

Prepared by the
Utility Agreements and Permits Unit
(Payable)
(\$385,193.48)
(Actual Cost)

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 1057038

UTILITY RELOCATION AGREEMENT

This Agreement Number 1057038 (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 describes how the parties will mitigate the effects of a State construction project on the Utility Owner.

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, their fixtures, and related equipment (Facilities) on TH 51. The Facilities are within the limits of 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 1885, that the City of Saint Paul has the obligation to reimburse the Utility Owner for all relocation costs whenever the City of Saint Paul makes improvements to city streets. When the State took Arcade Street and East 7th Avenue in from the City, the State assumed the obligation to reimburse the Utility Owner for such relocations of waterworks facilities as a result of street improvements. Therefore, the cost of relocating Facilities is eligible for reimbursement to the Utility Owner. The Facilities are within the limits of the Project.

The Utility Owner must relocate the Facilities that are within the Project limits. The Utility Owner has requested reimbursement for the cost of this relocation from the State.

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 commence work according to the terms of the Notice and Order and prosecute the work according to a 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 obligation, 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 Utility Owner 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 the Agreement's expiration or termination: (III) Utility Owner's Ongoing Maintenance Requirements; (V) Audits; (VI) Liability, Worker Compensation Claims; Insurance; and (IX) Governing Terms.

II. Utility Owner's Duties

- A. *Relocation:* The Utility Owner must:
 - 1. Relocate its Facilities according to:
 - a. The terms of the Notice and Order;
 - b. All applicable codes;
 - c. The directions of the Project Engineer and the State's Utilities Engineer (Utilities Engineer);
 - d. The plans for the utility work, which are attached to this Agreement as Exhibit A. If any changes must be made to the plans, the Utilities Engineer must approve these changes in writing before the Utility Owner performs the work to qualify for reimbursement; and
 - e. MnDOT's standard construction specifications.

2. Submit one copy of the State's Application for Utility Accommodation on Trunk Highway Right of Way, Form 2525 (Permit), including two copies of "proposed" sketches, for all Facilities within the trunk highway right of way to the Utilities Engineer before beginning relocation work.
3. Coordinate its operations with the State's contractor's (Contractor) operations and notify the Project Engineer at least two days before beginning and after completing each operational phase.
4. Stake the location and elevation of the proposed Facilities within the trunk highway right of way. The Utility Owner must not begin construction until the Project Engineer approves the location and elevation.
5. According to the project schedule the Utility Owner will perform its work concurrently with that of the Contractor and coordinate with the Contractor to ensure that all work is completed to the State's satisfaction without delays.
6. Maintain accurate and up-to-date relocation cost records throughout the course of the Project.
7. Leave materials in place at the Project Engineer's discretion. Any materials left within the right of way after the Utility Owner completes its work will become the property of the Contractor.

B. *Compliance with Safety Regulations*

1. The Utility Owner must comply with the safety regulations contained in Minnesota Rules, part 8810.3400, subpart 5, during all construction and maintenance operations. The Utility Owner will furnish and require each flagger to carry a copy of the current edition of the State's *Field Manual*, which is Part IV of the *Minnesota Manual of Uniform Traffic Control Devices*. The Utility Owner must furnish each flagger with the required vest, hat, hand sign, flags, and any other necessary safety equipment.
2. The provisions of this Agreement do not relieve the Utility Owner of any legal responsibility or liability associated with the construction, operations, or maintenance of its Facilities.

C. *Compliance with Pollution Control Requirements*

1. The Contractor installs pollution control measures according to the National Pollution Discharge Elimination System permit (NPDES Permit). Pollution

control measures include silt fences, slope stabilization measures such as seed and mulch, and any other measures the State deems necessary to comply with the NPDES Permit. If the Utility Owner's work affects such pollution control measures, the Utility Owner must restore them to their original condition and to the Project Engineer's satisfaction. If the Utility Owner is relocating Facilities before the Contractor begins construction, the Utility Owner must work with the Project Engineer to determine if pollution control measures are necessary and how to implement them if they are.

III. Utility Owner's Ongoing Maintenance Requirements

- A. Once construction is complete, the Utility Owner must maintain the Facilities at its own expense. The Utility Owner must follow the terms of the Permit when it performs any maintenance work.
- 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 an 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 date after it begins working in the right of way.

IV. Payment

- A. *Payment*
 - 1. Exhibit B, which is attached to this Agreement, is a detailed, itemized estimate of the cost of the Utility Owner's relocation work. Actual cost includes all expenses attributable to design engineering and construction relocation work. Reimbursement will be based on the actual costs for work that conforms to Exhibit A. Betterment, increase in value, and salvage value derived from the relocated Facilities will not be included in this reimbursement.
 - 2. The State will pay the Utility Owner for the actual cost the Utility Owner incurs performing its obligations pursuant to this Agreement, in an amount not to exceed \$385,193.48, upon receiving:
 - a. Proof that the Facilities have been relocated to the Project Engineer's and Utilities Engineer's satisfaction; and
 - b. One original, signed invoice that is supported by an itemized statement of costs. An authorized representative of the Utility Owner must sign

the invoice and submit the final bill to the Utilities Engineer no later than 90 days after completing the work.

3. The State's payment constitutes payment in full for all work the Utility Owner performs and for any and all damages, claims, or causes of action of any kind accruing to the Utility Owner because of the State's order to relocate the Facilities. Notwithstanding anything in this Agreement to the contrary, the Utility Owner reserves the right to pursue any lawful remedy it may have for tortious acts that may arise out of the relocation of the Facilities.
4. If acceptable to the Utilities Engineer, the State may process periodic progress billings of incurred cost without prior audit.

B. *Limitation on Payment*

1. The total amount the State is required to pay is limited to the amount shown in Article IV.A.2.
2. If the Utility Owner deems it necessary to perform additional work not covered by this Agreement, or anticipates costs exceeding the amount in Article IV.A.2., then the Utility Owner must promptly notify the Utilities Engineer, in writing, of the nature and cause of the additional work or costs prior to performing or incurring them. Notification must include the amount of additional State funds requested and reason(s) supporting the request. The Utilities Engineer may approve the request subject to the availability and encumbrance of funds. If the Utility Owner performs additional work for which the State has not previously encumbered funds, the State is not obligated to pay for that additional work.
3. If the amount the Utility Owner requests under Article IV.B.2. does not exceed 10 percent of the amount in Article IV.A.2., the State may authorize payment of that pre-approved additional amount without amending this Agreement. The Utility Owner must receive notification from the State that the State has approved the additional work and encumbered the additional funds before beginning the additional work, or that work will be ineligible for reimbursement.
4. If the amount the Utility Owner requests exceeds 10 percent of the amount shown in Article IV.A.2., this Agreement must be amended to reflect the new cost before the State will be responsible for paying that additional cost.

V. Audits

- A. The Utility Owner's costs to relocate its Facilities according to this Agreement and the costs for any additions or alterations to these Facilities are subject to the State and federal government's examination and audit. Pursuant to Minnesota Statutes, section 16C.05, subdivision 5, the Utility Owner's accounting books, records, documents, procedures, and practices that are relevant to this Agreement are subject to Legislative or State Audit for six years after this Agreement expires.
- B. The Utility Owner must respond to requests for audit information to support claimed costs no later than 60 days after receiving the request or the State will cite all costs in question. If the Utility Owner does not respond during this 60-day period, the State will consider the audit citations accepted and will make payment accordingly.

VI. Liability; Worker Compensation Claims; Insurance

- 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. 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.
- A. The Utility Owner certifies that its workers' compensation insurance coverage complies with Minnesota Statutes, section 176.181, subdivision 2. The Utility Owner's employees and agents are not considered State employees. The State is not responsible for any claims asserted by the Utility Owner's employees, agents, subcontractors, or any third parties under the Minnesota Workers' Compensation Act.

VII. Nondiscrimination

- A. The Utility Owner will comply with the United States Department of Transportation's nondiscrimination regulations. These regulations are in the current version of the Code of Federal Regulations, title 49, part 21. The Utility Owner must incorporate these regulations by reference in all contracts.
- B. Minnesota Statutes, section 181.59 and any applicable local ordinances pertaining to civil rights and nondiscrimination are considered part of this Agreement.

VIII. Buy America Requirements

The Utility Owner will comply with Buy America, the requirements of which are detailed below.

- A. *Buy America.* The provisions of the Build America, Buy America (BABA) Act, Public Law No. 117-58 §§ 70901-70952, the Buy America law, 23 U.S.C. § 313, 2 CFR Part 184, and 23 CFR § 635.410 are applicable to this Agreement. The Utility Owner must furnish iron and steel materials (including miscellaneous items such as fasteners, nuts, bolts, and washers) and construction materials which will be permanently incorporated on projects, funded at least partly with federal funds to be produced in the United States.
- B. *Iron and Steel.* In the case of iron and steel materials, produced in the United States means that all manufactured processes from the initial melting stage through the application of coatings, occur in the United States. Foreign source materials are any domestic products taken out of the United States for any process (e.g., change of chemical content, permanent shape or size, or final finish of product).
1. Prior to performing work, the Utility Owner shall submit to the Engineer a certification stating that all iron and steel materials supplied are produced in the United States.
 2. Raw materials such as iron ore, pig iron, processed, pelletized, and reduced iron ore, waste products (including scrap, iron or steel no longer useful in its present form from old automobiles, machinery, pipe, railroad rail, and steel trimmings from mills or product manufacturing) and other raw materials used in the production of iron or steel products may be imported from outside of the United States. Extracting, handling, or crushing the raw materials which are inherent to the transporting of these Materials for later use in the manufacturing process are exempt from the BABA Act.
- C. *Construction Materials.* In the case of construction materials, produced in the United States means that all manufacturing processes for the construction materials occurred in the United States.
1. Construction materials include any article, material, or supply that is or consists primarily of: Non-ferrous metals, Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables), Glass (including optic glass), Fiber optic cable (including drop cable), Optical fiber, Lumber, Engineered wood, or Drywall..

2. The BABA Act does not apply to: cement, cementitious materials, aggregates such as stone, sand, or gravel, aggregate binding agents or additives, or asphalt.
- D. *Certificate of Compliance.* The Utility Owner is required to submit a Certificate of Compliance prior to incorporating any materials into the Project containing iron or steel, or construction materials. This shall be accomplished by the Utility Owner submitting the appropriate Certificate of Compliance to the State when the materials are delivered to the project site. The Certifications of Compliance for iron and steel will certify the materials are considered produced in the United States. The Certifications of Compliance for construction materials will certify that all manufacturing processes for the construction materials occurred in the United States. The certificate must be signed and dated by the Utility Owner's authorized representative, include a BABA Act submittal number, and a statement: The materials herein referenced are produced in the United States and comply with the requirements of 23 CFR § 635.410, 2 CFR Part 184, and Public Law No.117-58 §§ 70901-70952, and 23 U.S.C. § 31.
 - E. *Documentation.* Supporting documentation to demonstrate compliance with BABA Act provisions (such as mill test reports, manufacturer/supplier certifications, etc.) shall be organized and maintained by the Utility Owner from the date of delivery until six years after substantial completion of the Project.
1. The State may review the Utility Owner's supporting documentation to verify compliance with the BABA Act provisions at any time upon request. The burden of proof to meet the BABA Act provisions rest with the Utility Owner. If the supporting documentation does not demonstrate to the State that the iron or steel and construction materials identified in the Certificates of Compliance were produced in the United States, then the iron, steel, or construction materials will be considered unauthorized work and must be removed and replaced.

