CITY OF LAKE ELSINORE
STANDARD PLANS

SECTION 5:
Street Lights,
Irrigation and
Planting
## STANDARD INSTALLATION DETAILS
### IRRIGATION (PUBLIC WORKS)

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CITY OF LAKE ELSINORE  
PREPARED BY PUBLIC WORKS  
INDEX  
NO.  500
LUMINAIRE RESIDENTIAL 8500 LUMEN HIGH PRESSURE SODIUM TYPE TO BE SHOWN ON GENERAL STREET LIGHTING PLAN.

** WHEN STREET LIGHT IS INSTALLED ADJACENT TO CURB, MAST ARM LENGTH SHALL BE 4'-0".

MARBELITE, ORNAMENTAL GRANITE, OR APPROVED EQUAL.

NOTE:
These lighting standards may be superseded by the standards of the serving utility if they are in accordance with the National Street Lighting Guide.
NOTE:
THESE LIGHTING STANDARDS MAY BE SUPERSEDED BY THE STANDARDS OF THE SERVING
UTILITY IF THEY ARE IN ACCORDANCE WITH THE NATIONAL STREET LIGHTING GUIDE.
NOTES:

1.) RADIO ANTENNA MAST SHALL BE 2" THREADED STEEL PIPE STOCK & FITTINGS

2.) ANTENNA MAST SURFACE COATING SHALL BE GLYD-ZINC Y-5536/ 5537 - GREY-GREEN (OR APPROVED EQUAL)

3.) ANTENNA LEAD WIRE SWEEPS/ CONDUIT TO BE SCHD. 40 PVC. ALL SWEEPS TO BE 1" MIN. DIA. 
   EXTEND CONDUIT ALONG THE ENTIRE REACH OF LEAD WIRE PATH, ENDING IN CCU ENCLOSURE

4.) ANTENNA CABLE SHALL EXTEND INTO ENCLOSURE 18" PAST END OF SWEEP

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
LEGEND:

1. ELECTRICAL METER/IRRIGATION CONTROLLER ENCLOSURE W/ 110 VAC SERVICE PANEL—DOUBLE DOOR—STAINLESS STEEL
2. 5/8" x 8' COPPER-CLAD GROUNDING ROD (GROUND 110 & CONTROLLER)
3. DUAL OUTLET (CONDUCT PATH TO SERVICE PANEL PER CODE). INSTALL W/ SURGE ARRESTER - TRIPP-LITE MODEL ISO-BLOK 2-0
4. APPLIANCE GRADE 110 VAC 3-WIRE CONDUCTOR POWER CORD (SIZED TO REACH DUAL OUTLET). SECURE TO CONTROLLER CABINET
5. 3" SCH. 40 E.G. SWEEP ELL FOR 14 GA. UF CONTROL WIRE ONLY
6. 3/4" SCH. 40 E.G. SWEEP ELL W/ NYLON PULL ROPE FOR FUTURE MOISTURE SENSOR WIRING
7. TERMINAL STRIP FOR CONNECTION OF 14 GA. UF FIELD WIRE FROM SWEEP. USE 16 GA. UTILITY WIRE TO CONNECT TERMINAL STRIP TO CONTROLLER (typ.)
8. #10 SOLID COPPER WIRE FROM GROUNDING ROD TO CONTROLLER GROUND LUG
9. BRASS / BRONZE GROUND CLAMP
10. REMOTE CONTROL ACTUATOR INTERFACE—PER PLAN
11. TELEMETRY CONDUIT — SIZE PER PLAN. EXTEND PE 39 CABLE INTO ENCLOSURE 10" MIN. FROM END OF SWEEP (USE FOR MAXICOM WIRE LINK / FLOW SENSOR WIRE LINK @ 1 PER set.)
12. 6" THICK CONCRETE FOOTING COVERED ON COMPACTED SUBGRADE (95% RELATIVE COMPACTION). RADIUS EDGES @ 1/2"
13. ELECTRIC METER
14. IRRIGATION CONTROLLER — MODEL # PER PLAN CALL-OUT
15. ANTENNA — RADIO LINKED MAXICOM ONLY — MODEL # PER PLAN CALL-OUT
16. FLOW SENSING COMPONENTS (INSTALL IF SHOWN ON PLAN) — MODEL #S PER PLAN CALL-OUT

NOTES:

1. COMMON WIRE TO BE WHITE. PILOT WIRE TO BE RED
2. NO SPLICES ALLOWED BETWEEN TERMINAL STRIP AND R/CY
3. INSTALL ONE (1) EXTRA PILOT WIRE (ORANGE) TO FARTHEST R/CY IN ANY/ALL DIRECTIONS FROM ENCLOSURE. LOOP INTO EACH VALVE BOX ALONG WIRE PATH
4. IF FLOW SENSOR TO BE INSTALLED, INCLUDE 3/4" CONDUIT PATH FROM ENCLOSURE TO SENSOR VAULT

