

# METROPOLITAN UTILITIES DISTRICT

Inter-Department Communication

December 8, 2011

**Subject:** REVISIONS TO THE STANDARD SPECIFICATIONS FOR WATER MAIN CONSTRUCTION

**To:** District Holders

**From:** Mary Maher, Design Engineer

Portions of the "Standard Specifications for Water Main Construction" have been revised and will take effect December 14, 2011:

COVER PAGE – Revised MUD logo and hydrant.

## PART C GENERAL CONDITIONS

- Section 44.A. The Contractor (Direct insured) shall give the District thirty (30) days written notice by certified mail prior to cancellation or the reduction of any insurance coverage.

## MUD 109-09 PRECAST CONCRETE MANHOLES & DWG FILE 416235

Title Revised title to include the drawing file 416235 for easier reference.

## MUD 111-11 DUCTILE IRON FITTINGS

Section 1 – Clarified that AWWA C110 applies to Full Body Fittings and AWWA C153 applies to Compact Fittings.

## MUD 119-11 SPECIFICATIONS FOR MATERIALS

Section 1,A. District shall provide Bentomat.

Section 6,A. Bentonite Granules - Added material specification for Bentonite granular powder used to seal Bentomat Geosynthetic Clay liner.

Section 6,C. Bolts – Specified Birmingham Fasteners made in the USA.

Section 6,I. Specified Electrofusion Couplings for HDPE

Section 6,K. Specified Flex Restraints and Wall Anchors for HDPE

Section 6,R. Mechanical Couplings, page 6 - Added dual purpose MJ solid sleeves with oversize glands as approved alternatives to transition couplings.

Section 6,S. Specified Mechanical Joint Adapter for HDPE

Section 6,T. Specified MJ Foster Adaptors as acceptable MJ Adaptors (these were used in the Old Market project).

Section 6, V. Removed EBAA from Set Screw Ret Glands as they no longer make set screw retainer glands.

Added Ford 1500 as acceptable for PVC Wedge Action Retainer Glands

Specified Wedge Action Retainer Glands for 6"-12" HDPE pipe.

Added Ford 1405 as acceptable for Ductile Iron Split Wedge Action Retainer Glands

Section 6,W. Specified JCM Restraints for 16"-24" HDPE pipe.

Section 6,X. Specified Stiffening Inserts for HDPE pipe.

Section 6,Z. Specified Screw Jacks

Section 6, BB. Adjustable Valve Boxes (CC Boxes) - Updated Bingham & Taylor ABS plastic middle, extension and base section item descriptions.

Section 6, EE. Specified Service Saddle for Sample Taps and Air Taps on HDPE Mains

Section 6, FF Chlorine Tubes - Added the Districts' website [www.mudomaha.com](http://www.mudomaha.com) as an additional source for chlorine tube drawings.

Section 6, JJ Added 2" Air Release Valves for 16" water mains.

MUD 120-11 SPECIFICATIONS FOR CONSTRUCTION

- Section 120.3.1.3 Added Drawing for Trench for Poor Soil Conditions MUD 120 FIG 1
- Section 120.3.1.6 Revised Dewatering Paragraphs
- Section 120.4.1 Added trace wire shall be installed per 1.14.1 during directional drilling
- Section 120.5.10 Revised to reflect storm and sanitary sewer requirements by NDHHS
- Section 120.5.12 Added Bentomat Geosynthetic Clay Liner
- Section 120.8 Revised title to make references to HDPE consistent.
- Section 120.8.1 Specified Contractor qualifications for butt fusion and electrofusion on HDPE pipe and fittings that shall be submitted with bid proposals on HDPE projects.
- Section 120.8.3 Revised acceptable joining methods for HDPE to include butt fusion, electrofusion couplings and mechanical joints
- Section 120.8.4 Specified guidelines for HDPE pipe cutting and preparation for butt fusion, sidewall fusion and electrofusion.
- Section 120.8.7 Added Butt Fused Joint
- Section 120.8.8 Added Electrofusion Coupling Installation
- Section 120.8.9 Added assembly of HDPE pipe to mechanical joints
- Section 120.12.5.1 Specified Material for straps on top vertical bends.
- Section 120.12.5.3 Temporary Backing blocks shall be provided on end of main chlorine tubes.
- Section 120.12.5.4 Revised ISBB for 6-16" water mains.
- Section 120.12.5.5 Added a construction standard for Screw Jacks C. S. 1.8.13.
- Section 120.12.6 Correction in Table 120.12.1.
- Section 120.14.1 Reworded the use of chlorine tubes.
- Section 120.14.3 Revised section title to make it consistent the with referenced Construction Standard 1.4.0.
- Section 120.14.3.1 Specified pressure test requirements for water mains with sections of HDPE pipe adjacent to non-polyethylene pipe.
- Section 120.17.2.21 Payment for installation of Bentomat.