IX. 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 the State fails to enforce any provision of this Agreement, that failure does not waive the provision or the State's right to subsequently enforce it.
- D. *Merger:* This Agreement contains all negotiations and agreements between the State and the Utility Owner. 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: _____
Patrick Shea
General Manager
Saint Paul Regional Water Services

By: _____
Mara Humphrey
President

Date: _____

Date: _____

Approved as to form:

By: _____
Mollie Gagnelius
Secretary

By: _____
Assistant City Attorney

Date: _____

Date: _____

By: _____
John McCarthy
Director
Office of Financial Services

Date: _____

**STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION**

State Encumbrance Verification

Individual certifies that funds have been encumbered as required by Minnesota Statutes §§ 16A.15 and 16C.05.

By: _____

Date: _____

Contract Number: _____

Order Number: _____

Department of Transportation

Recommended for Approval:

Approved:

By: _____
Metro Utility Coordinator

By: _____
Director, Office of Land Management

Date: _____

Date: _____

Department of Administration

By: _____

Date: _____

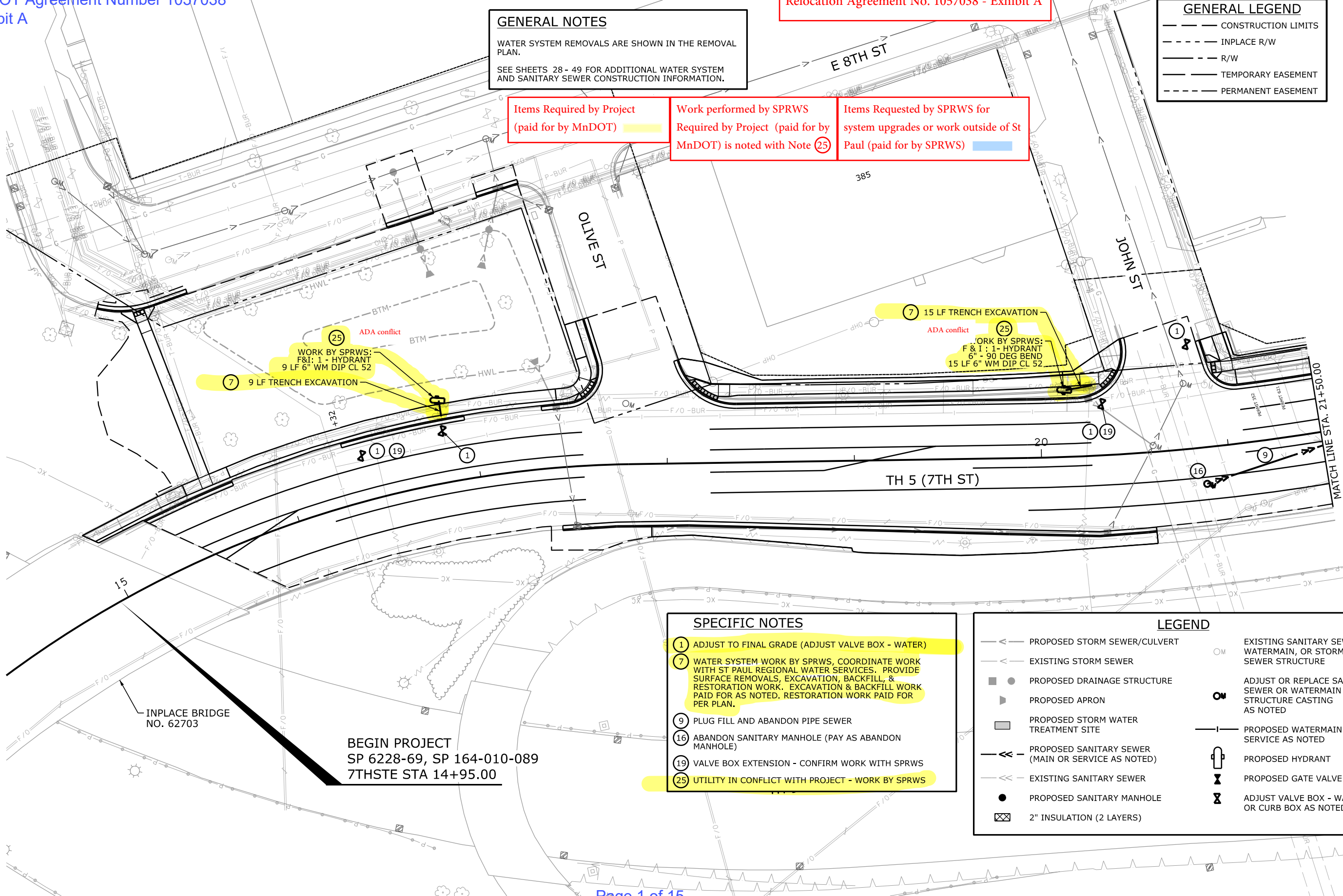
GENERAL NOTES
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

Items Required by Project
(paid for by MnDOT)

Work performed by SPRWS
Required by Project (paid for by MnDOT) is noted with Note 25

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



7 9 LF TRENCH EXCAVATION
25 ADA conflict
WORK BY SPRWS:
F&I: 1 - HYDRANT
9 LF 6" WM DIP CL 52

7 15 LF TRENCH EXCAVATION
25 ADA conflict
WORK BY SPRWS:
F & I: 1 - HYDRANT
6" - 90 DEG BEND
15 LF 6" WM DIP CL 52

SPECIFIC NOTES
1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - 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.
9 PLUG FILL AND ABANDON PIPE SEWER
16 ABANDON SANITARY MANHOLE (PAY AS ABANDON MANHOLE)
19 VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
25 UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

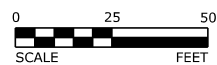
LEGEND
--- PROPOSED STORM SEWER/CULVERT
--- EXISTING STORM SEWER
■ PROPOSED DRAINAGE STRUCTURE
▶ PROPOSED APRON
■ PROPOSED STORM WATER TREATMENT SITE
--- PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
--- EXISTING SANITARY SEWER
● PROPOSED SANITARY MANHOLE
☒ 2" INSULATION (2 LAYERS)
○ EXISTING SANITARY 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
X PROPOSED GATE VALVE & BOX
X ADJUST VALVE BOX - WATER OR CURB BOX AS NOTED

INPLACE BRIDGE NO. 62703

BEGIN PROJECT
SP 6228-69, SP 164-010-089
7THSTE STA 14+95.00

MODEL: 1 - Sanitary and Watermain Plan
USER: bspanier
PEN TABLE: cdf6221107.plantest.tbl
FILE: S:\PROJECTS\TRANS\MnDOT\T-00946\Road_Design\Streets\cd6221107_sw.dgn
PLOT DRIVER: pdf_bw_11x17only.pltcfq
PLOT DATE: 6/20/2024 3:30:03 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 1 of 34
SP 6221-107, SP 6228-69, SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET 668 OF 909

Items Required by Project (paid for by MnDOT)

Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note 25

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

GENERAL LEGEND

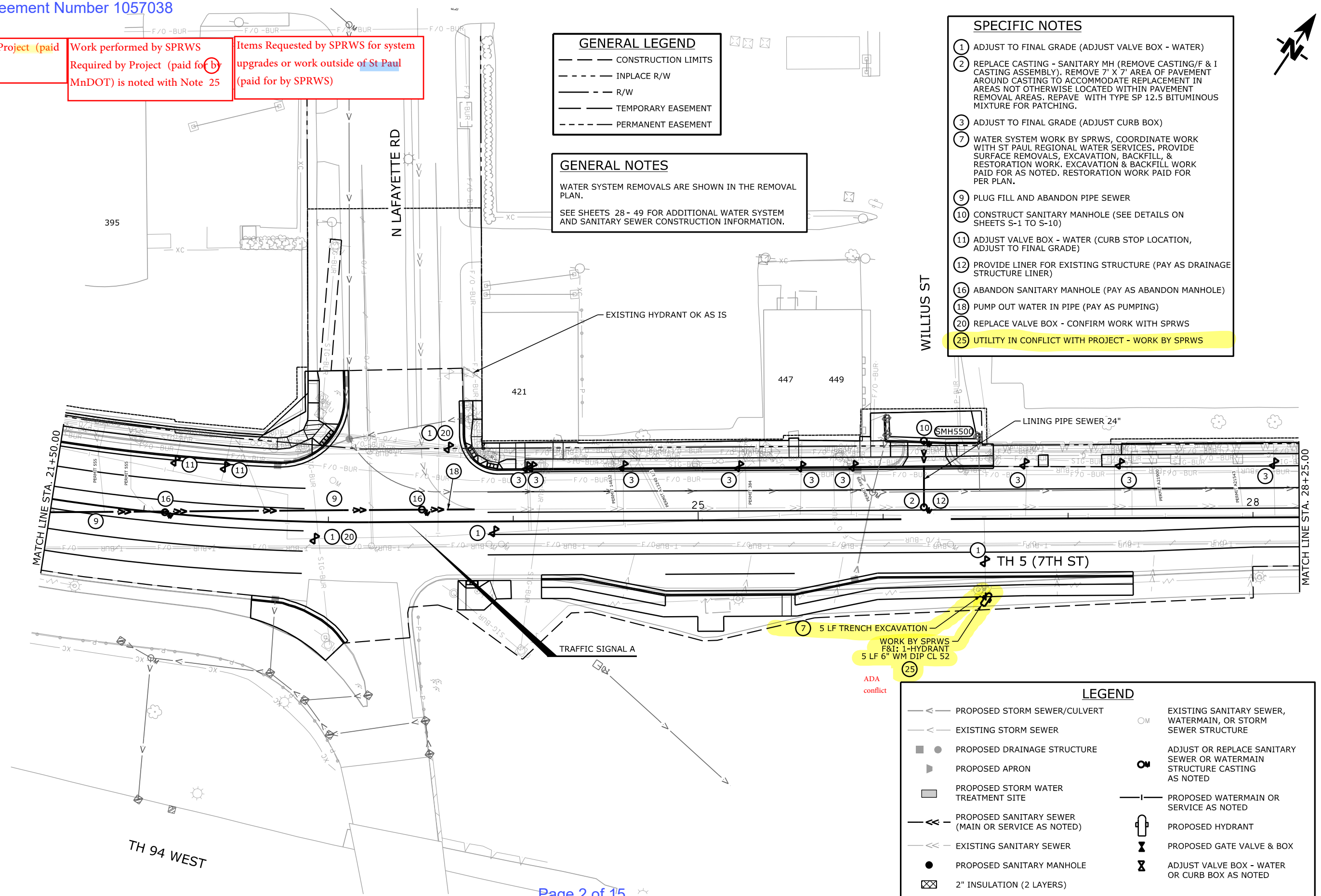
- CONSTRUCTION LIMITS
- - - INPLACE R/W
- - - R/W
- TEMPORARY EASEMENT
- - - PERMANENT EASEMENT

GENERAL NOTES

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

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.
- 9 PLUG FILL AND ABANDON PIPE SEWER
- 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)
- 16 ABANDON SANITARY MANHOLE (PAY AS ABANDON MANHOLE)
- 18 PUMP OUT WATER IN PIPE (PAY AS PUMPING)
- 20 REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
- 25 UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS



7 5 LF TRENCH EXCAVATION
WORK BY SPRWS
F&I: 1-HYDRANT
5 LF 6" WM DIP CL 52
25
ADA conflict

LEGEND

—<—	PROPOSED STORM SEWER/CULVERT	OM	EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
—<—	EXISTING STORM SEWER	OM	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: 2 - Sanitary and Watermain Plan
 USER: bspanier
 PEN TABLE: cdf6221107.plantset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\T-00946\Road_Design\Sheets\cd6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.pltcfq
 PLOT DATE: 6/20/2024 3:30:05 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 2 of 34

