

Four Rivers Sanitation Authority Rockford, Illinois

Bidding Requirements and Contract Forms

for

Meander Drive Sanitary Sewer Extension

Special Assessment No. 136

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Meander Drive Sanitary Sewer Extension

Special Assessment No. 136

Committee of Local Improvements

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<i>Vacant</i>	Vice President
Ben Bernstein	Clerk/Treasurer
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Table of Contents

I. Bidding Requirements

Article 1 Notice to Bidders

Article 2 Instructions to Bidders

- 1 General
- 2 Legal Requirements
- 3 General Instructions

Article 3 Detailed Specifications

- 1 General
- 2 Notification, Access, and Special Considerations
- 3 Permit Requirements
- 4 Erosion and Sediment Control
- 5 Dewatering
- 6 Sanitary Sewer, PVC SDR35, 8" Dia.
- 7 Sanitary Manhole, 4' Dia.
- 8 Sanitary Manhole to be Removed and Replaced, 4' Dia.
- 9 Sanitary Sewer Service, 4" Dia.
- 10 Sanitary Sewer Trench Subbase Improvement
- 11 Pavement Removal
- 12 Combination Curb & Gutter Removal
- 13 Pipe Culvert Removal, 12" Dia.
- 14 Pipe Culverts, Class C, TY 1 Galvanized Corrugated Steel, 12" Dia.
- 15 Grading and Shaping Ditches
- 16 Aggregate Base Course, Type B, 12"
- 17 Aggregate Subgrade Improvement, Variable Depth
- 18 Hot-Mix Asphalt Binder Course, IL-19.0, N50, 2.5"
- 19 Hot-Mix Asphalt Surface Course, IL-9.5, Mix "D", N50, 1.5"
- 20 Combination Concrete Curb and Gutter, Type M6.18 (Modified)
- 21 Stabilized Construction Entrance
- 22 Temporary Ditch Checks
- 23 Erosion Control Blanket
- 24 Inlet and Pipe Protection
- 25 Topsoil Furnish and Place, 6"
Seeding, Class 2A with Fertilizer
- 26 Construction Layout
- 27 Traffic Control and Protection, Complete
- 28 Quality Control Tests and Certification
- 29 Cleanup
- 30 Report of Soils Exploration

III. Contract Forms

Proposal
Affidavit of Compliance
Bid Bond
Agreement
Labor & Material Payment Bond
Performance Bond

IV. Report of Soils Exploration

V. IDOT Check Sheets

VI. City of Rockford Right-of-Way Permit

VII. General Provisions and Technical Specifications for Sanitary Sewer Construction (separate document incorporated by reference)

Section I

Bidding Requirements

Not to be used for bidding purposes

Article 1 – Notice to Bidders
Meander Drive Sanitary Sewer Extension
Special Assessment No. 136

Four Rivers Sanitation Authority (FRSA) Committee of Local Improvements will receive signed and sealed bids for the Meander Drive Sanitary Sewer Extension, Special Assessment No. 136, at FRSA's office located at 3501 Kishwaukee Street, Rockford, IL, until 10:00 a.m. on Monday, March 21, 2022, at which time and place responsive / responsible bids will be publicly opened and read aloud in accordance with Ordinance No. 21 22 S 07, passed on July 26, 2021, providing therefore, a copy of which is on file with the Executive Director of FRSA. Bids may be delivered in-person by depositing packets in the blue bid box in the lobby of the Administration Building, up until the bid due date and time.

The Meander Drive Sanitary Sewer Extension, Special Assessment No. 136, consists of the construction of approximately 1,200 LF of 8" dia. PVC sanitary sewer, 17-4" dia. PVC sanitary services, 7 manholes, pipe culvert removal and replacement, pavement removal, pavement reconstruction with aggregate base course and hot-mix asphalt binder and surface course, turf restoration, and all other appurtenances as indicated on the plans and in the specifications. This project is located in the public right-of-way of Meander Drive in Rockford, Winnebago County, IL.

Bidder's attention is called to Article 2 – Instructions to Bidders 3.8 requirements for Statement of Qualifications. Bidder must have a permanent business office within forty (40) miles of FRSA's office located at 3501 Kishwaukee Street, Rockford, IL.

All underground construction, testing, road reconstruction, and restoration shall be completed by July 15, 2022. Liquidated damages shall be \$300 per calendar day. The contractor will be paid in Special Assessment No. 136 vouchers at par with interest at the rate of five percent (5%) per annum.

Bid documents may be obtained at a cost of \$50.00 per set (non-refundable) by contacting FRSA's Engineering Department at 815-387-7660.

Plans and specifications may also be viewed at the offices of the Northern Illinois Building Contractors Association at 1111 S. Alpine Rd., Rockford, IL. For more information, visit FRSA's website at fourrivers.illinois.gov.

All construction will be done in accordance with specifications on file with FRSA, including the *General Provisions and Technical Specifications for Sanitary Sewer Construction* (Current Edition) of Four Rivers Sanitation Authority, Rockford, Illinois.

Each Proposal must be accompanied by the FRSA Bid Bond form with an acceptable Bid Security attached in the amount of five percent (5%) of the total bid price. This amount is a guarantee that, if the Proposal is accepted, a Contract will be entered into and its performance properly secured.

The successful bidder will be required to furnish a satisfactory Performance Bond in the full amount of the Bid or Proposal. No Bid shall be withdrawn without the consent of FRSA for a period of sixty (60) days after the scheduled time of receiving Bids.

FRSA reserves the right to reject any and all bids, or any part thereof, or to accept any bid or part thereof, or to waive any formalities in any bids, deemed to be in the best interest of FRSA.

Dated this 2nd day of March, 2022



Julia Scott-Valdez, Director of Management Services

Article 2 — Instructions to Bidders

1 General

1.1 Scope and Intent

This section of the Contract Documents is concerned with furnishing detailed information and requirements for preparing bids to prospective bidders, bidders' responsibility, the preparation and the submission of bids, basis for awarding the Contract and other general information concerned with bidding and executing the Contract.

1.2 Contradictions

If in the case of apparent contradiction between or among the Contract Documents, the Contract Documents shall be consulted in the following order: Addenda, Agreement, Supplementary Drawings, Instructions to Bidders, Detailed Specifications, Plans, Four Rivers Sanitation Authority (FRSA) General Provisions and Technical Specifications for Sanitary Sewer Construction. The first such document in which language regarding the conflict, error or discrepancy occurs, shall control.

2 Legal Requirements

2.1 Illinois Regulations

1. Public Act 100-1177 requires the Bidder to comply with prevailing wages in accordance with the Illinois Department of Labor Standards. The State of Illinois requires contractors and subcontractors on FRSA projects to submit certified payroll reports via the State's Certified Transcript of Payroll Portal currently found at: <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx>. The Bidder is responsible for verifying current information at the State's website.

2. Public Act 83-1030 entitled, "Steel Products Procurement Act" requires that steel products used or supplied in performance of this Contract or subcontract shall be manufactured or produced in the United States with three exceptions.

The provisions of this Section shall not apply:

- a. Where the Contract involves an expenditure of less than \$500.
 - b. Where the executive head of the public agency certifies in writing that
 - i. the specified products are not manufactured or produced in the United States in sufficient quantities to meet the agency's requirements, or
 - ii. obtaining the specified products, manufactured or produced in the United States would increase the cost of the Contract by more than 10%.
 - c. When its application is not in the public interest.
2. Public Act 96-929 (30 ILCS 570) provides that Illinois residents be employed on Illinois public works projects, provided there has been a period of excessive unemployment (5%) in the State of Illinois as defined in the Act; and, further, that Illinois workers are available and capable of performing the particular type work involved.
 4. Public Act 101-0221 requires that any party to a contract adopt and promulgate written sexual harassment policies that include, as a minimum, the following information:
 - a. the illegality of sexual harassment
 - b. the definition of sexual harassment under Illinois State law

- c. a description of sexual harassment, utilizing examples
- d. my (our) organization's internal complaint process including penalties
- e. the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Illinois Human Rights Commission
- f. directions on how to contact the Department and the Commission
- g. protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act

Upon request, this information shall be provided to the Illinois Department of Human Rights and the FRSA.

5. With regard to nondiscrimination in employment, the Contractor for this project will be required to comply with the Illinois Fair Employment Practices Commission's Rules and Regulations.
6. The Contractor for this project shall comply with the Occupational Safety and Health Act.
7. The Contractor for this project shall comply with the Federal Drug-Free Workplace Act.
8. Public Act 96-1416 requires the Certification of Clean Construction and Demolition Debris (CCDD) and uncontaminated soil prior to disposal at a CCDD fill site. The Contractor for this project shall comply with Public Act 96-1416 and be responsible for the certifications and any fees associated with the disposal at a CCDD fill site.
 - a. In the event that contaminated soil is uncovered on the project, the Contractor shall notify FRSA immediately. Any extra costs resulting from the presence of contaminated soil shall be evaluated in accordance with FRSA General Provisions & Technical Specs for Sanitary Sewer Construction; General Conditions: Article 5 – Time Provisions and Article 8 – Changes.

2.2 Americans with Disabilities Act

The Contractor for this project will comply with all applicable requirements of the Americans with Disabilities Act of 1990 (ADA). The Contractor will hold harmless and indemnify Four Rivers Sanitation Authority (FRSA) and their representatives from all:

1. suits, claims, or actions
2. costs, either for defense (including but not limited to reasonable attorney's fees and expert witness fees) or for settlement
3. damages of any kind (including but not limited to actual, punitive, and compensatory damages)

relating in any way to or arising out of the ADA, to which said firm is exposed or which it incurs in the execution of the Contract.

3 General Instructions

3.1 Bidder's Responsibility

Bidders are cautioned not to submit proposals until having carefully examined the entire site of the proposed work and adjacent premises and the various means of approach and access to the site, and having made all necessary investigations to inform themselves thoroughly as to the facilities for delivering, placing and handling the materials at the site, and having informed

themselves thoroughly as to all difficulties involved in the completion of all the work under this Contract in accordance with its requirements.

Bidders must examine the Plans, Specifications and other Contract Documents and shall exercise their own judgment as to the nature and amount of the whole of the work to be done and for the bid prices must assume all risk of variance, by whomsoever made, in any computation or statement of amount or quantities necessary to complete fully the work in strict compliance with the Contract Documents. The Bidder must satisfy himself by making borings or test pits, or by such methods as he may prefer, as to the character and location of the materials to be encountered or work to be performed. No pleas of ignorance of conditions that exist or that may hereafter exist, or of conditions or difficulties that may be encountered in the execution of the work under this Contract, as a result of failure to make the necessary examinations and investigations, will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill, in every detail, all of the requirements of the Contract Documents, or will be accepted as a basis for any claims whatsoever for extra compensation or for an extension of time.

The Contractor is responsible for verifying the location of all existing utilities in the project area.

The Bidder, therefore, shall satisfy himself by such means as he may deem proper as to the location of all structures that may be encountered in construction of the work.

3.2 Addenda and Interpretations

No interpretation of the meaning of the Plans, Specifications, or other Contract Documents will be made to any bidder orally. Every request for such interpretation must be in writing addressed to Four Rivers Sanitation Authority, 3501 Kishwaukee Street, Rockford, Illinois. To be given consideration, such request must be received at least five (5) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda which, if issued, will be sent by email, fax, or certified mail with acknowledgement of receipt requested, to all prospective bidders, at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addenda or interpretation shall not relieve said bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

3.3 Laws and Regulations

The prospective bidder is warned that he must comply with all laws of the United States Government, State of Illinois, all ordinances and regulations of FRSA in the performance of the work under this Contract. The Bidder's attention is specifically called to that provision of the General Conditions regarding the rate of wage to be paid on the work.

3.4 Quantities Estimated Only

Bidders are warned that the estimate of quantities of the various items of work and materials, as set forth in the Proposal form, is approximate only and is given solely to be used as a uniform basis for the comparison of bids. The quantities actually required to complete the Contract work may be less or more than so estimated, and if awarded a contract for the work specified, the Contractor further agrees that he will not make any claim for damages or for loss of profits or for an extension of time because of a difference between the quantities of the

various classes of work assumed for comparison of bids and quantities of work actually performed.

3.5 Form, Preparation, and Presentation of Proposals

For particulars as to the quantity and quality of the supplies, materials and equipment to be furnished, and the nature and extent of the work or labor to be done, prospective bidders are referred to the Contract Documents, which may be examined or obtained at the office of FRSA.

Each bid will be submitted upon the prescribed Proposal form. All blank spaces for bid prices must be filled in, in ink, with the unit or total sum or both for which the Proposal is made. If the Proposal contains any omissions, erasures, alterations, additions or items not called for in the itemized Proposal, or contains irregularities of any kind, such may constitute sufficient cause for rejection of bid. In case of any discrepancy in the unit price or amount bid for any item in the Proposal, the unit price as expressed in figures will govern. In no case is the agreement form to be filled out or signed by the bidder.

Bidders may opt to contact FRSA's Engineering Department at 815.387.7660 to obtain an electronic Proposal form. If used, this form must be attached to the hard copy Proposal form and appropriately signed and executed with the bid.

The bid must be verified and be presented on the prescribed form in a sealed envelope on or before the time and at the place stated in the Advertisement for Bids, endorsed with the name of the person, firm or corporation presenting it, the date of presentation, and the title of the work for which the bid is made. If forwarded by mail, the sealed envelope containing the Proposal and marked as directed above, must be enclosed in another envelope addressed to Clerk of the Four Rivers Sanitation Authority, 3501 Kishwaukee Street, Rockford, Illinois, 61109 and be sent preferably by certified mail. FRSA will not accept facsimile generated bids.

3.6 Bid Security

Each Proposal must be accompanied by the FRSA Bid Bond form with an acceptable Bid Security attached, in the amount specified in Article One, Notice to Bidders. This sum is a guarantee that, if the Proposal is accepted, a contract will be entered into and its performance properly secured. The FRSA's Bid Bond Form included in the bid packet must be used. No other Bid Bond form may be substituted.

Within ten (10) days after the opening of bids, the deposits of all but the three lowest bidders will be returned. The deposits of the remaining two unsuccessful bidders will be returned within three (3) days after the execution of the Contract, or, if no such Contract has been executed, within sixty (60) days after the date of opening bids. The deposit of the successful bidder will be returned only after he has duly executed the Contract and furnished the required bond and insurance.

3.7 Affidavit of Compliance

Each Proposal must be accompanied by an executed Affidavit of Compliance. A separate Affidavit of Compliance form is enclosed with the Proposal packet. Failure to submit an executed Affidavit of Compliance with the Proposal may constitute sufficient cause for rejection of the bid.

3.8 Statement of Qualifications

Each Proposal must be accompanied by a Statement of Qualifications certifying that the bidder is registered to do business in the State of Illinois, has a permanent business office

within forty (40) miles of the FRSA office at 3501 Kishwaukee Street in Rockford, IL, and provides documentation that the bidder possesses the appropriate financial, material, equipment, facility and personnel resources and expertise necessary to meet all contractual obligations. The bidder shall document no less than three (3) contracts for sanitary sewer system work within the past five (5) years having equal or greater value to the bid being submitted. FRSA reserves the right to request additional information, as needed, to evaluate bids prior to making an award.

3.9 Comparison of Proposals

Bids on item contracts will be compared on the basis of a total computed price arrived at by taking the sum of the estimated quantities of each item, multiplied by the corresponding unit prices and including any lump sum bids on individual items, in accordance with the estimate of quantities set forth in the Proposal form. Bids on lump sum contracts will be considered upon the basis of the lowest sum bid.

3.10 Acceptance of Bids and Basis of Award

No bidder may withdraw his bid after the scheduled closing time for receipt of bids, for at least sixty (60) days.

The Contract will be awarded, if at all, to the lowest responsive, responsible bidder. Four Rivers Sanitation Authority also reserves the right to reject any or all bids.

The bidder whose Proposal is accepted shall enter into a written Contract for the performance of the work and furnish the required bonds and insurance certificate within ten (10) days after written notice by FRSA's Director of Engineering has been served on such bidder personally or by mailing a postpaid wrapper to such bidder at the address given in his proposal. If the bidder to whom the Contract is awarded refuses or neglects to execute it or fails to furnish the required bond and insurance within five (5) days after receipt by him of the notice, the amount of his deposit shall be forfeited and shall be retained by the FRSA as liquidated damage and not as a penalty. It being now agreed that said sum is a fair estimate of the amount of damages that the FRSA will sustain in case said bidder fails to enter into a Contract and furnish the required bond and insurance. No plea of mistake in the bid shall be available to the bidder for the recovery of his deposit or as a defense to any action based upon the neglect or refusal to execute a Contract.

3.10.1 Evaluation of Responsiveness

The responsiveness of bidders will be judged on the basis of the completeness of the bid submitted. To be responsive, a Bid must be submitted on the forms provided as part of the Bid Documents and comply with all the requirements of the Instruction to Bidders.

3.10.2 Evaluation of Responsibility

To be judged as responsible, the bidder shall:

- a. Have adequate financial resources for performance, the necessary experience, organization, technical qualifications, and facilities, or a firm commitment to obtain such by subcontracts;
- b. Be able to comply with the required completion schedule for the project;
- c. Have a satisfactory record of integrity, judgment, and performance, including, in particular, any prior performance on contracts from FRSA;

- d. Have an adequate financial management system and audit procedures, that provide efficient and effective accountability and control of all property, funds, and assets;
- e. Conform to the civil rights, equal employment opportunity and labor law requirements of the Bid Documents.
- f. Have satisfactorily completed no less than three (3) sanitary sewer system repair contracts within the past five (5) years of equal or greater value to the bid being submitted.

3.1.1 The Rejection of Bids

FRSA reserves the right to reject any bid if the evidence submitted in the statement of the bidder's qualifications, or if investigation of such bidder fails to satisfy FRSA that such bidder is properly qualified to carry out the obligations and to complete the work contemplated therein. Any or all proposals will be rejected if there is reason to believe that collusion exists among the bidders. Conditional bids will not be accepted. FRSA reserves the right to reject any and all bids and to accept the bid which they deem most favorable to the interest of FRSA after all Proposals have been examined and canvassed.

3.1.2 Insurance and Bonding

Contractor shall provide all necessary insurance and bonds required to complete the project. No more than ten (10) calendar days subsequent to FRSA's issuance of an award letter, the Contractor shall provide documentation to prove that he has obtained all required insurance and bonds. FRSA shall be the sole judge as to the acceptability of any such proof.

Contractor shall provide and maintain all insurance and bonds as required by FRSA.

3.12.1 General

The Contractor shall ensure that:

1. All insurance policies shall be specific to the project.
2. The insurance certificate shall state: This certifies that the insurance coverage meets or exceeds that required for Meander Drive Sanitary Sewer Extension, Special Assessment No. 136.
3. FRSA shall be named as Additional Insured in all policies; this shall include the Owners' Contractors' Protective Policy option.
4. All completed operations coverages and bonds shall remain in force for a period of two (2) years following acceptance of the Project and completed operations shall stay in force for two (2) years following completion of the Project.

3.12.2 Insurance

The Contractor shall, for the duration of the Contract and for two (2) years following project acceptance, maintain the following:

1. General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project or the general aggregate limit shall be twice the required occurrence limit. The Contractor shall provide "XCU" coverage.

2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage including coverages for owned, hired or non--owned vehicles, as applicable.
3. Workers' Compensation and Employers Liability: Workers' Compensation limits as required by statute and Employers Liability limits of \$500,000 per accident and \$500,000 per disease.
4. Umbrella: \$2,000,000 per occurrence/aggregate for contracts valued at \$500,000 or over, or \$1,000,000 for contracts below \$500,000. \$10,000 is maximum allowable self-retained limit.
5. Errors and Omissions: If the Contractor performs professional services, he shall maintain errors and omissions insurance with a limit no lower than \$1,000,000 for the duration of the contract.

The policies shall contain, or be endorsed to contain, the following provisions in the General Liability and Automobile Liability Coverage's:

- a. Unless otherwise provided in paragraph "c" of this section, FRSA, its officers, officials, employees and volunteers shall be covered as additional insureds as respects liability arising out of activities performed by or on insured's general supervision of the Contractor, products and completed operations of the Contractor, premises owned, occupied or used by the Contractor, or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to FRSA, its officers, officials, employees, volunteers, or agents.
- b. Unless otherwise provided in paragraph "c" of this section, the Contractor's insurance coverage shall be primary insurance as respects FRSA, its officers, officials, employees, volunteers, and agents. Any insurance or self-insurance maintained by FRSA, its officers, officials, employees, volunteers, or agents shall be excess of the Contractor's insurance and shall not contribute with it.
- c. As an acceptable alternative to provisions "a" and "b" of this section, the Contractor may provide owner's and contractor's protective liability insurance with coverage limits, named insureds, and in conformity with all applicable specifications of this section.
- d. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to FRSA, its officers, officials, employees, volunteers, or agents.
- e. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- f. All Coverages — Each insurance policy required by this clause shall not be suspended, voided, canceled by either party, reduced in coverage, or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to FRSA.

3.12.3 Best's Ratings

FRSA shall be the sole judge of whether or not said insurer's ratios are satisfactory. FRSA 's decision shall be final and FRSA 's bidding procedures contain no appeal provision.

1. Alphabetical Rating: For purposes of this Request for Bids, "insurer" shall mean any surety, insurance carrier, or other organization which proposes to provide an insurance policy or bond for the Contractor. No insurer or surety rated lower than "A-, Excellent" in the current *Best's Key Rating Guide* shall be acceptable to FRSA.
2. Financial Size Rating: Provided an insurer's alphabetical rating is satisfactory, FRSA will examine said insurer's financial size rating.
 - a. If Best classifies the insurer XII or larger, said insurer shall be acceptable to FRSA.
 - b. If Best classifies the insurer as smaller than XII, but larger than VI, said insurer shall be submitted to FRSA's Director of Management Services and/or FRSA's insurance consultant for review.

