



Waukesha Water Utility

SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

MEMORANDUM

Date: October 10, 2024
To: Dan Duchniak, P.E.
From: Chris Walter, P.E.
Re: Silvernail Road Realignment – Two Party Agreement

In January 2024, Waukesha County contacted us about their upcoming project involving the realignment of Silvernail Road, adjacent to the Waukesha County Airport. Approximately 2,600 feet of existing 12-inch PVC water main from 2007 needs to be abandoned and new pipe installed within the proposed corridor. The road realignment is needed for expansion of the runways, taxiways, and maintenance roads within the airport.

Funding for this project is a combination of Waukesha County, Federal Aviation Administration (FAA) and the Bureau of Aeronautics (BOA). Waukesha Water Utility has been requested to contribute 5% of the total bid cost for water main. Based on engineering estimates, this amount is approximately \$41,088.24. The design plans have been reviewed and approved by Waukesha Water Utility and the Department of Natural Resources.

The Two-Party Agreement with Waukesha County has been reviewed and approved by the City Attorney and is currently under review of Waukesha County Attorney's office. The agreement is enclosed with this memo for your review.

Recommended Motion: Move to approve of the Two-Party Agreement with Waukesha County, pending final approval by City and County legal counsels.

**TWO-PARTY CONSTRUCTION AGREEMENT
BETWEEN
WAUKESHA COUNTY by the DEPARTMENT OF PUBLIC WORKS
AND
THE CITY OF WAUKESHA WATER UTILITY**

THIS AGREEMENT (hereinafter called the "Agreement") is made and entered into between Waukesha County by the Department of Public Works (hereinafter called the "DEPARTMENT") and the City of Waukesha Water Utility (hereinafter called the "CITY") (collectively the "PARTIES") to designate the responsibility for design, construction, maintenance and payment of certain costs associated with improvements and other items to be designed and constructed in conjunction with the Wisconsin Department of Transportation (WisDOT)'s administered Construction Project located at 2525 Aviation Drive, Waukesha, WI 53188 (hereinafter called the "Airport") under Federal Aviation Administration (FAA) Project Number AIP 2309990-120630.03 for which the DEPARTMENT is the local sponsor (hereinafter called the "PROJECT").

WHEREAS, the DEPARTMENT is planning to reconstruct the alignment of Silvernail Road (CTH TJ) in 2025; and

WHEREAS, the CITY has a 12-inch water main in the current right of way and road alignment of Silvernail Road that must be relocated within the new right of way of the proposed PROJECT; and

WHEREAS, the DEPARTMENT intends to issue a Utility Permit for the CITY water main within the DEPARTMENT right-of-way; and

WHEREAS, the Utility Permit requires the CITY to move the water main at the sole cost of the CITY if directed by the DEPARTMENT when in conflict with DEPARTMENT's proposed improvements; and

WHEREAS, the CITY agrees to pay the actual costs associated with the items listed in the cost estimate attached regarding the water main (Attachment 1); and

WHEREAS, the FAA/BOA will be funding 90% of the costs and WisDOT will be funding 5% of the costs, the CITY agrees to pay the remaining 5% of the actual construction costs of such items and any amount above the funding received even if the actual cost exceeds the estimated amount.

NOW, THEREFORE, the PARTIES accept and understand the purpose and terms of this Agreement, including the responsibilities and the funding of the items as described below:

I. RESPONSIBILITIES:

- A. The DEPARTMENT, as the local sponsor of the PROJECT, shall facilitate the following activities to be performed by WisDOT:

1. Develop plans for the water main relocation and submit to the CITY for approval. (Attachment 3)
2. Include the water main relocation as part of the road realignment project.
3. Make available to the CITY, with reasonable notice, bidding documents, bid results, notice of award, and copies of all records, recommendations of awards, reports, engineer findings, and correspondence regarding the water main.
4. Duly execute, award, and administer all such construction contracts necessary to complete the water main, in an expeditious fashion, in accordance with generally approved engineering and construction standards.
5. Require WisDOT's contractor to correct construction deficiencies reported by the CITY as part of the CITY's construction inspection duties, and to enforce contracts for construction of the water main on all contractors and subcontractors. CITY shall be a third-party beneficiary of contracts for construction of the water main.
6. Issue work change directives, change orders, or other appropriate documents to the contractor, as contract or construction changes dictate, to expedite the progress of the construction work. Any document that would increase the CITY's costs for the water main shall be provided before execution, via email, to the CITY's Representative for review, and shall consider CITY's comments thereon if received within two (2) business days of the time the document was emailed to the CITY's Representative.
7. Upon completion of the PROJECT, the DEPARTMENT shall furnish to the CITY a detailed breakdown and invoice of all actual construction costs incurred for the water main, including a breakdown of all appurtenances, all change orders, work change directives and construction management services.
8. The DEPARTMENT shall facilitate project coordination between WisDOT and the CITY which shall include weekly meetings between the DEPARTMENT and the CITY.

B. The CITY shall:

1. Provide Construction Inspection Services of the water main construction, and report promptly to the DEPARTMENT any construction deficiencies and corrections necessary to comply with the approved construction plans.
2. Upon completion of the PROJECT, accept ownership and all future maintenance responsibilities for the water main.

3. Obtain a Utility Permit for relocation of the water main from Waukesha County Public Works.
4. Pay the CITY's percentage of the actual costs associated with the water main within thirty (30) days of receipt of the invoice from the DEPARTMENT.

II. NOTIFICATION OF WORK

The DEPARTMENT agrees to notify the CITY in writing three (3) business days prior to beginning or resuming work. The CITY is granted access to the site at all times for Water Main inspection subject to the Waukesha County Airport protocols.

CONSTRUCTION ACTIVITIES. Per Segment III of the PROJECTS's Contract Documents, WisDOT's contractor is responsible for all water main survey staking, compaction testing, traffic control, erosion control, backfill, restoration, and water main installation.

III. PERMITTING AND CONVEYANCE

The CITY shall apply for, pay all fees associated and obtain a Utility Permit for the relocated water main in the CTH TJ highway right of way. The DEPARTMENT will not execute or provide any land dedications, easements or rights of way grants for the relocated water main. Attachment 2 is an example of the required permit.

The water main improvements will be in compliance with the PROJECT plans and specifications. The DEPARTMENT shall unconditionally give, grant, and convey the water main improvements to the CITY as part of the Utility Permit.

IV. COUNTY AUTHORIZATION

The individual executing this Agreement on behalf of the DEPARTMENT represents that they are duly authorized to bind the DEPARTMENT contractually.

V. PARTIES BOUND

The DEPARTMENT and the CITY or its assignees shall be bound by the terms of this Agreement.

VI. GOVERNMENTAL IMMUNITIES AND NOTICE REQUIREMENTS PRESERVED

Nothing in this Agreement shall be construed to be a waiver or modification of the immunities, notice requirements, limitations on liability or amounts recoverable and imposed by Wis. Stats. Sec. 893.80 or any other law.

VII. ASSISTANCE OF COUNSEL, VOLUNTARY CONTRACT

The DEPARTMENT and CITY acknowledge that they have either had the assistance of legal counsel in the review and execution of this Agreement or have voluntarily waived the opportunity to do so; that they have read and understand each of the Agreement's terms, conditions and provisions, and their effects; and that this Agreement is executed freely and not under conditions of duress.

VIII. GOVERNING LAW AND JURISDICTION

This Agreement shall be constructed and enforced according to the laws of Wisconsin. The PARTIES agree that if a lawsuit is necessary with respect to this Agreement, it will be filed in the Circuit Court for Waukesha County, Wisconsin. The PARTIES consent to personal and subject-matter jurisdiction in Wisconsin and waive all jurisdictional defenses.

IX. MISCELLANEOUS

A. Assignment: The PARTIES agree that there shall be no assignment or transfer of this Agreement or of any interests, rights or responsibilities contained herein without a written amendment agreed to by both PARTIES.

B. Amendment: The parties, by mutual consent, may amend this Agreement in writing at any time.

C. Severability: If any provision of this Agreement is held invalid under any applicable law, such invalidity shall not affect any other provision of this Agreement that can be given effect without the invalid provision and, to this end, the provisions hereof are severable.

Approval: This Agreement will be effective on the date of the DEPARTMENT's signature.

CITY

By: _____

Dan Duchniak
General Manager
Waukesha Water Utility

Date: _____

COUNTERSIGNED: funds necessary to pay the liabilities of this contract have been provided §62.09(10)(f), Wis. Stats.

By: _____
Name:
Comptroller for City of Waukesha

Date: _____

DEPARTMENT

By: _____
Allison Bussler
Director of Department of Public Works
Waukesha County

Date: _____

Address for CITY:

City of Waukesha – Water Utility
115 Delafield Street
Waukesha, WI 53187

Address for DEPARTMENT:

Waukesha County Department of Public Works
515 W. Moreland Boulevard, Room AC 210
Waukesha, WI 53188

Attachment 1: Item Description and Estimated Cost Spreadsheet

Attachment 2: Waukesha County Permit to Construct, Maintain, or Repair Utilities within Highway Right-of-Way

Attachment 3: Exhibit Showing the Proposed Water Main Improvements

ATTACHMENT #1

Silvernail Road Water Main

Item	Unit	Item Description	Quantity	Unit Price	Cost Estimate
C105.010	EACH	Mobilization	1	\$ 30,115.00	\$ 30,115.00
SPV.3260.01	EACH	Removing 01. Hydrants	3	\$ 900.00	\$ 2,700.00
SPV.3360.01	EACH	Remvoing 02. Water Valves and Tees	9	\$ 400.00	\$ 3,600.00
SPV.3490.01	LF	Removing 01. Water Main	1,833	\$ 30.00	\$ 54,990.00
		Furnish and Install Gate Valve and Valve Box			
SPC.3560.01	EACH	12-Inch	6	\$ 5,000.00	\$ 30,000.00
		Furnish and Install Gate Valve and Valve Box 6-			
SPV.3560.02	EACH	Inch	1	\$ 5,000.00	\$ 5,000.00
SPV.3660.02	EACH	Hydrant Assembly	6	\$ 13,000.00	\$ 78,000.00
SPV.3760.01	EACH	Connect to Existing Water Main	2	\$ 5,000.00	\$ 10,000.00
SPV.3760.02	EACH	Connect to Existing Service Lateral	1	\$ 5,000.00	\$ 5,000.00
		Furnish and Install Water Main and Fittings 12-			
SPV.3890.01	LF	Inch	2,426	\$ 185.00	\$ 448,810.00
		Furnish and Install Service Lateral and Fittings 6-			
SPV.3890.02	LF	Inch	70	\$ 185.00	\$ 12,950.00
SPV.3990.01	LF	Construction Staking Water Main	2,426	\$ 1.50	\$ 3,639.00
		Subtotal			\$ 684,804.00
		Design (7%)			\$ 47,936.28
		Construction Administration (13%)			\$ 89,024.52
		TOTAL COSTS			\$ 821,764.80
		Waukesha Water Responsibility (5%)			\$ 41,088.24

ATTACHMENT #2



515 W. Moreland Blvd • AC 220 Waukesha, WI 53188
phone 262-548-7740 • fax 262-896-8097 www.WaukeshaCounty.gov/DPW

PERMIT TO CONSTRUCT, MAINTAIN, OR REPAIR UTILITIES WITHIN HIGHWAY RIGHT-OF-WAY

U2024-075

Permit No.

