

FRWRD - MINIMUM PROJECT SPECIFICATION REQUIREMENTS

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE ORDINANCE AND REQUIREMENTS OF THE "STATE STANDARD SPECIFICATION FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" CURRENT EDITION, AND THE FOX RIVER WATER RECLAMATION DISTRICT.
2. THE CONTRACTOR SHALL NOTIFY THE FOX RIVER WATER RECLAMATION DISTRICT 48 HOURS PRIOR TO START OF THE CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION .
3. THE FOX RIVER WATER RECLAMATION DISTRICT SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
4. THE CONTRACTOR(S) SHALL INDEMNIFY THE FOX RIVER WATER RECLAMATION DISTRICT, THEIR AGENTS ETC. , FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION AND TESTING OF THIS WORK ON THIS PROJECT.
5. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY THE FRWRD .
6. SANITARY MANHOLE FRAMES SHALL BE NEENAH R-1772 WITH TYPE B SELF-SEALING RUBBER GASKET COVER WITH CONCEALED PICK HOLES OR EQUAL WITH THE WORD "SANITARY" CAST IN THE COVER.
7. THE EXTERIOR OF THE PROPOSED MANHOLES SHALL BE WATERPROOFED WITH A BITUMASTIC MATERIAL AS PER FRWRD ORDINANCE NO. 323, ARTICLE 4, SECTION 16.
8. ALL JOINTS BETWEEN PRE-CAST ELEMENTS, ADJUSTING RINGS AND MANHOLE FRAMES ON ALL UNDERGROUND STRUCTURES, SHALL BE SET IN PLACE WITH ONE OF THE FOLLOWING BUTYL RUBBER JOINT SEALANTS:
CONCRETE PROJECTS SUPPLY CO. - EZ STIK8
HAMILTON-KENT GASKET CO. - KENT SEAL
OR EQUAL, AS APPROVED BY THE DISTRICT ENGINEER, AND ALL JOINTS TO BE TUCKPOINTED WITH HYDRAULIC CEMENT OR MORTAR WITH A BRUSH FINISH. ALL JOINTS BETWEEN ADJUSTING RINGS , AND MANHOLE FRAMES TUCKPOINTED WITH HYDRAULIC CEMENT OR MORTAR WILL NOT BE ACCEPTED BY FRWRD.
9. ALL SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED WITH FLEXIBLE MANHOLE COUPLING, AS MANUFACTURED BY INTERPACE CORPORATION (LOCKJOINT FLEXIBLE MANHOLE SLEEVE) , PRESS-SEAL GASKET CORPORATION (PRESS WEDGE II) , OR EQUAL AS APPROVED BY THE DISTRICT ENGINEER. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL COMPLY WITH THOSE SPECIFIED BY THE MANUFACTURER.
10. A WATER-TIGHT PERMANENT MASONRY BULKHEAD SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION . THE BULKHEAD SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE FOX RIVER WATER RECLAMATION DISTRICT AFTER THE SANITARY SEWERS HAVE BEEN TESTED AND ACCEPTED.
11. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY UNPOLLUTED

WATER SUCH AS GROUND AND SURFACE WATER FROM ENTERING THE EXISTING SANITARY SEWERS .

