

REQUEST FOR BID

Sauk County Buildings Services

Sauk County CTH BD & N. Reedsburg Rd Fiber Optic Relocation

Wednesday October 11th, 2023

- I. Point of contact: Ian Crammond
Sauk County Building Services
510 Broadway
Baraboo, Wisconsin 53913
(608) 355-4415

- II. Bid Due Date: Bids must be received by the County Clerk and date stamped no later than, **10:00 a.m., Central Standard Time, Wednesday November 15th, 2023**. Faxes and emails are not acceptable. Bids or amendments received by Sauk County after that time will not be considered. A Public Opening of Bids will be conducted on **Wednesday, November 15th, 2023, at 10:15 a.m.** in the Sauk County Courthouse – EMBS Meeting Room (C128) at 510 Broadway, Baraboo, Wisconsin 53913.

III. **ALL PROPOSALS MUST BE ADDRESSED TO:**

**Sauk County Clerk
Sauk County West Square Building
505 Broadway
Baraboo, Wisconsin 53913**

The words "**Sauk County CTH BD & N. Reedsburg Rd Fiber Optic Relocation**" must be clearly marked on the sealed envelope alongside the County's address information.

PART ONE

INTRODUCTION AND GENERAL INFORMATION

1. INTRODUCTION

This document constitutes a request for competitive Bids for the relocation of Sauk County owned fiber optic cable at the intersection of CTH BD and N Reedsburg Rd. The relocation of fiber will include approximately 2,534' of new duct and fiber.

2. ORGANIZATION

This document, referred to as a Request for Bid (RFB), has been divided into the following parts for the convenience of the vendor:

Part One - Introduction and General Information

Part Two - Scope of Work

Part Three - General Requirements

Part Four - Evaluation Information

Part Five - Pricing and Information

Appendix - Project Map

3. DEFINITIONS

For the purpose of this RFB the entity submitting the Bid will be referred to as Vendor and Sauk County will be referred to as County.

4. BACKGROUND INFORMATION

Sauk County is one of 72 units of county government in the State of Wisconsin and is a municipal corporation existing pursuant to the authority of Chapter 59 of the Wisconsin Statutes. County operations include a skilled nursing facility, a Human Services Department, a State Circuit Court System, a Highway Department, Sheriff's Department, a tax administration and collection effort, and other government related functions.

5. TENTATIVE SCHEDULE OF EVENTS

EVENT	DATE	TIME
Request for Bid released	October 11 th , 2023	

Pre-Bid Conference	October 17th, 2023	10:00 a.m.
Rm 128 EMBS meeting room Sauk County Courthouse		
Bids Due	November 15th, 2023	10:00 a.m.
Bids opened	November 15th, 2023	10:15 a.m.
Contract Awarded by Property Committee	December 7th, 2023	4:00 p.m.

Questions regarding the project can be sent to Ian Crammond at ian.crammond@saukcountywi.gov

* Responses to all questions to be e-mailed, Bid vendors shall provide e-mail address to Ian Crammond at the above referenced email address in order to receive said response.

6. OPPORTUNITY TO INSPECT

In order to fully understand the project, Bidders will have an opportunity to meet at the Sauk County Courthouse EMBS meeting room (128) located at 510 Broadway Baraboo, WI 53913 on October 17th, 2023, at 10:00 a.m. Attendance is not necessary in order to bid on the project. Summarized minutes of the meeting will be circulated to attendees.

PART TWO

SCOPE OF WORK

1. OVERVIEW

CTH BD and N Reedsburg Rd is being reconstructed into a roundabout. The current Sauk County Facilities is in conflict with the new roundabout construction plans.

The purpose of this project is to relocate the current Sauk County Fiber to a location that is not within conflict of the proposed roundabout plan.

The new path will include approximately 2,534' of new 2" HDPE Duct and new 96CT Fiber Optic Cable. Splicing will be completed by County Contractor. All materials and labor to accomplish the relocation of Sauk County Fiber will be supplied by the awarded contractor.

2. SPECIFICS

The following lists represent a high-level overview of the project tasks associated with this Bid. These quantities should not be solely relied on for Bid purposes. It is the Contractor's responsibility to thoroughly review and calculate its own quantities and footages in order to complete this Project as outlined in this document. The Bid amount must be adequate to fulfill the intent of the entire Project.

Item	Description	Quantity
OSP	Provide and install approximately new 2" SDR 11 HDPE duct with tracer wire on outside of duct and mule tape. Carlson 2" inside diameter first-run SDR-11 HDPE Orange smooth exterior/smooth interior with mule tape. - #A13C6N1JNNA4000 Locate Wire - Pro-Trace Armored #12 AWG HDD-CCS PE45 Directional Drilling Tracer Wire - 1,330lb Break Strength - orange color - #7462.0647 Duraline 1800 lb Mule Tape (WP18)	2,534 L.F.
OSP	Provide and Install New Quazite 24"x36"x36" Open Bottom with Mouseholes [ANSI Tier 22] - #PG2436BB36 Or approved equivalent	1 EA
OSP	Provide and Install New Quazite 24"x36" Extra Heavy Duty [ANSI Tier 22] 1 piece lid marked "Fiber Optics" - #PG2436HH0021 Or approved equivalent	1 EA
OSP	Provide and Install New Loose Tube Singlemode, Gel Free Cable - Dielectric Dry/Dry (Max. Attenuation 0.35/.35/.25 db/km) – Commscope #096-EU4-T41-00D20 Or approved equivalent	3,300 L.F.

OSP	Install Owner provided 6' high x 3" dia. locate post white base with orange removable tip cover with Diggers Hotline sticker with their 1-800-242-8511 - #PM-TS3	1 EA
OSP	Provide and Install 5' x ½" Copper Clad Ground Rod	1 EA
OSP	Provide and Install Self-Lam Fiber Optic Marker Tags, 3.5" x2", 'Caution Fiber', Black/Yellow - #PST-FO	3 EA

3. PROJECT MANAGEMENT

All work will be performed under the guidance of the Owner's Hired or Appointed Project Manager. The Project Manager will interface with the Contractor's Foreman on a regular basis checking the progress and workmanship of the Contractor and Subcontractors.

4. PROJECT PERMITTING

The Contractor will be required to obtain all necessary permit related to the execution of this work. Those permits include:

- a. Sauk County Highway Utility Permit
- b. Town of Delton Right of Way Permit

5. UNDERGROUND UTILITY LOCATING

The Contractor must abide by WI State Statute § 182.0175 which outlines the responsibility of the Contractor when excavating on or near underground facilities. The Contractor must have all underground utilities, private or otherwise, located during the course of construction at their expense. The Contractor must notify Digger's Hotline three (3) days or more prior to commencement of any underground excavation. The Contractor may not perform work for the Owner under any Digger's Hotline locate ticket other than its own.

The Contractor must work with Private property owners to ensure all private utilities on private property are properly located. Private facilities may not be registered with Diggers Hotline therefore prior to any work being performed on private property the Contractor will be required to notify the proper personnel to have any private facilities located.

All underground utility locations shown are approximate. Utility information was provided in response to planning locate requests. Construction contractor is responsible for determining the location of municipal, and private utilities; complete repair of any and all damages & restoration incurred shall be at the expense of the Contractor. Facility placement subject to change upon field locate completion. Right-of-way is depicted based on field observations and the latest state and county records available. This data has been prepared, in part, by information furnished by others. While the information is believed to be reliable, Multimedia Communication & Engineering, Inc. (MCE) assumes no responsibility for the accuracy of this data for any errors, or omissions that may have been incorporated into it as a result of incorrect information provided to MCE.

6. SOIL CONDITION/DEPTH OF INSTALLATION CLAUSE

The Contractor must inform the Project Manager immediately upon discovery of any underground conditions such as limestone or boulder fields that adversely affect its ability to drill or otherwise excavate through an area or at the specified depth to the extent where additional resources not included in its price are deemed necessary. The Project Manager and Contractor Foreman together will determine the need for additional resources and costs. If granted, approval for the additional expenses will be delivered in the form of a Change Order from the Owner prior to continuation in that area. Additional charges for placement of the duct at a depth deeper than 36" for the sake of avoiding utilities or other obstructions will typically not be granted.

7. TRAFFIC CONTROL PLAN

The Contractor must provide an approved Traffic Control Plan consistent with the guidelines set forth in the WDOT Manual on Maintenance Work Zone Traffic Control Guidelines for all construction being performed.

8. EXCAVATIONS

Excavations shall not remain open in excess of three (3) calendar days unless specific permission is obtained from the Owner prior to the third day.

In all streets, alleys, sidewalks or other public ways, whether improved or unimproved, all excavated material shall be removed, and the trench shall be backfilled with slurry, unless permission is obtained from the Owner to use excavated material for backfill.

Contractor must not disturb any right-of-way markers, property pins, or survey markers. If disturbed, the pin or marker will need to be reset by a certified land surveyor at the contractors own expense

9. HARD SURFACE POTHOLING

The Contractor will be allowed to mechanically core through hard surface streets to locate existing utilities provided that the restoration of the core be performed per the Municipal Regulations for filling cuts or excavations.

