

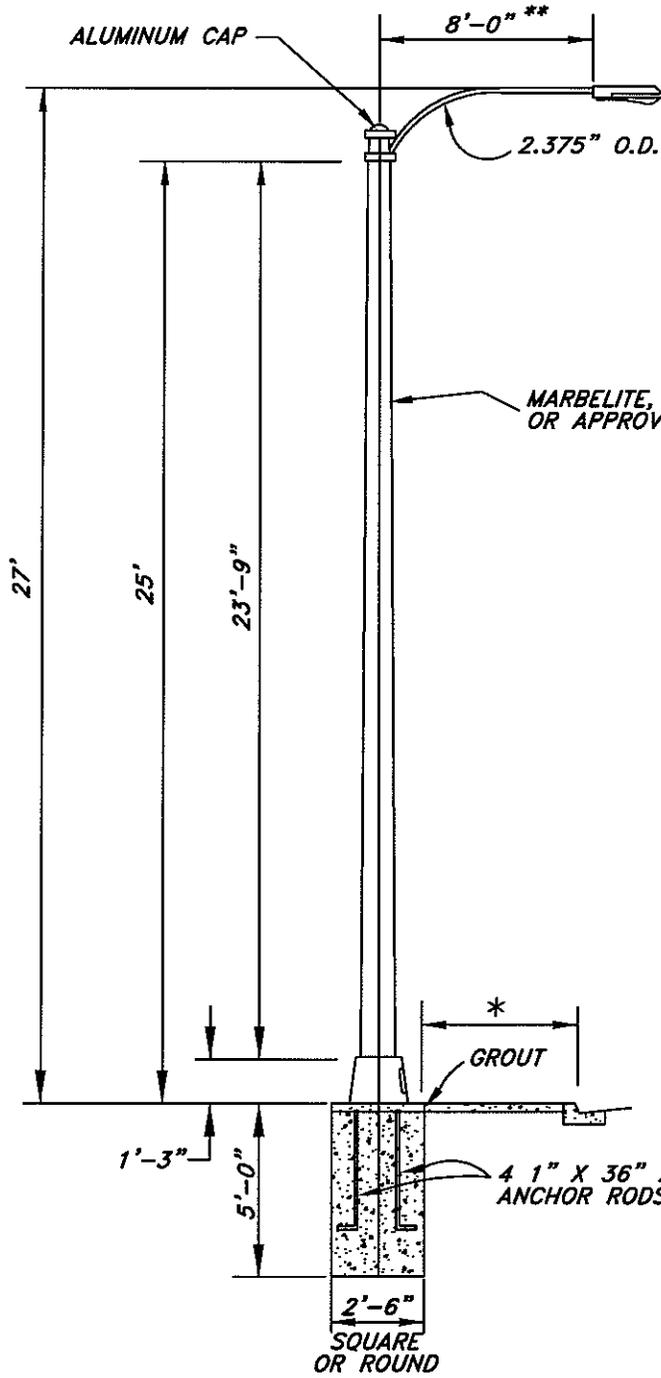
CITY OF LAKE ELSINORE
STANDARD PLANS

SECTION 5:
Street Lights,
Irrigation and
Planting

**STANDARD INSTALLATION DETAILS
IRRIGATION (PUBLIC WORKS)**

<u>Detail No.</u>	<u>Title</u>
LIGHTING	
501	<i>Residential Lighting</i>
502	<i>Arterial Highway Lighting</i>
IRRIGATION	
542	<i>CCU Radio Link Antenna Detail</i>
543	<i>Controller/Satellite Enclosure Detail</i>
544	<i>Flow Sensor Assembly Detail</i>
545	<i>Telemetry Pull-Box Assembly Detail</i>
547	<i>External Ground Rod Assembly Detail</i>
548	<i>Master Valve Assembly Detail</i>
549	<i>Toe Nipple Assembly</i>
551	<i>Irrigation Wire Connector</i>
552	<i>Irrigation Pump Detail</i>
553	<i>Reduced Pressure Backflow Preventer</i>
554	<i>Backflow Preventer Enclosure</i>
555	<i>Pressure Reducing Valve</i>
556	<i>Gate Valve - 3" or Smaller</i>
557	<i>Remote Control Valve with Union</i>
558	<i>Remote Control Valve for Drip Systems</i>
559	<i>Quick Coupling Valve</i>
560	<i>Irrigation Stub -Out Box</i>
561	<i>Trenching Detail</i>
562	<i>Sleeving Detail</i>
563	<i>Median & Parkway Irrigation Line Installation</i>
564	<i>6" Pop-up Spray Head</i>
565	<i>12" Pop-up Spray Head</i>
566	<i>Pop-up Rotary Head</i>
567	<i>Rotor Installation on Fixed Riser</i>
568	<i>Deep Well Tree Irrigation: Drip and/or Bubbler</i>
569	<i>Drip Emitter Installation</i>
PLANTING (PUBLIC WORKS AND PRIVATE)	
580	<i>Palm Tree Planting</i>
581	<i>Tree Guying Detail -36" Box or Larger</i>
582	<i>Typical Double Stake Tree (15 Gal.-25" Box)</i>
583	<i>Double Staked Tree on Slope</i>
584	<i>Tree Spacing Requirements</i>
585	<i>Container Planting</i>
586	<i>Container Planting on Slope</i>
587	<i>Shrub/Groundcover Spacing</i>
588	<i>Vine Detail: Non-Adhering Type</i>
589	<i>Mulch Installation</i>
590	<i>2x4 Redwood Header</i>
591	<i>Concrete Mow Curb</i>
592	<i>Erosion Control Netting</i>

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED			<i>PREPARED BY PUBLIC WORKS</i>	
		APPROVED BY		INDEX	NO. 500
		 CITY ENGINEER			
		 DATE			



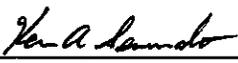
LUMINAIRE RESIDENTIAL 9500 LUMEN HIGH PRESSURE SODIUM TYPE TO BE SHOWN ON GENERAL STREET LIGHTING PLAN.