MUD 123-11 HIGH DENSITY POLYETHYLENE (HDPE) PIPE AND FITTINGS FOR WATER DISTRIBUTION SERVICE

- Title Revised title and references to "polyethylene" to High Density Polyethylene (HDPE) to make consistent with references to C.S. 1.2.6 and CS 1.4.0.
- Section 1.1 Specified Central Plastics as approved for HDPE fittings.
- Section 4.3.2 Updated formatting and updated to reflect changes in AWWA C906-07. Revised cited tables to agree with AWWA C906-07.
- Section 6.1.2 Specified required markings on HDPE pipe.

MUD 126-11 POLYVINYL CHLORIDE (PVC) PIPE FOR WATER DISTRIBUTION SERVICE

Slight revisions to reflect slight changes in AWWA C900-07 and C905-10

CONSTRUCTION STANDARDS

- 1.4.3 Included Construction Standard for Chlorination of Water mains.
- 1.8.1 Revised Construction Standard for Precast Vault Installation –Water – Page 10 was revised to state the purpose of the expansion joint material around the pipe pass is to keep mud and debris from entering the vault. It is not intended to make the vault water-proof.

- 1.8.3 New Construction Standard for Reinforced Vault Footings & Concrete Slab Design.
- 1.8.11 Revised Construction Standard for Backing Blocks. Specified steel strap material for vertical blocks.
- 1.8.12 Revised Construction Standard for Immediate Support Backing Blocks (ISBB) Reduced length of steel pipe for ISBB to make depth of block consistent with 1.8.11.
- 1.8.13 New Construction Standard for Screw Jacks for Support Backing with Extra Heavy (Sch 80) Black Pipe
- 1.11.3 New Construction Standard for Installation of Bentomat
- 1.13.1 Revised Construction Standard for Water Mains Crossing Sanitary and Storm Sewers. Revision reflects NDHHS Title 179 requirements.
- 1.14.1 Revised Construction Standard for Installation of Trace Wire on Water Mains. Tracer Wire size, type and number of strands specified for Horizontal Directional Drilling.
- 8.3.3 Trace Wire, Anode and Test Lead Attachment Methods for Steel, Ductile Iron and Cast Iron Water Mains Revised 1/31/10.
- 11.2.3 New Construction Standard for BUTT-FUSION HDPE
- 11.7.0 New Construction Standard for ELECTROFUSION HDPE
- 11.7.1 New Construction Standard for SIDEWALL FUSION HDPE

Drawings

416128 – Added MUD Stock #'s for Cast Iron and ABS Plastic cc box sections & File Path

416206 – REVISED TITLE TO 416206(MUD 119)

416207 – REVISED TITLE TO 416207(MUD 119)

416232 – REVISED TITLE TO 416232(MUD 119)

MUD125-06.6 – REVISED TITLE TO MUD 125(MUD 119) FIG 1

MUD125-06.8 - REVISED TITLE TO MUD 125(MUD 119) FIG 2

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**APPROVED:**

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