Section I REQUEST BY APPLICANT

Name Waukesha Water Utility
Address 115 Delafield Street
Waukesha, WI 53188
Phone 262-901-5886

Highway TJ
Municipality City of Waukesha
Nearest Cross Street N Grandview Blvd
Sec: NW ¼ of NE ¼, Sec. 28

Preparer name Chris J. Walter

T 7 N R 19 E

Type of Utility Installation Plans Water main plan and profile Silvernail Road Project ID 2309990-120630.03

Utility Location is to cross right-of-way overhead parallel to right-of-way underground

Proposed method of installation directional bore suspend on **existing** poles cased
 jack & bore suspend on **new** poles trench
 open cut _____ number of new poles to be erected plow

Estimated Start Date 12/1/24 Estimated Restoration Date 6/1/25

Utility Work Order # _____

By checking this box, the Applicant understands and agrees that the permitted work shall comply with all permit provisions and conditions listed on the reverse side hereof, any special provisions listed below or attached hereto, and any and all plans, details, or notes attached hereto and made a part thereof.

Print Name Chris J. Walter
Title Technical Service Manager, WWU
Email cwalter@waukesha-water.com
Date 7/2/24

Section II PERMIT APPROVAL BY PERMITTING AUTHORITY

The foregoing application is hereby approved and permit issued by Waukesha County subject to full compliance by the Applicant with all provisions and conditions stated herein and on the reverse side hereof and all attachments hereto.

Fees due to Waukesha County prior to permit approval unless the work is performed under a Master Utility Agreement.

\$ 0.00 Application Fee Check # _____ Quadrant No. 1
\$ 0.00 Inspection Fee Monthly Billing Highway Segment TJ-1
\$0.00 Total Cash Utility Inspection Form

Part of Silvernail Road Realignment Project UES 1002.

By 
Signature of Waukesha County Representative

Title Sr Engineering Tech Date 8/23/24

PERMIT PROVISIONS AND CONDITIONS OF ISSUANCE

Pursuant to Wisconsin Statutes, this permit is granted to allow performance of the specific work described herein. The following standard provisions and any included special provisions shall govern:

- (1) The Applicant agrees to indemnify and hold harmless the Permitting Authority, its employees and its agents, from any cost, claim, suit, liability and/or award which might come, be brought, or be assessed, because of the issuance or exercise of this permit, or because of any adverse effect upon any person or property which is attributed to the partially or entirely completed works of the Applicant. Accomplishment of the permitted work, or any part thereof, by or on behalf of the Applicant shall bind such Applicant to abide by this permit and all its conditions and provisions.
- (2) The permitted facilities shall, if necessary, be altered at the expense of the Applicant to permit alteration, improvement, or maintenance of the highway as may hereafter be ordered. The entire cost of constructing and maintaining the permitted facilities shall be the obligation of the Applicant unless a contract for such costs has been executed.
- (3) No open cutting for a crossing will be allowed where the pavement is too narrow to maintain one-way traffic at all times, unless the Permitting Authority has granted permission for a detour. Wherever the pavement is opened, the spoil shall be hauled away and the trench shall be backfilled with sand or gravel and compacted in layers. The pavement removed for a road crossing shall be replaced as per the Permitting Authority specifications.
- (4) When one-way traffic or a detour is used, the Applicant shall provide ALL NECESSARY SIGNS, FLAGGERS, AND LIGHTS required according to the "Manual on Uniform Traffic Control Devices". When a detour is allowed, local newspapers shall be notified by the Applicant in advance of the work being started.
- (5) All disturbed areas shall be returned to their present condition or better, subject to the satisfaction of the Permitting Authority or its representative. Access to all private drives and public street intersections shall be maintained and all disturbed areas completely restored.
- (6) Any trenching, tunneling, or excavating shall be performed in accordance with the requirements of OSHA and the Wisconsin Department of Industry, Labor and Human Relations, and any applicable local regulations.
- (7) A copy of this approval, along with any plans and special provisions, shall be available on the job site.
- (8) Upon completion of the work the Applicant shall file a written notice with the Permitting Authority.
- (9) The applicant shall obtain all required State, County, and Municipal erosion control permits. The applicant shall ensure that proper erosion control measures are implemented in all phases of construction. The "Wisconsin Construction Site Best Management Practice Handbook" shall be used as a guide to control erosion.
- (10) All utility pedestals, cabinets, transformers, and other above ground (i.e. not flush with ground) structures located within the highway right of way shall be adequately marked. Markers shall be installed and maintained by the utility owner. Waukesha County will not be liable for damage done to above ground utility structures that are not adequately marked.

Permit number U2024-075

- (X) Construction of watermain will take place as part of the Silvernail Road Realignment Project UES1002 contract.
- (X) The facility owner shall ensure that work is done in accordance to approved plan/permit. A signed and stamped (by Engineer) as-built plan shall be submitted to Waukesha County on completion of work. The plans shall be in electronic format and include x,y,z location information. Survey/location data shall be referenced in Wisconsin County Coordinates, Waukesha County, NAD83 (2011) in US survey feet. Elevations shall be referenced to NAVD 88 (2012) using the WISCORS GEOID 12A in US survey feet.
- (X) Prior to starting construction, the applicant or contractor MUST forward an updated construction schedule to the Waukesha County Department of Public Works utility permit coordinator, (Dawn Pickart at (262) 548-7846 or dpickart@waukeshacounty.gov).
- (X) The proposed facility is being installed/relocated at the risk and expense of the facility owner. The utility owner will be required to bear the costs, should the installation or relocation be in conflict with the Waukesha County road improvement. If relocation of the facility by the utility does not adhere to the construction dates in the work plan and the permit, the utility will be liable for increased cost claims for delay of other work for the road project.
- (X) It is the responsibility of the permit applicant to correctly determine the location of existing property lines, adjacent road right of way and install proposed facilities accordingly. If the facility will be located outside of the road right of way, an easement must be obtained from the landowner.
- (X) There shall be no deviations from the approved construction plans covered under this permit without additional authorization from the Waukesha County DPW. If plan revisions, provide to Waukesha County.
- (X) This permit is only valid for utility construction on Waukesha County Department of Public Works controlled highway right of way. Permits from other federal, state, railroad, and local agencies may be required.

TRAFFIC CONTROL

- (X) Follow traffic control plans listed in specs and construction plans for the Silvernail Road Realignment Project UES1002.
- (X) Work Zone Traffic Control shall be in accordance with chapter VI of the Manual on Uniform Traffic Control Devices (MUTCD) and shall be maintained throughout construction and shall be altered at any time upon request from Waukesha County DPW.

EXCAVATION/BACKFILL MATERIALS

- (X) Open excavations shall be plated or protected by other means at the end of each workday to ensure public safety.

PAVEMENT/ROADWAY REPAIR

- (X) The applicant or their contractor shall take measures to ensure that the roadway pavement is kept clean of mud, dirt, or stones caused by trucking operations during construction.
- (X) Gravel shoulder material that is removed or disturbed due to construction operations shall be replaced and graded in kind.
- (X) Damaged, settled, or removed sections of concrete curb and gutter shall be replaced in kind. A 3/4 inch expansion joint material shall be used at the beginning and ending points of the sections to be replaced. The existing curb and gutter shall be saw cut and removed to the nearest joint outside of the actual required work limits.

LANDSCAPING/EROSION CONTROL/WETLANDS

- (X) Under state regulations, permits can be required for impacts to wetlands (Chapter 281.36, Wis. Stats.) and to waterways (Chapter 30, Wis. Statutes). Construction activities that commonly require a permit are plowing, trenching, excavation for bore pits, placing structures and crossing waterways with vehicles. Contact the WDNR Office of Energy to determine if a permit is needed.
- (X) Whenever construction operations require dewatering, the displaced water shall be pumped through filter fabric bags or temporary settling basins constructed prior to discharge from the work site.
- (X) **Prior to the start of construction, all applicable erosion control devices including inlet protection, shall be placed, inspected, monitored and maintained on a daily basis by the utility operator or contractor.** Erosion control BMPs (Best Management Practices) shall meet or exceed the approved WDNR Storm Water Management Technical Standards (http://dnr.wi.gov/topic/stormwater/standards/const_standards.html).
- (X) **The applicant shall obtain all required State, County, and/or Municipal Erosion Control Permits prior to doing ANY work. Contact Jim Rose, Land Resources Division, Waukesha County Parks and Land use at (262) 896-8308 to determine if an erosion control permit is required.** An erosion control permit is required if greater than 300 feet is open cut and/or 3000 square feet is disturbed.
- (X) Final vegetative restoration shall consist of placing a minimum four inches of topsoil, WisDOT spec grass seed, fertilizer, and erosion mat within (7) days of site disturbance or completion of construction. Do not use fertilizer within 10 feet of

wetlands or waterways.

- (X) When temporary stabilization is required for winter or short term construction, prior to final restoration, soil stabilizer shall be installed wherever possible. Erosion mat shall be used temporarily where appropriate and according to standards. Excess spoil shall be removed from the site.
- (X) Existing drainage patterns must be maintained and restored if disturbed by construction operations.

Miscellaneous

- (X) Hydrants may not be placed closer than 4 feet to the face of curb and to be within the clear zone, they must be breakaway.

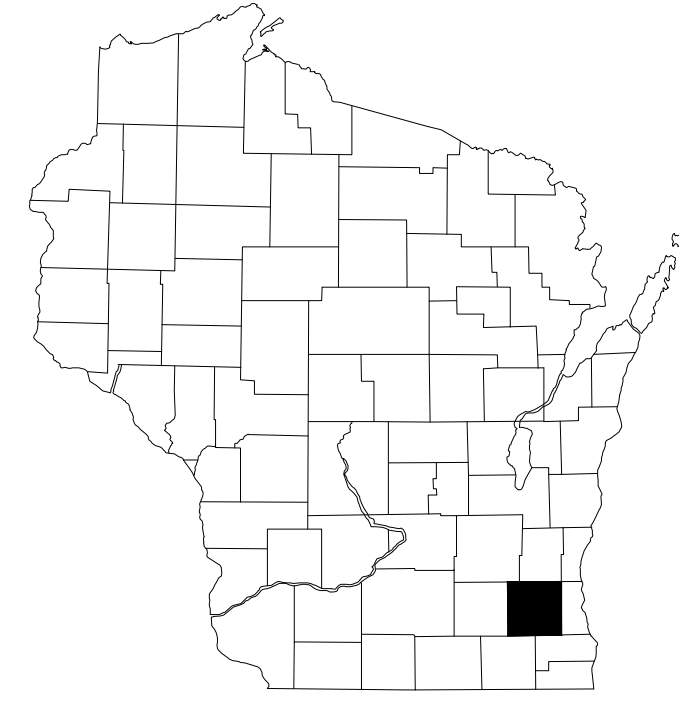
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WAUKESHA COUNTY AIRPORT

ATTACHMENT #3

Mead & Hunt

Mead and Hunt, Inc.
2440 Deming Way
Middleton, WI 53562
phone: 608-273-6380
meadhunt.com