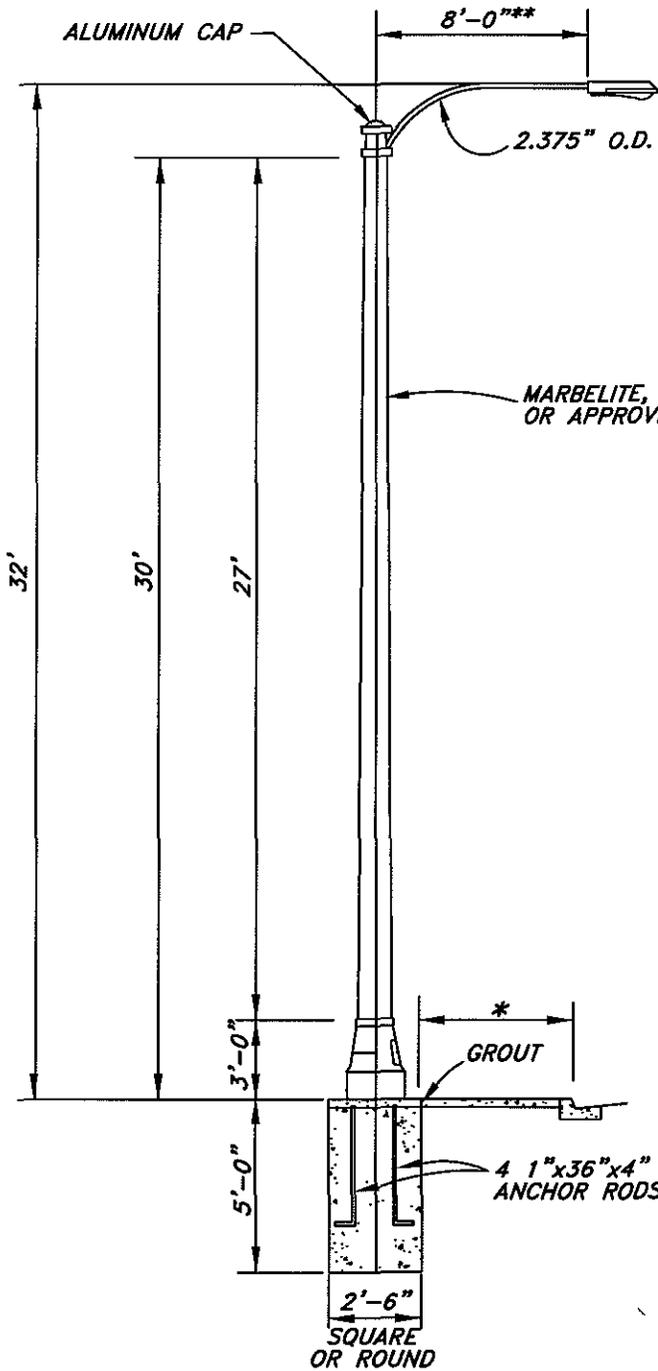
** WHEN STREET LIGHT IS INSTALLED ADJACENT TO CURB, MAST ARM LENGTH SHALL BE 4'-0"

MARBELITE, ORNAMENTAL GRANITE, OR APPROVED EQUAL

* 6'-0" STANDARD
1'-6" WHEN SIDEWALKS ARE NOT PROPOSED FOR INSTALLATION
MIN. 4' CLEARANCE FOR SIDEWALK

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.

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		08/31/2009	RESIDENTIAL LIGHTING
				DATE	



LUMINAIRE 22,000
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

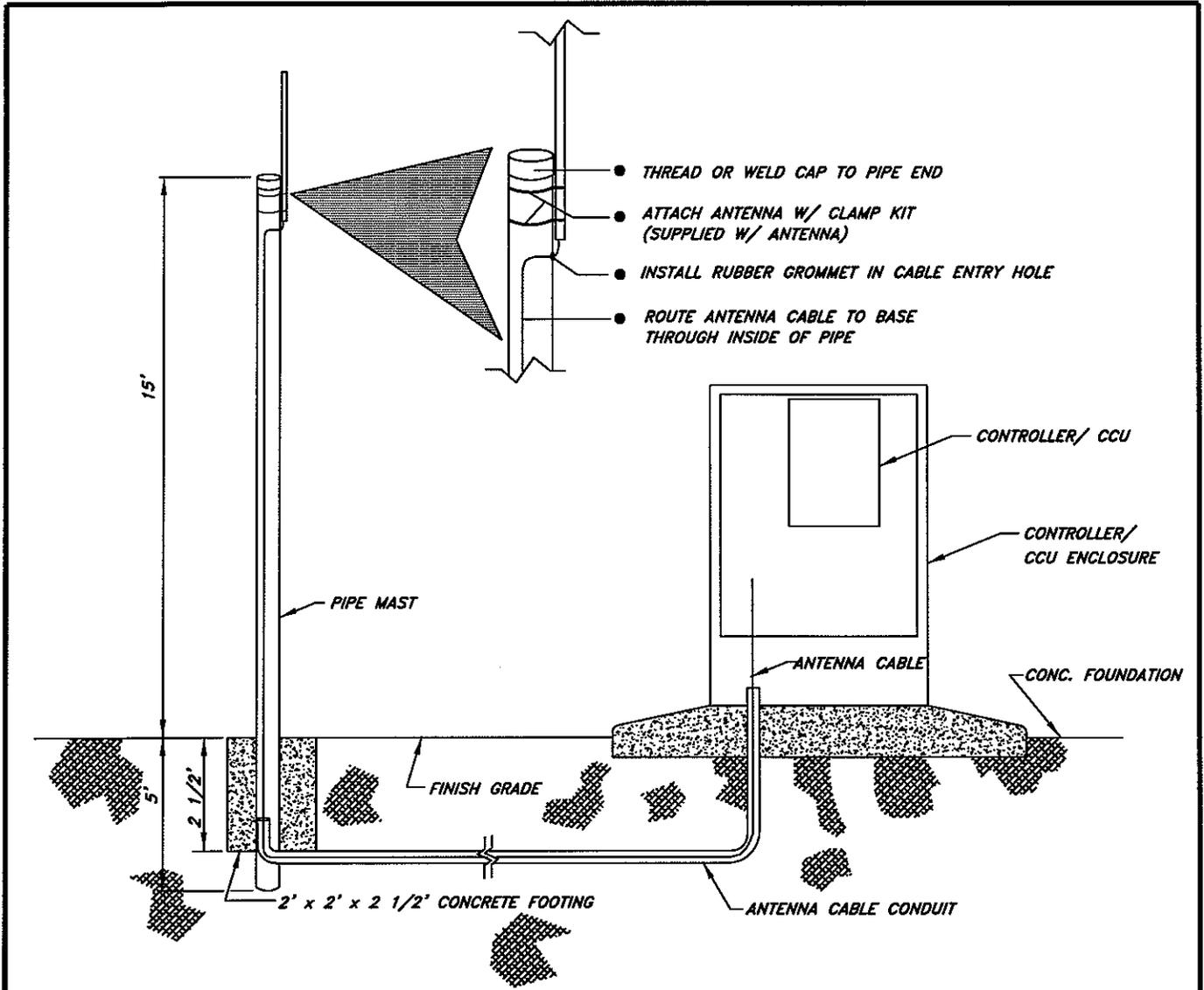
*6'-0" STANDARD
1'-6" WHEN SIDEWALKS ARE
NOT PROPOSED FOR
INSTALLATION

4 1/2"x36"x4"
ANCHOR RODS

2'-6"
SQUARE
OR ROUND

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.

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		ARTERIAL HIGHWAY LIGHTING	NO. 502
			08/31/2009 DATE		

