

**REQUEST FOR PROPOSALS (RFP)
PURCHASE AND INSTALLATION OF A SEWAGE GRINDER INCLUDING
MANHOLE**

To All Interested Bidders:

Bidders are invited to submit a formal Proposal to for the installation of an In-line open-channel Sewage Grinder with a manhole for an existing 8” sanitary sewer main with the attached General Conditions and Specifications.

Please submit one original copy of the Proposal.

if any questions arise from the RFP, the bidder may submit to Ray Roberts Director of Public Works & Engineering via email at raylr@zion.il.us Any interpretation documents will be made by addendum to the RFP. All questions should be emailed no later than 3:30 p.m., Wednesday July 1, 2022. All questions that arise that require an addendum will be posted on the City of Zion website [HTTP://:www.cityofzion.com](http://www.cityofzion.com).

Sealed Proposals will be received by the City Clerk, City Hall, 2828 Sheridan Road, Illinois, until 10:00 a.m. July 5, 2022 and at that time said bids will be publicly opened and read. All Proposals shall be clearly marked with “PURCHASE AND INSTALLATION OF A SEWAGE GRINDER WITH MANHOLE RFP.”

Bid specifications can be obtained at the City Clerk's office, Zion City Hall, 2828 Sheridan Road, Zion, Illinois 60099 or call 847-746-4012 or email sheryls@zion.il.us.

All sealed Proposals must be delivered to the following address:

City of Zion
2828 Sheridan Road
Zion, Illinois 60099

Proposals will be opened at the time and date, and location indicated above. The Proposals shall remain firm for not less than thirty (30) calendar days from the date of receipt of the Proposal. Bidders guarantee that all goods and services meet the requirements of the solicitation during the contract period.

The City of Zion reserves the right to reject any or all bids, to waive informalities or technicalities in bidding, to re-advertise for bids, or to accept the proposal which it deems most favorable to the interest of the City.

GENERAL CONDITIONS

The following are the general conditions for the work to be performed.

SCOPE of WORK

It is understood that except as otherwise specifically stated in the contract, the contractor shall provide and pay for all materials, labor, tools, equipment, and transportation of every nature and all other services and facilities of every nature whatsoever, necessary to execute, complete and deliver the work within the specified time. Permits and licenses necessary for the execution of work shall be secured by the contractor but no fees will be charged to the contractor. All supplies and material shall be new.

The Grinder Pump System shall include all mechanical equipment, manhole, assemblies, sub-assemblies, and components from the grinder pump inlet to existing sanitary lift station; and shall include all electrical equipment and components beginning with and including the alarm panel and ending with and including all electrical equipment and components.

Any work necessary to be performed after regular working hours, such as work performed on Sundays or legal holidays shall be requested in writing and performed without additional expense to the City.

EXISTING CONDITIONS

The contractor in undertaking the work under this contract, is assumed to have visited the premises and to have taken into consideration all conditions which might affect the work. No consideration will be given to any claims based on lack of knowledge of existing conditions.

INSURANCE

Prior to the commencement of work, the contractor shall furnish to the City a certificate of liability insurance in strict accordance of (Exhibit 1). The contractor agrees to comply with the provisions of Worker's Compensation laws of the State of Illinois.

The contractor further shall maintain such insurance (with limits as required in exhibit 1) as shall protect the contractor and the City from any claims for property damage or personal injury, including death, which may arise out of operations under this contract, and contractor shall furnish the City with certificates and policies of such insurance as shown in exhibit 1. Insurance coverage shall be maintained until the work has been completed by contractor.

STATEMENT of CONTRACTOR QUALIFICATIONS

As part of the Proposal and before awarding of the contract, the bidder shall demonstrate to the complete satisfaction of the City, that the bidder has the necessary certifications, licenses, facilities, ability and financial resources to execute the work in a satisfactory manner within the time specified; that the contractor has had experience in work of the same nature; and that the contractor has past history and references which will assure the City of the contractors qualifications for executing the work. The competency and responsibility of bidders and of their proposed subcontractors will be considered in making awards. The City does not obligate itself to accept the lowest or any other proposal.

TAXES

The City is a tax-exempt organization. A copy of the City's tax-exempt will be furnished.

GOVERNING LAWS

All Proposals and related documents submitted to the City by the contractor are governed under the laws of the State of Illinois and local ordinances, policies and regulations.

ADDENDA

If any questions arise from the RFP, the bidder may submit to Ray Roberts, a request for interpretation via email at raylr@zion.il.us. Any interpretation documents will be made by addendum to the RFP.

The City will not be responsible for any other explanations or interpretations. The City reserves the right to extend the due date if such information significantly amends this solicitation or makes compliance with the original due date impractical. The City reserves the right to reject any or all Proposals and waive technicalities and informalities.

