

SHEET NO. 1 OF 7



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| STATEMENT OF ESTIMATED QUANTITIES |       |          |  |          |          |
|-----------------------------------|-------|----------|--|----------|----------|
| LINE                              | NOTES | SPEC NO  | DESCRIPTION  | UNIT     | QUANTITY |
| 1                                 |       | 2021.501 | MOBILIZATION   | LUMP SUM | 1.00     |
| 2                                 | 1     | 2504.601 | CONNECT TO EXISTING WATER MAIN                                 | LUMP SUM | 1.00     |
| 3                                 |       | 2504.602 | 6" GATE VALVE AND BOX  | EACH     | 1        |
| 4                                 |       | 2504.602 | 1" CURB STOP AND BOX   | EACH     | 1        |
| 5                                 |       | 2504.602 | 6"x 1" TAPPING TEE W/ ELECTROFUSION SADDLE                     | EACH     | 1        |
| 6                                 |       | 2504.602 | WATER TRACER BOX   | EACH     | 1        |
| 7                                 | 2     | 2504.602 | HYDRANT ASSEMBLY   | EACH     | 1        |
| 8                                 |       | 2504.603 | 1" HDPE SDR 11 SERVICE PIPE                                    | LIN FT   | 7        |
| 9                                 |       | 2504.603 | 6" DIPS HDPE WATER MAIN SDR11 (HORIZONTAL DIRECTIONAL DRILLED) | LIN FT   | 210      |
| 10                                | 3     | 2563.601 | TRAFFIC CONTROL  | LUMP SUM | 1.00     |
| 11                                |       | 2573.509 | STORM DRAIN INLET PROTECTION                                   | EACH     | 4        |
| 12                                |       | 2573.533 | SEDIMENT CONTROL LOG TYPE STRAW                                | LIN FT   | 100      |

| NOTES: |  |
|--------|--|
| 1      | INCLUDES EXCAVATION BACKFILL, AND ALL RESTORATION OF PAVEMENT AT EXISTING MAIN CONNECTION                              |
| 2      | INCLUDES EXCAVATION BACKFILL, AND ALL RESTORATION OF ACCESS PIT AND HYDRANT ASSEMBLY LOCATION                          |
| 3      | ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MN MUTCD, INCLUDING THE FIELD MANUAL DATED FEBRUARY 2015. |

I HEREBY CERTIFY THAT THIS PLAN 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.

SIGNATURE:

Thomas M. Pfeffer

THOMAS M. PFEFFER, P.E.  
TYPE NAME

DATE: 8/23/2016

LIC. NO: 22442



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

MAXWELL ST. WATERMAIN EXTENSION (2016)