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

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CITY OF LAKE ELSINORE
PREPARED BY PUBLIC WORKS

CONTROLLER/SATELLITE ENCLOSURE DETAIL

REVISION
ENGINEERING
DATE 07/09

DATE APPROVED
APPROVED BY

NO. 543
LEGEND:

1. PLASTIC VALVE BOX W/ TWO 6" EXTENSIONS & LOCKING COVER
2. FINISH GRADE
3. WATERPROOF CONNECTION
4. TWO CONDUCTOR SHIELDED CABLE - ROUTE TO CONTROLLER VIA CONDUIT
5. DATA INDUSTRIAL FLOW SENSOR - PER PLAN
6. PIPE CHOKE - REDUCE TO NEXT SIZE BELOW MAINLINE PIPE SIZE
7. VALVE BOX EXTENSION
8. PEA GRAVEL DRAIN SUMP - 30" DIAM. X 6" DEEP MINIMUM
9. 3/4" E.C. WIRE PATH FROM SENSOR VAULT TO NEAREST SATELLITE ENCLOSURE

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
LEGEND:

1. APPROVED PULL BOX - NOM. DIM. Ø 17"L x 11"W x 12"D
   - INSTALL @ INTERVALS NOT TO EXCEED 200 FT.
   - SET 1" ABOVE FINISH GRADE IN TURF AREAS
   - SET 2" ABOVE FINISH GRADE IN PLANTER AREAS

2. PVC Schd. 40 CONDUIT - 1 1/2" NOM. O.D.

3. PVC Schd. 40 90 deg. SWEEP ELL (typ.)

4. PVC Schd. 40 ScS COUPLER (typ.)

5. POLY PULL ROPE - 500 lb. TEST
   - INSTALL PULL ROPE ALONG WITH COMM. CABLE
   - LEAVE 2ft. LOOP IN BOX

6. COMMUNICATION CABLE w/ PERMANENT I.D. TAG (Christy's or EQ.)
   - LEAVE 18" min. LOOP IN BOX
   - COMM. CABLE TO BE "PE 39"

7. CONDUIT BUSHING - INSTALL ON PVC Schd. 40 MALE ADAPTER
   - SEAL ALL CONDUIT ENDS w/ WATERPROOF SILICONE SEALER AFTER CABLE/PULL ROPE INSTALLED

8. 3/4" WASHED CRUSHED AGGREGATE - 6" DEPTH

9. FINISH GRADE

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
NOTES:

1.) GROUND WIRE SHALL BE #10 COPPER (INSULATED - GREEN).
2.) GROUNDING ROD SHALL BE 5/8" x 8'0" COPPER CLAD.
3.) ATTACH GROUND WIRE TO GROUNDING ROD USING BRASS GROUND ROD CLAMP.
4.) ENCLOSE GROUND ROD IN 10-INCH ROUND PLASTIC VALVE BOX w/ LOCKING LID.
5.) CONNECT FIELD GROUND WIRE TO TERMINAL STRIP
6.) GROUND WIRE SWEEPS/CONDUIT TO BE SCHD. 80 PVC. ALL SWEEPS TO BE 1" MIN. DIAM.
   EXTEND CONDUIT ALONG THE ENTIRE REACH OF GROUND WIRE PATH, ENDING IN GROUND ROD BOX.

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
LEGEND:

1. VALVE BOX - MODEL # & SIZE PER PLAN
2. TOE NIPPLE ASSEMBLY - USE IN PLACE OF MIPT ADAPTERS (typ)
3. MASTER CONTROL VALVE - MODEL # & SIZE PER PLAN
4. WATERPROOF CONNECTION - SPEARS DS-100 OR APPROVED EQUAL. FILL W/ DS-300 SEALANT OR APPROVED EQUAL
5. PROVIDE 24" min. EXPANSION LOOP
6. SCHD. 80 PVC UNION
7. 3/4" WASHED CRUSHED AGGREGATE - 6" DEPTH
8. MAINLINE FROM POC/BACKFLOW PREVENTER ASSEMBLY
9. FINISH GRADE

NOTES:

1) INSTALL MASTER VALVE MINIMUM 3 FT. DOWNSTREAM OF POC/BACKFLOW ASSEMBLY
2) INSTALL MASTER VALVE MINIMUM 12" FROM STRUCTURES/HARDSCAPE

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
LEGEND:

1. PVC MAIN / LATERAL LINE PIPE
2. SCHED. 40 PVC COUPLER FS x FS
3. SCHED. 80 PVC NIPPLE - THREADED ONE END
   - 6" MIN. LENGTH
   - CUT THREADS ONLY - NO MOLDED NIPPLES

NOTE:

1.) USE TOE NIPPLE ASS'Y IN PLACE OF MIPT ADAPTERS
**STEP 1**

Strip wires approx. 5/8" from ends—twist together.