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

SHEET 669 OF 909

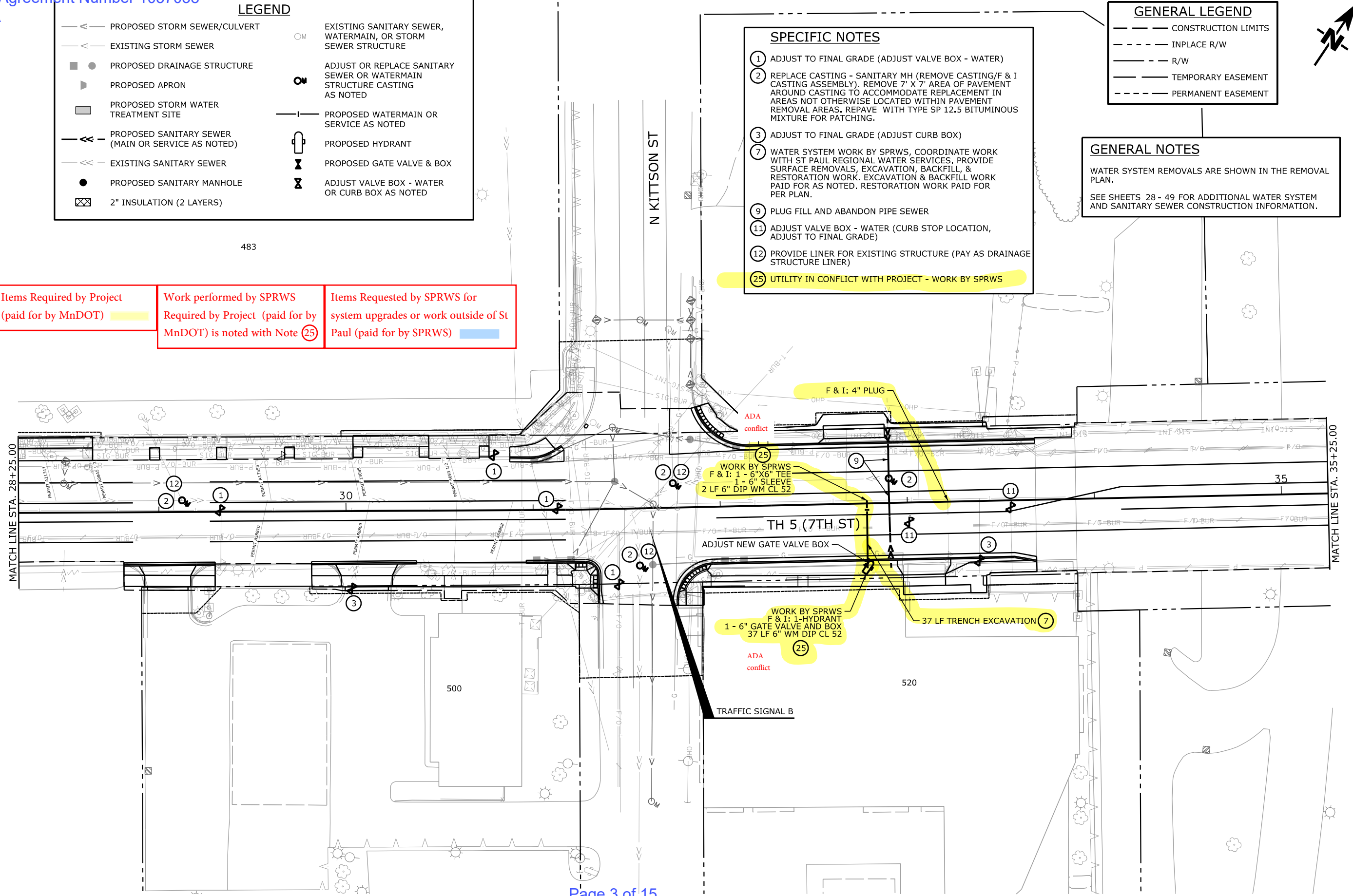
LEGEND	
	PROPOSED STORM SEWER/CULVERT
	EXISTING STORM SEWER
	PROPOSED DRAINAGE STRUCTURE
	PROPOSED APRON
	PROPOSED STORM WATER TREATMENT SITE
	PROPOSED SANITARY SEWER (MAIN OR SERVICE AS NOTED)
	EXISTING SANITARY SEWER
	PROPOSED SANITARY MANHOLE
	2" INSULATION (2 LAYERS)
	EXISTING SANITARY SEWER, WATERMAIN, 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

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.

- 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)
 - 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.
 - PLUG FILL AND ABANDON PIPE SEWER
 - ADJUST VALVE BOX - WATER (CURB STOP LOCATION, ADJUST TO FINAL GRADE)
 - PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
 - UTILITY IN CONFLICT WITH PROJECT - WORK BY SPRWS

Items Required by Project (paid for by MnDOT)	Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note 25	Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS)
---	---	---



MODEL: 3 - Sanitary and Watermain Plan
 USER: bspanier
 PEN TABLE: c6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\1-00946\Road_Design\Streets\c6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.pltcfq
 PLOT DATE: 6/20/2024 3:30:09 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		SHEET 670 OF 909
PLAN PAGE 3 of 34		
SP 6221-107, SP 6228-69, SP 062-627-007, SP 164-010-089, SP 138-010-023		

Items Required by Project
(paid for by MnDOT)

Work performed by SPRWS
Required by Project (paid for by
MnDOT) is noted with Note (25)

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

SPECIFIC NOTES

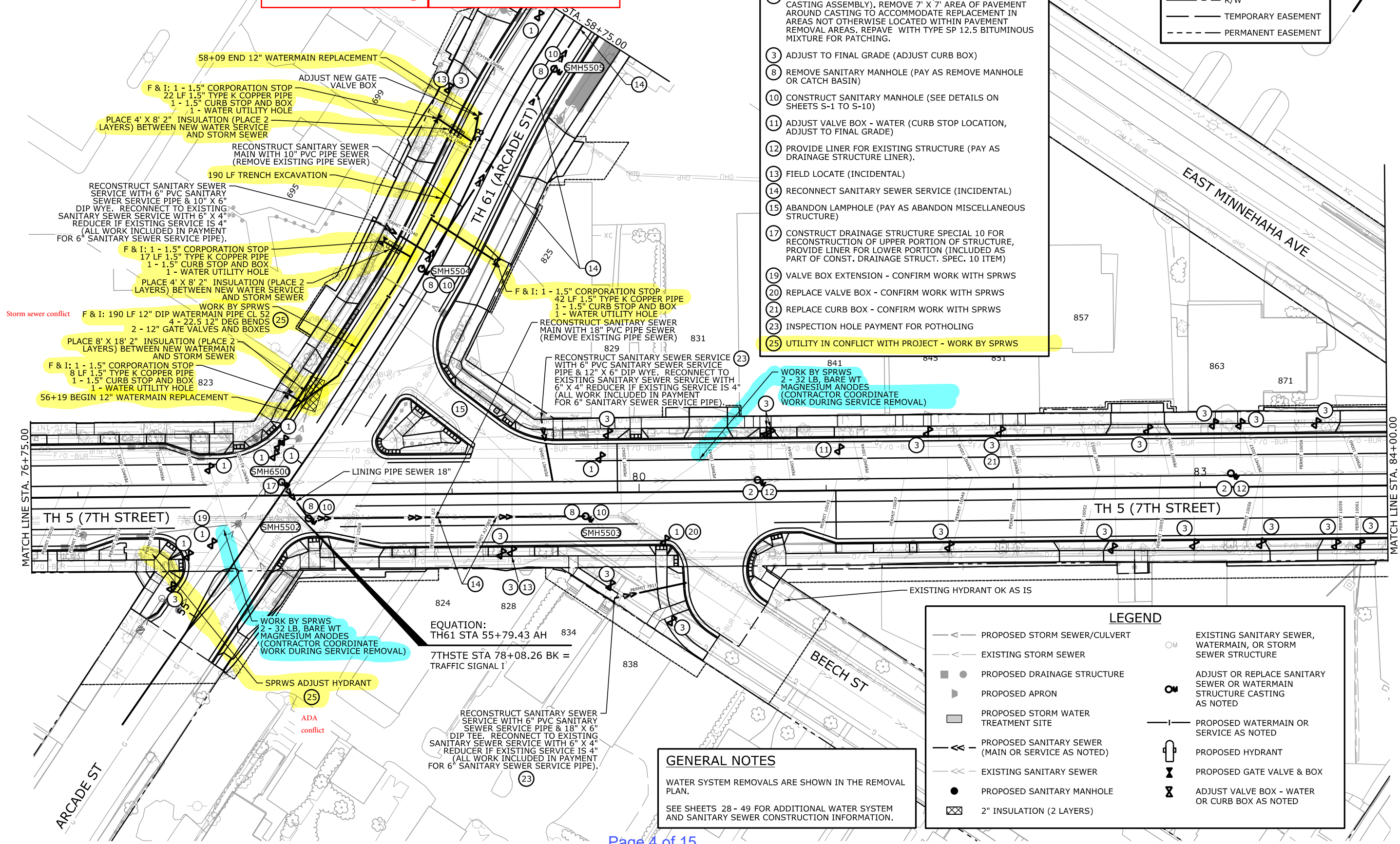
- 1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
- 2 REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING.
- 3 ADJUST TO FINAL GRADE (ADJUST CURB BOX)
- 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)
- 15 ABANDON LAMPHOLE (PAY AS ABANDON MISCELLANEOUS STRUCTURE)
- 17 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)
- 19 VALVE BOX EXTENSION - CONFIRM WORK WITH SPRWS
- 20 REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
- 21 REPLACE CURB BOX - CONFIRM WORK WITH SPRWS
- 23 INSPECTION HOLE PAYMENT FOR POTHOLING
- 25 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
 USER: bspanier
 PEN TABLE: c6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\1-00946\Road_Design\Sheets\c6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.plt
 PLOT DATE: 6/20/2024 4:24:33 PM



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 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)		

EQUATION:
 TH61 STA 55+79.43 AH 834
 7THSTE STA 78+08.26 BK =
 TRAFFIC SIGNAL I

RECONSTRUCT SANITARY SEWER SERVICE WITH 6" PVC SANITARY SEWER SERVICE PIPE & 18" X 6" DIP TEE. 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).

WORK BY SPRWS
 2 - 32 LB, BARE WT
 MAGNESIUM ANODES
 (CONTRACTOR COORDINATE
 WORK DURING SERVICE REMOVAL)

SPRWS ADJUST HYDRANT

58+09 END 12" WATERMAIN REPLACEMENT

F & I: 1 - 1.5" CORPORATION STOP
 22 LF 1.5" TYPE K COPPER PIPE
 1 - 1.5" CURB STOP AND BOX
 1 - WATER UTILITY HOLE

PLACE 4' X 8' 2" INSULATION (PLACE 2 LAYERS) BETWEEN NEW WATER SERVICE AND STORM SEWER

RECONSTRUCT SANITARY SEWER MAIN WITH 10" PVC PIPE SEWER (REMOVE EXISTING PIPE SEWER)

190 LF TRENCH EXCAVATION

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).