PROPOSAL GUARANTY

Each proposal shall be accompanied by a certified check, bank cashier's check or bid bond acceptable to the Owner in an amount equal to at least 5% of the Proposal, payable without condition to the Owner, as a guaranty that the Bidder, if awarded the Contract, will promptly execute the Agreement in accordance with the Proposal and the Contract Documents, and will furnish a good and sufficient bond for the faithful performance of the same, and for the payment to all persons supplying labor and materials for the work. The Proposal Guaranties of all Bidders except the three lowest will be returned promptly after the canvas of Proposals.

MINIMUM WAGE RATES

The Contractor shall agree to pay the present prevailing minimum rates for the various classes of laborers and mechanics to be engaged in work on this project and all deductions, if any, required by law to be made from unpaid wages actually earned by laborers and mechanics so engaged.

In accordance with "An Act Regulating Wages of Labor, Mechanics, and Other Workers Employed in Any Public Works by the State, County, City or Any Public Body or Any Political Subdivision or by Anyone Under Contract for Public Works", Ill. Rev. Stat. Ch. 48, Sections 39s-1 et seq., or latest edition, a copy of the Owner's "Ordinance Ascertaining the Prevailing Rate of Wages", in effect as of the date of the advertisement for bids, is attached and shall be a part of this Contract. If the Illinois Department of Labor revises the prevailing rate of hourly wage to be paid, the revised rate shall apply to this Contract.

PROPOSAL FORM and FORMAT

Proposals shall be in a sealed envelope, plainly marked on the outside with the name and address of the company submitting the bid and with the words "Purchase and Installation of a Sewage Grinder with Manhole RFP" addressed to:

City of Zion
2828 Sheridan Road
Zion, Illinois 60099

Proposals should be submitted in the format specified within this document.

DISCREPANCIES

In case of a difference between the stipulated amount of the Proposal written in words and the stipulated amount written in figures, the stipulated amount stated in words shall govern.

MODIFICATIONS

Proposals shall not contain any recapitulations of the work to be done. Alternate proposals will not be considered unless called for. Oral proposals or modifications will not be considered.

AWARD OR REJECTION

It is the intention of the City to realize the construction of the proposed improvements at the lowest possible cost within the limits of the estimated available funds and at no sacrifice in the quality and, if possible, in the scope of work. The Contract will be awarded to the responsible Bidder who submits the lowest responsive and best qualified Bid Proposal complying with these instructions and all other Contract Documents.

The City reserves the right to reject any or all Proposals or to waive any informality or technicality in any Proposal in the interest of the City. No Bidder may withdraw his Proposal for a period of 30 days after the date of the opening thereof. The awarding of this contract is contingent upon the approval of the City of Zion Council.

CONTRACT FORM

Upon contract award, the City and contractor will have a signed contract prior to any work being started.

CHANGE IN CONTRACT

The City will not be responsible for any change in the work involving extra cost unless approval in writing is furnished and approved by the City before such work is begun.

INDEMNIFICATION

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the City from and against all claims, damages, losses, and expenses including but not limited to attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss, or expense, (a) is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property including the loss of use resulting there from and (b) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable regardless of whether or not it is caused in part by a party indemnified hereunder.

INSTALLATION

The City anticipates issuing a notice to proceed no later than July 20, 2022 following award. The successful bidder shall complete installation within 30 calendar days from the date of the Notice to Proceed.

WARRANTY

The contractor shall provide a one (1) year warranty on all materials and labor.

FINAL INSPECTION

Upon written notice from the Contractor that the work is complete, a City of Zion representative will make a final inspection and will notify the Contractor in writing of all the particulars in which this inspection reveals that the Work is incomplete or defective. The Contractor shall immediately take such measures as are necessary to remedy such deficiencies.

LIQUIDATED DAMAGES

It is understood and agreed that TIME is of the essence of the Contract, and that failure on the part of the Contractor to complete the Contract Work within the Time agreed upon will result in certain loss and damage to the City.

It is therefore covenanted and agreed that if the Contractor fails or neglects to complete his Work on or before the date fixed for completion, then said Contractor shall pay the City of Zion an amount to be determined to complete the remaining Work at the agreed upon unit prices.

PAYMENTS

A single payment will be made to the contractor when all aspects of the contract have been completed to the City's satisfaction. The City will consider other reasonable arrangements should they be requested in writing by the contractor.

WEATHER

All openings must be covered in a manner to withstand any weather condition and must be secured to avoid anyone falling into openings.

OSHA

The rules and regulations promulgated under the Occupational Safety and Health Act (Latest Edition) shall govern this work.

CLEAN UP SITE

All areas of the construction site shall remain clean and free of any construction debris. An allotted area will be designated for material and equipment storage.