WAUKESHA COUNTY

SILVERNAIL ROAD REALIGNMENT

2525 AVIATION RD

WAUKESHA, WI 53188

UES 1002

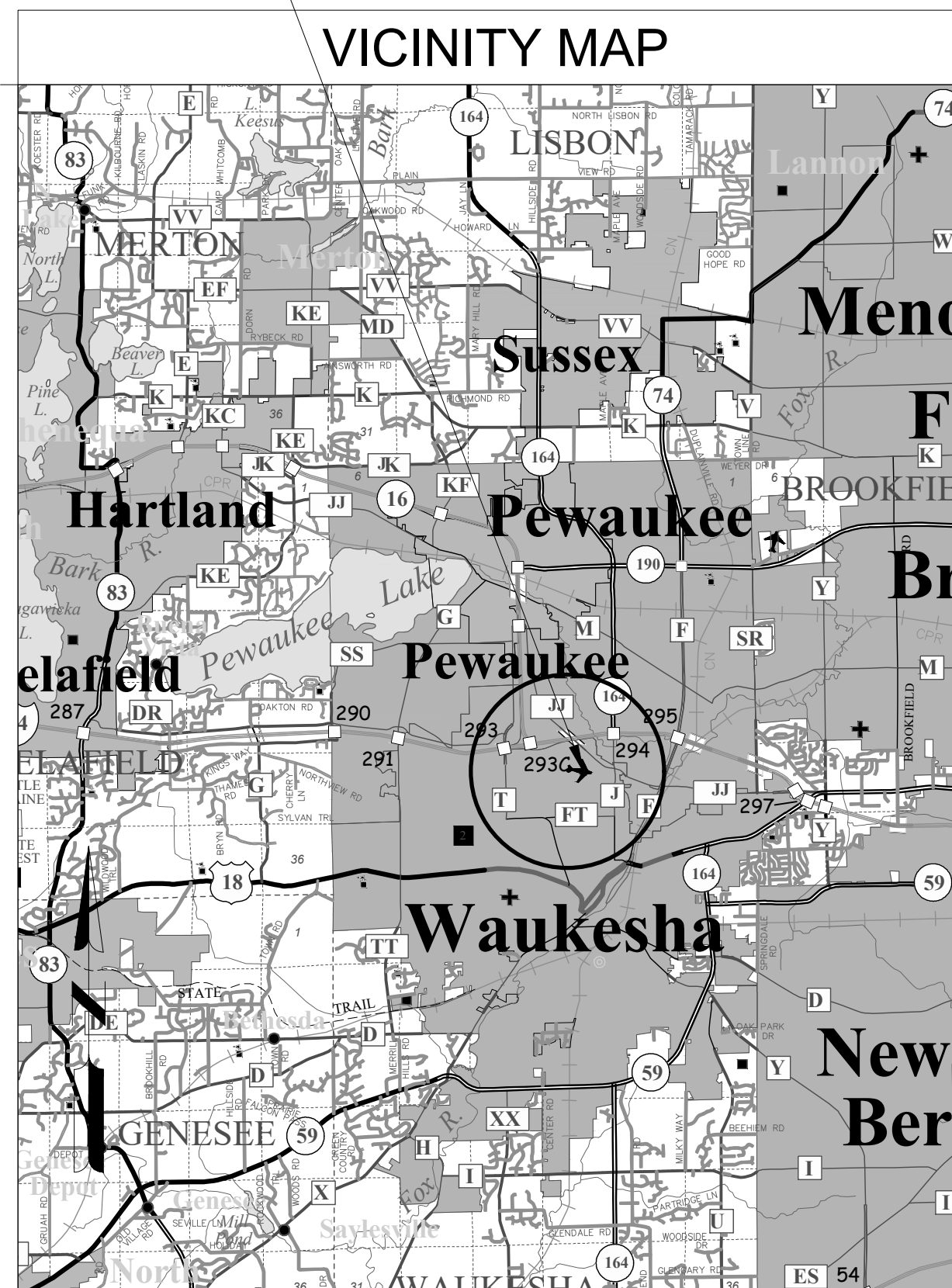
MARCH 22, 2024



WAUKESHA COUNTY AIRPORT
SILVERNAIL ROAD REALIGNMENT

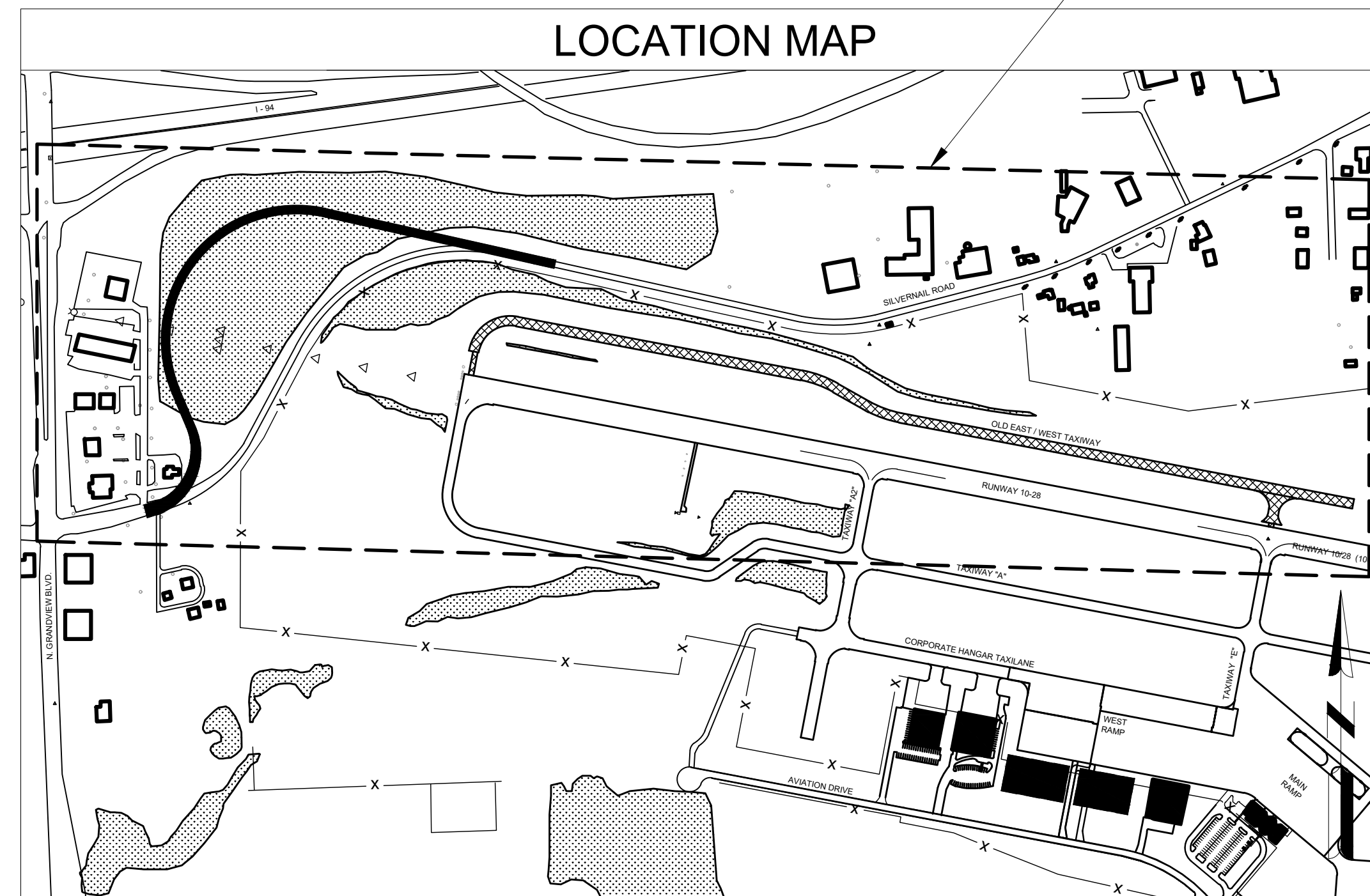
2525 AVIATION RD
WAUKESHA, WI 53188

PROJECT LOCATION



VICINITY MAP

PROJECT LOCATION



LOCATION MAP



Know what's below.
Call before you dig.

CONTACT:

AGENCY ANDREW TRIMBLE - PROJECT MANAGER
WISCONSIN BUREAU OF AERONAUTICS
4822 MADISON YARDS WAY, 5TH FLOOR SOUTH
MADISON, WI. 53705
(608)267-0454

ENGINEER - DESIGN BRIAN VEIT - ENGINEER
MEAD & HUNT
2440 DEMING WAY
MIDDLETON, WI. 53562
(608)-443-0412



CONSTRUCTION DATA

PRIME CONTRACTOR

MAJOR SUBCONTRACTORS AND/OR SUPPLIERS

WORK: STARTED _____ COMPLETED _____

PROJECT ENGINEER

MEAD & HUNT, INC

WISCONSIN DEPARTMENT OF TRANSPORTATION BUREAU OF AERONAUTICS	MEAD & HUNT, INC. Madison, Wisconsin	3/22/2024 BID SET
DESIGN PHASE: APPROVED BY: <i>[Signature]</i>	SUBMITTED BY: <i>[Signature]</i>	BOA NO: UES 1002
AIRPORT DEVELOPMENT ENGINEER	DATE: 3/19/2024	DATE: MARCH 22, 2024
DATE: 03/21/2024		DESIGNED BY: BTB
MAJOR SUBCONTRACTORS AND/OR SUPPLIERS		DRAWN BY: DAY
		CHECKED BY: BWV
DATE: 03-22-2024		DO NOT SCALE DRAWINGS
"AS CONSTRUCTED" DRAWING APPROVED BY: <i>[Signature]</i>	"AS CONSTRUCTED" APPROVAL	SHEET CONTENTS
AIRPORT DEVELOPMENT ENGINEER	DATE: 03/20/2024	COVER SHEET
DATE: _____		SHEET NO.
AIRPORT DEVELOPMENT ENGINEER		G-001
DATE: _____		



