00
<b>FT</b>	Field Technician	\$90.00
<b>AS</b>	Administrative Support	\$95.00
	<i>*Rates valid through 12/31/2023.</i>	

### Notes

- The Hourly Rate Schedule is valid until December 31, 2023. Following that date, rates may be subject to an annual increase.
- The rates for reimbursables such as travel, postage and printing are applied based on the normal on-going charges.



## EXHIBIT C SCHEDULE

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RJN is prepared to begin work on this project within two weeks of receiving a signed contract. Assuming a notice to proceed is provided by March 24, 2023, it is expected that this work would be completed by June 30, 2023. However, it is important to note that due to the number of stakeholders on this project, some of the schedule will be out of RJN's control.

- Meeting with major stakeholders – 3 weeks
- Analysis of options – 6 weeks
- Design Recommendations Report – 4 weeks