AGREEMENT

THIS AGREEMENT made the _____ day of _____, 2022 by and between the City of Zion hereinafter called the OWNER, and _____, hereinafter called the CONTRACTOR, WITNESSETH, That the Contractor and the Owner for the considerations hereinafter named agree as follows:

ARTICLE 1. SCOPE OF THE WORK

The Contractor shall furnish all of the material and perform all of the work for the installation of a sewage grinder with manhole as shown on the drawings and described in the specifications.

All work shall be performed in strict accordance with City of Zion codes and ordinances, and in strict compliance with the Contractor's Proposal as accepted, including any amendments agreed upon at the time of execution of this Agreement, and with the other Contract Documents herein mentioned which are part of this Contract.

ARTICLE 2. TIME OF COMPLETION

The work, under this Agreement, shall commence upon written notice to the Contractor as defined in the General Conditions. The work shall be completed within **30 calendar days** after the Notice to Proceed has been issued.

ARTICLE 3. CONTRACT SUM

The Owner shall pay the Contractor for the performance of the contract subject to any additions and deductions provided therein in current funds, the sum of _____

(\$_____). Payments are to be made to the Contractor in accordance with and subject to the provisions embodied in the other Documents, which are a part of this Contract.

ARTICLE 4. ACCEPTANCE AND FINAL PAYMENT

Final payment shall be due upon final acceptance of the completed work, provided the contract is then fully performed.

ARTICLE 5. AUTHORITY AND RESPONSIBILITY OF THE ENGINEER

All work shall be done under the general administration of the City of Zion Representative. The City Representative shall decide any and all questions, which may arise as to the quality and acceptability of materials furnished, work performed, rate of progress of work, interpretation of Drawings and Specifications, and all questions as to the acceptable fulfillment of the Contract on the part of the Contractor.

ARTICLE 6. CONTRACT DOCUMENTS

The Contract Documents are as noted in the General Conditions. In the event that any portion of one Contract Document conflicts with one provision of another Contract Document, the provision of that Contract Document first listed in the General Conditions shall govern, except as otherwise specifically stated.

IN WITNESS WHEREOF, the Parties hereto have caused this Instrument to be executed in two original counterparts the day and year above written.

(SEAL)

Contractor: _____

Attest: _____

By: _____

Title: _____

(SEAL)

Owner: _____

Attest: _____

By: _____

STATE OF ILLINOIS

SS

COUNTY OF _____

PERFORMANCE BOND

THIS INSTRUMENT WITNESSETH: That we (1) _____,
a CONTRACTOR as Principal, and (2) _____,
a Corporation organized and existing under and by virtues of the laws of the State of
_____ and regularly authorized to do business in the State of Illinois
as Surety, are held and firmly bound unto the City of Zion, Illinois, hereinafter called the "Owner"
in accordance with a Contract hereinafter referred to, in the penal sum of

(\$ _____) of lawful money of the United States, will and truly to be paid unto the
said Owner, for the payment of which we bind ourselves, our heirs, executors, administrators,
successors and assigns, jointly and severally, firmly by these presents:

WHEREAS, the said Principal has entered into a written Contract with the Owner dated
_____ for the construction of the work entitled "2021 Zion Sidewalk Project"
in conformity with the Drawings, General Conditions, and Specifications hereby referred to and
made part of the same to all intents and purposes as if written at length herein, in which Contract
the said Principal has contracted to perform the work specified in said Contract in accordance with
the terms thereof:

NOW THEREFORE, the conditions of this obligation is such that if the Principal shall faithfully perform
the Contract on their (its) part, and satisfy all covenants, terms, conditions, and agreements incurred
by the Principal in the performance of said Contract, during the original term thereof, and any
extensions thereof which may be granted by the owner, with or without notice to the Surety, and
shall satisfy all claims and demands arising there under, and shall fully indemnify and save harmless
the Owner from all cost and damage which the Owner might suffer by reason of the failure of the
Principal to do so, and which the Owner may incur in making good any default by the Principal,
including any default based upon failure of the Principal, to fulfill his obligation to furnish
maintenance, repairs, or replacements for any period of time after the work is completed, if
provided for in said Contract, then this obligation shall be null and void, otherwise it shall remain in
full force and effect.

In addition, the Principal and Surety, jointly and severally expressly guarantee that all materials
furnished and workmanship performed, under the Contract and in the construction of the work shall
fulfill all requirements of the Contract and the Contract Documents with respect to them for a period
of one year from the date of final acceptance.

It is hereby stipulated and agreed that any suit based upon any default of the Principal in fulfilling
his obligation to furnish maintenance, repairs, or replacements, for any period of time after the work
is completed, if provided for in the Contract, may be brought at any time up to six months after the
expiration of the time specified in the Contract during which the Contractor has agreed to furnish
such maintenance or make such repairs or replacements.