Potholing is not allowed in sidewalks and ADA compliant or non-compliant pedestrian ramps. Any hard surface excavations within any sidewalk or ramp panels will result in the Contractor's replacement of the entire panel, along with adjacent panels at the Contractor's expense. Each panel replacement will be inspected by the Permitting Authority.

At no time can the Contractor perform any excavation that undermines the adjacent intact surfaces, thereby making vertical mechanical compaction impossible and creating future potential for subsurface failure.

10. RESTORATION GUIDELINES

Restorations must follow the specific guidelines set forth by the permitting authority.

The Owner will not be responsible for additional costs associated with the failure to identify all restoration guidelines in the Contractor's initial Bid Response.

11. EROSION CONTROL POLICY

Any prolonged open excavations or standing debris piles may require erosion control practices such as sandbagging around the area or placing hay bales around the area. The permitting authority will determine the need for such barriers on a case-by-case basis.

The Contractor must employ good housekeeping practices that will prevent the ingress of any excavated materials into the Municipal storm water system. This includes properly covering storm sewer inlets with DOT Filter Fabric (DOT Type FF, not felt or silt fence material) near areas where excavation and directional drilling operations occur. DOT Type C Inlet protection standards apply (2x4 across back of inlet with DOT Filter Fabric over inlet held in place by inlet cover).

Municipal Erosion Control Applications may be necessary for any areas where excavation beyond that of bore pits, utility locates, and handhole placement occurs. At no time can spoils or other debris be stored or piled in the street gutter.

12. INDEMNIFICATION

Any loss, theft, or damage claims arising from the unsatisfactory barricade placement, or other Contractor negligence will be the responsibility of the Contractor. The Contractor will save, indemnify and hold harmless the Owner and its Representatives (hired or otherwise) against all claims, liability, judgments, costs, expenses, and attorney's fees of any kind whatsoever which may in any way come against the Owner as a consequence of the granting of the Contract, or by reason of any act or omission of the Contractor or the Contractor's agents, employees, Subcontractors, or assignees, arising out of the performance of the Contract.

13. DUCT PLACEMENT GUIDELINES

This project entails placement of approximately 2,534' of 2" SDR-11 HDPE duct. The Contractor is responsible to provide all duct, handholes, locate posts, locate wire, and pull rope as may be part of its installation responsibilities. All ducts will be placed on the routes identified in the attached CAD Plans. All ducts must maintain a minimum horizontal clearance zone of 18" when paralleling other underground utilities with the exception of water and sewer (storm and sanitary) mains where parallel runs must maintain 60" horizontal clearance.

All underground ducts must be placed a minimum of 36" below finished grade wherever possible. Instances where the duct must be placed at a shallower or drastically deeper depth must be brought to the attention of the Project Manager prior to installation.

The Owner's Project Manager will be on site to coordinate actual placement. Routes will be

marked with the use of paint and flags when necessary. The Contractor must not place duct along the route without first reviewing the individual areas with the Project Manager. This measure is designed to avoid instances where the new duct may encroach the restricted clearance zones of other utilities or extend outside the Right-of-Way. Contractor must ensure that route and right-of-way markings remain visible to avoid unnecessary re-marking trips/additional costs.

All exposed duct ends must be covered with a temporary plug or adequately sealed with duct tape to prevent the ingress of dirt, water, and debris prior to the installation of the cable, locate wire, and mule tape.

All locate wires can be installed outside the duct so long as the wire used is suitable for installation outside of duct.

14. HANDHOLE PLACEMENT GUIDELINES

The Contractor will be required to place 1 new 24"x36"x36" pre-cast handholes (Quazite PG3048BB36 base with PG3048HH21 Extra Heavy Duty [ANSI Tier 22] 2 piece lid marked "Fiber Optics") along the route shown on the overview plans. Manufacturer substitutions "or-equals" will not be allowed for the handholes and lids.

The handholes must sit parallel with adjacent streets, buildings, or other structures and must be flush with all surrounding surfaces, and if installed on a slope or grade the handhole must follow the contour of the grade as much as possible.

The installed handholes must sit atop a 12" bed of ¾" washed, crushed stone for drainage – pea gravel or other stone smaller than ¾" is not an acceptable base for drainage. All fill around the Handhole must be mechanically compacted in 12" layers to within 8" from the top to prevent settling.

Inside each new handhole the Contractor will be required to install a single 5' long by 1/2" diameter copper clad ground rod. The ground rod must not protrude more than 3" above the surface of the crushed stone bed. After ground rod installation, the Contractor must equip the top with a conductor clamp that will allow the Contractor to tie a #12 AWG UL TYPE USE 2/RHH/RHW-2 Outdoor rated PVC jacketed stranded copper locate wire to the end.

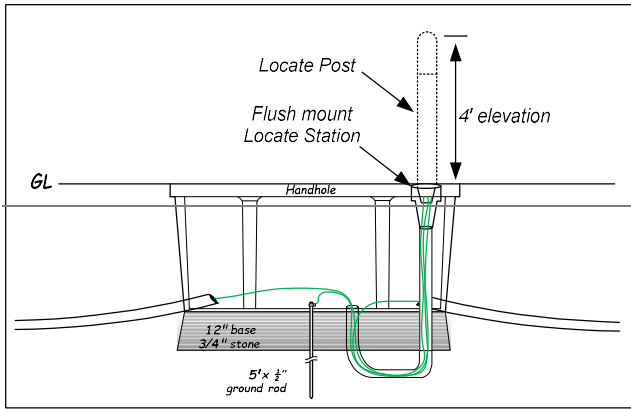
15. LOCATE POST PLACEMENT GUIDELINES

The Contractor will be required to install locate posts adjacent to handholes identified on the CAD Drawings. The Locate Posts will be used to access the locate wires for future locating purposes.

Between the handhole and locate post the contractor must install a short length of 1-1/4" underground plowduct. This will facilitate the installation of the locate wires into the post from the handhole.

At no time will a locate post be installed in a location where it impedes or can be damaged by the removal of the handhole lid.

Detail Drawing of Handhole and Locate Post Installation:



16. REPORTING REQUIREMENTS

The awarded Contractor will be required to notify Sauk County on completion of the fiber relocation. At which point the Awarded Contractor can submit an invoice for payment for the work completed. Also, at this time, any problems or issues found beyond the scope of work can be reported.

The Awarded Contractor will be required to call Diggers Hotline before starting any excavation.

Awarded Contractor will be required to notify Sauk County of any damage that is found prior to the work commencing at the work site.

Awarded Contractor will be required to notify Sauk County of any Damage that is a result of the installation work.

Awarded Contractor will be required to notify Sauk County of any accident to property or injury person if occurred at work site.

Sauk County will have Staff available to answer any questions remotely and be able to meet workers at the work location if needed.

Sauk County will occasionally visit the work location to check on work progress and to answer any questions.

17. SCHEDULE

The work included in this request for bid shall be substantially completed by March 31st 2024.

PART THREE

GENERAL REQUIREMENTS

STANDARD TERMS AND CONDITIONS (REQUESTS FOR BID)

- 1.0 SPECIFICATIONS:** The specifications in this request are the minimum acceptable. When specific manufacturer and model numbers are used, they are to establish a design, type of construction, quality, functional capability and/or performance level desired. When alternates are proposed, they must be identified by manufacturer, stock number, and such other information necessary to establish equivalency, Sauk County shall be the sole judge of equivalency. Bidders are cautioned to avoid Bid alternates to the specifications which may result in rejection of their Bid.
- 2.0 QUALITY:** If supplies are furnished, unless otherwise indicated in the request, all material shall be first quality. Items which are used, demonstrators, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by Sauk County.
- 3.0 QUANTITIES:** The quantities shown on this request are based on estimated needs. The County reserves the right to increase or decrease quantities to meet actual needs.
- 4.0 PRICING AND DISCOUNT:** Sauk County qualifies for governmental discounts; unit prices shall reflect these discounts.
- 4.1 Unit prices shown on the Bid or contract shall be the prices per unit of sales (e.g., gal., cs., dos., ea., etc.) as stated on the request or contract. For any given item, the quantity multiplied by the unit prices shall establish the extended price. If an apparent mistake exists in the extended price, the unit price shall govern in the Bid evaluation and contract administration.
- 4.2 Prices established in continuing agreements and term contracts may be lowered due to general market conditions, but prices shall not be subject to increase for ninety (90) calendar days from the date of award. Any increase proposed shall be submitted to the contracting agency thirty (30) calendar days before the proposed effective date of the price increase and shall be limited to fully documented cost increases to the vendor, which are demonstrated to be industry wide. The conditions under which price increases may be granted shall be expressed in Bid documents and contracts or agreements.