**STEP 2**

Apply sealer to outside of sealing plug—fill cavity with sealer.

Put crimp sleeve wire ends—crimp sleeve and cut off excess wire.

**STEP 3**

Pull base socket over end as far as possible.

Push sealing plug into base socket.

**STEP 4**

Push wires to end of base socket to insure complete sealing of connection.

Waterproof wire connector.

**NOTE:**

1.) Pre-filled connectors not to be used without prior approval of city engineer.

* See city standard equipment list for manufacturer.
LEGEND

1. BACKFLOW PREVENTER ASSEMBLY
2. BRASS NIPPLE - TYPICAL (4) PLACES
3. BRASS 90 ELL - TYPICAL (2) PLACES
4. BRASS NIPPLE
5. 6" THICK CONCRETE PAD (SEE PAD SCHEDULE)
   SLOPE TO DRAIN AT MINIMUM 2%
6. FINISH GRADE
7. BRASS NIPPLE - TYPICAL (2) PLACES
8. 12" X 12" X 12" CONCRETE THRUST BLOCKS - TYPICAL (2) PLACES
9. BRASS 90 ELL - TYPICAL (2) PLACES
10. SCHEDULE 80 TOE NIPPLE ASSEMBLY - TYPICAL (2) PLACES
11. LINE SIZED BRASS GATE VALVE / BALL VALVE
12. BRASS WYE STRAINER WITH 60 MESH SCREEN
13. FROM WATER SOURCE
14. BRASS UNION

NOTES:

1.) EQUIPMENT TO BE INSTALLED AT A MINIMUM OF 24" FROM ANY STRUCTURES OR HARDSCAPING.
2.) WHEN UNIT IS NEXT TO A STRUCTURE (i.e., WALL, BUILDING, ETC.) MOUNT TEST COCKS ON OPEN OR NON-STRUCTURE SIDE.
3.) SERVICE LINE MUST BE SAME SIZE AS RP DEVICE PER EMWD

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

CITY OF LAKE ELSINORE
PREPARED BY PUBLIC WORKS
REDUCED PRESSURE BACKFLOW PREVENTER
NO. 553
ENCLOSURE IN OPEN POSITION

SIDE VIEW

ENCLOSURE IN CLOSED POSITION

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<td>60&quot;</td>
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**LEGEND**

1. 1 1/2"-#9 EXPANDED METAL
2. 1 1/2" X 1 1/2" X 3/16" ANGLE FRAME
3. CONCRETE PAD (SEE STANDARD MV-553)
4. HASP FOR PAD LOCK
5. LIFTING HANDLE
6. HINGE PLATE

**NOTES:**

1. FINISH TO BE TWO COATS OF SEMI-GLOSS GREEN ENAMEL PAINT
2. FOR UNITS 2" AND UNDER USE SINGLE SWING HINGE MODEL.

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
LEGEND

1. 10" ROUND VALVE BOX WITH LOCKING LID, "PR" TO BE BRANDED ON LID
   USE EXTENSIONS AS NECESSARY TO REACH FINISH GRADE
2. FINISH GRADE
3. PRESSURE ADJUSTMENT SCREW
4. PRESSURE REGULATOR
5. PIPE TO IRRIGATION SYSTEM
6. PIPE FROM BACKFLOW PREVENTER
7. 3/4" WASHED CRUSHED AGGREGATE BASE

NOTE:

1.) PLACE AGGREGATE PRIOR TO INSTALLATION OF BOX
* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
LEGEND

1. 10" ROUND PLASTIC VALVE BOX WITH LOCKING LID
   COVER SHALL BE MARKED "GV" VIA BRANDING
2. FINISH GRADE
3. BRASS GATE VALVE WITH BRONZE HAND WHEEL
4. 3/4" WASHED CRUSHED AGGREGATE BASE
5. SCH 80 PVC TOE NIPPLE ASSEMBLIES
6. SCH 80 PVC UNION, SLIP X SLIP

NOTE:

1.) PLACE AGGREGATE PRIOR TO INSTALLATION OF VALVE BOX
2.) IF BALL VALVES USED, A JUMBO RECTANGULAR BOX SHALL BE INSTALLED
3.) CAST IRON AND/OR FLANGED VALVES WILL REQUIRE A Poured-IN-PLACE
   CONCRETE SUPPORT (NOT SHOWN)

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
LEGEND

1. Jumbo Plastic Valve Box with locking lid, shall be marked "PVC" with Station Numbers for control valves branded on lid
2. To Sprinkler - Angle Pipe to specified depth with 45 degree ells if necessary
3. SCH 80 PVC Tee Nipple Assembly
4. SCH 80 PVC Union
5. SCH 80 PVC Close Nipple
6. Waterproof Connectors, (See detail #801-Step 4)
7. Electric Control Valve
8. Finish Grade
9. PVC Tail Expansion Loop (min. 24" long)
10. Angle Valve
11. SCH 80 PVC Close Nipple
12. Washed Crushed Aggregate
13. SCH 80 PVC Nipple
14. Control & Common Wires
15. Pressure Supply Line
16. SCH 40 PVC S872 Tee

NOTES:

1. Install control valves a minimum of 12" from structures or hardscape
2. Install values in planter beds wherever possible next to sidewalks.
3. Place valve box at right angles to structures or hardscape
4. Place aggregate prior to installation of valve box.
5. Attach valve identification tag with appropriate control valve designation to control wires.
6. One valve per box allowed only.
7. Place aggregate prior to installation of valve box.