The said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed there under or the Specifications accompanying the same shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in several counterparts, each one of which shall be deemed an original, on this the _____ day of _____, 2022.

PROPOSAL FORM

DUE NOT LATER THAN 10:00 A.M. ON JULY 5, 2022

All sealed Proposals must be delivered to the following address:

**2828 Sheridan Road
Zion, Illinois 60099**

Name of Bidder: _____

Having carefully examined the Proposal requirements including the General Conditions, and the Request for Proposal (RFP) **"PURCHASE AND INSTALLATION OF A SEWAGE GRINDER WITH MANHOLE."**, any addenda, and conditions affecting the work, the undersigned proposes to provide the required materials, services, warranties, and delivery of specified in the attached Proposal for the total sum not to exceed:

TOTAL BID \$ _____

Signature indicates that company is not barred from bidding on public projects or contracts in the State of Illinois.

Respectfully Submitted,

Company: _____

Address: _____

Phone: _____

Fax: _____

Title: _____

Signature: _____

Date: _____

GENERAL SPECIFICATIONS

GENERAL

The City of Zion is soliciting bids for the purchase and installation of a sewage grinder and manhole. Installation will be performed on an existing 8" City owned sanitary main.

The Grinder Pump System shall include all mechanical equipment, manhole, assemblies, sub-assemblies, and components from the grinder pump inlet to existing sanitary lift station; and shall include all electrical equipment and components beginning with and including the alarm panel and ending with and including all electrical equipment and components.

It is understood that except as otherwise specifically stated in the contract, the contractor shall provide and pay for all materials, labor, tools, equipment, and transportation of every nature and all other services and facilities of every nature whatsoever, necessary to execute, complete and deliver the work within the specified time. Permits and licenses necessary for the execution of work shall be secured by the contractor but no fees will be charged to the contractor. All supplies and material shall be new.

Bids must meet or exceed the following specifications.

EXPERIENCE

The City will consider bids only from contractors who have been regularly engaged in this specified field of business for a period of not less than five years.

CONTACT PERSONS

Bidders should direct any questions concerning this bid to Ray Roberts Director of Public Works & Engineering at (847)-746-4057 or (847)-746-4050, Monday through Friday, between 7:00 a.m. and 3:30 p.m. Bidder should schedule to visit the location to determine size and scope of project.

REFERENCES

Bidders shall provide a minimum of 3 references.

SPECIFICATIONS

SUMMARY

Section includes Grinder Manhole, Open-channel Grinder, Installation Frame & Lifting Guides, and Controller.

1. Manhole Structure

- a. Fiberglass reinforced polyester (FRP) below ground manhole connects into pipeline ahead of pump location and allows installation of an open-channel grinder for solids reduction. Provides above ground access to the grinder.
- b. 48-inch barrel diameter with $\frac{1}{2}$ minimum wall thickness able to withstand static load of 150 lb.-ft per foot of depth with less than $\frac{1}{4}$ -inch deflection.
- c. Interior surface smooth isophthalic gelcoat integral to the laminate not applied as spray or secondary process. Interior surfaces white for easy inspection for toxic molds and mildew.
- d. Inlet and Outlet Connections:
 - Neoprene boot and stainless-steel bands for connection to influent and effluent pipe. Pipe size: 8-inch
- e. Non-Traffic Lid:
 - Lockable fiberglass lid able to withstand 1000 lbs. top load.
 - Provides full access to barrel diameter of manhole. Includes gas spring.
- f. Integral open-channel:
 - Width 17-9/16-inch to accommodate frame and grinder.
 - Depth sized to accommodate grinder and required hydraulics.
- g. Access Ladder:
 - Meets or exceeds OSHA General Industry Standards, Part 1910.27 for "Fixed Ladders".
 - Non-slip traction surface.

2. OPEN-CHANNEL GRINDER

- a. Reduces solids conveyed in a wastewater stream to a size that is non-detrimental to existing downstream sanitary lift station equipment. Grinder to use side rail with flow channel and specially designed fingers with a shape to create a pressure gradient increasing flow capacity and maximize capture of solids. Grinder to use low speed and high torque drive with two counter-rotating shafts stacked with intermeshed individual cutters and spacers supported on both ends of each shaft with mechanical seal and bearing cartridges, driven by an electric motor and speed reducer.