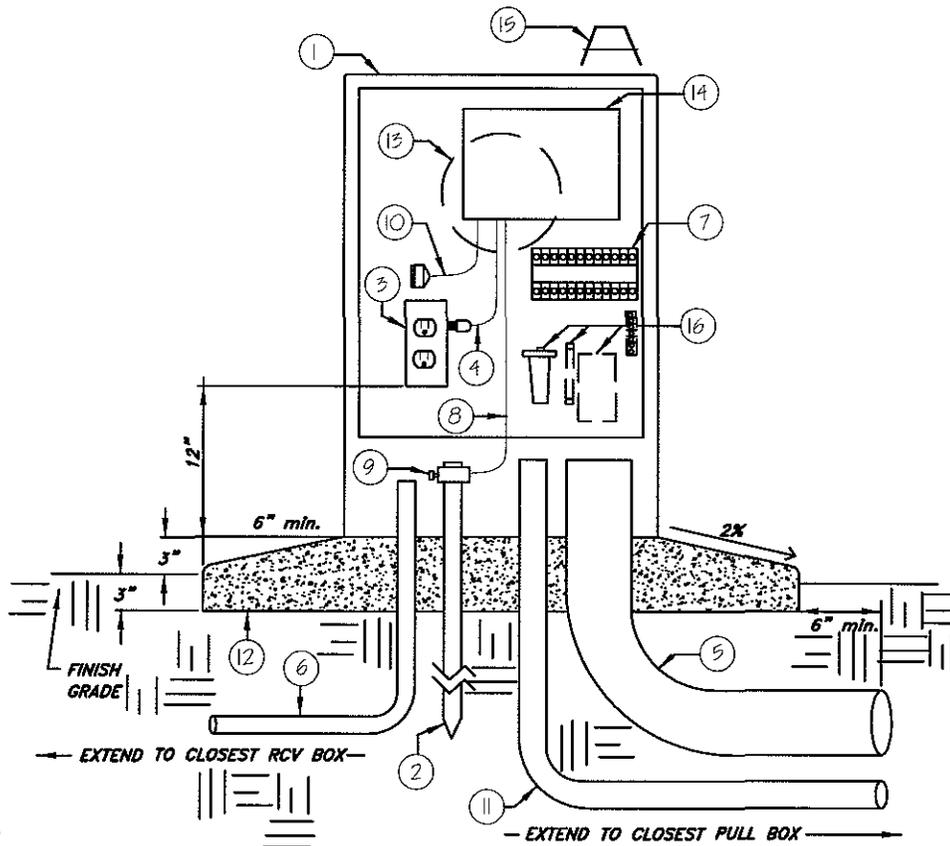


NOTES:

- 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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		CCU RADIO LINK ANTENNA DETAIL	
		08/31/2009 DATE		NO. 542	



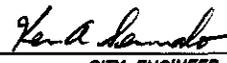
LEGEND:

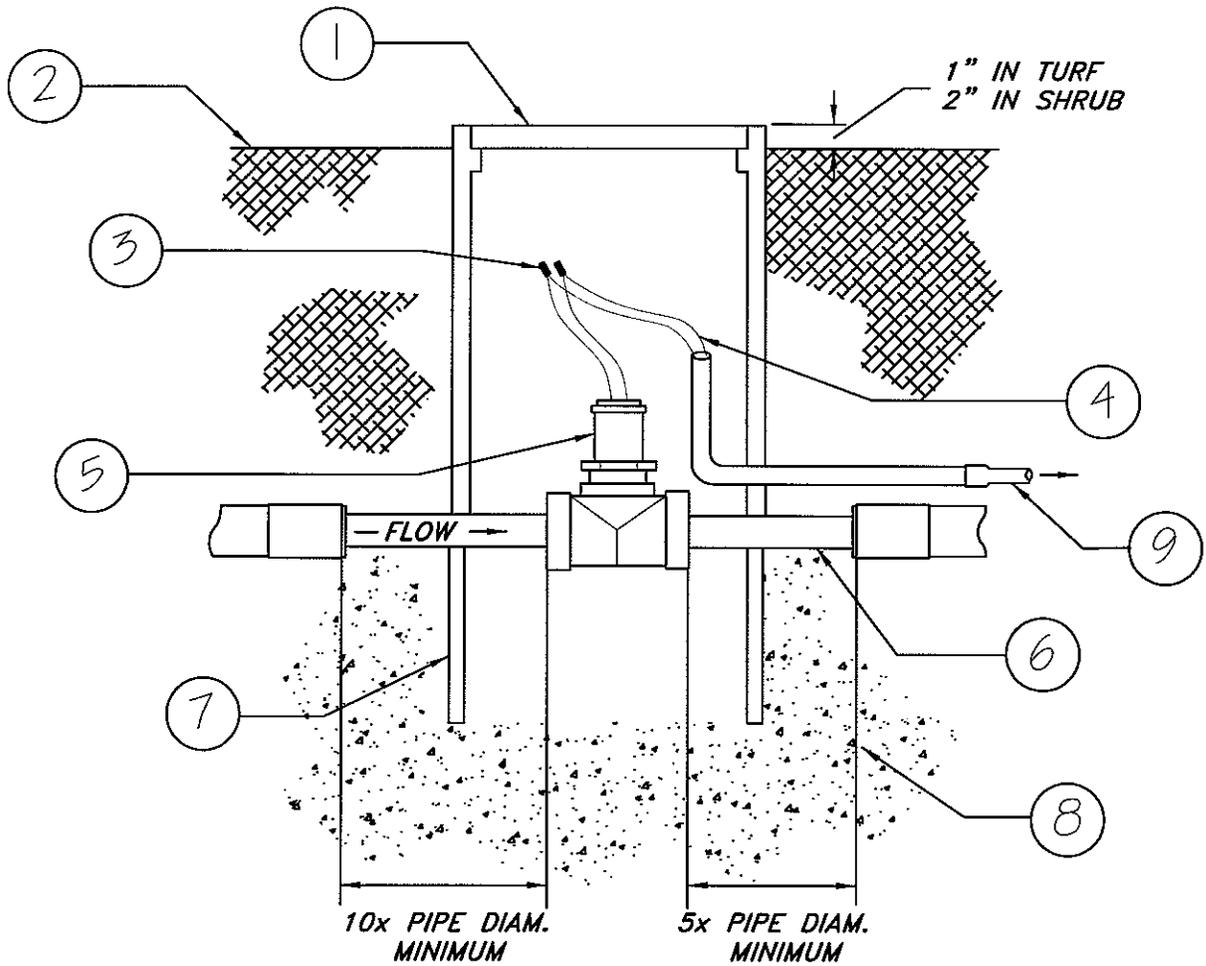
- ① ELECTRICAL METER/IRRIGATION CONTROLLER ENCLOSURE W/ 110 VAC SERVICE PANEL—DOUBLE DOOR—STAINLESS STEEL
- ② 5/8" x 8' COPPER-CLAD GROUNDING ROD (GROUND 110 & CONTROLLER)
- ③ DUPLEX OUTLET (CONDUIT PATH TO SERVICE PANEL PER CODE). INSTALL W/ SURGE
- ④ ARRESTOR - TRIPP-LITE MODEL ISO-BLOK 2-0
- ⑤ APPLIANCE GRADE 110 VAC 3-WIRE CONDUCTOR POWER CORD (SIZED TO REACH DUPLEX OUTLET). SECURE TO CONTROLLER CABINET
- ⑥ 3" SCH. 40 E.C. SWEEP ELL FOR 14 GA. UF CONTROL WIRE ONLY
- ⑦ 3/4" SCH. 40 E.C. SWEEP ELL W/ NYLON PULL ROPE FOR FUTURE MOISTURE SENSOR WIRING
- ⑧ TERMINAL STRIP FOR CONNECTION OF 14 GA. UF FIELD WIRE FROM SWEEP. USE 16 GA. UTILITY WIRE TO CONNECT TERMINAL STRIP TO CONTROLLER (typ.)
- ⑨ #10 SOLID COPPER WIRE FROM GROUNDING ROD TO CONTROLLER GROUND LUG
- ⑩ BRASS / BRONZE GROUND CLAMP
- ⑪ REMOTE CONTROL ACTUATOR INTERFACE—PER PLAN
- ⑫ TELEMETRY CONDUIT - SIZE PER PLAN. EXTEND PE 39 CABLE INTO ENCLOSURE 18" MIN. FROM END OF SWEEP (USE FOR MAXICOM WIRE LINK / FLOW SENSOR WIRE LINK @ 1 PER ea.)
- ⑬ 6" THICK CONCRETE FOOTING POURED ON COMPACTED SUBGRADE (95% RELATIVE COMPACTION). RADIUS EDGES @ 1/2"
- ⑭ ELECTRIC METER
- ⑮ IRRIGATION CONTROLLER - MODEL # PER PLAN CALL-OUT
- ⑯ ANTENNA - RADIO LINKED MAXICOM ONLY - MODEL # PER PLAN CALL-OUT
- ⑰ FLOW SENSING COMPONENTS (INSTALL IF SHOWN ON PLAN) - MODEL #'S PER PLAN CALL-OUT