Financial Size ratings less than VII are not acceptable and will disqualify the Contractor.

3.12.4 Performance Bond and Labor & Materials Payment Bond Form

The Contractor shall provide a Performance Bond and Labor & Materials Payment Bond form acceptable to FRSA. The performance bond shall be for either 100% of the contract price or for the Contractor's unit price times the estimated number of units, as applicable.

This Request for Bids contains a Performance Bond and a Labor & Material Bond form for the Contractor's use.

If the Contractor fails to provide acceptable bonds within the specified time, he shall be in default.

3.12.5 Correction of Contractor's Insurance or Bond Deficiencies

If FRSA determines that the Contractor's insurance or bond documentation does not conform to these specifications, FRSA shall inform said Contractor of the non-conformity. If said Contractor fails to provide conforming insurance or bond documentation within five (5) calendar days of FRSA's deficiency notice, he shall be in default.

3.12.6 Indemnification Clause

Contractor shall protect, indemnify, hold and save harmless and defend FRSA, its officers, officials, employees, volunteers, and agents against any and all claims, costs, causes, actions and expenses, including but not limited to attorney's fees incurred by reason of a lawsuit or claim for compensation arising in favor of any person, including the employees, officers, independent contractors, or subcontractors of the Contractor or FRSA, on account of personal injuries or death, or damages to property occurring, growing out of, incident to, or resulting directly or indirectly from the performance by the Contractor or subcontractor, whether such loss, damage, injury or liability is contributed to by the negligence of FRSA or by premises themselves or any equipment thereon whether latent or patent, or from other causes whatsoever, except that the successful bidder shall have no liability for damages or the costs incident thereto caused by the sole negligence of FRSA.

The indemnification shall not be limited by a limitation on amount or type of damages payable by or for the Contractor or its subcontractor under any employee benefits act including, but not limited, to the Workers Compensation Act.

No inspection by FRSA, its employees, or agents shall be deemed a waiver by FRSA of full compliance with the requirements of the Contract. This indemnification shall not be limited by the required minimum insurance coverages in the Contract.

3.13 Tax Exemption

FRSA is exempt, by law, from paying bidder Federal Excise Tax and Illinois Retailers' Occupational Tax. Therefore, the bidder shall exclude those taxes from his bid. FRSA's tax exemption number is E9992-3696-06. The bidder shall include all applicable taxes in his bid price.

Not to be used for bidding purposes

Article 3 – Detailed Specifications

1 General

This article contains detailed specifications relating to Proposal items. The work to be done under each item is discussed along with units for payment and measurement for payment. However, the descriptions given do not necessarily outline all the work to be done under any item. All work shall conform to the *Standard Specifications for Water and Sewer Main Construction in Illinois*, current edition, the *Four Rivers Sanitation Authority (FRSA) General Provisions and Technical Specifications for Sanitary Sewer Construction*, and applicable sections of the current edition of the *Illinois Department of Transportation's Standard Specifications for Road and Bridge Construction (IDOT Standard Specifications)*.

Throughout these specifications, the terms “Owner,” “FRSA,” and “Engineer” are used interchangeably.

In case of apparent contradictions between Article 3 - Detailed Specifications and the FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction*, these Detailed Specifications shall govern.

The Contractor shall transport all waste material, pipe, pavement, sewer and debris, etc., removed during construction to an approved offsite dumping area and shall pay all associated fees. When construction is halted due to rain, the Contractor shall clean up all work areas and ensure that proper surface drainage is provided before leaving the site.

This project extends through the public right-of-way of Meander Drive in the City of Rockford, IL.

The Contractor shall confine all work operations strictly within the limits shown on the plans. Minor adjustments to the proposed sewer alignments due to obstructions in the field may be made with prior FRSA approval to facilitate construction.

All removal limits shown on the plans shall be adhered to by the Contractor. Any damage to appurtenances outside these limits, including but not limited to pavements, curbs, drainage pipes/structures, signs, mailboxes, retaining walls, landscaped/turf areas, and/or trees, shall be repaired, restored and/or replaced to FRSA's satisfaction at no additional cost to the Contractor.

Any construction performed without an FRSA Inspector present shall not be accepted.

No work shall be permitted on Sundays without prior approval by the FRSA Director of Engineering.

Suppliers shall warrant their products and product components as suitable and fit for the intended purpose and that they are free from all material, design, and manufacturing

defects. Said warranty shall extend to the benefit of FRSA and shall apply to all products and product components whether supplied or fabricated as a result of these Specifications.

FRSA will not supervise, direct, control, have authority over or be responsible for the Contractor's means, methods, techniques, sequences, procedures of construction, safety precautions and programs incident, thereto, or for any failure of the Contractor to comply with Laws and Regulations applicable to the furnishing or performance of the Work. FRSA will not be responsible for the Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

The Contractor shall be responsible for all tests of materials and final installation required by FRSA. All deficiencies noted by the inspectors shall be corrected by the Contractor without cost to FRSA and prior to final payment.

The Contractor shall restore all disturbed areas to near-original contour and state (unless otherwise indicated on the Construction Plans), graded to a neat, well-drained condition. All disturbed turf areas shall be seeded, as hereinafter noted, after approval by FRSA of the prepared topsoil bed. Any damage to pavements, driveways, seeded areas, trees and/or other vegetation, fences, landscaping, structures, fixtures, etc., beyond the plan limits shall be repaired or replaced by the Contractor at no additional cost to FRSA.

All work in streets, railroads, highways or flood plains shall be subject to the regulations and requirements of the jurisdictional agencies or as identified in these Detailed Specifications. Should conflicts or contradictions arise between the plans, specifications and the roadway, railroad or waterway permits, the permits shall govern.

Excavated or other materials shall not be stored or cast upon the pavement. Upon completion of work within the street, railroad, or highway, or flood plain the Contractor shall restore the disturbed areas in accordance with the requirements of the governing agency.

Contractor shall be solely responsible for the safety of the operations, and shall comply with all state, local and OSHA regulations. Contractor shall retain a person competent in complying with OSHA trenching and excavation requirements on site at all times. The person shall be capable of identifying existing and probable hazards in the surroundings, or working conditions which are unsanitary, hazardous or dangerous to employees, and shall be authorized to take prompt corrective measures to eliminate them. The means and methods to comply with construction site safety are the sole responsibility of the Contractor. FRSA staff is not responsible for the Contractor's compliance procedures.

2 Notification, Access, and Special Considerations

2.1 General

Utility locations shown on the plans are based on record information and are not guaranteed. The location and/or elevation of existing underground utilities, such as gas

mains, watermain, electric lines, storm sewers, field tiles, septic system field lines, etc., shall be determined by the Contractor. The Contractor shall assume full responsibility for all utility locations. The Contractor shall notify all utilities forty-eight (48) hours minimum prior to beginning any work by contacting JULIE at 800-892-0123 and all other utilities not on the JULIE network. All underground utilities shall be located in the field by the utility or duly authorized representative. The Contractor shall exercise special care when excavating near underground and overhead utilities to avoid damage. Damaged utilities shall be repaired or replaced to the satisfaction of the Utility owner at the Contractor's sole expense. The Contractor shall be solely responsible for the protection, restraint and support of all utilities.

The Contractor shall notify FRSA, all affected property owners and the City of Rockford Public Works Department Engineering Division seven (7) calendar days, minimum, prior to beginning any work. Said notification shall apply to business days only, not weekends.

All construction on or near driveways shall be coordinated in advance with the individual property owners to ensure that construction operations will have minimal impact on residential accesses. The Contractor shall be responsible for the temporary maintenance of all roadways, driveways, and driveway entrances for the duration of construction (i.e. drives, roadways, ramps, etc., must remain open to vehicular traffic; temporary accesses must be provided, as necessary). All materials, equipment, labor, etc., needed to ensure this shall be included in the various Contract unit prices.

The Contractor shall coordinate all traffic control with the City of Rockford Public Works Department Engineering Division. The roads shall remain open to local traffic as feasible; if a short term full closure is necessary then temporary detours shall be installed for the guidance of local traffic. Any detour signage or additional traffic control appurtenances required by the roadway authority shall be included in the **Traffic Control and Protection, Complete** pay item and no additional compensation will be considered.

Unless separately and specifically approved by the City of Rockford Public Works Department Engineering Division, the Contractor shall conduct all operations in accordance with the City's Construction Noise Ordinance (which bans usage of hammers and power-operated tools for construction purposes between the hours of 10:00 PM and 7:00 AM within 600' of any residential building).

Any damage caused by the Contractor's operations to areas outside of the various project removal items and right of way limits, including but not limited to roadway pavements, driveway pavements, drainage structures, storm sewer, underground utilities, overhead utilities, turf areas, and landscaped areas shall be repaired and/or replaced by the Contractor at no additional cost.

The Contractor shall clean up areas from which spoil has been removed at the end of each day by sweeping, washing or other approved methods. The Contractor shall keep the road right-of-way free from all dirt and construction debris at all times during construction. Any open excavations shall be protected by temporary construction fence at the completion of

work each day; this construction fence shall be considered included in the various pay items included herein and no additional compensation shall be considered for protections of open excavations.

The Contractor is responsible for any damages caused by his operations to existing structures above or below the ground as covered in G.C. 12:1 of FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction*.

The Contractor shall temporarily relocate any mailbox affected by construction and work with United States Postal Service (USPS) officials to provide uninterrupted and accessible mail service. The Contractor shall reinstall mailboxes and turnouts to their original positions (or alternate approved location per the USPS). With approval from the USPS and the City of Rockford the Contractor may install temporary mailboxes should construction operations impact the uninterrupted mail service. All costs associated with mailbox relocation, reinstallation, and/or temporary facilities shall be considered included in the various pay items and no additional compensation shall be awarded.

It shall be the Contractor's responsibility to secure any additional temporary or permanent access, storage or construction easements deemed necessary from property owners prior to performing the work as shown on the plans and outlined in the specifications.

The Contractor shall not damage, disturb, remove or otherwise eliminate any survey monument, monument tie, lot pin, right-of-way marker, etc., until the exact locations have been recorded by a Professional Land Surveyor currently licensed in the State of Illinois. The Contractor shall enlist the services of a registered Illinois Professional Land Surveyor to locate, document and restore/reset any and all monuments damaged or disturbed as a result of construction. No separate payment will be made for this work.

The Contractor shall provide, and have available on site at all times, a calibrated level and rod.

IDOT Highway Standards Included in this Contract:

1. Standard 280001-07: Temporary Erosion Control Systems
2. District 2 Standard 40.1: Traffic Control for Road Closure

Notifications

All of the following parties shall be notified at least seven (7) calendar days (minimum) prior to beginning any work:

1. All affected property owners.
2. FRSA Engineering Department (815-387-7660)..
3. City of Rockford Public Works Department Engineering Division (779-348-7300).

2.2 Required Submittals – Not used.

2.3 Measurement and Payment

No separate payment will be made for costs associated with notification, access, and special considerations.

3 Permit Requirements

3.1 General

All work in streets, highways, railroad right-of-way and utility easements or right-of-way shall be subject to the regulations and requirements of the jurisdictional agencies. Should conflicts or contradictions arise between the plans, specifications and the roadway, railroad, or utility permits, the permits shall govern.

The Contractor shall be responsible for obtaining a City of Rockford Right-of-Way Permit (included in this Contract in Section V) prior to starting work and for securing all bonds, insurance, and paying all fees required for this permit. Right-of-Way Permits applications shall be coordinated with the City of Rockford Public Works Department Engineering Division (779-348-7300). A copy of the approved permit shall be provided to FRSA prior to the start of construction, and the Contractor shall comply with all provisions of the approved permit.

3.2 Required Submittals

1. Copies of signed permits, as applicable.

3.3 Payment

The cost of permit procurement and compliance with any and all permit requirements shall be included in the various Contract unit prices and no additional compensation will be awarded.

4 Erosion and Sediment Control

4.1 General

The total disturbed area for this project is estimated to be more than 1.0 acre. A Notice of Intent (NOI) and a Storm Water Pollution Prevention Plan (SWPPP) has been submitted to the Illinois Environmental Protection Agency (IEPA).

The Contractor shall comply with all the requirements of the IEPA's *Illinois Urban Manual*, current edition and Section 280 of the *IDOT Standard Specifications*. All disturbed areas shall be restored to near-original contours and seeded in accordance with the **Seeding, Class 2A with Fertilizer** Section of these Detailed Specifications.

The erosion control devices, materials, and procedures specified in these Contract documents are to be considered a minimum. Additional devices or materials may be required based on site conditions encountered, at the direction of the Engineer. Any

devices, material, or procedures beyond these shown on the plans shall be provided by the Contractor at no additional cost to the FRSA.

The Contractor shall take whatever measures FRSA deems necessary to eliminate excessive erosion or siltation and fully comply with the IEPA permit, including, but not limited to, inlet protection, seeding, sodding, erosion control blanket, silt fence, etc.

The Contractor shall remove and dispose of all temporary erosion control devices within thirty (30) days of final site stabilization after approval by FRSA.

4.2 Required Submittals – Not used.

4.3 Payment

This work will be paid for as hereafter outlined below under the following pay items: **Stabilized Construction Entrance, Inlet and Pipe Protection, Temporary Ditch Checks, and Seeding, Class 2A with Fertilizer**, installed and/or complete in place. No separate payment shall be made for erosion control beyond these pay items.

5 Dewatering

5.1 General

Contractor shall use all means at his disposal to maintain dry trenches to the satisfaction of FRSA.

If dewatering is required, well point permits must be obtained from the Winnebago County Health Department (WCHD). Well point installation, maintenance, operation and removal shall be per WCHD requirements. The WCHD shall be notified prior to well placement and removal.

Groundwater will not be allowed to be pumped on existing ground surfaces or pavements where it may cause a traffic nuisance, or into existing sanitary sewers; it shall be discharged at points acceptable to FRSA, with all erosion control requirements and specifications taken into consideration.

Any permits required to perform dewatering work on this project shall be secured by the Contractor; it shall be the Contractor's responsibility to provide any bonds, insurance, guarantees, etc., as required by said permits. Abandonment of dewatering facilities shall be performed in accordance with pertinent State and County requirements. If generators are required on a twenty-four (24) hour basis, the noise level shall be restricted to a level of 90 decibels or less. Approval to operate generators on a twenty-four (24) hour basis shall be obtained from the City of Rockford prior to implementation.

All residents in the project area are served by private water wells. If trench dewatering becomes necessary, the Contractor shall exercise caution to avoid any detrimental impact

to area wells. The Contractor shall be responsible for maintaining adequate water service to all residents and shall be solely liable for any wells that become dry as a result of construction.

5.2 Required Submittals

1. Copy of permits, as applicable.

5.3 Payment

This work shall be included in the various pay items and no separate compensation will be considered.

6 Sanitary Sewer, PVC SDR35, 8" Dia.

6.1 General

The work under this item includes all labor, equipment, materials, permits, mobilization, site preparation, dewatering, trench excavation, utility restraint and protection, pipe bedding, backfilling and compaction, furnishing and installing sanitary sewer pipe, as directed or required, on grade and in line according to the plans and specifications. This item shall also include all required sanitary sewer testing, wye or tee fittings, adapters and risers as required, special embedment, power tamping, dust control, supervision, transportation, and any other item necessary to satisfactorily install and test the new sanitary sewer system.

Sanitary sewer pipe that varies ± 0.02 feet from the proposed grade and/or ± 0.15 feet from the proposed line will not be accepted. More stringent tolerances may be required in the field as directed by FRSA. The Contractor shall be solely responsible for setting and maintaining proper lines and grades for all work. FRSA shall not be obligated to establish construction grade or alignment.

The Contractor shall provide at least one (1) laser device for setting lines and grades of sub-grade and pipe inverts during all phases of construction. The device(s) shall be of acceptable design and maintained in good working condition for the duration of the project. The Contractor shall employ workers competent in the setup and operation of said device(s). Said device(s) shall be operated at no extra cost to FRSA.

Sanitary sewer pipe and pipe-laying methods must conform to the requirements of FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction* and as stated elsewhere herein.

6.2 Pipe Bedding and Trench Backfill

Pipe Bedding:

Pipe bedding for PVC pipe shall be Class IA per ASTM Standard D2321. Prior to placement, the trench bottom shall be graded to a firm, level, uniform base for the bedding. If the trench bottom is unstable prior to placement of pipe bedding (as determined by FRSA), the trench

bottom shall be modified, as shown on the plans or as otherwise directed, in accordance with the requirements of the **Sanitary Sewer Trench Subbase Improvement** pay item. The trench bottom shall be bedded with six inches (6") minimum crushed stone foundation. The foundation material shall be a coarse aggregate material of a gradation distribution that will inhibit the migration of the bedding material into trench bottoms and walls.

Crushed stone shall be placed to a minimum of twelve inches (12") above the top of the pipe. The pipe manufacturer's bedding recommendations shall be followed; if they are at variance with the above-specified criteria the more stringent requirements shall be adhered to. Bedding shall be graded such that it precludes the migration of trench wall material into the bedding; FRSA shall approve this bedding material after the characteristics of the trench are determined.

Trench Backfill:

The Contractor shall use approved select trench backfill to the subgrade elevation under all roads, shoulders, sidewalks, driveways, parking lots or pavements of any kind and beyond such pavements as set forth in FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction* T.S. 2:4-c. Select trench backfill materials shall be in accordance with Section 208 of the *IDOT Standard Specifications* and shall be either Fine Aggregate in accordance with Article 1003.04 of the *IDOT Standard Specifications* or Coarse Aggregate in accordance with Article 1004.05 of the *IDOT Standard Specifications*. Crushed concrete materials approved by IDOT and in accordance with these Articles may be allowed in lieu of virgin materials, subject to the approvals of the jurisdictional roadway authority (City of Rockford), for inclusion in the project. All trench backfill shall be placed and compacted in accordance with Method 1 of Article 550.07 of the *IDOT Standard Specifications* to the subgrade elevation of the road shoulder, sidewalk, driveway, parking lot or other pavement. Disposal of surplus excavated materials, including those which are replaced by trench backfill, shall be made in accordance with Article 202.03 of the *IDOT Standard Specifications*. No additional compensation will be considered for disposal of surplus excavated materials or placement and compaction of trench backfill; all costs shall be included in the various sanitary sewer pay items.

The Contractor shall exercise care not to disturb any existing utilities during backfilling and compaction operations.

The Contractor shall furnish all personnel and equipment necessary to satisfactorily install backfill materials. All select trench backfill shall be compacted to ninety-five percent (95%) of Standard Proctor density; all other backfill shall be compacted to ninety percent (90%) minimum of Standard Proctor density. Compaction testing shall be performed at the Contractor's expense by an approved, independent geotechnical-testing firm. The testing firm shall be onsite during the first day of backfill operations to determine the mechanical compaction efforts necessary to obtain the required density, and thereafter at intervals to be determined by the Engineer (with a minimum frequency of one set of density tests per week of backfill operations). Should materials and/or site conditions change, additional

compaction testing will be required. In all cases, the final lift of backfill shall be properly tested. All test results shall be provided to FRSA.

The Contractor shall use reasonable care while backfilling over the sewer. No materials such as rocks or boulders shall be allowed to be dropped directly on the sewer pipe. If these materials are present in the backfill, the Contractor shall place bedding material to a level of 24" above the crown of the pipe. All costs associated with this additional granular material shall be included in the various sanitary sewer pay items and no additional compensation will be considered.

The Contractor shall provide a three (3) year guarantee against trench settlement upon completion of the project and shall repair any settlement that occurs during the time period.

6.3 Materials

Pipe:

PVC pipe shall be SDR35 meeting the requirements of ASTM D-3034 with joints conforming to ASTM D-3212.

All material tests shall be in accordance with manufacturer and FRSA requirements and shall comply with all applicable ASTM specifications. Manufacturer material specifications and certifications for all castings, pipes, fittings, connectors, adapters, etc., must be furnished, upon request, for all materials to be used under this Contract.

6.4 Required Submittals

1. Pipe and fitting material specifications.
2. Material gradation certifications for proposed bedding material and select trench backfill.

6.5 Measurement and Payment

Measurement for payment shall be horizontal along the centerline of the installed pipe from center-of-manhole to center-of-manhole. Payment will be made at the Contract unit price per Linear Foot of **Sanitary Sewer, PVC SDR35, 8" Dia.**, installed, complete in place.

7 Sanitary Manhole, 4' Dia.

7.1 General

This work shall consist of all labor, equipment, materials, transportation, excavation, accessories, trench backfill, and performance of all operations required to furnish and install precast concrete sanitary manholes as directed by FRSA, all in accordance with Section 602 of the *IDOT Standard Specifications*, FRSA's *Standard Detail Sheet*, and Article 6:3 and 7 of FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction*. Work shall also include furnishing and installing an FRSA-approved

manhole frame and lid adjusted to grade as indicated on plans. Contractor shall field-verify all proposed rim elevations.

All standard manholes shall be successfully vacuum tested per ASTM C-1244 "Standard Test Method for Concrete Sewer Manholes by the Negative Pressure (Vacuum) Test" prior to placing into service.

Manhole shop drawings shall be submitted to FRSA for approval prior to manufacturing and shall include a specific detail for each manhole showing the number and height of barrel sections, height of cone section, number and size of adjusting rings, location and spacing of steps and elevations of all pipe openings. A plan view shall be provided showing the orientation of pipe openings.

Manhole steps:

FRSA-approved manhole steps shall be provided with a maximum spacing of 16". The top of the pre-cast cone section shall be set at an elevation that will allow the frame to be adjusted (12" maximum) without disturbing the cone section. No more than thirty inches (30") from the top of casting to the first step will be allowed.

