

Prepared by the
Utility Agreements and Permits Unit
(Receivable)
(\$409,200.10)

S.P. 6221-107 (T.H. 61 & T.H. 5)
Location: On TH 61 (Arcade) from E. 7th
Street to 0.2 mile south of Roselawn Ave. in
the City of Maplewood and on TH 5 from east
end Bridge 62703 to Minnehaha Ave in the
City of St. Paul
Utility Owner: Board of Water Commissioners
of the City of Saint Paul
MnDOT Agreement Number 1056981

AGENCY RELOCATION AGREEMENT

This Agreement Number 1056981 (Agreement) is between the State of Minnesota (State), acting through its Commissioner of Transportation and Board of Water Commissioners of the City of Saint Paul, including its agents, contractors, and subcontractors (Utility Owner). This Agreement outlines the separate responsibilities of the State and the Utility Owner as part of a construction project.

RECITALS

The State plans to let a contract to construct State Project Number 6221-107 (Project) on Trunk Highway Number 61 and Trunk Highway Number 5. The Project is located on TH 61 (Arcade) from E. 7th Street to 0.2 mile south of Roselawn Ave. in the City of Maplewood and on TH 5 from east end Bridge 62703 to Minnehaha Ave in the City of St. Paul.

The Utility Owner owns and operates watermains, its fixtures, and related equipment (Facilities) that are located on property where the State will construct the Project; said Facilities being in place prior to the construction of Trunk Highway Number 61 and Trunk Highway Number 5.

On April 24, 1987, the District Court made an interpretation of Chapter 110, Special Laws of Minnesota for 1885, that the City of Saint Paul has the obligation to reimburse the Utility Owner for all adjustment costs whenever the City of Saint Paul makes improvements to city streets. When the State took in Arcade Street and East 7th Avenue from the City, the State assumed the obligation to reimburse the Utility Owner for such adjustments of waterworks facilities as a result of street improvements.

The Project will require the relocation and adjustment of the Utility Owner's Facilities. The parties agree that, if the Utility Owner relocated or adjusted the Facilities or let a separate contract to relocate or adjust them that work would interfere with the Project. The Utility Owner has also requested additional work be performed as part of the Project. The additional work is considered a betterment and therefore is at the Utility Owner's expense.

Pursuant to Minnesota Statutes, section 161.46, subdivision 5, the Utility Owner appoints the State as its agent to design and construct the work as part of the Project and the State may work on the Facilities as part of the Project on the trunk highway system.

State law requires a written agreement between the State and the Utility Owner that describes their separate responsibilities.

AGREEMENT

I. Term/Termination

- A. *Effective Date:* This Agreement is effective on the date the State obtains all signatures required by Minnesota Statutes, section 16C.05, subdivision 2.
- B. *Commencement of Work:* Upon notice of Agreement approval, the Utility Owner must promptly provide the State (and the State's Contractor (Contractor)) with any information necessary to commence and successfully prosecute the utility work according to the terms of the Notice and Order and a work schedule the State's Project Engineer (Project Engineer) approves.
- C. *Expiration Date:* This Agreement will expire on the date that all obligations, excluding the Utility Owner's ongoing maintenance obligations, have been satisfactorily fulfilled.
- D. *Termination by the State:* The State may terminate this Agreement at any time, with or without cause, on 30 calendar days' written notice to the Utility Owner. Upon termination, the State will be entitled to payment, on a pro rata basis, for satisfactorily performed services. The termination of this Agreement does not relieve the Utility Owner of its obligations under the Notice and Order.
- E. *Survival of Terms:* The following articles survive this Agreement's expiration or termination: (III) Utility Owner's Ongoing Maintenance Requirements; (V) Liability; and (VII) Governing Terms.

II. Description of Work Procedures

- A. *Plans:* The plans, which are attached to this Agreement as Exhibit A, indicate the present and proposed locations of the Facilities.

1. If any changes to the plans or character of the work become necessary, the State and the Utility Owner must agree to the changes before the State makes (or directs the Contractor to make) them. If these changes require an amendment or supplement to this Agreement, the parties will negotiate such amendment or supplement in good faith, and the State is not obligated to commence such changes until such amendment or supplement is fully executed. The State will enter into such supplemental agreements with its Contractor as the State deems necessary to implement such changes.
2. The Utility Owner authorizes the Project Engineer to make any minor field changes and adjustments to the plans, specifications, and special provisions as the State deems necessary for efficient Project construction. The Utility Owner authorizes the State, on its behalf, to enter into supplemental agreements with the Contractor as necessary to implement these changes.

B. *State's Responsibilities*

1. The State will:
 - a. Advertise the Project for bids; and
 - b. Award a construction contract for the Project. This Project will include the adjustment work.
2. The Project Engineer will supervise and direct the Project, including the adjustment work, but the Utility Owner may inspect the work periodically. If the Utility Owner finds that any completed relocation work is defective, it must inform the Project Engineer of these defects in writing; however, any recommendations the Utility Owner makes are not binding to the State. The State has the exclusive right to determine whether the Contractor has performed the work according to the plans, specifications, and special provisions.
3. The Project Engineer and the Utility Owner will perform a final inspection of the work. Once the State has accepted the adjustment work, the Project Engineer will inform the Utility Owner in writing, and the Utility Owner will assume ownership of the Facilities.

C. *Deletion of Work:* If the Utility Owner decides to delete the adjustment work from the Project, the Utility Owner will:

1. Pay the State the design engineering cost in Article IV.B.3;

2. Be subject to the Notice and Order; and
 3. Defend (at its own expense and to the extent Minnesota's Attorney General permits) indemnify, save, and hold the State and all of its agents and employees harmless of and from all claims, demands, actions, or causes of action that deleting the relocation work causes. This obligation to indemnify extends to any attorney's fees.
- D. *Risk*: Risk of loss of partial or complete relocation work will be on the Contractor or the Utility Owner as the current *Standard Specifications for Construction* set forth.

III. Utility Owner's Ongoing Maintenance Requirements

- A. Once construction is complete, the Utility Owner must maintain the Facilities at its own expense.
- B. The Utility Owner may open and disturb the trunk highway right of way without a permit in the case of an emergency that is dangerous to the public and requires immediate attention. Upon learning of the emergency, the Utility Owner must immediately notify the State Patrol. The Utility Owner must take all necessary and reasonable safety measures to protect the public and must cooperate fully with the State Patrol. In this event, the Utility Owner must request a permit from the proper authority no later than the working day after it begins working in the right of way.

IV. Payment

- A. The State will determine the cost of the adjustment on a contract-unit-price basis. The Utility Owner authorizes the State to pay the Contractor directly for the work. As Exhibit B shows, the estimated cost of the Utility Owner's relocation work is \$409,200.10.
- B. The Utility Owner agrees to pay the State the total cost it incurs to relocate/adjust the Facilities. The total cost will include:
 1. The construction cost, which consists of all of the Contractor's bid item costs to satisfactorily relocate/adjust the Facilities according to the plans, specifications, and special provisions;
 2. The construction engineering cost, which is equal to 8 percent of the construction cost; and

3. The design engineering cost, which is equal to 6.5 percent of the construction cost.
- C. After acceptance of the bids, the State will notify the Utility Owner of the total cost by providing a written cost schedule.
1. The Utility Owner must accept or reject the total cost no more than 10 calendar days after receiving the cost schedule. If the Utility Owner does not provide this notification after 10 days, the State will consider the lack of response to be the Utility Owner's acceptance of the total cost and the State will proceed with the work.
 2. If the Utility Owner chooses to delete its work from the State's contract, it must still pay the State the design engineering cost specified in Article IV.A. The Utility Owner will be obligated to adjust its Facilities according to the terms of the Notice and Order.
- D. The State will issue the Utility Owner an invoice for the amount specified in the cost schedule. Pursuant to Minnesota Statutes, section 161.46, subdivision 5, the Utility Owner will promptly reimburse the State for the relocation costs.
- E. After the Contractor has completed the work required under its contract and the State has accepted the work, the State will prepare a final computation of the amount due from the Utility Owner.
1. If the final total amount is greater than the amount the State has already received from the Utility Owner, the Utility Owner must promptly pay the difference, without interest, to the State.
 2. If the final total amount is less than the amount the State has already received from the Utility Owner, the State must pay the difference without interest, to the Utility Owner.
- F. The final total cost constitutes payment in full for all adjustment work according to this Agreement. This amount also constitutes payment in full for any and all damages, claims, or causes of action of any kind or nature that the Utility Owner may have relating to the adjustment of the Facilities.

V. Liability

- A. Each party is responsible for its own acts, omissions and the results thereof to the extent authorized by law and will not be responsible for the acts and omissions of

others and the results thereof. Minnesota Statutes § 3.736 and other applicable law govern liability of the State of Minnesota. Minnesota Statutes Chapter 466 and other applicable law govern liability of the Utility Owner. This clause will not be construed to bar any legal remedies a party may have to fulfill its obligations under this contract.

VI. Nondiscrimination

Minnesota Statutes, section 181.59 and any applicable local ordinances pertaining to civil rights and nondiscrimination are considered part of this Agreement.

VII. Governing Terms

- A. *Data Practices:* All parties must comply with the Minnesota Government Data Practices Act (Minnesota Statutes, chapter 13) as it applies to any data that a party to this Agreement receives, collects, stores, or disseminates under it. The Act provides civil liability for failure to comply with its requirements.
- B. *Applicable Law:* Minnesota law governs the validity, interpretation, and enforcement of this Agreement. Venue for all legal proceedings arising out of this Agreement or its breach must be in Ramsey County, Minnesota.
- C. *Waiver:* If a party fails to enforce any provision of this Agreement, that failure does not waive the provision or the party's right to subsequently enforce the provision or any subsequent breach of that provision.
- D. *Merger:* This Agreement contains all negotiations and agreements between the State and the Utility Owner with respect to the subject matter it contains. No prior understanding regarding this Agreement, whether written or oral, may be used to bind either party.
- E. *Assignment:* The Utility Owner may neither assign nor transfer any rights or obligations under this Agreement without the State's consent and a fully executed assignment agreement. To be valid, the assignment agreement must be signed and approved by the same parties who signed and approved this Agreement, or their successors in office.
- F. *Amendments:* Any amendment to this Agreement must be in writing. An amendment will not be effective until the same parties who signed and approved this Agreement, or their successors in office, sign and approve the amendment.
- G. *Incorporation of Exhibits:* All exhibits attached to this Agreement are incorporated into this Agreement.

The remainder of this page was left blank intentionally.

IN TESTIMONY WHEREOF, the parties have duly executed this Agreement by their duly authorized officers and caused their respective seals to be hereunto affixed.

**BOARD OF WATER COMMISSIONERS
OF THE CITY OF SAINT PAUL**

Approved:

By: _____
Racquel Vaske
General Manager
Saint Paul Regional Water Services

Date: _____

By: _____
Mara Humphrey
President

Date: _____

Approved as to form:

By: _____
Assistant City Attorney

Date: _____

By: _____
Mollie Gagnelius
Secretary

Date: _____

By: _____
John McCarthy
Director
Office of Financial Services

Date: _____

**STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION**

Department of Transportation

Recommended for Approval:

Approved:

By: _____
Metro Utility Coordinator

By: _____
Director, Office of Land Management

Date: _____

Date: _____

Office of Contract Management

Approved as to Form and Execution:

By: _____

Date: _____

Department of Administration

By: _____

Date: _____



- SPECIFIC NOTES**
- ① ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - ② REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
 - ③ ADJUST TO FINAL GRADE (ADJUST CURB BOX)
 - ⑦ WATER SYSTEM WORK BY SPRWS, COORDINATE WORK WITH ST PAUL REGIONAL WATER SERVICES. PROVIDE SURFACE REMOVALS, EXCAVATION, BACKFILL, & RESTORATION WORK. EXCAVATION & BACKFILL WORK PAID FOR AS NOTED. RESTORATION WORK PAID FOR PER PLAN.
 - ⑪ ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
 - ⑫ PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
 - ⑲ VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
 - ⑳ REPLACE CURB BOX - CONFIRM WORK WITH SPRWS
 - ㉒ FIELD LOCATE MANHOLE LOCATE AND EXPOSE SEWER MANHOLE (PAY AS MACHINE TIME)

Items Required by Project (paid for by MnDOT) under a separate agreement

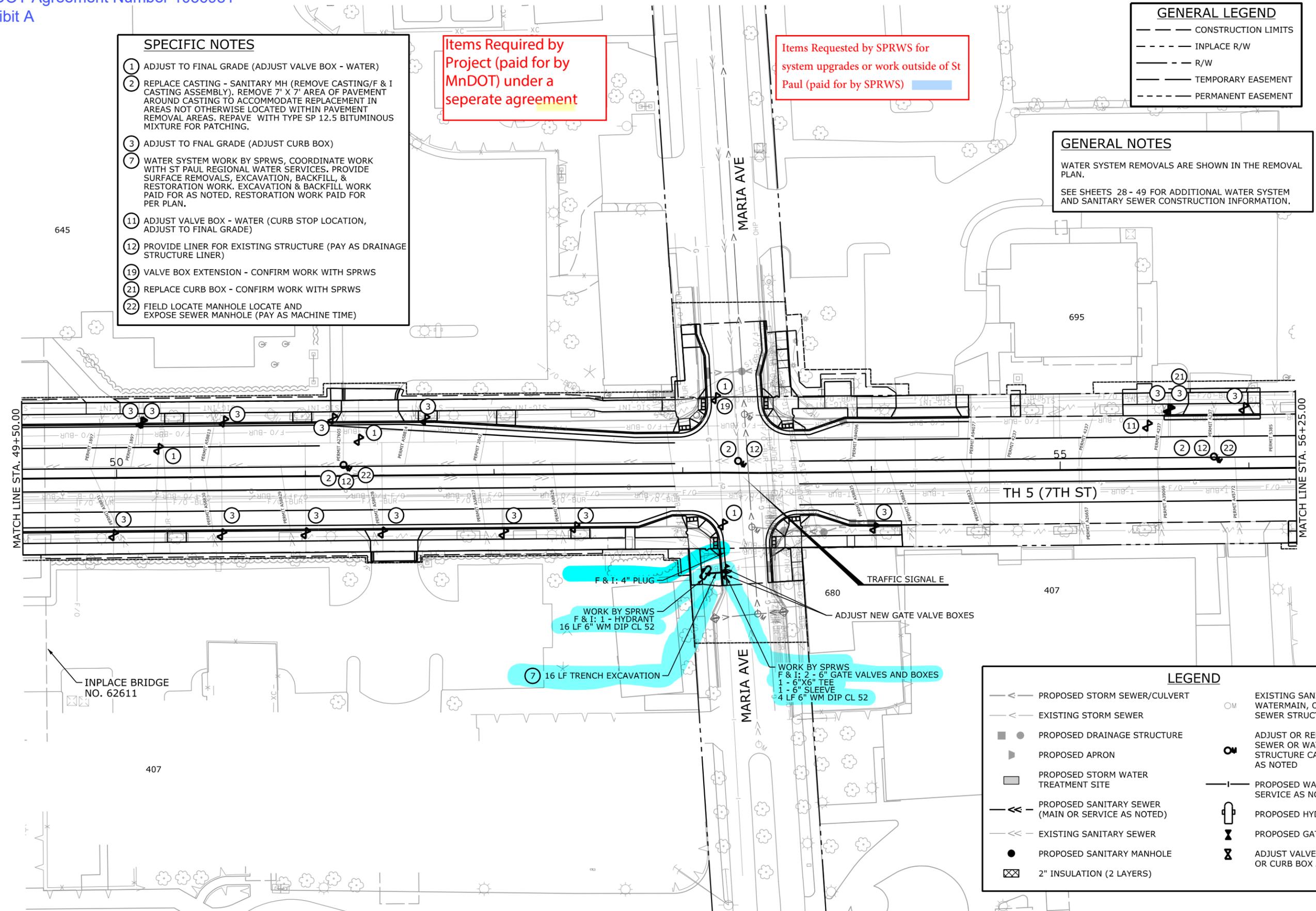
Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)

- GENERAL LEGEND**
- CONSTRUCTION LIMITS
 - - - INPLACE R/W
 - - - R/W
 - TEMPORARY EASEMENT
 - - - PERMANENT EASEMENT

GENERAL NOTES

WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.

SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.



- LEGEND**
- PROPOSED STORM SEWER/CULVERT
 - EXISTING STORM SEWER
 - PROPOSED DRAINAGE STRUCTURE
 - ▶ PROPOSED APRON
 - PROPOSED STORM WATER TREATMENT SITE
 - PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
 - EXISTING SANITARY SEWER
 - PROPOSED SANITARY MANHOLE
 - ⊠ 2" INSULATION (2 LAYERS)
 - EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
 - ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
 - PROPOSED WATERMAIN OR SERVICE AS NOTED
 - ⊠ PROPOSED HYDRANT
 - ⊠ PROPOSED GATE VALVE & BOX
 - ⊠ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

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REV. NO.	DATE	BY	CHK	DESCRIPTION



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Chad J. Seaman
 NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS



SANITARY & WATERMAIN PLAN

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Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)

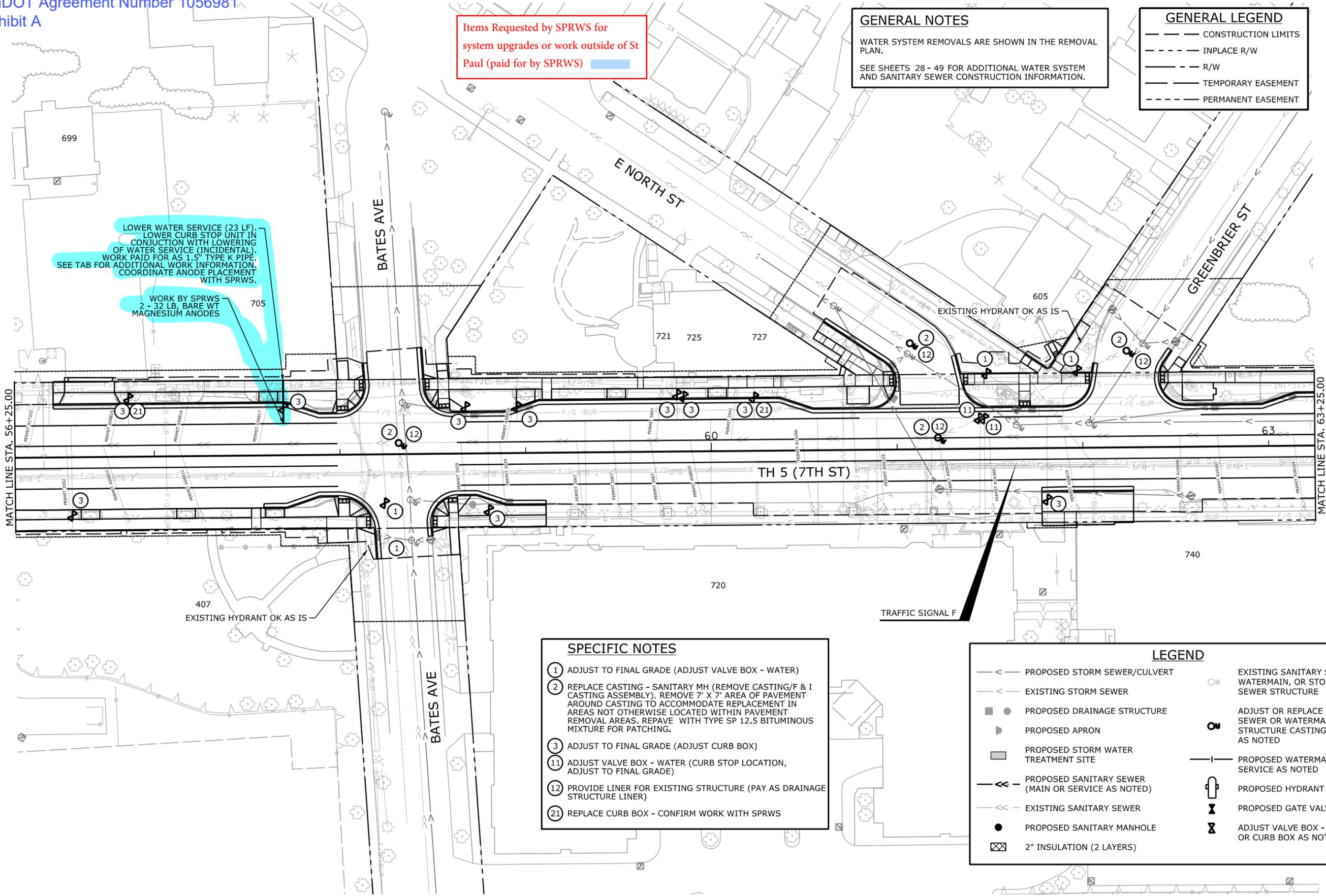
GENERAL NOTES
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LOWER WATER SERVICE (23 LF), LOWER CURB STOP UNIT IN CONJUNCTION WITH LOWERING OF WATER SERVICE (INCIDENTAL). WORK PAID FOR AS 1.5" TYPE K PIPE. SEE TAB FOR ADDITIONAL WORK INFORMATION. COORDINATE ANODE PLACEMENT WITH SPRWS.

WORK BY SPRWS 2 - 32 LB. BARE WT MAGNESIUM ANODES



SPECIFIC NOTES

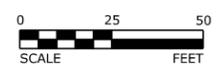
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- 3 ADJUST TO FINAL GRADE (ADJUST CURB BOX)
- 11 ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
- 12 PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
- 21 REPLACE CURB BOX - CONFIRM WORK WITH SPRWS

LEGEND

- PROPOSED STORM SEWER/CULVERT
- EXISTING STORM SEWER
- PROPOSED DRAINAGE STRUCTURE
- ▶ PROPOSED APRON
- PROPOSED STORM WATER TREATMENT SITE
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- PROPOSED WATERMAIN OR SERVICE AS NOTED
- PROPOSED HYDRANT
- ⊗ PROPOSED GATE VALVE & BOX
- ⊗ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

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SANITARY & WATERMAIN PLAN
PLAN PAGE 7 of 34
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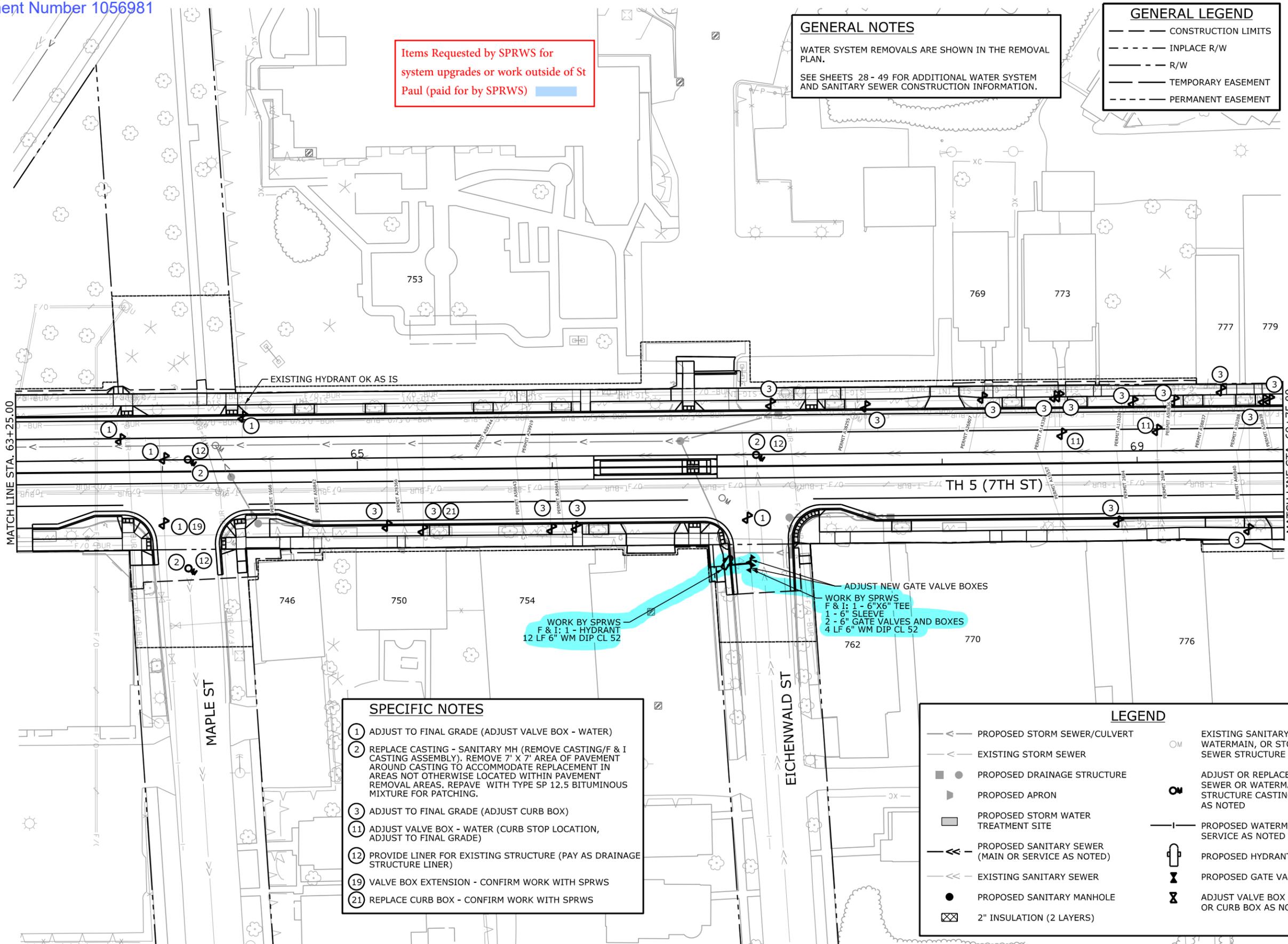
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GENERAL NOTES

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GENERAL LEGEND

- CONSTRUCTION LIMITS
- INPLACE R/W
- R/W
- TEMPORARY EASEMENT
- PERMANENT EASEMENT



SPECIFIC NOTES

- ① ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
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- ⑪ ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
- ⑫ PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
- ⑲ VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
- ⑳ REPLACE CURB BOX - CONFIRM WORK WITH SPRWS

ADJUST NEW GATE VALVE BOXES
WORK BY SPRWS
F & I: 1 - 6"X6" TEE
1 - 6" SLEEVE
2 - 6" GATE VALVES AND BOXES
4 LF 6" WM DIP CL 52

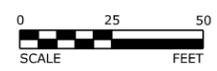
WORK BY SPRWS
F & I: 1 - HYDRANT
12 LF 6" WM DIP CL 52

LEGEND

- PROPOSED STORM SEWER/CULVERT
- EXISTING STORM SEWER
- PROPOSED DRAINAGE STRUCTURE
- ▶ PROPOSED APRON
- PROPOSED STORM WATER TREATMENT SITE
- PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
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- PROPOSED HYDRANT
- ⊠ PROPOSED GATE VALVE & BOX
- ⊠ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

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 DRAWN: BRS
 CHECKED: CJS



SANITARY & WATERMAIN PLAN
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 909

Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)

LEGEND

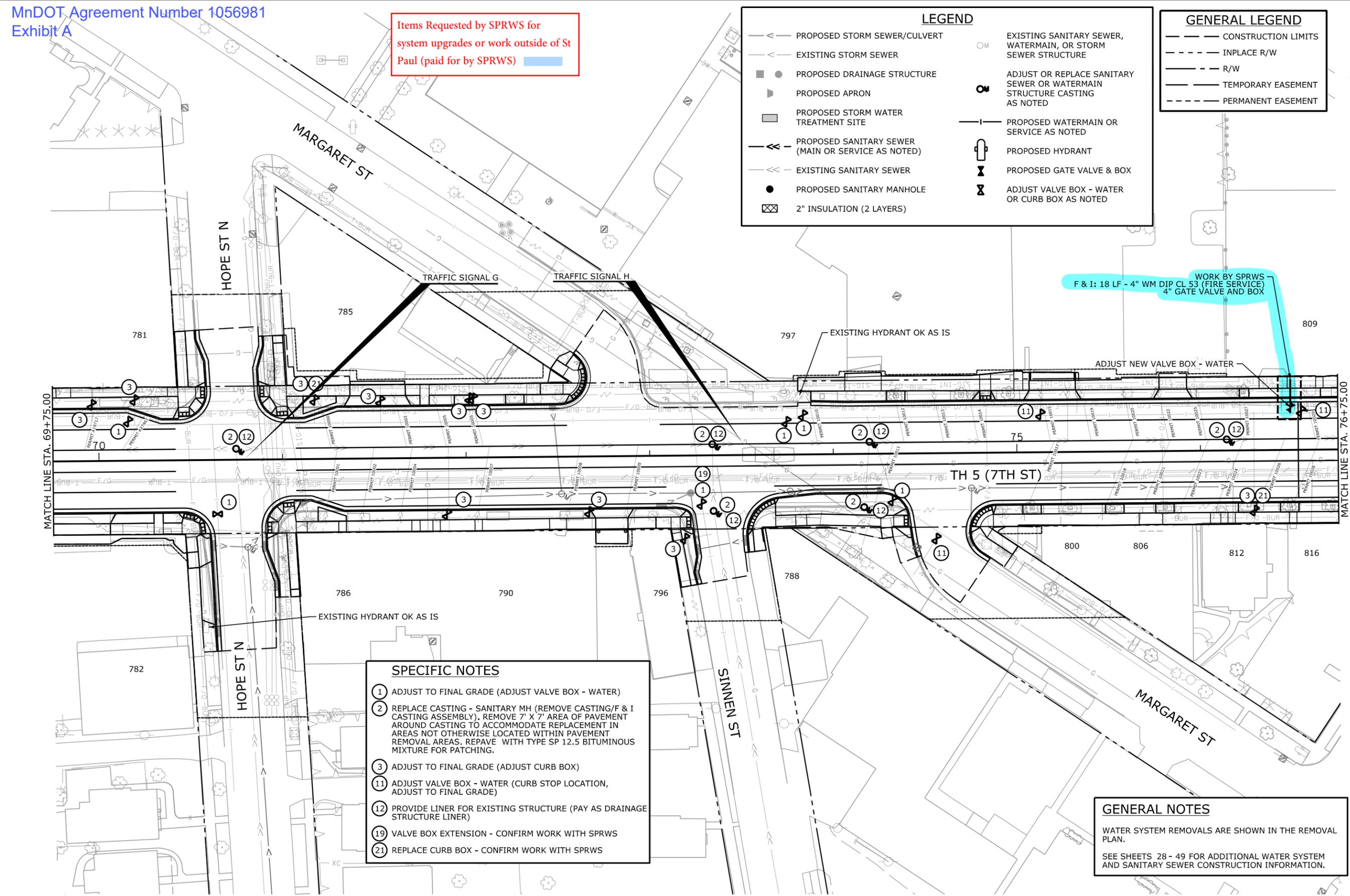
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▶	PROPOSED APRON	⊕	PROPOSED HYDRANT
■	PROPOSED STORM WATER TREATMENT SITE	⊕	PROPOSED GATE VALVE & BOX
—▲—	PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)	⊕	ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED
—▲—	EXISTING SANITARY SEWER		
●	PROPOSED SANITARY MANHOLE		
⊗	2" INSULATION (2 LAYERS)		

GENERAL LEGEND

---	CONSTRUCTION LIMITS
- - -	INPLACE R/W
- - -	R/W
---	TEMPORARY EASEMENT
---	PERMANENT EASEMENT



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WORK BY SPRWS
F & I: 18 LF - 4" WM DIP CL 53 (FIRE SERVICE)
4" GATE VALVE AND BOX

SPECIFIC NOTES

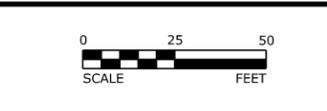
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- 21 REPLACE CURB BOX - CONFIRM WORK WITH SPRWS

GENERAL NOTES

WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.

SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

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Chad J. Seaman
NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
DRAWN: BRS
CHECKED: CJS



SANITARY & WATERMAIN PLAN
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Items Required by Project (paid for by MnDOT) under a separate agreement.

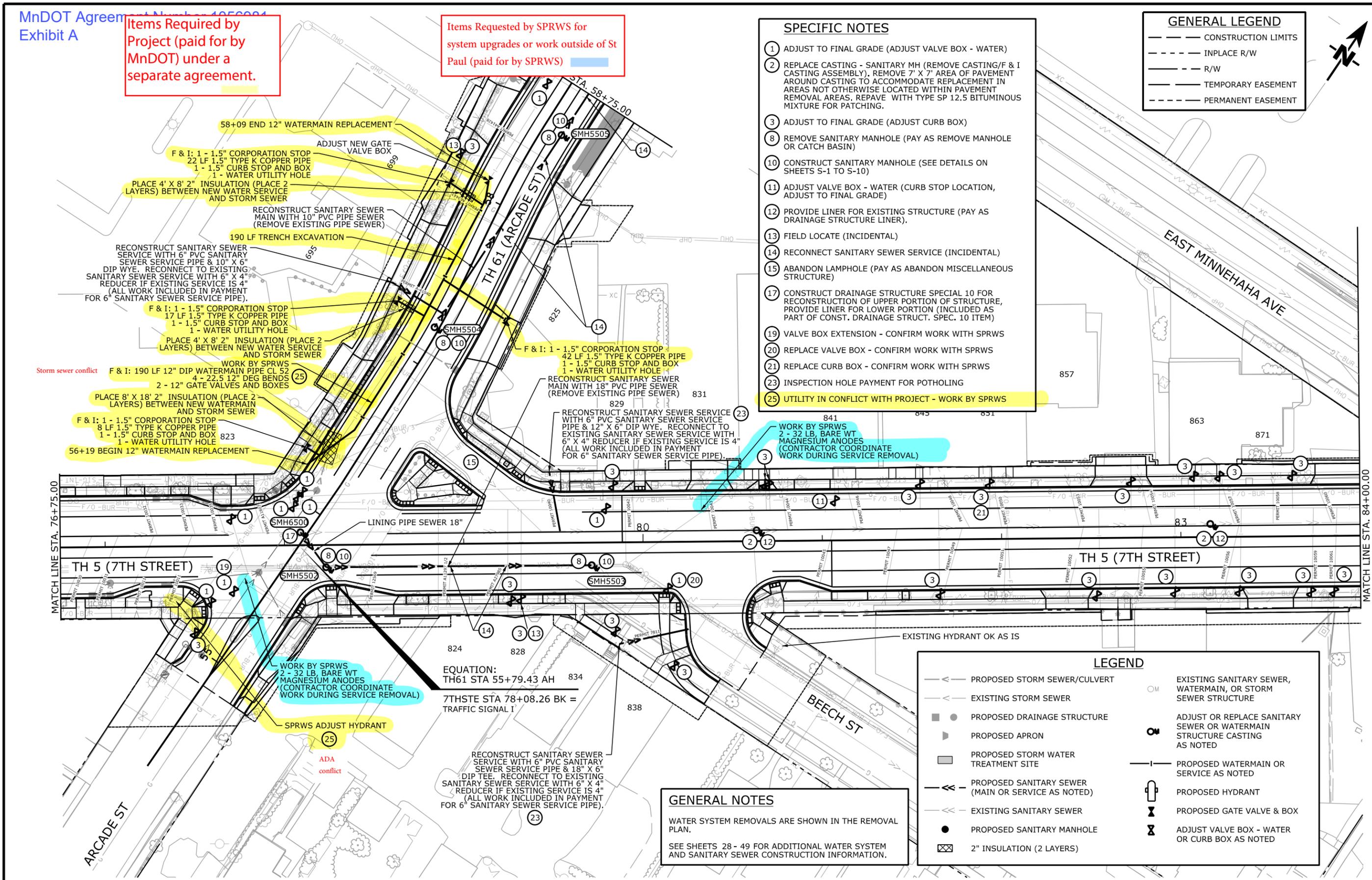
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 - ADJUST TO FINAL GRADE (ADJUST CURB BOX)
 - REMOVE SANITARY MANHOLE (PAY AS REMOVE MANHOLE OR CATCH BASIN)
 - CONSTRUCT SANITARY MANHOLE (SEE DETAILS ON SHEETS S-1 TO S-10)
 - ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
 - PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER).
 - FIELD LOCATE (INCIDENTAL)
 - RECONNECT SANITARY SEWER SERVICE (INCIDENTAL)
 - ABANDON LAMPHOLE (PAY AS ABANDON MISCELLANEOUS STRUCTURE)
 - CONSTRUCT DRAINAGE STRUCTURE SPECIAL 10 FOR RECONSTRUCTION OF UPPER PORTION OF STRUCTURE, PROVIDE LINER FOR LOWER PORTION (INCLUDED AS PART OF CONST. DRAINAGE STRUCT. SPEC. 10 ITEM)
 - VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
 - REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
 - REPLACE CURB BOX - CONFIRM WORK WITH SPRWS
 - INSPECTION HOLE PAYMENT FOR POTHOLING
 - UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

- ### GENERAL LEGEND
- CONSTRUCTION LIMITS
 - INPLACE R/W
 - R/W
 - TEMPORARY EASEMENT
 - PERMANENT EASEMENT



MODEL: 10 - Sanitary and Watermain Plan
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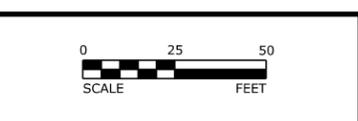
GENERAL NOTES

WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.

SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

- ### LEGEND
- PROPOSED STORM SEWER/CULVERT
 - EXISTING STORM SEWER
 - PROPOSED DRAINAGE STRUCTURE
 - PROPOSED APRON
 - PROPOSED STORM WATER TREATMENT SITE
 - PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
 - EXISTING SANITARY SEWER
 - PROPOSED SANITARY MANHOLE
 - 2" INSULATION (2 LAYERS)
 - EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
 - ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
 - PROPOSED WATERMAIN OR SERVICE AS NOTED
 - PROPOSED HYDRANT
 - PROPOSED GATE VALVE & BOX
 - ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

REV. NO.	DATE	BY	CHK	DESCRIPTION



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DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS

NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024



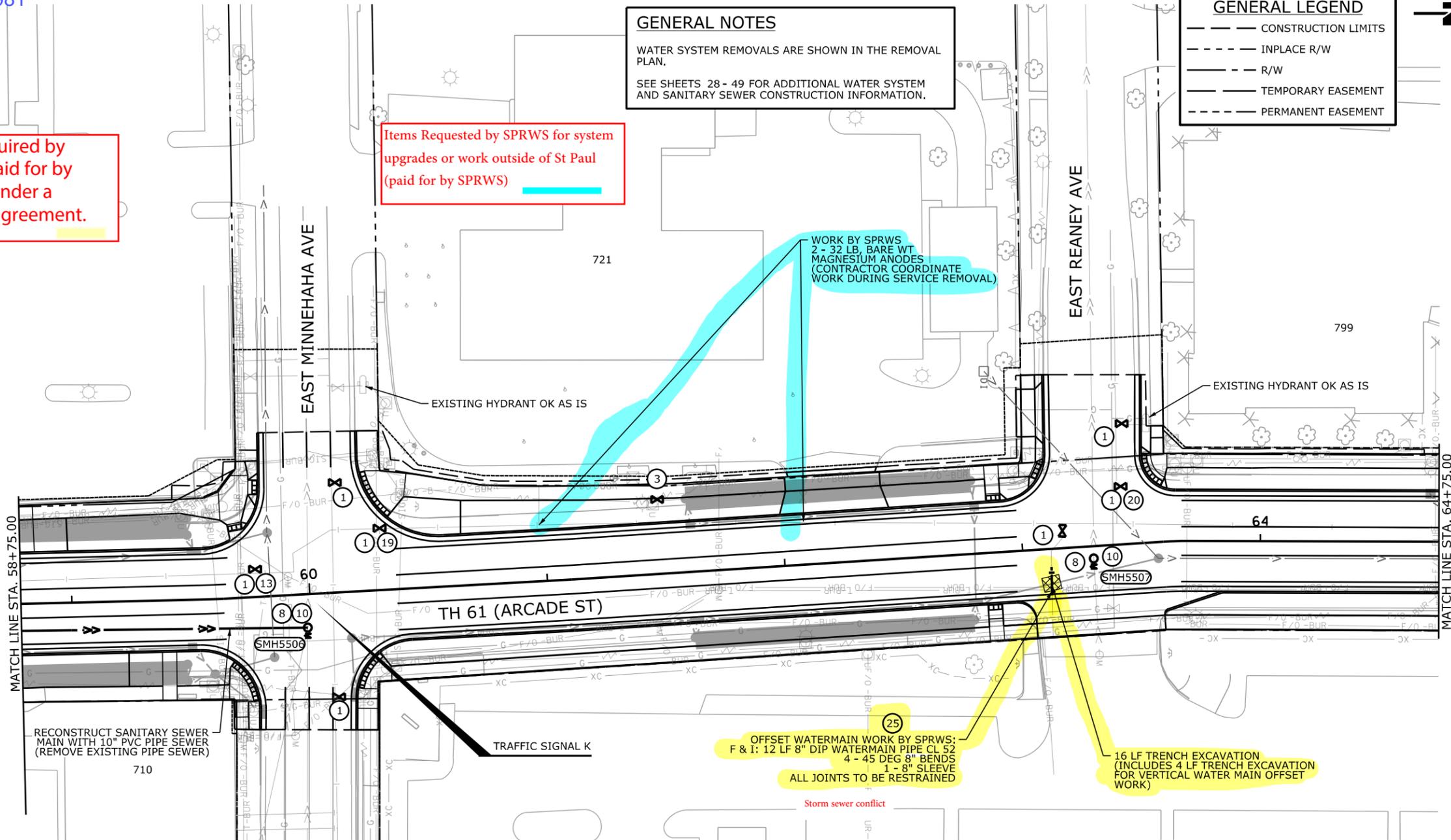
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Items Required by Project (paid for by MnDOT) under a separate agreement.

Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)

GENERAL NOTES
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

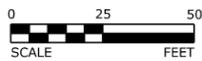
GENERAL LEGEND
--- CONSTRUCTION LIMITS
--- INPLACE R/W
--- R/W
--- TEMPORARY EASEMENT
--- PERMANENT EASEMENT



- SPECIFIC NOTES**
- ① ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - ③ ADJUST TO FINAL GRADE (ADJUST CURB BOX)
 - ⑧ REMOVE SANITARY MANHOLE (PAY AS REMOVE MANHOLE OR CATCH BASIN)
 - ⑩ CONSTRUCT SANITARY MANHOLE (SEE DETAILS ON SHEETS S-1 TO S-10)
 - ⑬ FIELD LOCATE (INCIDENTAL)
 - ⑰ VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
 - ⑳ REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
 - ㉕ UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

- LEGEND**
- ▲— PROPOSED STORM SEWER/CULVERT
 - ▲— EXISTING STORM SEWER
 - PROPOSED DRAINAGE STRUCTURE
 - ▶ PROPOSED APRON
 - PROPOSED STORM WATER TREATMENT SITE
 - ▲— PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
 - ▲— EXISTING SANITARY SEWER
 - PROPOSED SANITARY MANHOLE
 - ☒ 2" INSULATION (2 LAYERS)
 - M EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
 - ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
 - |— PROPOSED WATERMAIN OR SERVICE AS NOTED
 - ⊕ PROPOSED HYDRANT
 - ⊗ PROPOSED GATE VALVE & BOX
 - ⊗ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

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Chad J. Seaman
NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
DRAWN: BRS
CHECKED: CJS



