



# AGREEMENT

## **TRANSMITTAL**

To: City of Duluth  
411 W 1<sup>st</sup> Street  
Room 240  
Duluth, MN 55802

Date: November 17, 2023 Project No. 230852  
Attention: Brad Scott Task/Subtask: N/A  
Re: Duluth Hillside Tunnel Repairs

These are transmitted as checked below:

## Mail

- Priority
- First Class
- Regular
- Rush

## Other

- Pick-up
- Hand-delivered
- Email

FedEx

- FedEx Priority Overnight – 10:30 a.m.
- FedEx Standard Overnight – 4:30 p.m.
- FedEx – 2<sup>nd</sup> Day
- FedEx - Ground

If a transmittal method is not checked above, it will be sent by First Class Mail.

| QUANTITY | NUMBER | DESCRIPTION                         |
|----------|--------|-------------------------------------|
| 1        |        | Fee Estimate                        |
| 1        |        | 2024 Culvert Repair Scope Map       |
| 1        |        | 2024 Culvert Repair Estimate        |
| 1        |        | 2024 Culvert Work Scope with Photos |
|          |        |                                     |
|          |        |                                     |
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|          |        |                                     |
|          |        |                                     |

**Sent for:**

Your approval       Your use  
 As requested       Review and comment

## Remarks:

Brad – Attached is our fee estimate for the 2024 Hillside Culvert Repair design. Our fee assumes developing biddable plans for the culvert repairs as discussed in our meeting on November 9, 2023 and as outlined in the documents sent by email on Friday November 11, 2023 (also attached). Please reach out if you have any comments or questions.