F & I: 1 - 1.5" CORPORATION STOP
 17 LF 1.5" TYPE K COPPER PIPE
 1 - 1.5" CURB STOP AND BOX
 1 - WATER UTILITY HOLE

PLACE 4' X 8' 2" INSULATION (PLACE 2 LAYERS) BETWEEN NEW WATER SERVICE AND STORM SEWER

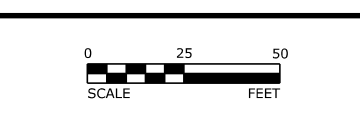
Storm sewer conflict F & I: 190 LF 12" DIP WATERMAIN PIPE CL 52
 4 - 22.5 12" DEG BENDS
 2 - 12" GATE VALVES AND BOXES

PLACE 8' X 18' 2" INSULATION (PLACE 2 LAYERS) BETWEEN NEW WATERMAIN AND STORM SEWER

F & I: 1 - 1.5" CORPORATION STOP
 8 LF 1.5" TYPE K COPPER PIPE
 1 - 1.5" CURB STOP AND BOX
 1 - WATER UTILITY HOLE

56+19 BEGIN 12" WATERMAIN REPLACEMENT

REV. NO.	DATE	BY	CHK	DESCRIPTION



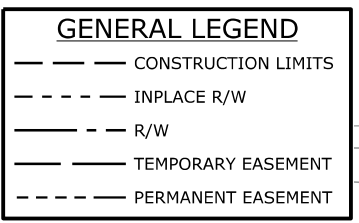
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

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

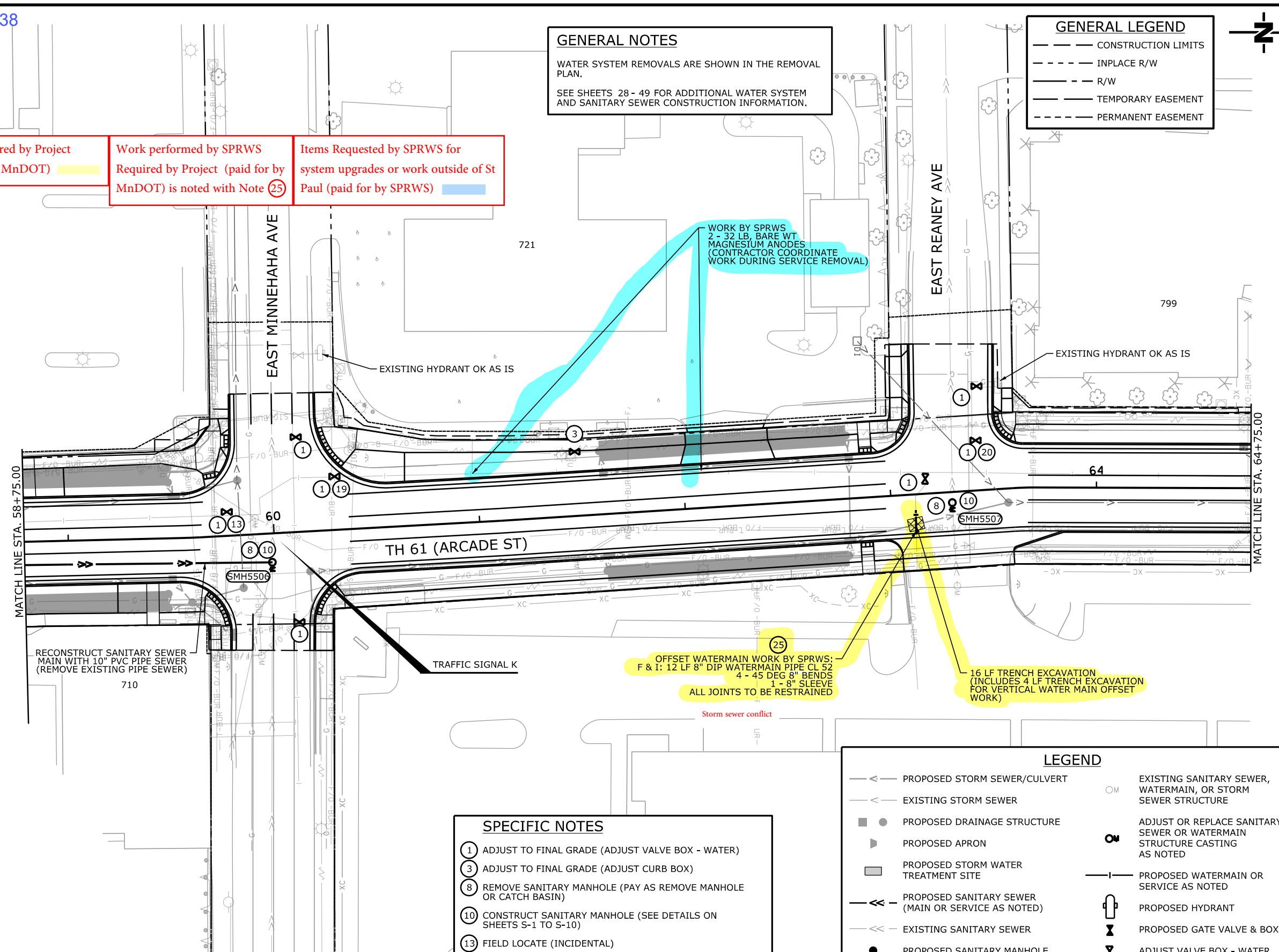
DESIGNED
BRS
 DRAWN
BRS
 CHECKED
CJS



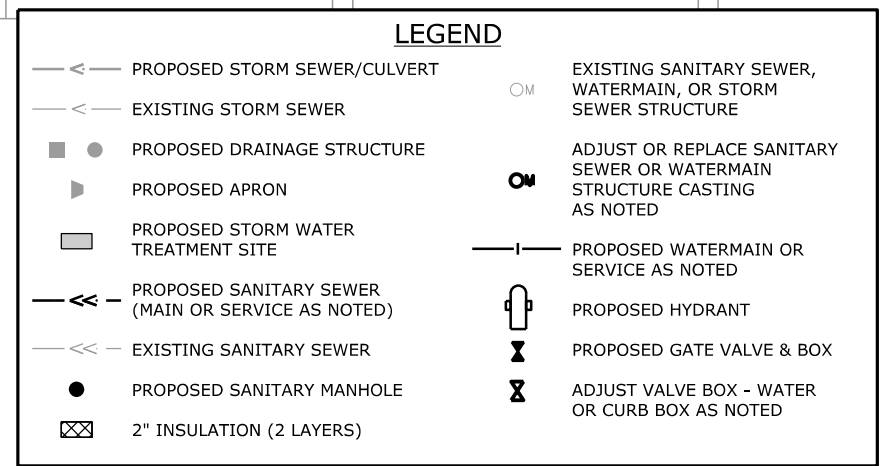
GENERAL NOTES
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.



Items Required by Project (paid for by MnDOT)
Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note (25)
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)
 - (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)
 - (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



MODEL: 13 - Sanitary and Watermain Plan
 USER: bspanier
 PEN TABLE: cdf6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\WinDOT\T-00946\Road_Design\Sheets\cd6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.pltcfq
 PLOT DATE: 6/20/2024 3:30:33 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



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

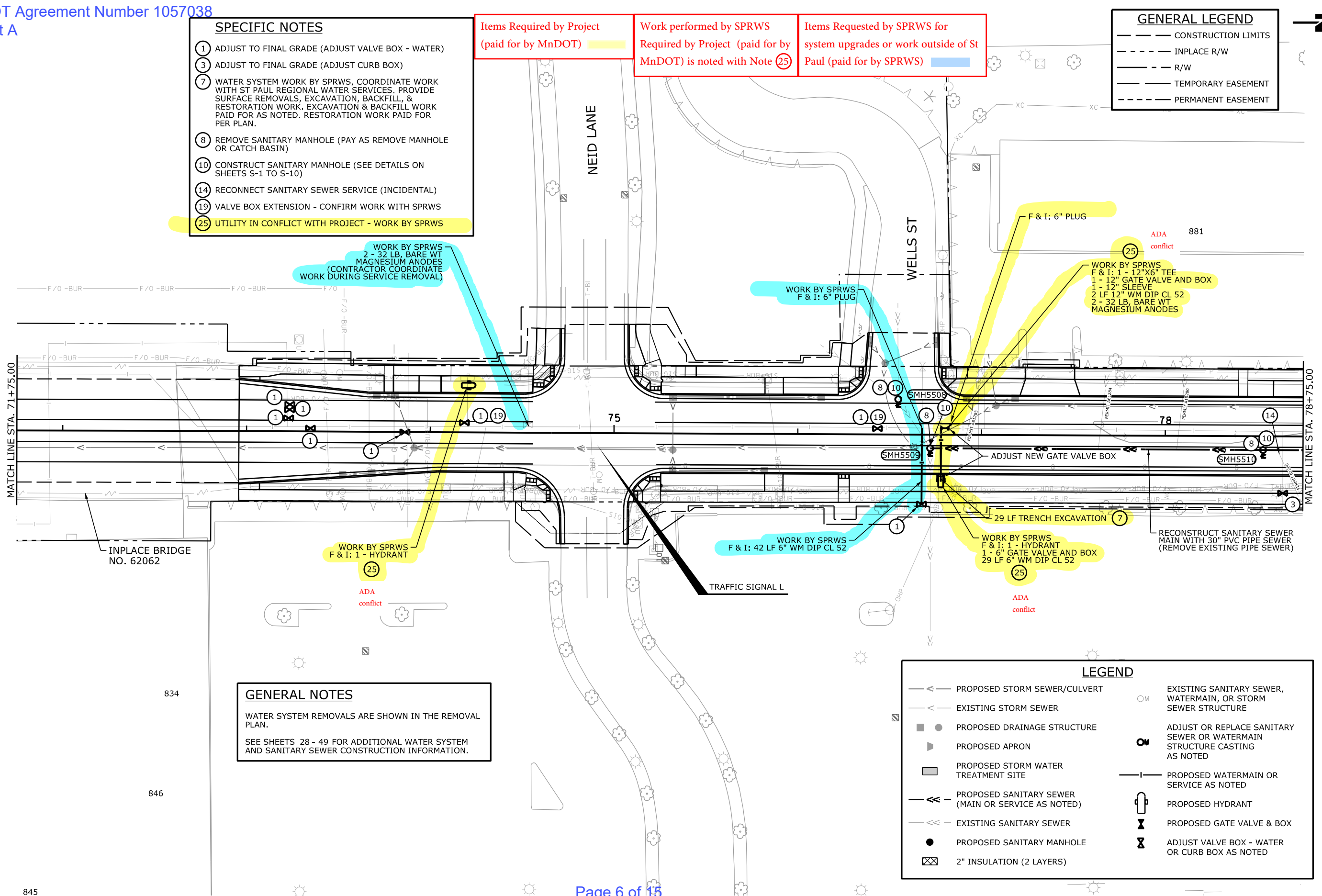
Items Required by Project
(paid for by MnDOT)

Work performed by SPRWS
Required by Project (paid for by
MnDOT) is noted with Note ⑳

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

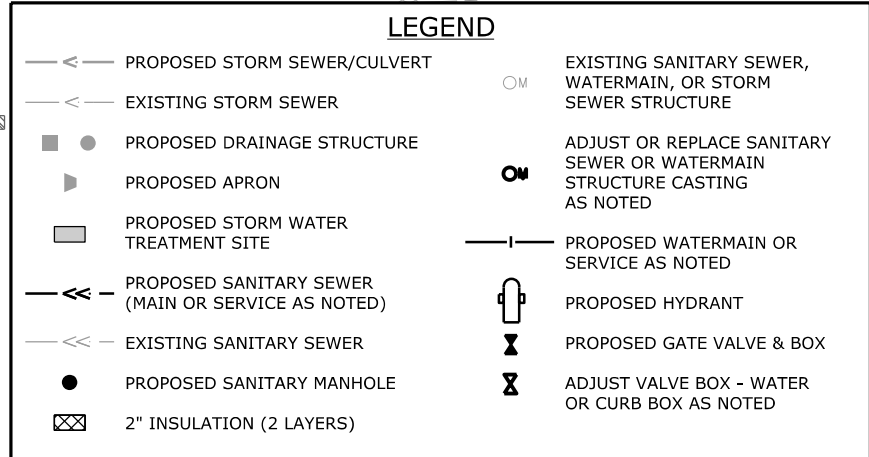
GENERAL LEGEND

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



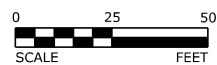
GENERAL NOTES

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



MODEL: 15 - Sanitary and Watermain Plan
 USER: bspanier
 PEN TABLE: cdf6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\1-00946\Road_Design\Sheets\cd6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.plt
 PLOT DATE: 6/20/2024 3:30:37 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