SANITARY & WATERMAIN PLAN
PLAN PAGE 13 of 34
SP 6221-107, SP 6228-69,
SP 062-627-007, SP 164-010-089, SP 138-010-023

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SPECIFIC NOTES

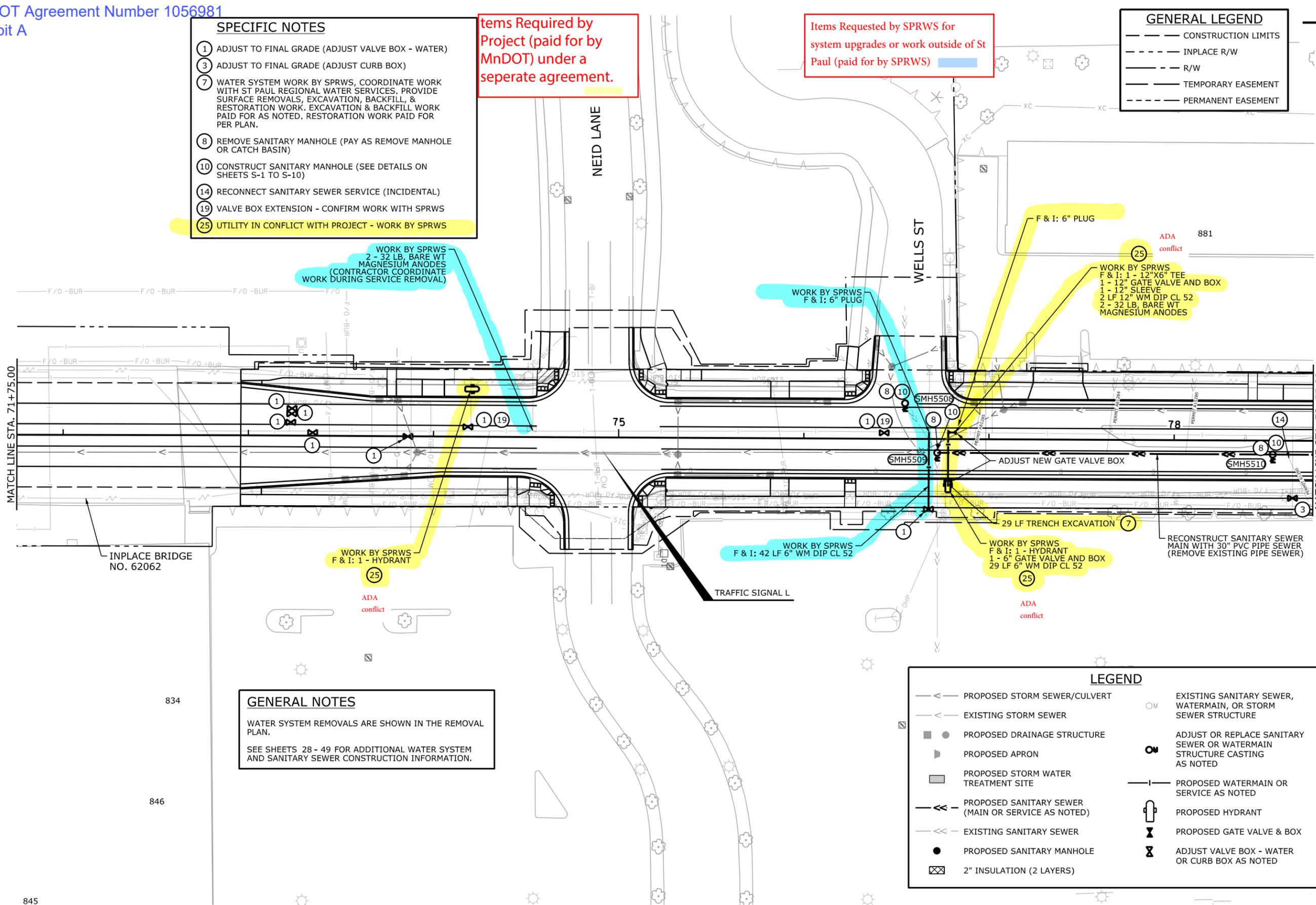
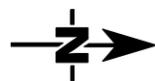
- ① ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
- ③ ADJUST TO FINAL GRADE (ADJUST CURB BOX)
- ⑦ WATER SYSTEM WORK BY SPRWS, COORDINATE WORK WITH ST PAUL REGIONAL WATER SERVICES, PROVIDE SURFACE REMOVALS, EXCAVATION, BACKFILL, & RESTORATION WORK. EXCAVATION & BACKFILL WORK PAID FOR AS NOTED. RESTORATION WORK PAID FOR PER PLAN.
- ⑧ REMOVE SANITARY MANHOLE (PAY AS REMOVE MANHOLE OR CATCH BASIN)
- ⑩ CONSTRUCT SANITARY MANHOLE (SEE DETAILS ON SHEETS S-1 TO S-10)
- ⑭ RECONNECT SANITARY SEWER SERVICE (INCIDENTAL)
- ⑰ VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
- ⑳ UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

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GENERAL LEGEND

---	CONSTRUCTION LIMITS
- - -	INPLACE R/W
- · - · -	R/W
---	TEMPORARY EASEMENT
- - -	PERMANENT EASEMENT



GENERAL NOTES

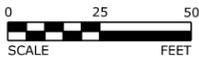
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

LEGEND

— < —	PROPOSED STORM SEWER/CULVERT	○ M	EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
— < —	EXISTING STORM SEWER	○ M	ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
■ ●	PROPOSED DRAINAGE STRUCTURE	— —	PROPOSED WATERMAIN OR SERVICE AS NOTED
▶	PROPOSED APRON	□	PROPOSED HYDRANT
■	PROPOSED STORM WATER TREATMENT SITE	⊗	PROPOSED GATE VALVE & BOX
— < —	PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)	⊗	ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED
— < —	EXISTING SANITARY SEWER	●	PROPOSED SANITARY MANHOLE
●	PROPOSED SANITARY MANHOLE	⊗	2" INSULATION (2 LAYERS)

MODEL: 15 - Sanitary and Watermain Plan
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Chad J. Seaman
 NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
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 CHECKED: CJS



SANITARY & WATERMAIN PLAN
 PLAN PAGE 15 of 34
 SP 6221-107, SP 6228-69,
 SP 062-627-007, SP 164-010-089, SP 138-010-023

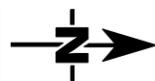
SHEET
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OF
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GENERAL NOTES

WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

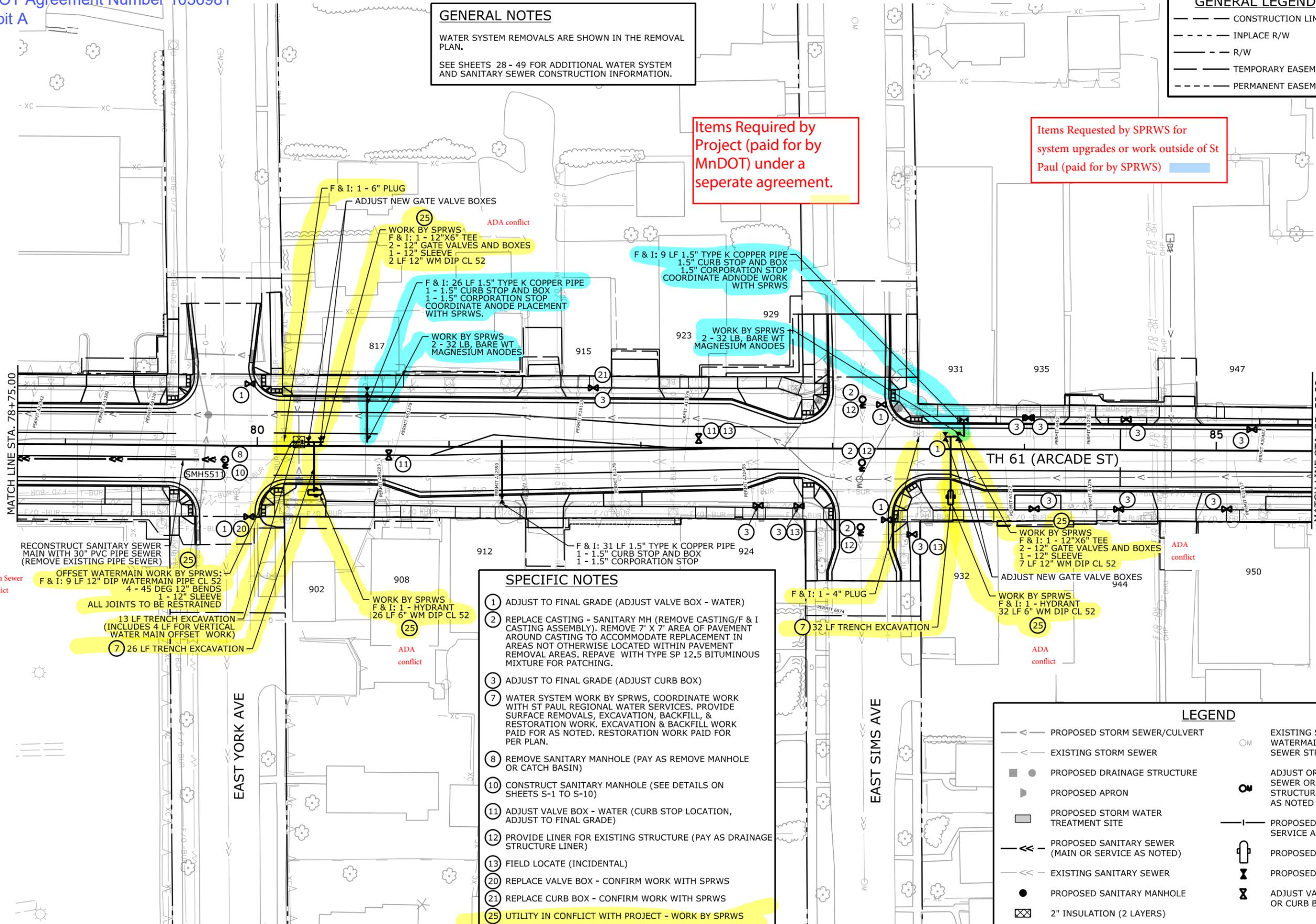
GENERAL LEGEND

- CONSTRUCTION LIMITS
- INPLACE R/W
- R/W
- TEMPORARY EASEMENT
- PERMANENT EASEMENT



Items Required by Project (paid for by MnDOT) under a separate agreement.

Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)



SPECIFIC NOTES

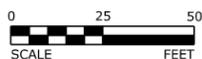
- 1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
- 2 REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
- 3 ADJUST TO FINAL GRADE (ADJUST CURB BOX)
- 7 WATER SYSTEM WORK BY SPRWS, COORDINATE WORK WITH ST PAUL REGIONAL WATER SERVICES. PROVIDE SURFACE REMOVALS, EXCAVATION, BACKFILL, & RESTORATION WORK. EXCAVATION & BACKFILL WORK PAID FOR AS NOTED. RESTORATION WORK PAID FOR PER PLAN.
- 8 REMOVE SANITARY MANHOLE (PAY AS REMOVE MANHOLE OR CATCH BASIN)
- 10 CONSTRUCT SANITARY MANHOLE (SEE DETAILS ON SHEETS S-1 TO S-10)
- 11 ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
- 12 PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
- 13 FIELD LOCATE (INCIDENTAL)
- 20 REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
- 21 REPLACE CURB BOX - CONFIRM WORK WITH SPRWS
- 25 UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

LEGEND

- PROPOSED STORM SEWER/CULVERT
- EXISTING STORM SEWER
- PROPOSED DRAINAGE STRUCTURE
- ▲ PROPOSED APRON
- PROPOSED STORM WATER TREATMENT SITE
- PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
- EXISTING SANITARY SEWER
- PROPOSED SANITARY MANHOLE
- ☒ 2" INSULATION (2 LAYERS)
- EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
- ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
- PROPOSED WATERMAIN OR SERVICE AS NOTED
- ☒ PROPOSED HYDRANT
- ☒ PROPOSED GATE VALVE & BOX
- ☒ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

MODEL: 16 - Sanitary and Watermain Plan
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Chad J. Seaman
 NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS



SANITARY & WATERMAIN PLAN
 PLAN PAGE 16 of 34
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 SP 062-627-007, SP 164-010-089, SP 138-010-023

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 909



- ### SPECIFIC NOTES
- ① ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - ② REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
 - ③ ADJUST TO FINAL GRADE (ADJUST CURB BOX)
 - ⑦ WATER SYSTEM WORK BY SPRWS, COORDINATE WORK WITH ST PAUL REGIONAL WATER SERVICES. PROVIDE SURFACE REMOVALS, EXCAVATION, BACKFILL, & RESTORATION WORK. EXCAVATION & BACKFILL WORK PAID FOR AS NOTED. RESTORATION WORK PAID FOR PER PLAN.
 - ⑪ ADJUST VALVE BOX - WATER (CURB STOP LOCATION)
 - ⑫ PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
 - ⑬ FIELD LOCATE (INCIDENTAL)
 - ⑰ VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
 - ⑳ REPLACE CURB BOX - CONFIRM WORK WITH SPRWS
 - ㉓ INSPECTION HOLE PAYMENT FOR POTHOLING
 - ㉕ UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

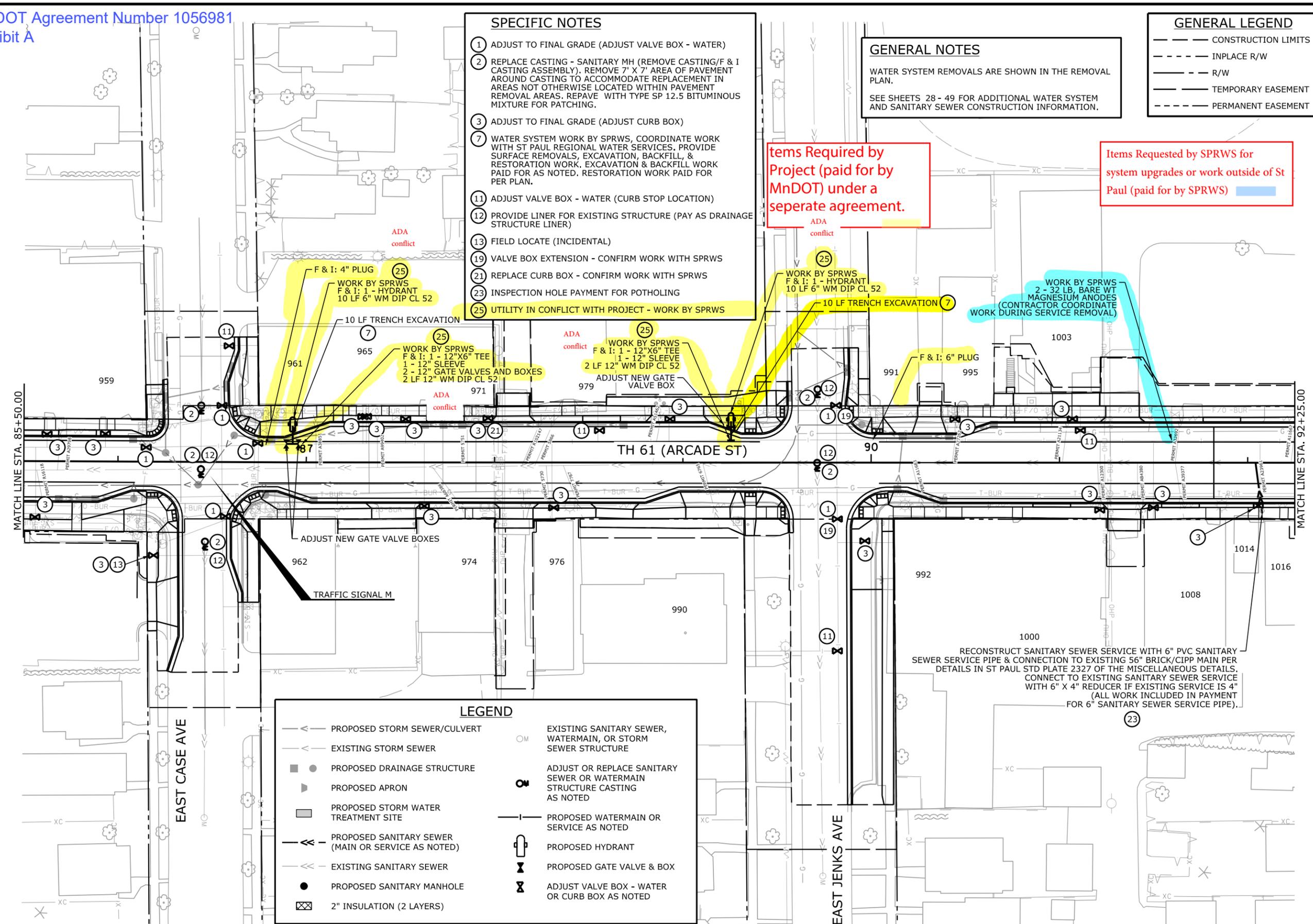
GENERAL NOTES

WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

- ### GENERAL LEGEND
- CONSTRUCTION LIMITS
 - - - INPLACE R/W
 - - - R/W
 - - - TEMPORARY EASEMENT
 - - - PERMANENT EASEMENT

Items Required by Project (paid for by MnDOT) under a separate agreement.