**Copy To:** JWS, Project File      **Signed:** Christopher J. Miller – 218-249-2495



**Project Name**  
**Client**  
**Preparer**

**Duluth Hillside Creek Culvert Repairs**  
**City of Duluth**  
**Chris Miller**

**Project Number**  
**Date**

230852  
November 14, 2023

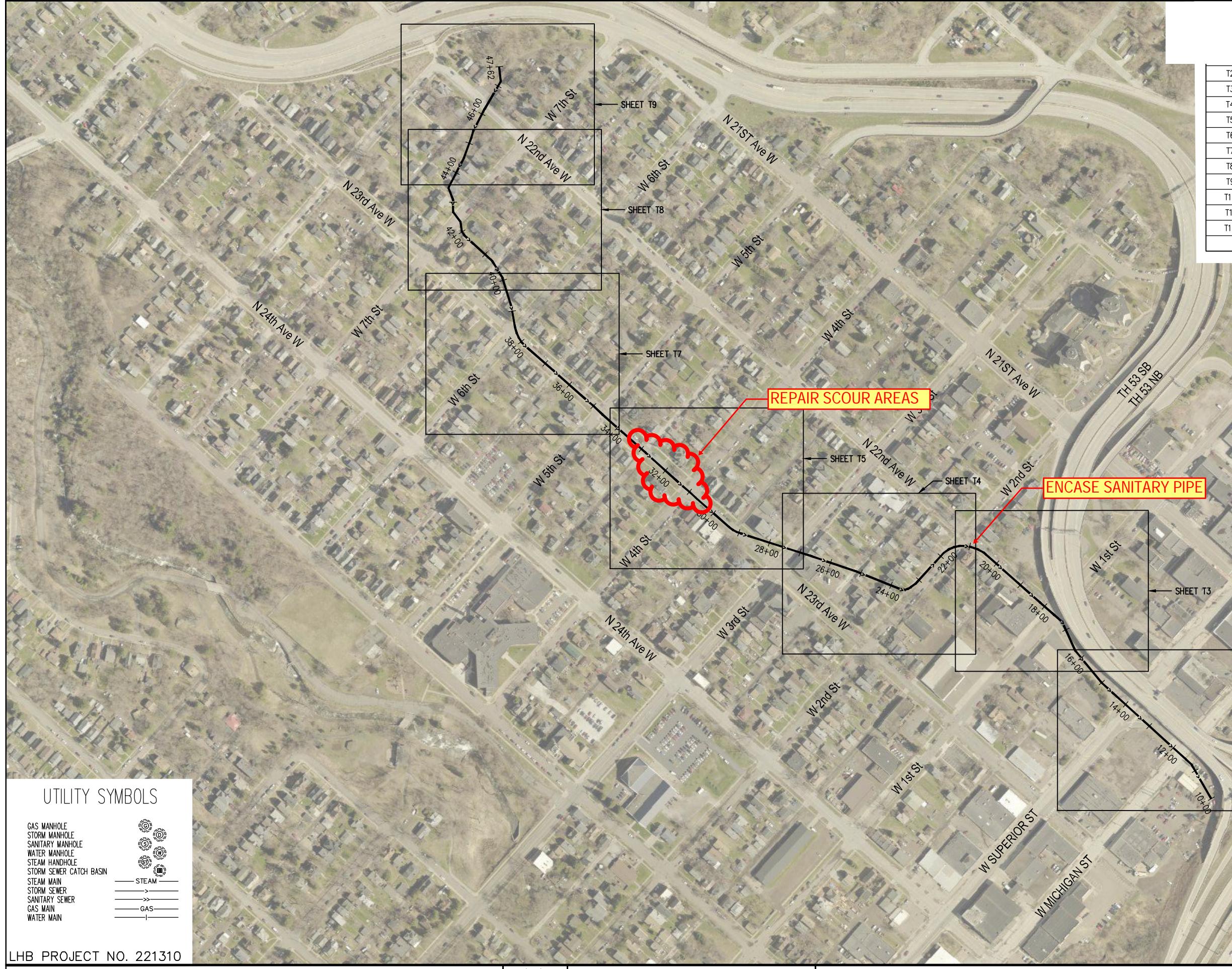
## 2023 FEE ESTIMATE WORKSHEET

| Project Breakdown<br>Task<br>Description               | P1                   | P3                   | P4               | P5               | P7                    | P9               | P13              | T1              | T5              | T7            | T7              | T10   | T12   | Total<br>Labor<br>Costs<br>(\$) |
|--|----------------------|----------------------|------------------|------------------|-----------------------|------------------|------------------|-----------------|-----------------|---------------|-----------------|-------|-------|---------------------------------|
|  | Project<br>Principal | Project<br>Principal | Profess.<br>Eng. | Profess.<br>Eng. | Profess.<br>Eng.      | Profess.<br>Eng. | Profess.<br>Eng. | Senior<br>Tech. | Senior<br>Tech. | Lead<br>Tech. | Inter.<br>Tech. | Tech. | Tech. |                                 |
|  | \$ 240               | \$ 205               | \$ 180           | \$ 170           | \$ 150                | \$ 125           | \$ 100           | \$ 130          | \$ 100          | \$ 90         | \$ 90           | \$ 75 | \$ 65 |                                 |
| <b>Task 1 - Project Management</b>                     |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Project Management (6 Months Assumed)                  |                      |                      | 6                |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ 1,230.00                     |
| Coordination Meeting (3 Assumed)                       |                      |                      | 3                |                  |                       | 3                | 3                |                 |                 |               |                 |       |       | \$ 1,440.00                     |
| Meeting Agenda and Minutes                             |                      |                      |                  |                  |                       | 3                |                  |                 |                 |               |                 |       |       | \$ 450.00                       |
| <b>Task 2 - Supplemental Field Investigations</b>      |                      |                      |                  |                  | 20                    | 20               |                  |                 |                 |               |                 |       |       | \$ 5,500.00                     |
| <b>Task 3 - Detail Design and Plans</b>                |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Title Sheet  |                      |                      |                  |                  | 1                     |                  |                  | 2               |                 |               |                 |       |       | \$ 350.00                       |
| General Notes and SEQ                                  | 1                    |                      |                  |                  | 2                     | 8                |                  |                 | 16              |               |                 |       |       | \$ 3,105.00                     |
| Overall Location Map                                   | 1                    |                      |                  |                  | 2                     |                  |                  |                 | 4               |               |                 |       |       | \$ 905.00                       |
| Brewery Creek Location Map                             |                      |                      |                  |                  | 1                     |                  |                  | 2               |                 |               |                 |       |       | \$ 350.00                       |
| Coffee Creek Location Map                              |                      |                      |                  |                  | 1                     |                  |                  | 2               |                 |               |                 |       |       | \$ 350.00                       |
| Buckingham Creek Location Map                          |                      |                      |                  |                  | 1                     |                  |                  | 2               |                 |               |                 |       |       | \$ 350.00                       |
| <b>Brewery Creek</b>                                   |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Update Design & Plan from Previous Project             | 1                    |                      |                  |                  | 8                     |                  |                  | 16              |                 |               |                 |       |       | \$ 3,005.00                     |
| <b>Coffee Creek</b>                                    |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Location 1 Map   |                      |                      |                  |                  | 1                     |                  |                  | 1               |                 |               |                 |       |       | \$ 250.00                       |
| Location 2 Map   |                      |                      |                  |                  | 1                     |                  |                  | 1               |                 |               |                 |       |       | \$ 250.00                       |