WAUKESHA COUNTY AIRPORT SILVERNAIL ROAD REALIGNMENT

2525 AVIATION RD
WAUKESHA, WI 53188

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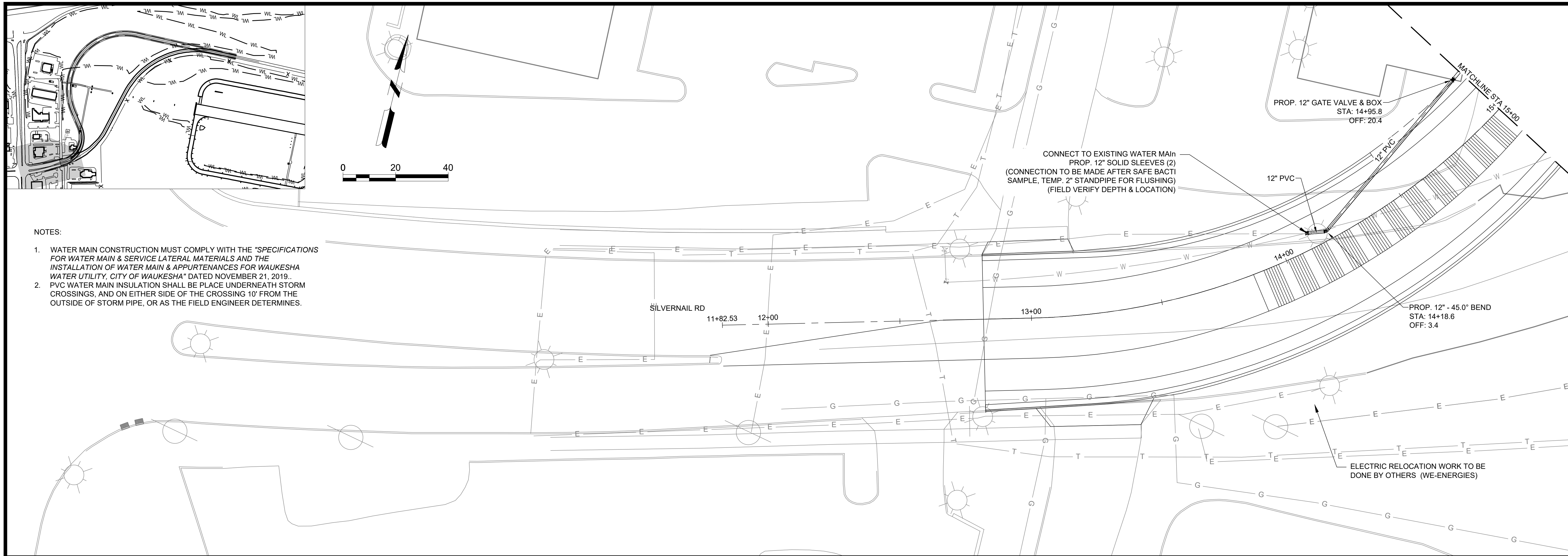
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DATE: MARCH 22, 2024
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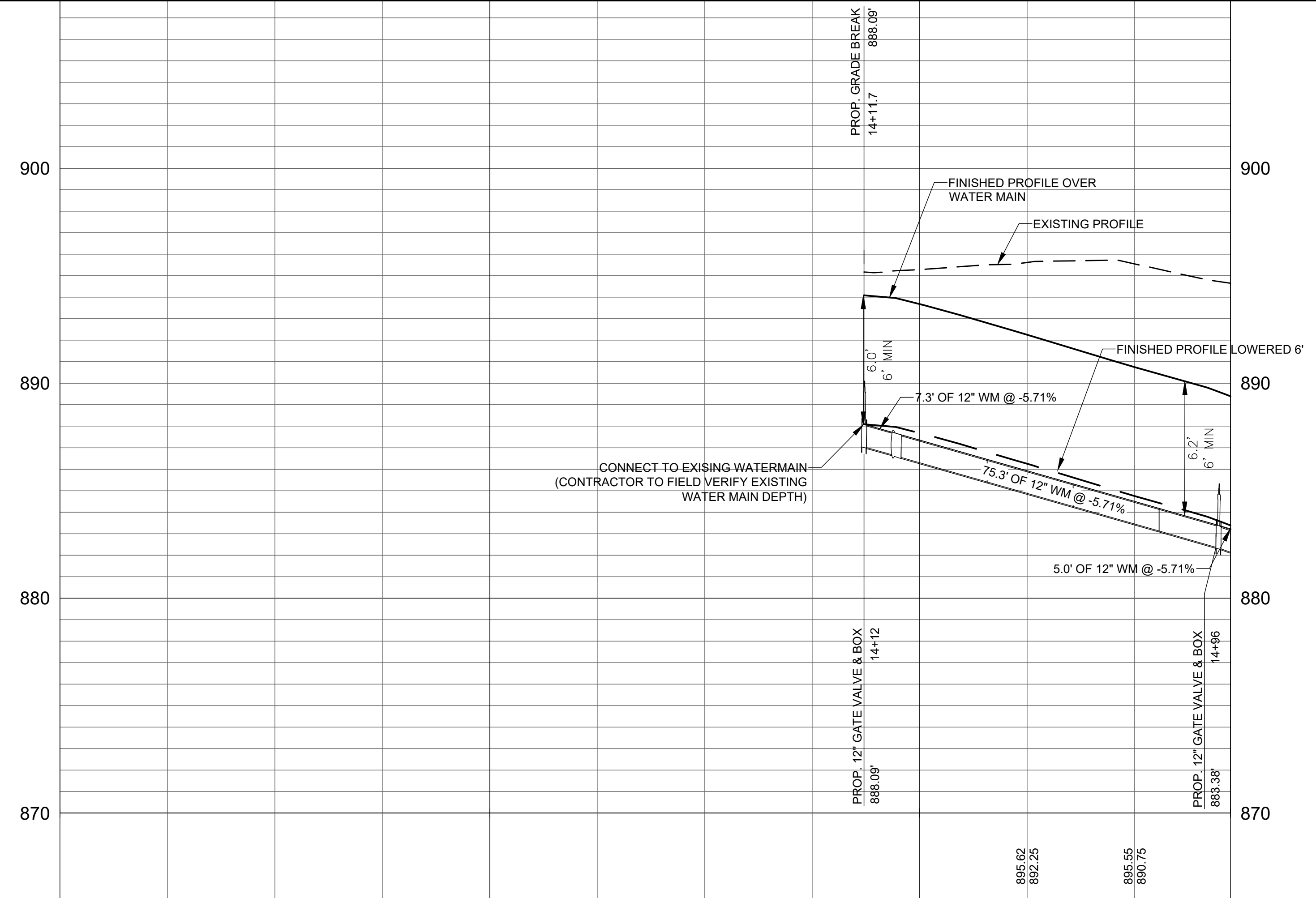
SHEET CONTENTS
UTILITY PLAN &
PROFILE

SHEET NO.

C-401



- NOTES:
1. WATER MAIN CONSTRUCTION MUST COMPLY WITH THE "SPECIFICATIONS FOR WATER MAIN & SERVICE LATERAL MATERIALS AND THE INSTALLATION OF WATER MAIN & APPURTENANCES FOR WAUKESHA WATER UTILITY, CITY OF WAUKESHA" DATED NOVEMBER 21, 2019.
 2. PVC WATER MAIN INSULATION SHALL BE PLACE UNDERNEATH STORM CROSSINGS, AND ON EITHER SIDE OF THE CROSSING 10' FROM THE OUTSIDE OF STORM PIPE, OR AS THE FIELD ENGINEER DETERMINES.





WAUKESHA COUNTY AIRPORT SILVERNAIL ROAD REALIGNMENT

2525 AVIATION RD
WAUKESHA, WI 53188

ISSUED:

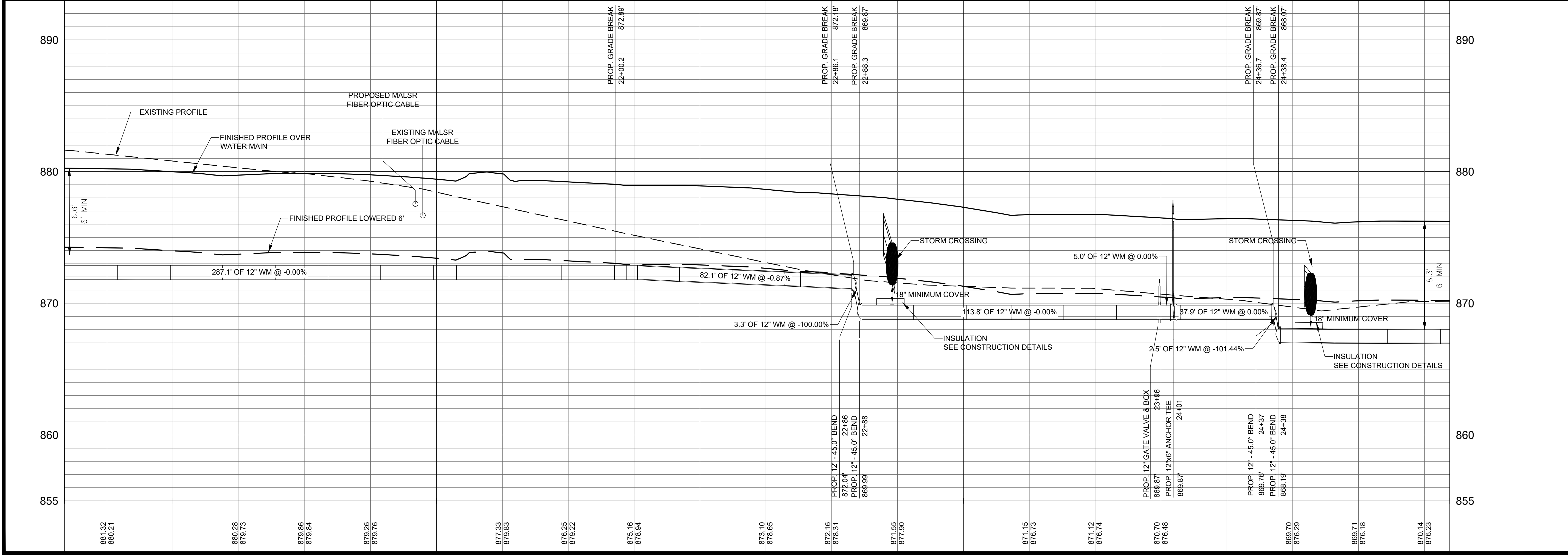
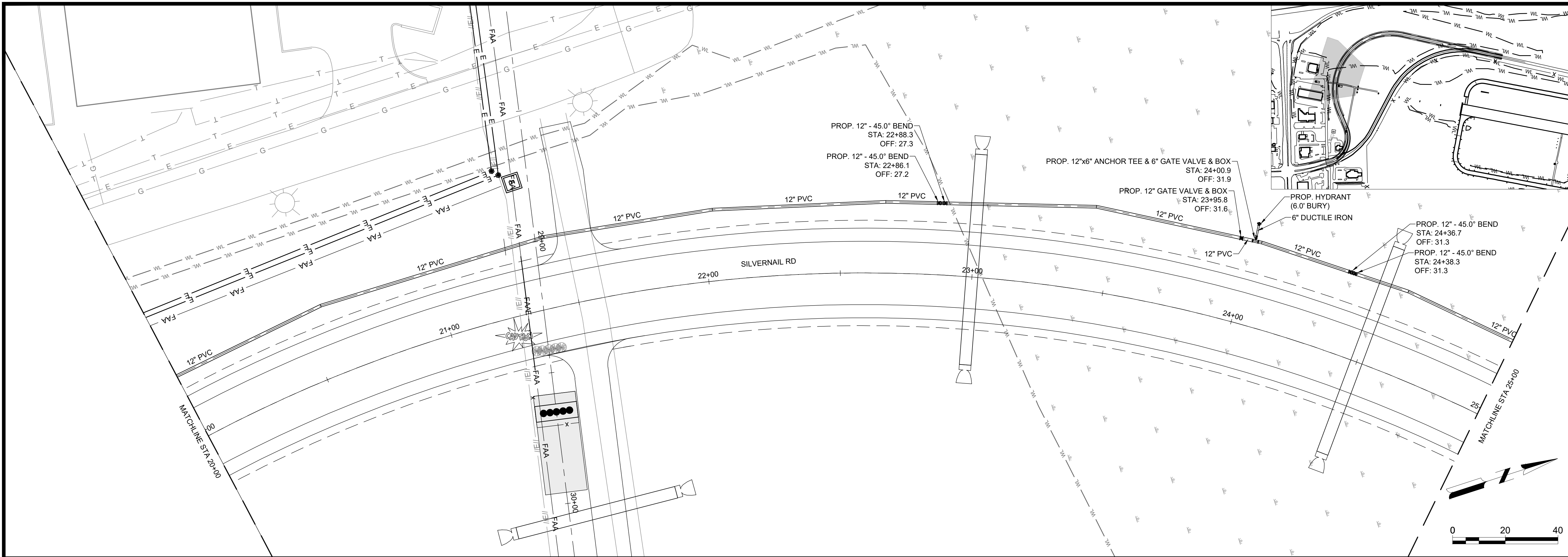
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BOA NO: UES 1002
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DESIGNED BY: BTB
DRAWN BY: DAY
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SHEET CONTENTS
UTILITY PLAN &
PROFILE

SHEET NO.