Manhole Adjustment:

The Contractor shall field verify all proposed rim elevations and shall adjust manholes in accordance with Sections 603 and 604 of the *IDOT Standard Specifications*. Manhole frames shall be set 1/4" minimum to 3/8" maximum below final grade in pavement areas and at final grade in turf areas. Adjusting rings shall be either standard precast reinforced concrete or expanded polypropylene (EPP) rings in accordance with FRSA's *Standard Detail Sheet*. Differing ring types may be used in conjunction with each other, however a precast concrete ring shall not be placed over an EPP ring. Minimum ring thickness shall be two inches (2") and maximum ring thickness shall be twelve inches (12"). Precast adjusting rings shall be four inches (4") thickness or greater.

For precast concrete adjusting rings:

All adjusting ring joints, as well as the joint between the frame and adjustment ring, shall be sealed watertight by means of an all-weather rubber butyl sealant designed for the purpose of sealing concrete structures water-tight. The adjusting ring surface shall be dry and free of foreign material. The surface shall be dried and heated with a weed burner when outside temperatures are less than optimum for adhesion of the sealant to the concrete.

Frames in the roadway shall be pitched to match the slope of pavement. When using precast concrete adjusting rings, plastic shims must be equally spaced with no more than one inch (1") of total adjustment. In this case, no butyl material seal will be used under the frame, and the void area between the frame and the first adjustment ring shall be filled with a non-shrink grout. No trench compaction shall take place until the grout has cured and hardened.

For expanded polypropylene (EPP) adjusting rings:

The use of EPP adjustment rings shall be according to Sections 602 and 1043 of the IDOT Standard Specifications, and Supplemental Specifications & Recurring Special Provisions, most recent edition. The EPP adjustment rings shall be installed according to the manufacturer's instructions. If the top surface of the manhole is not level, even, or is irregular, a non-shrink grout shall be placed to create a level surface and the first EPP ring shall be bedded and leveled in the non-shrink grout. The joints between the manhole, all adjustment rings, and the frame shall be sealed with the manufacturer's recommended/specified adhesive. The top ring shall be a 'finish ring' when pitching the frame is not necessary.

Frames in the roadway shall be pitched to match the slope of pavement. The top ring shall be a tapered 'adjustment' ring when pitching the frame is required. Shimming is not an acceptable method of pitching when using EPP rings. The upper most ring shall have grooves on the lower surface and a flat upper surface.

External adjustment seals are required, regardless of the type of adjustment rings used. Heat shrinkable adjustment seals shall not be used with EPP rings.

The Contractor shall install an FRSA-approved external adjustment seal on all proposed manholes as indicated on the *Standard Detail Sheet* and shall install FRSA-approved external seals on all manhole barrel section joints (Cretex, Mac Wrap or CANUSA Wrapid Seal).

Manhole Connections:

The Contractor shall field verify all materials, sizes, and elevations of all existing pipes to be connected. Pipe connections to new manholes shall be made by means of either rubber gasket seal (A-LOK or approved equal) conforming to ASTM F-477 and cast integrally into the manhole wall, or a rubber gasket seal and stainless steel clamp (PSX Series Six or approved equal) conforming to ASTM C-923.

The Contractor shall construct a manhole bench in each manhole per the *Standard Detail Sheet* or per FRSA direction.

7.2 Materials

Precast concrete adjusting rings shall be standard reinforced concrete pipe pattern and shall conform to ASTM C478 and ASTM C139. There shall be no spalled edges or cracks. Precast concrete adjusting rings shall be size 4 inch height or greater.

Expanded polypropylene (EPP) rings shall be in accordance with Section 1043 of the IDOT Standard Specifications.

Precast concrete adjusting ring sealant shall be a flexible rubber butyl pre-formed sealant designed for the purpose of making concrete structure joints water-tight. Material shall conform to ASTM C990.

EPP ring sealant used for watertight installation of the EPP rings shall meet ASTM C 920, Type S, Grade NS, Class 25, Uses NT, T, M, G, A, and O.

Manhole exterior adjustment seals shall be of a rubber compound in accordance with ASTM C-923 and shall have two stainless steel compression bands also in accordance with ASTM C-923.

Manhole frames & lids shall be Neenah 1670-2004 (standard) frame with Neenah R-1670-0358 lid, or Neenah 1670-2008 (low profile) frame with Neenah R-1670-0358 lid, or approved equal.

7.3 Required Submittals

1. Manhole shop drawings including a specific detail for each manhole showing the number and height of barrel sections, height of cone section, number and size of adjusting rings, location and spacing of steps and elevations and sizes of all pipe openings. A plan view shall be provided showing the orientation of pipe openings.
2. Frame and lid material specifications.
3. Chimney seals material specifications.
4. Barrel joint seals material specifications.
5. Manhole to pipe transition couplings material specifications.
6. Manhole steps material specifications.
7. Sealant material specifications.

7.4 Payment

This work will be paid for at the Contract unit price per Each **Sanitary Manhole, 4' Dia.** constructed, complete in place, and shall include all labor, equipment, and materials.

8 Sanitary Manhole to be Removed and Replaced, 4' Dia.

8.1 General

This work shall include removal of existing sanitary manholes and installation of a new precast sanitary manhole per the Section titled **Sanitary Manhole, 4' Dia.** of this document at the same location or near-same location, as indicated on plans.

The Contractor shall field verify all proposed rim elevations and shall construct manholes to be in conformance with manhole adjustment requirements.

The Contractor shall field verify all materials, sizes, and elevations of all existing pipes to be connected.

New manholes that connect to existing sanitary sewers shall be constructed in the factory with only the opening for the pipe exiting the manhole cast in place. All other proposed openings shall be core drilled in the field. The manhole bench shall be constructed or modified in the field as directed by FRSA.

All connections between new manholes and existing sanitary sewer shall be made with a minimum of 5.0' of new PVC Pipe. Connection shall be made to sound pipe. Pipe and transition couplings shall conform to the Section titled **Sanitary Sewer, PVC SDR35, 8" Dia.** of this document. Pipe used to connect new manholes and existing sanitary sewer shall be considered included in this bid item and no additional compensation will be considered.

Pipe connections to new manholes shall be made by means of either rubber gasket seal (A-LOK or approved equal) conforming to ASTM F-477 and cast integrally into the manhole wall, or a rubber gasket seal and stainless steel clamp (PSX Series Six or approved equal) conforming to ASTM C-923.

8.2 Materials

Materials shall be in accordance with Section 7.2 of the **Sanitary Manhole, 4' Dia.** pay item.

8.3 Required Submittals

1. Submittals shall be in accordance with Section 7.3 of the **Sanitary Manhole, 4' Dia.** pay item.

8.4 Measurement and Payment

This work will be paid for at the contract unit price per Each for **Sanitary Manhole To Be Removed & Replaced, 4' Dia.**

9 Sanitary Sewer Service, 4" Dia.

9.1 General

Work under this item includes mobilization, site preparation, dewatering, trench excavation, backfilling and compaction, special pipe bedding, furnishing and installing: four-inch (4") diameter PVC (SDR 26) water main quality ("WMQ") sanitary service pipe per ASTM D-2241 with ASTM D-3139 gaskets, from the sewer main to the roadway right-of-way limits as shown on the plans (or as otherwise directed by FRSA), service risers as shown or directed, bends and air-tight stoppers in the upper end of each service. Service risers will be required at the main where the depth of the sewer main exceeds 13 feet. The risers must be 11.5 feet vertical, minimum, below the first floor elevations as shown on the Plans, unless otherwise directed. Where directed or required, FRSA's Alternative Service Riser Detail shall be used as shown on the *Standard Detail Sheet*. Cleanout risers are required at all service termini.

With prior FRSA approval, the sewer service locations may be changed from those shown on the plans. Where possible, the service shall be installed at the property owner's requested location, unless interferences with utilities, grade concerns or other conflicts prohibit the installation of the service at the desired location. No additional payment will be awarded for changes in service locations.

Trench foundation, bedding and pipe laying requirements for PVC services shall be per Section 6.2 above.

9.2 Materials

Sanitary service pipe shall be PVC SDR 26 PVC WMQ pipe meeting the requirements of ASTM D-2241 with joints conforming to ASTM D-3139.

9.3 Required Submittals

1. Pipe, fitting, and repair coupling material specifications.
2. Material gradation certifications for proposed bedding material and select trench backfill.

9.4 Measurement and Payment

This work will be paid for at the Contract unit price per Each **Sanitary Sewer Service, 4" Dia.**, installed, complete in place.

10 Sanitary Sewer Trench Subbase Improvement

10.1 General

This work shall consist of the removal of unsuitable trench subbase material below the proposed sanitary sewer bedding level and replacement with coarse aggregate in order to provide a compacted uniform and stabilized foundation for the sanitary sewer PVC pipe bedding. The minimum depth of the trench subbase improvement shall be 12" unless otherwise directed by FRSA. Disposal of surplus excavated materials which are replaced by the Trench Subbase Improvement shall be made in accordance with Article 202.03 of the *IDOT Standard Specifications*.

10.2 Materials

The Subbase Improvement aggregate shall be IDOT Gradation CA-1. Course Aggregates shall be in accordance with Article 1004.04 of the *IDOT Standard Specifications for Road and Bridge Construction*, Current Edition.

10.3 Required Submittals

1. Material gradation certifications for aggregates.

10.4 Measurement and Payment

This work will be paid for at the Contract unit price per Cubic Yard for **Sanitary Sewer Trench Subbase Improvement** complete, in place. Calculation of quantities for payment shall be based on a maximum width of the nominal diameter of the pipe plus 36" in width to the excavated depth as directed by FRSA.

11 Pavement Removal

11.1 General

This work shall be done in accordance with Section 440 of the *IDOT Standard Specifications for Road and Bridge Construction*, Current Edition and shall involve the complete removal and disposal of the existing hot-mix asphalt pavement at Meander Drive and driveway entrances to the limits indicated on the plans. This pay item shall also include removal of the existing subgrade below the pavement to the depths necessary to achieve the full pavement reconstruction (12" of Aggregate Base Course, Type B with 2-1/2" of Hot-Mix Asphalt Binder Course and 1-1/2" of Hot-Mix Asphalt Surface Course). Maximum pay limits for the removal

are shown on the plans; the Contractor shall not remove any pavement outside of these limits without receiving prior written approval from FRSA. Unless otherwise approved by FRSA, any damage done to adjacent pavements during construction shall be replaced (full depth) by the Contractor at no additional cost.

Anticipated depths of pavement to be removed have been itemized in the *Report of Soils Exploration* (Section III). The Contractor is reminded that these depths are approximate and the total thickness to be removed may vary. No additional compensation will be considered for removal of pavement that is a greater thickness than identified.

The removal limits shall be sawcut full depth prior to pavement removal. The remaining pavement, including pavement edges shall be protected from all damage. All costs associated with sawcutting and pavement protection shall be included in this work.

Access to driveways must be maintained before the final pavement restoration by utilizing temporary aggregate or temporary hot-mix asphalt ramps. Drop offs between the existing edges of pavement and the driveway subgrade will not be allowed and the temporary aggregate or hot-mix asphalt ramps shall be maintained at all times. All costs associated with these temporary ramps shall be included in this pay item.

11.2 Required Submittals – Not used.

11.3 Payment

Payment for this work shall be made at the Contract unit price per Square Yard of **Pavement Removal**.

12 Combination Curb & Gutter Removal

12.1 General

This work shall be done in accordance with Section 440 of the *IDOT Standard Specifications* and shall involve the complete removal and disposal of the existing curbs and/or gutters where indicated on the plans. Maximum pay limits for the removal are shown on the plans; the Contractor shall not remove any curb and/or gutter beyond these limits without prior written District approval. The Contractor shall replace any adjacent curbs and gutters damaged during the course of construction at no additional cost to the Contract, unless approved in advance by the District.

The removal limits shall be sawcut full depth prior to removing curb. The remaining curbs and/or gutters shall be protected from all damage. All costs associated with sawcutting and curb protection shall be considered incidental to this pay item.

All curbs and gutters removed shall be disposed of offsite in accordance with all applicable State or Federal laws and regulations. The Contractor shall adhere to all Clean Construction or Demolition Debris disposal regulations.

12.2 Materials – Not used.

12.3 Required Submittals – Not used.

12.4 Payment

Payment shall be made at the Contract unit price per Linear Foot of **Combination Curb & Gutter Removal**.

13 Pipe Culvert Removal, 12” Dia.

13.1 General

This work shall conform to Section 501 of the *IDOT Standard Specifications* and shall include the full or partial removal and disposal of existing culvert pipes as indicated on the plans. The existing culvert pipes are anticipated to be corrugated metal; no additional compensation shall be granted for removal of pipes of differing sizes or materials.

The culverts shall be removed to the nearest joint in order to provide a clean edge for attaching the replacement pipe. The exposed edge shall be protected from deformation and all damage such that it can receive the replacement pipe with a band or coupler.

Disposal of the materials shall be in accordance with Article 202.03 of the *IDOT Standard Specifications*.

Upon removal of the culvert pipes, positive drainage to the downstream ditches shall be maintained by grading and/or temporary pipes. Any costs associated with temporary drainage and maintenance shall be included in this pay item.

13.2 Materials – Not Used.

13.3 Required Submittals – Not Used.

13.4 Payment

Payment shall be made at the Contract unit price per Linear Foot of **Pipe Culvert Removal, 12” Dia.**

14 Pipe Culverts, Class C, TY 1 Galvanized Corrugated Steel, 12” Dia.

14.1 General

This work shall conform to Section 542 of the *IDOT Standard Specifications* and shall include furnishing and installing pipe culverts to the line and grade shown on the plans. All pipe shall be galvanized corrugated steel pipe. All pipe culverts to be installed under or within 2’ of pavements, curbs, driveways, and/or sidewalks shall be backfilled with FRSA-approved trench backfill material. Trench backfill shall be compacted to 95% of the standard laboratory density in accordance with Method 1 in Article 550.07(a) of the *IDOT*

Standard Specifications. No additional compensation will be made for trench backfill and all costs shall be included with this pay item.

The culvert pipes shall be connected to existing pipe that is of sound condition with bands or couplers per the manufacturer's recommendations.

14.2 Materials

Galvanized corrugated steel pipe shall be in accordance with Article 1006.01 of the *IDOT Standard Specifications*. Trench Backfill shall be in accordance with Article 1003.04 or Article 1004.05 of the *IDOT Standard Specifications*.

14.3 Required Submittals

1. Material certification for the galvanized corrugated steel pipe.
2. Material certification for couplings and/or fittings.
3. Gradation report for the trench backfill material.

14.4 Payment

Payment shall be made at the Contract unit price per Linear Foot of **Pipe Culverts, Class C, Type 1 Galvanized Corrugated Steel, 12" Dia.** installed, complete in place.

15 Grading and Shaping Ditches

15.1 General

This work shall consist of grading and shaping ditches as shown on the Plans or as otherwise directed. All surplus, unstable, or excess material shall be disposed of according to Article 202.03 of the *IDOT Standard Specifications*.

Final topsoil placement and seeding of ditches shall be included in the **Topsoil Furnish and Place, 6"** and **Seeding, Class 2A with Fertilizer** pay items.

15.2 Materials – Not Used.

15.3 Required Submittals – Not Used.

15.4 Measurement and Payment

This work will be paid for at the Contract unit price per Linear Foot for **Grading and Shaping Ditches**.

16 Aggregate Base Course, Type B, 12"

16.1 General

This work shall include subgrade preparation, removal and disposal of excess material, furnishing and placing compacted Aggregate Base Course, Type B, and trimming and prepping aggregate base for subsequent pavement placement as indicated on the Typical Sections shown on the Plans. This work shall be in conformance with Section 351 of the *IDOT Standard Specifications for Road and Bridge Construction*, Current Edition.

The Contractor shall furnish all personnel and equipment necessary to satisfactorily place and compact the aggregate base course. All aggregate base course shall be compacted to one-hundred percent (100%) of the Standard Proctor density. Compaction testing shall be performed at the Contractor's expense by an approved, independent geotechnical-testing firm. The testing firm shall determine the mechanical compaction efforts necessary to obtain the required density and provide density testing thereafter at intervals to be determined by the Engineer. Should materials and/or site conditions change, additional compaction testing will be required at the direction of the Engineer. Prior to placement of HMA Binder Course, density testing to verify the aggregate base course is in compliance with density requirements and a proof roll shall be completed.

16.2 Materials

Aggregate base course shall be 12" total compacted thickness, with 6" of Gradation CA-2 in the bottom layer and 6" of Gradation CA-6 in the upper layer. Course Aggregates shall be in accordance with Article 1004.04 of the IDOT *Standard Specifications for Road and Bridge Construction*, Current Edition. Crushed concrete materials approved by IDOT and in accordance with Article 1004.04 may be allowed in lieu of virgin materials, subject to the approval of the jurisdictional roadway authority (City of Rockford).

16.3 Required Submittals

1. Material gradation certifications for aggregates.

16.4 Measurement and Payment

This work will be paid for at the Contract unit price per Square Yard for **Aggregate Base Course, Type B, 12"**, complete, in place.

17 Aggregate Subgrade Improvement, Variable Depth

17.1 General

This work shall consist of constructing an aggregate subgrade improvement beneath the aggregate base course, where necessary, and as directed by FRSA. The work shall include the removal and disposal of unsuitable material, furnishing, placing, installing and compacting aggregate, and grading and shaping the subgrade improvement prior to aggregate base course placement. Minimum depth shall be 12"; greater depths deeper may be required at some locations if directed by FRSA.

17.2 Materials

Aggregate subgrade improvement shall be a minimum depth of 12" of gradation CA-01, CS-01, CS-02, or RR-1 aggregate in accordance with the IDOT *Standard Specifications for Road and Bridge Construction*, Current Edition. Crushed concrete materials approved by IDOT and in accordance with Article 1004.04 may be allowed in lieu of virgin materials, subject to the approval of the jurisdictional roadway authority (City of Rockford).

17.3 Required Submittals

1. Material gradation certifications for aggregates.

17.4 Measurement and Payment

This work will be paid for at the Contract unit price per Cubic Yard for **Aggregate Subgrade Improvement, Variable Depth**, compacted, complete in place.

18 Hot-Mix Asphalt Binder Course, IL-19.0, N50, 2.5"

18.1 General

This work shall be in accordance with T.S. 4:3/Pavement Restoration of the *General Provisions and Technical Specifications for Sanitary Sewer Construction in the Sanitary District of Rockford*, and with Section 406 of the *IDOT Standard Specifications for Road and Bridge Construction*, Current Edition.

The work shall be performed to the satisfaction of FRSA and the jurisdictional roadway authority (City of Rockford).

Tack coat shall be SS-1 bituminous materials; all costs associated with placement of the tack coat shall be considered included in this pay item and no additional compensation will be considered.

Placement of hot-mix asphalt shall be coordinated with the property owners to minimize obstructions to vehicular access to the greatest extent possible.

Prior to placement of any Hot-Mix Asphalt Binder Course, a pre-pave inspection shall be held to ensure proper preparation of the Aggregate Base Course. The pre-pave inspection shall be attended by the Contractor, paving Subcontractor (as applicable), roadway authority representative(s), and FRSA personnel. All attendees shall approve of the preparation prior to paving operations commencing.

The Quality Management Program for hot-mix asphalt on this Contract shall be Quality Control/Quality Assurance (QC/QA) in accordance with Article 1030.09 of the *IDOT Standard Specifications for Road and Bridge Construction*, Current Edition.

18.2 Materials

HMA Binder Course shall be mixture IL-19.0, N50 in accordance with Section 1030 of the *IDOT Standard Specifications for Road and Bridge Construction*, Current Edition.

Tack coat shall be SS-1 in accordance with Section 1032 of the *IDOT Standard Specifications*.

18.3 Required Submittals

1. HMA mix designs.
2. Tack coat material certifications.

18.4 Measurement and Payment

This work will be paid for at the contract unit price per Ton for **Hot-Mix Asphalt Binder Course, IL-19.0, N50, 2.5"** complete, in place.

19 Hot-Mix Asphalt Surface Course, IL-9.5, Mix "D", N50, 1.5"

19.1 General

This work shall be in accordance with T.S. 4:3/Pavement Restoration of the *General Provisions and Technical Specifications for Sanitary Sewer Construction in the Sanitary District of Rockford*, and with Section 406 of the *IDOT Standard Specifications for Road and Bridge Construction*, Current Edition.

The work shall be performed to the satisfaction of FRSA and the jurisdictional roadway authority (City of Rockford). The roadway authority shall be notified a minimum of seven (7)

calendar days prior to pavement replacement. At the discretion of FRSA, maintenance and temporary restoration of roads, drives, fences, etc., will be required; this work shall be done by the Contractor without delay.

Tack coat shall be SS-1 bituminous materials; all costs associated with placement of the tack coat shall be considered included in this pay item and no additional compensation will be made.

Placement of hot-mix asphalt shall be coordinated with the property owners to minimize obstructions to vehicular access to the greatest extent possible.

The Quality Management Program for hot-mix asphalt on this Contract shall be Quality Control/Quality Assurance (QC/QA) in accordance with Article 1030.09 of the IDOT *Standard Specifications for Road and Bridge Construction*, Current Edition.

19.2 Materials

HMA Surface Course shall be Mix “D”, IL-9.5, N50 in accordance with Section 1030 of the IDOT *Standard Specifications for Road and Bridge Construction*, Current Edition.

Tack coat shall be SS-1 in accordance with Section 1032 of the IDOT *Standard Specifications*.

19.3 Required Submittals

1. HMA mix designs.
2. Tack Coat material certifications.

19.4 Measurement and Payment

This work will be paid for at the contract unit price per Ton for **Hot-Mix Asphalt Surface Course, Mix “D”, N50, IL-9.5, 1.5”** complete, in place. Surface course mixture in excess of 103% of the adjusted plan quantity will not be measured for payment. The adjusted plan quantity for surface course mixtures shall be calculated in accordance with Article 406.13(b) of the IDOT *Standard Specifications for Road and Bridge Construction*, Current Edition.