| Update Location 1 Details                              | 1                    |                      |                  |                  | 1                     | 2                |                  |                 | 8               |               |                 |       |       | \$ 1,405.00                     |
| Update Location 2 Details                              | 1                    |                      |                  |                  | 1                     | 2                |                  |                 | 8               |               |                 |       |       | \$ 1,405.00                     |
| <b>Buckingham Creek</b>                                |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Individual Location Maps (5 Total)                     | 1                    |                      |                  |                  | 2                     | 4                |                  |                 | 8               |               |                 |       |       | \$ 1,805.00                     |
| <b>Buckingham Creek - Location 1 (20+00 - 20+77)</b>   |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Wall Elevation   | 1                    |                      |                  |                  | 2                     | 2                |                  |                 | 8               |               |                 |       |       | \$ 1,555.00                     |
| Existing Section at Catch Basin                        | 1                    |                      |                  |                  | 2                     |                  |                  |                 | 8               |               |                 |       |       | \$ 1,305.00                     |
| Proposed Section at Catch Basin                        | 1                    |                      |                  |                  | 2                     |                  |                  |                 | 8               |               |                 |       |       | \$ 1,305.00                     |
| Catch Basin Details/Reinforcement                      | 2                    |                      |                  |                  | 4                     | 2                |                  |                 | 8               |               |                 |       |       | \$ 2,060.00                     |
| Miscellaneous Detail                                   | 2                    |                      |                  |                  | 2                     |                  |                  |                 | 6               |               |                 |       |       | \$ 1,310.00                     |
| Road Reconstruction Details                            | 1                    |                      |                  |                  | 1                     | 4                |                  |                 | 6               |               |                 |       |       | \$ 1,455.00                     |
| <b>Buckingham Creek - Location 2 (30+00 - 31+17)</b>   |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Concrete Floor Details                                 | 2                    |                      |                  |                  | 2                     | 2                |                  |                 | 8               |               |                 |       |       | \$ 1,760.00                     |
| Concrete Surface Repair at Manhole                     | 1                    |                      |                  |                  | 2                     | 4                |                  |                 | 8               |               |                 |       |       | \$ 1,805.00                     |
| Slope Stabilization (3 sheets)                         | 2                    |                      |                  |                  | 4                     | 12               |                  |                 | 24              |               |                 |       |       | \$ 4,910.00                     |
| <b>Buckingham Creek - Location 3 (70+00 - 71+30)</b>   |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Concrete Floor Details                                 | 1                    |                      |                  |                  | 2                     | 2                |                  |                 | 8               |               |                 |       |       | \$ 1,555.00                     |
| Existing Section at Catch Basin                        | 1                    |                      |                  |                  | 2                     |                  |                  |                 | 8               |               |                 |       |       | \$ 1,305.00                     |
| Proposed Section at Catch Basin                        | 1                    |                      |                  |                  | 2                     |                  |                  |                 | 8               |               |                 |       |       | \$ 1,305.00                     |
| Catch Basin Details/reinforcement                      | 2                    |                      |                  |                  | 4                     | 2                |                  |                 | 8               |               |                 |       |       | \$ 2,060.00                     |
| Miscellaneous Detail                                   | 2                    |                      |                  |                  | 4                     |                  |                  |                 | 8               |               |                 |       |       | \$ 1,810.00                     |