C-403



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WAUKESHA COUNTY AIRPORT SILVERNAIL ROAD REALIGNMENT

2525 AVIATION RD
WAUKESHA, WI 53188

ISSUED:

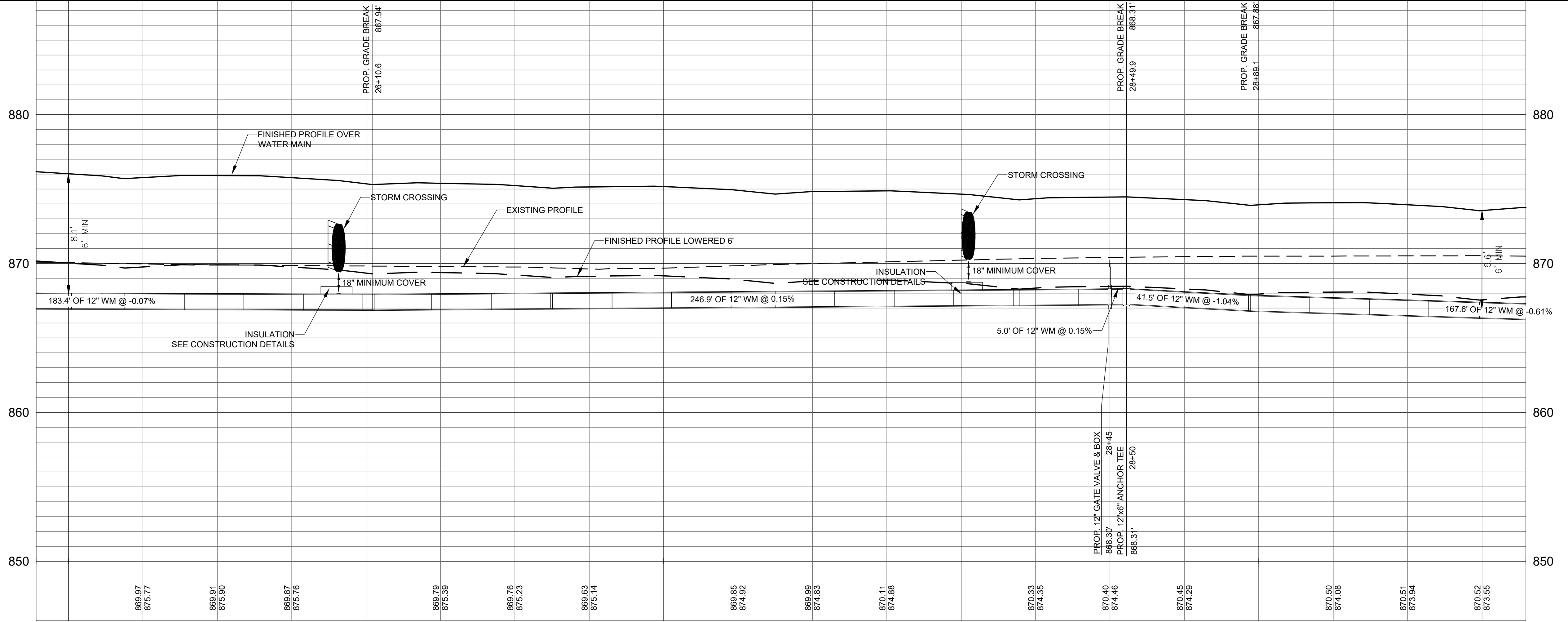
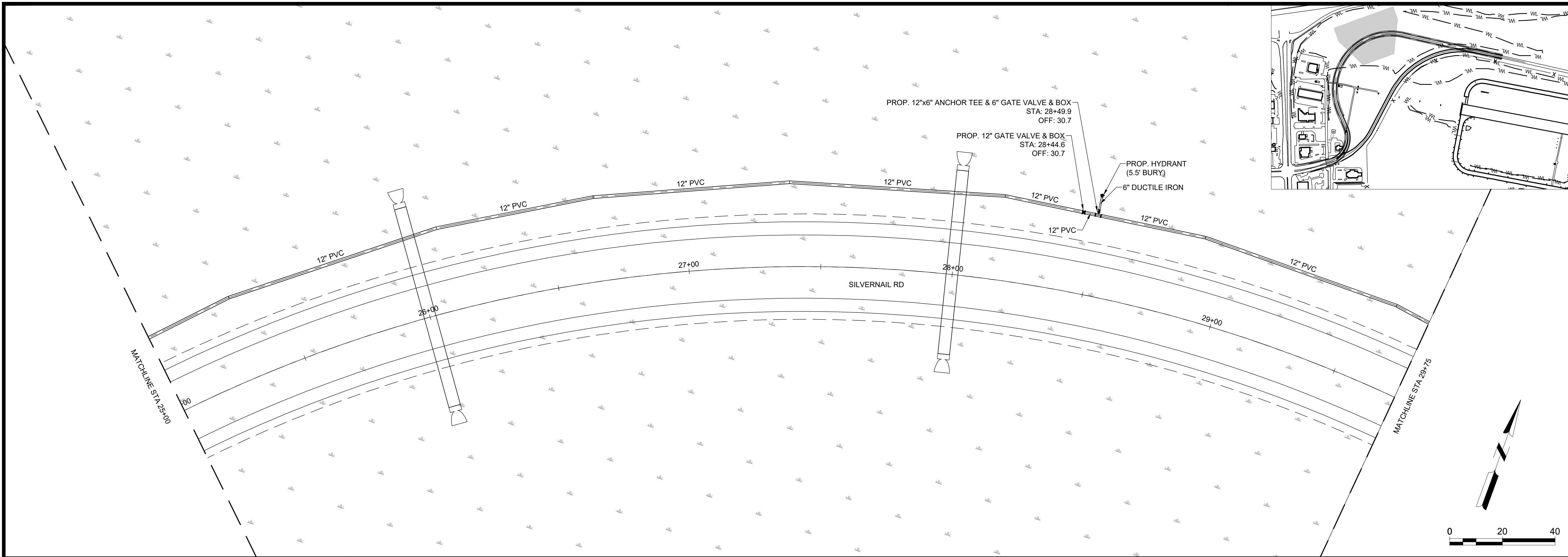
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DO NOT SCALE DRAWINGS

SHEET CONTENTS
UTILITY PLAN &
PROFILE

SHEET NO.

C-404



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3/22/2024 9:22:35 AM



WAUKESHA COUNTY AIRPORT SILVERNAIL ROAD REALIGNMENT

2525 AVIATION RD
WAUKESHA, WI 53188

ISSUED:

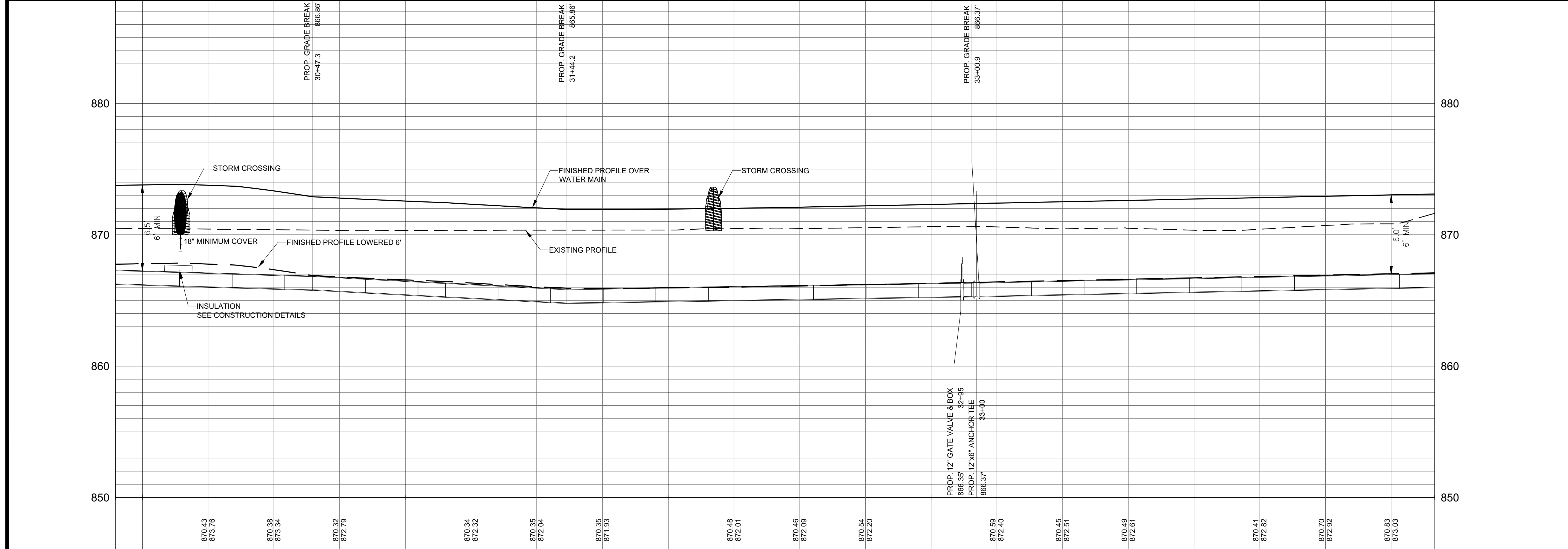
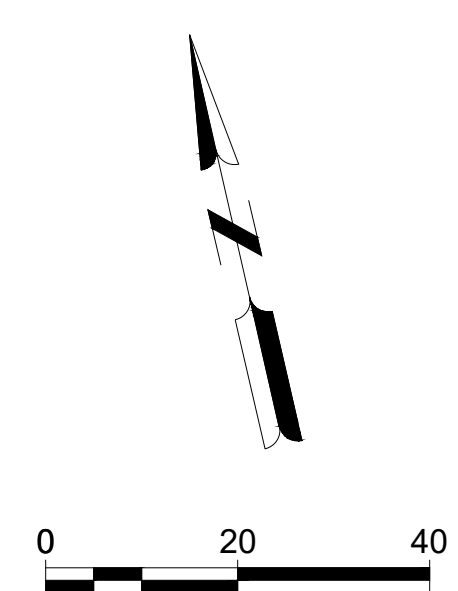
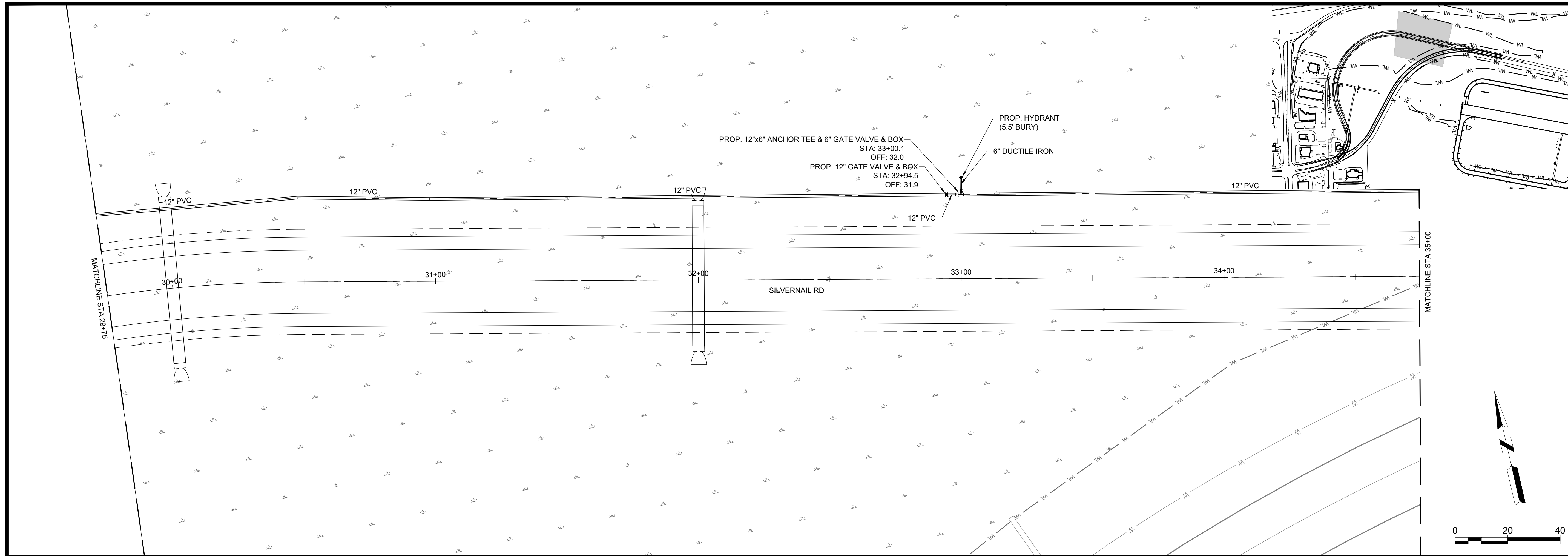
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SHEET CONTENTS
UTILITY PLAN &
PROFILE