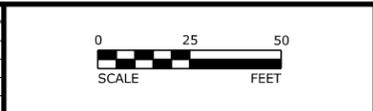
Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)



- ### LEGEND
- | | |
|--|--|
| —▲— PROPOSED STORM SEWER/CULVERT | ○ M EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE |
| —▲— EXISTING STORM SEWER | ○ ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED |
| ■ PROPOSED DRAINAGE STRUCTURE | — — PROPOSED WATERMAIN OR SERVICE AS NOTED |
| ▲ PROPOSED APRON | ○ PROPOSED HYDRANT |
| ■ PROPOSED STORM WATER TREATMENT SITE | ⊗ PROPOSED GATE VALVE & BOX |
| —▲— PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED) | ⊗ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED |
| —▲— EXISTING SANITARY SEWER | |
| ● PROPOSED SANITARY MANHOLE | |
| ⊗ 2" INSULATION (2 LAYERS) | |

MODEL: 17 - Sanitary and Watermain Plan
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REV. NO.	DATE	BY	CHK	DESCRIPTION



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SANITARY & WATERMAIN PLAN
 PLAN PAGE 17 of 34
 SP 6221-107, SP 6228-69,
 SP 062-627-007, SP 164-010-089, SP 138-010-023

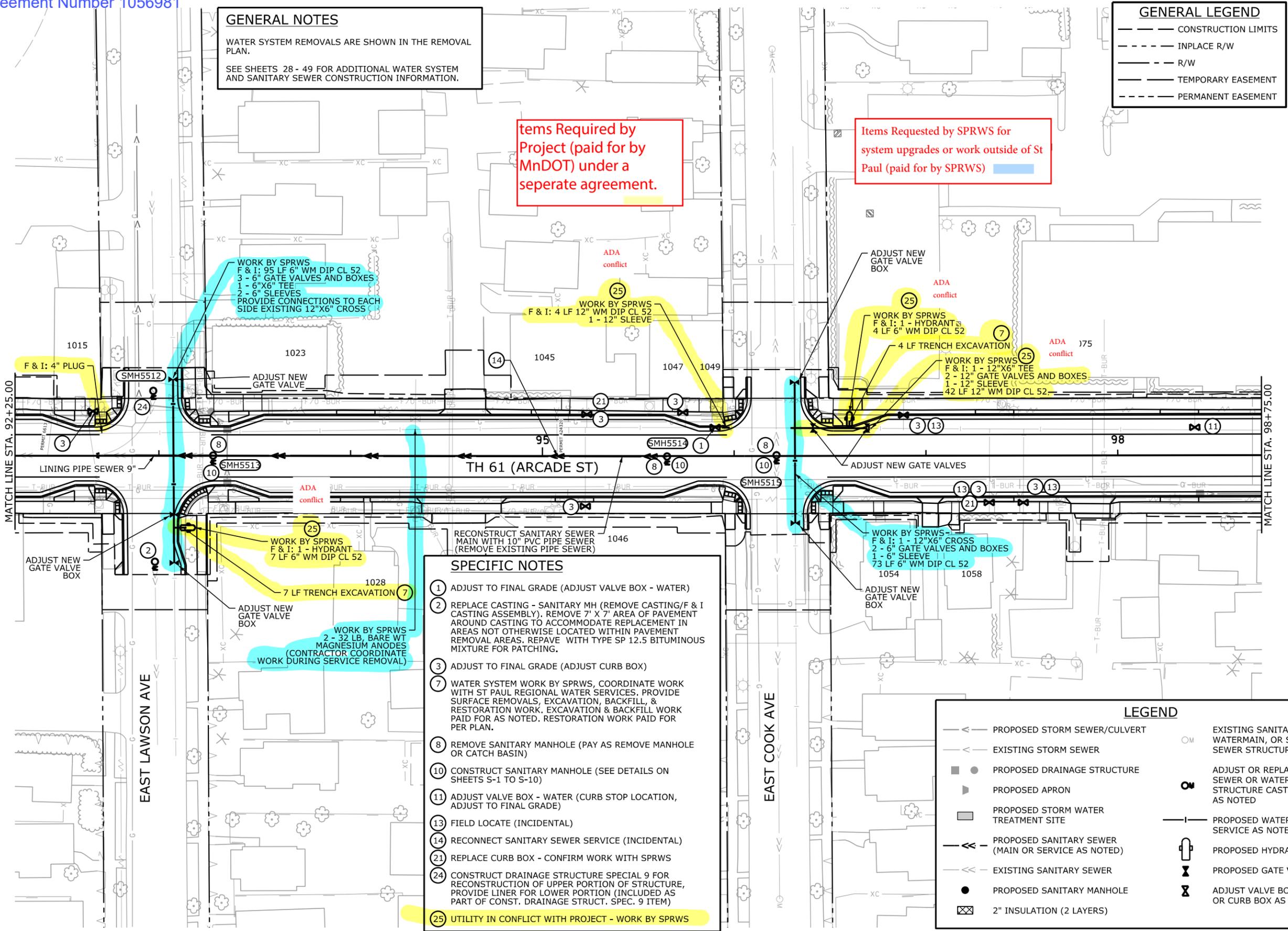
SHEET
 684
 OF
 909

GENERAL NOTES
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

GENERAL LEGEND
 - - - CONSTRUCTION LIMITS
 - - - INPLACE R/W
 - - - R/W
 - - - TEMPORARY EASEMENT
 - - - PERMANENT EASEMENT

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- SPECIFIC NOTES**
- 1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - 2 REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
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 - 8 REMOVE SANITARY MANHOLE (PAY AS REMOVE MANHOLE OR CATCH BASIN)
 - 10 CONSTRUCT SANITARY MANHOLE (SEE DETAILS ON SHEETS S-1 TO S-10)
 - 11 ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
 - 13 FIELD LOCATE (INCIDENTAL)
 - 14 RECONNECT SANITARY SEWER SERVICE (INCIDENTAL)
 - 21 REPLACE CURB BOX - CONFIRM WORK WITH SPRWS
 - 24 CONSTRUCT DRAINAGE STRUCTURE SPECIAL 9 FOR RECONSTRUCTION OF UPPER PORTION OF STRUCTURE, PROVIDE LINER FOR LOWER PORTION (INCLUDED AS PART OF CONST. DRAINAGE STRUCT. SPEC. 9 ITEM)
 - 25 UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

LEGEND

—<—	PROPOSED STORM SEWER/CULVERT	○	EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
—<—	EXISTING STORM SEWER	○	ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
■	PROPOSED DRAINAGE STRUCTURE	○	PROPOSED WATERMAIN OR SERVICE AS NOTED
▶	PROPOSED APRON	⊕	PROPOSED HYDRANT
■	PROPOSED STORM WATER TREATMENT SITE	⊕	PROPOSED GATE VALVE & BOX
—<—	PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)	⊕	ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED
—<—	EXISTING SANITARY SEWER	⊕	
●	PROPOSED SANITARY MANHOLE	⊕	
⊠	2" INSULATION (2 LAYERS)		

MODEL: 18 - Sanitary and Watermain Plan
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DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS

NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024



GENERAL LEGEND

- CONSTRUCTION LIMITS
- - - INPLACE R/W
- R/W
- TEMPORARY EASEMENT
- PERMANENT EASEMENT



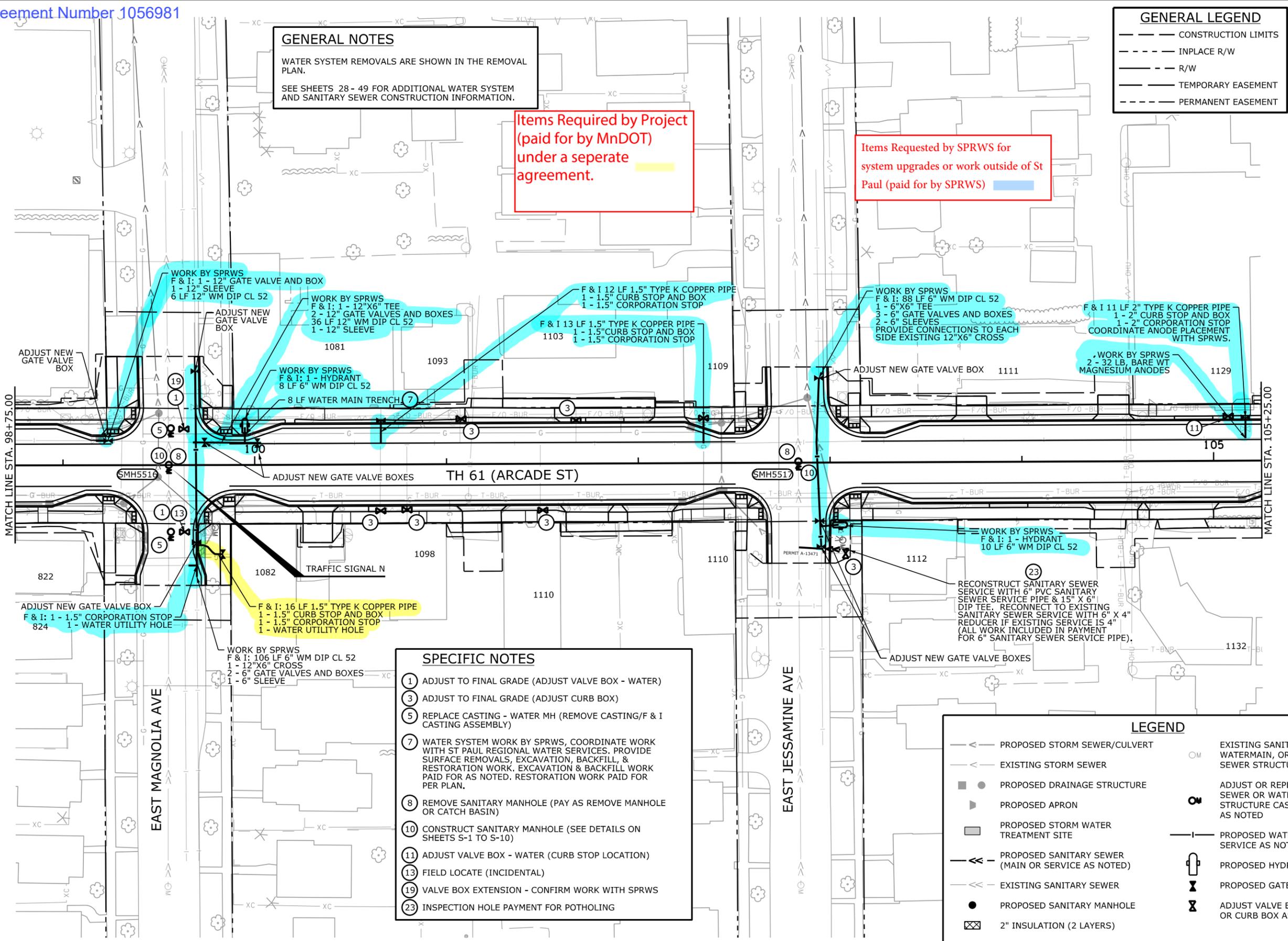
GENERAL NOTES

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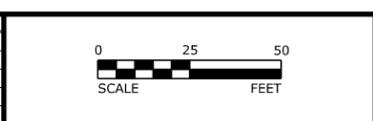
- SPECIFIC NOTES**
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 - 3 ADJUST TO FINAL GRADE (ADJUST CURB BOX)
 - 5 REPLACE CASTING - WATER MH (REMOVE CASTING/F & I CASTING ASSEMBLY)
 - 7 WATER SYSTEM WORK BY SPRWS, COORDINATE WORK WITH ST PAUL REGIONAL WATER SERVICES. PROVIDE SURFACE REMOVALS, EXCAVATION, BACKFILL, & RESTORATION WORK. EXCAVATION & BACKFILL WORK PAID FOR AS NOTED. RESTORATION WORK PAID FOR PER PLAN.
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 - 13 FIELD LOCATE (INCIDENTAL)
 - 19 VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
 - 23 INSPECTION HOLE PAYMENT FOR POTHOLING

LEGEND

- PROPOSED STORM SEWER/CULVERT
- EXISTING STORM SEWER
- PROPOSED DRAINAGE STRUCTURE
- ▶ PROPOSED APRON
- PROPOSED STORM WATER TREATMENT SITE
- PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
- EXISTING SANITARY SEWER
- PROPOSED SANITARY MANHOLE
- ☒ 2" INSULATION (2 LAYERS)
- EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
- ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
- PROPOSED WATERMAIN OR SERVICE AS NOTED
- ⊕ PROPOSED HYDRANT
- ⊗ PROPOSED GATE VALVE & BOX
- ⊗ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

MODEL: 19 - Sanitary and Watermain Plan
 USER: bspanier
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 PLOT DATE: 6/20/2024 3:30:47 PM

REV. NO.	DATE	BY	CHK	DESCRIPTION



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Chad J. Seaman
 NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS



SANITARY & WATERMAIN PLAN

PLAN PAGE 19 of 34

SP 6221-107, SP 6228-69, SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET 686 OF 909



GENERAL NOTES

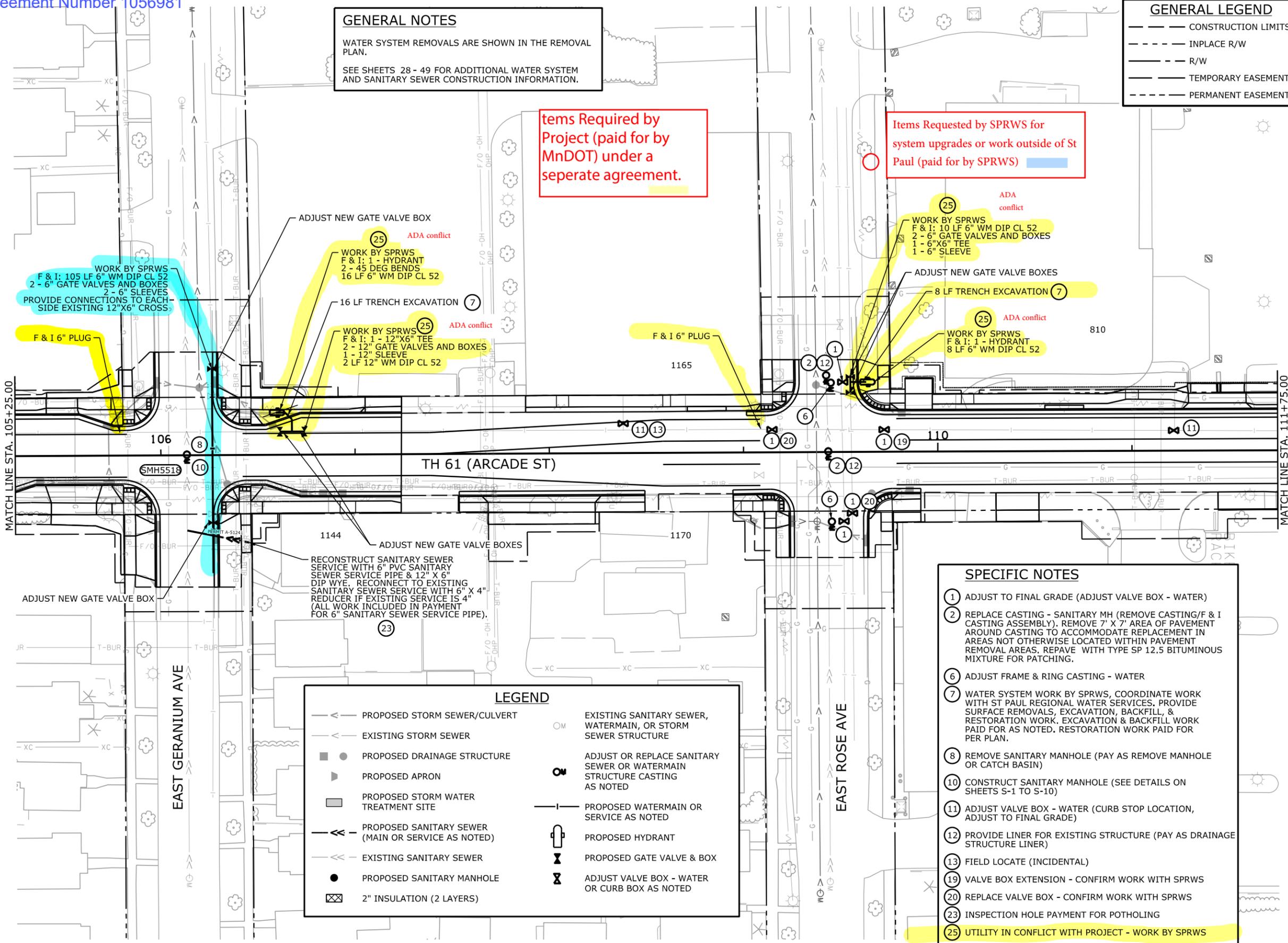
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

GENERAL LEGEND

- CONSTRUCTION LIMITS
- INPLACE R/W
- R/W
- TEMPORARY EASEMENT
- PERMANENT EASEMENT

Items Required by Project (paid for by MnDOT) under a separate agreement.

Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)



LEGEND

—▲— PROPOSED STORM SEWER/CULVERT	○M EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
—▲— EXISTING STORM SEWER	○ ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
■ PROPOSED DRAINAGE STRUCTURE	— — PROPOSED WATERMAIN OR SERVICE AS NOTED
▶ PROPOSED APRON	☪ PROPOSED HYDRANT
▭ PROPOSED STORM WATER TREATMENT SITE	☒ PROPOSED GATE VALVE & BOX
—▲— PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)	☒ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED
—▲— EXISTING SANITARY SEWER	
● PROPOSED SANITARY MANHOLE	
☒ 2" INSULATION (2 LAYERS)	

SPECIFIC NOTES

- 1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
- 2 REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
- 6 ADJUST FRAME & RING CASTING - WATER
- 7 WATER SYSTEM WORK BY SPRWS, COORDINATE WORK WITH ST PAUL REGIONAL WATER SERVICES. PROVIDE SURFACE REMOVALS, EXCAVATION, BACKFILL, & RESTORATION WORK. EXCAVATION & BACKFILL WORK PAID FOR AS NOTED. RESTORATION WORK PAID FOR PER PLAN.
- 8 REMOVE SANITARY MANHOLE (PAY AS REMOVE MANHOLE OR CATCH BASIN)
- 10 CONSTRUCT SANITARY MANHOLE (SEE DETAILS ON SHEETS S-1 TO S-10)
- 11 ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
- 12 PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
- 13 FIELD LOCATE (INCIDENTAL)
- 19 VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
- 20 REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
- 23 INSPECTION HOLE PAYMENT FOR POTHOLING
- 25 UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

MODEL: 20 - Sanitary and Watermain Plan
 USER: bspanier
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NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS



SANITARY & WATERMAIN PLAN

PLAN PAGE 20 of 34

SP 6221-107, SP 6228-69, SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET 687 OF 909

GENERAL LEGEND

- CONSTRUCTION LIMITS
- INPLACE R/W
- R/W
- TEMPORARY EASEMENT
- PERMANENT EASEMENT



SPECIFIC NOTES

- 1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
- 2 REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
- 3 ADJUST TO FINAL GRADE (ADJUST CURB BOX)
- 8 REMOVE SANITARY MANHOLE (PAY AS REMOVE MANHOLE OR CATCH BASIN)
- 10 CONSTRUCT SANITARY MANHOLE (SEE DETAILS ON SHEETS S-1 TO S-10)
- 11 ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
- 12 PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
- 13 FIELD LOCATE (INCIDENTAL)
- 14 RECONNECT SANITARY SEWER SERVICE (INCIDENTAL)
- 19 VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
- 20 REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
- 21 REPLACE CURB BOX - CONFIRM WORK WITH SPRWS

Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)

WORK BY SPRWS
F & I: 64 LF 6" WM DIP CL 52
2 - 6" GATE VALVES AND BOXES
2 - 6" SLEEVES
PROVIDE CONNECTIONS TO EACH SIDE EXISTING 12"X6" CROSS

1232
WORK BY SPRWS
F & I: 1 - 12" GATE VALVE AND BOX
2 LF 12" WM DIP CL 52
1 - 12" SLEEVE

1226
WORK BY SPRWS
F & I: 1 - 12" GATE VALVE AND BOX
2 LF 12" WM DIP CL 52
1 - 12" SLEEVE

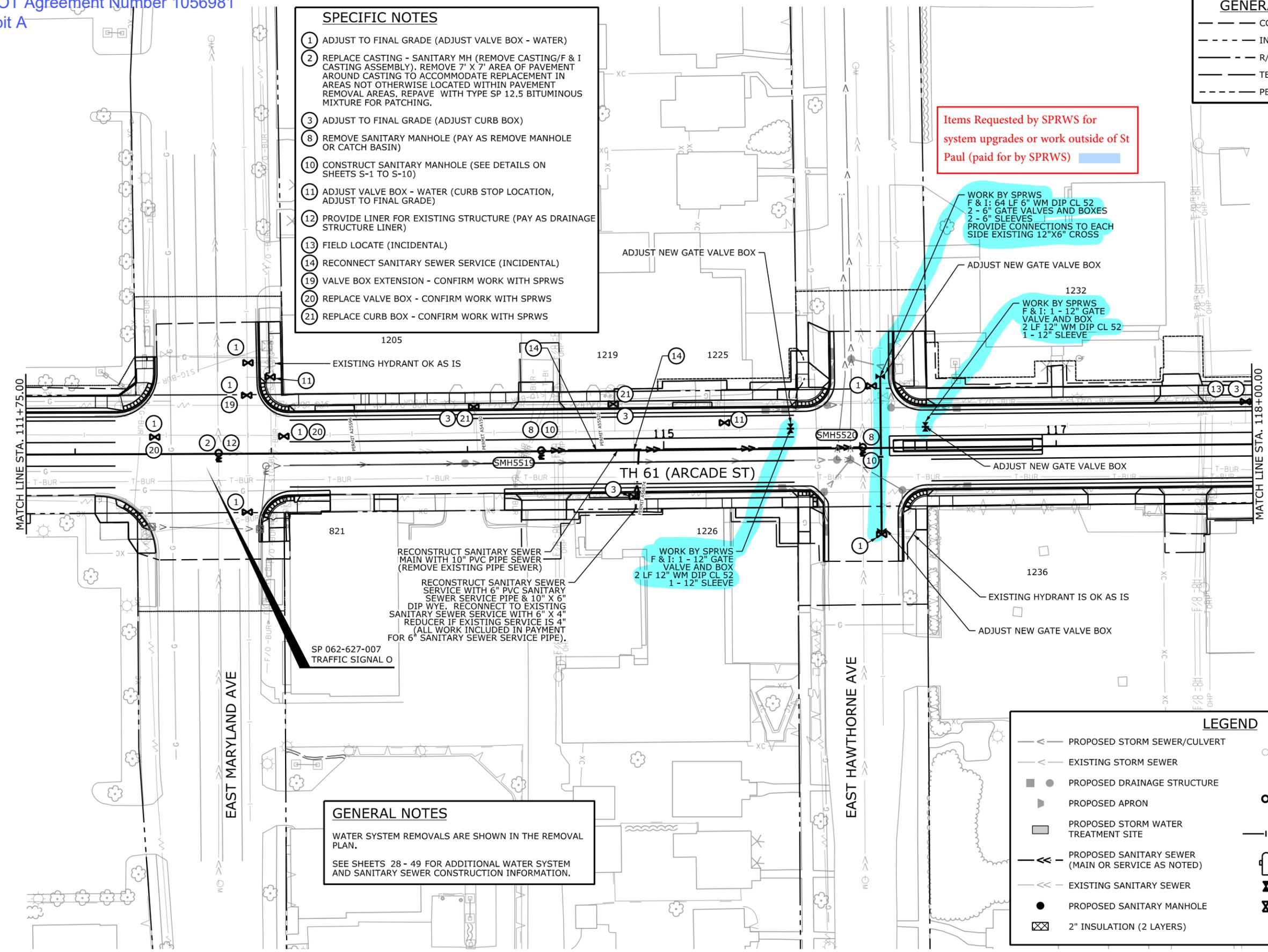
RECONSTRUCT SANITARY SEWER MAIN WITH 10" PVC PIPE SEWER (REMOVE EXISTING PIPE SEWER)
RECONSTRUCT SANITARY SEWER SERVICE WITH 6" PVC SANITARY SEWER SERVICE PIPE & 10" X 6" DIP WYE. RECONNECT TO EXISTING SANITARY SEWER SERVICE WITH 6" X 4" REDUCER IF EXISTING SERVICE IS 4" (ALL WORK INCLUDED IN PAYMENT FOR 6" SANITARY SEWER SERVICE PIPE).

GENERAL NOTES

WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

LEGEND

- PROPOSED STORM SEWER/CULVERT
- EXISTING STORM SEWER
- PROPOSED DRAINAGE STRUCTURE
- ▲ PROPOSED APRON
- PROPOSED STORM WATER TREATMENT SITE
- PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
- EXISTING SANITARY SEWER
- PROPOSED SANITARY MANHOLE
- ⊠ 2" INSULATION (2 LAYERS)
- EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
- ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
- PROPOSED WATERMAIN OR SERVICE AS NOTED
- ⊠ PROPOSED HYDRANT
- ⊠ PROPOSED GATE VALVE & BOX
- ⊠ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED



MODEL: 21 - Sanitary and Watermain Plan
 USER: bspanier
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Chad J. Seaman
NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
DRAWN: BRS
CHECKED: CJS



SANITARY & WATERMAIN PLAN

PLAN PAGE 21 of 34

SP 6221-107, SP 6228-69, SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET 688 OF 909

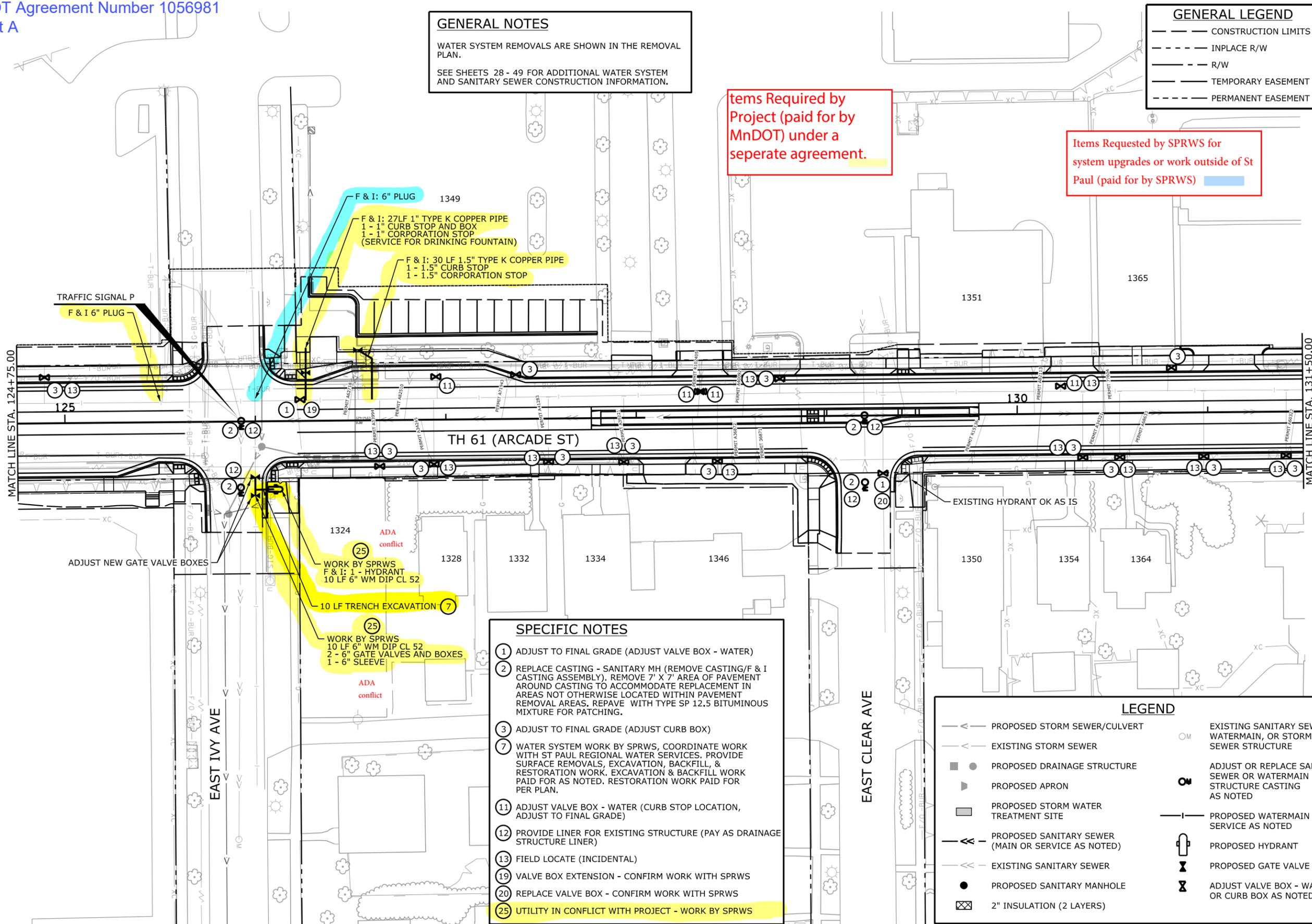
GENERAL NOTES
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

GENERAL LEGEND
--- CONSTRUCTION LIMITS
- - - INPLACE R/W
- - - R/W
--- TEMPORARY EASEMENT
- - - PERMANENT EASEMENT



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Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)



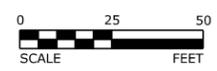
- SPECIFIC NOTES**
- ① ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - ② REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
 - ③ ADJUST TO FINAL GRADE (ADJUST CURB BOX)
 - ⑦ WATER SYSTEM WORK BY SPRWS, COORDINATE WORK WITH ST PAUL REGIONAL WATER SERVICES. PROVIDE SURFACE REMOVALS, EXCAVATION, BACKFILL, & RESTORATION WORK. EXCAVATION & BACKFILL WORK PAID FOR AS NOTED. RESTORATION WORK PAID FOR PER PLAN.
 - ⑪ ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
 - ⑫ PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
 - ⑬ FIELD LOCATE (INCIDENTAL)
 - ⑰ VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
 - ⑳ REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
 - ㉕ UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

LEGEND

- PROPOSED STORM SEWER/CULVERT
- EXISTING STORM SEWER
- PROPOSED DRAINAGE STRUCTURE
- ▲ PROPOSED APRON
- PROPOSED STORM WATER TREATMENT SITE
- PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
- EXISTING SANITARY SEWER
- PROPOSED SANITARY MANHOLE
- ⊠ 2" INSULATION (2 LAYERS)
- M EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
- M ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
- PROPOSED WATERMAIN OR SERVICE AS NOTED
- ⊠ PROPOSED HYDRANT
- ⊠ PROPOSED GATE VALVE & BOX
- ⊠ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

MODEL: 23 - Sanitary and Watermain Plan
 USER: bspanier
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Chad J. Seaman
NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
DRAWN: BRS
CHECKED: CJS



SANITARY & WATERMAIN PLAN
PLAN PAGE 23 of 34
SP 6221-107, SP 6228-69, SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET 690 OF 909

