

WATER NOTES:

1. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH WKUD'S STANDARD SPECIFICATIONS. IF CONFLICTS ARISE DURING CONSTRUCTION, CONSULT WITH WKUD'S INSPECTOR AS TO NECESSARY FIELD CHANGES. WKUD RESERVES THE RIGHT TO MODIFY THE MATERIAL OR CONSTRUCTION REQUIREMENTS IF SUCH CONFLICTS ARISE.
2. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. CONTRACTOR TO REFERENCE PLANS AND COORDINATE WITH THE UTILITY OWNER TO DETERMINE THE ACTUAL FIELD LOCATION. UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, AT 1-800 - 351-1111.
3. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS TO NOTIFY THEM OF WORK IN THE AREA AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY. NOTIFICATION SHALL BE GIVEN AT LEAST THREE BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
4. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD THE EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT. FURNISH ANY SPECIAL EQUIPMENT REQUIRED TO WORK OVER AND AROUND THE UTILITIES.
5. WKUD REQUIRES 24" OF HORIZONTAL SEPARATION AND 12" OF VERTICAL SEPARATION FROM OTHER UTILITIES IF THEY ARE INSTALLED ALONGSIDE THE WATER MAINS, AND THEY SHOULD NOT BE CONSTRUCTED IN THE SAME TRENCH.
6. HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES SHALL BE 10 LF. IF 10 LF OF SEPARATION IS NOT AVAILABLE, THE SEWER SHALL BE INSTALLED UNDERNEATH THE WATER LINE WITH A MINIMUM OF 18" OF SEPARATION BETWEEN THE OUTSIDES OF THE PIPES.
7. NO BUILDINGS, BUILDING FOOTERS, OR OTHER PERMANENT STRUCTURES ARE TO BE CONSTRUCTED WITHIN THE 15 FEET UTILITY EASEMENTS (7.5 FEET EACH SIDE OF INSTALLED LINE).
8. TRENCH DESIGN AND SAFETY FOR PIPELINE CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
9. THE STONE BEDDING AND BACKFILL SHALL BE DONE IN STRICT COMPLIANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS BUT MUST COMPLY WITH WKUD'S SPECIFICATIONS.
10. UTILITIES SHALL BE INSTALLED AFTER GRADING IS COMPLETED AND APPROVED AND BEFORE ANY PAVEMENT IS INSTALLED.
11. ALL SANITARY WATER LINES AND APPURTENANCES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH WKUD'S STANDARD WATER SYSTEM SPECIFICATIONS.
12. ALL WORK MUST BE INSPECTED BY WKUD PRIOR TO BACKFILLING.
13. WATER LINE MATERIALS, INSTALLATION, AND TESTING SHALL BE PER WKUD'S STANDARDS. MATERIAL SUBMITTALS SHALL BE MADE TO WKUD ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION AT 2328 LOVELL RD, KNOXVILLE, TN 37932. OFFICE: (865) 690 -2521.
14. DISINFECTION AND STERILIZATION SHALL BE COMPLETED BY CONTRACTOR WHEN INSTALLATION AND TESTING ARE COMPLETE. TAPS FOR STERILIZATION SHALL BE PROVIDED BY THE CONTRACTOR. WATER QUALITY TESTING WILL BE PERFORMED BY WKUD.
15. ALL WATER LINES SHALL HAVE A MINIMUM OF 36" COVER. BACKFILL WITH STONE TO GRADE REQUIRED UNDER ALL PROPOSED ROADWAYS.
16. ALL WATER LINES 4" OR LARGER SHALL BE CLASS 350 DIP. ALL FITTINGS SHALL BE APPROPRIATE FOR THE CLASS AND TYPE OF PIPE BEING JOINED.

