GENERAL NOTES FOR WATER LINE CONSTRUCTION

1. ALL WATER LINE CONSTRUCTION AND MATERIALS WILL BE IN STRICT COMPLIANCE WITH THE CURRENT APPROVED SPECIFICATIONS FOR THE MADISON SUBURBAN UTILITY DISTRICT (MSUD) AS ON FILE WITH THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, DIVISION OF WATER QUALITY CONTROL.

2. BEFORE ANY WATER LINE WORK IS INITATED ON THIS PROJECT, THE CONTRACTOR SHOULD CONTACT MSUD AND SATISFY ALL REQUIREMENTS OF MSUD. UPON COMPLETION OF THE WATER LINE INSTALLATION, THE CONTRACTOR WILL PERFORM A PRESSURE TEST AND DISINFECT THE LINE UNDER THE INSPECTION OF MSUD. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE COST OF REASONABLE INSPECTION FEES OF MSUD.

3. ANY AND ALL FEES, LICENSES, AND PERMITS NECESSARY FOR THIS CONSTRUCTION AND ARE TO BE OBTAINED AND PAID PRIOR TO THE INITIATION OF CONSTRUCTION AND THE COST THEREFORE WILL BE BORNE BY THE CONTRACTOR.

4. MSUD WILL SUPPLY THE APPROPRIATE WATER METER(S) AND SHALL BE REIMBURSED BY THE CONTRACTOR FOR MATERIAL COSTS.

5. WATER LINE CONSTRUCTION IS TO BE COMPLETED BY THE CONTRACTOR EXCEPT FOR THE ACTURAL CONNECTIONS TO EXISTING WATER LINE. AT LEAST 72 HOURS PRIOR TO CONNECTING PROPOSED WATER LINE TO THE SYSTEM, THE CONTRACTOR WILL NOTIFY MSUD AND COORDINATE METHOD OF CONNECTION AND TIME TO SHUT DOWN EXISTING WATER LINE IF REQUIRED.

6. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES (INCLUDING STORM DRAINAGE PIPES OR STRUCTURES) BEFORE COMMENCEMENT OF CONSTRUCTION.

7. WATER LINE MATERIAL WILL BE DUCTILE IRON PIPE, CLASS 52 WITH DUCTILE IRON FITTINGS AND DUCTILE IRON OR BRASS TAPS AS APPROPRIATE.

8. THE CONTRACTOR IS REQUIRED TO LOCATE ALL NEW TIE-INS, FITTINGS, VALVES, VAULTS, PRESSURE REDUCING VALVES, WATER UTILITY CROSSINGS OF OTHER UTILITIES OR STREAMS, CASING PIPE ENDS, CONCRETE ENCASEMENT ENDS, AND FIRE HYDRANTS UTILIZING THE GLOBAL POSITIONING SYSTEM (GPS). POINTS ON THE WATER MAIN EVERY 50 FEET BETWEEN THESE ITEMS SHALL ALSO BE LOCATED. ELEVATIONS AND COORDINATES (NORTHING AND EASTING BASED UPON THE TENNESSEE RECTANGULAR GRID SYSTEM, 1983 NORTH AMERICA DATUM OR UPDATED VERSIONS OF EACH OF THESE ITEMS SHALL BE OBTAINED AND PROVIDED TO MSUD. THIS GPS INFORMATION SHALL INCLUDE REAL TIME SIGNAL CORRECTION. THE CONTRACTOR SHALL COORDINATE THE DEVELOPMENTOF THIS DATA WITH THE MSUD POJECT INSPECTOR. FINAL ACCEPTANCE OF THE NEW FACILITIES BY MSUD IS CONTINGENT UPON RECEIPT OF THIS INFORMATION. TWO (2) 24" X 36" HARD COPIES AND ONE (1) ELECTRONIC COPY (MICROSTATION OR AUTOCAD) OF THE AS-BUILT PLANS, INCLUDING THIS GPS DATA, ARE TO BE PROVIDED TO MSUD ONCE CONSTRUCTION IS COMPLETED. THE ELECTRONIC COPY SHALL BE UTILIZED SOLELY FOR THE PURPOSE OF TRANSFERRING AS-BUILT INFORMATION TO MSUD'S WATER SYSTEM DISTRIBUTION MAPS.