- 5.0 ACCEPTANCE-REJECTION:** Sauk County reserves the right to accept or reject any or all Bids, to waive any technicality in any Bid submitted, and to accept any part of a Bid as deemed to be in the best interests of Sauk County.
- 5.1 Bids MUST be date stamped by Sauk County Clerk, 505 Broadway, Room 144, Baraboo, WI 53913, on or before the date and time that the Bid is due. Bids dated and time stamped in another office will be rejected. Receipt of a Bid by the mail system does not constitute receipt of a Bid by the County Clerk's office.
- 5.2 Bids shall be submitted on company letterhead and signed by an officer of the company. Mark sealed envelope: " **Sauk County CTH BD & N. Reedsburg Rd Fiber Optic Relocation** " alongside the County's address information.
- 6.0 METHOD OF AWARD:** Award shall be made to the lowest responsible, responsive bidder unless otherwise specified. Sauk County reserves the right to award based upon the evaluation of the Bids, which the county deems to be in its best interest.
- 7.0 ORDERING:** Purchase order shall be placed directly to the vendor by an authorized agency. No other purchase orders are authorized.
- 8.0 PAYMENT TERMS AND INVOICING:** Sauk County normally will pay properly submitted vendor invoices within forty-five (45) days of receipt providing goods and/or services have been delivered, installed (if required), and accepted as specified.
- 9.0 TAXES:** Sauk County and its agencies are exempt from payment of all federal tax and Wisconsin state and local taxes on its purchases except Wisconsin excise tax as described below which is excepted by State Statutes.
- 9.1 Sauk County, including all its agencies, is required to pay the Wisconsin excise or occupation tax on its purchase of beer, liquor, wine, cigarettes, tobacco products, motor vehicle fuel, and general aviation fuel. However, it is exempt from payment of Wisconsin sales or use tax on its purchases. Sauk County may be subject to other states' taxes on its purchases in that state depending on the laws of that state.
- 10.0 ENTIRE AGREEMENT:** These Standard Terms and Conditions shall apply to any contract or order awarded as a result of this request except where special requirements are stated elsewhere in the request; in such cases, the special requirements shall apply. Further, the written contract and/or order with referenced parts and attachments shall constitute the entire agreement and no other terms and conditions in any document, acceptance, or acknowledgment shall be effective or binding unless expressly agreed to in writing by the contracting authority. The successful Bid/bidder will be required to sign the contract document attached hereto.
- 11.0 GUARANTEED DELIVERY:** Failure of the vendor to adhere to delivery schedules as specified or to promptly replace rejected materials shall render the vendor liable for all costs

in excess of the contract price when alternate procurement is necessary. Excess costs shall include the administrative costs.

- 12.0 APPLICABLE LAW:** The vendor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of this contract and which in any manner affect the work of its conduct. The Sauk County Circuit Court shall be the court of exclusive jurisdiction for any litigation between the parties arising out of the performance of this contract. This contract shall be interpreted in accordance with the laws of the State of Wisconsin.
- 13.0 ANTITRUST ASSIGNMENT:** The vendor and Sauk County recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by Sauk County (purchaser). Therefore, vendor hereby assigns to Sauk County any and all claims for such overcharges as to goods, materials or services.
- 14.0 ASSIGNMENT:** No right or duty in whole or in part of the vendor under this contract may be assigned or delegated without the prior written consent of Sauk County.
- 15.0 SUBVENDORS:** If sub-Vendors are planned to be used, this should be clearly explained in the Bid. However, the prime vendor will be responsible for contract performance whether or not sub-Vendors are used.
- 16.0 MEDIATION:** If a dispute arises between or among the Parties, the Parties shall first proceed in good faith to submit the matter to mediation. Costs related to mediation shall be mutually shared between or among the Parties. Unless otherwise agreed in mediation. If the matter is not resolved via mediation the parties retain all rights to seek redress in the Sauk County circuit court.
- 17.0 NONDISCRIMINATION:** In connection with the performance of work under this contract, the vendor agrees not to discriminate against any employee or applicant for employment because of age, race religion, color, handicap, sex, physical condition, sexual orientation, national origin, or developmental disability, as defined in s. 51.01(5), Wis. Stats. This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; lay-off or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 17.1 Failure to comply with the conditions of this clause may result in the vendor becoming declared an "ineligible" vendor, termination of the contract, or withholding of payment.
- 18.0 SAFETY REQUIREMENTS:** All employer practices, employee practices, materials, equipment, and supplies provided to Sauk County must comply fully with all safety

requirements as set forth by the Wisconsin Administrative Code, Rules of the Industrial Commission on Safety, and all applicable OSHA Standards.

19.0 WARRANTY: Unless otherwise specifically stated by the Bid/bidder; equipment purchased as a result of this request shall be warranted against defects by the Bid/bidder for three hundred sixty-five (365) days from date of receipt. The equipment manufacturer's standard warranty shall apply as a minimum and must be honored by the vendor.

20.0 HOLD HARMLESS: Vendor agrees to indemnify, hold harmless, and defend Sauk County, its officers, agents and employees from any and all liability including claims, demands, losses, costs, expenses and damages of every kind arising out of or in connection with services provided pursuant to this contract where such liability is founded upon or grows out of acts or omissions of any agents or employees of the vendor.

21.0 INSURANCE RESPONSIBILITY: The vendor performing services for Sauk County shall:

21.1 Maintain workers compensation insurance, as required by Wisconsin Statutes, for all employees engaged in the work.

21.2 Maintain general liability and owners and vendors protection in the following amounts. Sauk County shall be named as an additional named insured:

General Liability:

General Aggregate \$1,000,000.00

Products-Comp/Op Agg \$1,000,000.00

Personal & Adv. Injury \$1,000,000.00

Each Occurrence \$1,000,000.00

Automobile: (Combined single limit) \$1,000,000.00

Excess Liability: (Umbrella) \$ 1,000,000.00. (Each occurrence and aggregate.)

21.3 Provide policy, countersigned by an insurer licensed to do business in the State of Wisconsin, covering the period of the agreement/contract indicating that Sauk County is an additional named insured on public liability, professional liability and property damage insurance required above.

21.4 Provide insurance certificates indicating required coverage, countersigned by an insurer licensed to do business in Wisconsin, covering the period of the agreement/contract. The insurance certificate is required to be presented prior to the issuance of the purchase order or before commencement of the contract.

22.0 CANCELLATION: Sauk County reserves the right to cancel any contract in whole or in part without penalty due to non-appropriation of funds, or for failure of the vendor to

comply with the terms, conditions, and specifications of this contract.

- 23.0 TERMINATION FOR CONVENIENCE:** Sauk County reserves the right to terminate this contract for convenience upon 90 days notice.
- 24.0 DATE OF COMPLETION:** Sauk County requires that all work under this contract shall be completed by the date of completion stated in the bid. Consideration will be given to time of completion when reviewing the submitted bids. In order to be considered a responsive bid, the bid must state a date of completion. It is Sauk County's desire to have the project substantially completed by December 1, 2023.
- 25.0 TERMINATION FOR DEFAULT:** Sauk County reserves the right to terminate this contract for default if, after twenty days written notice to cure default, vendor fails to satisfactorily cure the default.
- 26.0 AUDIT:** During the term of the contract, the vendor shall, upon the request of the Sauk County Controller, make available at reasonable times and places, such information as may be required for the purpose of auditing submitted bills for the service provided under the contract.
- 27.0 INDEPENDENT VENDOR STATUS:** None of the officers, employees, or agents of the vendor are employees of Sauk County for any purpose, including but not limited to compensation, fringe benefits, or insurance coverage.
- 28.0 PUBLIC RECORDS ACCESS:** It is the intention of the county to maintain an open and public process in the solicitation, submission, review, and approval of procurement activities.
- 28.1 Bid openings are public unless otherwise specified. Records may not be available for public inspection prior to issuance of the notice of intent to award or the award of the contract.
- 28.2 If awarded this contract, Vendor shall assist Sauk county in complying with any open records request.
- 29.0 PROPRIETARY INFORMATION:** Any restrictions on the use of data contained within a request must be clearly stated in the Bid itself. Proprietary information submitted in response to a request will be handled in accordance with applicable Sauk County procurement regulations and the Wisconsin public records law. Proprietary restrictions normally are not accepted. However, when accepted, it is the vendor's responsibility to defend the determination in the event of an appeal or litigation.
- 29.1 Data contained in a Bid, all documentation provided therein, and innovations developed as a result of the contracted commodities or services cannot be copyrighted or patented. All data, documentation, and innovations become the property of the

Sauk County.

29.2 Any material submitted by the vendor in response to this request that the vendor considers confidential and proprietary information, and which qualifies as a trade secret, as provided in s. 19.36(5), Wis. Stats., or material which can be kept confidential under the Wisconsin public records law, must be identified. Bid prices cannot be held confidential.

30.0 DISCLOSURE: If a public official (s. 19.42, Wis. Stats.), a member of the public official's immediate family, or any organization in which a public official or a member of the official's immediate family owns or controls a ten percent (10%) interest, is a party to this agreement, and if this agreement involves payment of more than three thousand dollars (\$3,000.00) within a twelve (12) month period, this contract is voidable by the County unless appropriate disclosure is made according to s. 19.45(6), Wis. Stats., before signing the contract.

