CITY OF DULUTH
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION

CONSTRUCTION PLANS FOR: VARIOUS 2012 FLOOD REPAIRS INCLUDING RETAINING WALL REPLACEMENT, RIPRAP, EROSION CONTROL AND DEBRIS REMOVAL AT BRIDGE L5930

LOCATED ON: AT TISCHER CREEK ADJACENT TO ANNA STREET

LEGAL DESCRIPTION: LOCATED IN THE SOUTHEAST QUARTER OF SECTION 11, T55N, R4W, CITY OF DULUTH, MINNESOTA. FROM A POINT THAT IS APPROXIMATELY 1420 FEET WEST AND 1750 FEET NORTH OF THE SOUTHEAST CORNER OF SECTION 11, T55N, R4W TO A POINT THAT IS APPROXIMATELY 1250 FEET WEST AND 1640 FEET NORTH OF THE SOUTHEAST CORNER OF SECTION 11, T55N, R4W

INDEX MAP

MANHOLE & CATCH BASIN INDEX

GOVERNING SPECIFICATIONS
THE 2008 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION (SHALL COMPLY, AVAILABLE AT http://www.dot.state.mn.us/pre-ref/psf.html)/

THE CITY OF DULUTH PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION 2016 EDITION STANDARD CONSTRUCTION SPECIFICATIONS SHALL APPLY.

ALL TRAFFIC CONTROL DEVICES AND SIGNS SHALL CONFORM TO THE MSP H-90, INCLUDING THE FIELD MANUAL SHEETS "LAST EDITION".

THE SURVEYED UTILITY INFORMATION IN THIS PLAN IS UTILITY QUESTION AND QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CLAUSE (6-B) ELED "STANDARDS GUIDELINES FOR THE COLLECTION AND REPORTING OF EXISTING SUBSURFACE UTILITY DATA."

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Description
TITLE SHEET
STATEMENT OF ESTIMATED QUANTITIES & PLANTING DETAILS
GENERAL PLANS & SPECIFICATIONS
STORMWATER EROSION CONTROL DETAILS
RETAINED WALL ELEVATION & DETAILS
FOOT, WALL, CONNECTION DETAILS
URBAN INFRASTRUCTURE PROTECTION PLAN
TRAFFIC CONTROL
AS-BUILT BRIDGE DATA

DESIGN DESIGNATION
ADT (CURRENT YEAR) 2016
ADT (FUTURE YEARS) 2026
HCAD (CURRENT)
HCAD (FUTURE)
STRUCTURE DESIGN
SOL FACTOR
DESIGN SPEED
BASED ON STOPPING SIGHT DISTANCE
HEIGHT OF EYE
HEIGHT OF OBJECT

WARNING
LOCATION OF UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR, CALL BEFORE DIGGING, CONTRACTOR IS ON CALL
1-800-252-1166
REQUARED BY LAW

LISA M. KARLGAARD
05/11/16 47556

CITY APPROVALS:

APPROVED
05/16/16

APPROVED
05/16/16

LHB PROJECT. No. 120451.07
CITY OF DULUTH PROJECT No. 1238

SHEET 01 OF 10 SHEETS
KEY NOTES:
1. Sheet pile steel grade listed to continue over existing grade. Steel wall footing, grade is to be taken
   6" below bottom of excavation dimension. Upper surface will be extended. Sheet pile footing, grade
   is to be 6" below bottom of excavation dimension. Existing ground line, grade is to be taken
   6" below bottom of excavation dimension. Existing ground line will be extended. Use grade 30 or
   equivalent for all existing ground level. Excavation footing, grade is to be 6" below bottom of
   excavation dimension. Sheet pile footing, grade is to be 6" below bottom of excavation dimension.

2. All excavation required to expose the concrete, replacing vertical face and locate horizontal footing.
   ATTACH THE SHEET PILE AND REPAIR HOLLOW USING THE CONTRACTED SHEET PILE CONFIGURATION.
   SHEET PILE CONFIGURATION shall be included for payment under the "Steel Sheet Pile" provision.

3. Foundations and installation of steel wall cap shall be replaced for payment under the "Steel Sheet
   Pile" provision. Steel wall cap shall be cut-off within 90 days of job.

4. Sheet pile steel grade listed shall be extended. Steel wall cap shall be replaced for payment under the "Steel Sheet
   Pile" provision. Steel wall cap shall be extended within specified time of job.

5. Use grade 30 or equivalent for repair placement detail and sheet cut for repair locations.

6. Strengthened material included for wall repair. Material be hardened on site and replaced during
   repair of the strengthened sheet pile wall.