CITY PROJECT NO.: 1571

STATE AID PROJECT NO.: N/A

DRAWN BY: KLM

STATEMENT OF ESTIMATED QUANTITIES

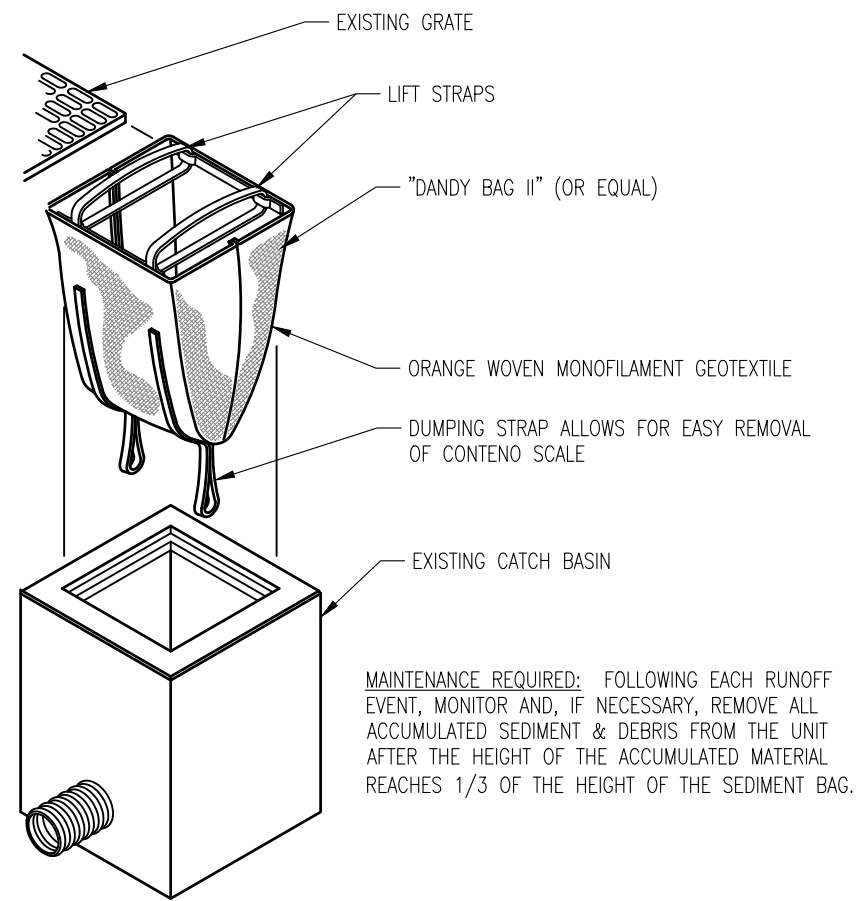
SHEET NO. 2 OF 7



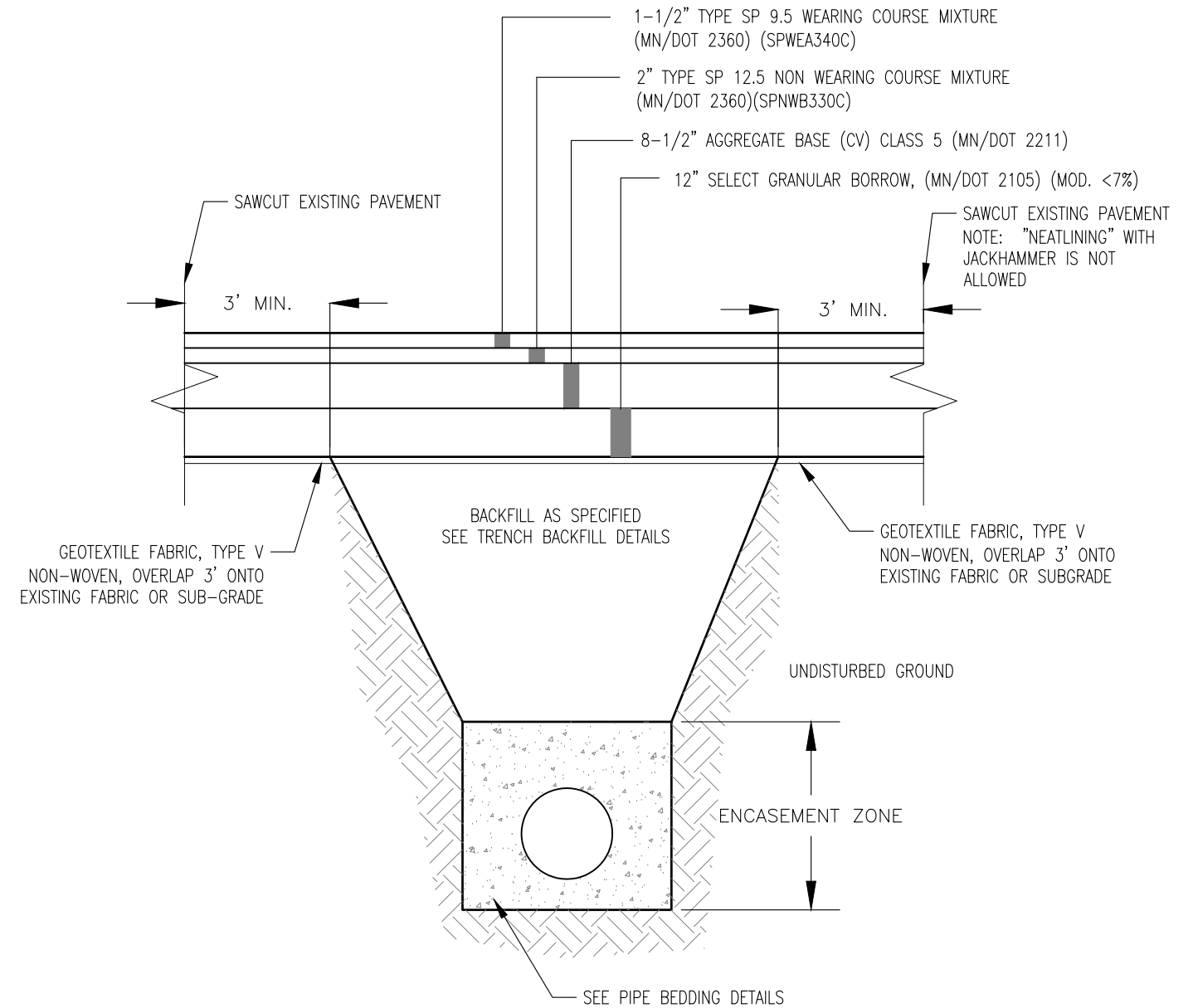




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TYPE A  
INLET PROTECTION  
CATCH BASIN SEDIMENT BAG INSERT TYPE DETAIL  
NO SCALE