12. THE CONTRACTOR SHALL BE PROHIBITED FROM DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OR FLOATING LINES FOR THE DEFLECTION TEST WITHOUT PRIOR APPROVAL FROM THE FOX RIVER WATER RECLAMATION DISTRICT.
13. ALL SEWERS, INCLUDING TRUNK LINE SEWERS AND LATERAL SEWERS, THAT WILL DISCHARGE SEWAGE FOR TREATMENT BY THE FOX RIVER WATER RECLAMATION DISTRICT, SHALL BE INSTALLED UNDER THE SUPERVISION OF A FULL TIME RESIDENT ENGINEER. NO WORK SHALL BE DONE IN THE ABSENCE OF THE RESIDENT ENGINEER.
14. THE DISTRICT SHALL HAVE THE RIGHT TO APPROVE THE SELECTION OF A RESIDENT ENGINEER. THE DISTRICT SHALL HAVE THE RIGHT TO REQUEST A SUBSTITUTE RESIDENT ENGINEER IN THE EVENT OF UNSATISFACTORY PERFORMANCE BY THE RESIDENT ENGINEER.
15. THE RESIDENT ENGINEER ON ANY SEWER CONSTRUCTION PROJECT SHALL PROVIDE THE DISTRICT WITH DAILY REPORTS NO LESS THAN EVERY TWO (2) WEEKS.
16. ALL NEW SANITARY SEWERS SHALL BE PRESSURE TESTED TO THE PROCEDURE OUTLINED IN THE "SPECIFICATIONS FOR LOW PRESSURE AIR TESTS OF THE SANITARY SEWERS" AVAILABLE AT THE FOX RIVER WATER RECLAMATION DISTRICT OFFICE. THE DISTRICT MAY REQUIRE SUCH OTHER TEST AS CONDITIONS MAY REQUIRE.
17. THE COST OF PROVIDING RESIDENT ENGINEERING AND PRESSURE TESTING SHALL BE BORNE BY THE OWNER OR DEVELOPER.
18. THE FOX RIVER WATER RECLAMATION DISTRICT MUST BE FURNISHED A COMPLETE SET OF CONSTRUCTION RECORD DRAWINGS OF THE SANITARY SEWERS CONSTRUCTED FOR A PROJECT WITHIN 60 DAYS OF COMPLETION OF THE SEWERS.
19. SANITARY SEWER MANHOLES WITH INTERNAL DROPS TWO FEET OR LESS SHALL HAVE A PRECAST CONCRETE TROUGH BUILT IN THE STRUCTURE TO OBTAIN A SMOOTH FLOW TRANSITION FROM THE UPSTREAM PIPE INVERT TO THE DOWNSTREAM PIPE INVERT .
20. ALL MANHOLES AND STRUCTURES SHALL BE CLEANED OF ANY ACCUMULATION OF SILT, DEBRIS, OR FOREIGN MATTER OF ANY KIND, AND SHALL BE FREE FROM SUCH ACCUMULATIONS AT THE TIME OF FINAL INSPECTION. ALL MANHOLES AND STRUCTURES SHALL BE INSPECTED BY THE FRWRD PRIOR TO ACCEPTANCE.

Fox River **Water Reclamation** District Minimum Requirements for
Manhole Structures

1. Sanitary manhole lid must have concealed pick holes and have the word "SANITARY" stamped in the cover with an intact rubber gasket seal.
2. The frame lip shall be cleaned of all mud and debris to provide a watertight seal between the frame and the manhole cover gasket.
3. In **non-paved** areas - ***ONLY*** butyl rubber joint sealant shall be used between all joints, adjusting rings and manhole frames.
4. In **paved** areas - all sanitary structures are to be adjusted with a full mortar bed along with a six inch minimum concrete collar encasing the frames, all adjusting rings, and the top three inches of the cone or down to the flat top.
5. All steps must be installed, aligned and clean.
6. The barrel section joints **must be** tuckpointed with hydraulic cement or mortar with a brush finish.
7. All pinholes must be mortared with a brush finish to provide a watertight seal.
8. The upstream and downstream pipe cavities must be filled with mortar and smoothed with a brush finish.
9. The upstream and downstream flow lines (inverts) shall have a smooth transition from the pipe to the manhole invert.
10. All manhole structures shall be free of any type of infiltration (water leaking into the structure).
11. If there is an internal drop in the structure there must be a smooth transition from the pipe to the invert (i.e. channel the flow from the pipe to the manhole invert).
12. All manholes shall be cleaned of any accumulation of silt, debris, or foreign matter of any kind, and shall be free from such accumulations at the time of final inspection.
13. Manholes in the parkway shall have a final frame elevation which is curb height or higher.