SHEET NO.

C-405





WAUKESHA COUNTY AIRPORT SILVERNAIL ROAD REALIGNMENT

2525 AVIATION RD
WAUKESHA, WI 53188

ISSUED:
4/19/2024 ADDENDUM #1

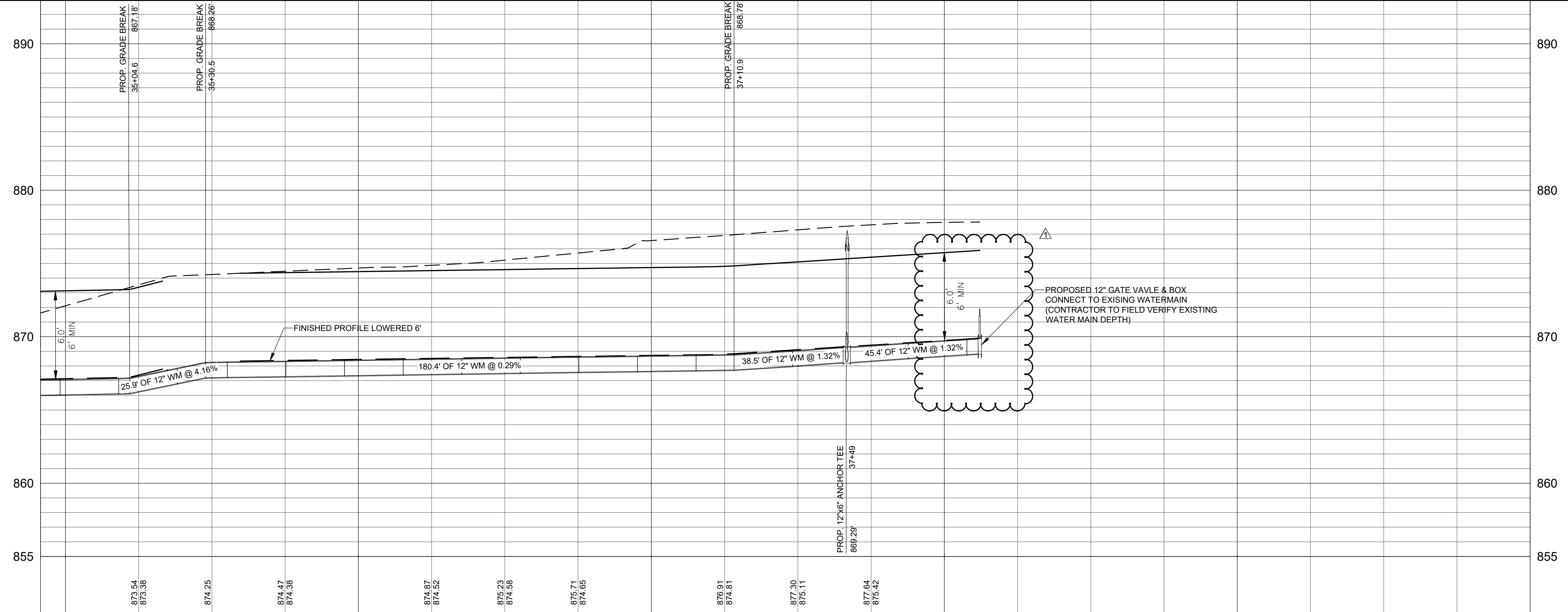
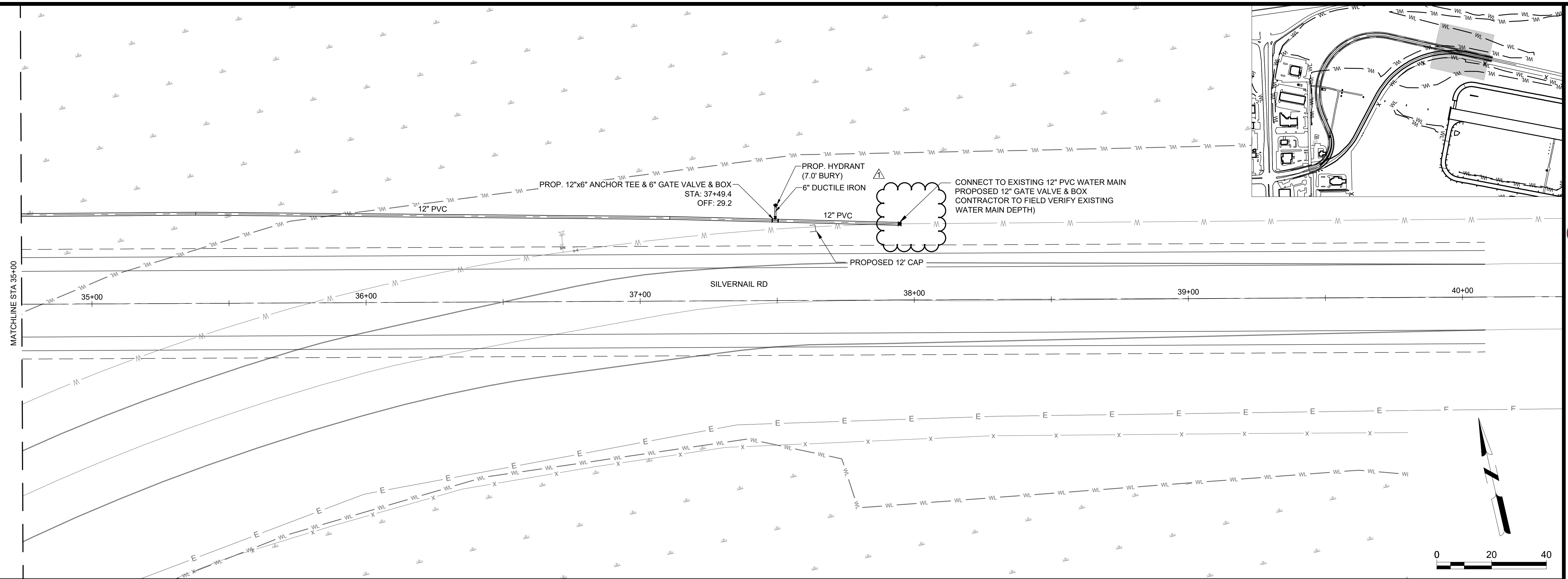
3/22/2024 BID SET

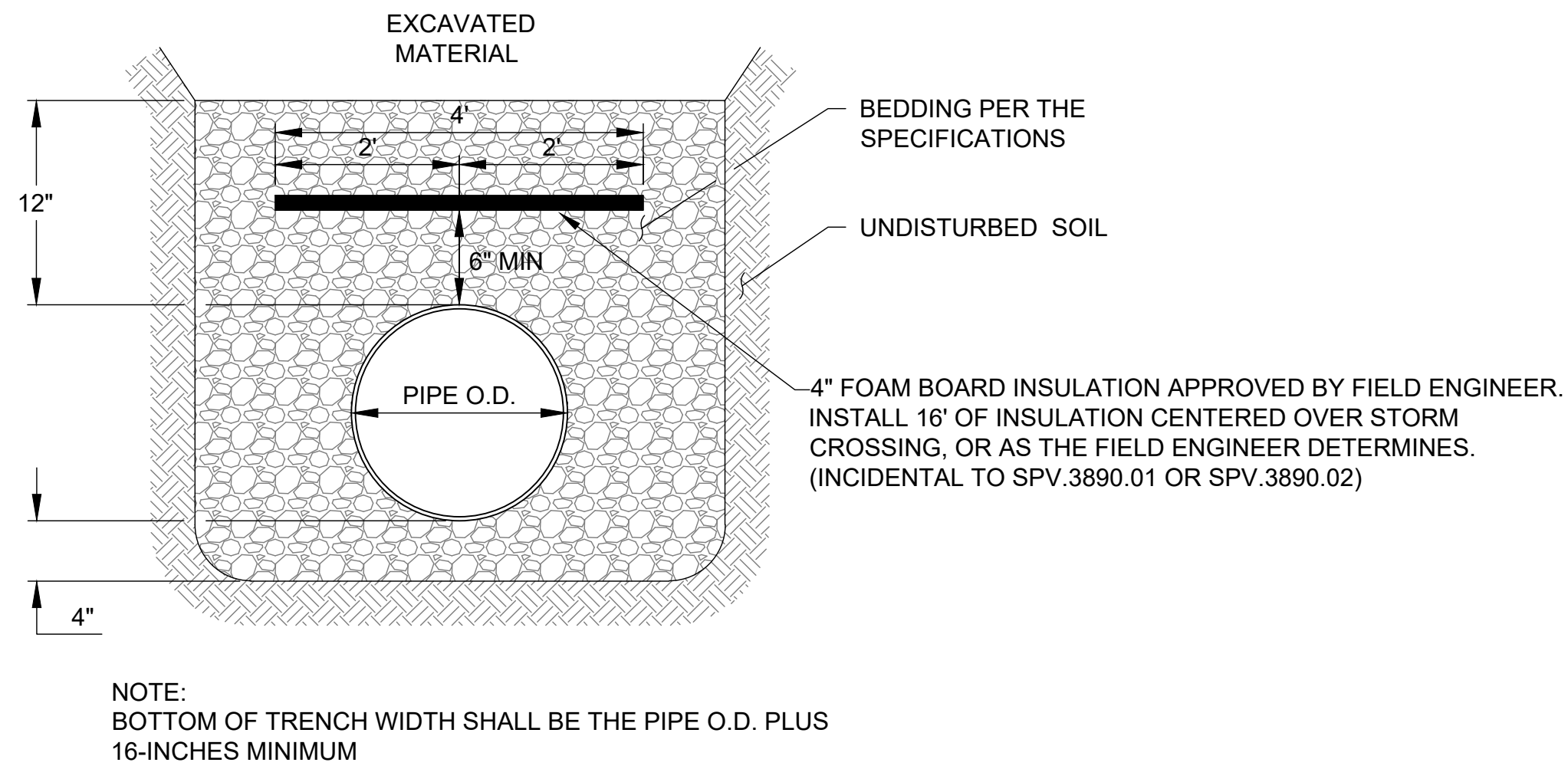
BOA NO: UES 1002
DATE: MARCH 22, 2024
DESIGNED BY: BTB
DRAWN BY: DAY
CHECKED BY: BWV
DO NOT SCALE DRAWINGS