NOTES:

- 1.) COMMON WIRE TO BE WHITE. PILOT WIRES TO BE RED
- 2.) NO SPLICES ALLOWED BETWEEN TERMINAL STRIP AND RCV
- 3.) INSTALL ONE (1) EXTRA PILOT WIRE (ORANGE) TO FARTHEST RCV 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

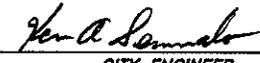
REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		CONTROLLER/SATELLITE ENCLOSURE DETAIL	
		08/31/2009 DATE		NO. 543	

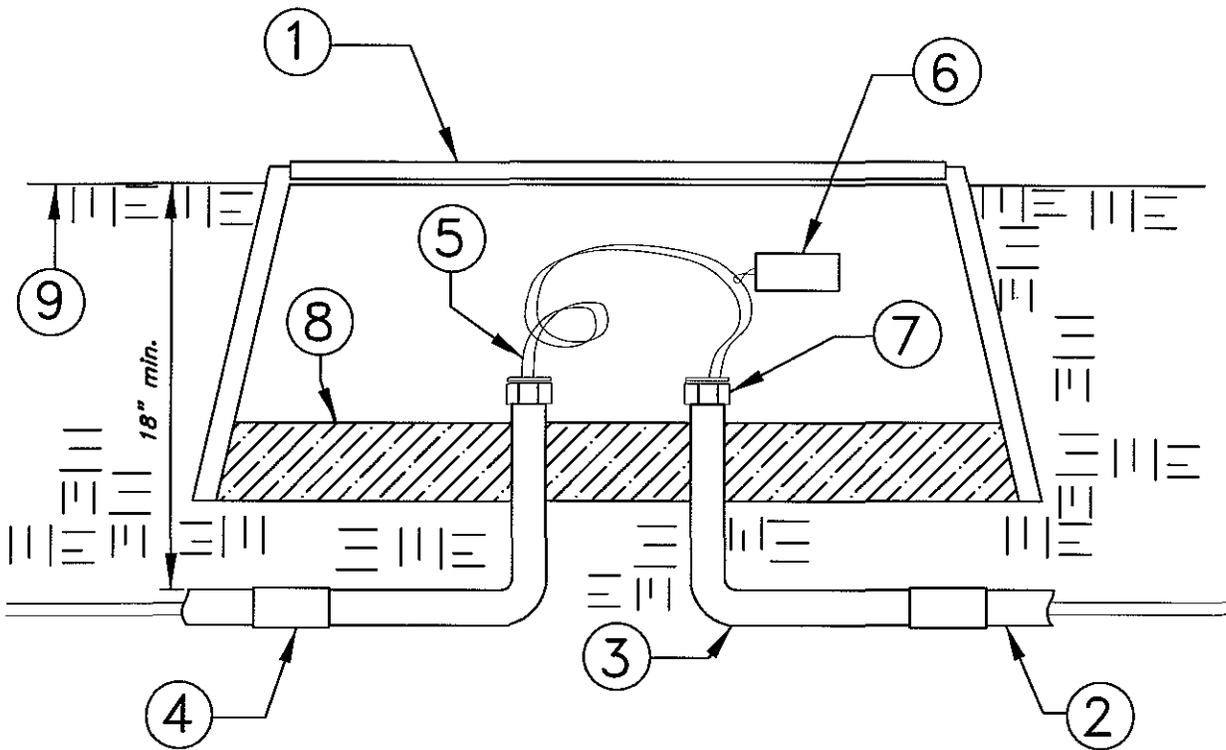


LEGEND:

- 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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		FLOW SENSOR ASSEMBLY DETAIL	
		08/31/2009 DATE		NO. 544	

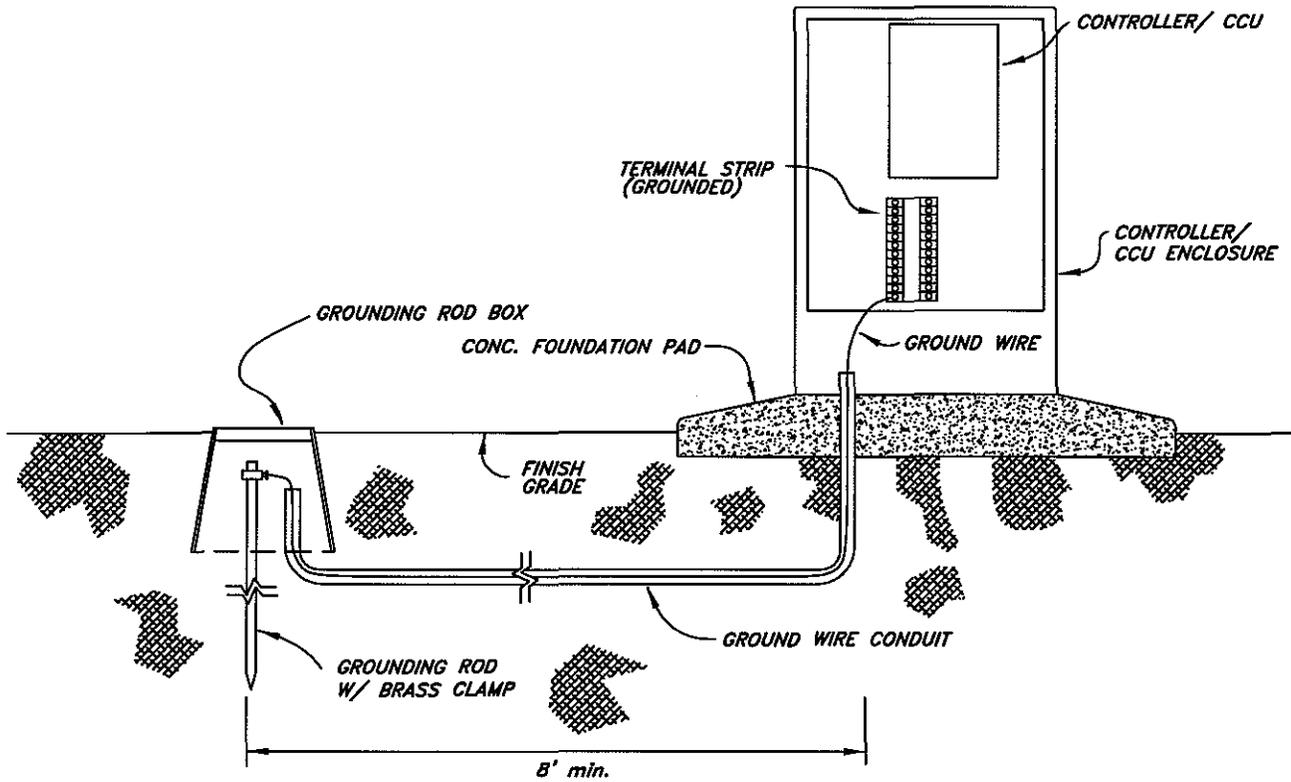


LEGEND:

- ① APPROVED PULL BOX - NOM. DIM. ϕ 17"L x 11"W x 12"D
 - INSTALL ϕ INTERVALS NOT TO EXCEED 200 ft.
 - SET 1" ABOVE FINISH GRADE IN TURF AREAS
 - SET 2" ABOVE FINISH GRADE IN PLANTER AREAS
- ② PVC Sched. 40 CONDUIT - 1 1/2" NOM. O.D.
- ③ PVC Sched. 40 90 deg. SWEEP ELL (typ.)
- ④ PVC Sched. 40 5x5 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 Sched. 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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		NO. 545	
		08/31/2009 DATE		TELEMETRY PULL-BOX ASSEMBLY DETAIL	

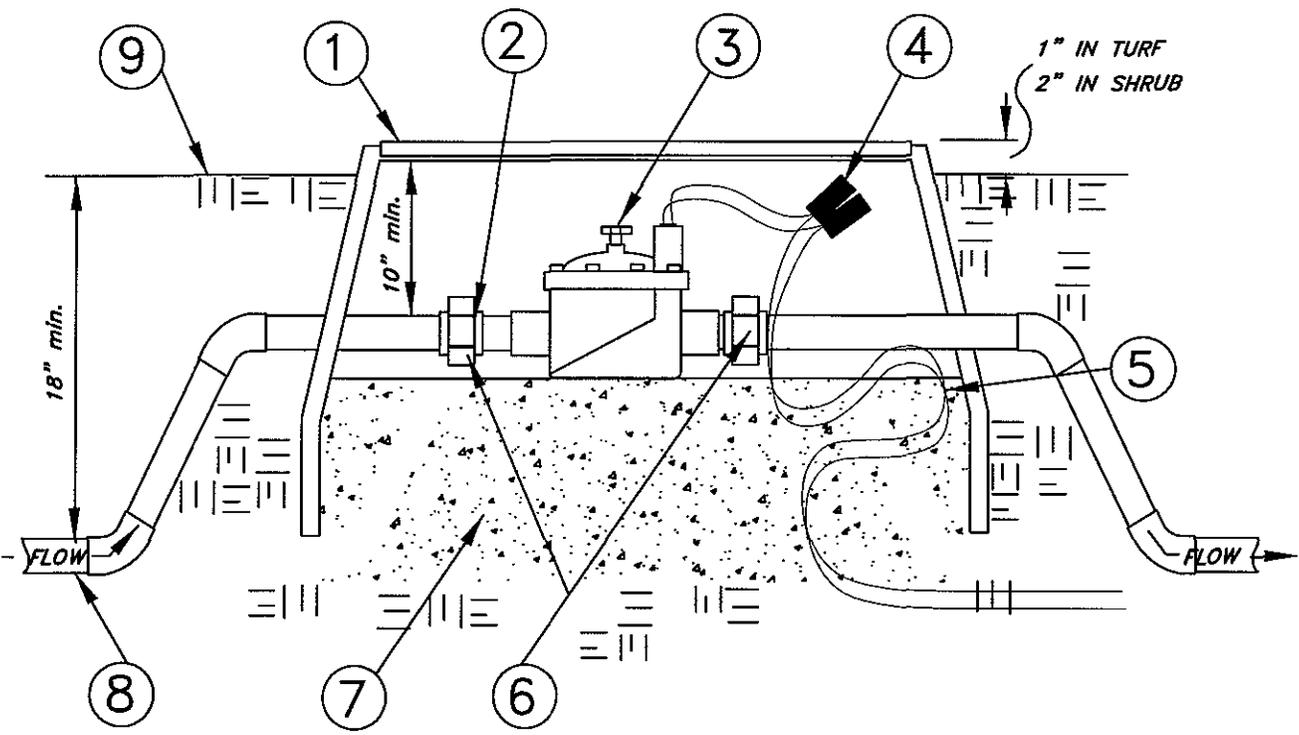


NOTES:

- 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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		08/31/2009	EXTERNAL GROUND ROD ASSEMBLY DETAIL
			DATE	NO. 547	



LEGEND:

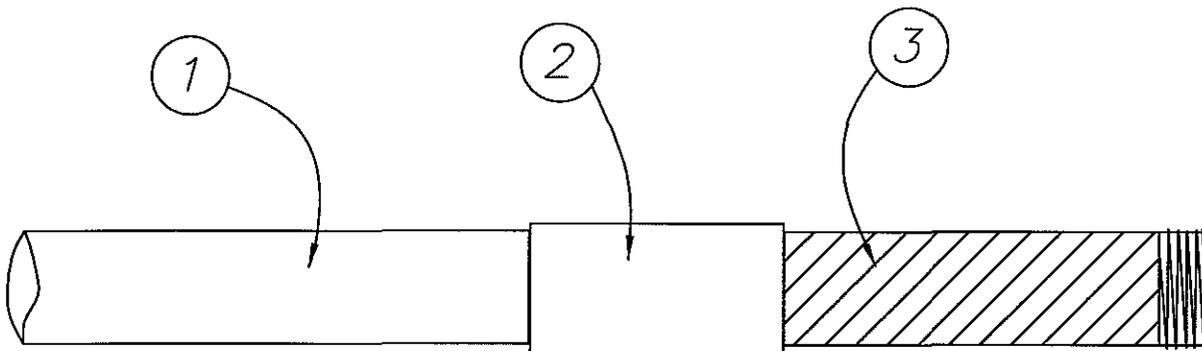
- ① VALVE BOX - MODEL # & SIZE PER PLAN
- ② TOE NIPPLE ASSEMBLY - USE IN PLACE OF MIPT ADAPTERS (typ)
- ③ MASTER CONTROL VALVE - MODEL # & SIZE PER PLAN
- ④ WATERPROOF CONNECTION - SPEARS DS-100 OR APPROVED EQUAL. FILL W/ DS-300 SEALANT OR APPROVED EQUAL
- ⑤ PROVIDE 24" min. EXPANSION LOOP
- ⑥ SCHD. 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

REVISION	ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED		PREPARED BY PUBLIC WORKS	
	APPROVED BY		MASTER VALVE ASSEMBLY	
		08/31/2009	DETAIL	
	CITY ENGINEER	DATE	NO. 548	



LEGEND:

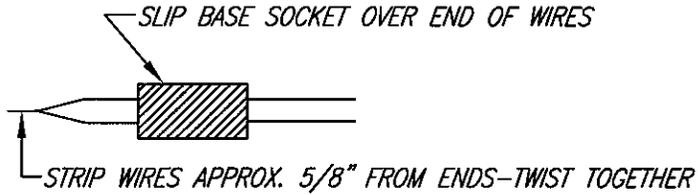
- ① PVC MAIN / LATERAL LINE PIPE
- ② SCHD. 40 PVC COUPLER FS x FS
- ③ SCHD. 80 PVC NIPPLE - THREADED ONE END
 - 6" MIN. LENGTH
 - CUT THREADS ONLY - NO MOLDED NIPPLES

NOTE:

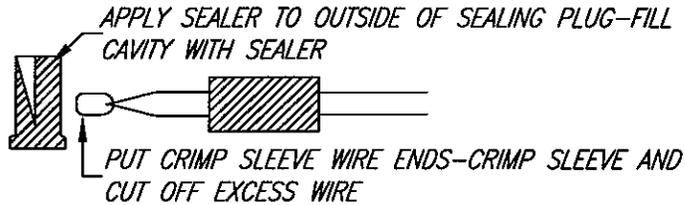
- 1.) USE THE NIPPLE ASS'Y IN PLACE OF MIPT ADAPTERS

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED				
		APPROVED BY		TOE NIPPLE ASSEMBLY	
		<i>Kent Lando</i>	08/31/2009		
		CITY ENGINEER	DATE	549	

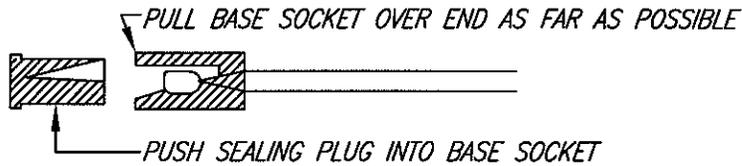
STEP 1



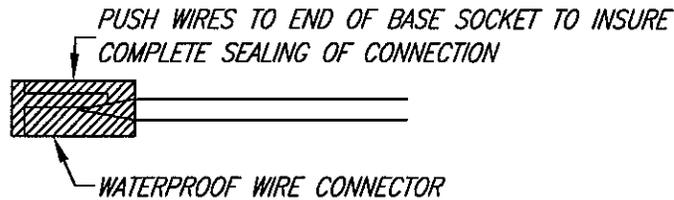
STEP 2



STEP 3



STEP 4

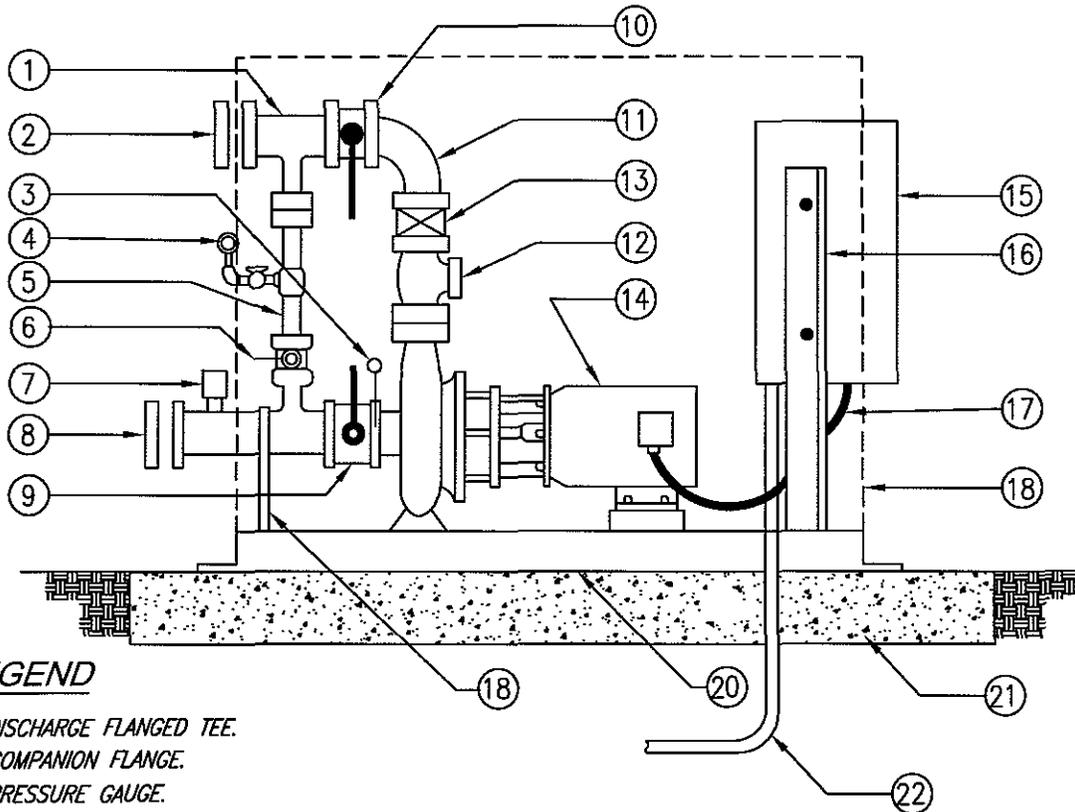


NOTE:

1.) PRE-FILLED CONNECTORS NOT TO BE USED WITHOUT PRIOR APPROVAL OF CITY ENGINEER

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED				
		APPROVED BY		IRRIGATION WIRE CONNECTOR	
		 CITY ENGINEER			
			08/31/2009	NO. 551	
			DATE		