GENERAL NOTES

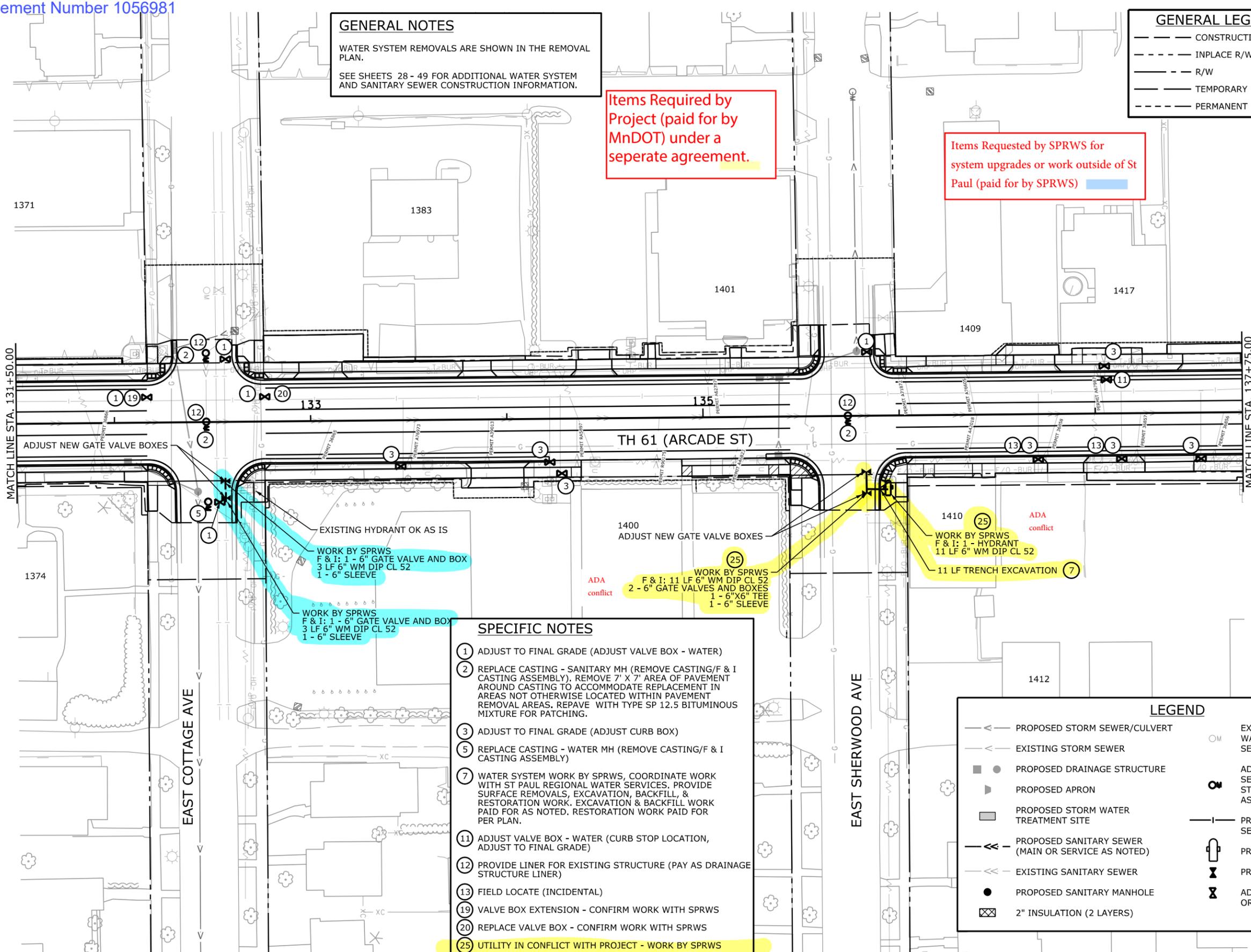
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

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Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)

GENERAL LEGEND

- CONSTRUCTION LIMITS
- - - INPLACE R/W
- - - R/W
- TEMPORARY EASEMENT
- - - PERMANENT EASEMENT



SPECIFIC NOTES

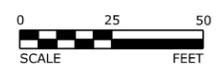
- 1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
- 2 REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS, REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
- 3 ADJUST TO FINAL GRADE (ADJUST CURB BOX)
- 5 REPLACE CASTING - WATER MH (REMOVE CASTING/F & I CASTING ASSEMBLY)
- 7 WATER SYSTEM WORK BY SPRWS, COORDINATE WORK WITH ST PAUL REGIONAL WATER SERVICES. PROVIDE SURFACE REMOVALS, EXCAVATION, BACKFILL, & RESTORATION WORK. EXCAVATION & BACKFILL WORK PAID FOR AS NOTED. RESTORATION WORK PAID FOR PER PLAN.
- 11 ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
- 12 PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
- 13 FIELD LOCATE (INCIDENTAL)
- 19 VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
- 20 REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
- 25 UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

LEGEND

- PROPOSED STORM SEWER/CULVERT
- EXISTING STORM SEWER
- PROPOSED DRAINAGE STRUCTURE
- ▴ PROPOSED APRON
- PROPOSED STORM WATER TREATMENT SITE
- PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
- EXISTING SANITARY SEWER
- PROPOSED SANITARY MANHOLE
- ☒ 2" INSULATION (2 LAYERS)
- EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
- ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
- PROPOSED WATERMAIN OR SERVICE AS NOTED
- PROPOSED HYDRANT
- ☒ PROPOSED GATE VALVE & BOX
- ☒ ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

MODEL: 24 - Sanitary and Watermain Plan
 USER: bspanier
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NAME: CHAD J. SEAMAN LIC. NO.: 44961 DATE: 6/20/2024

DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS



SANITARY & WATERMAIN PLAN
 PLAN PAGE 24 of 34
 SP 6221-107, SP 6228-69,
 SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET
691
 OF
909



GENERAL NOTES
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

F & I: 41 LF 1" TYPE K COPPER PIPE
1 - 1" CURB STOP AND BOX
1 - 1" CORPORATION STOP
1 - WATER UTILITY HOLE
(SERVICE FOR DRINKING FOUNTAIN)

EXISTING HYDRANT OK AS IS 1439

ADJUST NEW GATE VALVE BOX

EAST NEVADA AVE

EXISTING HYDRANT OK AS IS

MATCH LINE STA. 137+75.00

MATCH LINE STA. 144+50.00

TH 61 (ARCADE ST)

PLACE 10' X 22' 2" INSULATION (PLACE IN 2 LAYERS) BETWEEN NEW WATERMAIN AND EXISTING 66" RCP STORM SEWER

WORK BY SPRWS F & I: 1 - 1.5" CORPORATION STOP CONNECT TO EXISTING SERVICE

WATER UTILITY HOLE (FOR SPRWS SERVICE RECONNECTION WORK)

WORK BY SPRWS F & I: 200 LF 6" WM DIP CL 52 2 - 6" GATE VALVES AND BOXES 1 - 6" SLEEVE

WATER UTILITY HOLE (FOR SPRWS SERVICE RECONNECTION WORK)

WORK BY SPRWS F & I: 1 - 1.5" CORPORATION STOP CONNECT TO EXISTING SERVICE

ADJUST NEW GATE VALVE BOX

EAST WHELOCK AVE

EAST WHELOCK PKWY

Items Required by Project (paid for by MnDOT) under a separate agreement.

Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)

GENERAL LEGEND

---	CONSTRUCTION LIMITS
- - -	INPLACE R/W
---	R/W
---	TEMPORARY EASEMENT
---	PERMANENT EASEMENT

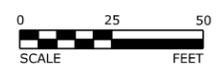
- SPECIFIC NOTES**
- ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
 - ADJUST TO FINAL GRADE (ADJUST CURB BOX)
 - REMOVE SANITARY MANHOLE (PAY AS REMOVE MANHOLE OR CATCH BASIN)
 - CONSTRUCT SANITARY MANHOLE (SEE DETAILS ON SHEETS S-1 TO S-10)
 - FIELD LOCATE (INCIDENTAL)
 - VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
 - CONSTRUCT DRAINAGE STRUCTURE SPECIAL 9 FOR RECONSTRUCTION OF UPPER PORTION OF STRUCTURE, PROVIDE LINER FOR LOWER PORTION (INCLUDED AS PART OF CONST. DRAINAGE STRUCT. SPEC. 9 ITEM)

LEGEND

---	PROPOSED STORM SEWER/CULVERT	○	EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
---	EXISTING STORM SEWER	○	ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
●	PROPOSED DRAINAGE STRUCTURE	○	PROPOSED WATERMAIN OR SERVICE AS NOTED
▸	PROPOSED APRON	○	PROPOSED HYDRANT
▭	PROPOSED STORM WATER TREATMENT SITE	○	PROPOSED GATE VALVE & BOX
---	PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)	○	ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED
---	EXISTING SANITARY SEWER	○	
●	PROPOSED SANITARY MANHOLE	○	
⊠	2" INSULATION (2 LAYERS)	○	

MODEL: 25 - Sanitary and Watermain Plan
 USER: bspanier
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 PLOT DATE: 6/20/2024 3:31:04 PM

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Chad J. Seaman
NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
DRAWN: BRS
CHECKED: CJS



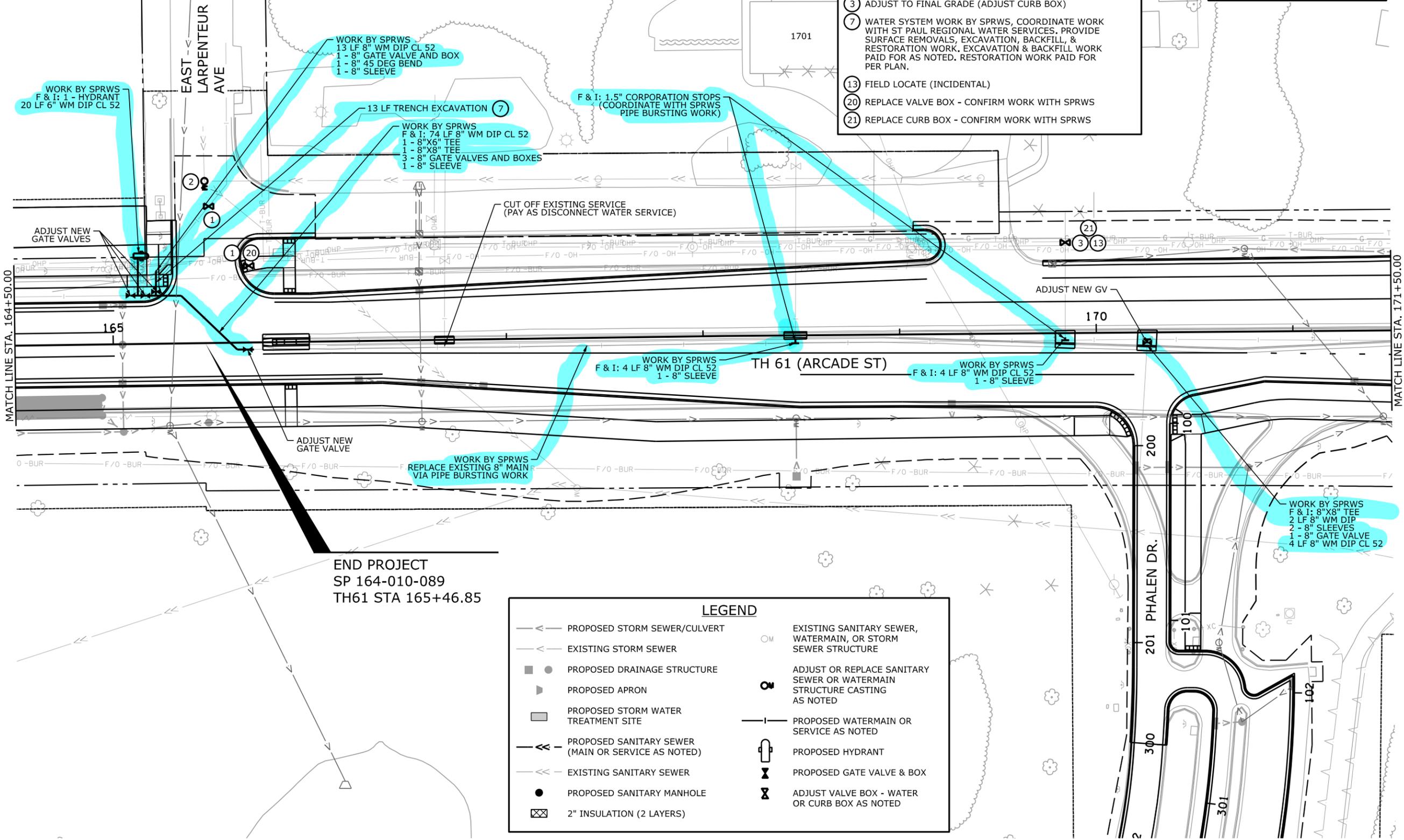
SANITARY & WATERMAIN PLAN
PLAN PAGE 25 of 34
SP 6221-107, SP 6228-69, SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET 692 OF 909

Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)

- SPECIFIC NOTES**
- ① ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - ② REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
 - ③ ADJUST TO FINAL GRADE (ADJUST CURB BOX)
 - ⑦ WATER SYSTEM WORK BY SPRWS, COORDINATE WORK WITH ST PAUL REGIONAL WATER SERVICES. PROVIDE SURFACE REMOVALS, EXCAVATION, BACKFILL, & RESTORATION WORK. EXCAVATION & BACKFILL WORK PAID FOR AS NOTED. RESTORATION WORK PAID FOR PER PLAN.
 - ⑬ FIELD LOCATE (INCIDENTAL)
 - ⑳ REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
 - ㉑ REPLACE CURB BOX - CONFIRM WORK WITH SPRWS

- GENERAL LEGEND**
- CONSTRUCTION LIMITS
 - - - INPLACE R/W
 - - - R/W
 - - - TEMPORARY EASEMENT
 - - - PERMANENT EASEMENT



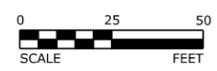
LEGEND

—<—	PROPOSED STORM SEWER/CULVERT	○ M	EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
—<—	EXISTING STORM SEWER	○	ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
■	PROPOSED DRAINAGE STRUCTURE	— —	PROPOSED WATERMAIN OR SERVICE AS NOTED
▶	PROPOSED APRON	○	PROPOSED HYDRANT
■	PROPOSED STORM WATER TREATMENT SITE	⊗	PROPOSED GATE VALVE & BOX
—<—	PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)	⊗	ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED
—<—	EXISTING SANITARY SEWER		
●	PROPOSED SANITARY MANHOLE		
⊗	2" INSULATION (2 LAYERS)		

END PROJECT
SP 164-010-089
TH61 STA 165+46.85

MODEL: 29 - Sanitary and Watermain Plan
 USER: bspanier
 PEN TABLE: cdf6221107.plantset.tbl
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DRAWN: BRS
CHECKED: CJS