31.0 RECYCLED MATERIALS: Sauk County desires to purchase products incorporating recycled materials whenever technically and economically feasible. Vendors/bidders are encouraged to Bid/propose products with recycled content, which meet specifications.

32.0 PATENT INFRINGEMENT: The vendor selling to Sauk County the articles described herein guarantees the articles were manufactured or produced in accordance with applicable federal labor laws. Further, that the sale or use of the articles described herein will not infringe any United States patent. The vendor covenants that it will at its own expense defend every suit which shall be brought against Sauk County (provided that such vendor is promptly notified of such suit, and all papers therein are delivered to it) for any alleged infringement of any patent by reason of the sale or use of such articles, and agrees that it will pay all costs, damages, and profits recoverable in any such suit.

33.0 MATERIAL SAFETY DATA SHEET: If any item(s) on an order(s) resulting from this award(s) is a hazardous chemical, as defined under 29CFR 1910.1200, provide one (1) copy of Material Safety Data Sheet for each item with the shipped container(s) and one (1) copy with the invoice(s).

34.0 SUBMISSION OF SAFETY POLICIES/MANUALS. Upon request, the vendor will be required to submit a copy of the company's safety policies and manuals to the Sauk County Buildings Services Department for review.

35.0 SUBSTANCE ABUSE PROGRAM. The contractor is required to fully comply with Wis. Stat. § 103.503. This includes, but is not limited to:

35.1 The Contractor shall have in place a written program for the prevention of substance abuse among its employees and such written program shall be provided to Sauk County with the contract documents and before any work may be started on the project. The contents of this program shall conform to Wis. Stat. § 103.503.

35.2 The Contractor shall be responsible for the cost of developing, implementing, and enforcing this program as laid out in Wis. Stat. § 103.503 (3) (b).

36.0 PERFORMANCE BOND/PAYMENT BOND

36.1 The selected Bidder shall furnish Bonds covering the faithful performance of the Contract and payment of all obligations to subcontractors and others who provide materials or labor. ("Bonds"). Bonds may be secured through the Bidder's usual source. Cost of Bonds shall be included in the Bid.

36.2 Both Bonds shall be written in the amount of the Contract Sum. The Bidder shall deliver the required Bonds to the Owner with the executed Contract.

36.3 A Surety licensed to do business in Wisconsin shall issue the Bonds. Bonds shall be dated on or after the date of the Contract.

36.4 If using a Power of Attorney, the Bidder shall require the Attorney-in-Fact who executes the required Bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney. It shall state the monetary limit of the power. In addition, a certified and effective dated copy of the power of attorney shall be affixed to each Bid or Bonds by the Attorney-in-Fact executing documents.

37.0 BID BOND. Bids shall be accompanied by a security deposit as follows:

37.1 A Bid bond in the amount equal to 5% of the proposers bid. Use AIA A310 Bid Bond Form.

37.2 Endorse the Bid Bond in the name of the Owner as obligee, signed and sealed by the principal (Contractor) and surety.

37.3 The security deposit will be returned after delivery to the Owner of the required Performance and Payment Bond(s) by the accepted bidder.

37.4 Include the cost of bid security in the Bid Amount.

37.5 After a bid has been accepted, all securities will be returned to the respective bidders and other requested enclosures.

37.6 If no contract is awarded, all security deposits will be returned.

38.0 LIST OF SUBCONTRACTORS: Bidder agrees, to the extent practicable, to maintain a list of all subcontractors, suppliers, and service providers performing, furnishing, or procuring labor, services, materials, plans, or specifications under the contract.

39.0 FEES FOR CHANGES IN THE WORK: Include the following with the bid form:

- 39.1 The overhead and profit fees on own Work and Work by subcontractors, applicable for Changes in the Work, whether additions to or deductions from the Work on which the Bid Amount is based.
- 39.2 The fees proposed for subcontract work for changes (both additions and deductions) in the Work. Contractor shall apply fees as noted, to the subcontractors' gross (net plus fee) costs on additional work.

40.0 CONTRACTOR ACKNOWLEDGMENT OF STANDARD TERMS & CONDITIONS:

CONTRACTOR

AUTHORIZED SIGNATURE OF CONTRACTOR DATE

PART FOUR

EVALUATION INFORMATION

1.0 EVALUATION PROCESS

- 1.1 The award of a contract resulting from this Request for Bid shall be based on the lowest responsible bidder in combination with the pricing.
- 1.2 In the event that only one Bid is received in response to this Request for Bid, Sauk County reserves the right to negotiate the terms and conditions, including the price, as proposed in the vendor's Bid. In addition, as part of such negotiations, Sauk County reserves the right to require supporting cost, pricing and other data from the vendor in order to determine the reasonableness and acceptability of the Bid.
- 1.3 Sauk County reserves the right to reject any and all Bids or portions thereof.
- 1.4 All Vendors must provide proof of previous experience in completing similar work as it relates to the scope of work.
- 1.5 All Vendors must sign and return PART THREE of this document with their Bid.
- 1.6 All Vendors must sign and complete PART FIVE Pricing & Information document with their Bid.

PART FIVE
PRICING & INFORMATION

BASE BID: Lump sum cost to complete all work identified in PART 2 Scope of Work for the sum of:

(\$ _____)

The Vendor hereby agrees to provide the services and/or items at the prices quoted, pursuant to the requirements of this document and further agrees that when this document is countersigned by an authorized official of Sauk County, a binding contract, as defined herein, shall exist between the Vendor and Sauk County.

CONTRACTOR

AUTHORIZED SIGNATURE OF CONTRACTOR

DATE

PRINTED NAME, TITLE

SAUK COUNTY OFFICIAL

DATE

The Bidder has examined and carefully prepared the Bid from the plans and specifications and has checked the same in detail before submitting the Bid to Sauk County, including the Standard Terms and Conditions. The Vendor has had the opportunity to view the installation site and had obtained all necessary information to properly complete this bid:

(Company Name/Firm)

(Witness)

(Company Representative)

(County Representative)

(Signature)

(Signature)

STATE OF (_____)ss.

COUNTY OF (_____)

Personally came before me this _____ day of __, 2023, the above named _____ to me known to be the person who executed the foregoing instrument and acknowledge the same.

Signature of Notary Public

Typed or Printed Name of Notary Public My Commission (expires)

(is) _____

CONTRACT

THIS CONTRACT, made this day ____ of _____, by Sauk County hereinafter called "COUNTY" or : "OWNER" acting herein through its Building Services Department, and (_____) doing business as *(an individual) (a partnership) (a joint venture) (a corporation)(other: describe _____ located in the *(_____) (County) of , County of _____, and State of Wisconsin, hereinafter called "CONTRACTOR."

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the COUNTY, the CONTRACTOR hereby agrees with the COUNTY to commence and complete the project described as follows: **Project (Sauk County CTH BD & N. Reedsburg Rd Fiber Optic Relocation)**, hereinafter called the PROJECT, for the sum of _____, (\$ _____) and all extra work in connection therewith, under the terms as stated in the bidding documents, specifications and contractor's bid; and at its own proper cost and expense to furnish all the materials, (except materials which the contract documents specifically require to be purchased by the County) supplies, machinery equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Contract Documents.

The CONTRACTOR further agrees to complete the project by March 2024. A contract extension shall be at the discretion of the Facilities Director.

The COUNTY agrees to pay the CONTRACTOR in current funds for the performance of the contract, subject to additions and deductions, as provided in herein, and to make payments on account thereof as provided in the Estimates and Payments sections.

IN WITNESS WHEREOF, the parties to these presents have executed this contract in two (2) counterparts, each of which shall be deemed an original, in the year and day first above mentioned.

AGREED:

SAUK COUNTY, WISCONSIN

By: Brent Miller
County Administrator

[SIGNATURES CONTINUE ON THE NEXT PAGE]

CONTRACTOR:

By:

(Name)

(Title)

(Address)

(City and State)

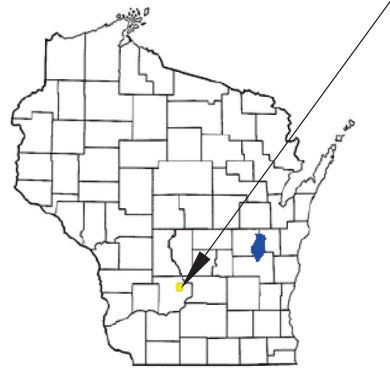
CTH BD Roundabout Reconstruction

Sauk County

Wisconsin

Project Location

City of Baraboo, WI



CALL DIGGERS HOTLINE 3 DAYS BEFORE DIGGING:
AT 811 OR (800) 242-8511
EMERGENCY ONLY: (262) 432-7910

ALL UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. UTILITY INFORMATION WAS PROVIDED IN RESPONSE TO PLANNING LOCATE REQUESTS. CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF MUNICIPAL AND PRIVATE UTILITIES; COMPLETE REPAIR OF ANY AND ALL DAMAGES & RESTORATION INCURRED SHALL BE AT THE EXPENSE OF THE CONTRACTOR. FACILITY PLACEMENT SUBJECT TO CHANGE UPON FIELD LOCATE COMPLETION.