9. ALL BENDS, TEES, CROSSES, PLUGS, AND PRESSURE CONNECTIONS, ETC., SHALL BE BACKED UP AND ANCHORED WITH CONCRETE BLOCKING.

10. BACKFLOW PREVENTERS ARE TO BE INSTALLED BY TENNESSEE CERTIFIED INSTALLERS WHO SPECIALIZE IN BACKFLOW PREVENTION. ALL INSTALLATIONS ARE TO MEET MSUD'S REQUIREMENTS. ALSO, THE CONTRACTOR MUST SCHEDULE A TIME FOR TESTING OF THE DEVICE WITH THE DISTRICT'S INSPECTOR BEFORE COMPLETION OF THE PROJECT. IT IS NECESSARY FOR THE CONTRACTOR TO BE PRESENT DURING THIS TEST IN ORDER TO CORRECT ANY POTENTIAL PROBLEMS PRIOR TO OCCUPANCY OF THE PROPERTY.

11. BE SURE TO NOTIFY THE STATE, WHN REQUIRED BY STATE REGULATIONS, BEFORE YOU BEGIN ANY WATER LINE CONSTRUCTION.

12. ALL VALVES SHALL OPEN BY TURNING TO THE LEFT AND BE SECURED USING MEGA-LUGS. ALL PIPE FITTINGS SHALL BE SECURED USING MEGA-LUGS.

13. IF STATE REVIEW AND APPROVAL IS REQUIRED, OWNER/DEVELOPER SHALL SUBMIT A STATE APPROVED SET OF PLANS TO MSUD A MINIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN A SET OF STATE APPROVED PLANS AND SPECIFICATIONS ON THE PROJECT SITE AT ALL TIMES.

14. UNLESS WRITTEN AUTHORIZATION FROM MSUD PROVIDES OTHERWISE, ALL WATER METERS SHALL BE PLACED IN AN ALIGNMENT THAT IS PERPENDICULAR TO THE ROAD FRONTING THE STRUCTURE BEING SERVED; THEY SHALL BE PLACED A MINMUM OF 2'-0" FROM ANY STRUCTURE, INCLUDING, BUT NOT LIMITED TO SIDEWALDS, DRIVEWAYS MAILBOXES, TREES, ETC.; AND THEY SHALL BE LOCATED AT THE FRONT OF THE STRUCTURE.

15. UNLESS WRITTEN AUTHORIZATION FROM MSUD PROVIDES OTHERWISE, NO FIRE HYDRANTS SHALL BE PLACED BETWEEN A SIDEWALK AND THE ROAD OR CURBING.

16. UNLESS WRITTEN AUTHORIZATION FROM MSUD PROVIDES OTHERWISE, NO WATER MAINS SHALL BE PLACED UNDER A SIDEWALK, EXTENDING PARALLEL TO THE SIDEWALK.

17. ANY WATER MAINS INSTALLED CROSSING UNDER PAVEMENT CARRYING VEHICULAR TRAFFIC SHALL BE BACKFILLED WITH STONE, PER MSUD TRENCH DETAIL – TYPE B. ANY PAVEMENT CARRYING VEHICULAR TRAFFIC, PLACED OVER EXISTING WATER MAINS, SHALL REQUIRE THE MAIN TO BE BEDDED WITH STONE, PER MSUD TRENCH DETAIL – TYPE B.

18. UNLESS WRITTEN AUTHORIZATION FROM MSUD PROVIDES OTHERWISE, NO WATER VALVES SHALL BE PLACED IN SIDEWALKS OR RESIDENTIAL DRIVEWAYS.