| Road Reconstruction Details                            | 2                    |                      |                  |                  | 2                     | 8                |                  |                 | 16              |               |                 |       |       | \$ 3,310.00                     |
| <b>Buckingham Creek - Location 4 (80+00 - 82+52)</b>   |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Culvert Plan and Elevation                             | 1                    |                      |                  |                  | 4                     |                  |                  |                 | 8               |               |                 |       |       | \$ 1,605.00                     |
| Culvert Sections                                       | 1                    |                      |                  |                  | 2                     | 6                |                  |                 | 8               |               |                 |       |       | \$ 2,055.00                     |
| Culvert Wall Elevations                                | 2                    |                      |                  |                  | 2                     | 2                |                  |                 | 8               |               |                 |       |       | \$ 1,760.00                     |
| Misc. Details  | 2                    |                      |                  |                  | 4                     |                  |                  |                 | 8               |               |                 |       |       | \$ 1,810.00                     |
| <b>Buckingham Creek - Location 5 (111+00 - 111+78)</b> |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Culvert Plan and Elevation                             | 1                    |                      |                  |                  | 4                     |                  |                  |                 | 8               |               |                 |       |       | \$ 1,605.00                     |
| Culvert Sections                                       | 1                    |                      |                  |                  | 2                     | 6                |                  |                 | 8               |               |                 |       |       | \$ 2,055.00                     |
| Culvert Wall Elevations                                | 2                    |                      |                  |                  | 2                     | 2                |                  |                 | 8               |               |                 |       |       | \$ 1,760.00                     |
| Misc. Details  | 2                    |                      |                  |                  | 4                     |                  |                  |                 | 8               |               |                 |       |       | \$ 1,810.00                     |
| <b>Task 4 - Technical</b>                              |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
| Project Special Provisions                             | 6                    |                      |                  |                  | 16                    |                  |                  |                 |                 |               |                 |       |       | \$ 3,630.00                     |
| Engineer's Estimates (Est 3)                           | 2                    |                      |                  |                  | 8                     |                  |                  |                 |                 |               |                 |       |       | \$ 1,610.00                     |
| Project Bidding Assistance                             |                      |                      |                  |                  | 4                     |                  |                  |                 |                 |               |                 |       |       | \$ 600.00                       |
|  |                      |                      |                  |                  |                       |                  |                  |                 |                 |               |                 |       |       | \$ -                            |
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| Total Hours  | -                    | 57                   | -                | -                | 137                   | 93               | -                | -               | 274             | -             | -               | -     | -     |                                 |
| Travel Expenses  | Qty                  | Rate                 | Cost             |                  | Other Direct Expenses |                  |                  |                 | Cost            | Labor Cost    |                 |       |       | \$ 71,260.00                    |
| Mileage  | 50                   | 0.66                 | 32.75            |                  | Mail / Delivery       |                  |                  |                 |                 | Travel Costs  |                 |       |       | \$ 32.75                        |
|  |                      |                      |                  |                  | Printing              |                  |                  |                 |                 | Direct Costs  |                 |       |       | \$ -                            |
|  |                      |                      |                  |                  | Other                 |                  |                  |                 |                 |               |                 |       |       |                                 |
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# Brewery Creek