* See city standard equipment list for manufacturer
LEGEND

1. Brass Angle Valve with Union — Same Size as RCV
2. PVC Wye Strainer with Integral Ball Flush Valve and Schrader Pressure Test Valve
3. Remote Control Valve — Plan Sized w/ Pressure Regulator
4. SCH. 80 PVC Close Nipple
5. SCH. 80 Union with Toe Nipple Assembly
6. SCH. 40 PVC 5 x 5 x T Tee
7. Pressure Supply Line
8. SCH. 80 PVC Nipple
9. 6” Thick 3/4” Washed Crushed Aggregate
10. 3/4” or 1 O.D. Flexible Algae Resistant Heavy Wall PVC Hose (or Rigid PVC Header)
11. Jumbo Plastic Valve Box with Locking Lid
    Shall be Branded “RCV” with Station Numbers for Control Valves
12. Solenoid Wires, Pig-tail Each 24” Long

NOTE:

1. Place aggregate prior to installing valve box

* See City Standard Equipment List for Manufacturer
LEGEND

1. STRUCTURE OR HARDSCAPE
2. 10" ROUND VALVE BOX WITH "DC" BRANDED ON LID
3. FINISH GRADE
4. QUICK COUPLING VALVE (SIZE PER PLAN)
5. STAINLESS STEEL SCREW, CLAMP MIN. (3) PLACES
6. 3/4" MASONRY CRUSHED AGGREGATE BASE
7. SCH. 80 NIPPLE
8. SCH. 80 NIPPLE - 6" LONG
9. SCH. 40 PVC 90 DEGREE ELL
10. SCH. 40 PVC 90 DEGREE STREET ELL
11. 90 DEGREE STREET ELL AND 1" X 3/4" MIPT X FIPT REDUCER BUSHING - (SCH 80 PVC)
12. PRESSURE SUPPLY LINE FITTING
13. PRESSURE SUPPLY LINE
14. #4 REBAR STAKE (24" LONG)

NOTES:

1. PLACE AGGREGATE PRIOR TO INSTALLATION OF VALVE BOX
2. INSTALL G.C.V. & BOX IN PLANTERS WHEN EVER POSSIBLE, NOT IN TURF AREAS

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
1" IN LAWN AREAS
3" IN PLANT AREAS

LEGEND

1. PLASTIC VALVE BOX WITH LOCKING LID – BRANDED X -RCV
   REFER TO CITY RCV BOX STANDARD # 557
2. PIG-TAIL COMMON WIRE (CONTINUOUS LOOP)
3. BRASS GATE VALVE – LINE SIZE
4. PIG-TAIL PILOT WIRE AND WATERPROOF END (SEE DETAIL # 551)
5. FINISH GRADE
6. SUPPLY LINE-SIZE PER PLAN
7. 3/4" WASHED CRUSHED AGGREGATE BASE
8. SCH. 80 TOE NIPPLE ASSEMBLY
9. SCH. 80 TOE NIPPLE ASSEMBLY WITH THREADED CAP

NOTES:

1. PLACE AGGREGATE PRIOR TO INSTALLING BOX
2. GATE VALVE TO REMAIN AT TIME OF INSTALLATION OF NEW REMOTE CONTROL VALVE BOX

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

CITY OF LAKE ELSINORE
PREPARED BY PUBLIC WORKS
IRRIGATION STUB-OUT BOX NO. 560

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CITY ENGINEER
**LEGEND**

1. FINISH GRADE
2. CLEAN BACKFILL—SEE SPECS. FOR MATERIAL, 90% COMPACTION REQUIRED
3. NON — PRESSURE LATERAL LINE
4. PRESSURE SUPPLY LINE
5. PROVIDE 2" OF CLEAN BACKFILL
6. CONTROL WIRES — BUNDLE AND TAPE AT 15" O.C. AND INSTALL BELOW PRESSURE SUPPLY LINE

**NOTES:**

1. PIGTAIL AND LOOP CONTROL WIRE AT ALL 90 Degree CHANGES IN DIRECTION
2. SPLICING OF WIRE RUN PER CITY SPECIFICATIONS ONLY
3. MINIMUM COVER FOR RECLAIMED WATER MAINLINE: 3" AND LARGER — 24";
   2" AND SMALLER — 18"
   * SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
LEGEND