RIGHTS-OF-WAY ARE DEPICTED BASED ON FIELD OBSERVATIONS AND THE LATEST STATE AND COUNTY RECORDS AVAILABLE.

DISCLAIMER:

Locations are approximate. This data has been prepared, in part, based upon information furnished by others. While this information is believed to be reliable, Multimedia Communications & Engineering, Inc. (MC&E) assumes no responsibility for the accuracy of this data or for any errors or omissions that may have been incorporated into it as a result of incorrect information provided to MC&E. Those relying on this data are advised to obtain independent verification of its accuracy.

Tickets -

PROJECT OWNER:

SAUK COUNTY
505 BROADWAY
BARABOO, WI 53913

PROJECT ENGINEER:

MULTIMEDIA COMMUNICATIONS & ENGINEERING, INC.
CONTACT: SHAWN BRADY
OSP ENGINEER/PROJECT MANAGER
PO BOX 11064
GREEN BAY, WI 54307
PH. 920-301-7900 EXT. 1003
EMAIL: SBRADY@mcewi.com

DESIGNED BY:

MULTIMEDIA COMMUNICATIONS & ENGINEERING, INC.
CONTACT: SHAWN BRADY
OSP ENGINEER/PROJECT MANAGER
PH. 920-301-7900 EXT. 1003
EMAIL: SBRADY@mcewi.com

PERMITS REQUIRED:

SHEETS 1-2: SAUK COUNTY
SHEETS 1-3: TOWN OF DELTON

TABLE OF CONTENTS:

TITLE PAGE
OVERVIEW PAGES (1 PAGES)
EROSION CONTROL BMP (1 PAGE)
PLACEMENT GUIDELINES (3 PAGES)
SCALED 1:50 SHEETS (3 PAGES)

COORDINATE SYSTEM: HARN/WI.SaukWI-F

Legend

	= Telco		= Fiber Ped		= Manhole		= Culvert
	= Cable TV		= Electric Ped		= Utility Pole		= Railroad Light
	= Electric		= Telco Ped		= Power Pole		= Traffic Light
	= Gas		= Cable TV Ped		= Power Transformer Pole		= Pull Box
	= Water		= Traffic Control Box		= Street Light		= Tree
	= Sanitary Sewer		= Electric Transformer		= Pole Anchor		
	= Storm Sewer		= Gas Valve		= Aerial Fiber		
	= Private Fiber Optic		= Water Valve		= Overhead Guy		
	= New Underground Fiber		= Fire Hydrant		= Aerial Expansion Loop		
	= Existing Underground Fiber		= Catch Basin		= Aerial Splice		
	= New Handhole		= Round Catch Basin		= Standoff		
	= Existing Handhole						
	= Locate Station						

Typical Install Depth is 36"



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SAUK COUNTY
CTH BD RECONSTRUCTION

SHEET GROUP:
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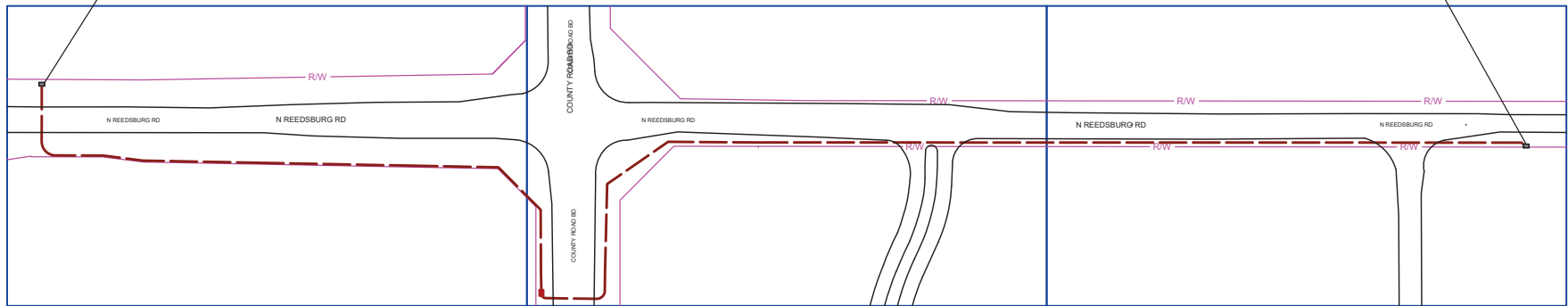
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START

END



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SHEET GROUP:
OVERVIEW
Print Date: 9.6.2023

SHEET ID:
OV1
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SECTIONS 1 & 2 are only included in the Project Bidding Documents

SECTION 3—AERIAL INSTALLATION —

3.01—Aerial Placement Description

~~This project entails approximately 0'-feet of Strand and Lash, 0'-feet of Overlash, and 0'-feet of Un-lash and Re-lash aerial cable installation along 0 new poles and 0 existing poles. Placement will consist of a ¼" EHS Galvanized Steel Strand messenger with dual lash of one or more cables.~~

~~All route clearing/tree trimming will be the responsibility of the contractor. Tree trimming must abide by any municipal standards pertaining to the trimming or removal of tree limbs within the right of way. In areas where contact between the cable and tree limbs or other structures can not be avoided the contractor will be required to secure cable guard around the strand and cable bundle to protect it against long term damage.~~

3.02—Published Standards

~~The Aerial Installation will be performed on Wisconsin Public Services (WPS) owned Poles. All standards published by WPS well as the National Electric Safety Code (NESC) and the National Fire Protection Association Publication Chapter 70 (National Electric Code) must be followed by the Contractor.~~

3.03—Pole Line Engineering

~~All attachment heights have been identified on the associated CAD Plans. All attachments must be made at the heights shown.~~

~~Midspan tensions have been calculated to properly sag the cables in to the existing sag of communication and power conductors. The Contractor will be provided with Sag tables for each aerial span that will show the proper tension for each span. Expansion loops have been included in the aerial sections of the project. The Contractor will be required to install these expansion loops using snowshoe expansion loop brackets and pole mounts. 150' of cable must be stored in each expansion loop.~~

3.04—Aerial Hardware

~~The Contractor must provide all attachment hardware such as pole line hardware (3-bolt clamps etc.) bolts, nuts and washers for all poles, all 1/4" EHS aerial strand, anchors, guy guards, and riser guard materials for this project. All pole line hardware must be galvanized. Aerial Strand must be 1/4" Domestic Galvanized Steel rated at 6,000lbs max load strength.~~

3.05—Pole Bonding

~~The Contractor will be required to bond the new overhead guy strand to every pole equipped with a ground along the overhead guy route. The Contractor must use a copper bond clamp and #8 AWG bare solid copper conductor to complete each bond.~~

3.06—Riser Poles

~~At the ground line of each riser pole, the Contractor must install a steel U-guard Adapter which will cover the exposed 2" ducts and connect to the bottom piece of riser guard. One Manufacturer of this U-guard Adapter is Electrical Materials Company—part number 52-2BC.~~

~~All risers must be guarded using a combination of 2.25" steel and PVC riser guard from the U-guard Adapter to an elevation within one foot of the attachment height. The first piece of Riser Guard must be galvanized steel 8 feet in length. Above the first piece of riser guard the Contractor can install PVC guard to the top of the riser.~~

~~Riser quadrant drawings will be provided to the Contractor to identify the location of each riser on the pole.~~

3.07—Pole Anchors

~~The Contractor must install 6" x 66" screw anchors at all location shown on the associated CAD plans. These anchors must be installed a minimum of 3' from any power anchor point. No auxiliary attachments will be allowed. All downguys must be insulated using a ceramic insulator installed within 2 feet of the pole attachment point. All downguys must be protected with a 6-foot yellow guy marker.~~

Section 4 UNDERGROUND CONSTRUCTION GUIDELINES

4.01 Duct Placement Guidelines

This project entails placement of Single 2" SDR-11 HDPE. The Contractor is responsible to provide all duct, handholes, locate posts, locate wire, and pull rope as part of their installation responsibilities. The HDPE Duct part number referenced in Section 8 - Contractor Provided Materials references a duct that includes a mule tape for cable installation. The Contractor will be required to provide all mule tape necessary for cable installations whether it be included with the duct at the time of purchase or provided and installed separately. All ducts will be placed on the routes identified in the attached Drawing. All ducts must maintain a minimum horizontal clearance zone of 18" when paralleling other underground utilities with the exception of water and sewer (storm and sanitary) mains where parallel runs must maintain 60" horizontal clearance.

All underground ducts must be placed a minimum of 36" below finished grade wherever possible. Instances where the duct must be placed at a shallower or drastically deeper depth must be brought to the attention of the Project Manager prior to installation. Below is a summary of minimum duct installation depth per scenario:

- Terrace Area: 36"
- Driveway Crossing: 36"
- Road Crossing: 48"
- Bed of Waterway: 60"
- Railroad: 120"
- *Permit requirements supersede the above minimum depths

The Owner's Project Manager will be on site to coordinate actual placement. Routes will be marked with the use of paint and flags when necessary. The Contractor must not place duct along the route without first reviewing the individual areas with the Project Manager. This measure is designed to avoid instances where the new duct may encroach the restricted clearance zones of other utilities or extend outside the Right of Way.