- b. Grinding shall be accomplished by slicing action as opposed to a chopping action. Chopping-type cutter mechanism will not be allowed.
 - c. The grinder assembly shall operate without objectionable noise or vibration over the entire range of recommended operating pressures.
 - d. The grinder shall be constructed so as to eliminate clogging and jamming under all normal operating conditions including starting.
 - e. The grinder shall be capable of passing a series of stringy type solids (diaper, rags, feminine products, etc.) through the existing pumps without roping or winding the materials.
 - f. Maximum Design Flow Capacity: 980 GPM (1.41 MGD)
 - g. Cutter Stack Height: 18-inches
3. **Motor:**
- Immersible Explosion Proof Motor.
 - Horsepower: 5 HP.
 - Grinder Peak Torque with Reducer: 1,665 lb.-ft.
 - Grinder Peak Force at Cutter Tip: 8,493 lbf.
 - UL rated NEMA 6P, Class I, Div. 1 Groups C&D, Class II Div. 2, Groups F&G, Class III Div. 1.
 - Manufacturer rating of 40 consecutive days of submergence at a maximum depth of 40 feet.
 - Capable of operating in air 100 percent of time with no external cooling required.
 - No fan cooling during operation.
 - Utilize ceramic shaft seal requiring no oil lubrication.
- a. Identification:
 - Corrosion resistant nameplate affixed to top cover of Grinder.
 - Nameplate Information: Manufacturer's name and address, Model No., Serial No., Capacity, Max. psi, Weight, Manuf. Date.
4. **Installation Frame & Lifting Guides:**
- a. Frame and Guide Rails provides structure for mounting and positioning of the grinder in the integral open channel of the fiberglass manhole. Frame secures the grinder in position and provides structure and baffling to properly support and prevent unwanted bypass of material.
 - Frame mounts to channel walls supporting weight of grinder with suitable anchors supplied by contractor for installation.

- Frame guide plate to allow grinder to be lifted or lowered in and out of frame with no removal of fasteners.
- b. **Guide Rail**
- Provides guidance of grinder into frame of manhole. Mounts to manhole walls with suitable anchors.
 - guide plate mounted to grinder to interface with guide slots in rail to guide grinder into installation frame.
5. **Control Panel:**
- a. Motor controller shall be in a NEMA 4X FRP enclosure accepting 230v/3ph/60Hz or 460v/3ph/60Hz input power, including IEC starter with over-current protection, jam-sensing current transformer and micro-PLC.
6. **Installation**
- a. Coordinate installation of the equipment in accordance with the manufacturer's installation instructions, approved submittals, and in accordance with OSHA, local, state, and federal codes, and regulations.
7. **Quality Control**
- a. **Inspection**
- Required to provide the services of a factory or manufacturer's representative for a minimum of one day to inspect the equipment for proper installation, apply power for the first time and check for proper motor rotation, oversee the initial introduction of material into the system and confirm the equipment operates as intended.
- b. **Training**
- Training for operations, maintenance, and supervisory staff members is to be provided by a manufacturer or manufacturer's representative. Field instruction shall cover key components of the equipment, operating and maintenance requirements and troubleshooting techniques.
8. **Submittals**
- a. Submittal documentation is provided for approval in ".pdf" format.
- **Product Data:**
Product description text.
Performance curves or capacity tables.

Catalog data.

- Shop Drawings

General arrangement of installation.

Product Configuration.

Assembly

- Operation and Maintenance Manuals:

Submit one copy of a suitable operation and maintenance manual with shipment of product. An electronic version shall be supplied to create additional copies.

The manuals shall include but not be limited to the following: Equipment descriptions, operating instructions, drawings, troubleshooting techniques, recommended maintenance schedule, recommended lubricants, and recommended replacement parts list.

INSURANCE

The successful bidder must provide a certificate of liability insurance in strict accordance of exhibit 1.

City of Zion
 2828 Sheridan Road
 Zion, Illinois 60099
 FAX: 847-746-4665
 Phone: 847-746-4018

--ALL CONTRACTORS--

The **CITY OF ZION** has adopted an ordinance that requires all contractors's to provide a Certificate of Insurance upon application for a permit. The Certificate shall meet the requirements listed below and shall name the City of Zion as **ADDITIONALLY INSURED**:

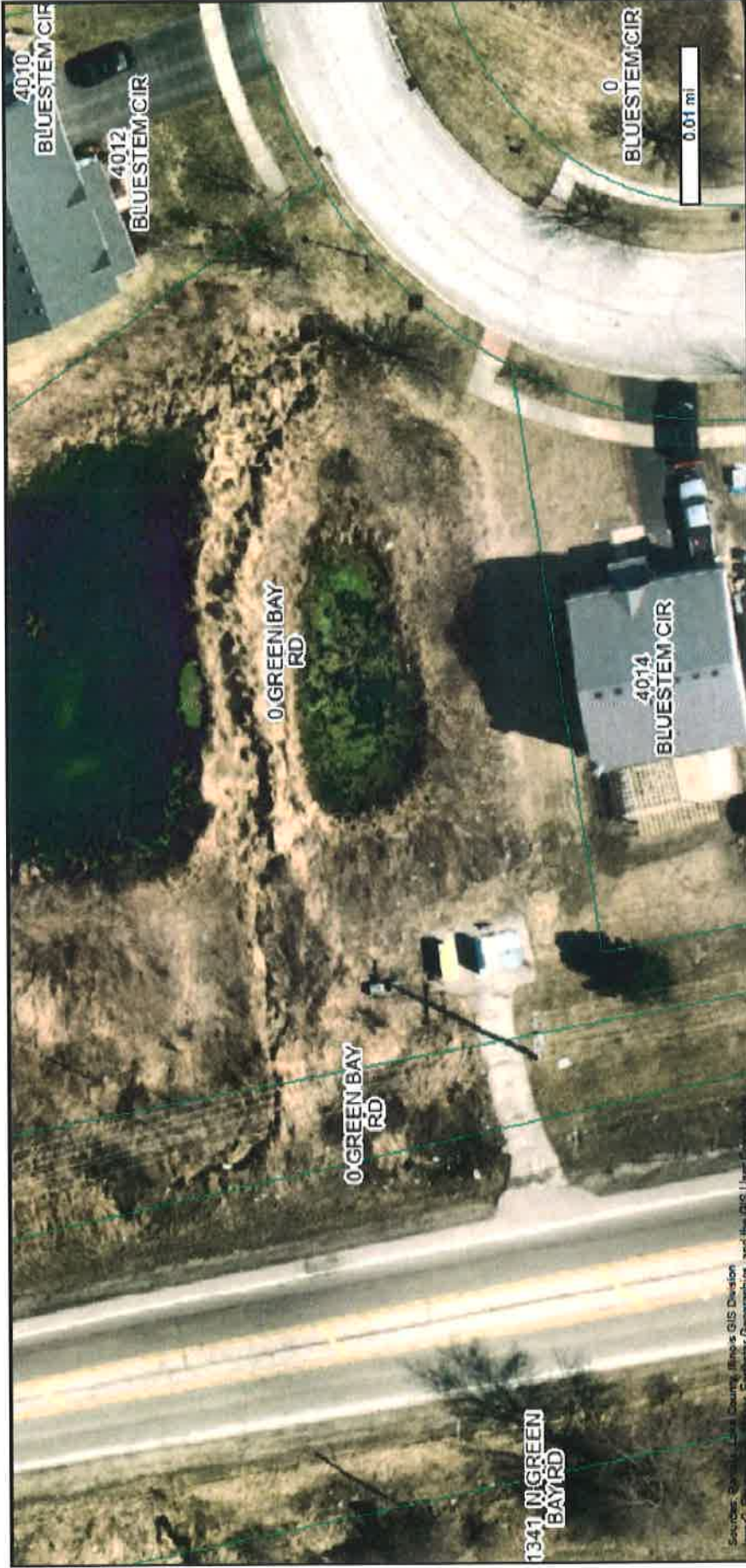
	<u>Project Costs up to \$40,000.00</u>	<u>Projects \$40,001 and over</u>
Comprehensive General Liability	\$500,000 BI & PD	\$1,000,000 BI & PD
Bodily Injury	\$500,000 BI & PD	\$1,000,000 BI & PD
Umbrella Liability		\$1,000,000 BI & PD
Workmen's Compensation	\$ 500,000	\$ 500,000
Insurance Statutory Employers Liability	\$ 500,000	\$ 500,000
Roofers: Refer to Illinois State Statute Act 335 (This Act includes workmen's compensation)	\$ 500,000	\$ 500,000

All excavators are required to have a \$10,000 or \$25,000 excavation bond depending on the project in addition to the above requirements.

All Certificates of Insurance must be SIGNED by an authorized representative of the agency. **NO EXCEPTIONS**

Exhibit No. 1

Lake County, Illinois



Source: Esri, DeLorme, Garmin, Lake County, Illinois GIS Division, Intel, Mapbox, Microsoft, Swire, Esri, Garmin, GeoEye, GeoEye, IGN, Aerotech, Earthstar, Geographic, and the GIS User Community