# Coffee Creek



|     |                                     |
|-----|-------------------------------------|
| T2  | PLAN & SECTION (STA. 10+00 - 16+00) |
| T3  | PLAN & SECTION (STA. 16+00 - 20+75) |
| T4  | PLAN & SECTION (STA. 20+75 - 27+00) |
| T5  | PLAN (STA. 27+00 - 34+00)           |
| T6  | SECTIONS (STA. 27+00 - 34+00)       |
| T7  | PLAN & SECTION (STA. 34+00 - 40+00) |
| T8  | PLAN & SECTION (STA. 40+00 - 43+00) |
| T9  | PLAN & SECTION (STA. 45+00 - 47+62) |
| T10 | AERIAL PLAN (STA. 10+00 - 28+00)    |
| T11 | AERIAL PLAN (STA. 28+00 - 41+00)    |
| T12 | AERIAL PLAN (STA. 41+00 - 47+62)    |



SCALE: 0 150'

| <u>LEGEND:</u> |  |
|----------------|--|
|                | LOCATION OF IMMEDIATE OR SERIOUS DEFICIENCY, SEE PAGE 21 |
|                | STRUCTURE ABOVE A SECTION OF CULVERT IN GOOD CONDITION   |
|                | MANHOLE OBSERVED TO BE IN FAIR TO EXCELLENT CONDITION    |
|                | MANHOLE OBSERVED TO BE IN POOR CONDITION                 |

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.

CHRISTOPHER J. MILLER  
PRINTED NAME

SIGNATURE

1/2023  
DATE  
49840  
LIC. NO.