SHEET CONTENTS
UTILITY PLAN &
PROFILE

SHEET NO.

C-406

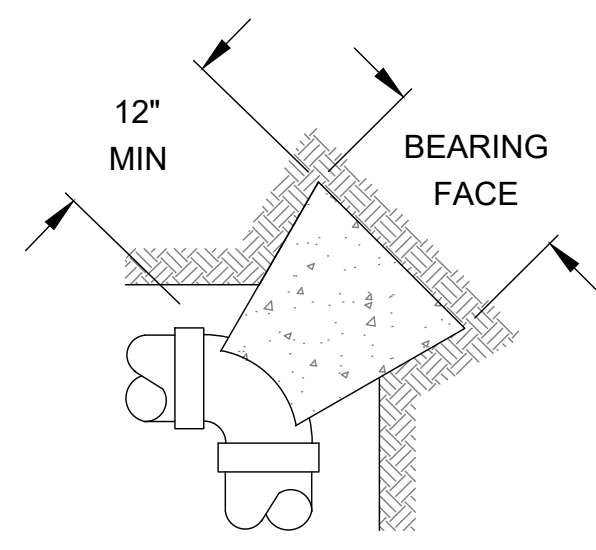




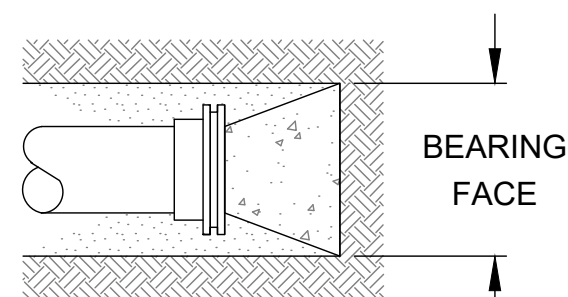
12 PVC WATERMAIN BEDDING & INSULATION DETAIL

NOT TO SCALE

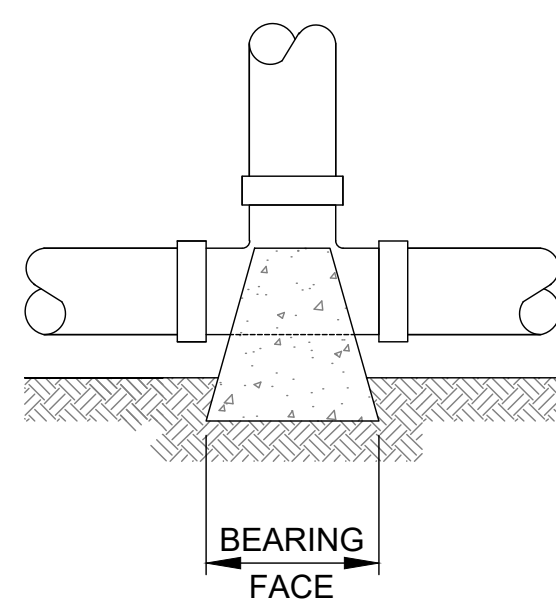
PIPE DIAMETER	FITTING	BEARING FACE (SQ. FEET)
6-INCH	90° BEND	6
6-INCH	45° BEND	4
6-INCH	TEE, HYD., PLUG	5
8-INCH	90° BEND	6
8-INCH	45° BEND	4
8-INCH	TEE, HYD., PLUG	5
10-INCH, 12-INCH	90° BEND	7
10-INCH, 12-INCH	45° BEND	5
10-INCH, 12-INCH	TEE, HYD., PLUG	7
14-INCH, 16-INCH	90° BEND	12
14-INCH, 16-INCH	45° BEND	7
14-INCH, 16-INCH	TEE, HYD., PLUG	12



