**GENERAL NOTES:**

1. IF THIS SHEET IS NOT 24"X36" USE GRAPHIC SCALE ACCORDINGLY.

**KEYED NOTES:**

1. RUN NEW SERVICE LINE TO WITHIN 6" OF EXISTING MAIN.
2. MINIMUM BELL HOLE AT BOTTOM OF TRENCH 24" FROM CENTERLINE OF NEW PIPE (ON EACH SIDE). 18" FROM EDGE ON BACK SIDE, IF 6" IN FRONT OF MAIN. 
   
3. LANL CONSTRUCTION INSPECTOR WILL ENSURE 
   MATTIERS REQUIRED FOR HOT TAP OR CUT IN TEE 
   AND AT JOB SITE DISINFECTION AND PRESSURE 
   TESTING OF THE SERVICE LINE HAS BEEN 
   COMPLETED PRIOR TO NOTIFYING MSS U&I. 

4. LOCATE GATE VALVE NEAR MAIN, PREFERRED IN 
   UNPAVED AREA.

**NOTES FOR DESIGNER:**

1. WHEN EDITING DETAIL TO SUIT PROJECT, ADD JOB SPECIFIC REQUIREMENTS AND DELETE ONLY THOSE PORTIONS THAT DO NOT APPLY. TO SEEK A VARIANCE FROM APPLICABLE REQUIREMENTS, CONTACT THE ESM CIVIL, POC.
2. REFER TO LANL WATER STANDARDS FOR ADDITIONAL REQUIREMENTS:
   2.1. ENGINEERING MANUAL, CIVIL CHAPTER.
   2.2. MASTER SPECIFICATION 31 3000, EARTH MOVING.
   2.3. MASTER SPECIFICATION 31 1000, WATER UTILITIES.
   2.4. MECHANICAL DRAWING ST-G3010-1, SITE/BUILDING WATER COMPONENTS DIAGRAM.
   3. CONSULT WITH LANL UTILITIES & INSTITUTIONAL FACILITIES GROUP WATER SYSTEM REPRESENTATIVE FOR ALL TIE-INS DURING DESIGN PHASE.

**WATER PIPING TIE-IN DETAIL**

1. TAP IN NEW SERVICE LINE TO EXISTING SERVICE LINE. 
   
2. INSTALL TWO 1/2" TIE RODS AT 180 DEG. OR MEGALUG 
   RETAINER/RESTRAINT GLANDS WHEN JOINTS ARE MECHANICAL 
   OR PUSH-ON TYPE. (UL LISTED OR FM APPROVED)

**ENGINEERING STANDARDS**

**CIVIL**

**WATER PIPING TIE-IN DETAIL**

**4" TO 12" SERVICE LINE**

** chapter 3**

**ST-G3010-2.2**