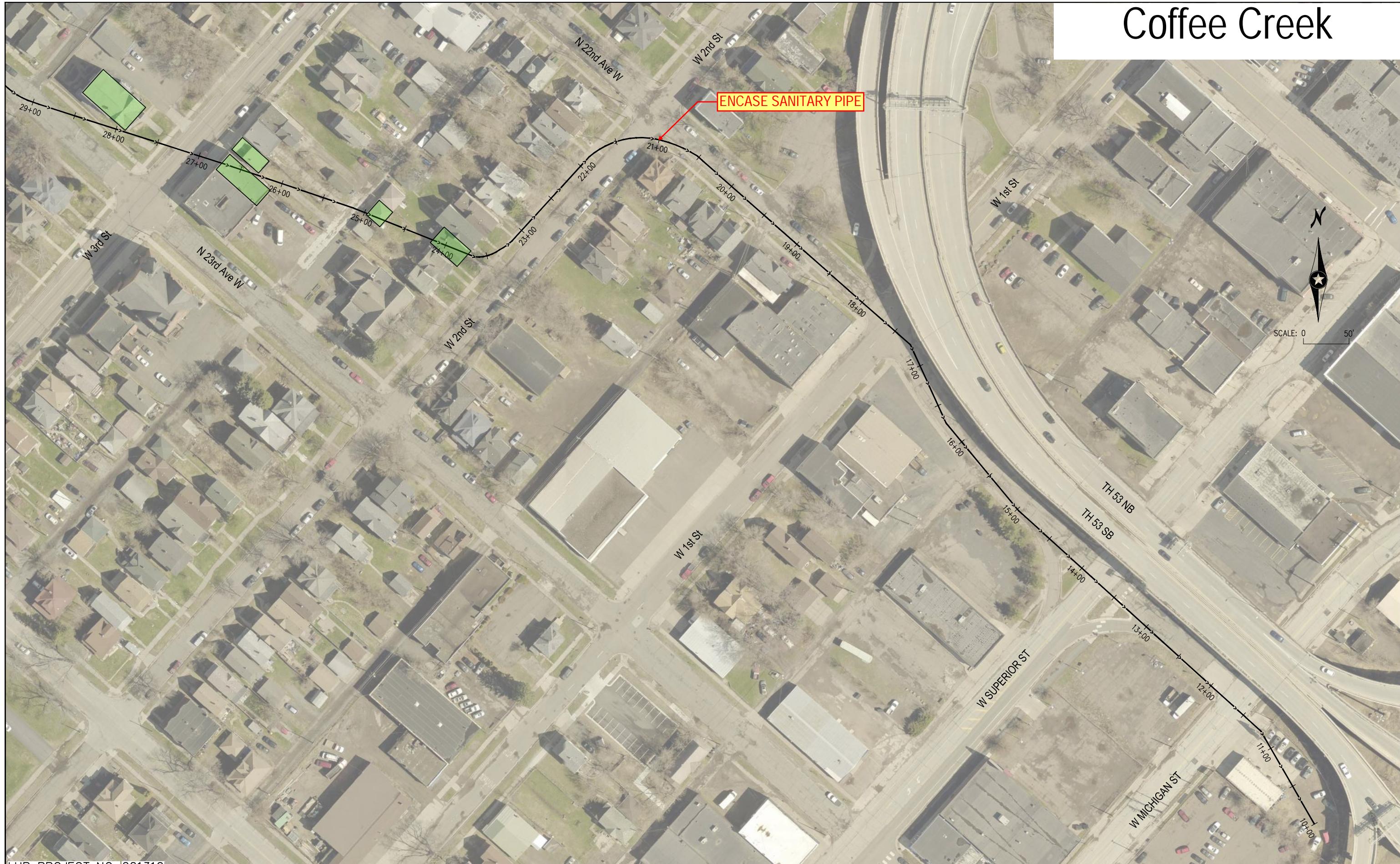
CITY PROJECT NO. 2124

COFFEE CREEK CONDITION STUDY

GENERAL PLAN

SHEET NO. T1 OF 12 SHEETS

# Coffee Creek



LHB PROJECT NO. 221310

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.

CHRISTOPHER J. MILLER  
PRINTED NAME

SIGNATURE

\_\_\_\_\_/\_\_\_\_\_/2023  
DATE  
49840  
LIC. NO.

CITY PROJECT NO. 2124

COFFEE CREEK CONDITION STUDY

AERIAL PLAN (STA 10+00 - 28+00)

SHEET NO. T10 OF 12 SHEETS

# Coffee Creek



LHB PROJECT NO. 221310

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.

CHRISTOPHER J. MILLER  
PRINTED NAME

\_\_\_\_\_/\_\_\_\_/2023  
DATE  
49840  
LIC. NO.