1. HARDSCAPING
2. CLEAN BACKFILL - SEE SPECS. FOR MATERIAL, 90% COMPACTION REQUIRED
3. SAND
4. NON-PRESSURE LATERAL LINE SLEEVE SIZE TWICE DIAMETER OF NON-PRESSURE LATERAL LINE
5. CONTROL WIRE SLEEVE - SIZE PER PLAN, INSTALL ADJACENT TO PRESSURE SUPPLY LINE
6. PRESSURE SUPPLY LINE SLEEVE - SIZE TWICE DIAMETER OF PRESSURE SUPPLY LINE

NOTES:

1. ALL SLEEVES TO BE SCH. 40 PVC.
2. EXTEND ALL SLEEVES 12" BEYOND EDGE OF HARDSCAPE AT BOTH ENDS
WITH BAND

12"-18"

24"-30"

18"-24"

12"-18"

LEGEND

1. STAMPED CONCRETE, PAVER, ETC.
2. CONC. CURB
3. FINISH GRADE
4. LATERAL LINE LOCATION
5. MAIN LINE LOCATION
6. FINISH GRADE
7. CONC. CURB
8. LATERAL LINE LOCATION
9. MAIN LINE LOCATION

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

CITY OF LAKE ELSINORE
PREPARED BY PUBLIC WORKS
MEDIAN AND PARKWAY
IRRIGATION LINE INSTALLATION

REVOLUTION
DATE
APPROVED
ENGINEERING
DATE 07/09
APPROVED BY

CITY ENGINEER
DATE

NO. 563
LEGEND

1. POP-UP HEAD
2. FINISH GRADE
3. SCH. 80 PVC NIPPLE LENGTH AS NECESSARY
4. SCH. 40 PVC TAT 90 DEGREE ELL
5. MARLEX 90 DEGREE STREET ELL
6. SCH. 80 PVC NIPPLE (6" LONG)
7. NON-PRESSURE LATERAL LINE & TEE FITTING
8. MARLEX 90 DEGREE ELL
9. ANTI-DRAIN VALVE-ALL DOWN SLOPE HEADS—IF NOT RETROFITTED IN HEADS

NOTE:

1. LOCATE HEAD 4" FROM HARDSCAPING, IN TURF — 8" MINIMUM IN PLANTER (THESE MINIMUMS MAY BE INCREASED PER SPEC.)
2. USE TEFLOM TAPE ON ALL MALE THREADS.

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
1/2" ABOVE FINISH GRADE

12" MINIMUM

LEGEND

1. HI-POP SHRUB HEAD
2. FINISH GRADE
3. MARLEX 90 DEGREE STREET ELL
4. NON PRESSURE LATERAL LINE & TEE FITTING
5. SCH 80 PVC 90 DEGREE STREET ELL
6. MARLEX 90 DEGREE STREET ELL
7. SCH 80 PVC NIPPLE - TYPICAL (2) PLACES
8. ANTI-DRAIN VALVE - ALL DOWN SLOPE HEADS - IF NOT RETROFITTED IN HEAD

NOTES:

1. LOCATE HEAD 4" FROM HARDSCAPING, IN TURF - 8" MINIMUM IN PLANTER
   (THESE MINIMUMS MAY BE INCREASED PER SPEC.)
2. USE TEFLOM TAPE ON ALL MALE THREADS.

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

CITY OF LAKE ELSINORE
PREPARED BY PUBLIC WORKS
12" POP-UP SPRAY HEAD NO. 565
LEGEND

1. FINISH GRADE
2. POP-UP GEARED ROTOR W/INTERNAL ANTI-DRAIN VALVES
3. 3/4" SCH. 40 PVC 90 DEGREE STREET ELL
4. 3/4" MARLEX 90 DEGREE STREET ELL
5. 3/4" SCH. 80 NIPPLE (LENGTH AS REQUIRED)
6. 3/4" MARLEX 90 DEGREE STREET ELL
7. PVC TEE
8. NON-PRESSURE LATERAL

NOTE:

1. USE 12" HIGH-POPS IN SHRUB AREAS
2. ALIGN HEADS PERPENDICULAR WITH ANGLE OF SLOPE
3. ADD ANTI-DRAIN VALVES ON 3/4" NIPPLE ON DOWN SLOPE ROTORS IF NOT FITTED IN HEAD BY MFG
4. LOCATE HEAD 6" FROM HARDSCAPE IN TURF – 12" IN PLANTER
   (THOSE MINIMUMS MAY BE INCREASED PER SPEC.)