Lake County, Illinois



Map Printed on 6/10/2022

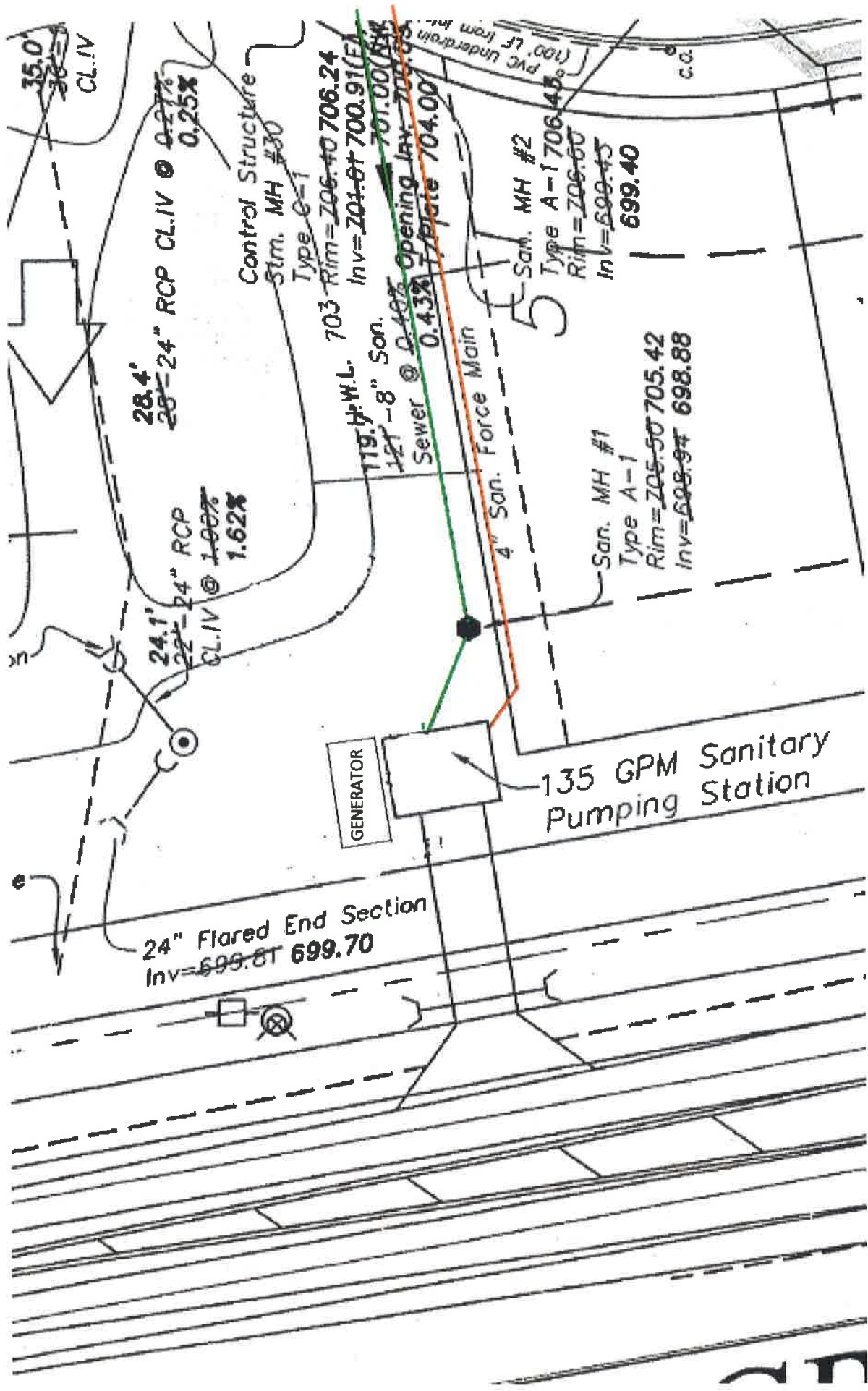
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Address Labels

- Tax Parcel Lines
- Tax Parcel Information

Disclaimer: The selected features may not occur anywhere in the current map extent. A Registered Land Surveyor should be consulted to determine the precise location of property boundaries on the ground. This map does not constitute a regulatory determination and is not a base for engineering design. This map is intended to be viewed and printed in color.



8" SANITARY MAIN

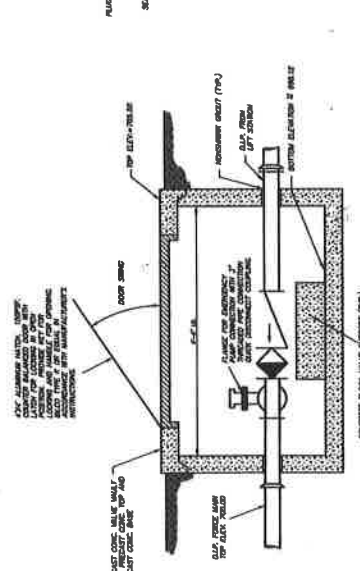
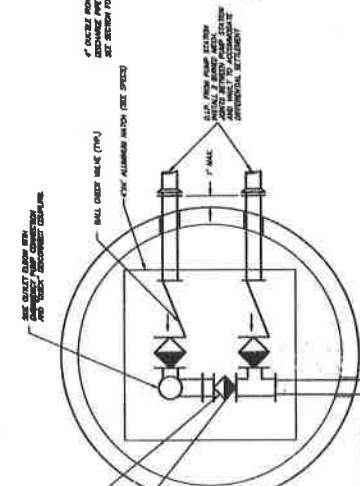
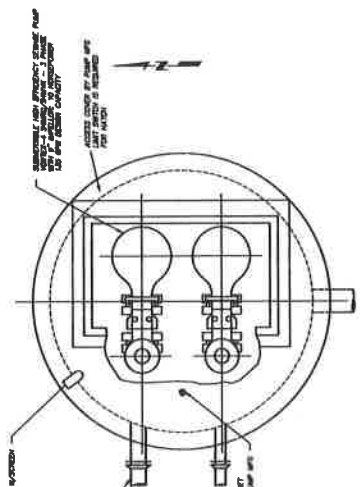
4" SANITARY FORCED MAIN

