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| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | December 23, 2014 | First review draft (AV). |
| 3 | June 8, 2015 | Second Draft for Review (AV) |
| **4** | **September 16, 2015** | **Updated, Finalized Specification – Reference eDOCS #5823662-v4 (AV)** |
| 5 | May 23, 2017 | Upgraded references to standards, ANSI/ASME B16.3-2016, ASME B16.5-2013, ANSI/ASME B16.21-2016, ASTM A106/A106M-15, ASTM A563-15, ASTM D1330-04(2015)e1, AWWA C606-15 (AAM) |
| 6 | August 16, 2017 | Updated specified products (CDP PMO, OMM) |

NOTE:

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| Item | Description | |
| Pipe | Galvanized carbon steel, ASTM A106/A106M-15, Grade B seamless or ASTM A53/A53M-12, Grade B seamless or Electric Resistance Weld (ERW). | |
|  | 50 mm & smaller | Schedule 80. |
| 60 mm to 150 mm | Schedule 40. |
| 200 mm to 300 mm | Schedule 30. |
| 350 mm | Standard weight. |
| Joints | 50mm & smaller | Threaded or flanged at valves and equipment, or grooved end meeting the requirements of AWWA C606-11. |
|  | 60 mm & larger | Flanged at valves and equipment, or grooved end meeting the requirements of AWWA C606-11. |
| Fittings | Threaded: 1,035- or 2,070 kPag malleable iron, ASTM A197/A197M-00(2015) or ASTM A47/A47M-99(2014), dimensions in accordance with ANSI/ASME B16.3-2016. | |
| Grooved End: Malleable iron ASTM A47/A47M-99(2014) or ductile iron ASTM A536-84(2014), 1,250 kPa working pressure, grooved ends to accept couplings without field preparation. Acceptable Manufacturers: Victaulic; Grinnell or Approved Equivalent. | |
| Branch Connections | 50 mm & smaller | Tee or reducing tee in conformance with Fittings above, galvanized 910 kg WOG threadolet or welding boss; galvanize after welding. |
|  | 60 mm & larger | Branch Same Size as Run: Grooved end tee in accordance with Fittings above.  Branch One or More Sizes Smaller Than Run: grooved end reducing tee in accordance with Fittings above. |
| Flanges | Galvanized forged carbon steel, ASTM A105/A105M-14, ASME B16.5-2013 Class 150 or Class 300, threaded, 1.5 mm raised face. | |
|  | Grooved end adapter flange, malleable iron ASTM A47/A47M-99(2014) or ductile iron ASTM A536-84(2014). Acceptable Manufacturers: Victaulic; Grinnell or Approved Equivalent. | |
| Unions | Threaded malleable iron, ASTM A197/A197M-00(2011) or A47/A47M-99(2014), 2,070kPag WOG, brass to iron seat, meeting the requirements of ANSI/ASME B16.3-2016. | |
| Couplings | Grooved End: Rigid joint malleable iron, ASTM A47/A47M-99(2014) or ductile iron, ASTM A536-84(2014), 1,750 kPa working pressure. Acceptable Manufacturers: Victaulic; Grinnell or Approved Equivalent. | |
| Plugs | Forged carbon steel, ASTM A181/A181M-14, Grade II, round head, threaded, galvanized. | |
| Bolting | Grooved End Couplings: Carbon steel, ASTM A183-14 bolts and nuts, 759,000 kPa minimum tensile strength. | |
| Flanges: Carbon steel ASTM A307-14, Grade A hex head bolts and ASTM A563-15, Grade A hex head nuts. | |
| Gaskets | All flanges | Flanged, Water and Sewage Service: 3 mm thick, red rubber (SBR), hardness 80 (Shore A), rated to 93 degrees C, conforming to the requirements of ANSI/ASME B16.21-2016, AWWA C207-13, and ASTM D1330-04(2015)e1, Grades 1 and 2.  Blind flanges shall be gasketed covering the entire inside face with gasket cemented to blind flange. |
| Grooved end couplings | EPDM or chlorinated butyl in accordance with ASTM D2000-12 for water, and air to 110 degrees Celsius, dimensions conforming to the requirements of AWWA C606-15. |
| Thread Lubricant | 50 mm & smaller | Teflon tape or joint compound that is insoluble in water. |

**END OF SECTION**