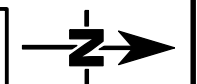


SANITARY & WATERMAIN PLAN
PLAN PAGE 15 of 34
SP 6221-107, SP 6228-69,
SP 062-627-007, SP 164-010-089, SP 138-010-023

SHEET
682
OF
909

GENERAL LEGEND

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



GENERAL NOTES

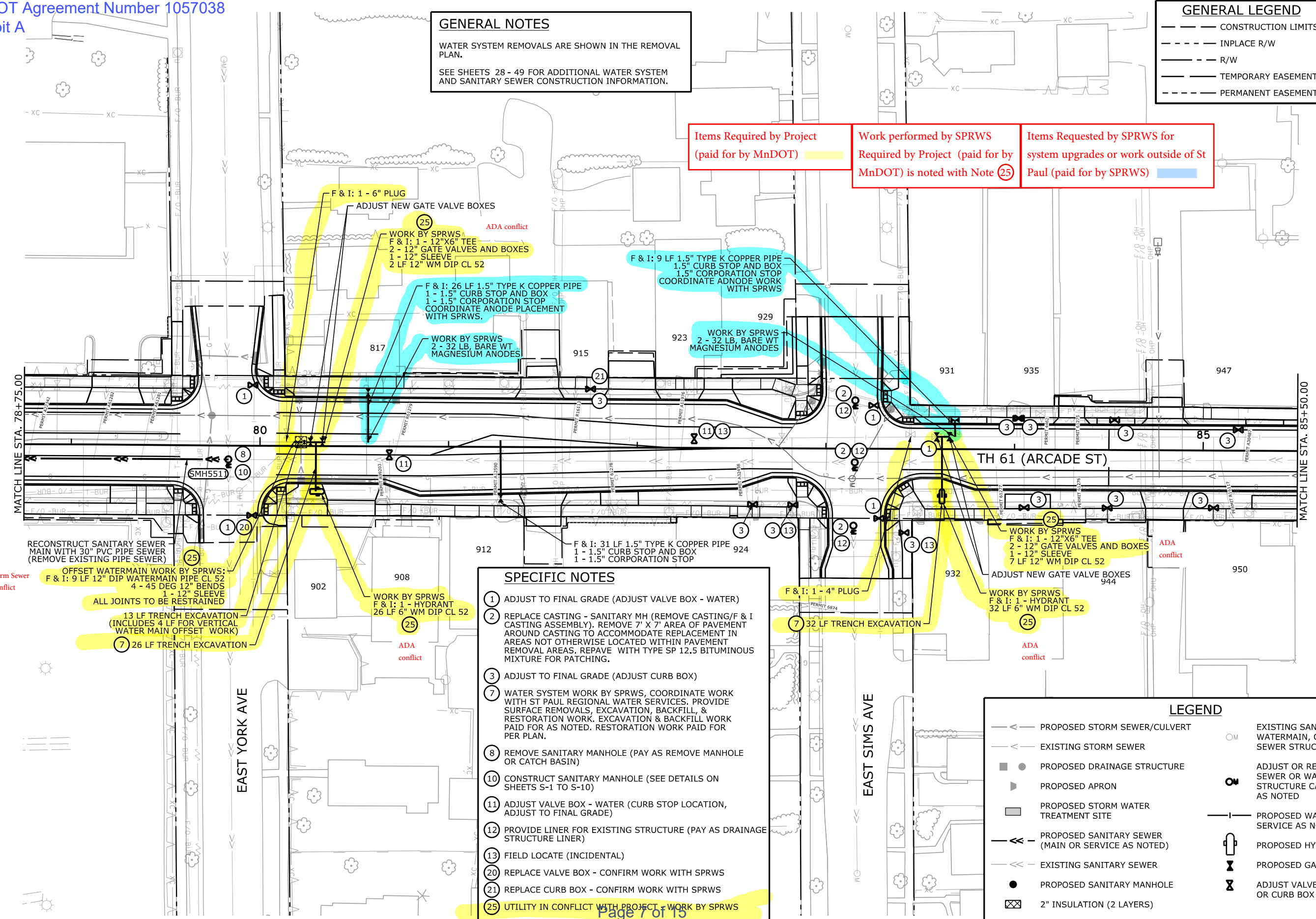
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.

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

Items Required by Project (paid for by MnDOT) [Yellow highlight]

Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note 25

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



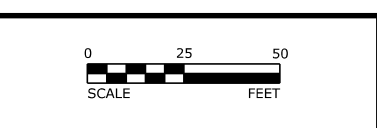
- SPECIFIC NOTES**
- 1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - 2 REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE 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
 USER: bspanier
 PEN TABLE: cdf6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\1-09\46\Road_Design\Sheets\cd6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.plt
 PLOT DATE: 6/20/2024 3:30:41 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

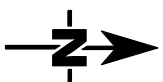


SANITARY & WATERMAIN PLAN

PLAN PAGE 16 of 34

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

SHEET 683 OF 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

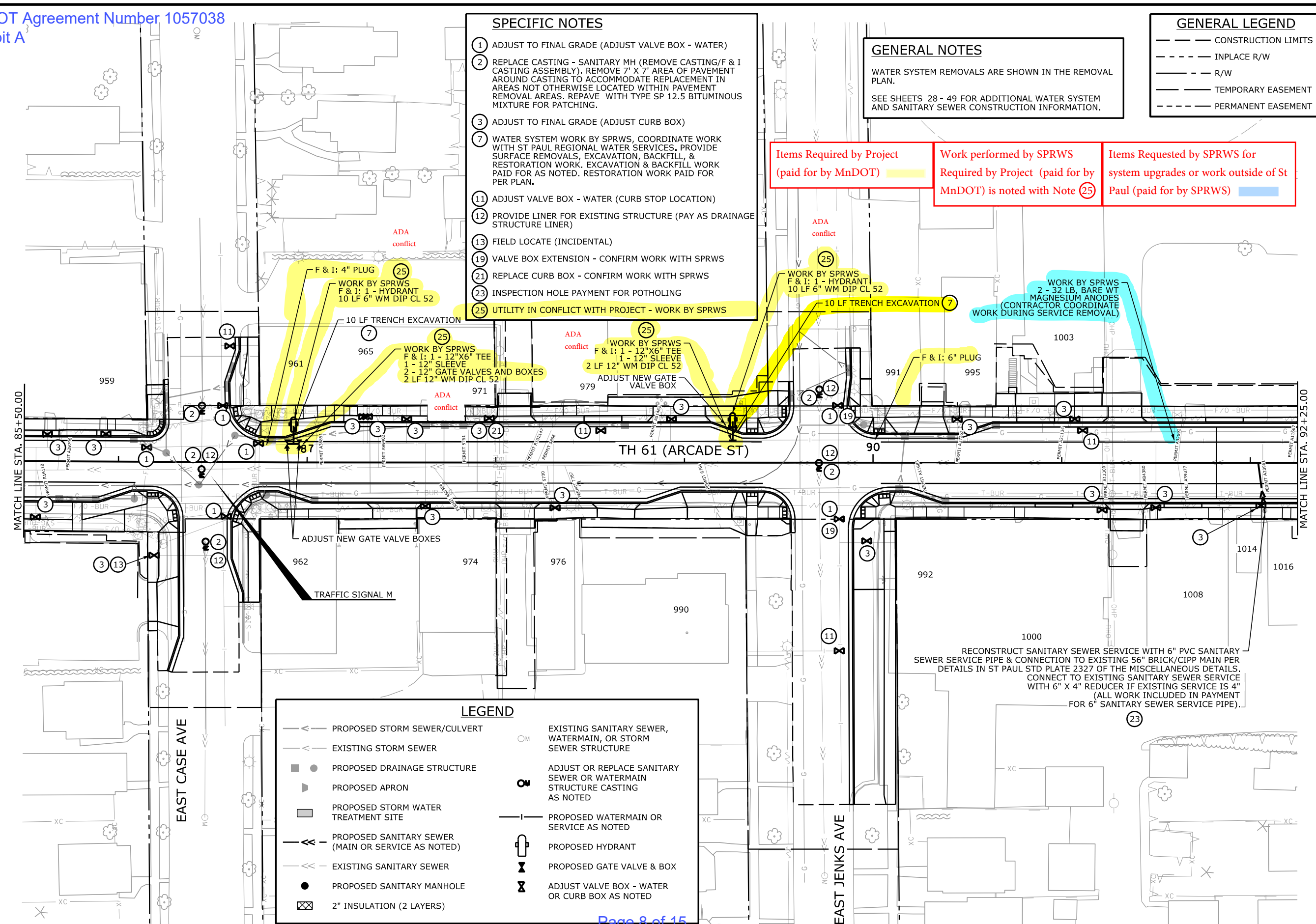
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

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

Items Required by Project (paid for by MnDOT) (Yellow background)

Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note ㉕ (Red background)

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



- ### 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
 USER: bspanier
 PEN TABLE: cdf6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\17-00946\Road_Design\Sheets\cd6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.plt
 PLOT DATE: 6/20/2024 3:30:43 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



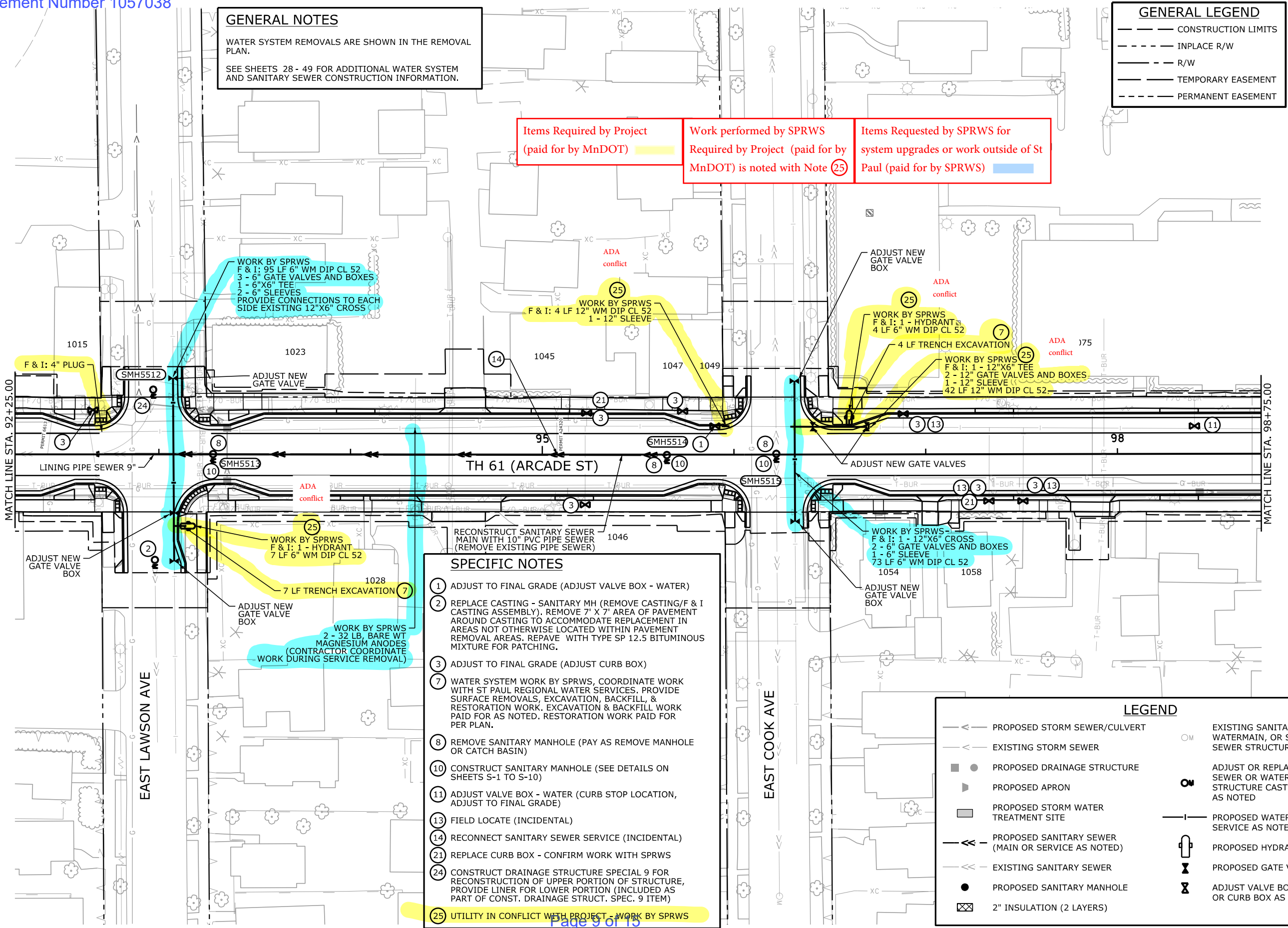
SANITARY & WATERMAIN PLAN
 PLAN PAGE 17 of 34
 SP 6221-107, SP 6228-69,
 SP 062-627-007, SP 164-010-089, SP 138-010-023