All exposed duct ends must be covered with a temporary plug or adequately sealed with duct tape to prevent the ingress of dirt, water, and debris prior to the installation of the cable, locate wire, and mule tape.

The Contractor is required to mark the location of the bore head with paint a minimum of every 5' with a depth in inches every 10' while directional drilling is underway. Once the directional drilling is complete and the duct is pulled back. The Contractor must ensure the marks are adequately painted and visible.

There will be a period of time when the duct is placed and before the installation of the locate wire is complete. During this time period, it is up to the contractor to protect potential damage to the duct to the fullest extent. This includes making sure the painted bore marks are fresh, flag the route if necessary, and periodically check on the installed duct to determine if any potential digging is obvious. This will be done on a best effort basis, since Digger's Hotline may not have notification setup yet for the newly installed duct.

4.02 Handhole Placement Guidelines

The Contractor will be required to place new handholes along the route shown on the CAD plans. See the attached CAD drawings for placement location and size of the handholes. Manufacturer substitutions "or-equals" will not be allowed for the handholes and lids.

The handholes must sit parallel with adjacent streets, buildings, or other structures and must be flush with all surrounding surfaces, and if installed on a slope or grade the handhole must follow the contour of the grade as much as possible.

The installed handholes must sit atop a 12" bed of ¾" washed, crushed stone for drainage - pea gravel or other stone smaller than ¾" is not an acceptable base for drainage. All fill around the Handhole must be mechanically compacted in 12" layers to within 8" from the top to prevent settling.

Inside each new handhole the Contractor will be required to install a single 5' long by 1/2" diameter copper clad ground rod. The ground rod must not protrude more than 3" above the surface of the crushed stone bed. After ground rod installation, the Contractor must equip the top with a conductor clamp that will allow the Contractor to tie a #12 AWG UL TYPE USE 2/RHH/RHW-2 Outdoor rated PVC jacketed stranded copper locate wire to the end.



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Print Date: 9.6.2023

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4.03 Locate Post/Station Placement Guidelines

The Contractor will be required to install flush mount locate stations and above grade locate posts adjacent to handhole identified on the CAD Drawings. The Locate Post will be used to access the locate wires for future locating purposes.

Between the handhole and locate post the contractor must install a short length of 1-1/4" corrugated innerduct. This will facilitate the installation of the locate wires into the station from the handhole.

At no time will a locate station be installed in a location where it impedes or can be damaged by the removal of the handhole lid.

4.04 Fiber Optic Cable Installation Guidelines

The Contractor can install the fiber optic cable by hand or with the use of pneumatic/hydraulic installation equipment. However the means of installation, the Contractor must take care to not exceed the cable's maximum pulling tension (typically 600lbs). When using a mechanical tugger the contractor must have the ability to monitor the pulling tensions to ensure the maximum is not exceeded at any time during the installation.

The Contractor must utilize multiple breakaway/swivel devices at all times while installing the fiber optic cables. The lead swivel must be used for the fiber optic cable(s) with a second swivel set 8" back from the first for the locate wire and mule tape.

The Contractor must employ steel pulling sleeves/guides at the duct entry point to protect the duct, cable, and any existing cables from damage during the installation process.

At each handhole the Contractor must store a minimum of 150 feet of cable slack (unless otherwise noted on the CAD Plans) neatly coiled and stored upright in the handhole and labeled at each end with a permanent label, identifying the Cable Owner and the Strand Count. Suitable labels for this purpose are Panduit #PST-FO.

Following cable, locate wire, and mule tape installation all occupied ducts must be plugged using a split plug appropriately sized to accommodate the cable diameter - do not use foam, putty, or tape to permanently plug any duct. All spare ducts must only contain mule tape for future installations and be sealed using properly sized duct plugs.

Following the cable placement, the contractor will be asked to dispose of any remaining cable reels. Reel disposal, if required, will be listed as a construction unit in Section 7 Construction Quantities.

4.05 Locate Wire Installation Guidelines

The Contractor will be required to install a #12 AWG UL TYPE USE 2/RHH/RHW-2 Outdoor rated PVC jacket- stranded copper locate wire along all routes. This locate wire will be installed with the plowduct on the outside of the duct.

Where the new locate wire enters the locate stations it must be secured to the device's insulating lugs via a crimp-on spade connector. The locate stations are equipped with multiple lugs. The outer lugs are for use with locate wires that run inside the plowduct in either direction from the locate post, while the center lug is used to route a #12 AWG UL TYPE USE 2/RHH/RHW-2 Outdoor rated PVC jacket- stranded copper ground wire through the base of the locate station to the ground rod located inside the adjacent handhole. The Contractor must tie the conductor to the ground rod using the attachment clamp, and to the locate post in the same fashion that is used for the locate wires.

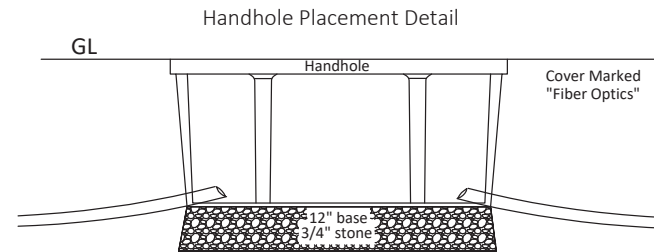
Following the installation of the locate wires and ground wire into the flush mount locate station all wires must be labelled with either their direction of travel or labelled as the ground wire.

4.06 Mule Tape Installation Guidelines

The Contractor will be required to install a single 1,800 lb mule tape within the plowduct with the locate wire and fiber optic cable and within the spare duct for future use where applicable.

4.07 Red Line Drawings and Installation Documentation

The Contractor will be required to make notes on the Owner provided drawings indicating any adjustments in the route (Project Manager must approve adjusted route), the depth of installation, duct splice locations, and cable sequential numbers in and out of the handholes and at the termination point. All notes are to be made on the drawings (provided by the Engineer). A copy of the notes must then be provided to the Project Manager.



Section 5—INTERIOR CONSTRUCTION GUIDELINES

5.01—Exterior to Interior Transition

Where the underground plowducts extend to the exterior of a building, the contractor is required to transition below grade from each plowduct to a Galvanized Rigid Steel pipe that extends up the side of the exterior wall. At the below grade transition point where the rigid pipe meets the plowduct, the Contractor must utilize a watertight fitting that is rated for underground use (ETCO Specialty Products "E-Lo" DEL-237 or equivalent).

At the top of the new rigid pipe runs the contractor must core a 2" hole into the building and install a 12"x12"x6" NEMA 3R rated pull box over the hole and aligned so the building core is situated at the top of the pull box.

All new cores into each building must be sleeved with EMT. Interior EMT extending to a termination room can extend through the core to satisfy this sleeve requirement, however instances where interior EMT is not being placed the Contractor must sleeve the core with EMT and securely fasten the sleeve to the exterior pull box and inside the building. All sleeves/EMT ends must be equipped with collared fittings to avoid cable damage.

Extending out of the bottom of the outdoor pull box, the Contractor must install a 1" Rigid Steel pipe down to an elevation of 4" above finished grade.

All new exterior pipes and boxes must be securely fastened to the building wall with anchors and fastening hardware suitable for a permanent installation into the materials comprising the wall.

5.02—Interior EMT / Innerduct Installation

Extending from the exterior pull box, the Contractor must install EMT conduit and or Innerduct (type, size, and quantity shown on Interior Drawings) to the building fiber optic termination point along the path shown on the accompanying Interior Drawings. The Contractor must seal around the conduit pack at all wall penetrations.

The Contractor must take all necessary precautions to prevent activation of building alarms, such as fire or security. Conduits that enter rooms that utilize a Halon release systems must be sealed to ensure that the room's integrity is maintained.

Where the interior conduit passes through any non-concrete/block wall the Contractor must create a hole through the wall only large enough for the conduit to pass through, then seal around the conduit with ASTM E814 (UL 1479) approved fire stop materials.

Prior to cutting or coring into or through any building structure that could be deemed as "building support structure" the Contractor must obtain permission from the Project Manager.

At each end, and along the interior conduit path approximately every 10 feet, the Contractor must label the EMT with a warning label identifying the contents as a fiber optic cable. Suitable labels are Panduit's #PCV-FOB.

Along the interior the contractor may be required to install 12"x12"x6" Type 1 pull boxes fitted with a screw cover for pulling assistance and a 24"x24"x8" Type 1 pull box fitted with a screw cover for cable storage. Pull Box location and size is detailed on each building's Interior Piping Drawing. At every pull box (and building entry box) the contractor must use screw type fittings to attach the conduit/innerduct to the box.

Contractor may not use any interior pull box as a replacement for a 90-degree turn.