STORM DRAIN INLET PROTECTION

NO SCALE

STREET RESTORATION OVER TRENCH

STR-8

REVISED/APPROVED 1/8/2016

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

NO SCALE

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CONSTRUCTION DETAILS

SHEET NO. 4 OF 7



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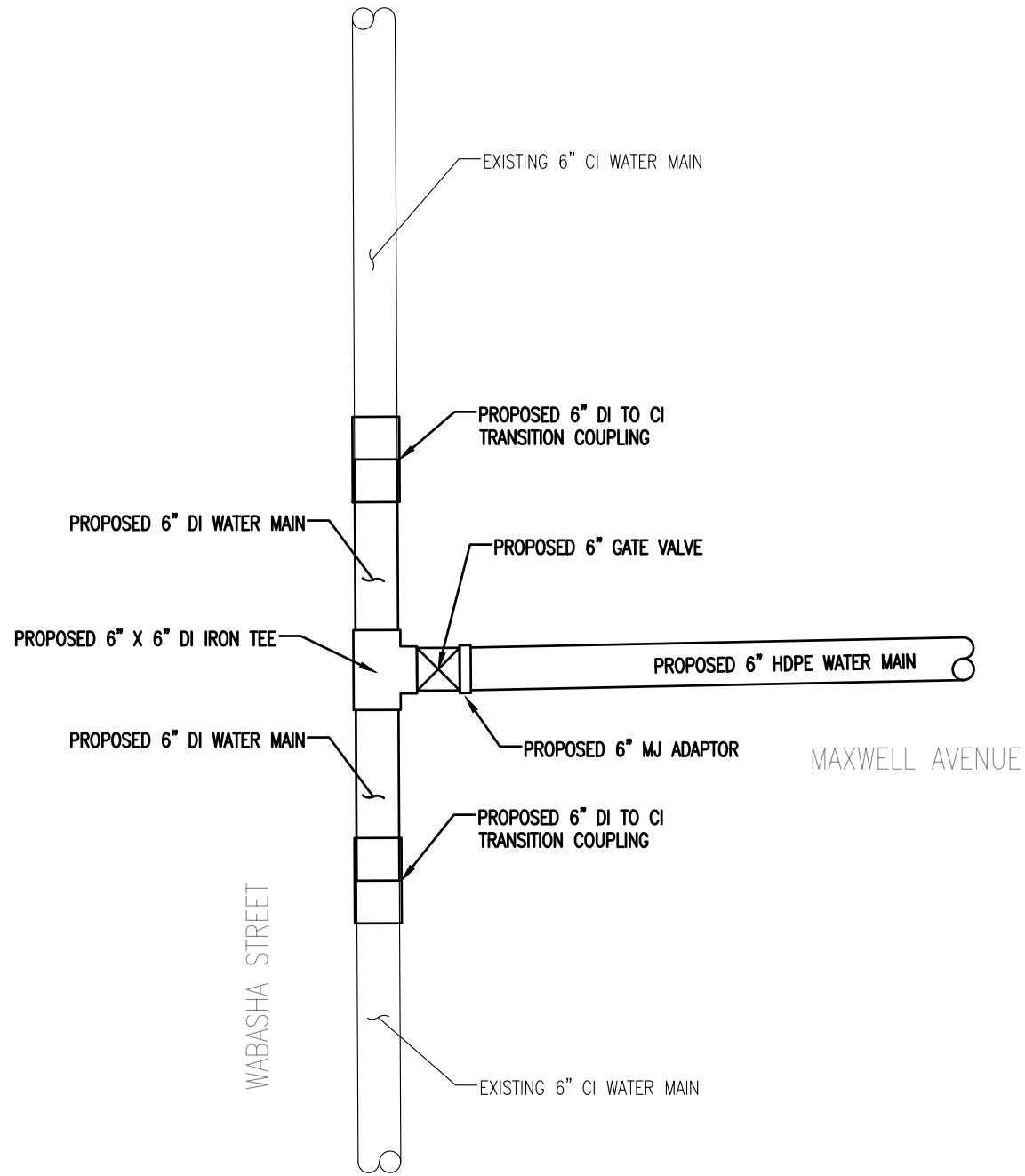
# TYPICAL HDPE WATER SERVICE – 1", 1-1/4", AND 2"



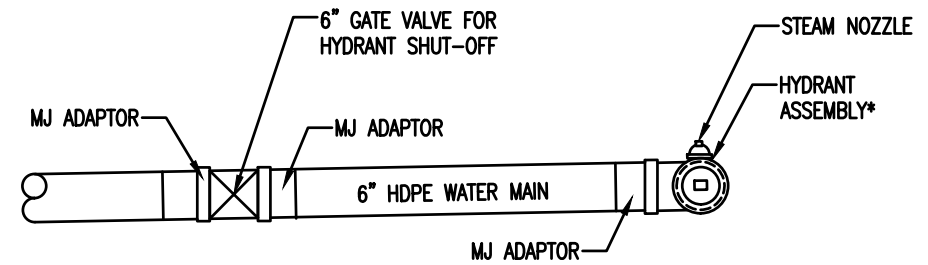
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WATER MAIN CONNECTION  
NTS LAYOUT DETAIL



\* ROTATE HYDRANT 90°  
SO "STEAM NOZZLE" IS  
FACING THE STREET

HYDRANT FITTINGS  
NTS LAYOUT DETAIL

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CONNECTION DETAIL

SHEET NO. 6 OF 7



