

**LMSD - DESIGN AND CONSTRUCTION STANDARDS  
CROSSWALK DOCUMENT - STANDARD SPECIFICATIONS  
31-Aug-09**

Standard Specifications				
Section		Title	Major Revision	Reason for Revision
Original	Revised			
1	1	General Provisions	1. Section 1.2 revised to require digital video recording be provided to MSD. 2. Section 1.6.4 was revised to reflect the changed requirements regarding Final Record Drawings.	1. This revision enables MSD to store this information within Hansen and easily make it available to all parties needing access. 2. This revision was made to be consistent with the revised requirements in the Design Manual.
2	2	Site Preparation, Erosion Prevention and Sediment Control	1. Minor revisions. 2. Section 2.3.1.11 B - Topsoil Stockpiling modified. 3. Section 2.3.2.4 Outlet Stabilization: Level Spreader removed. 4. EB-01 reference removed. 5. EB-02 reference removed. 6. ED-02 reference removed.	1. Minor revisions were made to be consistent with the revisions in Chapter 12 of the Design Manual. 2. Section 2.3.1.11 B - Topsoil Stockpiling changed to require that temporary stabilization of topsoil stockpiles must be performed if the stockpile is not used for 14 days (rather than 30 days) to be consistent with the Design Manual. 3. Level Spreader removed at request of MSD because practice is no longer permitted; associated Standard Drawing ES-01 deleted 4. Current standards are presented in Exhibit 12-9 in Chapter 12 of the Design Manual. 5. Current standards are presented in Exhibit 12-8 in Chapter 12 of the Design Manual. 6. Current standards are presented in Exhibit 12-12 in Chapter 12 of the Design Manual.
3	3	Earthwork	1. Minor revisions.	NA
4	4	Pipework	1. Revised the Section to not allow the use of vitrified clay pipe and fittings on MSD projects. 2. Revised Section 4.2.4. on drainage pipe to be consistent with current use by MSD.	1. MSD no longer allows the use of clay pipe and fittings in sanitary applications. 2. Section was made consistent with current pipes allowed by MSD for use on drainage project.
5	5	Structures	1. Section 5.2.7 Joint Sealants were revised to provide more detail as to the specific requirements for joint sealants. 2. Section 5.2.8 Exterior Joint Wraps were added to the materials section. 3. Section 5.2.14. was added to the section to require manhole cover inserts 4. Section 5.3.4.2 was revised to require a three-way sealing system for manholes as was previously required for wet wells. 5. Section 5.3.8 HDPE Grade Adjustment rings was deleted.	1. This section was revised to be consistent with MSD's current practices for joint sealants. 2. Exterior joint wraps are required on manhole and wet wells to assist in the prevention of infiltration and inflow. 3. This requirement was added to prevent inflow through manhole lids. 4. This requirement was added to reduce infiltration around manhole barrel joints. 5. MSD will no longer accept the use of HDPE grade adjustment rings due to past issues with field installations.
6	6	Concrete	1. Minor changes only.	NA
7	7	Trenchless Pipe Installation	1. Section 7.1 General was created. 2. Section 7.2 Tunneling was created. 3. Section 7.2.2.1 Steel Tunnel Linear Plates - added statement "Four-flanged liner plates will be required unless the designer specifically requires the use of two-flanged plates." 4. Section 7.2.3.6. Installation of Carrier Pipe - added statement "Refer to MSD Standard Detail GB-01-01 for installation requirements." 5. Section 7.3 Boring and Jacking was created	1. Much of the same information was being repeated throughout each trenchless process. Adding the General section made for a more concise specification and less redundancy. 2. Created to group all specifications associated with Tunneling. Section is broken into three divisions Description of Work, Materials, and Execution of Work. 3. This statement was initially added to the design manual and incorporated into the specifications to make them correlate. Four-flanged liner plates are the more conservative approach and thus are the general standard unless otherwise specified by the designer. 4. This Standard Detail adds clarification to the specification. 5. Created to group all specifications associated with Boring and Jacking. Section is broken into three divisions Description of Work, Materials, and Execution of Work.

**LMSD - DESIGN AND CONSTRUCTION STANDARDS  
CROSSWALK DOCUMENT - STANDARD SPECIFICATIONS  
31-Aug-09**

Standard Specifications				
Section		Title	Major Revision	Reason for Revision
Original	Revised			
			6. Section 7.3.3.2. Boring and Jacking Equipment and Construction added statement "Refer to MSD Standard Details GB-01-00" 7. Section 7.4 Horizontal Directional Drilling was added. 8. Section 7.5 Pipe Bursting was added to Trenchless Pipe Specification	6. This Standard Detail adds clarification to the specification. 7. HDD is a type of trenchless pipe installation and needed to be incorporated in this specification. 8. Originally Pipe Bursting was included in MSD's Standard I/I Specifications. It was move to this section to consolidate all trenchless pipe installation methods into one location.
8	8	Road Construction and Rehabilitation	1. The entire section was reorganized. 2. Section 8.2.1 is completely new regarding asphalt mixtures.	1. The reorganization of the section was to eliminate redundant information and to present the spec in a logical flow from clearing & grubbing to testing. 2. This section was rewritten since the KYTC no longer specifies Class I mixtures for asphalt. The section was rewritten to adopt the requirements developed by the Plantmix Asphalt Industry of Kentucky (PAIKY).
9	9	Channel and Slope Stabilization, Site Restoration and Clean Up	1. Minor changes only.	NA
10	10	Duplex Sewage Pump Station	1. Section was revised to be consistent with the revisions in Chapter 15 of the Design Manual. 2. Section was revised to require an on-site internal combustion engine-powered generator. MSD prefers the use of natural gas. However, MSD will consider economic factors presented by the Engineer regarding generator and gas service costs vs. the use of diesel generators.	1. Consistency with Chapter 15 of the Design Manual. 2. This requirement was included to minimize the need for MSD to supply portable generators during power outages and to comply with the Consent Decree to eliminate overflows from the sanitary sewer system.
11	NA	Horizontal Directional Drilling Method of Installation for Sanitary Sewers	Section was incorporated into the revised Section 7 covering all trenchless pipe installation methods.	Section 7 was revised to include all acceptable trenchless pipe installation methods.
12	11	Native Seeding and Macro-Turfing	Minor changes.	NA
13	12	Native Tree, Shrub, and Herbaceous Planting	1. Section 12.3.4 Warranty changed	1. Section 12.3.4 Warranty increased from 80% care and replcaement to 100% care and replcaement at request of MSD
14	13	Soil Bioengineering	1. Section is a new addition to the Standard Specifications.	1. New Section added to Standard Specifications as provided by MSD. Section presents specifications for using native materials for soil stabilization.