NO.	DESCRIPTION	DATE

DOHERTY & ASSOCIATES
 ENGINEERS ARCHITECTS
 LANDSCAPE ARCHITECTS
 1400 Clark Street
 Chicago, IL 60606
 (312) 467-8888

STONEBRIDGE CROSSING
ZION, ILLINOIS
PUMP STATION DETAIL SHEET

SCALE	AS SHOWN
DESIGNED BY	
CHECKED BY	
APPROVED BY	
DATE	10/16/04
TITLE	PUMP STATION
PROJECT NO.	
DRAWING NO.	PS-1



PUMP STATION
 NTS

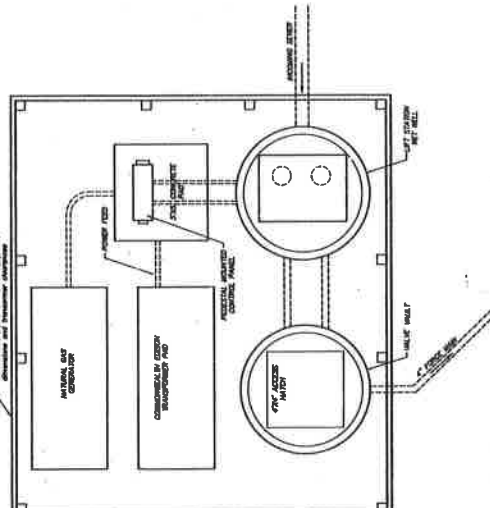
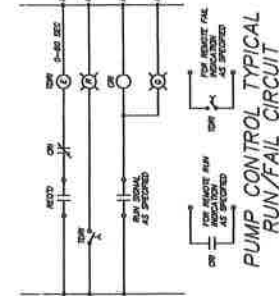
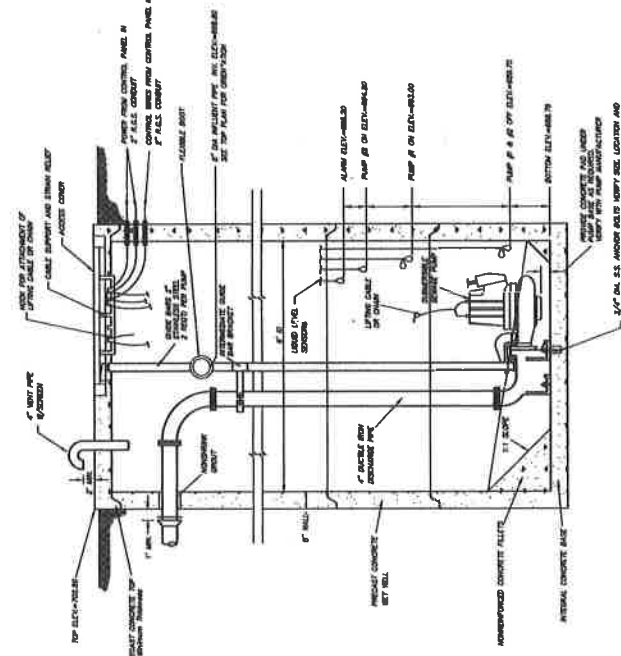
VALVE VAULT PLAN
 NTS

VALVE VAULT SECTION
 NTS

- PUMP STATION NOTES**
1. ALL ELECTRICAL CONNECTIONS TO BE MADE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE ILLINOIS ELECTRICAL CODE.
 2. ALL ELECTRICAL CONNECTIONS TO BE MADE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE ILLINOIS ELECTRICAL CODE.
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 12. ALL ELECTRICAL CONNECTIONS TO BE MADE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE ILLINOIS ELECTRICAL CODE.
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PUMP STATION INFORMATION

Sanitary Invert @ Station = 698.80
 Pump Invert (Alarm-Pump Off) = 729.00
 Pump Invert (Alarm-Pump On) = 1010.00
 Static Head @ Pump Off Elevation = 311.20
 8" Force Main Length = 2,415 L.F.
 Rank Pipe Length for Fittings = 85 L.F.
 Total Dynamic Head = 301.0'



PUMP STATION SITE PLAN
 SCALE 1"=3'