

IRRIGATION

1. THE DEVELOPER SHALL NOTIFY ALL LOT PURCHASERS THAT THERE MUST BE NO INTERCONNECTION BETWEEN THE PRESSURE IRRIGATION SYSTEM AND HOUSE PLUMBING. OUTSIDE HOUSE FAUCETS MUST ONLY BE CONNECTED TO THE MUNICIPAL POTABLE WATER SYSTEM THROUGH THE HOUSE SERVICE CONNECTION.
2. INSTALL PRESSURE IRRIGATION SYSTEMS CONSISTING OF IRRIGATION MAINS AND INDIVIDUAL SERVICE CONNECTIONS TO EACH LOT.
3. MAINTAIN PRESSURE IRRIGATION CIRCUITS AS SHOWN ON THE APPROVED CONSTRUCTION PLANS. DO NOT JUMP ACROSS FROM ONE CIRCUIT TO ANOTHER. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO CORRECT CROSS CONNECTIONS WHEN DISCOVERED.
4. CONNECTION TO THE CITY OF KUNA MUNICIPAL WATER (POTABLE) SYSTEM FOR IRRIGATION PURPOSES IS NOT ALLOWED.
5. LOT SERVICE REQUIREMENTS:

<u>LOT SIZE S.F.</u>	<u>IRRIGATION RISERS</u>
0-14,000	ONE 1"
14,000 - 26,000	TWO 1" OR ONE 1.5"
26,000+	DETERMINED BY CITY ENGINEER OR DESIGNEE
6. ALL IRRIGATION MAINLINES SHALL BE INSTALLED SUCH THAT AIR AUTOMATICALLY VENTS DURING FILLING AND DRAINING. AUTOMATIC AIR/VACUUM RELIEF VALVES SHALL BE INSTALLED AT ALL HIGH POINTS IN THE SYSTEM AND IN LOCATIONS DETERMINED BY THE CITY ENGINEER. IN LIEU OF AUTOMATIC VENTS, THE CONTRACTOR MAY INSTALL SERVICES WITH THE TAP ON TOP OF THE MAIN AT THE HIGH POINT WITH THE SERVICE LINE LAID LEVEL OR RISING TO THE SERVICE BOX.
7. ALL IRRIGATION MAINS SHALL FREELY DRAIN. "FREELY DRAIN" MEANS TO DRAIN BY GRAVITY INTO A DRAINAGE SWALE, DRAINAGE POND, DRAINAGE DITCH OR ADEQUATELY SIZED DRY WELL. THE DRAIN SYSTEM SHALL INCLUDE MANUALLY OPERATED VALVES AS DETAILED IN CITY OF KUNA STANDARD DETAILS. LOCATE DRAINS IN COMMON AREAS, ALONG PATHWAYS OR STREET FRONTAGES UNLESS SPECIFICALLY APPROVED OTHERWISE BY THE CITY ENGINEER.
8. PIPE DEPTH: ALL IRRIGATION MAIN LINES NOT WITHIN ROAD RIGHT OF WAY (ROW) SHALL HAVE AT LEAST THREE (3) FEET OF APPROVED COVER MATERIAL MEASURED FROM FINISH GRADE TO CROWN OF PIPE IF THE PIPE IS FREE DRAINING. A MINIMUM OF FOUR (4) FEET OF COVER SHALL BE REQUIRED FROM FINISH GRADE TO CROWN OF PIPE UNDER ROADWAYS AND WHERE PIPE IS NOT FREE-DRAINING. NO IRRIGATION MAIN LINE PIPING SHALL BE COVERED WITH MORE THAN SIX (6) FEET OF APPROVED COVER MATERIAL.