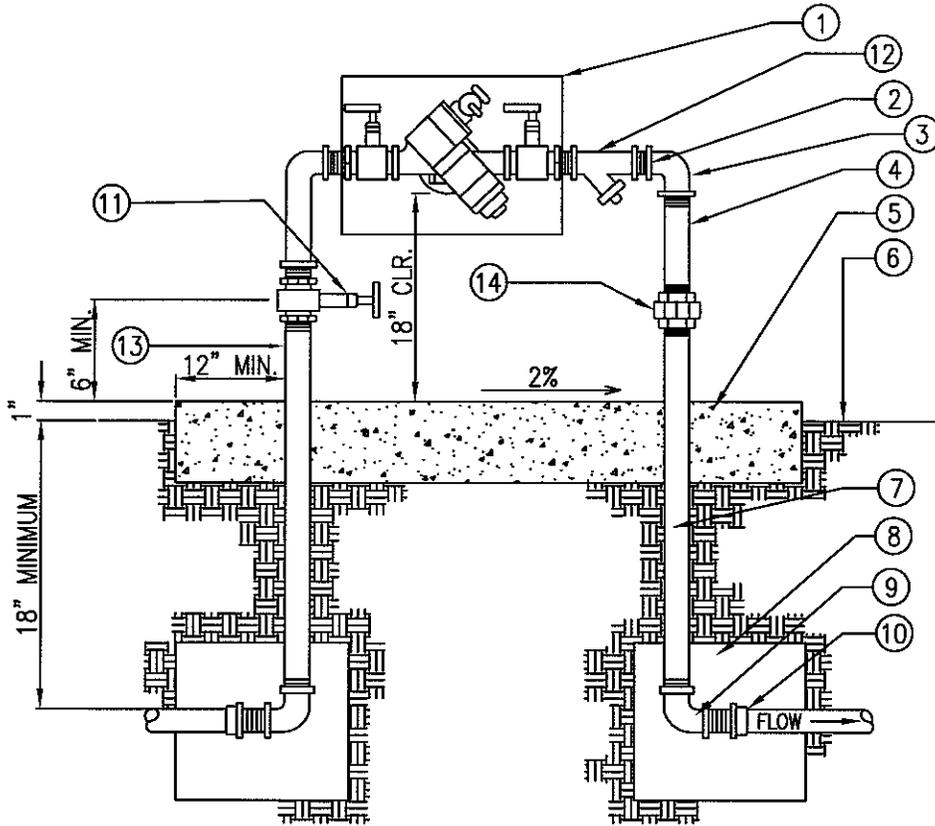
LEGEND

- ① DISCHARGE FLANGED TEE.
- ② COMPANION FLANGE.
- ③ PRESSURE GAUGE.
- ④ PRESSURE GAUGE.
- ⑤ BYPASS - 2" DIA. MIN.
- ⑥ BUTTERFLY VALVE
- ⑦ FLOW SWITCH TO BE INSTALLED IN SECTION HEADER WIRED TO PUMP PANEL.
- ⑧ COMPANION FLANGE.
- ⑨ BUTTERFLY VALVE.
- ⑩ BUTTERFLY VALVE.
- ⑪ FLANGED 90 COMBINATION PRESSURE REGULATING AND NON-SLAM CHECK VALVE.
- ⑫ BAILEY # 400 ACP OR CLA-VAL # 91A.
- ⑬ FLANGED CONCENTRIC REDUCER.
- ⑭ PUMP AND MOTOR.
- ⑮ CONTROLLER (3 PHASE, 230 VOLT)
- ⑯ CONTROLLER SUPPORT.
- ⑰ SEALTITE CONDUIT
- ⑱ SUPPORT LEG.
- ⑲ 36" X 42" X 20" SHEET METAL ENCLOSURE FOR EXTERIOR PUMP INSTALLATION.
- ⑳ GALVANIZED STEEL SKID, WITH 4 9/16" HOLES.
- ㉑ PRE-CAST CONCRETE PAD BY MFG.
- ㉒ RIGID STEEL CONDUIT TO POWER SOURCE

NOTES:

- 1.) ENCLOSURE IS REQUIRED SUBJECT TO CITY APPROVAL.
- 2.) CONTRACTOR TO VERIFY AVAILABLE VOLTAGE COMPATIBLE WITH MOTOR SPECIFICATIONS.
- * SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISION	DATE	APPROVED													<p>ENGINEERING DATE 07/09</p> <p>APPROVED BY</p> <p><i>Ken A. Samuels</i> 08/31/2009 CITY ENGINEER DATE</p>	<p>CITY OF LAKE ELSINORE</p> <p>PREPARED BY PUBLIC WORKS</p>	<p>NO. 552</p>
REVISION	DATE	APPROVED																	
		<p>IRRIGATION BOOSTER PUMP DETAIL</p>																	



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

PAD SCHEDULE

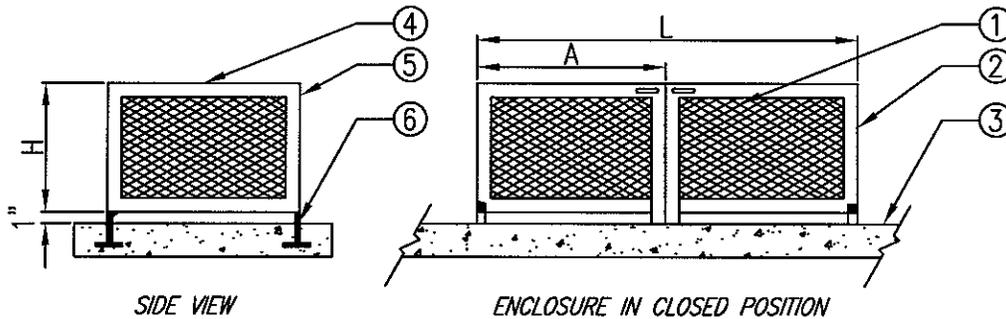
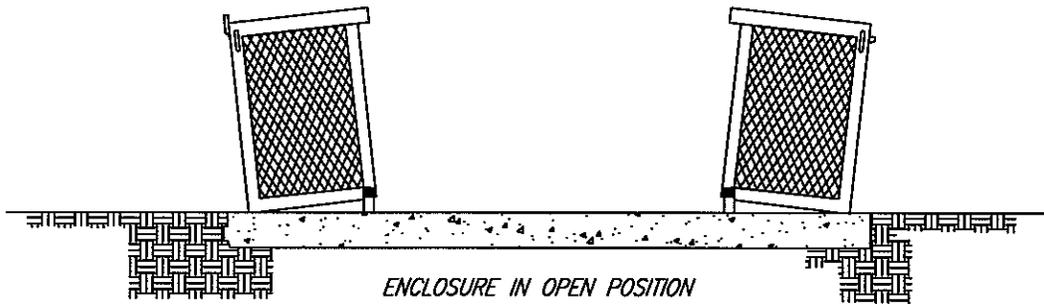
RP DEVICE SIZE	WIDTH	LENGTH
2 1/2"	30"	66"
3"-4"	36"	78"

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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		REDUCED PRESSURE BACKFLOW PREVENTER	NO. 553
			08/31/2009 DATE		



RP DEVICE SIZE	W	L	H	A
2 1/2"	24"	60"	36"	30"
3"-4"	30"	72"	42"	36"

LEGEND

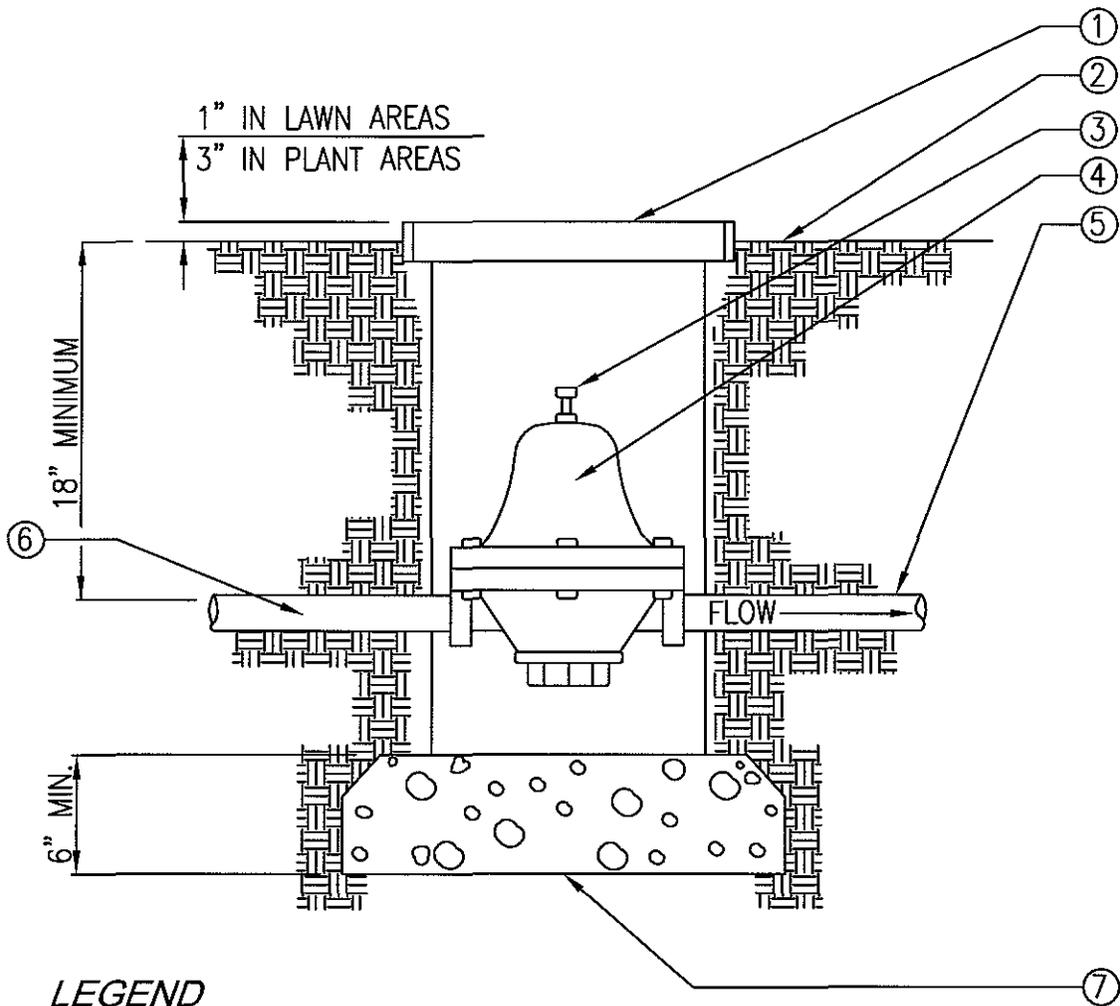
- ① 1 1/2"-#9 EXPANDED METAL
- ② 1 1/2" X 1 1/2" X 3/16" ANGLE FRAME
- ③ CONCRETE PAD (SEE STANDARD MV-553)
- ④ HASP FOR PAD LOCK
- ⑤ LIFTING HANDLE
- ⑥ HINGE PLATE