20 Combination Concrete Curb and Gutter, Type M6.18 (Modified)

20.1 General

This work shall conform to Section 606 of the IDOT *Standard Specifications* and consist of installation of concrete curb and gutter as shown on the plans. Curb and gutter shall include “spill-out” and “depressed” sections at the locations indicated on the plans. For payment purposes, all concrete curb and gutter sections will be regarded as the same type – no separate pay distinction will be made for standard, spill-out, or depressed curb and gutter types.

20.2 Materials

Portland Cement Concrete shall be Class SI mix per Article 1020.04 of the IDOT *Standard Specifications*.

20.3 Required Submittals

1. PCC mix designs.

20.4 Payment

Payment shall be made at the Contract unit price per Linear Foot of **Combination Concrete Curb and Gutter, Type M6.18 (Modified)** installed, complete in place. Depressed and “spill-out” curb and gutter sections shall be paid for at the same unit price.

21 Stabilized Construction Entrance

21.1 General

This work shall include the installation of temporary construction entrances as shown on the Plans for construction traffic access to the project site and shall consist of a stabilized pad of coarse aggregate underlain with filter fabric. All work shall conform to the Illinois Urban Manual’s Practice Standard “Stabilized Construction Entrance”, Code 930. The minimum thickness of the aggregate shall be 6”. Filter fabric will not be paid for separately; costs shall be included in this pay item.

Unless otherwise directed by FRSA, the stabilized entrance shall be installed as shown on the Plans.

When necessary, this work shall include furnishing and installing temporary pipe culvert(s) to maintain drainage. The aggregate shall be routinely removed and replaced as needed to effectively contain sediment and other material.

Removal of the stabilized construction entrance upon completion of construction will not be paid for separately but shall be included in this pay item.

21.2 Materials

Coarse Aggregate shall be IDOT Gradation CA-1, CA-2, CA-3, or CA-4 per Section 1004 of the *IDOT Standard Specifications*. Broken concrete will not be allowed as a substitute for virgin aggregate. Filter fabric shall be in accordance with Article 1080.03 of the Standard Specifications.

21.3 Required Submittals

1. Material gradation certifications for aggregates.
2. Material certifications for the filter fabric.

21.4 Payment

Payment shall be made at the Contract unit price per Square Yard of **Stabilized Construction Entrance**, complete in place.

22 Temporary Ditch Checks

22.1 General

This work shall be in accordance with Section 280.04(a) of the *IDOT Standard Specifications* and consist of furnishing, installing, maintaining, and final removal of temporary ditch checks at the locations depicted on the plans or as otherwise directed.

Temporary ditch checks must extend fully across the ditch cross sections, terminate at the top of the banks, and shall be installed prior to excavation. Temporary ditch checks shall be removed upon completion of final turf restoration; removal of the temporary ditch checks upon completion of construction will not be paid for separately but shall be considered included in this pay item.

22.2 Materials

Temporary ditch checks shall be constructed with products from the IDOT qualified product list or excelsior logs. Excelsior logs shall be in accordance with Article 1081.15(f) of the *IDOT Standard Specifications*.

22.3 Required Submittals

1. Material certifications for the temporary ditch checks.

22.4 Payment

Payment shall be made at the Contract unit price per Linear Foot of **Temporary Ditch Checks**, complete in place.

23 Erosion Control Blanket

23.1 General

This work shall be in accordance with Article 251.04 of the *IDOT Standard Specifications*. Erosion control blanket shall be installed on seeded areas within twenty-four (24) hours of seed placement.

Erosion control blanket shall be installed on all seeded areas throughout the project limits.

23.2 Materials

All erosion control blanket shall be in accordance with Article 1081.10(a) and/or Article 1081.10(c) of the *IDOT Standard Specifications*.

23.3 Required Submittals

1. Material certifications for the erosion control blanket.

23.4 Payment

Payment shall be made at the Contract unit price per Square Yard of **Erosion Control Blanket**, complete, in place.

24 Inlet and Pipe Protection

24.1 General

This work shall be in accordance with Section 280 of the *IDOT Standard Specifications* and consist of furnishing, installing, maintaining, and final removal of drainage inlet and pipe protection devices.

Pipe protections shall consist of straw bales or rolled excelsior logs, in accordance with the *Illinois Urban Manual*.

All inlet and pipe protections shall be installed prior to performing any excavation (exploratory or otherwise) beginning and shall be removed upon final turf restoration.

24.2 Materials

All inlet and pipe protections shall be in accordance with Article 1081.15 of the *IDOT Standard Specifications*.

24.3 Required Submittals

1. Material certifications for the inlet and pipe protections.

24.4 Payment

Payment shall be made at the Contract unit price per Each of **Inlet and Pipe Protection**, complete in place.

25 Topsoil Furnish and Place, 6" Seeding, Class 2A with Fertilizer

25.1 General

This work shall include preparing areas to be seeded, furnishing and placing topsoil as required, removal and disposal of unsuitable materials, seeding, fertilizing, and maintenance until final acceptance.

All restoration shall be completed in accordance with public agency requirements, or on private property, equal to or better than the pre-construction conditions. All restoration of public or private property including, but not limited to, fences, sidewalks, driveways, all other slab work, (concrete and asphalt), drainage channels, riprap, fences, turf areas and dry wells, etc., disturbed or damaged as a result of construction shall be promptly completed, equal to or better than the pre-construction conditions, as directed by FRSA. All restoration shall be guaranteed by the Contractor for a period of one (1) year following satisfactory completion and final acceptance of the work. Topsoil shall be as specified in T.S. 4:2c of FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction*.

Suppliers shall be prepared to certify that their product has been satisfactorily laboratory and field tested, and that it meets all of the foregoing requirements based upon such testing.

Guarantee: All seeded areas shall be maintained for at least thirty (30) days after application. Scattered bare spots no larger than two square feet will be allowed up to a maximum of five percent (5%) of any seeded area.

Seeding

This work shall be in accordance with Section 250 of the IDOT *Standard Specifications*. Ground surfaces including right-of-ways that were covered with grass prior to construction shall be seeded according to all applicable specifications and as directed by FRSA. The Contractor shall make certain that all disturbed areas have the same depth (6" minimum) and quality of approved topsoil at the surface as existed prior to construction.

Seedbed preparation shall be done according to Article 250.05 of the IDOT *Standard Specifications*.

The seeding mixture used shall be IDOT Class 2A in all turf restoration areas.

Reference is made to FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction*, T.S. 4:2, for specifications on seeding and fertilizer, and to Sections 250 and 251 of the IDOT *Standard Specifications*.

Seeding shall be placed on six-inch (6"), minimum, topsoil bed. FRSA shall approve the locations from which the topsoil is to be obtained. A chemical and mechanical analysis of the topsoil by an approved testing laboratory shall be provided by the Contractor.

Seeding methods shall follow those mentioned in Article 250.06 of the IDOT *Standard Specifications*. Mowing to discourage weed growth shall be completed by the Contractor until the project is accepted by FRSA.

Fertilizing

Fertilizer work shall be done in accordance with Article 250.04 of the IDOT *Standard Specifications* and be applied at the rate of 400 lbs./acre.

25.2 Materials

Topsoil utilized from off-site sources shall be in accordance with Article 1081.05(a) of the IDOT *Standard Specifications*.

Seed mixtures shall be IDOT Class 2A seed mixtures in accordance with Article 1081.04 of the IDOT *Standard Specifications*.

Fertilizer shall have 270 lbs. of nutrients per acre with an analysis of 10-10-10 and be in accordance with Article 1081.08 of the IDOT *Standard Specifications*.

25.3 Required Submittals

1. Topsoil certifications (if being delivered from off-site).
2. Seed mixtures.
3. Fertilizer specifications and certifications.

25.4 Payment

This work will be paid for at the Contract unit price per Square Yard for **Topsoil Furnish and Place, 6"** and **Seeding, Class 2A with Fertilizer**, complete in place.

26 Construction Layout

26.1 General

This work shall be in accordance with IDOT *Recurring Special Provision #9: Construction Layout Stakes* as included in Section V of this Contract and shall consist of the Contractor providing all layout for the construction of this project to the lines and grades shown on the plans. FRSA will stake the control points and Benchmarks contained within the plans prior to construction commencing. The Contractor shall independently verify all Benchmark elevations.

26.2 Materials – Not used.

26.3 Required Submittals – Not used.

26.4 Payment

Payment shall be made at the Contract unit price per Lump Sum for **Construction Layout**.

27 Traffic Control and Protection, Complete

27.1 General

The Contractor shall obtain all permits required by the governing roadway agencies and shall provide detailed traffic control plans as required and implement and maintain approved traffic control measures, including detour routes, as required. Traffic control and protection shall be in accordance with the *IDOT Standards Specifications* and *IDOT Highway Standards*, current edition.

All roads shall remain open to local traffic. Should short term closures to all traffic become necessary an adequate detour route must be established with proper signage provided; all such closures shall first be approved by the City of Rockford prior to being implemented. Any detour signage or additional traffic control appurtenances required by the City of Rockford shall be included in this pay item and no additional compensation will be made.

All work zone traffic control and protection shall be in compliance with the *Manual on Uniform Traffic Control Devices*, current edition.

27.2 Required Submittals

1. Copies of approved traffic control plans, including detour routes (if required).

27.3 Payment

This work will be paid for at the Contract Lump Sum price for **Traffic Control and Protection, Complete.**

28 Quality Control Tests and Certification

28.1 General

All costs of quality control testing and sanitary sewer testing shall be the full responsibility of the Contractor. All pipe shall be tested in accordance with ASTM and manufacturer's standards. The manufacturer shall furnish certified test reports with each shipment of pipe, run or unit of pipe extrusion.

Final, satisfactory low-pressure air tests, deflection tests and manhole vacuum tests shall be performed no later than sixty (60) days after the installation of each sewer main section (manhole-to-manhole). The 60-day period starts with the completion of the sewer main, not the completion of the sewer services. FRSA reserves the right to suspend any or all work until the Contractor fully complies with this requirement.

28.2 Tests

The Contractor shall perform pipe deflection testing and pipe low pressure air testing (T.S. 9.1 of FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction*), upon completion of installation, bedding, backfilling and compaction of each sanitary sewer main section. The Contractor shall arrange at his expense mandrel (deflection) and low-pressure air tests of the pipe.

Low pressure line testing will be required on the new sanitary sewer mains. All sewer mains from existing manhole to new manhole or new manhole to new manhole shall be mandrel (deflection) tested.

After the final installation, backfilling and compaction have been completed and prior to starting the roadway replacement, low-pressure air tests and deflection tests shall pass on all sewer pipes as stated below.

28.2.1 Low Pressure Air Test

Low-pressure air testing of sanitary sewers shall use an allowable timed pressure drop of 0.5 psig. The allowable air loss rate shall be 0.0015 cu.ft./min. All test times shall be calculated using Ramseier's equation $T = 0.85 DK/Q$, where:

- T = Shortest time, in seconds, allowed for the pressure to drop 0.5 psig
- K = 0.000419 DL, but not less than 1.0
- Q = 0.0015 cu.ft./minute/sq.ft. of internal surface
- D = Nominal pipe diameter, in inches
- L = Length of pipe being tested, in feet

This modifies T.S. 9.4 of FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction*. The following table may be used to determine the minimum test time required:

Minimum Specified Time Required for a 0.5 psig Pressure Drop for Size and Length of Pipe Indicated for Q=0.0015

1	2	3	4	Specification Time for Length (L) Shown (min:sec)							
Pipe Diameter (inches)	Minimum Time (min:sec)	Length for Minimum Time (ft.)	Time for Longer Length (sec.)								
				100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	350 ft.	400 ft.	450 ft.
4	1:53	597	.190 L	1:53	1:53	1:53	1:53	1:53	1:53	1:53	1:53
6	2:50	398	.427 L	2:50	2:50	2:50	2:50	2:50	2:50	2:51	3:12
8	3:37	298	.760 L	3:37	3:37	3:37	3:37	3:38	4:26	5:04	5:42
10	4:43	239	1.187 L	4:43	4:43	4:43	4:57	5:56	6:55	7:54	8:54
12	5:40	199	1.709 L	5:40	5:40	5:42	7:08	8:33	9:58	11:24	12:50
15	7:05	159	2.671 L	7:05	7:05	8:54	11:08	13:21	15:35	17:48	20:02
18	8:30	133	3.846 L	8:30	9:37	12:49	16:01	19:14	22:26	25:38	28:51
21	9:55	114	5.235 L	9:55	13:05	17:27	21:49	26:11	30:32	34:54	39:16
24	11:20	99	6.837 L	11:24	17:57	22:48	28:30	34:11	39:53	45:35	51:17
27	12:45	88	8.653 L	14:25	21:38	28:51	36:04	43:13	50:30	57:42	46:54
30	14:10	80	10.683 L	17:48	26:43	35:37	44:31	53:25	62:19	71:13	80:07
33	15:35	72	12.946 L	21:33	32:19	43:46	53:42	64:38	75:24	86:10	96:57
36	17:00	66	15.384 L	25:39	38:28	51:17	64:06	76:55	89:44	102:34	115:23

28.2.2 Pipe Deflection Test

After sewer installation, backfilling and compaction, all flexible sewer pipe shall be thoroughly cleaned and flushed with water and then, if not previously tested as elsewhere specified herein, the pipe shall be deflection tested by the Contractor at his own expense, in a manner acceptable to FRSA. Deflection testing shall be performed at least thirty (30) days after the trench has been backfilled.

If the vertical deflection exceeds five percent (5%) of the diameter, the Contractor shall replace the pipe. In the event that this pipe is used for replacement, it will be subject to the same vertical deflection test.

FRSA reserves the right to make a vertical deflection test within a year of the construction.

If deflection exceeds five percent (5%), the Contractor is responsible for replacing the pipe, as per G.C. 7:4 of FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction*.

In addition to the above and T.S. 8:2(c) of FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction*, use the following deflection test:

Testing of all lines shall be done with a mandrel, pulled through all lines except the house leads. The diameter of the gauge shall be set at ninety-five percent (95%) of the undeflected inside diameter of the flexible pipe. The Pin-Type Go/No-Go Gauge will stop at any area in a flexible underground pipeline having vertical ring deflection greater than five percent (5%).

All pipe exceeding this deflection shall be considered to have reached the limit of serviceability and shall be re-laid or replaced by the Contractor at no additional cost to FRSA (WPCF Manual of Practice No. 9, page 222).

If possible and practical, the testing shall initiate at the downstream lines and proceed towards the upstream lines. Where deflection is found to be in excess of five percent (5%) of the original pipe diameter, the Contractor shall excavate to the point of excess deflection and carefully compact around the point where excess deflection was found. The line shall then be retested for deflection. However, after the initial testing, should the deflected pipe fail to return to the original site (inside diameter) the line shall be replaced.

28.2.3 Vacuum Testing

All new manholes shall be vacuum tested per ASTM C-1244 *Standard Test Method for Concrete Sewer Manholes by the Negative Pressure (Vacuum) Test* prior to placing into service.

28.3 Measurement and Payment

No separate measurement or payment will be made for this work. All costs shall be included in the Contract unit price per Linear Foot of **Sanitary Sewer, PVC SDR35, 8" Dia.** installed, complete in place.

29 Cleanup

29.1 General

Upon completion of work, the Contractor shall clean up and remove all construction debris, materials, equipment, machines, etc., from the entire project area. All excavations shall be backfilled neatly to near original grade, and any excess materials shall be hauled away to an offsite location acceptable to FRSA. All roadway surfaces shall be made free and cleaned of all mud and construction debris.

29.2 Payment

No separate payment will be made for Cleanup, complete. All costs associated with this work shall be included in the various Contract pay items.

30 Report of Soils Exploration

30.1 General

The Report of Soils Exploration attached in Section III of this Contract is for informational purposes only. The inclusion of this report does not relieve the Contractor from any responsibilities to verify the actual soil conditions prior to submitting a bid. No additional compensation will be allowed for subsurface conditions at variance with the borings taken.

Not to be used for bidding purposes

Section II

Contract Forms

Not to be used for bidding purposes

Proposal

Project: Meander Drive Sanitary Sewer Extension
Special Assessment No. 136

Location: Work extends through public right-of-way of Meander Drive in the
City of Rockford, Winnebago County, Illinois

Completion Date: All underground construction, testing, road reconstruction, and
restoration shall be completed by July 15, 2022.

Liquidated Damages: \$300/calendar day per each completion date deadline

To: Board of Trustees
Four Rivers Sanitation Authority
3501 Kishwaukee Street
Rockford, IL 61109

From: _____
(Individual, Partnership or Corporation, as case may be)

(Address of Individual, Partnership or Corporation)

Gentlemen:

I (We), the undersigned, hereby propose to furnish all materials, equipment, tools, services, labor, and whatever else may be required to construct and place in service the above subject Sanitary Sewer for Four Rivers Sanitation Authority all in accordance with the plans and specifications, provided by Four Rivers Sanitation Authority. The undersigned also affirms and declares:

1. That I (we), have, examined and am (are) familiar with all the related contract documents and found that they are accurate and complete and are approved by the undersigned.
2. That I (we), have carefully examined the site of the work, and that, from my (our) investigation, has satisfied myself (ourselves) as to the nature and location of the work, the character, quality, and quantity of materials and the kind and extent of equipment and other facilities needed for the performance of the work, the general and local conditions and all difficulties to be encountered, and all other items which may, in any way, effect the work or its performance.
3. That this bid is made without any understanding, agreement or connection with any other person, firm, or corporation making a bid for the same purposes, and is in all respects fair and without collusion or fraud; and that I (we) are not barred from bidding as a result of a bid-rigging or bid-rotating conviction.

4. That accompanying the Proposal is a Bidder's Bond in the amount specified in Article 1, Notice to Bidders, payable to the Board of Trustees of the Four Rivers Sanitation Authority, which it is agreed, shall be retained as liquidated damages by said Four Rivers Sanitation Authority if the undersigned fails to execute the Contract in conformity with the contract documents incorporated in the contract documents and furnish bond as specified, within ten (10) days after notification of the award of the contract to the undersigned.
5. The Bidder is of lawful age and that no other person, firm or corporation has any interest in this Proposal or in the Contract proposed to be entered into.
6. The Bidder is not in arrears to Four Rivers Sanitation Authority, upon debt or contract, and is not a defaulter, as surety or otherwise, upon any obligation to Four Rivers Sanitation Authority (FRSA).
7. No officer or employee or person whose salary is payable in whole or in part by FRSA is, shall be or become interested, directly or indirectly as a contracting party, partner, stockholder, surety or otherwise, in this Proposal, or in the performance of the Contract, or in the work to which it is relates, or in any portion of the profits thereof.
8. The Bidder which I represent complies with all applicable requirements of the Americans with Disabilities Act (ADA) and the Occupational Safety and Health Act (OSHA) and that if said bidder is awarded a contract, it will complete all OSHA-required or ADA-required employee and customer training, will make available all required information, and will hold harmless and indemnify FRSA and FRSA's representatives.

In regard to participation in an approved Apprenticeship program, upon request, Contractor will be required to provide written proof of participation.
9. The undersigned, as Bidder, declares that he has adopted and promulgated written sexual harassment policies in accordance with Public Act 99-093 and will make this information available upon request.
10. The undersigned, as Bidder, declares he will comply with prevailing wages in accordance with the Illinois Department of Labor Standards. The State of Illinois requires contractors and subcontractors on FRSA projects to submit certified payroll reports via the State's Certified Transcript of Payroll Portal currently found at: <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx>. The Bidder is responsible for verifying current website.
11. The undersigned, as Bidder, declares he will comply with the Federal Drug Free Workplace Act.
12. The undersigned, as Bidder, declares he will comply with Public Act 83-1030 entitled "Steel Products Procurement Act".
13. The undersigned, as Bidder, declares he will comply with Public Act 96-929 (30 ILCS 570) regarding Illinois residents' employment.
14. The undersigned, as Bidder, declares he will comply with non-discrimination in employment in accordance with the Illinois Fair Employment Practices Commissions Rules & Regulations.

15. The undersigned, as Bidder, declares that he currently participates in an apprenticeship or training program that is registered with the United States Department of Labor's Bureau of Apprenticeship and Training or other acceptable State of Illinois Department of Labor monitored program.

In submitting this bid, it is understood that the right is reserved by Four Rivers Sanitation Authority to reject any and all bids. It is agreed that this bid may not be withdrawn for a period of sixty (60) days from the opening thereof.

The undersigned further declares that he (they) has (have) carefully examined the following items of work and that the cost of all the work to complete this project is given in this Proposal.

Not to be used for bidding purposes

Item No.	Quantity	Unit	Description	Unit Price (In Writing)	Unit Price (In Figures)	Total Price (In Figures)
1	1,177.0	LF	Sanitary Sewer, PVC SDR35, 8" Dia.			
2	6.0	EACH	Sanitary Manhole, 4' Dia.			
3	1.0	EACH	Sanitary Manhole To Be Removed & Replaced, 4' Dia.			
4	17.0	EA	Sanitary Sewer Service, 4" Dia.			
5	20.0	CY	Sanitary Sewer Trench Subbase Improvement			
6	4,000.0	SY	Pavement Removal			
7	53.0	SY	Combination Curb & Gutter Removal			
8	53.0	LF	Pipe Culvert Removal, 12" Dia.			
9	53.0	LF	Pipe Culverts, Class C, TY 1 Galvanized Corrugated Steel, 12" Dia.			
10	50.0	LF	Grading and Shaping Ditches			
11	4,200.0	SY	Aggregate Base Course, Type B 12"			
12	100.0	CY	Aggregate Subgrade Improvement, Variable Depth			
13	590.0	TON	Hot-Mix Asphalt Binder Course, IL-19.0, N50, 2.5"			
14	360.0	TON	Hot-Mix Asphalt Surface Course, IL-9.5, Mix "D", N50, 1.5"			
15	53.0	LF	Combination Concrete Curb & Gutter, Ty. M6.18 (Modified)			
16	94.0	SY	Stabilized Construction Entrance			
17	80.0	LF	Temporary Ditch Checks			
18	1,750.0	SY	Erosion Control Blanket			
19	16.0	EA	Inlet & Pipe Protection			
20	1,750.0	SY	Topsoil Furnish and Place, 6"			
21	1,750.0	SY	Seeding, Class 2A with Fertilizer			
22	1.0	LS	Construction Layout			
23	1.0	LS	Traffic Control and Protection, Complete			
TOTAL BID PRICE:						
				(In Writing)		(In Figures)

The undersigned acknowledges receiving Addendum numbers _____, _____, _____, and realizes that all Addenda are considered part of the Contract.