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

Items Required by Project (paid for by MnDOT) [Yellow Box]
 Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note (25)
 Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS) [Blue Box]



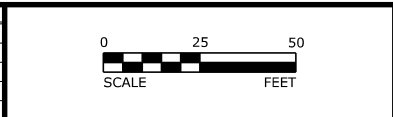
- SPECIFIC NOTES**
- 1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - 2 REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE 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)
 - 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 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: 18 - Sanitary and Watermain Plan
 USER: bspanier
 PEN TABLE: cdf6221107.plantset.tbl
 FILE: S:\PROJECTS\TRANS\WinDOT\1-00946\Road_Design\Sheets\6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.pltcfp
 PLOT DATE: 6/20/2024 3:30:43 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.

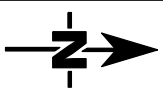
NAME: CHAD J. SEAMAN LIC. NO. 44961 DATE: 6/20/2024

DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS



GENERAL LEGEND

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



GENERAL NOTES

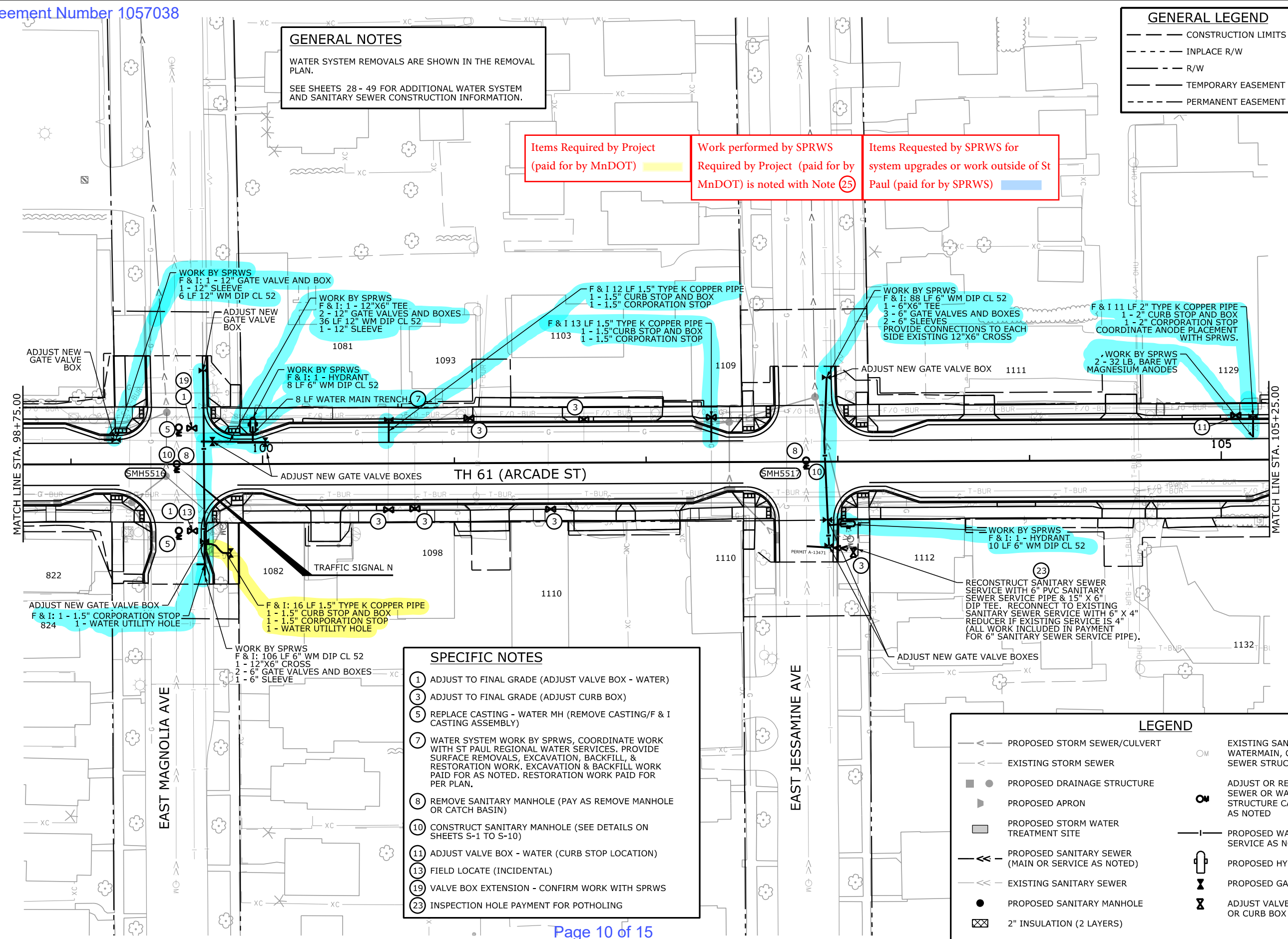
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.

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

Items Required by Project (paid for by MnDOT)

Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note (25)

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)
 - 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.
 - 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)
 - 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
 PEN TABLE: cdf6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\19-00946\Road_Design\Sheets\cd6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.plt
 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

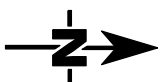


SANITARY & WATERMAIN PLAN

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.

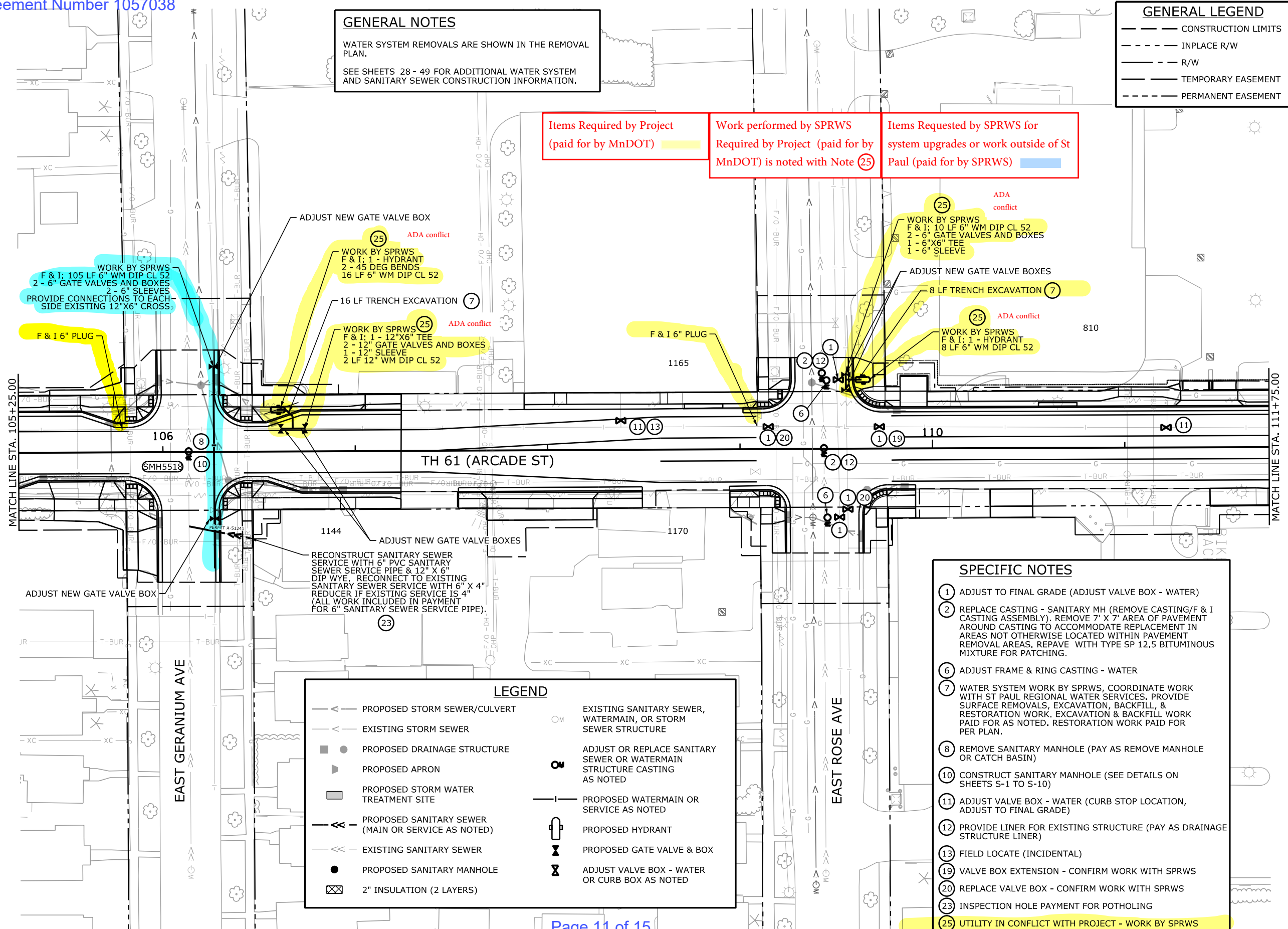
GENERAL LEGEND

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

Items Required by Project
(paid for by MnDOT)

Work performed by SPRWS
Required by Project (paid for by
MnDOT) is noted with Note 25

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



LEGEND

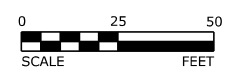
—▲— PROPOSED STORM SEWER/CULVERT	○M EXISTING SANITARY SEWER, WATERMAIN, OR STORM SEWER STRUCTURE
—▲— EXISTING STORM SEWER	○ ADJUST OR REPLACE SANITARY SEWER OR WATERMAIN STRUCTURE CASTING AS NOTED
■ PROPOSED DRAINAGE STRUCTURE	— — PROPOSED WATERMAIN OR SERVICE AS NOTED
▶ PROPOSED APRON	☪ PROPOSED HYDRANT
▭ 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
 PEN TABLE: c6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\T-00946\Road_Design\Sheets\c6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.pltcfq
 PLOT DATE: 6/20/2024 3:30:49 PM