SIGNATURE

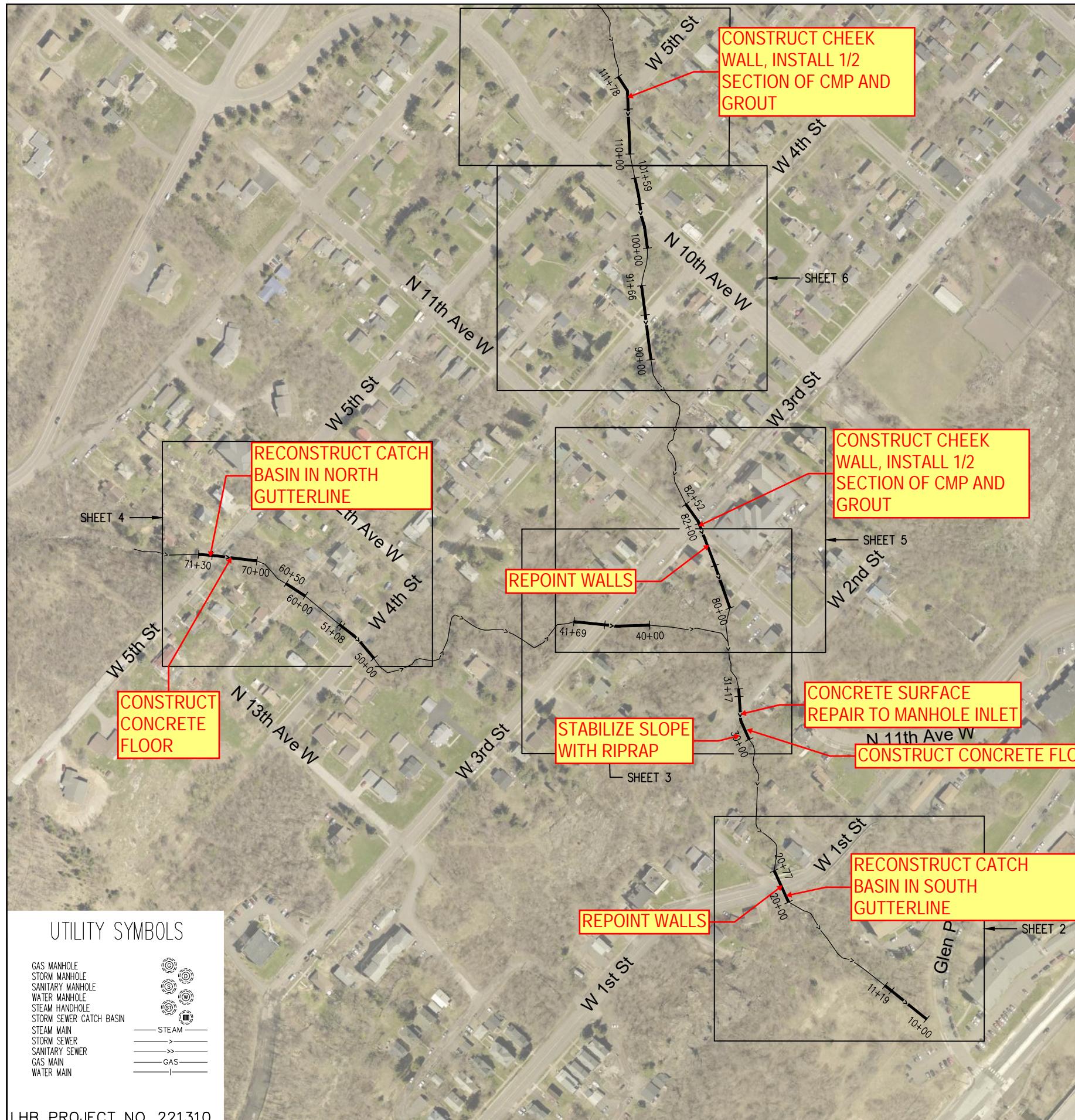
CITY PROJECT NO. 2124

COFFEE CREEK CONDITION STUDY

AERIAL PLAN (STA 28+00 – 41+00)