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER
LEGEND

1. GEARED SHRUB ROTOR
2. SCH. 80 3/4" PVC RISER (LENGTH AS REQUIRED) (REBAR STAKED WITH 2 STAINLESS STEEL CLAMPS IF 6" OR MORE EXPOSURE)
3. FINISH GRADE (ALIGN HEAD PERPENDICULAR WITH ANGLE OF SLOPE)
4. 3/4" SCH. 40 PVC 90 DEGREE STREET ELL
5. 3/4" MARLEX 90 DEGREE STREET ELL
6. 3/4" X 4" SCH. 80 NIPPLE
7. 3/4" MARLEX STREET ELL
8. ANTI DRAIN VALVE ON DOWN SLOPE ROTORS IF NOT FITTED IN BY MFG.
9. PVC TEE
10. 3/4" PVC LATERAL LINE OR LARGER
11. STAINLESS STEEL SCREW, CLAMP MIN. (2) PLACES
12. #4 REBAR STAKE (24" LONG)

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER.
LEGEND

1. TREE TRUNK
2. 2" LODGE POLE STAKES (PER CITY STANDARDS)
3. FINISH GRADE: 2" BELOW TOP OF WALK
4. 6" POP UP SPRINKLER WITH FLOOD BUBBLER INSERT (PER PLAN)
5. EXISTING HARDSCAPE EDGE
6. MARLEX DOUBLE STREET ELLS
7. CL 200 PVC LATERAL IRRIGATION LINE -THRU "CHIMNEY" - BOTH SIDES
8. 6" DIAMETER X 24" LONG PERFORATED ABS DRAIN PIPE WITH 1/2" AGGREGATE, FILLED TO TOP OF SPRINKLER
9. TREE PLANTING PIT WIDTH OF 4 TIMES ROOTBALL DIAMETER
10. PLANT TABLETS PER MANUFACTURER'S RECOMMENDATIONS (DISTRIBUTED AROUND ROOTBALL)
11. TEE AROUND PERIMETER OF TREE WELL
12. UNDISTURBED NATIVE SOIL
13. INSTALL VERTICAL ROOT BARRIER PER MFG. INSTRUCTIONS (WHERE SPECIFIED)
14. ROOTBALL

NOTE:

1. SUPPLEMENTAL TREE IRRIGATION: 1 DEEP WELL SYSTEM FOR 5 GALLON TREES. 2 DEEP WELL SYSTEMS FOR 15 GALLON TREES, AND LARGER

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER.

CITY OF LAKE ELsinore
PREPARED BY PUBLIC WORKS

DEEP WELL TREE IRRIGATION:
DRIP AND/OR BUBBLER

NO. 568
LEGEND

1) FINISH GRADE
2) MEDIUM GRIND SHREDDED MULCH COVER OVER DIST. TUBES - IN PLANTER BEDS
3) VALVE BOX 3" ABOVE FINISH GRADE
4) Emitter Outlet - Cap/Plug Unused Outlets If Necessary
5) Distribution Tubes With Outlet Check Valve Caps. (Min. 2 Per Shrub) Install With Plastic Tube Stakes
6) 10" Plastic Valve Box Branded "EMT" On Lid
7) 1/2" Dia. Sch. 80 PVC Nipple Length As Required
8) Multi-Outlet Emitter With Threaded Riser Adapter. (1 Emitter Per 2 or 3 Shrubs, 1 Emitter For 5 Gallon Trees and 2 Emitters Per 15 Gallon and Larger Trees
9) 3/8" Washed Aggregate. Leave Space Between Emitter and Top Of Aggregate
10) Marlex DBL Street Els Between Lateral Line and Riser

NOTES:

1) INSTALL TWO MULTI EMITTERS 18" FROM TRUNK OF EVERY TREE (DO NOT USE DISTRIBUTION TUBING).
2) INSTALL ONE MULTI EMITTER PER SIX GROUND COVER PLANTS (ONE DISTRIBUTION TUBE PER PLANT.)

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER.
**LEGEND**

1. PALM TRUNK (TRIMMED)
2. FINISH GRADE
3. PALM ROOT BALL (TRIMMED)
4. WASHED PLASTER SAND BACKFILL
5. NATIVE SOIL
6. 3/4" WASHED CRUSHED AGGREGATE
7. 3" SHREDDED MULCH IN PLANTER BED

**NOTES:**

1. ALL PALMS SHALL BE TRIMMED & TIED PRIOR TO PLANTING, LEAVE TIED 30 DAYS MIN.
2. TRIMMED PALM TO HAVE 6-8 FRONDS MAX.

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**CITY OF LAKE ELSINORE**  
**PREPARED BY PUBLIC WORKS**

**PALM TREE PLANTING**  
**NO. 580**
NOTES:
1.) INSTALL GUYS HAND TAUT TO PREVENT DEFORMATION OF LUMBS
2.) PLACE FERTILIZER TABS IN BOX PRIOR TO PLANTING FOR OBSERVATION PURPOSES
3.) ALTERNATE DEADMAN ASSEMBLY