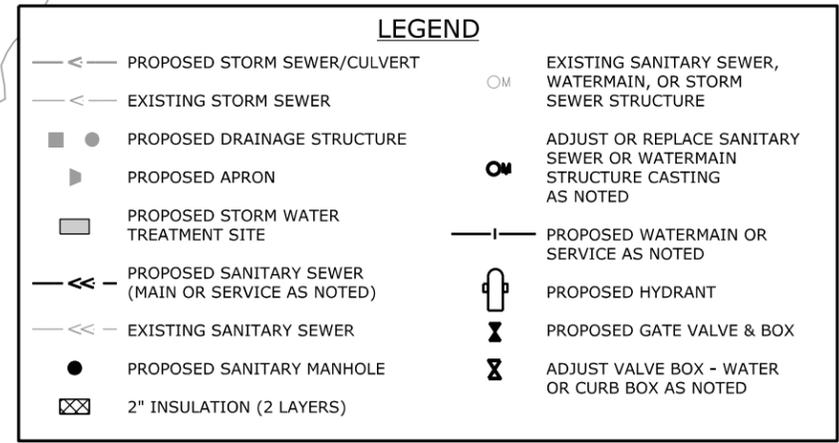
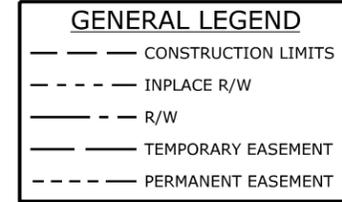
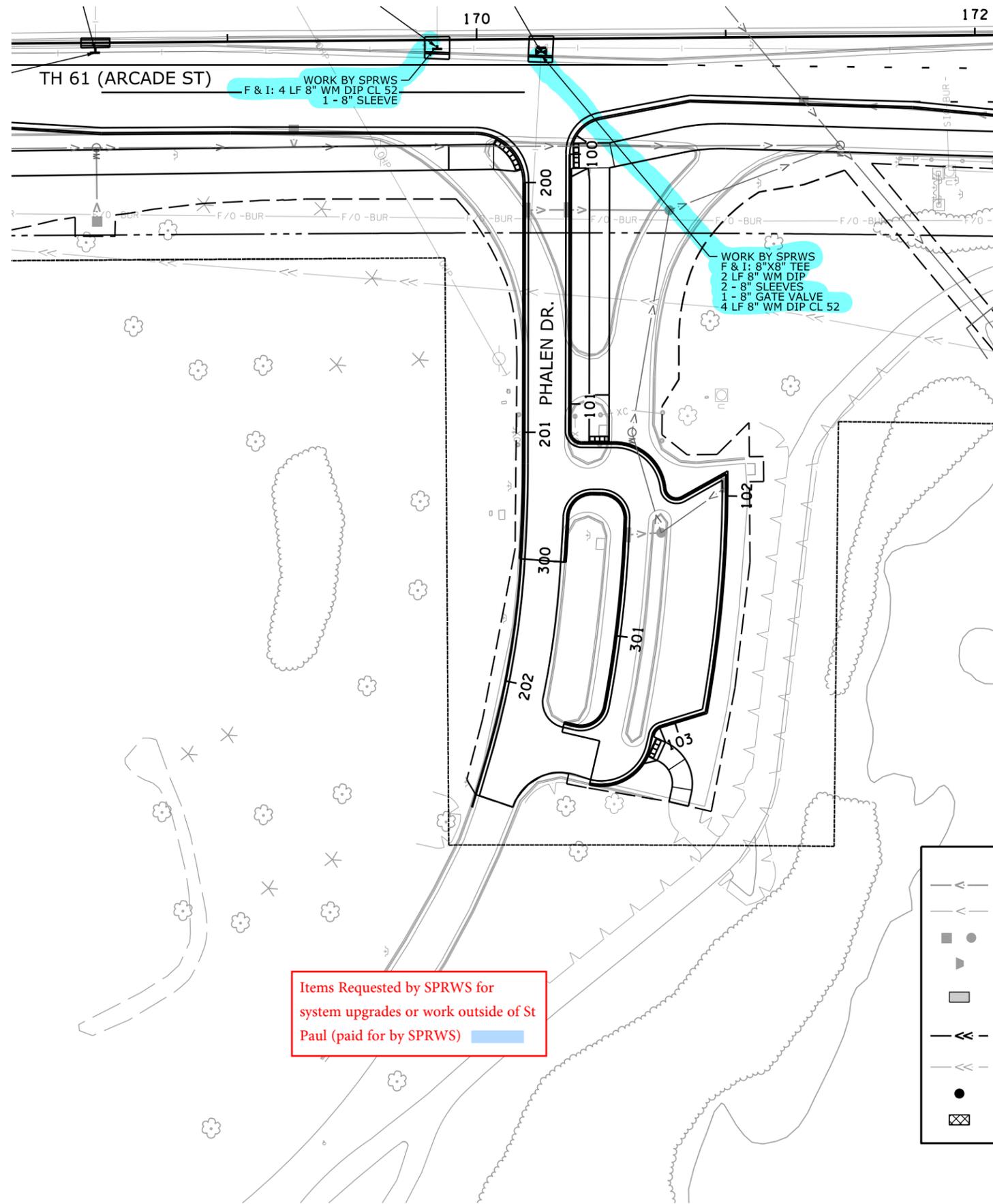
SANITARY & WATERMAIN PLAN
PLAN PAGE 29 of 34
SP 6221-107, SP 6228-69,
SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET
696
OF
909

GENERAL NOTES

WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.

SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.



MODEL: 30 - Sanitary and Watermain Plan
 USER: bspanier
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 PLOT DATE: 6/20/2024 3:31:16 PM

REV. NO.	DATE	BY	CHK	DESCRIPTION



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Chad J. Seaman
NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 6/20/2024

DESIGNED BRS
DRAWN BRS
CHECKED CJS



SANITARY & WATERMAIN PLAN

PLAN PAGE 30 of 34

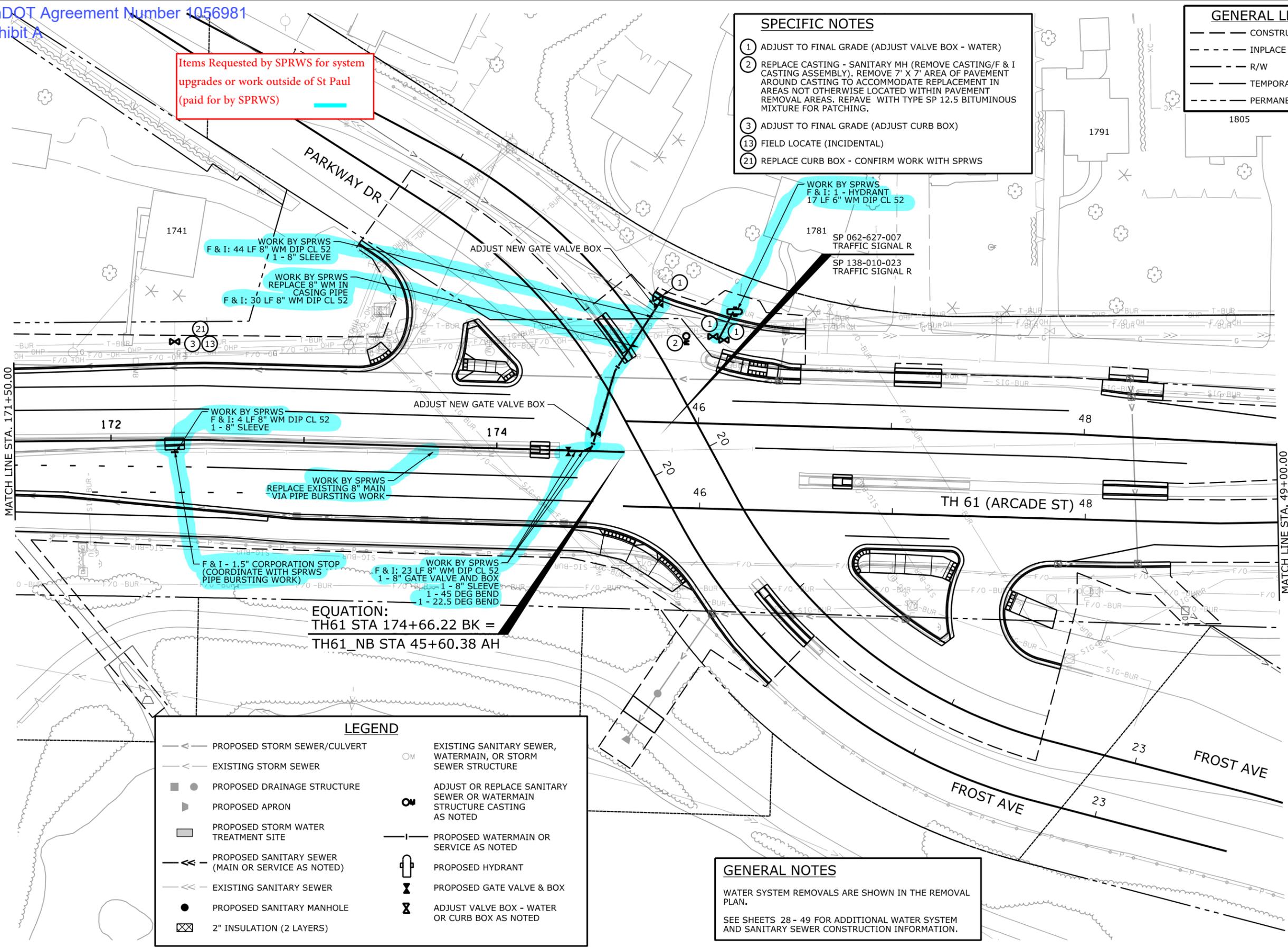
SP 6221-107, SP 6228-69,
SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET 697 OF 909

Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)

- ### SPECIFIC NOTES
- ① ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - ② REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
 - ③ ADJUST TO FINAL GRADE (ADJUST CURB BOX)
 - ⑬ FIELD LOCATE (INCIDENTAL)
 - ⑰ REPLACE CURB BOX - CONFIRM WORK WITH SPRWS

- ### GENERAL LEGEND
- CONSTRUCTION LIMITS
 - INPLACE R/W
 - R/W
 - TEMPORARY EASEMENT
 - PERMANENT EASEMENT



EQUATION:
TH61 STA 174+66.22 BK =
TH61_NB STA 45+60.38 AH

GENERAL NOTES

WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.

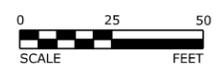
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

LEGEND

—▲—	PROPOSED STORM SEWER/CULVERT	○M	EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
---	EXISTING STORM SEWER	⊗	ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
■	PROPOSED DRAINAGE STRUCTURE	— —	PROPOSED WATERMAIN OR SERVICE AS NOTED
▶	PROPOSED APRON	⊕	PROPOSED HYDRANT
■	PROPOSED STORM WATER TREATMENT SITE	⊗	PROPOSED GATE VALVE & BOX
—▲—	PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)	⊗	ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED
---	EXISTING SANITARY SEWER		
●	PROPOSED SANITARY MANHOLE		
⊗	2" INSULATION (2 LAYERS)		

MODEL: 31 - Sanitary and Watermain Plan
 USER: bspanier
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 PLOT DATE: 6/20/2024 3:31:20 PM

REV. NO.	DATE	BY	CHK	DESCRIPTION



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
DRAWN: BRS
CHECKED: CJS



SANITARY & WATERMAIN PLAN
PLAN PAGE 31 of 34
SP 6221-107, SP 6228-69, SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET 698 OF 909

**SP 6221-107 (TH 61 & TH 5) Agency Agreement 1056981
Saint Paul Regional Water Services**

Cost Estimate Table

	ITEM DESCRIPTION	UNIT	UNIT PRICE	PROJECT TOTALS		100% SPRWS FUNDS	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST
					DOLLARS		DOLLARS
2021.501	MOBILIZATION	LUMP SUM	\$500,000.00	1	\$500,000.00	0.01	\$5,000.00
2031.502	FIELD OFFICE	EACH	\$49,000.00	1	\$49,000.00	0.01	\$490.00
2031.502	FIELD LABORATORY	EACH	\$34,000.00	1	\$34,000.00	0.01	\$340.00
2103.502	DISCONNECT WATER SERVICE	EACH	\$1,700.00	1	\$1,700.00	1	\$1,700.00
2104.502	REMOVE GATE VALVE AND BOX	EACH	\$400.00	49	\$19,600.00	35	\$14,000.00
2104.502	REMOVE CURB STOP AND BOX	EACH	\$500.00	27	\$13,500.00	24	\$12,000.00
2104.502	REMOVE VALVE BOX	EACH	\$500.00	1	\$500.00	1	\$500.00
2104.502	REMOVE HYDRANT	EACH	\$900.00	25	\$22,500.00	8	\$7,200.00
2104.503	SAWING BITUMINOUS PAVEMENT	LIN FT	\$2.00	3772	\$7,544.00	0	\$0.00
2104.503	REMOVE WATER MAIN	LIN FT	\$25.00	2639	\$65,975.00	2014	\$50,350.00
2104.603	ABANDON WATER MAIN	LIN FT	\$1,000.00	20	\$20,000.00	20	\$20,000.00
2106.607	EXCAVATION SPECIAL	CU YD	\$40.00	2273	\$90,920.00	329	\$13,160.00
2106.609	HAUL AND DISPOSE OF CONTAMINATED MATERIAL	TON	\$100.00	4091	\$409,100.00	592	\$59,200.00
2451.609	GRANULAR BACKFILL	TON	\$40.00	12013	\$480,520.00	1100	\$44,000.00
2504.602	VALVE BOX	EACH	\$500.00	17	\$8,500.00	17	\$8,500.00
2504.602	ADJUST VALVE BOX-WATER	EACH	\$500.00	227	\$113,500.00	13	\$6,500.00
2504.602	REPAIR VALVE BOX	EACH	\$500.00	23	\$11,500.00	23	\$11,500.00
2504.602	1" CORPORATION STOP	EACH	\$500.00	2	\$1,000.00	0	\$0.00
2504.602	1.5" CORPORATION STOP	EACH	\$650.00	15	\$9,750.00	11	\$7,150.00
2504.602	2" CORPORATION STOP	EACH	\$900.00	1	\$900.00	1	\$900.00
2504.602	CURB BOX	EACH	\$400.00	16	\$6,400.00	16	\$6,400.00
2504.602	ADJUST CURB BOX	EACH	\$400.00	178	\$71,200.00	2	\$800.00
2504.602	1" CURB STOP AND BOX	EACH	\$1,000.00	2	\$2,000.00	0	\$0.00
2504.602	1.5" CURB STOP AND BOX	EACH	\$1,500.00	11	\$16,500.00	7	\$10,500.00
2504.602	2" CURB STOP AND BOX	EACH	\$1,800.00	1	\$1,800.00	1	\$1,800.00
2504.602	WATER UTILITY HOLE	EACH	\$3,800.00	9	\$34,200.00	4	\$15,200.00
2504.603	TRENCH EXCAVATION	LIN FT	\$250.00	504	\$126,000.00	145	\$36,250.00
2504.603	1" TYPE K COPPER PIPE	LIN FT	\$75.00	68	\$5,100.00	0	\$0.00
2504.603	1.5" TYPE K COPPER PIPE	LIN FT	\$100.00	249	\$24,900.00	160	\$16,000.00
2504.603	2" TYPE K COPPER PIPE	LIN FT	\$120.00	11	\$1,320.00	11	\$1,320.00
2504.604	2" INSULATION	SQ YD	\$50.00	151	\$7,555.50	48	\$2,400.00
2504.608	DUCTILE IRON FITTINGS	POUND	\$20.00	204	\$4,080.00	36	\$720.00
2563.601	TRAFFIC CONTROL	LUMP SUM	\$350,000.00	1	\$350,000.00	0.01	\$3,500.00
						SUBTOTAL	\$357,380.00
						MnDOT Design	6.5%
						MnDOT Construction Administration/Inspection	8.0%
						Agency Agreement Grand Total	\$409,200.10