19. UNLESS WRITTEN AUTHORIZATION FROM MSUD PROVIDES OTHERWISE, WATER MAINS IN RESIDENTIAL DEVELOPMENTS SHALL BE PLACED IN THE MIDDLE OF ONE LANE OF A STREET. ANY LINE DEFLECTED MORE THAN 5° WILL HAVE TO USE A BEND.

20. ON-SITE MSUD APPROVAL OF A PART OF A PROJECT'S WATER SYSTEM INSTALLATION DOES NOT CONSTITUTE THE DISTRICT'S APPROVAL OF ALL OF THE PROJECT'S WATER SYSTEM INSTALLATION. FINAL ON-SITE APPROVAL OF THE PROJECT'S TOTAL WATER SYSTEM INSTALLATION MUST BE OBTAINED BEFORE THE MSUD WILL RECEIVE OWNERSHIP OF THAT WATER SYSTEM. FROM THE TIME OF THE ON-SITE INSPECTION AND FINAL APPROVAL OF THE TOTAL WATER SYSTEM INSTALLATION BY A REPRESENTATIVE OF THE MSUD, FURTHER CHANGES IMPACTING THE CONDITIONS OF OR THE ACCESSIBILITY TO THE WATER SYSTEM FACILITIES ARE STRICTLY FORBIDDEN WITHOUT THE PRIOR APPROVAL OF THE MSUD. THESE INCLUDE, BUT ARE NOT LIMITED TO, CHANGES IN OVERBURDEN SLOPE OR DEPTH ON THE WATER MAIN, CHANGES THAT ADVERSELY EFFECT, IN THE OPINION OF THE MSUD, VEHICULAR OR EQUIPMENT ACCESS TO THE WATER MAINS, THE PLANTING OF TREES, SHRUBS, ETC. IN THE WATER UTILITIES EASEMENT OR THE LATER CONSTRUCTION OR PLACEMENT OF STRUCTURES CONSTRICTING THE WIDTH OF THE WATER UTILITIES EASEMENT. SHOULD THESE OR OTHER TYPES OF CHANGES BE MADE WITHOUT PRIOR APPROVAL OF THE MSUD, THEY SHALL BE RETURNED BACK TO THE ORIGINAL CONDITIONS AT THE TIME OF FINAL APPROVAL, AT THE COST OF THE PROPERTY OWNER DURING THOSE CHANGES.

21. THE ENGINEER OR ARCHITECT OF THE PROJECT PLANS BEING SUBMITTED TO THE MSUD FOR APPROVAL OF THE WATER SYSTEM INSTALLATION SHALL BE RESPONSIBLE FOR INSURING THAT THOSE PLANS INCLUDE ALL ASPECTS OF THE PROJECT IMPACTING THE WATER SYSTEM ADDITIONS OR MODIFICATIONS. ANY SUBSEQUENT CHANGES IN PLANS, ADVERSELY IMPACTING THE WATER SYSTEM INSTALLATION, IN THE OPINION OF THE MSUD, AFTER APPROVAL OF THE ORIGINAL PLANS SUBMITTED BY THE MSUD, SHALL NEGATE THE PRIOR APPROVAL AND GIVE CAUSE FOR A RESUBMITTAL OF THE REVISED PLANS TO THE MSUD FOR APPROVAL. THE PLAN SHEETS OF THE WATER SYSTEM ADDITIONS OR MODIFICATIONS SHALL BE THE CONTROL SHEETS FOR THE REVIEW OF THE MSUD FOR APPROVAL AND SHALL INCLUDE ALL PROPER CROSS-REFERENCE NOTES TO ANY OTHER SHEETS SHOWING INFORMATION RELATED TO PIPE DEPTH, GROUND SLOPE, ETC. THE WATER MAIN DEPTH, AT ALL TIMES, SHALL BE THREE (3) FEET FROM THE GROUND ELEVATION TO THE TOP OF THE PIPE, UNLESS OTHER PROJECT ISSUES, SUCH AS EXISTING UTILITIES, ETC., REQUIRE A GREATER DEPTH FOR THE WATER MAIN. UNLESS APPROVAL HAS BEEN PROVIDED BY THE MSUD, NO WATER MAIN DEPTH SHALL BE GREATER THAN SIX (6) FEET UPON FINAL CONSTRUCTION OF THE PROJECT.