By: _____

Name: _____ Title: _____ Date: _____

Not to be used for bidding purposes

Fair Employment Practices Affidavit of Compliance

PROJECT: Meander Drive Sanitary Sewer Extension, Special Assessment No. 136

NOTE: THE BIDDER MUST EXECUTE THIS AFFIDAVIT AND SUBMIT IT WITH ITS SIGNED BID. THE FOUR RIVERS SANITATION AUTHORITY CANNOT ACCEPT ANY BID WHICH DOES NOT CONTAIN THIS AFFIDAVIT

_____, being first duly sworn, deposes and says that:
(Name of person making affidavit)

They are: _____ of _____
(Officer's Title) (Company Name)

that said company is and "Equal Opportunity Employer" as defined by Section 2000(e) of Chapter 21, Title 42 of the United States Code annotated and Federal Executive Orders #11375 which are incorporated herein by reference;

and that said company will comply with any and all requirements of Title 44 Admin. Code 750. APPENDIX A – Equal Opportunity Clause, Rules and Regulations, Illinois Department of Human Rights, which read as follows:

"In the event of the contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance to this contract, the contractor agrees as follows:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, national origin or ancestry, citizen status, age, physical or mental handicap unrelated to ability, sexual orientation, military status or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
2. That, if he or she hires additional employees in order to perform this contract or any portion of this contract, he or she will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the areas from which he or she may reasonably recruit and he or she will hire for each job classification for which employees are hired in a way that minorities and women are not underutilized.
3. That, in all solicitations or advertisements for employees placed by him or her or on his or her behalf, he or she will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, national origin or ancestry, citizenship status, age, physical or mental handicap unrelated to ability, sexual orientation, military status or an unfavorable discharge from military service.
4. That he or she will send to each labor organization or representative of workers with which he or she has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the contractor in his or her efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations under the contract.
5. That he or she will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
6. That he or she will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
7. That he or she will include verbatim or by reference the provisions of this clause in every subcontract awarded under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply with the provisions. In addition, the contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contacts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

(Source: Amended at 32 Ill. Reg. 16484, effective September 23, 2008)"

IL Dept of Human Rights Registration No.: _____ Expiration Date: _____

Signature

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we:

_____ (hereinafter called the Principal)
and

_____ (hereinafter called the Surety)

a Corporation chartered and existing under the laws of the State of _____ with its principal offices in the City of _____ and authorized to do business in the State of Illinois are held and firmly bound onto the Four Rivers Sanitation Authority (FRSA) of Winnebago County, Illinois, in the full and just sum of: **FIVE PERCENT (5%) OF THE TOTAL BID PRICE** good lawful money of the United States of America, to be paid upon demand of the FRSA, to which payment will and truly to be made we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally and firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted to FRSA, a proposal for constructing Sanitary Sewers and Appurtenances.

WHEREAS, the Principal desires to file this bond, in accordance with law, to accompany this Proposal.

NOW THEREFORE, The conditions of this obligation are such that if the Proposal be accepted, the Principal shall, within ten days after the date of receipt of a written notice of award of Contract, execute a Contract in accordance with the Proposal and upon the terms, conditions, and prices set forth therein, in the form and manner required by FRSA, and execute a sufficient and satisfactory Contract Performance Bond payable to said FRSA in an amount of one hundred percent (100%) of the Contract price (including alternates) in form and with security satisfactory to said FRSA, then this obligation to be void, otherwise to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the aforesaid FRSA, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

IN TESTIMONY THEREOF, the Principal and Surety have caused these presents to be duly signed and sealed this _____ day of _____, 20_____.

Principal

(Seal)

By _____

Name: _____

Title: _____

Date: _____

Attest:

Secretary

Surety

(Seal)

By _____

Name: _____

Title: _____

Date: _____

Agreement

1. General

THIS AGREEMENT, made and concluded this _____ day of _____, 2022, between the Four Rivers Sanitation Authority, Rockford, Illinois (FRSA), acting by and through the Board of Trustees, and _____, his/their executors, administrators, successors or assigns:

2. Scope of Work

WITNESSETH: That for and in consideration of the payments and agreements made in the Proposal attached hereto, to be made and performed by FRSA and according to the terms expressed in the Bond referring to these presents, the Contractor agrees with FRSA at his/their own proper cost and expense to do all the work, furnish all equipment, materials and all labor necessary to complete the work in accordance with the plans and specifications hereinafter described, and in full compliance with all of the terms of this agreement and the requirements of FRSA and its representative.

And it is also understood and agreed that the Bidding Requirements, Detailed Specifications, Contract Forms, General Conditions, General Requirements, Technical Specifications, Plans, Addenda, and provisions required by law are all essential documents of the contract, and are a part hereof, as if herein set out verbatim or as if attached, except for titles, subtitles, headings, table of contents and portions specifically excluded.

3. Contract Price

FRSA shall pay to the Contractor, and the Contractor shall accept, in full payment for the performance of this Contract, subject to any additions or deductions provided for hereby, in current funds, the Total Contract Price of ----- (\$-----)

Payments are to be made to the Contractor in accordance with and subject to the provisions of Section 7 of this Agreement, which is a part of this Contract.

4. Bond

The Contractor has entered into and herewith tenders a bond of even date herewith, in the penal sum of ----- (\$-----) to insure the faithful performance of this Contract, which said bond is hereby made a part of this Contract by reference.

5. Maintenance and Guarantee

The Contractor shall promptly repair, replace, restore or rebuild any imperfections that may arise and shall maintain satisfactory to FRSA all work for a period three years from the date of final acceptance of the Contract for trench settlement and for a period of two years all other work, except where periods of maintenance and guarantee are provided for. The

Contractor shall, for this period, indemnify and save harmless FRSA, its officers and agents from any injury done to property or persons as a direct or alleged result of imperfections in the Contractors' work, and shall immediately assume and take charge of the defense of such action or suits in like manner and to all intents and purposes as if said actions and suits had been brought directly against the Contractor.

If the Contractor shall fail to repair, replace, rebuild or restore such defective or damaged work promptly after receiving notice given by FRSA, FRSA shall have the right to have the work done by others and to call on the Contractor and his bondsman to pay the costs thereof.

6. Contract Execution

IT IS EXPRESSLY UNDERSTOOD AND AGREED that the entire improvement shall be done in a thorough and workmanlike manner, under the direction and to the satisfaction of FRSA and in full compliance with all the requirements of its representative under them. All loss or damage arising out of the nature of the work to be done, or from any detention of unforeseen obstruction or difficulty which may be encountered in the prosecution of the work, or from the action of the elements, shall be sustained by the Contractor.

The Contractor will be held responsible for all accidents, and hereby agrees to indemnify and protect FRSA from all suits, claims, and actions brought against it, and all cost, and damages which FRSA may be put to by reason of an injury or alleged injury, to the person or property of another in the execution of this contract, or the performance of the work, or in guarding the same, or for any material used in its prosecution or in its construction.

Any person employed on the work who shall refuse or neglect to obey the directions of FRSA or its representative, or who shall be deemed by FRSA to be incompetent, or who shall be guilty of any disorderly conduct, or who shall commit any trespass on any public or private property in the vicinity of the work, shall at once be removed from the work by the Contractor when so requested by FRSA.

Any request to extend the contract completion date must be considered by the Board at the Board meeting prior to the then-existing contract termination date. Any deviation from this action will result in the liquidated damage clause in the contract to be exercised.

7. Payments to Contractor

FRSA hereby covenants and agrees, in consideration of the covenants and agreements in this Contract, specified to be kept and performed by the Contractor and subject to the conditions herein contained, and if FRSA receives an acceptable invoice prior to the tenth day of the month and receives approval of the work by FRSA's Director of Engineering, FRSA shall issue payment before the fifth day of the succeeding month. If FRSA receives an acceptable invoice on or after the tenth day of the month, FRSA shall issue payment before the fifth day of the second succeeding month.

FRSA reserves the right at all times to refuse to issue payment in case the Contractor has neglected or failed to pay any subcontractors, workmen or employee on the work.

The Contractor will be paid for the sanitary sewer of this project in part with Special Assessment vouchers at par with interest at five percent (5%) per annum. Cash shall be drawn from FRSA's Public Benefit Fund to pay a portion of the project.

Meander Drive Sanitary Sewer Extension Special Assessment No. 136 cash payments shall be determined as follows:

1. Construction Cost (CC) = Contractor's Bid
2. Engineering (E) = $CC \times 0.15$
3. Reserve for Deficit (RD) = $0.06 \times (CC + E)$
4. Cost of Making (CM) = $0.06 \times (CC + E)$
5. Total Project Cost (TPC) = $CC + E + RD + CM$
6. Property Benefit Amount (PBA) = \$96,900.00
7. Public Benefit (PB) = $TPC - PBA$
8. Minimum Cash to Contractor = $PB - (E + RD + CM)$

Payments to be made in accordance with these bidding requirements and those additional provisions contained in the attached contract forms.

8. Subcontracts

No part of the work herein provided for shall be sublet or subcontracted without the express consent of FRSA, to be entered in the records, and in no case shall consent relieve the Contractor from the obligation herein entered into, or change the terms of this Agreement.

9. Contractor's Responsibility

This Contract shall extend to and be binding upon the successors and assigns, and upon the heirs, administrators, executors, and legal representatives of the Contractor.

In consideration of and to induce the award of this Contract to him, the Contractor represents and warrants: that he is not in arrears to FRSA upon debt of the Contract and that he is not a defaulter, as surety, contractor or otherwise; that he is financially solvent and sufficiently experienced and competent to perform the work; that the work can be performed as called for by the Contract; that the facts stated in his proposal and the information given by him is true and correct in all respects, and that he is fully informed regarding all the conditions affecting the work to be done and labor and materials to be furnished for the completion of this Contract and that his information was secured by personal investigation and research.

The Contractor shall pay not less than the prevailing wage rate as determined by the Department of Labor, to all laborers, workmen and mechanics performing work under this Contract. Contractor shall comply with current revisions of the wage standards; as required by law. The Contractor shall be responsible for verifying the prevailing wages each month and notifying all subcontractors of the appropriate monthly rates. The State of Illinois requires contractors and subcontractors on FRSA projects to submit certified payroll reports via the State's Certified Transcript of Payroll Portal currently found at: <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx>. The Contractor is responsible for verifying current website.

In regard to nondiscrimination in employment, Contractor will be required to comply with the Illinois Fair Employment Practices Commission's Rules and Regulations as provided herein.

The Contractor shall comply with the American Disabilities Act of 1990 (ADA). The Contractor will hold harmless and indemnify FRSA and their representatives from all:

- (a) suits, claims, or actions;
- (b) costs, either for defense (including but not limited to reasonable attorney's fees and expert witness fees) or for settlement, and;
- (c) damages of any kind (including but not limited to actual, punitive, and compensatory damages)

relating in any way to or arising out of the ADA, to which said firm is exposed or which it incurs in the execution of the contract.

Contractor shall also comply with Public Act 99-0933, which requires any party to a contract to adopt and enforce a written policy regarding sexual harassment that includes, as a minimum, the following information:

- (a) the illegality of sexual harassment
- (b) the definition of sexual harassment under Illinois State law;
- (c) a description of sexual harassment, utilizing examples;
- (d) my (our) organization's internal complaint process including penalties;
- (e) through the Illinois Department of Human Rights and the Illinois Human Rights Commission;
- (f) directions on how to contact the Department and the Commission; and
- (g) protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act.

Upon request this information will be provided to the Illinois Department of Human Rights. Upon FRSA's award of a contract, FRSA will be provided this information described no more than ten working days after FRSA issues its award notification.

The Contractor shall comply with Article 2 of Public Act 83-1472 which provides that Illinois residents be employed on Illinois public works projects, provided there has been a period of excessive unemployment (5%) in the State of Illinois as defined in the Act; and further, that Illinois workers are available and capable of performing the particular type work involved.

The Contractor shall comply with all rules and regulations of OSHA during the execution of this Contract.

The Contractor shall comply with the Federal Drug Free Workplace Act.

The Steel Products Procurement Act, Illinois Public Act 83-1030, requires that steel products used or supplied in performance of this Contract or subcontract shall be manufactured or produced in the United States with three exceptions, as explained in the Instructions to Bidders.

The Contractor shall comply with Public Act 96-1416 regarding the disposal of CCDD and uncontaminated soil at CCDD fill sites as explained in the Instructions to Bidders.

10. Time

All underground construction, testing, road reconstruction, and restoration shall be completed by July 15, 2022.

11. Liquidated Damages

The amount of liquidated damages shall be \$300.00 per calendar day per each completion date deadline.

12. Counterparts

This Agreement may be executed and recorded in counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument. The Parties hereby acknowledge and agree that facsimile signatures or signatures transmitted by electronic mail in so-called "pdf" format shall be legal and binding and shall have the same full force and effect as if an original of this Agreement had been delivered. Each of the parties (a) intend to be bound by the signatures on any document sent by facsimile or electronic mail, (b) are aware that the other party will rely on such signatures, and (c) hereby waive any defenses to the enforcement of the terms of this Agreement based on the foregoing forms of signature.

13. Seals

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals, and such of them as are corporations have caused these presents to be signed by their duly authorized officers.

(Seal)

**Four Rivers Sanitation Authority
Winnebago County, Illinois**

By _____
President, Board of Trustees

ATTEST: _____
Clerk of the Board

Contractor

(Corporate Seal)

By _____
Contractor's Officer

Name: _____

Title: _____

Date: _____

ATTEST: _____

Labor & Material Payment Bond

TO: _____ Contractor Name

Contractor City, State

KNOW ALL MEN BY THESE PRESENTS

That _____ (Contractor)

as Principal, and _____

a corporation of the State of _____ as Surety, are held and firmly bound unto the Four Rivers Sanitation Authority, as Obligee, for the use and benefit of claimants as hereinafter defined in the amount of

_____ Dollars (\$ _____), for the payment where of Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated _____ 20__ Entered into a Contract with Obligee for _____ in accordance with contract documents prepared by the Four Rivers Sanitation Authority which Contract is by reference made a part hereof, and is hereinafter referred to as "the Contract".

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if Principal shall promptly pay for all laborers, workers and mechanics engaged in the work under the Contract, and not less than the general prevailing rate of hourly wages of a similar character in the locality in which the work is performed, as determined by the State of Illinois Department of Labor pursuant to the Illinois Compiled Statutes 280 ILCS 130 / 1-12 et.seq. and for all material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect.

1. A claimant is deemed as any person, firm, or corporation having contracts with the Principal or with any of Principal's subcontractors for labor or materials furnished in the performance of the Contract on account of which this Bond is given.
2. Nothing in this Bond contained shall be taken to make the Obligee liable to any subcontractor, material man or laborer, or to any other person to any greater extent than it would have been liable prior to the enactment of The Public Construction Bond Act, approved June 20, 1931, as amended; provided further, that any person having a claim for labor and materials furnished in the performance of the Contract shall have no right of action unless he shall have filed a verified notice of such claim with the Obligee within 180 days after the date of the last item of work or the furnishing of the last item of materials, which claim shall have been verified and shall contain the name and address of the claimant, the business address of the claimant within the State of Illinois, if any, or if the claimant be a foreign corporation having no place of business

within the State the principal place of business of the corporation, and in all cases of partnership the names and residences of each of the partners, the name of the Contractor for the Oblige, the name of the person, firm or corporation by whom the claimant was employed or to whom such claimant furnished materials, the amount of the claim and a brief description of the public improvement for the construction or installation of which the contract is to be performed. No defect in the notice herein provided for shall deprive the claimant of its right of action under the terms and provisions of this Bond unless it shall affirmatively appear that such defect has prejudiced the rights of an interested party asserting the same.

3. No action shall be brought on this Bond until the expiration of 120 days after the date of the last item of work or of the furnishing of the last item of material except in cases where the final settlement between Oblige and the Contractor shall have been made prior to the expiration of the 120 day period, in which case action may be taken immediately following such final settlement; nor shall any action of any kind be brought later than 6 months after the acceptance by the Oblige of the work. Such suit shall be brought only in the circuit court of this State in the judicial district in which the Contract is to be performed.
4. Surety hereby waives notice of any changes in the Contract, including extensions of time for the performance thereof.
5. The amount of this Bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.
6. The Principal and Surety shall be liable for any attorneys' fees, engineering costs, or court costs incurred by the Oblige relative to claims made against this Bond.

Signed and Sealed this _____ day of _____, 20____.

CONTRACTOR

SURETY

Contractor Firm Name

By: _____
Signature

Printed Name

Title

By: _____
Attorney-in-Fact Signature

Printed Name

Resident Agent

ATTEST:

Corporate Secretary (Corporations only)

Performance Bond

KNOW ALL MEN BY THESE PRESENTS, that WHEREAS, the Four Rivers Sanitation Authority has awarded to: _____ hereinafter designated as the “Principal”, a contract, dated, _____, for the Four Rivers Sanitation Authority.

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract (the “Bond”);

NOW, THEREFORE, we the Principal and _____, as Surety, are firmly bound unto the Four Rivers Sanitation Authority in the penal sum of _____ Dollars (\$ _____) lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents for a performance bond. The conditions of this obligation is such that if the said Principal does well and faithfully performs all the conditions and covenants of said Contract, according to the true intent and meaning thereof, upon its part to be kept and performed, then the above obligation is to be null and void, otherwise to remain in full force and effect.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract, including the provisions for liquidated damages in the said Contract, any changes, additions or alterations thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Four Rivers Sanitation Authority, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect. And 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 thereunder or the specifications accompanying the same and no inadvertent overpayment of progress payments 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 or of any inadvertent overpayment of progress payments. The Four Rivers Sanitation Authority shall be named as beneficiary on this Performance Bond.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their seal this _____ day of _____, 20_____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

SURETY

Contractor Firm Name

By: _____
Signature

Printed Name

Title

By: _____
Attorney-in-Fact Signature

Printed Name

Resident Agent

ATTEST:

Corporate Secretary (Corporations only)

Section III

Report of Soils Exploration

Not to be used for bidding purposes



TESTING SERVICE CORPORATION

Corporate Office

360 S. Main Place, Carol Stream, IL 60188-2404
630.462.2600 • Fax 630.653.2988

Local Offices:

457 E. Gundersen Drive, Carol Stream, IL 60188-2492
630.653.3920 • Fax 630.653.2726

650 N. Peace Road, Suite D, DeKalb, IL 60115-8401
815.748.2100 • Fax 815.748.2110

1350 TriState Parkway, Unit 122, Gurnee, IL 60031-9135
847.249.6040 • Fax 844.767.4721

2235 23rd Avenue, Rockford, IL 61104-7334
815.394.2562 • Fax 815.394.2566

203 Earl Road, Suite A, Shorewood, IL 60404-9446
815.744.1510 • Fax 815.744.1728

Report of Soils Exploration

Proposed Meander Drive Sanitary Sewer Extension, Special Assessment No. 136

North Bell School Road to Larwinn Drive Rockford, Illinois

Geotechnical & Environmental Engineering



Construction Materials Engineering & Testing



Laboratory Testing of Soils, Concrete & Asphalt



Geo-Environmental Drilling & Sampling

Prepared For:

Rock River Water Reclamation District

3501 Kishwaukee Street,
P.O. Box 7480
Rockford, Illinois 61126-7480

GEOTECHNICAL GROUP

June 25, 2021

L-92,622

REPORT OF SUBSURFACE EXPLORATION
PROPOSED MEANDER DRIVE SANITARY SEWER EXTENSION PROJECT
SPECIAL ASSESSMENT NO. 136
ROCK RIVER WATER RECLAMATION DISTRICT
ROCKFORD, ILLINOIS

PREPARED FOR:
ROCK RIVER WATER RECLAMATION DISTRICT
3501 KISHWAUKEE STREET, P.O. BOX 7480
ROCKFORD, ILLINOIS 61126-7480

PREPARED BY:
TESTING SERVICE CORPORATION
2235 23RD AVENUE
ROCKFORD, ILLINOIS 61104-7334
815.394.2562

TABLE OF CONTENTS

Section	Page
I. TEXT	
1.0 Introduction	2
2.0 Site Description	3
3.0 Field Exploration and Laboratory Testing	3
4.0 Discussion of Test Data	5
5.0 Analysis and Recommendations	6
6.0 Closure	9
II. APPENDIX	

June 25, 2021

L - 92,622

REPORT OF SUBSURFACE EXPLORATION
PROPOSED MEANDER DRIVE SANITARY SEWER EXTENSION PROJECT
SPECIAL ASSESSMENT NO. 136
ROCKFORD, ILLINOIS

1.0 INTRODUCTION

This report presents results of the subsurface exploration performed in connection with the proposed Meander Drive Sanitary Sewer Project in Rockford, Illinois. These geotechnical services are being provided in general accordance with Testing Service Corporation (TSC) Proposal Number (P.N.) 67,024 dated May 14, 2021, the attached TSC General Conditions incorporated herein by reference and Rock River Water Reclamation District's (RRWRD) Purchase Order Number 82144.