LEGEND:
① (3) DOUBLE STRAND CALV. 12 GA. WIRE GUYS SPACED EQUALLY AROUND TREE - COVER WITH 3/8" DIA. X 3" WHITE PVC TUBING
② REFER TO DETAIL STANDARD MD-568 FOR IRRIGATION METHOD
③ USE TRUNK GUARD WHERE TREE IS INSTALLED IN TURF AREAS
④ 4" DETAIL TO FORM DEPRESSED WATERING BASIN
⑤ 3" THICK SHREDDED MULCH IN PLANTER
⑥ PLANT TABS PER MANUFACTURER'S RECOMMENDATIONS
⑦ ROOT BALL
⑧ NEW RUBBER HOSE OVER WIRE AT POINT OF CONNECTION
⑨ BACKFILL MIX PER SPECIFICATIONS
⑩ REDWOOD DEADMAN PER DETAIL THIS SHEET, ALTERNATE METHOD PER CITY EQUIPMENT LIST
⑪ TURF
⑫ PLANT PIT TO BE 2 TIMES THE WIDTH OF ROOT BALL & SAME DEPTH AS THE ROOT BALL

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER.
LEGEND:

1. TREE TIES 4 REQ'D
2. 2" LODGEPOLE PINE STAKE
3. REFER TO MV-588 CITY STANDARD FOR IRRIGATION METHOD
4. BACKFILL MIX PER SPECIFICATIONS
5. 4" BERM FOR TEMPORARY WATERING UNTIL SEEDING
6. 3" THICK SHREDDED MULCH – WHERE APPLICABLE IN PLANTER BEDS
7. PLANT PIT: 2 TIMES WIDTH OF ROOT BALL & SAME DEPTH AS ROOT BALL
8. TRUNK GUARD IN TURF AREAS
9. PLACE PLANT TAGS PER MANUFACTURERS RECOMMENDATION

NOTE:

1.) INSTALL STAKES 12" FROM TREE TRUNK

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER.
LEGEND

1. TOP OF STAKES
2. MAIN TRUNK
3. TREE TIES (4 REQ'D) 12" APART MIN. NAILED TO STAKES
4. APPROVED 10' TREE STAKES (2) PER SPECIFICATIONS
5. ORIGINAL GRADE
6. REFER TO STANDARD DETAIL MV-56B FOR IRRIGATION METHOD
7. CONTAINER ROOT BALL
8. BACKFILL MIX PER SPECIFICATIONS
9. 3' BERM TIGHTLY COMPACTED IN PLACE TO FORM WATERING BASIN
10. PLANT TABS PER MANUFACTURERS RECOMMENDATIONS
11. PLANT PIT TO BE 2 TIMES WIDTH OF ROOT BALL & SAME DEPTH AS THE ROOT BALL
12. NATIVE SOIL BACKFILL (COMPACTED)

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER.

CITY OF LAKE ELSINORE
PREPARED BY PUBLIC WORKS

DOUBLE STAKE TREE ON SLOPE  NO. 583
**LEGAL**

1. PROPOSED CENTER OF TREE
2. STRUCTURE / WALL / ETC.
3. AWNING / BUILDING OVERHANG
4. HARDSCAPING

**NOTES:**

1. MINIMUM CLEARANCE: 5'-0" FOR 5 GALLON TO 24" BOX TREES. LARGER TREES PER CITY APPROVAL 10' MINIMUM CLEARANCE FROM STREET LIGHTS - ALL TREES
2. IN CASES WHERE TREE TRUNKS ARE 5'-0" OR LESS FROM WALLS AND HARDSCAPING, INSTALL TREE WITH ROOT BARRIERS
3. TREE SPACING SHALL BE APPROVED ON PLAN BY THE CITY BEFORE ANY SCHEDULED INSTALLATION
4. STREET TREE PLANS SHALL INCLUDE ALL VERTICAL UTILITIES ON PLANTING PLAN

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER.

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**CITY OF LAKE ELSINORE**

**PREPARED BY PUBLIC WORKS**

**TREE SPACING REQUIREMENTS**

**NO. 584**
LEGEND:

1. 3" THICK SHREDDED MULCH (MINIMUM)
2. 4" BERM TO FORM DEPRESSED WATERING BASIN
3. PLANT TABS PER MANUFACTURER'S RECOMMENDATIONS
4. BACKFILL MIX PER SPECIFICATIONS
5. CONTAINER PLANT ROOT BALL
6. PLANT PIT TO BE 2 TIMES THE WIDTH OF THE ROOT BALL & SAME DEPTH AS THE ROOT BALL

NOTES:

1.) UNTANGLE MATTED ROOTS BY LOOSENING ALL ROOTS AT EDGE OF ROOT BALL WITH WATER FROM HOSE. DO NOT CRACK ROOT BALL
2.) DO NOT USE BARK CHIPS WHERE PLAN CALLS FOR MULCH COVER IN PLANTER AREAS
LEGEND:

1. ORIGINAL GRADE
2. CONTAINER PLANT ROOT BALL
3. BACKFILL MIX PER SPECIFICATIONS
4. 3" bERM TIGHTLY COMPACTED IN PLACE TO FORM WATERING BASIN
5. PLANT TABS PER MANUFACTURER'S RECOMMENDATIONS
6. PLANT PIT TO BE 2 TIMES THE WIDTH OF THE ROOT BALL & SAME DEPTH AS THE ROOT BALL

NOTES:

1. UNTANGLE MATTED ROOTS BY LOOSENING ALL ROOTS AT EDGE OF ROOT BALL WITH WATER FROM HOSE. DO NOT CRACK ROOT BALL
LEGEND

1. BACK OF CURB OR EDGE OF PAVING
2. PLANT LOCATION

NOTE:

1. ALL SHRUBS/GROUND COVER TO BE PLANTED AT EQUAL SPACING (TRIANGULAR) UNLESS OTHERWISE INDICATED ON PLANS: SEE LEGEND FOR SPACING REQUIREMENTS
LEGEND

1. WALL
2. FINISH GRADE
3. EYEBOLTS: 1/2" DIA. EYEBOLTS IN LEAD SHIELDS
4. 12 GA. GALV. WIRE; SECURE VINE TO WIRE WITH NURSERYMAN'S TAPE
5. EYEBOLTS FOR FUTURE USE
6. 6" X 8" CONCRETE VINE COLLARS IN TURF AREAS ONLY. INSIDE RADIUS OF COLLAR TO BE TWO TIMES THE DIAMETER OF ROOTBALL MINIMUM
7. ANGLE BACK TO WALL TRUNK OF VINE, AND REMOVE STAKE WHILE SECURING VINE TO WIRES

CITY OF LAKE ELSINORE
PREPARED BY PUBLIC WORKS
VINE DETAIL: NON-ADHERING TYPE  NO. 588
LEGEND

1. HARDSCAPING/HEADERBOARD
2. SHREDDED MULCH (MEDIUM GRIND) DO NOT BARK CHIPS
3. FINISH GRADE
4. SHOVEL CUT EDGE

NOTES:

1.) MULCH UNDER TREES AND SHRUBS, AND BLEND EDGES AT GROUND COVER AREAS
2.) NOT TO BE USED WITH FLATTED PLANTS UNDER 16" ON CENTER
3.) PULL MULCH AWAY FROM ROOT CROWNS OF TREES & SHRUBS

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER.
1" IN GROUND COVER
3" IN SHREDDED MULCH REFER TO DETAIL 589

12" MINIMUM

LEGEND

1) FINISH GRADE
2) 2 X 4 ROUGH SAWN REDWOOD HEADER BOARD (NOTCH) OR INSTALL AT GRADE LEVEL AT SWALE CROSSING
3) FINISH GRADE IN PLANT BED
4) 8D GALVANIZED NAILS (2)
5) 2" X 2" X 24" REDWOOD STAKES AT 3" O.C. AND AT ALL SPLICES

NOTES:

1) 24" LAP ALL SPLICES. USE ROUGH SAWN LUMBER UNLESS OTHERWISE APPROVED BY CITY
2) CURVED SECTIONS OF HEADER SHALL BE CONSTRUCTED OF THREE 3/8" X 4" LAMINATED REDWOOD BENDER BOARD
NOTE:

1.) PROVIDE SCORE JOINTS AT 10'-0" O.C. AND 3/8" BITUMINOUS FELT EXPANSION JOINTS AT 20'-0" O.C.

TYPICAL FOR MOW CURBS OVER 20' IN LENGTH

NOTE:

1.) PROVIDE SCORE JOINT AT 10'-0" O.C. AND 3/8" BITUMINOUS FELT EXPANSION JOINT AT EACH END

TYPICAL FOR MOW CURBS UNDER 20' IN LENGTH

LEGEND

① CONCRETE MOW CURB - RADIUS EXPOSED EDGES, MED. BROWN FINISH OR PER PLAN (INSTALL GRADE LEVEL AT SWALE CROSSING)
② FINISH GRADE
③ #3 REBAR CONTINUOUS (UNLESS OTHERWISE INSTRUCTED)
INSTALLATION NOTES:

1.) GROUND COVER MAY BE PLANTED THROUGH THE FABRIC.
2.) THE FABRIC SHALL BE INSTALLED ON GROUND A MINIMUM OF 48 HOURS PRIOR TO PLANTING TO ALLOW FABRIC TO SETTLE.
3.) HOLES FOR PLANTING SHALL BE MADE WITH SHARP KNIVES OR SHEARS.
4.) FABRIC IS TO BE FASTENED USING NO.11 GAUGE WIRE. 'U' SHAPED WITH 1" CROWN AND LESS 12" IN LENGTH OR PREFABRICATED STAPLES.
5.) INSTALLATION SPECIFICATIONS PER MFG.