7. Use grade 30 or equivalent for repair placement detail and sheet cut for repair locations.

8. Existing concrete retaining wall and footing to be removed prior to placement of sheet pile wall.

9. Provide cap components at a 10'-0" minimum length. Components to be continuously welded in field.

10. Use grade 30 or equivalent for repair placement detail and sheet cut for repair locations.

11. Use grade 30 or equivalent for repair placement detail and sheet cut for repair locations.

12. Use grade 30 or equivalent for repair placement detail and sheet cut for repair locations.
WALL/BRIDGE CONNECTION DETAIL (B-B)

- All structural steel shall meet ASTM A572 or A369.
- Galvanized keel angle after fabrication per AWWA 99.
- Damaged galvanized coating of the keel angle and all field welds to be rinsed galvanized in the field.
- Location of sheet pile cap and location of attachment of keel angle to the concrete wall to be performed at concrete wall face. All connections to the keel angle must be approved by engineer in the field.
- All labor & materials necessary for furnish & installation of keel angle and sheet pile cap to be included in pricing.

CHAIN LINK FENCE NOTES:
STRUCTURAL STEEL PER ASTM SPEC. S160 OF 1996
STRUCTURAL FENCE POSTS PER ASTM SPEC. 8902

CHAIN LINK FENCE DETAILS
Fence shall be furnished and installed according to details (see schedule) and the following:
1. A top and bottom rail shall be provided the entire length of each fence.
2. Stringing boards shall be furnished at each end post and along the top and bottom rail.
3. All end posts and intermediate rail posts shall be 6" wall diameter as detailed and noted above.
4. All fence components shall be furnished including brace plates and top rails.

Payment for furnishing and installing deemed as detailed and noted above shall be paid for in accordance with spec details.
KEY NOTES:

1. TEMPORARY DEWATERING BASIN TO BE CONSTRUCTED AS SHOWN, OTHER SIZING MAY BE ATTED WITH CONSTRUCTORS APPROVAL TO BE INCLUDED IN FINAL PAYMENT.

2. AN OUTLET AND INLET ARE TO BE PROVIDED TO THE NEAREST STORMWATER DRAINAGE STRUCTURE.

3. TEMPORARY DEWATERING BASIN SHALL BE unlawful for use unless approved by the Department of Health.

4. PLACE 1 FT. OF DIRT FENCE, TYPE TB PRIOR TO TEMPORARY DEWATERING BASIN.

Scale: 1" = 15 ft.

STORM WATER POLLUTION PREVENTION PLAN

Bridge No. L5930
Sheet No. B10 of 10 Sheets

WATER SURFACE

SILT FENCE TYPE TB

PLACE 1 FT. OF DIRT FENCE, TB PRIOR TO TEMPORARY DEWATERING BASIN.

COLUMBUS

PLUNKER

ANNA STREET

PROPOSED RETAINING WALL

EXISTS RETAINING WALL
**CONCRETE WEARING COURSE**

- **Type of Construction**:

**EXPANSION JOINTS**

- **Joint Manufacturer**
  - Manufacturer's Name:
  - Address (City, State):

**ELASTOMERIC BEARING PADS**

- **Manufacturer**
  - Name & Address (City, State):

**SPECIAL SURFACE FINISH**

- **Type**
- **Color**

**FINISHING ROADWAY FACES OF BARRIER RAILING**

- **Type**
- **Color**

**ANTI-GRAFFITI COATING**

- **Manufacturer**
  - Name & Address (City, State):

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**PAINT SYSTEM**

- **Material Specification Number**
- **Date of Issue**

**Other Items**

- **Utilized After Construction and Other Projects**
  - **Final Quantity Estimated on Schedule of Quantities**
  - **No**
  - **No**

**PLAN QUALITY**

- **Rate**

**SUMMARY OF SIGNIFICANT AS-BUILT CHANGES**

**BRIDGE REMOVAL / BRIDGE OPENING**

- **Number of and Date(s) Bridge was Removed (if Applicable)**
- **Bridge Name**
- **Date Removed**
- **Date New Bridge was Opened to Traffic**

**AS-BUILT DETAILS**

(AS NEEDED)

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**AS-BUILT BRIDGE DATA**

**Bridge No.**

**Sheet No.**

**L3930**

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**FIG. 5-397.900**

**Revised: 10-28-2009**

**Approved: September 26, 2003**

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**THE AS-BUILT INFORMATION WAS ADDED TO THE PLAN BY:**

- **Engineer/Instructor**
- **Date**