It is understood that the proposed sewer extension(s) will extend along Meander Drive between North Bell School Road and Larwinn Drive. According to information provided by Mr. Tyler Nelson, P.E., of RRWRD, the bottoms of the proposed sanitary sewer pipes are anticipated to generally range from approximately 8 to 12 feet below existing grade at the test locations. Other details regarding the design and construction of the proposed sewer project were not available/provided to us as yet.

The results of field and laboratory testing and recommendations based upon these data are included in this report. It should be noted that specific means and methods recommendations are not included in the scope of our work.

2.0 SITE DESCRIPTION

The proposed sewer(s) will extend along portions of Meander Drive, between North Bell School Road and Larwinn Drive in Rockford, Illinois. The project site is located in a residential area on the east side of Rockford, Illinois. Total relief at the test boring locations is on the order of 18 feet.

3.0 FIELD EXPLORATION AND LABORATORY TESTING

A total of five (5) soil borings were performed as part of this exploration at the approximate locations determined by RRWRD. The borings were numbered SB-1 through SB-5. They were drilled at or very near the locations marked in the field by RRWRD personnel. Reference is made to the Boring Location Plan in the Appendix for the boring locations. The elevations, as well as the coordinates (Northing and Easting), at the borings were provided by RRWRD. The ground surface elevation for each boring is shown on the boring logs, as well as on the Boring Location Plan, in the Appendix of this report. The table below shows the boring number, the Meander Drive address located nearest to each boring location, the boring coordinates and the ground surface elevation for each boring.

<u>Boring No.</u>	<u>Address nearest to Boring Location</u>	<u>Coordinates</u>		<u>Ground Surface Elevation</u>
		<u>Northing</u>	<u>Easting</u>	
SB-1	7655 Meander Drive	2046128.3885	2621186.0459	866.8
SB-2	7605 Meander Drive	2045847.5650	2620901.1984	879.8
SB-3	7572 Meander Drive	2045677.3296	2620774.3242	882.7
SB-4	7583 Meander Drive	2045596.5655	2620849.7579	884.5
SB-5	7523 Meander Drive	2045634.1293	2620503.2363	877.9

The borings were extended to depths varying between 19 and 20 feet below existing grade. Borings 1 and 2 were drilled to split spoon sampler refusal at depths of 19.3 and 19.9 feet below existing grade, respectively, just prior to reaching the planned termination depth of 20 feet. Borings 3 - 5 were drilled to their planned termination depths at 20 feet below existing grade.



The borings were drilled and samples tested according to currently recommended American Society for Testing and Materials specifications. Soil sampling was generally performed at 5 foot depth intervals in conjunction with the Standard Penetration Test (SPT), for which driving resistance to a 2" split-spoon sampler ("N" value in blows per foot) provides an indication of the relative density of granular materials and consistency of cohesive soils. Water level readings were taken during and following completion of drilling operations.

Soil samples were examined in the laboratory to verify field descriptions and to classify them in accordance with the Unified Soil Classification System. Laboratory testing included moisture content determinations for all cohesive and intermediate (silt or loamy) soil types. An estimate of unconfined compressive strength was obtained for all inorganic native clay soils using a calibrated pocket penetrometer, with actual measurements of unconfined compressive strength performed on representative cohesive sample(s).

A portion of each split spoon soil sample from the borings was collected and placed in a separate sealed jar for headspace analysis only. A total of twenty (20) samples for headspace analyses were collected from the five (5) soil borings made for this project. Headspace analysis on these samples was performed at the TSC office following completion of the borings. The headspace analysis was conducted using a Mini-RAE photo-ionization detector (PID) equipped with a 10.6 eV probe, similar to the instrument utilized to screen each load of soil for final acceptance at a Clean Construction Demolition Debris (CCDD) facility. The PID was used to check for the presence of volatile organic vapors such as those present in petroleum products and solvents. The headspace analysis was performed by removing the screw lid from each sample jar and inserting the tip of the probe into the jar. The vapors that accumulated in the headspace of the jar were drawn into the probe and ionized by an ultraviolet light source. The concentration of these vapors in parts per million (ppm), relative to a Benzene-equivalent calibration standard, was displayed on the instrument display. The background level (or a 0.0 value noted on the logs) refers to the reading associated with the ambient air located at the test location, which in this case is the TSC office. The PID readings for each soil sample are noted on the attached boring logs in the column labeled "PID"; the readings are in units of parts per million (ppm).

Reference is made to the boring logs in the Appendix which indicate subsurface stratigraphy and soil descriptions, results of field and laboratory tests, as well as water level observations. Definitions of descriptive terminology are also included. While strata changes are shown as a definite line on the boring

logs, the actual transition between material layers will probably be more gradual. It should be noted that in the absence of foreign substances it is often nearly impossible to distinguish disturbed samples of native soil from fill materials.

4.0 DISCUSSION OF TEST DATA

The following is a generalized description of the pavement materials and soil conditions found in the borings. The reader should refer to the individual boring logs in the Appendix of this report for more specific details.

Pavement materials were found at the surface of the borings. The pavement materials consisted of Hot-Mix Asphalt (HMA) overlying granular base course material. The total thicknesses of the HMA were estimated to vary from approximately 2 to 3 inches at the boring locations. The HMA pavement materials were underlain by a crushed stone granular base course layer, which was found to be approximately 8 to 9½ inches in thickness. The above pavement thicknesses should be considered approximate as they were estimated from the disturbed sides of the augered boring holes at the test locations. Pavement core(s) should be taken if more exact measurements or detailed pavement material descriptions are required.

Native soils were encountered below the existing pavement materials in the borings made at this site. These native soils generally consisted of layers of silty clays overlying silty ("loamy") sands, sandy silts, silts and sandy or very silty clays. The silty clays were found directly below the pavement materials in the borings, extending to depths varying from 8.0 to 8.5 feet below the existing ground surface. Unconfined compressive strengths of these clays varied from 0.75 to 1.75 tons per square foot (tsf), characterizing them as medium stiff to stiff, at moisture contents of between 23 and 29 percent.

Layers of silty sands, silts or sandy silts with trace amounts or less of gravel were found below the aforementioned silty clay deposits in the borings, extending to depths varying from 13.0 to the boring termination depth of 20.0 feet below existing grade. Occasional cobbles were noted within the silty sand deposit encountered at and below a depth of 12 feet in SB-2. These "loamy" sand, silt and sandy silt deposits exhibited SPT "N" values ranging from 6 blows per foot (bpf) to 82 blows per 11 inches, characterizing them as loose to very dense. Stiff to hard sandy or very silty clays with varying amounts of

gravel and often with silty sand seams and occasional cobbles were found in SB-1, SB-4 and SB-5, beginning at depths of 13.0 or 13.5 feet below existing grade and extending to the boring termination depths of 19.3 to 20 feet. These sandy or very silty clays exhibited unconfined compressive strengths ranging from 1.25 to 4.5+ tsf at moisture contents between 5 and 12 percent. The hard very silty clays with sand, gravel and occasional cobbles and the medium dense to very dense silty sands, silts and sandy silts with gravel and occasional cobbles encountered in the borings are believed to be glacial till soils.

Free water was encountered during drilling operations in Borings 1 and 3 at depths of 8.5 feet and 18.5 feet below existing grade or Elevations 858.3 and 864.2, respectively. Upon completion of drilling operations and removal of the augers from the boreholes, free water was observed in Borings 1 and 3 at a depth of 18.0 feet below existing grade in each or Elevations 848.8 and 864.7, respectively. No groundwater was encountered to the depths drilled, during and shortly after drilling operations, in Borings 2, 4 and 5. Groundwater level observations may be found on the attached boring logs in the Appendix of this report.

As previously noted in this report, headspace analysis was performed on each soil sample obtained from the borings using a Mini-RAE photo-ionization detector (PID). The vapors that accumulated in the headspace of each sample jar were measured with the PID probe. The concentration of these vapors in parts per million (ppm), relative to a Benzene-equivalent calibration standard, was displayed on the instrument display; the results are shown on the attached boring logs in the column headed PID. All soil samples taken and tested from the borings were analyzed to be at or below the background level. The background level (or a 0.0 value noted on the boring logs) refers to the reading associated with the ambient air located at the test location, which in this case is the TSC office.

5.0 ANALYSIS AND RECOMMENDATIONS

Summarized by boring location in the following table are the depth range in feet below existing grade (provided by RRWRD) and descriptions of the materials found at or near the expected depth range of the proposed bottoms of the sewer pipes.

Boring Number	Approximate Bottom of Proposed Sanitary Sewer Pipe	Material at or near Depth Range Anticipated for Bottom of Sanitary Sewer Pipe
	Depth Range in feet below existing grade	
SB-1	8 - 12	Medium stiff to stiff silty CLAY, very moist, and medium dense silty SAND with sandy silt seams, wet, over hard very silty clay with silty sand seams and occasional cobbles, moist
SB-2	8 - 12	Medium dense SILT, very moist, over very dense silty SAND with occasional cobbles, moist
SB-3	8 - 12	Loose silty SAND, moist, over dense SILT, moist
SB-4	8 - 12	Medium dense sandy SILT, moist, over hard very silty CLAY with occasional cobbles, moist
SB-5	8 - 12	Loose sandy SILT, moist, over stiff sandy CLAY, very moist

Based on information provided by RRWRD, it is understood that, generally, the bottoms of the sewers will vary between approximately 8 and 12 feet below existing grade at the locations of the borings. Depending on final grades for the sewers, it is anticipated that the excavations for the sewer pipes will encounter layers of surficial pavement materials underlain by mostly medium stiff to stiff silty clays, stiff sandy clays, hard very silty clays with occasional cobbles and loose to very dense silts, sandy silts and silty sands with occasional cobbles. The medium dense to very dense silty sands, silts and sandy silts in Borings 1 - 4, the hard very silty clay in Borings 1 and 4 and the stiff sandy clay in Boring 5 all found at or near expected bottom of sewer pipe grade are considered suitable in their present state/condition for pipe support. The hardness, very dense condition and presence of cobbles in the hard clay or very dense silty sand glacial till deposits may cause some difficulties with excavations extending into these soils, particularly in the areas represented by Borings 1, 2 and 4.

Medium stiff silty clay soil, exhibiting marginal stability characteristics, was found at or near bottom of sewer pipe depth/elevation in Boring 1 and above the bottom of pipe depth/elevation in Boring 5. Marginal clays typically exhibit low unconfined compressive strengths ($Q_u/Q_p \leq 1.0$ tsf). Loose silty sand and loose sandy silt soils were encountered at expected bottom of pipe level in Borings 3 and 5. These low strength clays or loose "loamy" sands/silts may need to be undercut 6 to 24 inches, as determined in the field, and replaced with additional crushed stone bedding. This should provide

adequate bearing capacity as well as a stable platform for pipe installation. The medium dense to dense silts and sandy silts found at or near bottom of pipe grade(s) in Borings 2 - 4, although judged to be suitable for pipe support in their present state/condition, are considered very moisture sensitive, i.e., can experience a loss of stability when exposed by excavation and subjected to construction traffic in the presence of free moisture. If these silts become unstable during construction, it may be necessary to undercut them approximately 6 to 24 inches in depth below the sewer pipe and replace them with coarse crushed stone material.

Saturated silty sand, with sandy silt seams, was encountered in the depth interval of 8.5 to 13.5 feet below existing grade in Boring 1. Groundwater was encountered in Borings 1 and 3 at depths as shallow as 8.5 feet and 18.0 feet below existing grade, respectively. These groundwater depths correspond to Elevations ranging from 858.3 to 864.7. Sewer inverts are expected to be between depths of 8 and 12 feet at these test locations. Accordingly, some problems with groundwater may be expected for any sewer excavations extending down to or into these wet "loamy" sand/silt soils. Granular soil types under hydrostatic pressure at the time of construction can lead to a running condition, where the materials in the side walls will rapidly slough or "flow" into the excavation. If allowed to occur, running soil conditions may lead to loss of ground and settlement in surrounding areas. Running soil conditions can be controlled with a "tight" excavation support system, preconstruction dewatering procedures or a combination thereof. Very moist to wet (silty) sands and silts may be unstable when exposed by excavation(s). It may be necessary to place an additional 6 to 24 inches of granular base under the sewer pipes in the area of Boring 2 in order to provide a stable surface for pipe support.

Although groundwater was not encountered in Borings 2, 4 and 5 to the depths drilled, accumulations of run-off water and varying amounts of groundwater seepage into and at the base of excavations should be expected to occur during sanitary sewer construction and site work. The contractor should be prepared to remove these accumulations of groundwater by appropriate methods for the soil conditions present.

To the extent that laborers will work in the excavations, protection against cave-ins must be provided. It should be noted that "loamy" sand and silt deposits were found at varying depths in several of the borings. These materials are prone to sloughing and caving into excavations. Protective measures

for worker safety and loss-of-ground in surrounding properties should include the use of safety trench boxes, sheeting and bracing, or other appropriate methods. In this regard, the contractor must be responsible for their construction means and methods and for meeting OSHA requirements, local regulations and/or project specifications with respect to the safety of his work force.

The clay, silt and "loamy" sand soils observed in the borings do not appear to be well-suited for use as backfill material. The moist to very moist silty or very silty clays and silts found in the borings may become unstable under vibratory compaction. Clay or silt backfill is not recommended below settlement sensitive structures, pavements or other features. Also, "loamy" sands containing a significant amount of clay and/or silt may also become unstable under vibratory compaction, particularly if they are or become significantly wet of the optimum moisture content for compaction.

Lateral earth pressures for permanent underground structures will be dependent on the type of backfill used and groundwater levels. Equivalent fluid pressures are given for cohesive and granular backfills, assuming at-rest (K_0) earth pressures. The values shown represent the increase in lateral pressure over a 1.0 foot distance measured in pounds per square foot (psf/ft).

EQUIVALENT FLUID PRESSURE (PSF/FT)		
BACKFILL TYPE	ABOVE WATER TABLE	BELOW WATER TABLE
Granular	50	90
Cohesive	65	100

6.0 CLOSURE

This report includes information regarding subsurface conditions and general recommendations and considerations for the proposed sewer system. It should be noted that means and methods of



construction are the responsibility of the contractor. It is recommended that testing and observation services be provided by Testing Service Corporation personnel during construction.

The analysis and recommendations submitted in this report are based upon the data obtained from the five (5) soil borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur between or beyond these borings, the nature and extent of which may not become evident until during the course of construction. If variations are then identified, recommendations contained in this report should be re-evaluated after performing on-site observations.

We are available to review this report with you at your convenience.

Reviewed by:

Prepared by:

Steven R. Koester, P.E.
Vice President

JLM/rb



Jeffrey L. Martin
Registered Professional Engineer
Illinois No. 062-047621

Not to be used for bidding purposes



TESTING SERVICE CORPORATION

GENERAL CONDITIONS

Geotechnical and Construction Services

1. PARTIES AND SCOPE OF WORK: If Client is ordering the services on behalf of another, Client represents and warrants that Client is the duly authorized agent of said party for the purpose of ordering and directing said services, and in such case the term "Client" shall also include the principal for whom the services are being performed. Prices quoted and charged by TSC for its services are predicated on the conditions and the allocations of risks and obligations expressed in these General Conditions. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by Client are adequate and sufficient for Client's intended purpose. Unless otherwise expressly assumed in writing, TSC's services are provided exclusively for client. TSC shall have no duty or obligation other than those duties and obligations expressly set forth in this Agreement. TSC shall have no duty to any third party. Client shall communicate these General Conditions to each and every party to whom the Client transmits any report prepared by TSC. Ordering services from TSC shall constitute acceptance of TSC's proposal and these General Conditions.

2. SCHEDULING OF SERVICES: The services set forth in this Agreement will be accomplished in a timely and workmanlike manner. If TSC is required to delay any part of its services to accommodate the requests or requirements of Client, regulatory agencies, or third parties, or due to any cause beyond its reasonable control, Client agrees to pay such additional charges, if any, as may be applicable.

3. ACCESS TO SITE: TSC shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as a result of its services or the use of its equipment; however, TSC has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires TSC to restore the site to its former condition, TSC will, upon written request, perform such additional work as is necessary to do so and Client agrees to pay to TSC the cost thereof plus TSC's normal markup for overhead and profit.

4. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that Client has advised TSC of any known or suspected hazardous materials, utility lines and underground structures at any site at which TSC is to perform services under this Agreement. Unless otherwise agreed in writing, TSC's responsibility with respect to underground utility locations is to contact the Illinois Joint Utility Locating Information for Excavators for the location of public but not private, utilities.

5. DISCOVERY OF POLLUTANTS: TSC's services shall not include investigation for hazardous materials as defined by the Resource Conservation Recovery Act, 42 U.S.C. § 6901, et seq., as amended ("RCRA") or by any state or Federal statute or regulation. In the event that hazardous materials are discovered and identified by TSC, TSC's sole duty shall be to notify Client.

6. MONITORING: If this Agreement includes testing construction materials or observing any aspect of construction of improvements, Client's construction personnel will verify that the pad is properly located and sized to meet Client's projected building loads. Client shall cause all tests and inspections of the site, materials and work to be timely and properly performed in accordance with the plans, specifications, contract documents, and TSC's recommendations. No claims for loss, damage or injury shall be brought against TSC unless all tests and inspections have been so performed and unless TSC's recommendations have been followed.

TSC's services shall not include determining or implementing the means, methods, techniques or procedures of work done by the contractor(s) being monitored or whose work is being tested. TSC's services shall not include the authority to accept or reject work or to in any manner supervise the work of any contractor. TSC's services or failure to

perform same shall not in any way operate or excuse any contractor from the performance of its work in accordance with its contract. "Contractor" as used herein shall include subcontractors, suppliers, architects, engineers and construction managers.

Information obtained from borings, observations and analyses of sample materials shall be reported in formats considered appropriate by TSC unless directed otherwise by Client. Such information is considered evidence, but any inference or conclusion based thereon is, necessarily, an opinion also based on engineering judgment and shall not be construed as a representation of fact. Subsurface conditions may not be uniform throughout an entire site and ground water levels may fluctuate due to climatic and other variations. Construction materials may vary from the samples taken. Unless otherwise agreed in writing, the procedures employed by TSC are not designed to detect intentional concealment or misrepresentation of facts by others.

7. DOCUMENTS AND SAMPLES: Client is granted an exclusive license to use findings and reports prepared and issued by TSC and any sub-consultants pursuant to this Agreement for the purpose set forth in TSC's proposal provided that TSC has received payment in full for its services. TSC and, if applicable, its sub-consultant, retain all copyright and ownership interests in the reports, boring logs, maps, field data, field notes, laboratory test data and similar documents, and the ownership and freedom to use all data generated by it for any purpose. Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of TSC's report.

8. TERMINATION: TSC's obligation to provide services may be terminated by either party upon (7) seven days prior written notice. In the event of termination of TSC's services, TSC shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses. The terms and conditions of these General Conditions shall survive the termination of TSC's obligation to provide services.

9. PAYMENT: Client shall be invoiced periodically for services performed. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to in writing for valid cause within sixty (60) days at the rate of twelve (12%) per annum (or the maximum interest rate permitted by applicable law, whichever is the lesser) until paid and TSC's costs of collection of such accounts, including court costs and reasonable attorney's fees.

10. WARRANTY: TSC's professional services will be performed, its findings obtained and its reports prepared in accordance with these General Conditions and with generally accepted principles and practices. In performing its professional services, TSC will use that degree of care and skill ordinarily exercised under similar circumstances by members of its profession. In performing physical work in pursuit of its professional services, TSC will use that degree of care and skill ordinarily used under similar circumstances. This warranty is in lieu of all other warranties or representations, either express or implied. Statements made in TSC reports are opinions based upon engineering judgment and are not to be construed as representations of fact.

Should TSC or any of its employees be found to have been negligent in performing professional services or to have made and breached any express or implied warranty, representation or contract, Client, all parties claiming through Client and all parties claiming to have in any way relied upon TSC's services or work agree that the maximum aggregate amount of damages for which TSC, its officers, employees and agents shall be liable is limited to \$50,000 or the total amount of the fee paid to TSC for its services performed with respect to the project, whichever amount is greater.

In the event Client is unwilling or unable to limit the damages for which TSC may be liable in accordance with the provisions set forth in the preceding paragraph, upon written request of Client received within five days of Client's acceptance of TSC's proposal together with payment of an additional fee in the amount of 5% of TSC's estimated cost for its services (to be adjusted to 5% of the amount actually billed by TSC for its services on the project at time of completion), the limit on damages shall be increased to \$500,000 or the amount of TSC's fee, whichever is the greater. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the exposure to an award of greater damages.

11. INDEMNITY: Subject to the provisions set forth herein, TSC and Client hereby agree to indemnify and hold harmless each other and their respective shareholders, directors, officers, partners, employees, agents, subsidiaries and division (and each of their heirs, successors, and assigns) from any and all claims, demands, liabilities, suits, causes of action, judgments, costs and expenses, including reasonable attorneys' fees, arising, or allegedly arising, from personal injury, including death, property damage, including loss of use thereof, due in any manner to the negligence of either of them or their agents or employees or independent contractors. In the event both TSC and Client are found to be negligent or at fault, then any liability shall be apportioned between them pursuant to their pro rata share of negligence or fault. TSC and Client further agree that their liability to any third party shall, to the extent permitted by law, be several and not joint. The liability of TSC under this provision shall not exceed the policy limits of insurance carried by TSC. Neither TSC nor Client shall be bound under this indemnity agreement to liability determined in a proceeding in which it did not participate represented by its own independent counsel. The indemnities provided hereunder shall not terminate upon the termination or expiration of this Agreement, but may be modified to the extent of any waiver of subrogation agreed to by TSC and paid for by Client.

12. SUBPOENAS: TSC's employees shall not be retained as expert witnesses except by separate, written agreement. Client agrees to pay TSC pursuant to TSC's then current fee schedule for any TSC employee(s) subpoenaed by any party as an occurrence witness as a result of TSC's services.