BEND - PLAN



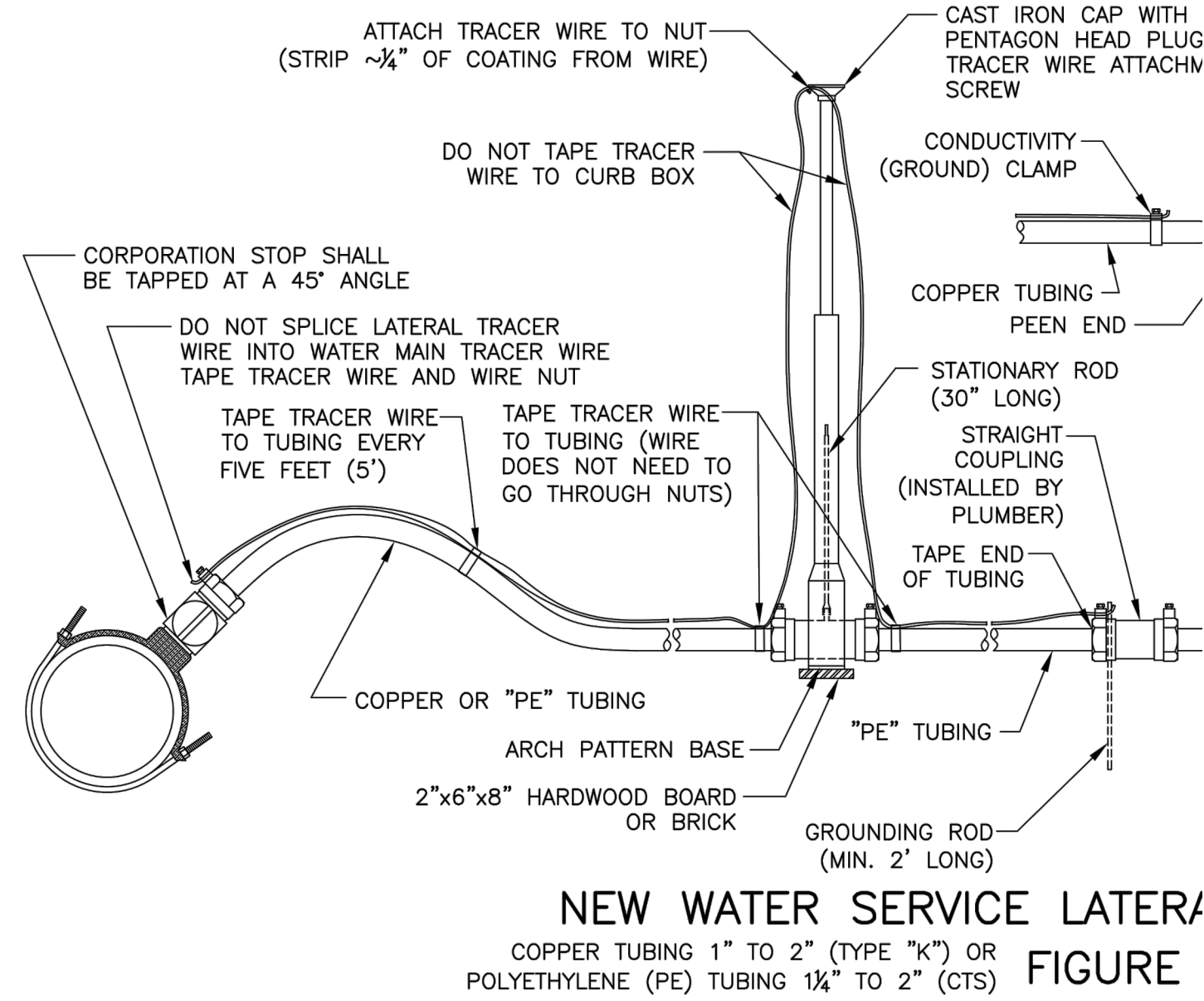
PLUG - PLAN



TEE - PLAN

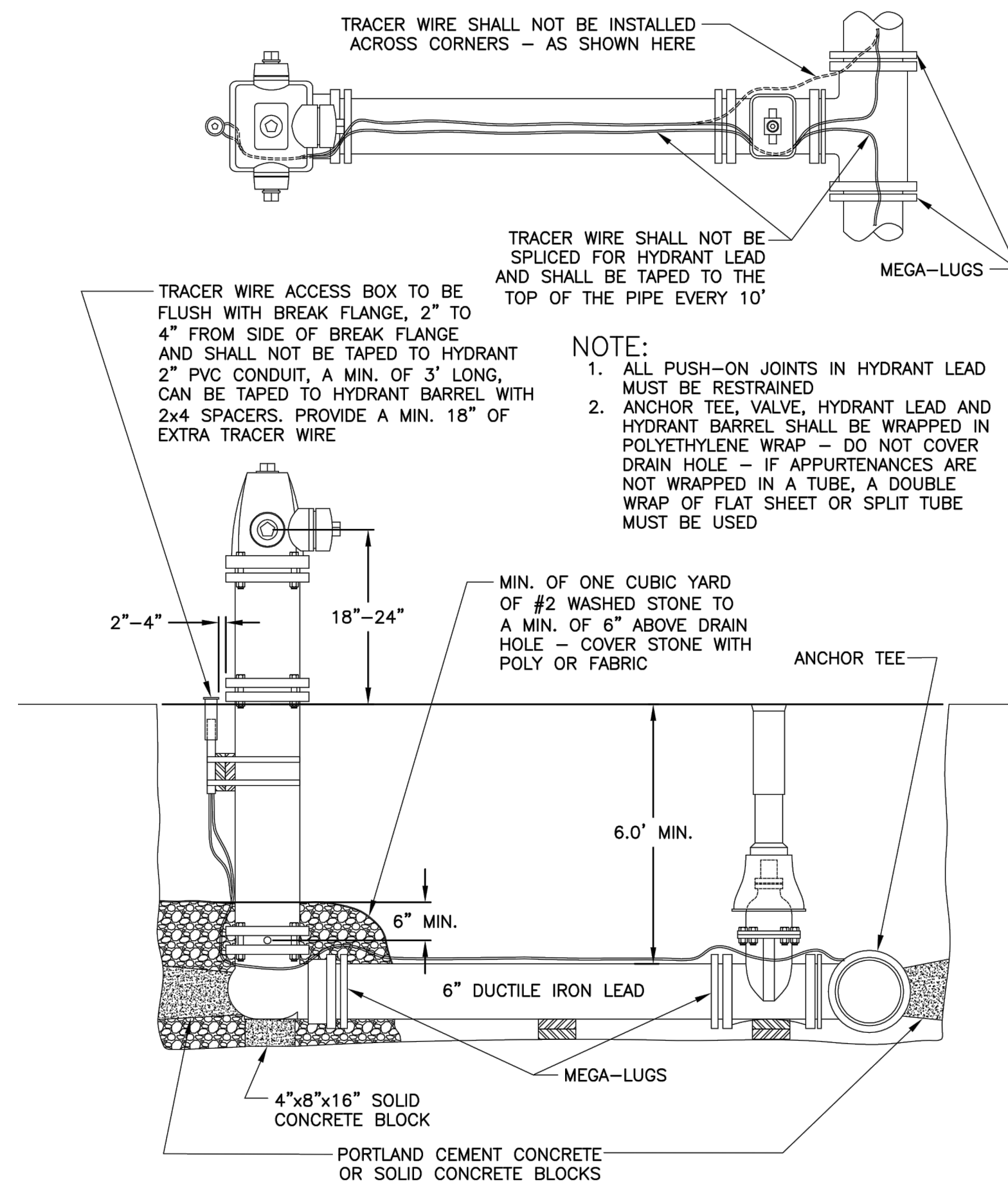
15 CONCRETE REACTION BLOCK DETAIL

NOT TO SCALE



13 NEW WATER SERVICE LATERAL DETAIL

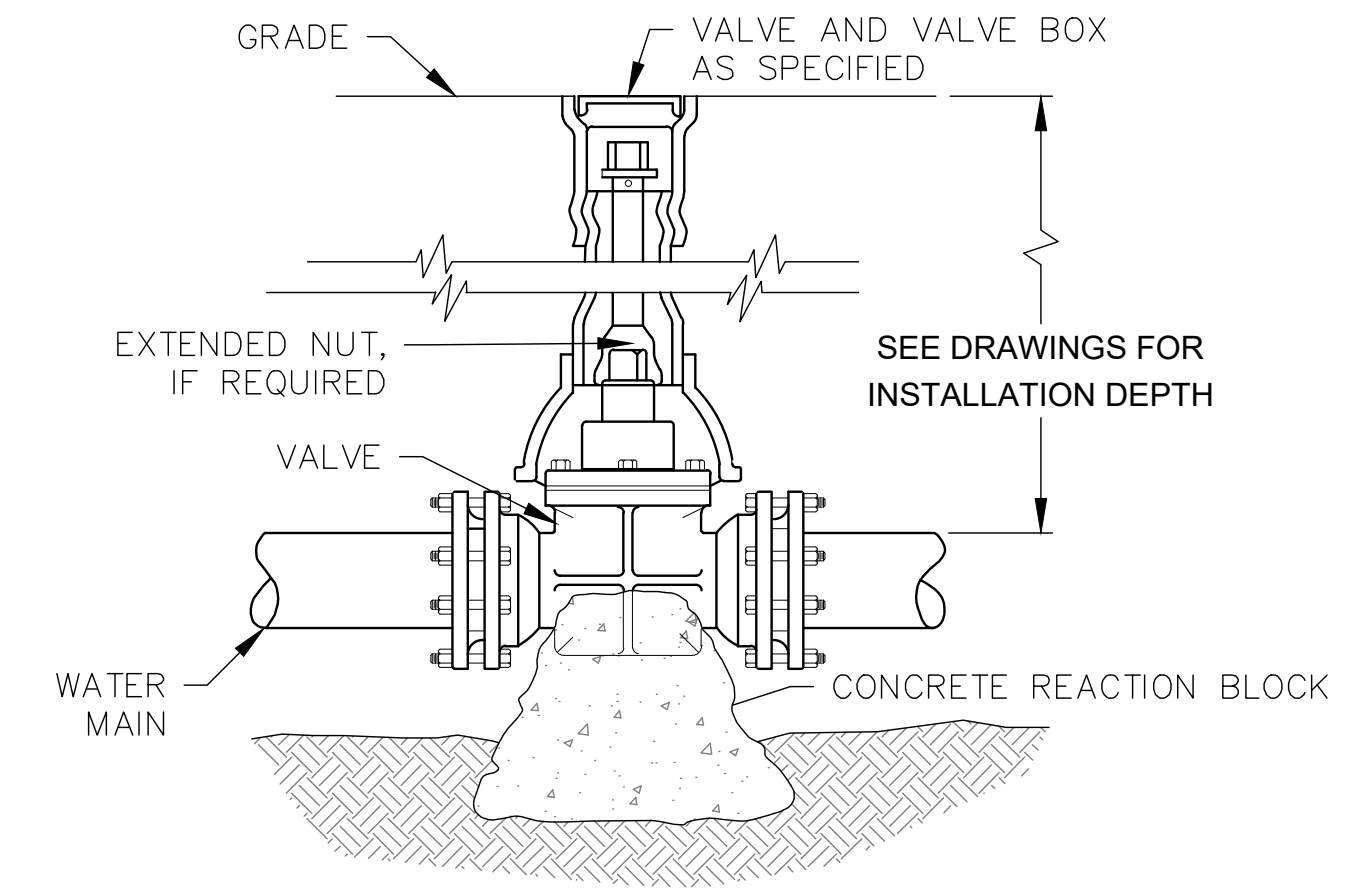
NOT TO SCALE



NOTE:
THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE HYDRANT WITHOUT ANY DEFECTS IN THE COATING (PAINT) INCLUDING SCRATCHES, CHIPS OR RUST. ANY DEFECTS FOUND IN THE COATING (PAINT), THE CONTRACTOR SHALL REPAINT THE HYDRANT(S) PER THE WAUKESHA WATER UTILITY'S HYDRANT REPAINTING SPECIFICATION.

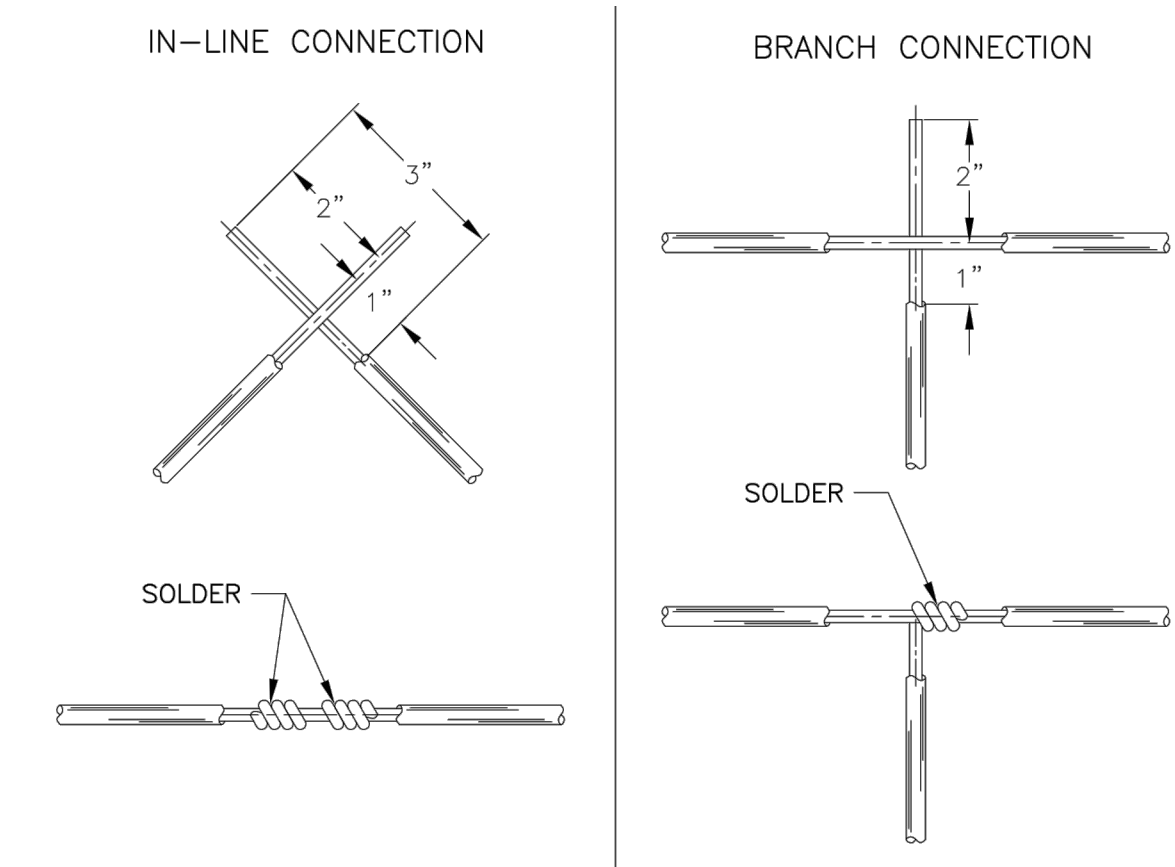
16 HYDRANT INSTALLATION DETAIL

NOT TO SCALE



14 VALVE & VALVE BOX INSTALLATION DETAIL

NOT TO SCALE



- NOTES:
1. STRIP THE INSULATION FROM THE WIRE AS SHOWN IN THE DRAWING, BUT DO NOT CUT THE COPPER WIRE.
 2. LOOP THE WIRE ENDS A MINIMUM OF FOUR (4) TIMES FOR EACH WIRE OF THE CONNECTION.
 3. USING A PROPANE TORCH, APPLY THE FLAME DIRECTLY TO THE JOINT (LOOPS) TO BE SOLDERED.
 4. APPLY 62SN OR EQUIVALENT ROSIN CORE SOLDER TO THE SPLICE. SOLDER SHOULD FLOW INTO THE JOINT.
 5. SOLDERING PASTE MUST BE APPLIED TO THE LOOPS BEFORE HEAT IS APPLIED IF ROSIN CORE SOLDER IS NOT USED.
 6. COVER ALL BARE COPPER WIRE WITH A WATERPROOF WRAP THAT IS APPROVED FOR UNDERGROUND CONNECTIONS. THE WRAP MUST EXTEND A MINIMUM OF TWO INCHES (2") BEYOND THE END OF THE STRIPPED WIRE.

TRACER WIRE SPLICE CONNECTION DETAIL

FIGURE 3

17 TRACER WIRE CONNECTION DETAIL

NOT TO SCALE