17. ALL 2" WATER LINES SHALL BE PVC (SDR 13.5-315 PSI) OR TYPE K COPPER. COORDINATE WITH WKUD ON DESIRED MATERIAL BASED ON THE APPLICATION. ALL FITTINGS SHALL BE APPROPRIATE FOR THE CLASS AND TYPE OF PIPE BEING JOINED.
18. AIR RELEASE VALVES (ARI D-40 OR EQUAL) SHALL BE INSTALLED ON HIGH POINTS ON THE MAINS IN ACCORDANCE WITH THE PLANS OR AS REQUIRED BY WKUD'S INSPECTORS.
19. DO NOT LOCATE WATER METERS OR SERVICES AT THE SAME PROPERTY CORNERS AS ELECTRICAL TRANSFORMERS OR CATV/TELEPHONE PEDESTALS. NO WATER METER TAPS SHALL BE INSTALLED UNTIL WKUD'S ENGINEERING DEPARTMENT REVIEWS ELECTRICAL PLANS FROM LCUB/KUB.
20. ALL WATER MAINS, INCLUDING D.I.P., SHALL BE INSTALLED WITH BLUE NO. 10 SOLID COPPER INSULATED WIRE THROUGHOUT THE ENTIRE SYSTEM, INCLUDING SERVICE LATERALS TO THE METER BOX. WIRE SHALL BE INSTALLED DIRECTLY ON TOP OF THE WATER MAIN. KEEP WIRE AS CONTINUOUS AS POSSIBLE. WHERE CONNECTIONS ARE NEEDED, STRIP WIRE BACK APPROX. 1" AND CONNECT WITH SPLIT-BOLT CONNECTORS. WRAP CONNECTIONS WELL ON EACH SIDE OF CONNECTION WITH ELECTRICAL TAPE. WHEN INSTALLATION IS COMPLETE, THE ENTIRE SYSTEM MUST BE TESTED FOR CONTINUITY IN THE PRESENCE OF A WKUD INSPECTOR. WKUD MAY REQUIRE RE-EXCAVATION AND IMPROVEMENT TO AREAS THAT DO NOT "TRACE" WELL AND SHOW LOW OR POOR CONTINUITY.
21. BLOW-OFFS SHALL BE INSTALLED ON ENDS OF MAINS. FROM THE END OF THE MAIN BACK THROUGH THE FIRST THREE FULL LENGTH JOINTS OF PIPE SHALL BE INSTALLED FULLY RESTRAINED USING RESTRAINING GASKETS "FAST-GRIP", "FIELD LOK 350" OR EQUAL MECHANICAL RESTRAINT AS APPROVED BY WKUD INSPECTOR.
22. WATER MAINS REQUIRE CONCRETE THRUST BLOCKING AND MEGALUG MECHANICAL JOINT RESTRAINT AT ALL CHANGES IN DIRECTION REQUIRING BENDS, TEES, PLUGS, AND FIRE HYDRANTS. FIELD-LOK GASKETS MUST BE INSTALLED FOR AT LEAST TWO PIPE JOINTS ON EACH SIDE OF FITTINGS. ALL VALVES SHALL BE INSTALLED WITH MEGALUG MECHANICAL JOINT RESTRAINTS. WRAP ALL FITTINGS, BOLTS, FLANGES, ETC. IN 6 MIL PLASTIC PRIOR TO PLACING CONCRETE. HYDRANT TEES AND SWIVEL-X COUPLINGS SHALL BE USED FOR HYDRANTS.
23. WHERE MEGALUGS ARE SPECIFIED, THEY SHALL BE MANUFACTURED BY EBAA IRON INC. OR APPROVED EQUAL BY WKUD.
24. DEVELOPER/OWNER SHALL INSTALL ALL METER YOKES AND BOXES AND PROVIDE MATERIAL PER WKUD STANDARD SPECIFICATIONS. METER BOXES SHALL BE SET AT THE PROPERTY LINE (NO MORE THAN 2' +/- INSIDE PROPERTY). ALL VALVE BOXES TO BE INSTALLED OUTSIDE OF PAVED AREAS WITH BOX LOK'S.
25. SINGLE WATER SERVICES SHALL BE 3/4" TYPE K COPPER AND DOUBLE WATER SERVICES SHALL BE 1" TYPE K COPPER. ALL METERS SHALL HAVE A 3/4" CURB STOP INSIDE METER BOX BEFORE METER YOKE.
26. LONG SIDE LATERALS MUST BE WRAPPED WITH POLY C WRAPPING.
27. ALL METER BOX LIDS SHALL BE CAST IRON APPROVED BY WKUD INSPECTOR.
28. ALL METER YOKES SHALL BE FORD 3/4" COPPERSETTER 70 SERIES OR MUELLER B2404-R-2 OR APPROVED EQUAL.
29. FIRE, IRRIGATION, AND COMMERCIAL LINES MUST BE BACKFLOW PROTECTED PER WKUD POLICY. COORDINATE WITH WKUD.
30. ALL FIRE HYDRANTS BARREL SHALL BE 5.25".
31. ALL FIRE HYDRANTS SHALL BE FACTORY PAINTED YELLOW.
32. HYDRANT SHALL BE ROTATED TO FACE CLOSEST POINT OF PAVED ACCESS AND MUST HAVE AN ISOLATION GATE VALVE WITH BOX LOK-2 INSTALLED ON HYDRANT LATERAL.
33. INSTALL FITTINGS AS REQUIRED TO AVOID CONFLICTS WITH EXISTING AND PROPOSED UNDERGROUND CONFLICTS AND OBSTRUCTIONS.

34. INSTALL WATER LINES AT A POSITIVE GRADE BETWEEN DESIGNATED HIGH AND LOW POINTS TO PREVENT TRAPPING OF AIR.
35. ALL INTERSECTIONS WITH VALVES SHALL BE FLEX T-2 (2 VALVE APPLICATION) OR T-3 (3 VALVE APPLICATION) AS MANUFACTURED BY "IN FACT CORPORATION".