13. OTHER AGREEMENTS: TSC shall not be bound by any provision or agreement (i) requiring or providing for arbitration of disputes or controversies arising out of this Agreement or its performance, (ii) wherein TSC waives any rights to a mechanics lien or surety bond claim; (iii) that conditions TSC's right to receive payment for its services upon payment to Client by any third party or (iv) that requires TSC to indemnify any party beyond its own negligence. These General Conditions are notice, where required, that TSC shall file a lien whenever necessary to collect past due amounts. This Agreement contains the entire understanding between the parties. Unless expressly accepted by TSC in writing prior to delivery of TSC's services, Client shall not add any conditions or impose conditions which are in conflict with those contained herein, and no such additional or conflicting terms shall be binding upon TSC. The unenforceability or invalidity of any provision or provisions shall not render any other provision or provisions unenforceable or invalid. This Agreement shall be construed and enforced in accordance with the laws of the State of Illinois. In the event of a dispute arising out of or relating to the performance of this Agreement, the breach thereof or TSC's services, the parties agree to try in good faith to settle the dispute by mediation under the Construction Industry Mediation Rules of the American Arbitration Association as a condition precedent to filing any demand for arbitration, or any petition or complaint with any court. Paragraph headings are for convenience only and shall not be construed as limiting the meaning of the provisions contained in these General Conditions.

APPENDIX

UNIFIED CLASSIFICATION CHART

LEGEND FOR BORING LOGS

BORING LOGS

BORING LOCATION PLAN

Not to be used for bidding purposes

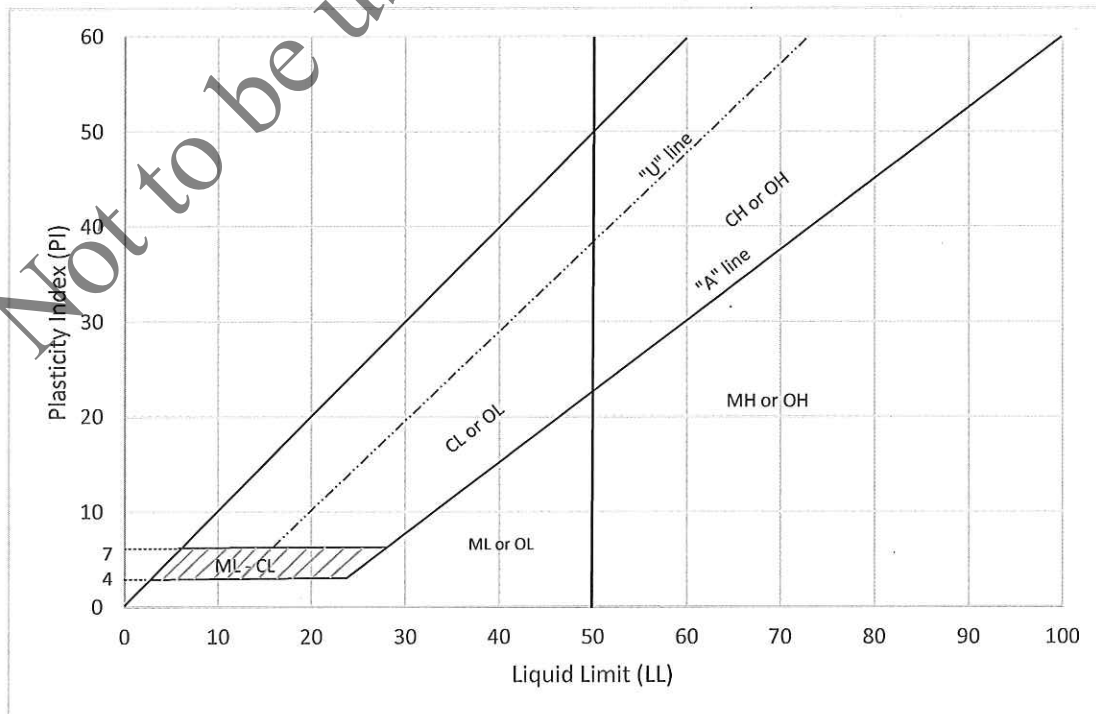
Testing Service Corporation Unified Classification Chart



CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TEST °				SOIL CLASSIFICATION	
				Group Symbol	GROUP NAME ^b
COARSE - GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS less than 5% fines ^c	$C_u \geq 4$ and $1 \leq C_c \leq 3$ °	GW	Well-graded gravel ^f
			$C_u < 4$ and/or $1 > C_c > 3$ °	GP	Poorly-graded gravel ^f
		GRAVELS WITH FINES more than 12% fines ^c	Fines classify as ML or MH	GM	Silty gravel ^{f, g, h}
			Fines classify as CL or CH	GC	Clayey gravel ^{f, g, h}
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS less than 5% fines ^d	$C_u \geq 6$ and $1 \leq C_c \leq 3$ °	SW	Well-graded sand ⁱ
			$C_u < 6$ and/or $1 > C_c > 3$ °	SP	Poorly-graded sand ⁱ
		SANDS WITH FINES more than 12% fines ^d	Fines classify as ML or MH	SM	Silty sand ^{g, h, f}
			Fines classify as CL or CH	SC	Clayey sand ^{g, h, f}
FINE - GRAINED SOILS 50% or more passed the No. 200 sieve	SILTS & CLAYS Liquid limit less than 50%	Inorganic	PI > 7 or plots on or above "A" line ^j	CL	Lean clay ^{k, l, m}
			PI < 4 or plots below "A" line ^j	ML	Silt ^{k, l, m}
		Organic	$\frac{\text{Liquid limit} - \text{oven dried}}{\text{Liquid limit} - \text{not dried}} < 0.75$	OL	Organic clay ^{k, l, m, n} Organic silt ^{k, l, m, o}
	SILTS & CLAYS Liquid limit 50% or more	Inorganic	PI plots on or above "A" line	CH	Fat clay ^{k, l, m}
			PI plots below "A" line	MH	Elastic silt ^{k, l, m}
		Organic	$\frac{\text{Liquid limit} - \text{oven dried}}{\text{Liquid limit} - \text{not dried}} < 0.75$	OH	Organic clay ^{k, l, m, p} Organic silt ^{k, l, m, q}
Highly organic soils		Primarily organic matter, dark in color, and organic odor		PT	Peat

- a. Based on the material passing the 3-inch (75-mm) sieve.
b. If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name
c. Gravels with 5 to 12% fines required dual symbols
GW-GM well graded gravel with silt
GW-GC well graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay
d. Sands with 5 to 12% fines require dual symbols
SW-SM well graded sand with silt
SW-SC well graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay
e. $C_u = D_{60}/D_{10}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$

- f. If soils contains $\geq 15\%$ sand, add "with sand" to group name.
g. If fines classify as CL-ML, use dual symbol GC-GM, SC-SM
h. If fines are organic, add "with organic fines" to group name
i. If soils contains $\geq 15\%$ gravel, add "with gravel" to group name
j. If Atterberg Limits plot in hatched area, soil is a CL – ML, silty clay
k. If soils contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant
l. If soil contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name.
m. If soils contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name
n. PI ≥ 4 and plots on or above "A" line
o. PI ≥ 4 and plots below "A" line
p. PI plots on or above "A" line
q. PI plots below "A" line





TESTING SERVICE CORPORATION

LEGEND FOR BORING LOGS



FILL



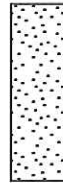
TOPSOIL



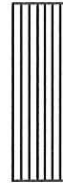
PEAT



GRAVEL



SAND



SILT



CLAY



DOLOMITE

SAMPLE TYPE

SS = Split Spoon
ST = Thin-Walled Tube
A = Auger
MC = Macro-Core (Geo Probe)

WATER LEVELS:

▽ While Drilling
▽ End of Boring
▽ 24 Hours

FIELD AND LABORATORY TEST DATA

N = Standard Penetration Resistance in Blows per Foot
WC = In-Situ Water Content
Qu = Unconfined Compressive Strength in Tons per Square Foot
* Pocket Penetrometer Measurement: Maximum Reading = 4.5 tsf
Y_{DRY} = Dry Unit Weight in Pounds per Cubic Foot

SOIL DESCRIPTION

MATERIAL

BOULDER
COBBLE
Coarse GRAVEL
Small GRAVEL
Coarse SAND
Medium SAND
Fine SAND
SILT and CLAY

PARTICLE SIZE RANGE

Over 12 inches
12 inches to 3 inches
3 inches to $\frac{3}{4}$ inch
 $\frac{3}{4}$ inch to No. 4 Sieve
No. 4 Sieve to No. 10 Sieve
No. 10 Sieve to No. 40 Sieve
No. 40 Sieve to No. 200 Sieve
Passing No. 200 Sieve

COHESIVE SOILS

<u>CONSISTENCY</u>	<u>Qu (tsf)</u>
Very Soft	Less than 0.25
Soft	0.25 to 0.5
Medium Stiff	0.5 to 1.0
Stiff	1.0 to 2.0
Very Stiff	2.0 to 4.0
Hard	4.0 and over

COHESIONLESS SOILS

<u>RELATIVE DENSITY</u>	<u>N (bpf)</u>
Very Loose	0 - 3
Loose	4 - 9
Medium Dense	10 - 29
Dense	30 - 49
Very Dense	50 and over

MODIFYING TERM

Trace
Little
Some

PERCENT BY WEIGHT

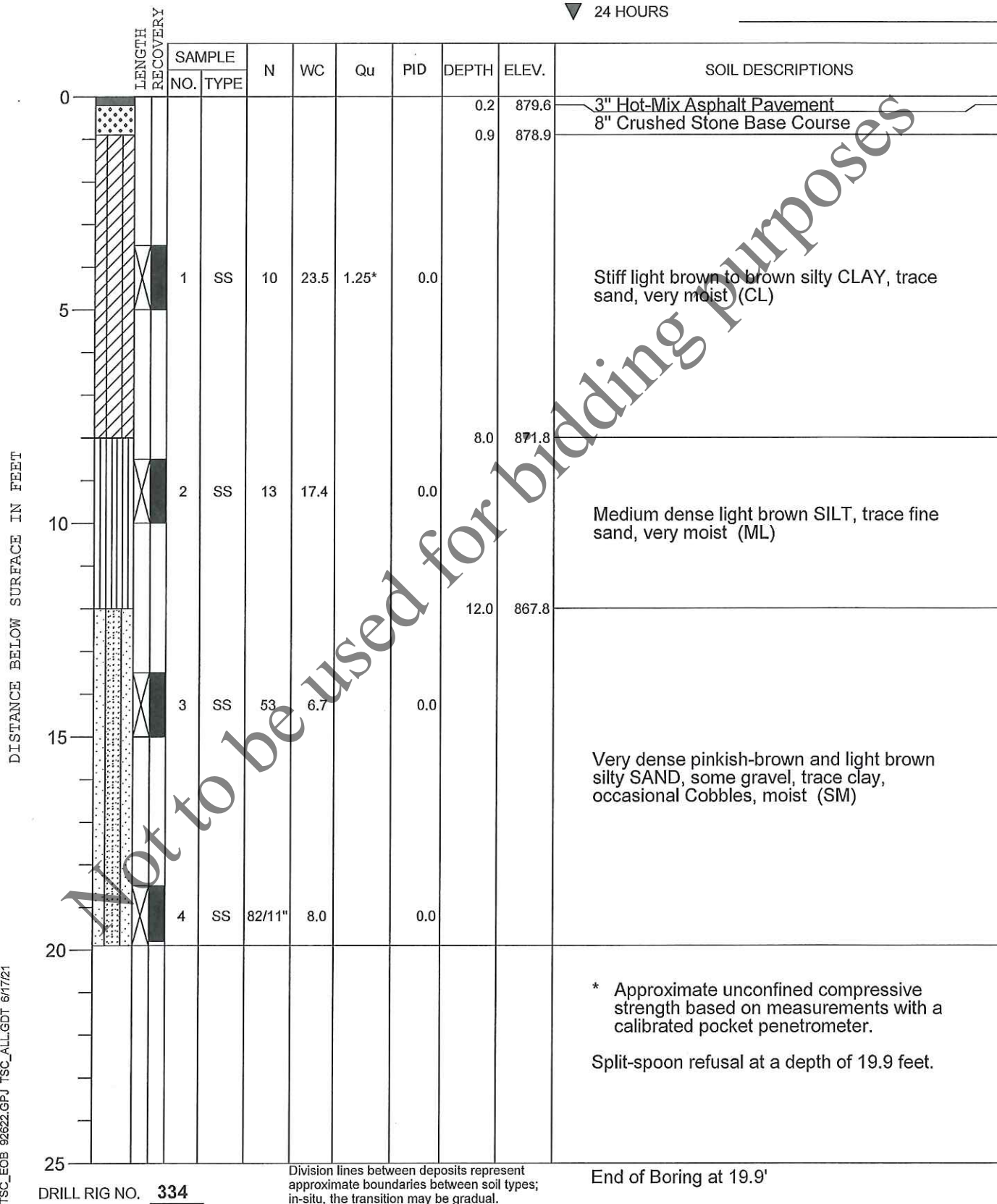
1 - 10
10 - 20
20 - 35

PROJECT Meander Drive Sanitary Sewer Extension, Rockford, IllinoisCLIENT Rock River Water Reclamation District, Rockford, IllinoisBORING 2 DATE STARTED 6-10-21 DATE COMPLETED 6-10-21 JOB L-92,622

ELEVATIONS

GROUND SURFACE 879.8END OF BORING 859.9

WATER LEVEL OBSERVATIONS

▽ WHILE DRILLING Dry▽ AT END OF BORING Dry▽ 24 HOURS 

PROJECT Meander Drive Sanitary Sewer Extension, Rockford, IllinoisCLIENT Rock River Water Reclamation District, Rockford, IllinoisBORING 3 DATE STARTED 6-10-21 DATE COMPLETED 6-10-21 JOB L-92,622

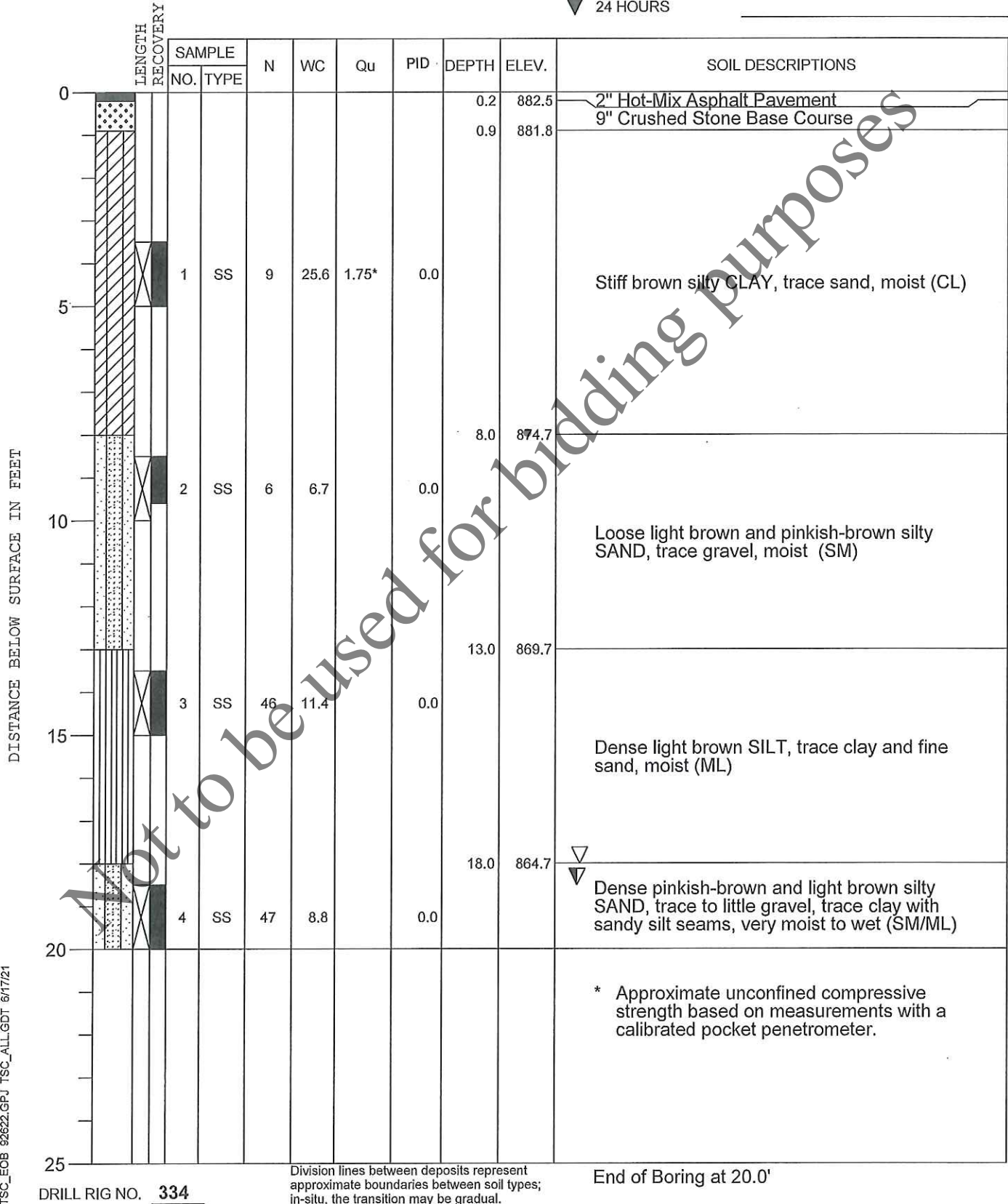
ELEVATIONS

GROUND SURFACE 882.7END OF BORING 862.7

WATER LEVEL OBSERVATIONS

▽ WHILE DRILLING 18.5'▽ AT END OF BORING 18.0'

▽ 24 HOURS



PROJECT Meander Drive Sanitary Sewer Extension, Rockford, IllinoisCLIENT Rock River Water Reclamation District, Rockford, IllinoisBORING 5 DATE STARTED 6-10-21 DATE COMPLETED 6-10-21 JOB L-92,622

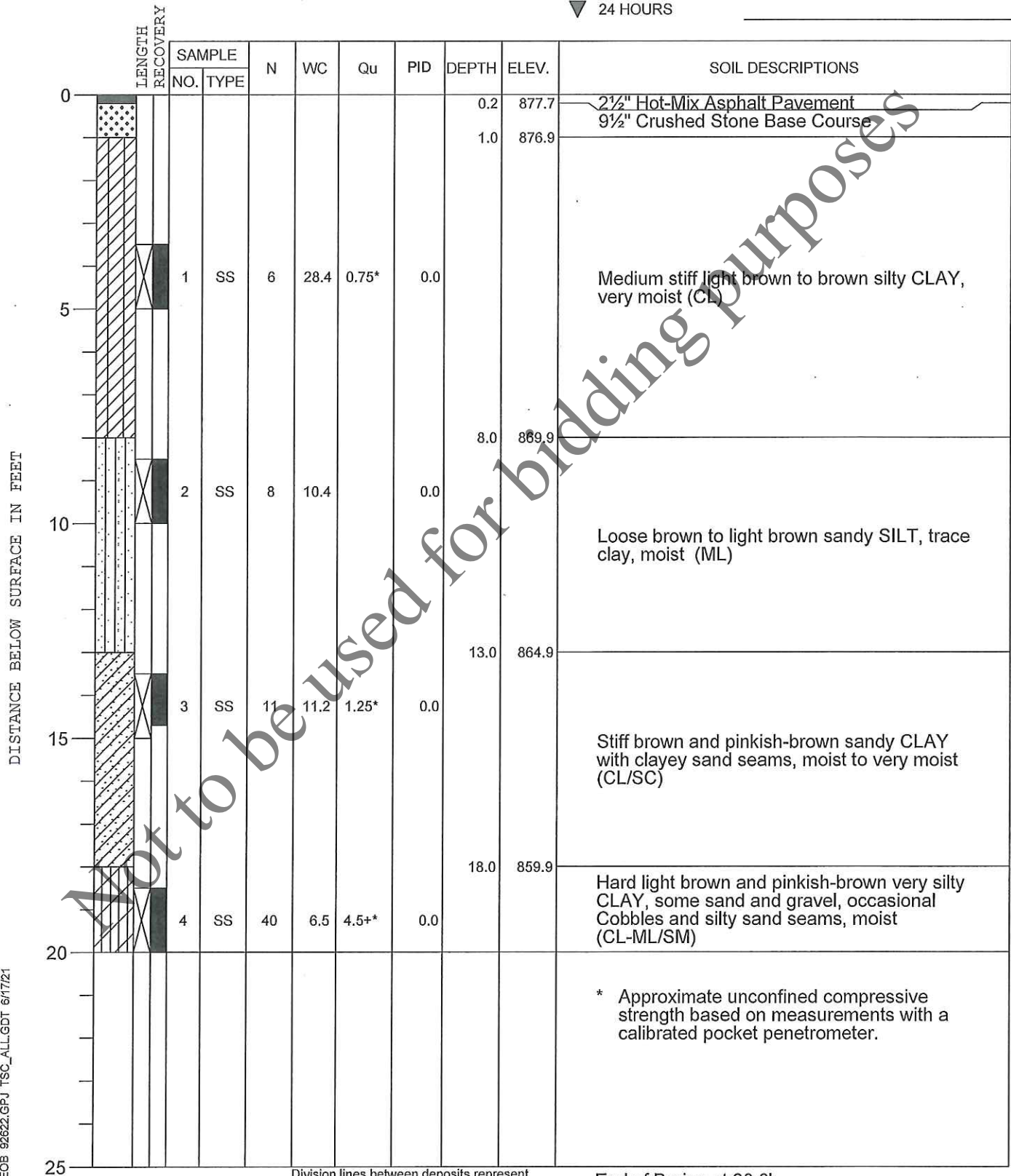
ELEVATIONS

GROUND SURFACE 877.9END OF BORING 857.9

WATER LEVEL OBSERVATIONS

▽ WHILE DRILLING Dry▽ AT END OF BORING Dry

▽ 24 HOURS

DRILL RIG NO. 334

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

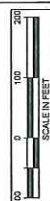
End of Boring at 20.0'

MEANDER DRIVE, N. BELL SCHOOL RD. TO LARWINN DR.
ROCKFORD, ILLINOIS
JUNE, 2021
TSC JOB NO. L-92,622

SOIL BORING TABLE

SOIL BORING	NORTHING	EASTING	SURFACE ELEVATION	DEPTH OF BORING
SB-1	2046128.3865	2621186.0459	866.80	20.0'
SB-2	2045847.5650	2620901.1984	879.80	20.0'
SB-3	2045677.3296	2620774.3242	892.70	20.0'
SB-4	2045596.5655	2620849.7579	884.50	20.0'
SB-5	2045634.1293	2620503.2363	877.90	20.0'

SOIL BORING TABLE				
SOIL BORING	NORTHING	EASTING	SURFACE ELEVATION	DEPTH OF BORING
SB-1	2046128.3885	2621186.0459	866.80	20.0'
SB-2	2045847.5650	2620909.0184	879.80	20.0'
SB-3	2045877.3232	2620774.3242	882.70	20.0'
SB-4	2045596.5636	2620489.7579	884.50	20.0'
SB-5	2045634.1293	2620503.2363	877.90	20.0'



MEANDER DRIVE SANITARY SEWER EXTENSION - SPECIAL ASSESSMENT #136

Sheet No.
1 OF 1

Date	5/6/2021
------	----------

PROPOSED SOIL BORING LOCATIONS

 Rock River Water Reclamation District	ROCK RIVER WATER RECLAMATION DISTRICT		No.	DATE	REVISION	INT.
	3501 KISHWAUKEE STREET					
	ROCKFORD, ILLINOIS 61109					
	(815) 397-7660					

Section IV

IDOT Check Sheets

Not to be used for bidding purposes



Check Sheet for Recurring Special Provisions



Local Public Agency

County

Section Number

☐ Check this box for lettings prior to 01/01/2022.

