CITY OF DULUTH
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION

CONSTRUCTION PLANS FOR:
SUPERIOR STREET SANITARY SEWER CIPP LINING
4TH AVENUE WEST TO 4TH AVENUE EAST

CITY PROJECT NO. 1529

END PROJECT
38+40

BEGIN PROJECT
0+37

PROJECT LOCATION
ST. LEOUS COUNTY
CITY OF DULUTH

S. CASSIDY ST. S
3. CASSIDY ST. S
7. LESTER ST.
8. MILOSH ST.

Eric Shaffer
PROJECT ENGINEER
25374

CITY APPROVAL
5/24/16

GRANTLAND
CHIEF ENGINEER
TRANSPORTATION

5/24/16

BORG
CHIEF ENGINEER
UTILITIES

5/24/16

PARK
CHIEF CITY ENGINEER

5/24/16

ERIC SHAFER
PROJECT ENGINEER (TYPED OR PRINTED NAME)

THIS PLAN CONTAINS 13 SHEETS
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
### SCHEDULE OF ESTIMATED QUANTITIES

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<th>NOTES</th>
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</table>

**TOTALS 5007**

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**NOTES:**
1. Estimated sanitary flows can be found in Appendix A of Special Provisions. No bypass pumping will be allowed during rain events.
2. Includes all materials and labor to repair sewer pipe to a linable condition in a manner acceptable to the engineer and all surface restoration. Includes but is not limited to excavation, fittings & adaptors, concrete & brick, imported gravel, riprap, backfill, compaction, disposal of excavated waste material, and pavement, curb & sidewalk restoration.
3. Historic water use can be found in Appendix B of Special Provisions.
4. The City and/or WLSSD reserve the right to delete this work from the contract.
5. Work will be performed during off-peak hours from 7:00 pm to 7:00 am.
6. A hot water cure shall be used.
7. Unless otherwise approved by the Engineer, the Contractor shall maintain two-way traffic with at least one lane open in each direction at all times.
INVERTED BRICK ARCH
TYPICAL CROSS SECTION

NOTES:
1. REFER TO 23B8 BRICK PAVEMENT RESTORATION IN THE CITY OF DULUTH CONSTRUCTION STANDARDS
2. DRILL AND DROP 1" DIA. CONCRETE BRICK (3/4" LENGTH) 18" O.C. INTO ADJACENT EXISTING CONCRETE BASE
3. ASPHALT SETTING BED MATERIALS SHALL MEET SPECIFICATION 31-7 OF MINN. 23B2-2 OF 49/CPT 3299
4. CONCRETE (M2 3.65) SHALL MEET THE PRECONDITIONS OF 49/CPT 2361 AND 49/CPT 2461
5. BRICK PAVING (4" X 8" X 2-1/4") SHALL MEET 49/CPT COLD-TALL EXCEPT AS MODIFIED IN THE CITY OF DULUTH CONSTRUCTION STANDARDS. BRICK COLOR AND TEXTURE SHALL MATCH EXISTING OR AS APPROVED BY ENGINEER.

BRICK PAVEMENT RESTORATION

APPROVED 02/19/2015

CITY OF DULUTH STANDARD DETAIL
DEPT. OF PUBLIC WORKS AND UTILITIES

DECLARATION OF PREPAREDNESS
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME UNDER MY DIRECT SUPERVISION AND THAT I AM A LEGALLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 4/1/2016

CITY OF DULUTH
ENGINEERING DIVISION
411 W. 1ST ST., STE. 211
DULUTH, MN 55802

SUPERIOR STREET SANITARY SEWER LINING

SIGNATURE: E.R. 3000
ERIC SHEFFER
 LIC. NO. 25374

DRAWN BY: JNM

CITY PROJECT NO.: 1559
STATE AID PROJECT NO.: NA

DETAILS

SHEET NO. 3 OF 13