SHEET NO. T11 OF 12 SHEETS

# Buckingham Creek



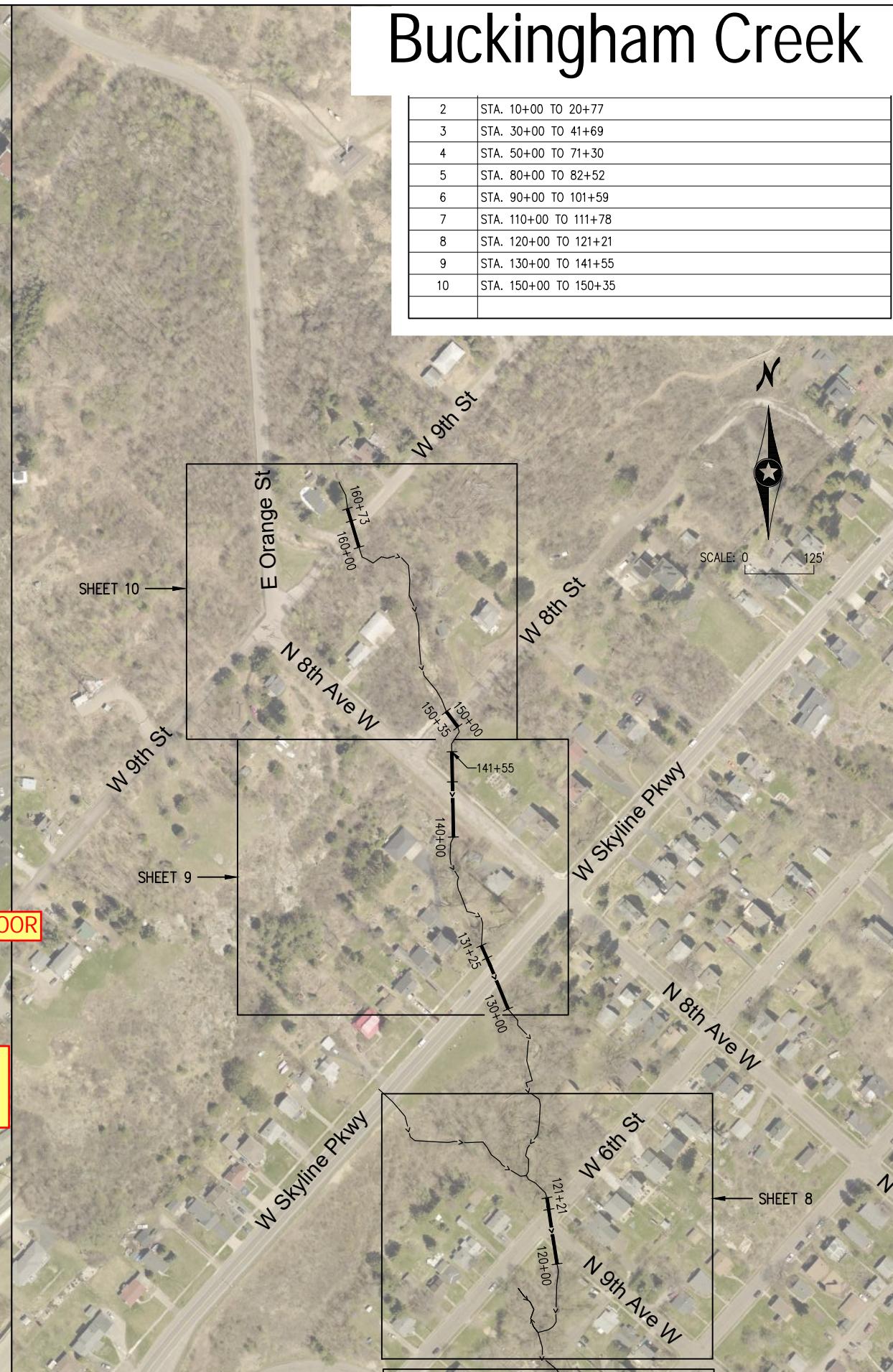
LHB PROJECT NO. 221310

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.

PRINTED NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

\_\_\_\_\_/\_\_\_\_\_/2023  
DATE  
LIC. NO. \_\_\_\_\_

CITY PROJECT NO. 2124





## Coffee Creek – Scoured floor



## Buckingham Creek – Reconstruct Catch Basin at 20+19



Buckingham – Repoint Segment 2 since roof/catch basin in being repaired



Buckingham – Construct floor in Segment 3 & concrete surface repair at manhole if floor constructed, stabilize slope (not pictured)



## Buckingham – Segment 7 – Reconstruct Catch basin/roof



Buckingham Creek – Construct floor – Segment 7



Buckingham – Repoint Segment 8 Walls



Buckingham – Segment 11 - Construct Scour walls and plate arch similar to segment 8