REV. NO.	DATE	BY	CHK	DESCRIPTION

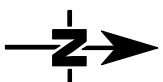


I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

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

DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS

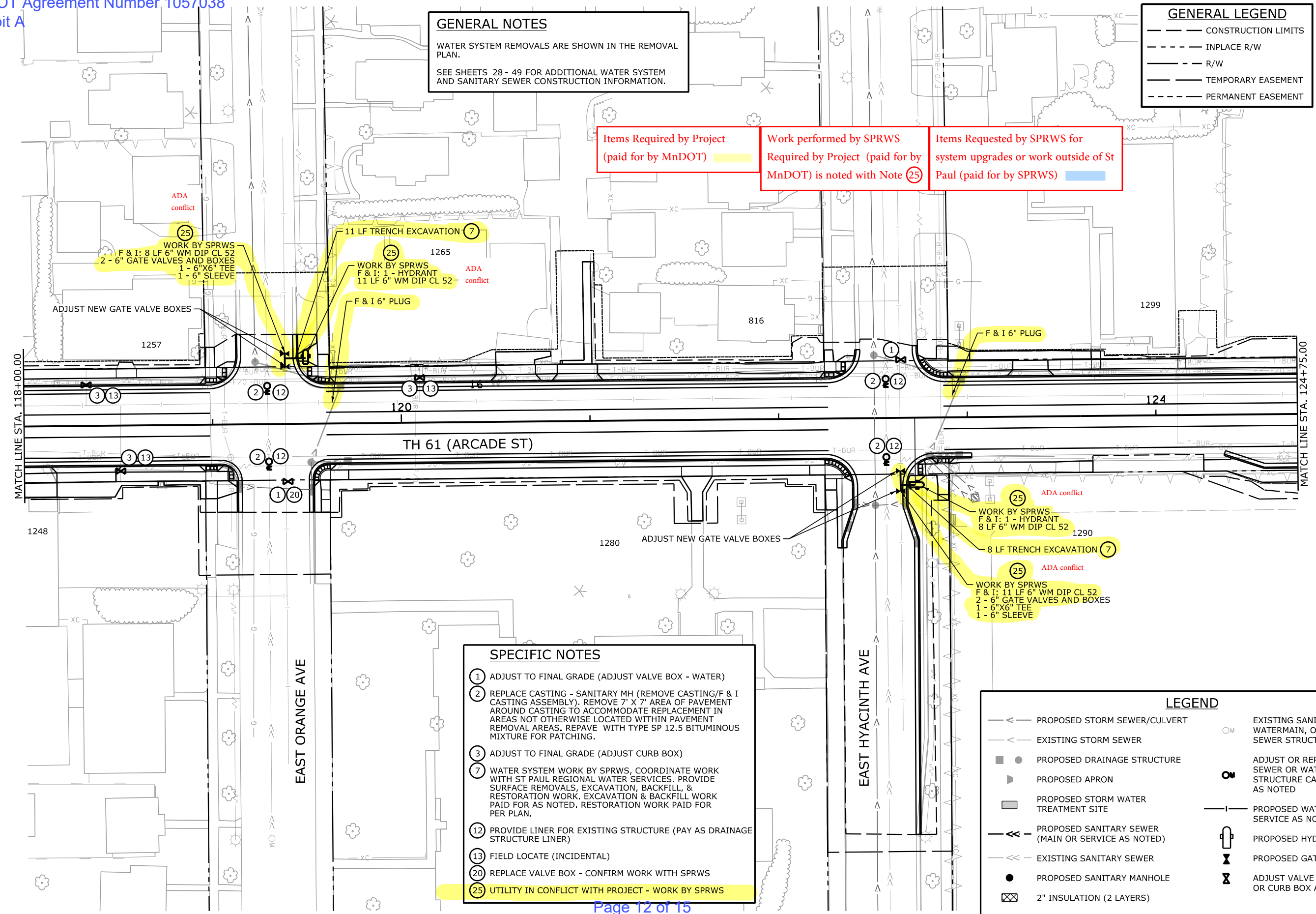




GENERAL NOTES
WATER SYSTEM REMOVALS ARE SHOWN IN THE REMOVAL PLAN.
SEE SHEETS 28 - 49 FOR ADDITIONAL WATER SYSTEM AND SANITARY SEWER CONSTRUCTION INFORMATION.

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

Items Required by Project (paid for by MnDOT) [Yellow Box]
 Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note (25)
 Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS) [Blue Box]



SPECIFIC NOTES

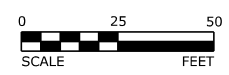
- (1) ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
- (2) REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE SP 12.5 BITUMINOUS 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.
- (12) PROVIDE LINER FOR EXISTING STRUCTURE (PAY AS DRAINAGE STRUCTURE LINER)
- (13) FIELD LOCATE (INCIDENTAL)
- (20) REPLACE VALVE BOX - CONFIRM WORK WITH SPRWS
- (25) UTILITY IN CONFLICT WITH PROJECT - WORK 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: 22 - Sanitary and Watermain Plan
 USER: bspanier
 PEN TABLE: cdf6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\T-009+46\Road_Design\Sheets\cd6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.plt
 PLOT DATE: 6/20/2024 3:30:54 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

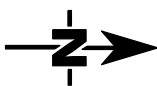


SANITARY & WATERMAIN PLAN
 PLAN PAGE 22 of 34
 SP 6221-107, SP 6228-69,
 SP 062-627-007, SP 164-010-089, SP 138-010-023

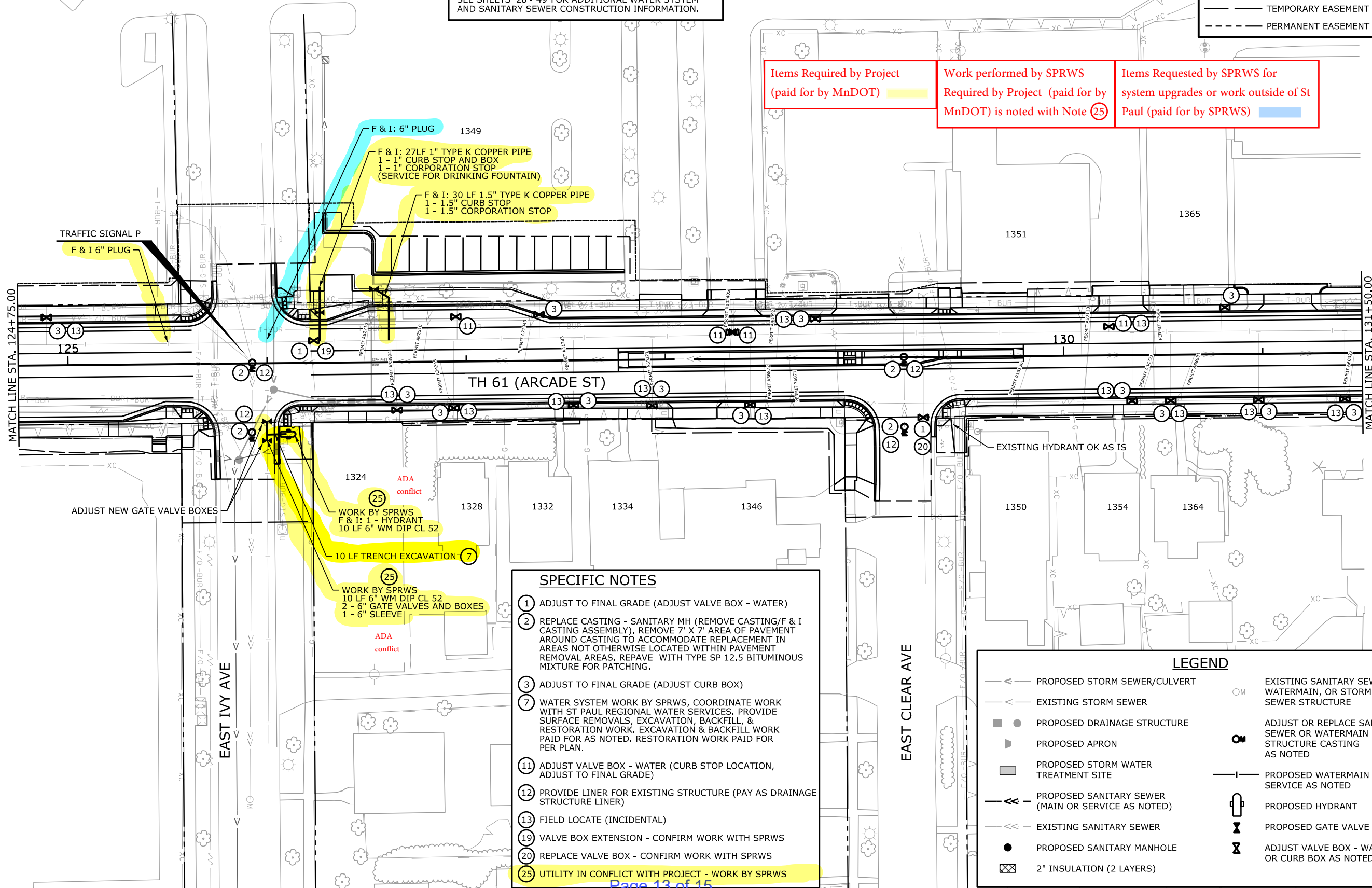
SHEET
 689
 OF
 909

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) [Yellow highlight]
 Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note (25)
 Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS) [Blue highlight]



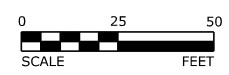
- SPECIFIC NOTES**
- ① ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
 - ② REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS. REPAVE WITH TYPE 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	○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	
⊗ 2" INSULATION (2 LAYERS)	

MODEL: 23 - Sanitary and Watermain Plan
 USER: bspanier
 PEN TABLE: cdf6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\1-00946\Road_Design\Streets\cd6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.pltcfq
 PLOT DATE: 6/20/2024 3:30:58 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

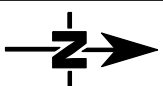


SANITARY & WATERMAIN PLAN
 PLAN PAGE 23 of 34
 SP 6221-107, SP 6228-69,
 SP 062-627-007, SP 164-010-089, SP 138-010-023

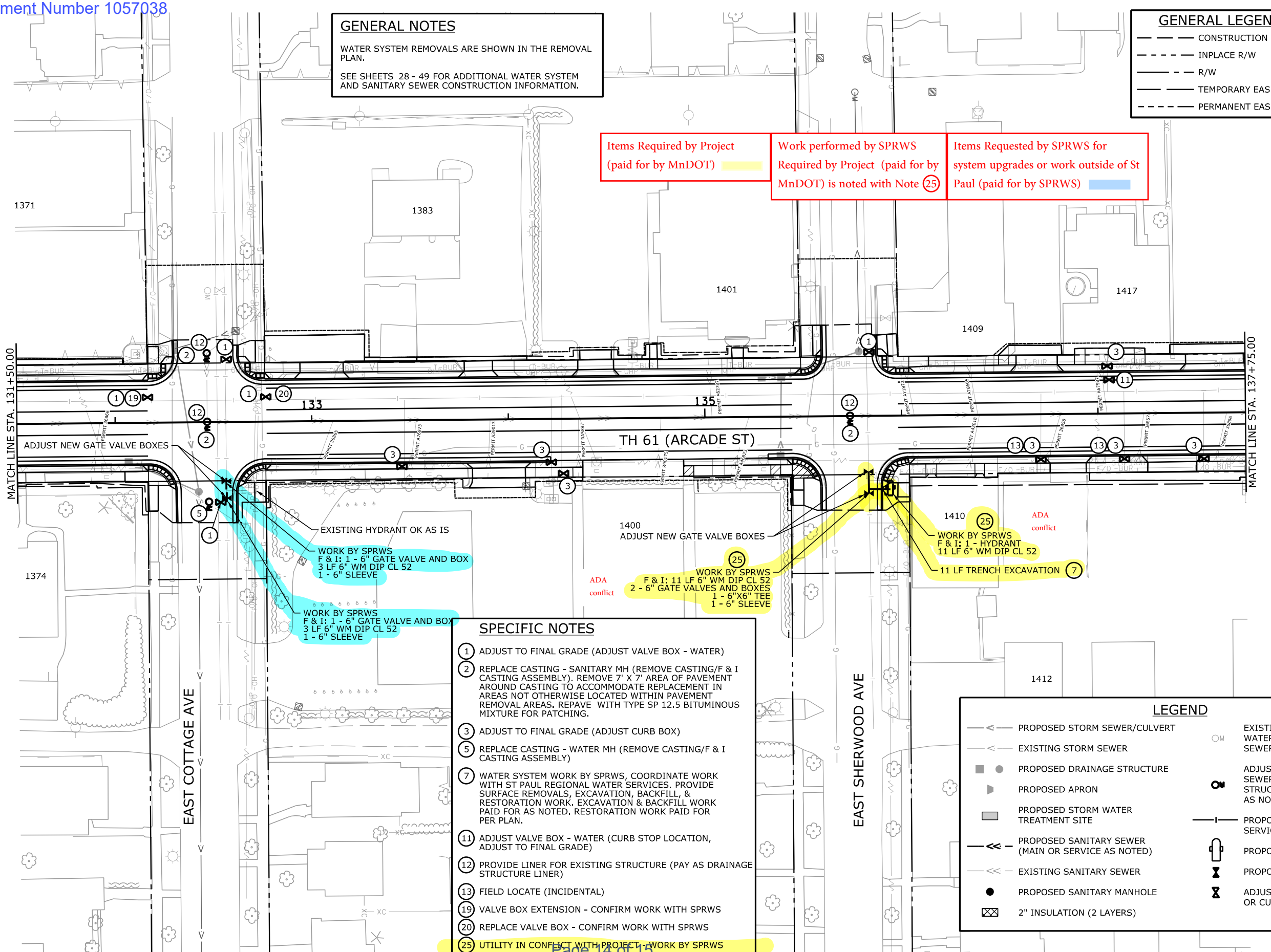
SHEET
 690
 OF
 909

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

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



Items Required by Project (paid for by MnDOT) [Yellow box]
 Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note (25)
 Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS) [Blue box]