The interior conduits will need to be bonded to a ground point at each building. The Project Manager will determine the ground points. Cable used to Bond the EMT to the Building Ground Electrode will be no smaller than a #6 AWG Stranded copper and must have a green jacket suitable for interior use.

The Contractor must have all necessary tools onsite to allow for the installation of the interior pipe outlined in this document. This includes a Hydraulic Pipe Bender to accommodate the interior EMT sizes specified allowing offsets that will be required for the installation.

5.03—Interior Cable Installation

At each site the cable will be installed within existing cable tray to an existing data rack. At some point within the cable tray, NEMA box, or cabinet as defined on the interior plans in each building the Contractor must store a 30' expansion loop.

Following the installation of the fiber optic cable through the exterior and interior EMT conduit, the Contractor must seal the conduit ends (where the EMT enters the outside pull box and where the EMT enters the termination room) with ASTM E814 (UL 1479) approved fire stop materials.

All cables will be protected from the point they exit the EMT to the point they enter the rack or wall mount termination unit using innerduct sized appropriately for the cable.

Section 6 CABLE SPLICING TERMINATION AND TESTING GUIDELINES

6.01 Cable Pre-Acceptance Testing

Prior to release to the Contractor, the Owner will require the Contractor crews to perform "pre-acceptance testing" with an Optical Time Domain Reflectometer (OTDR) on each fiber optic cable. The pre-acceptance testing will verify the performance of the cable prior to it being released into the Contractor's possession. Pre-acceptance testing must be performed on every cable strand at 1310nm and 1550nm only from the exposed end of the cable. Test results must be provided to and approved by the Project Manager prior to release of the cable to the Contractor for installation.

6.02 Outdoor Fusion Splicing

The Contractor will be required to Fusion Splice the fiber optic cables at each of the splice points identified on the CAD Plans the Owner will provide all splice cases and trays while the Contractor must provide all splice sleeves and consumables.

6.03 Indoor Fiber Termination

All cable terminations will be performed by splicing factory terminated fiber optic cable pigtails to the ends of the outdoor fiber optic cables. The Owner will provide all pigtail assemblies and cable termination and interior splicing panels while the Contractor must provide all splice sleeves and consumables. The Contractor will be required to install all Owner-provided Termination and Splice equipment as well as route all pre-terminated pigtails between devices.

6.04 Fusion Splicing Equipment

All cable strand splicing will be performed using a fusion splice machine that is capable of splicing within a 0.1dB loss tolerance and equipped with either live monitoring or a Local Injection Detection (LID) testing system, thus ensuring the splice quality while the splice is set up in the machine.

All splices will be protected with appropriate fusion splice sleeves fitted with steel-reinforcing rod(s) (provided by the Contractor).

6.05 Cable Testing

Following the splicing and termination procedures the Contractor will be required to test each strand using an OTDR and Power Meter Light Source (PMLS) at 1310nm and 1550nm. Each terminated strand will be tested between the sites along the ring with both devices at both wavelengths. This totals 8 tests per strand.

All OTDR tests must be performed using a launch cable that is at least 150 meters in length. OTDR event thresholds must be set to show all events greater than 0.01db to will allow the inspector to review all splices or anomalies that register greater than 0.01 along the trace.

6.06 OTDR Viewing Software

Prior to the OTDR testing the Contractor must provide a copy of the OTDR viewing software that is capable of allowing a user to electronically review the test results.

6.07 Test Documentation

Following the OTDR testing the Contractor must provide the Owner with one electronic copy of each test performed. Prior to testing, the Contractor will be provided with the strand identification and labeling plan, the electronic copies of the test results must match the labeling scheme provided to the Contractor.

Following the PMLS testing, the Contractor must provide the Owner with test results showing the total link loss between each site along with the average loss for each strand. The test results must be provided on any Windows® compatible electronic spreadsheet.

All tests must be saved with origination point, end point, and strand number identified within the trace name. Abbreviations for sites are recommended.

6.08 Optical Loss Budget

The Contractor will be provided with optical link budgets for each installed cable strand. Budget losses are calculated using the total link loss between sites, and then averaging the result of both directions using the parameters identified in Table 1 below. The test results provided to the Project Manager must confirm that 100% of all installed strands perform within the optical loss budget and within the specific tolerances for individual events identified in Table 1 below.

Note that even though a link loss test may show a loss that is within the optical budget, any event shown by the OTDR report that exceeds its thresholds listed in the Bidding Documents will result in a failed test result and must be remedied prior to system acceptance by the Owner. Instances where individual tolerances cannot be met must be reviewed with the Project Manager prior to completion.



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SAUK COUNTY
CTH BD RECONSTRUCTION

SHEET GROUP:
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SHEET ID:
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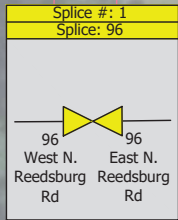
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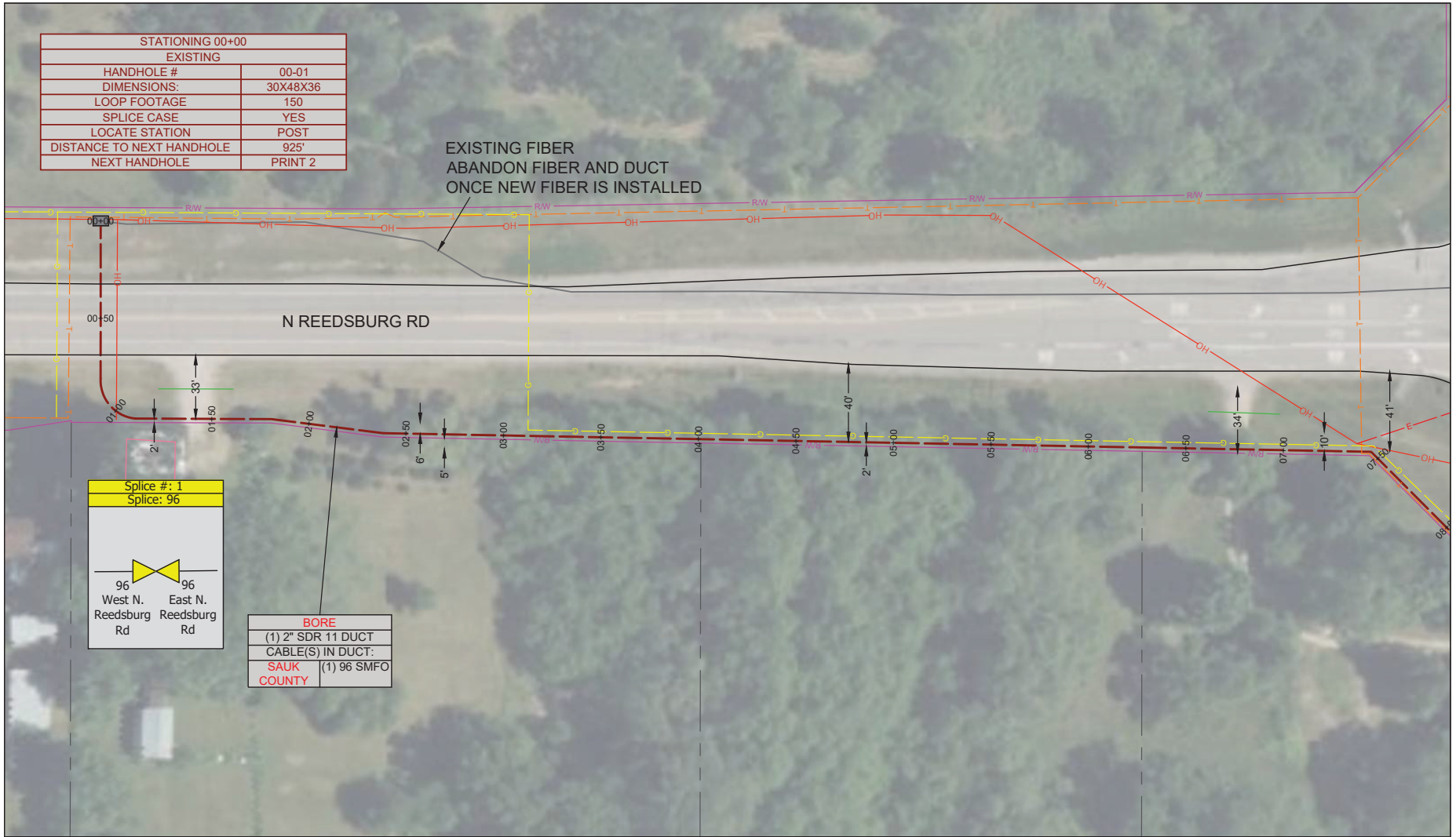
STATIONING 00+00	
EXISTING	
HANDHOLE #	00-01
DIMENSIONS:	30X48X36
LOOP FOOTAGE	150
SPLICE CASE	YES
LOCATE STATION	POST
DISTANCE TO NEXT HANDHOLE	925'
NEXT HANDHOLE	PRINT 2