9. PRESSURE IRRIGATION MAIN LINE PIPING 4 INCH DIAMETER AND LARGER SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE (PVC), DR21 (200 PSI), CONFORMING TO ASTM D2241.
10. PRESSURE IRRIGATION MAIN LINE PIPING IN THE R.O.W. AND PARALLEL TO CENTER LINE SHALL BE PVC, C900 DR 18.
11. SLEEVE PRESSURE IRRIGATION SERVICE LINES IN A FOUR (4) INCH DIAMETER C900 DR 18 OR SCH 80 WATER CLASS PIPE WHEREVER THE SERVICE LINE CROSSES A STREET DRAINAGE SEEPAGE BED.
12. ALL PI SLEEVING SHALL INCLUDE CALPICO SEALS.
13. 4 INCH DIAMETER AND LARGER PIPE SHALL HAVE RUBBER GASKETED JOINTS.
14. PRESSURE IRRIGATION PIPE SHALL BE CLEARLY MARKED WITH TYPE, CLASS OR THICKNESS. LETTERING SHALL BE LEGIBLE AND PERMANENT.
15. PLACE MARKING TAPE ABOVE ALL IRRIGATION PIPE BETWEEN SIX (6) INCHES BELOW GROUND SURFACE AND SIXTEEN (16) INCHES ABOVE TOP OF PIPE. TAPE SHALL BE THREE (3) INCHES WIDE, 4 MIL POLYETHYLENE, PURPLE IN COLOR, WITH "PRESSURIZED IRRIGATION MAINLINE" CLEARLY MARKED ALONG THE LENGTH OF THE TAPE IN 1 ½" BLACK LETTERS.
16. TAPE A #12 DIRECT BURIAL TRACER WIRE ALONG THE CROWN OF THE PRESSURE IRRIGATION MAINLINE. LOOP THE TRACER WIRE FROM THE MAINLINE TO EACH SERVICE BOX AND BACK TO THE MAINLINE. THE TRACER WIRE SHALL BE ACCESSIBLE AT ALL VALVE BOXES AND EXTENDED ALONG THE OUTSIDE OF THE LOWER PORTION AND ALONG THE INSIDE OF THE UPPER PORTION OF THE VALVE BOX. CONDUCT AN ELECTRICAL CONTINUITY TEST BEFORE PAVING TO VERIFY TRACER WIRE INTEGRITY.
17. EQUIP EACH PRESSURE IRRIGATION SERVICE WITH A METAL OR PLASTIC TAG (YUCKY FACE) "NON-POTABLE WATER-DO NOT DRINK".
18. VALVES 4 INCH DIAMETER AND LARGER SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO THE REQUIREMENTS OF ANSI/AWWA C509, WITH MECHANICAL OR FLANGED JOINTS AND 2 INCH SQUARE OPERATING NUT. ACCEPTABLE VALVES ARE MUELLER MODEL A-2360 AND A-2361 OR CLOW MODEL 2639 AND 2640. ALTERNATE VALVES MUST BE SPECIFICALLY APPROVED BY THE CITY ENGINEER. VALVE BOXES FOR VALVES 4 INCH DIAMETER AND LARGER SHALL BE STANDARD CAST IRON 5 1/4 INCH DIAMETER ADJUSTABLE VALVE BOX.
19. VALVES FOR STREET CROSSINGS SHALL BE PLACED WITHIN 2 FEET OF THE BACK EDGE OF SIDEWALK.
20. FITTINGS SHALL BE CAST IRON, DUCTILE IRON, PVC, BRASS OR STAINLESS STEEL, AND

SHALL HAVE A MINIMUM PRESSURE RATING EQUAL TO OR GREATER THAN 200 PSI. ALL FITTINGS FOUR (4) INCHES AND LARGER SHALL BE DUCTILE IRON WITH FLANGED OR MECHANICAL JOINTS. THRUST BLOCKS OR OTHER CITY ENGINEER APPROVED RESTRAINTS SHALL BE PROVIDED AT CHANGES OF DIRECTION.

21. IRRIGATION SYSTEMS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH ISPWC SPECIFICATIONS FOLLOWING INSTALLATION OF ALL OTHER UTILITIES AND BEFORE PAVING. TESTING SHALL BE OBSERVED BY A CITY REPRESENTATIVE.