SPECIFIC NOTES

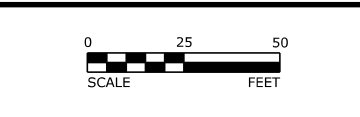
- 1 ADJUST TO FINAL GRADE (ADJUST VALVE BOX - WATER)
- 2 REPLACE CASTING - SANITARY MH (REMOVE CASTING/F & I CASTING ASSEMBLY). REMOVE 7' X 7' AREA OF PAVEMENT AROUND CASTING TO ACCOMMODATE REPLACEMENT IN AREAS NOT OTHERWISE LOCATED WITHIN PAVEMENT REMOVAL AREAS, REPAVE WITH TYPE SP 12.5 BITUMINOUS MIXTURE 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 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: 24 - Sanitary and Watermain Plan
 USER: bspanier
 PEN TABLE: cfd6221107_planset.tbl
 FILE: S:\PROJECTS\TRANS\MnDOT\1-09+46\Road_Design\Sheets\cfd6221107_sw.dgn
 PLOT DRIVER: pdf_bw_11x17only.pltcfq
 PLOT DATE: 6/20/2024 3:31:00 PM

REV. NO.	DATE	BY	CHK	DESCRIPTION

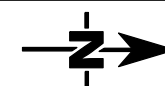


I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

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

DESIGNED: BRS
 DRAWN: BRS
 CHECKED: CJS





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) [Yellow Highlight]
Work performed by SPRWS Required by Project (paid for by MnDOT) is noted with Note 25 [Red Highlight]
Items Requested by SPRWS for system upgrades or work outside of St Paul (paid for by SPRWS) [Blue Highlight]

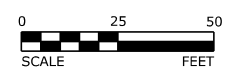
GENERAL LEGEND
--- CONSTRUCTION LIMITS
--- INPLACE R/W
--- R/W
--- TEMPORARY EASEMENT
--- PERMANENT EASEMENT

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)
13 FIELD LOCATE (INCIDENTAL)
19 VALVE BOX EXTENSION - 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)

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: 25 - Sanitary and Watermain Plan
USER: bspanier
PEN TABLE: c6221107_plantset.tbl
FILE: S:\PROJECTS\TRANS\MnDOT\1-00946\Road_Design\Sheets\c6221107_sw.dgn
PLOT DRIVER: pdf_bw_11x17only.pltcfq
PLOT DATE: 6/20/2024 3:31:04 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 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

S.P. 6221-107	
Relocation Agreement 1057038 with Board of Water Comm. City of Saint Paul	
Relocation Agreement Costs	
Watermain relocation costs	\$352,448.37
Temporary water during construction	\$32,745.11
TOTAL	\$385,193.48

WORK DESIGN ESTIMATE REPORT

MnDOT Agreement Number 1057038

Exhibit B

Report Select Criteria: WORK_DESIGN_NO = 2400034 PLANT = 01

Report Ordered By: PLANT

Project/Subproject: /
Work Design No: 2400034
 MNDoT Project TH5-TH61

DESIGN ESTIMATE SUMMARY	AMOUNT
Material	215,502.95
Labor	25,623.00
Equipment	7,992.00
Other Costs	103,330.42
Discount	0.00
Standard Price Adjustment	0.00
Subtotal	352,448.37
Contractor Amount	0.00
Subtotal with Contractor	352,448.37
State	0.00
Federal	0.00
Local	0.00

Estimated Total 352,448.37

DETAILS

Cost Type	Amount
ENGINEERING ADDITIVE	4,538.03
FRINGES - REGULAR TIME	10,889.78
MATERIAL ADDITIVES - BILLABLE	82,658.67
OVERHEAD ADDITIVE	5,243.94
Other Costs Total	103,330.42

Str.	Stock Type / Code	Item Description	Qty.	UOM	Unit Price	Total
WWH	I/000029	CORP STOP-2	1.00	EA	346.95	346.95
WWH	I/000124	TEE MJ 12 X 6	8.00	EA	333.25	2,666.00
WWH	I/000335	DI PIPE-MJ-4	1.00	EA	841.89	841.89
WWH	I/000336	DI PIPE-MJ-6	22.00	EA	753.66	16,580.62
WWH	I/000338	DI PIPE-MJ-12 CLASS 52	10.00	EA	1,449.74	14,497.36
WWH	I/000438	GATE VALVE-MJRS-4	1.00	EA	521.63	521.63
WWH	I/000440	GATE VALVE-MJRS-6	15.00	EA	1,072.80	16,092.02
WWH	I/000529	DI PIPE-SJ-12	8.00	EA	1,358.61	10,868.88
WWH	I/000626	BEND MJMJ 1/4 OR 90 - 6	1.00	EA	86.68	86.68
WWH	I/000641	MEGA LUG-4	2.00	EA	28.14	56.28
WWH	I/000642	MEGA LUG-6	67.00	EA	33.19	2,223.57
WWH	I/000644	MEGA LUG-12	23.00	EA	107.58	2,474.31
WWH	I/000649	GATE VALVE-MJRS-12	16.00	EA	3,541.32	56,661.04
WWH	I/000656	BEND MJMJ 1/16 OR 22 1/2 - 12	4.00	EA	192.71	770.86
WWH	I/000870	GATE BOX POT-6	32.00	EA	75.18	2,405.64
WWH	I/000896	SOLID SLEEVE-MJ-6 X 7 1/2 COMP-C153	8.00	EA	80.22	641.72
WWH	I/000923	SOLID SLEEVE-MJ-12 X 7 1/2 -CO-C153	10.00	EA	204.42	2,044.23
WWH	I/001014	GATE BOX-SM-TOP SECT-26	32.00	EA	82.21	2,630.56

WORK DESIGN ESTIMATE REPORT

MnDOT Agreement Number 1057038

Exhibit B

WWH	I001019	GATE BOX-SM BOTTOM EXT #59-24	32.00	EA	55.51	1,776.27
WWH	I001020	GATE BOX-SM BOTTOM EXT-36	32.00	EA	64.46	2,062.86
WWH	I001023	TEE MJ 6 X 6	8.00	EA	167.98	1,343.81
WWH	I001061	GATE BOX-SM COVER	32.00	EA	18.98	607.51
WWH	I001089	BEND MJMJ 1/8 OR 45-6	2.00	EA	71.99	143.97
WWH	I001138	CP PIPE-2	10.00	FT	25.00	250.03
WWH	I001157	PLUG MJ 6	1.00	EA	57.93	57.93
WWH	I002047	PACER 100 FIRE HYDRANT DS WITH STORZ FITTING	22.00	EA	3,424.29	75,334.33
WWH	I002218	VALVE BOX ADAPTERS WATR - 12"	16.00	EA	94.75	1,515.97

Subtotal	215,502.95
Adjustment	0.00
Material Total	215,502.95

Craft	Description	# of People	Hours	Rate	Total
277-C	H WATER UTILITY WORKER I	2	180	29.97	10,789.20
331A	H WATER SYSTEM WORKER II	1	180	34.59	6,226.20
369B	B WATER DISTRIBUTION SUPV III	1	180	47.82	8,607.60

Subtotal	25,623.00
Travel	0.00
Subtotal with Travel	25,623.00
Adjustment	0.00
Labor Total	25,623.00

Equipment	Description	Qty.	Duration	UOM	Rate	Total
W_E512-16	WATER-2016 FORD F350 PICKUP #512	2.00	180	HOUR	13.60	4,896.00
W_E534-18	Water - 2018 Crew Van #534	1.00	180	HOUR	17.20	3,096.00

Subtotal	7,992.00
Adjustment	0.00
Equipment Total	7,992.00

WORK DESIGN ESTIMATE REPORT

MnDOT Agreement Number 1057038

Exhibit B

Report Select Criteria: WORK_DESIGN_NO = 2400042 PLANT = 01

Report Ordered By: PLANT

Project/Subproject: /

Work Design No: 2400042

Estimate for Temps - MNDOT TH 5/61 SP 6221-107
Arcade from Cook to Larson and Maryland to Hawthorne

DESIGN ESTIMATE SUMMARY	AMOUNT
Material	0.00
Labor	15,610.08
Equipment	4,615.20
Other Costs	12,519.83
Discount	0.00
Standard Price Adjustment	0.00
Subtotal	32,745.11
Contractor Amount	0.00
Subtotal with Contractor	32,745.11
State	0.00
Federal	0.00
Local	0.00
Estimated Total	32,745.11

DETAILS

Cost Type	Amount
ENGINEERING ADDITIVE	2,730.41
FRINGES - REGULAR TIME	6,634.28
OVERHEAD ADDITIVE	3,155.14
Other Costs Total	12,519.83

Craft	Description	# of People	Hours	Rate	Total
141A	H HEAVY EQUIP OPR - WATER	1	48	45.51	2,184.48
277-	H WATER UTILITY WORKER I	4	36	44.63	6,426.72
331A	H WATER SYSTEM WORKER II	2	32	34.59	2,213.76
392B	B WATER DISTRIBUTION SUPV II	1	72	45.76	3,294.72
414A	H *DRIVER OPERATOR-WATER	1	48	31.05	1,490.40

Subtotal	15,610.08
Travel	0.00
Subtotal with Travel	15,610.08
Adjustment	0.00
Labor Total	15,610.08

Equipment	Description	Qty.	Duration	UOM	Rate	Total
W_E502-24	Water - 2024 KENWORTH TANDEM AXLE DUMP #502	1.00	48	HOUR	24.25	1,164.00
W_E512-16	WATER-2016 FORD F350 PICKUP #512	1.00	72	HOUR	13.60	979.20
W_E542-23	Water - 2023 FORD TRANSIT VAN #542	1.00	72	HOUR	20.00	1,440.00
W_E781-18	Water - 2018 CATERPILLAR 430 F2 BACKHOE #T-81	1.00	48	HOUR	21.50	1,032.00

Subtotal	4,615.20
Adjustment	0.00

WORK DESIGN ESTIMATE REPORT

MnDOT Agreement Number 1057038

12/JUL/2024

12:30 PM

Exhibit B

Equipment Total	4,615.20
-----------------	----------