EXISTING FIBER
ABANDON FIBER AND DUCT
ONCE NEW FIBER IS INSTALLED

N REEDSBURG RD



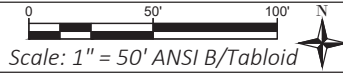
BORE	
(1) 2" SDR 11 DUCT	
CABLE(S) IN DUCT:	
SAUK COUNTY	(1) 96 SMFO



SEE SHEET 2



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SAUK COUNTY
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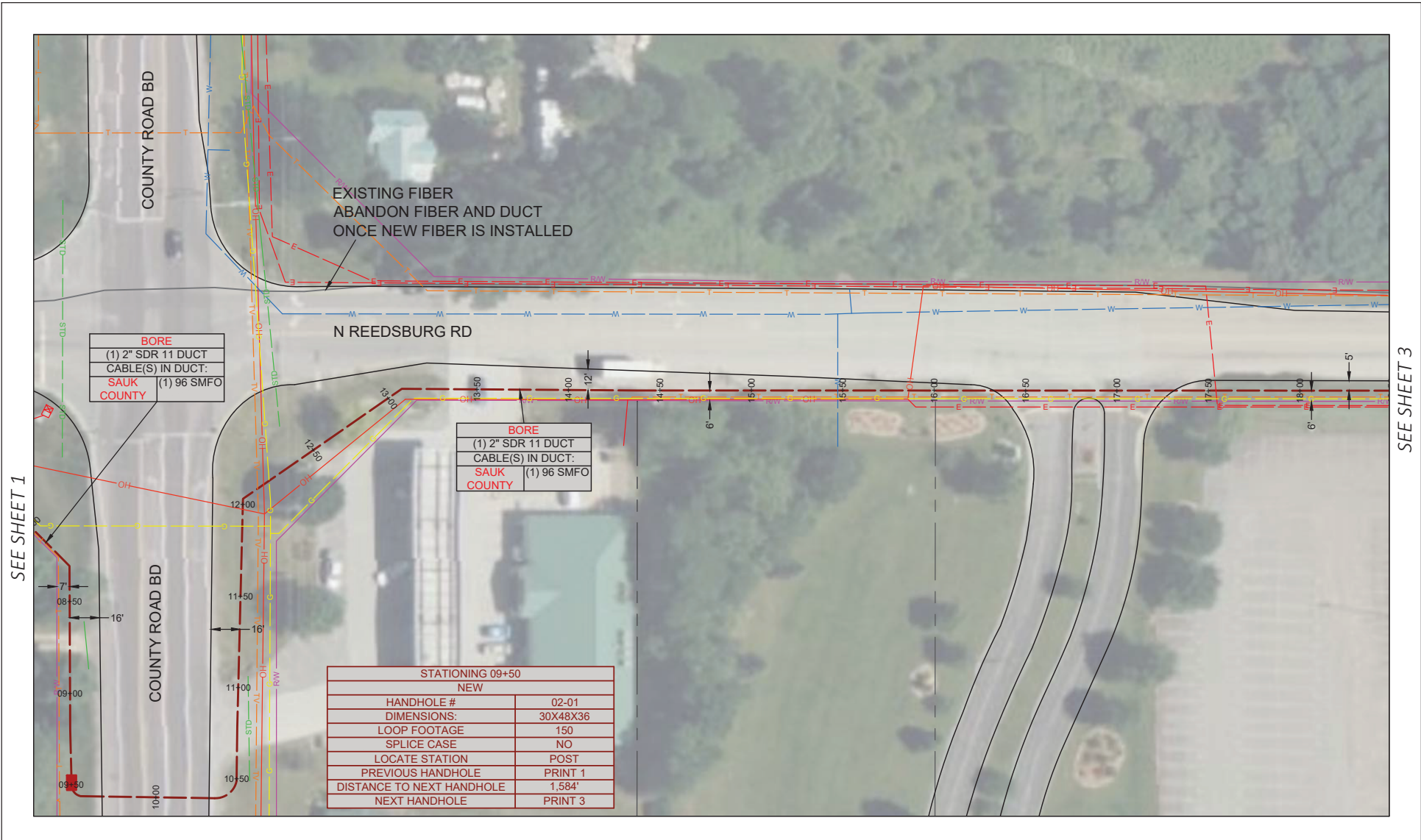
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Print Date: 9.6.2023

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PERMITS REQUIRED ON THIS SHEET: TOWN OF DELTON



SEE SHEET 1

SEE SHEET 3



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SAUK COUNTY
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SHEET GROUP:
 1:50 Scaled Plans

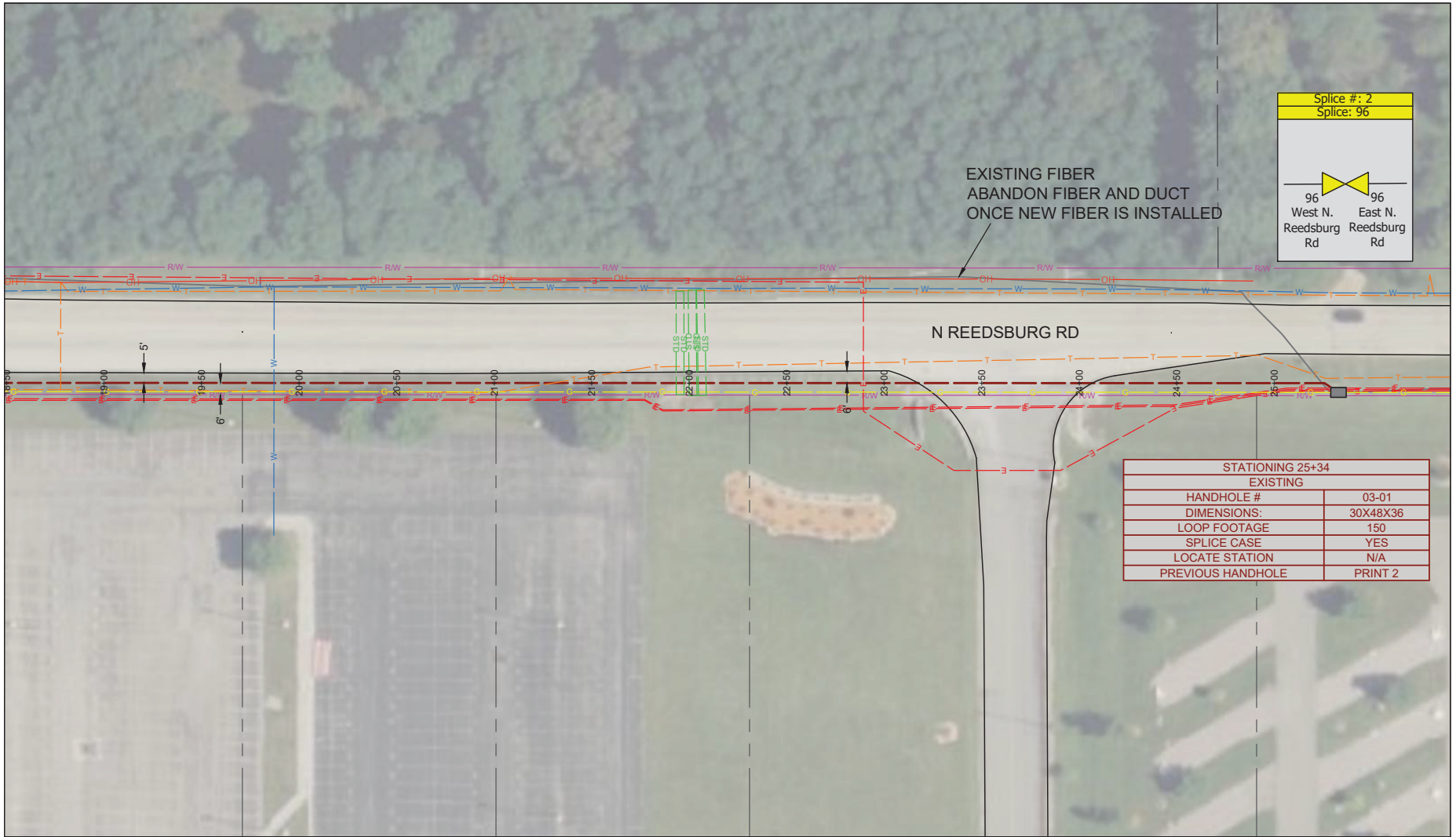
SHEET ID:
 02

Print Date: 9.6.2023

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PERMITS REQUIRED ON THIS SHEET: SAUK COUNTY - TOWN OF DELTON

SEE SHEET 2



Splice #: 2
Splice: 96

96 West N. Reedsburg Rd
96 East N. Reedsburg Rd

STATIONING 25+34	
EXISTING	
HANDHOLE #	03-01
DIMENSIONS:	30X48X36
LOOP FOOTAGE	150
SPLICE CASE	YES
LOCATE STATION	N/A
PREVIOUS HANDHOLE	PRINT 2



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SAUK COUNTY
CTH BD RECONSTRUCTION

SHEET GROUP:
1:50 Scaled Plans

SHEET ID:
03

PERMITS REQUIRED ON THIS SHEET: TOWN OF DELTON

Print Date: 9.6.2023

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