The Following Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

Recurring Special Provisions

<u>Check Sheet #</u>		<u>Reference Page No.</u>
1	<input type="checkbox"/> Additional State Requirements for Federal-Aid Construction Contracts	1
2	<input type="checkbox"/> Subletting of Contracts (Federal-Aid Contracts)	4
3	<input type="checkbox"/> EEO	5
4	<input type="checkbox"/> Specific EEO Responsibilities Non Federal-Aid Contracts	15
5	<input type="checkbox"/> Required Provisions - State Contracts	20
6	<input type="checkbox"/> Asbestos Bearing Pad Removal	26
7	<input type="checkbox"/> Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal	27
8	<input type="checkbox"/> Temporary Stream Crossings and In-Stream Work Pads	28
9	<input checked="" type="checkbox"/> Construction Layout Stakes	29
10	<input type="checkbox"/> Use of Geotextile Fabric for Railroad Crossing	32
11	<input type="checkbox"/> Subsealing of Concrete Pavements	34
12	<input type="checkbox"/> Hot-Mix Asphalt Surface Correction	38
13	<input type="checkbox"/> Pavement and Shoulder Resurfacing	40
14	<input type="checkbox"/> Patching with Hot-Mix Asphalt Overlay Removal	41
15	<input type="checkbox"/> Polymer Concrete	43
16	<input type="checkbox"/> PVC Pipeliner	45
17	<input type="checkbox"/> Bicycle Racks	46
18	<input type="checkbox"/> Temporary Portable Bridge Traffic Signals	48
19	<input type="checkbox"/> Nighttime Inspection of Roadway Lighting	50
20	<input type="checkbox"/> English Substitution of Metric Bolts	51
21	<input type="checkbox"/> Calcium Chloride Accelerator for Portland Cement Concrete	52
22	<input type="checkbox"/> Quality Control of Concrete Mixtures at the Plant	53
23	<input type="checkbox"/> Quality Control/Quality Assurance of Concrete Mixtures	61
24	<input type="checkbox"/> Digital Terrain Modeling for Earthwork Calculations	77
25	<input type="checkbox"/> Preventive Maintenance - Bituminous Surface Treatment (A-1)	79
26	<input type="checkbox"/> Temporary Raised Pavement Markers	85
27	<input type="checkbox"/> Restoring Bridge Approach Pavements Using High-Density Foam	86
28	<input type="checkbox"/> Portland Cement Concrete Inlay or Overlay	89
29	<input type="checkbox"/> Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	93
30	<input type="checkbox"/> Longitudinal Joint and Crack Patching	96
31	<input type="checkbox"/> Concrete Mix Design - Department Provided	98
32	<input type="checkbox"/> Station Numbers in Pavements or Overlays	99

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
CONSTRUCTION LAYOUT STAKES

Effective: May 1, 1993
Revised: January 1, 2022

Description. The Contractor shall furnish and place construction layout stakes and perform layout work necessary to construct the work to the lines and grades shown on the plans. The Department will provide adequate reference points to the centerline of survey or other control points as applicable and bench marks as shown in the plans and listed herein. Any additional control points set by the Department will be identified in the field to the Contractor and all field notes will be kept in the office of the Resident Engineer.

The Contractor shall provide field forces, equipment, and material to perform the entire layout for the work, set additional stakes, which are needed to establish offset stakes, reference points, and any other horizontal or vertical controls, including supplementary bench marks, necessary to secure a correct layout of the work. Stakes for line and grade of pavement and/or curb shall be set at sufficient station intervals to ensure conformance to plan line and grade. The Contractor will not be required to set additional stakes to locate a utility line which is not included as a pay item in the contract nor to determine property lines between private properties.

The Contractor shall be responsible for having the finished work conform to the lines, grades, elevations, and dimensions called for in the plans. Any inspection or checking of the Contractor's layout by the Engineer and the acceptance of all or any part of it shall not relieve the Contractor of his/her responsibility to secure the proper dimensions, grades and elevations of the several parts of the work. The Contractor shall exercise care in the preservation of stakes and bench marks and shall have them reset when any are damaged, lost, displaced, removed, or otherwise obliterated.

Responsibility of the Department.

- (a) The Department will locate and reference the control points established for the layout of the work. This may include the centerline of roads and streets, except interchange ramps. The centerline of private entrances and short street intersection returns may not be located or referenced by the Department.

Locating and referencing the centerline of survey will consist of establishing and referencing the control points of the centerline of surveys such as PC's, PT's and as many POT's as are necessary to provide a line of sight.

- (b) For construction of roadways on new alignments, reconstruction of roadways, and construction or reconstruction of structures, bench marks will

CHECK SHEET #9

be established along the project outside of construction lines not exceeding 1000 ft (300 m) intervals horizontally and 20 ft (6 m) vertically.

- (c) Stakes set for (a) and (b) above will be identified in the field to the Contractor.
- (d) The Department will make random checks of the Contractor's staking to determine if the work is in conformance with the plans. Where the Contractor's work will tie into work that is being or will be done by others, checks will be made to determine if the work is in conformance with the proposed overall grade and horizontal alignment.
- (e) The Department will set stakes for utility adjustments.
- (f) The Department will make measurements and take cross sections from which the various pay items will be measured.
- (g) Where the Contractor, in setting construction stakes, discovers discrepancies, the Department will check to determine their nature and make whatever revisions are necessary in the plans, including the recross sectioning of the area involved. Any additional restaking required by the Engineer will be the responsibility of the Contractor. The additional restaking done by the Contractor will be paid for according to Article 109.04 of the Standard Specifications.
- (h) The Department will accept responsibility for the accuracy of the initial control points as provided herein.
- (i) It is not the responsibility of the Department, except as provided herein, to check the correctness of the Contractor's stakes; any errors apparent will be immediately called to the Contractor's attention and he/she shall make the necessary correction before the stakes are used for construction purposes.

Responsibility of the Contractor.

- (a) The Contractor shall establish from the given survey points and bench marks the control points necessary to construct the individual project elements. S(he) shall provide the Engineer adequate control in close proximity to each individual element to allow adequate checking of construction operations. This includes, but is not limited to, line and grade stakes, line and grade nails in form work, and/or filed or etched marks in substantially completed construction work or other locations. It is the Contractor's responsibility to tie in centerline control points in order to preserve them during construction operations.
- (b) At the completion of the grading operations, the Contractor shall set stakes at 100 ft (25 m) station intervals along each profile grade line. These stakes will be used for final cross sectioning by the Department.
- (c) The Contractor shall locate the existing right-of-way points for the installation of right-of-way markers.

CHECK SHEET #9

- (d) Work shall be according to normally accepted self-checking surveying practices. Field notes shall be kept in standard survey field notebooks and those books shall become the property of the Department at the completion of the project. Notes shall be neat, orderly, and in accepted form.
- (e) The Contractor shall use diligent care and appropriate accuracy for placement of construction stakes in order to construct to the lines and grades shown in the plans. Points shall be positioned to allow reuse throughout the construction process.
- (f) Prior to beginning any bridge construction, structure centerlines and pier lines shall be established by the Contractor and checked by the Engineer. The Contractor shall provide a detailed structure layout drawing showing span dimensions, staking lines, and offset distances.

Measurement and Payment. This work will be paid for at the contract lump sum price for CONSTRUCTION LAYOUT.

Not to be used for bidding purposes

Section V

City of Rockford
Right-of-Way Permit

Not to be used for bidding purposes

City of Rockford, Illinois

Public Works Department
425 East State Street, Rockford, IL 61104
Phone: 779-348-7174 Fax: (815) 967-7058 TDD (815) 987-5718
Web: www.rockfordil.gov



ENCROACHMENT PERMIT APPLICATION

(Encroachment located within the City right-of-way)

PERMIT#

(DATE OF APPLICATION)

(APPLICANT NAME) (PLEASE PRINT)

(IF BUILT BY A CONTRACTOR-GIVE NAME)

☐ CONTRACTOR OR ☐ PROPERTY OWNER
(IS APPLICANT) (CHECK ONE BOX)

(ADDRESS)

(APPLICANT ADDRESS) (PLEASE PRINT)

(ADDRESS)

(PHONE) (fax)

(PHONE) (FAX)

(APPLICANT SIGNATURE)

The above applicant hereby agrees to perform the work in accordance with the provisions and as set forth in **Chapter 26** as revised, of the City of Rockford, Code of Ordinance. Traffic control will be in accordance with Chap. F of the Illinois Highway Standards Manual.

(DESCRIPTION OF WORK) (GIVE DIMENSIONS OF LANDSCAPING OR PLANTER)

(LOCATION OF WORK - HOUSE ADDRESS & STREET NAME)

(WORK IS LOCATED BETWEEN THESE TWO SIDE STREETS)

THRU a.m. p.m.

(DATE WORK WILL BE DONE) (ESTIMATED WORK HOURS)

THRU
(DATE TIMEFRAME THAT THE ENCROACHMENT WILL BE DISPLAYED)

***NOTE: EXCAVATING, CUTTING OR DIGGING OF CITY STREETS IS PROHIBITED FOR FIVE YEARS AFTER PAVING UNLESS WORK IS AN EMERGENCY AND THEN ONLY BY PERMISSION OF CITY ENGINEER.**

PROOF OF INSURANCE AND BOND WITH CITY REQUIRED

ENCROACHMENT FEE \$ 40.00

\$

(INTERNAL PAY CODE 1010 61403)

(APPROVED BY) (PUBLIC WORKS DEPT.)

(DATE OF APPROVAL)

(FEE)

SPECIAL CONDITIONS

MUST CONTACT PUBLIC WORKS DEPARTMENT FOR FINAL INSPECTION AT 779-348-7174

AGREEMENT FOR MAINTENANCE OF ENCROACHMENT IN THE CITY OF ROCKFORD RIGHT-OF-WAY

City of Rockford, Illinois

Public Works Department
425 East State Street, Rockford, IL 61104
Phone: 779-348-7174 Fax: (815) 967-7058 TDD (815) 987-5718
Web: www.rockfordil.gov



This Agreement is dated as of the _____ day of _____, 20____, by and between the CITY OF ROCKFORD, a municipal corporation, ("City"), and _____ ("Participant").

RECITALS:

WHEREAS, the Participant wishes to install an encroachment in the City of Rockford right-of-way; and

WHEREAS, the City wishes to permit such installation to encourage the beautification of the community, subject to the terms and conditions herein.

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. Installation.
and Type

Participant will install the following:
description of encroachment(s)

_____	_____	_____
_____	_____	_____
_____	_____	_____

LOCATED AT: _____

(List street address or corner and ROW description, i.e. median, sidewalk, etc.)

Upon obtaining a permit to do so by the Department of Public Works. Participant agrees to abide by any conditions contained in the permit.

2. Maintenance. Participant agrees to maintain the encroachment, including weeding, watering and repairs. Participant agrees to maintain the encroachment in a clean and safe condition in the location approved.

3. Indemnification, Duty to defend, and Hold Harmless

To the fullest extent permitted by law, Participant agrees to indemnify and hold harmless the CITY OF ROCKFORD, a municipal corporation, and its officers, agents, representatives and/or employees from and against any and all claims, suits, liens, judgments, damages, losses and expenses, including legal fees and all court costs and liability (including statutory liability) arising in whole or in part and in any manner from injury and/or death of person or damage to, or loss of any property resulting from the acts, omissions, breach or default of the Participant, its officers, agents, members, employees, volunteers and subcontractors, in connection with the performance of any work done under this permit, by, or for, the Participant pursuant to any contract, except those claims, suits, liens, judgments, damages, losses and expenses caused by the negligence of the CITY OF ROCKFORD. Participant agrees to defend and bear all costs of defending any actions or proceedings brought against the CITY OF ROCKFORD, and its officers, agents, representatives and/or employees, arising in whole or in part from any such acts, negligence, reckless or willful misconduct, omission, breach or default directly or indirectly, by the Participant in the construction, existence, maintenance, or repair of the aforementioned encroachment. Participant also agrees to be responsible for any damage to the public right of way caused by any encroachment. The CITY OF ROCKFORD agrees that if it receives notice of any suit or claim for which the CITY OF ROCKFORD intends to exercise its rights under this clause, the CITY shall within a reasonable time of receipt of such suit or claim, notify the Participant in writing thereof.

4. City's Remedies for Noncompliance. If in the opinion of the City Engineer or his designee the encroachment(s) are not being maintained as required by this Agreement, the issued permit, and any applicable laws or regulations, the City Engineer or his designee may, upon notice described below, either: a. remove the encroachment, or b. elect to maintain the encroachment, but may subsequently remove with no further notice required. The City shall not be liable to the Participant in any way for said removal or takeover, and shall not be required to return the encroachment to the Participant. Prior to taking such action the City Engineer or his designee shall notify Participant of the maintenance deficiency in writing at the address herein or at such address Participant has designated in writing to the City as Participant's current address. The notice shall advise the Participant that the Participant has fourteen (14) days to correct the deficiency.

City of Rockford, Illinois

Public Works Department
425 East State Street, Rockford, IL 61104
Phone: 779-348-7174 Fax: (815) 967-7058 TDD (815) 987-5718
Web: www.rockfordil.gov



5. Notices. All notice, requests, demands and other communication (collectively "Notices") hereunder shall be in writing and given by personal delivery or U.S. mail, postage prepaid, at the following addresses or at such other addresses as the parties may designate by Notice given in the above-described manner:

City:
CITY OF ROCKFORD
Department of Public Works
City Engineer
425 E. State Street
Rockford, IL 61104

Name: _____
Address: _____

Participant: _____

Notice of suit or claim to:
CITY OF ROCKFORD
Legal Director
425 E. State Street
Rockford, IL 61104

Notice shall be effective upon receipt or upon attempted delivery if delivery is refused or impossible because the recipient has failed to provide a reasonable means for accomplishing delivery.

IN WITNESS WHEREOF, the City and Participant have executed this Agreement on the date above first written.

CITY OF ROCKFORD

By: _____
City Engineer

PARTICIPANT

Org. _____

Title. _____

City of Rockford, Illinois

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425 East State Street, Rockford, IL 61104
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Policy on Obstructions/Encroachments **within City Right-of-Way**

The City Council has adopted regulations as identified in Chapter 26; Streets, Sidewalks, and Other Public Places, of the Rockford Code of Ordinance which regulates the use of public right-of-way and within said chapter, Article II; Obstructions/Encroachments, requires approval by the City Engineer prior to any person obstruct or encroach on any public right-of-way.

Furthermore, the right-of-way is there for the benefit of the public and to support utility services and mains and to provide safety to our citizens and workers. It is the intent of this policy to provide direction and procedures for obstructions and encroachments in the right-of way. Obstructions/Encroachments include but are not limited to boulders, landscaping blocks, timbers, bricks, fencing, bushes, hedges, flowers, trees, signs, banners, benches, fences, trellises, planter boxes, canopies, overhangs, and any other items that is not concrete or asphalt pavement for driveways or sidewalk, or US approved post boxes.

No obstruction/encroachment may be placed with the City's right-of-way unless a permit application has been submitted to and approved by the Public Works Department. Along with the permit the property owner shall complete a Hold Harmless Agreement and a Maintenance Agreement for said obstruction/encroachment if that item is allowed in the right-of-way unless otherwise not required in this policy. Obstructions/encroachments must meet the following requirements prior to approval:

Trees:

The Hold Harmless and Maintenance Agreements are not required. With the permit application there is a list of trees approved for the City right-of-way.

Flowers:

The Hold Harmless and Maintenance Agreements are not required. Flowers may be no taller than three (3) feet in height. No bark, mulch, stone, sand, or loose dirt shall be placed around the flowers. The flowers may only be planted in grass. If sidewalk exists, then no additional clearance is required. If sidewalk does not exist, then a five (5)-foot walking path must be maintained.

Hedges & Bushes:

Not permitted under any circumstance. If existing they must be located behind the sidewalk. If sidewalk does not exist, then the hedges/bushes may not be any closer than 5 feet from edge of pavement or back of curb. If located within this 5 feet then they must be removed at the property's owner expense.

Bark, Mulch, Stone, Sand, or Loose Dirt:

Not permitted under any circumstance. If existing they must be removed at the property owner's expense. This enters into the storm sewer system and blocks the flow of water and, in turn, backs water up onto private property. Loose dirt may remain if the area is in the process of final restoration and grass seed has been planted.

City of Rockford, Illinois

Public Works Department
425 East State Street, Rockford, IL 61104
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Trellises:

Not permitted under any circumstance. If existing they must be removed at the property owner's expense.

Irrigation Systems:

Irrigation systems are permitted with the condition that a backflow preventer is installed on the system. If the irrigation system exists and does not have a backflow preventer then it must be removed at the property owner's expense or a backflow preventer installed.

Boulders:

Not permitted under any circumstance. For existing conditions the property owner must sign a Hold Harmless Agreement or the boulder must be removed at the property owner's expense. In some instances they may need to be removed regardless depending on location.

Planter Boxes:

Approval of the planter box depends on the location of the planter box. Planters may only be placed within the business districts unless otherwise approved by the Public Works Department. The plantings shall coincide with the America in Bloom planters with the Rockford Park District Foundation.

Landscaping timber/blocks/bricks:

Not permitted unless required to provide stabilization due to existing grade conditions and approved by the City Engineer. For existing conditions the property owner must sign a Hold Harmless Agreement or they must be removed at the property owner's expense. In some instances they may need to be removed regardless depending on location.

Canopies/Overhangs/Signs:

Canopies/Overhangs/Signs are only allowed for businesses and must be located on the property of the business. If the canopy/overhang/sign overhangs the sidewalk it must be a minimum of nine (9) feet from the bottom of the sign to the sidewalk and shall not extend more than four (4) feet into the public right-of-way and may be no closer than three (3) feet from the edge of pavement or back of curb. Canopies/Overhangs/Signs must conform to the current Zoning and Building regulations.

Neighborhood Organization signs are permitted at the discretion of the City Engineer on a case by case basis depending on the size and location that is requested.

Fences:

Fences in the right-of-way are only allowed in the downtown district for permitted Outdoor Cafes and security for basement apartments. A minimum of six (6) of clear sidewalk must be maintained. Unless the fencing is removed nightly the fencing material must be made of material approved by the City Engineer and Zoning Officer and no more than three (3) feet high.

Underground fences (ie dog fences) are not permitted in the right-of-way. If existing they must be removed at the property owner's expense.

City of Rockford, Illinois

Public Works Department
425 East State Street, Rockford, IL 61104
Phone: 779-348-7174 Fax: (815) 967-7058 TDD (815) 987-5718
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Banners:

Banners in the right-of-way must be in accordance with Chapter 26 of the City of Rockford Code of Ordinances.

Benches:

Benches must be in accordance with Chapter 26 of the City of Rockford Code of Ordinances.

Drop Boxes:

Drop boxes require a permit and yearly renewal.

Driveways:

A permit must be obtained for driveways and sidewalks as per the Driveway/Sidewalk policy adopted on April 20, 2009.

All items permitted in the City right-of-way must be maintained by the property owner or the City will require removal. If the City must remove a permitted or non-permitted item it will be at the property owner's expense. If at any time the City or another utility company must perform construction in the area of the item, the property owner will be given the opportunity to remove the item prior to the contractor removing the item, unless it is an emergency. The contractor, City or utility company is not responsible for placing the item back in the right-of-way and will not guarantee the condition of that item when removed. If at any time the City Engineer deems an obstruction/encroachment a safety hazard it must be removed at the property owner's expense regardless of the above requirements.

Section VI

General Provisions & Technical Specifications for Sanitary Sewer Construction

(Separate document incorporated by reference)