22. THE ENGINEER OR ARCHITECT OF THE PROJECT PLANS BEING SUBMITTED TO THE MSUD FOR APPROVAL OF THE WATER SYSTEM / FIRE SPRINKLER INSTALLATION SHALL INCLUDE ON THE UTILITY DRAWINGS A SPRINKLER HEAD SCHEDULE WHICH SHALL INCLUDE SIZES AND QUANTITIES OF SPRINKLER HEADS.

23. NEW WATER MAINS TO BE OWNED AND MAINTAINED BY THE M.S.U.D., OUTSIDE OFF-ROAD RIGHT-OF-WAYS, SHALL NOT BE INSTALLED UNDER PAVEMENT AND / OR CONCRETE IN PRIVATE PROPERTY, UNLESS THERE ARE NO OTHER OPTIONS FOR THE ROUTE OF THE MAIN. SHOULD THE WATER MAIN HAVE TO BE INSTALLED UNDER PAVEMENT AND / OR CONCRETE, OUTSIDE OF THE ROAD RIGHT-OF-WAY, THE PROPERTY OWNER AGREES TO ASSUME ALL COSTS AND RESPONSIBILITIES OF RESTORING THE PAVEMENT AND / OR CONCRETE, SHOULD THE M.S.U.D. BE REQUIRED TO ACCESS THE WATER MAIN FOR MAINTENANCE, REPAIR OR REVISION.

24. ANY EXISTING FIRE, DOMESTIC AND/OR IRRIGATION SERVICE LINES THAT WILL NOT BE USED BY A PROPOSED DEVELOPMENT SHALL BE DISCONNECTED BACK AT THEIR TAP OR CONNECTION TO THE PUBLIC WATER MAIN. FOR CORPORATION STOP TAPS, THE STOP SHALL BE CLOSED, THEN THE SERVICE LINE DISCONNECTED AT THE STOP, PER MSUD APPROVED METHODS. FOR LARGER SERVICE CONNECTIONS USING TAPPING SLEEVES AND VALVES OR TEES AND VALVES, THE VALVE SHALL BE CLOSED BY THE MSUD, BEFORE THE PROJECT CONTRACTOR DISCONNECTS THE WATER SERVICE LINE WITHIN THREE FEET OF THE VALVE, ON THE CUSTOMER SIDE OF THE VALVE. THE WATER SERVICE LINE SHALL THEN BE CAPPED AT THE DISCONNECTION, UTILIZING TWO OF THREE METHODS OF RESTRAINT: MEGALUG, ROD OR CONCRETE KICKER. THIS DISCONNECTION AND RESTRAINT SHALL BE PERFORMED UNDER THE INSPECTION AND APPROVAL OF THE MSUD PROJECT INSPECTOR. NO DISCONNECTS SHALL LEAK WITHIN 24 HOURS AFTER THE DISCONNECT IS PERFORMED. ALL DISCONNECTIONS SHALL BE ACCEPTED BY THE MSUD IN WRITING. THE MSUD IS RESPONSIBLE FOR REMOVING ANY ABANDONED METERS OWNED BY THE MSUD. THE PROJECT CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL ABANDONED BACKFLOW DEVICES. ALL ABANDONED METER AND BACKFLOW DEVICE VAULTS ARE PROPERTY OF THE PROJECT OWNER AND CAN BE DISPOSED OF IN A MANNER OF THEIR CHOICE.