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

REVISION	ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE APPROVED	APPROVED BY		PREPARED BY PUBLIC WORKS	
	 CITY ENGINEER	08/31/2009 DATE	BACKFLOW PREVENTER ENCLOSURE	
			NO. 554	



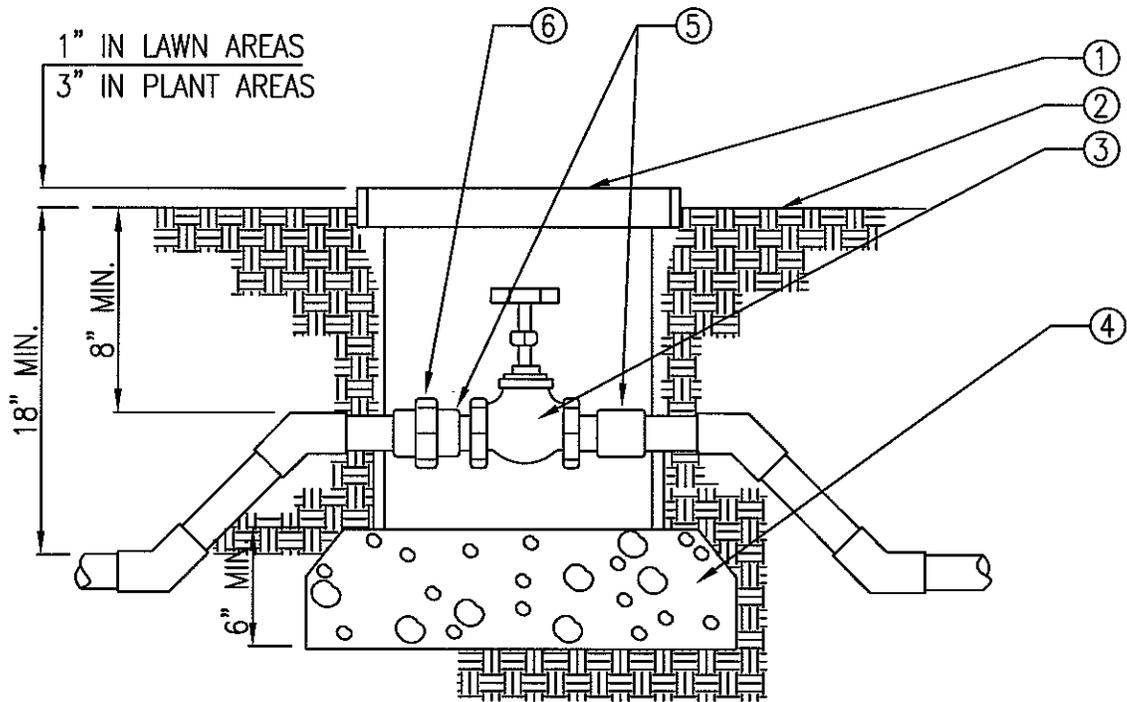
LEGEND

- 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

REVISION	ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED		PREPARED BY PUBLIC WORKS	
	APPROVED BY		PRESSURE REDUCING VALVE	
	<i>John A. Lennards</i>	08/31/2009	NO. 555	
	CITY ENGINEER	DATE		



LEGEND

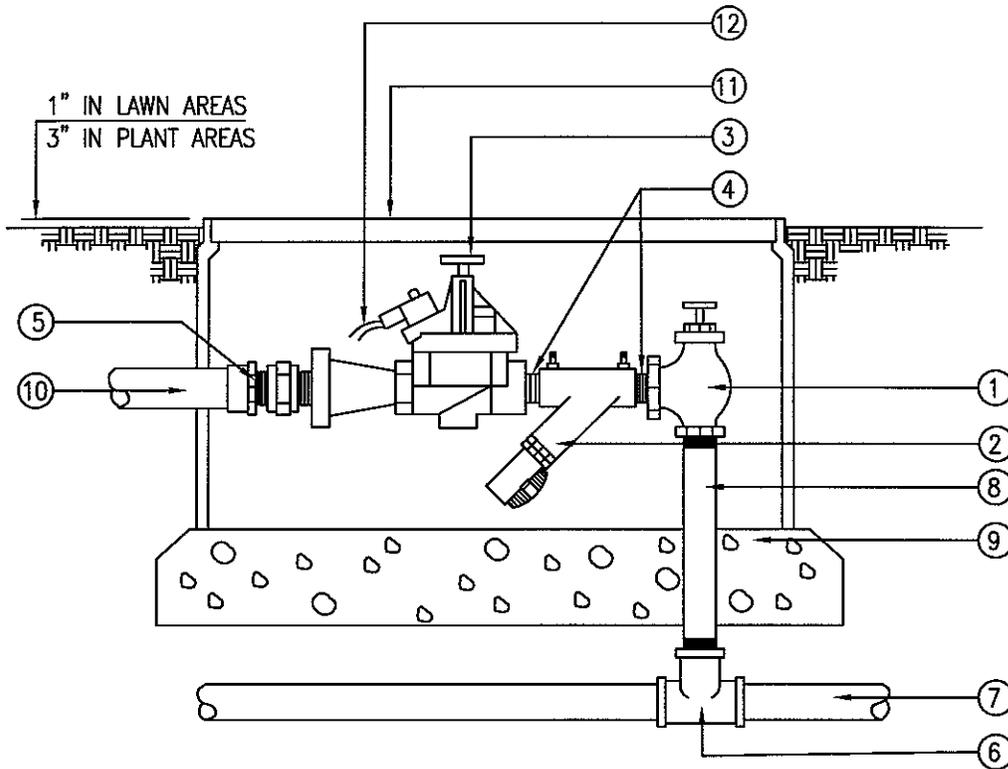
- ① 10" ROUND PLASTIC VALVE BOX WITH LOCKING LID COVER SHALL BE MARKED "GV" VIA BRANDING
- ② FINISH GRADE
- ③ BRASS GATE VALVE WITH BRONZE HAND WHEEL
- ④ 3/4" WASHED CRUSHED AGGREGATE BASE
- ⑤ SCH 80 PVC TOE NIPPLE ASSEMBLIES
- ⑥ SCH 80 PVC UNION, SLIP X SLIP

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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		GATE VALVE - 3" OR SMALLER	NO. 556
			08/31/2009 DATE		



LEGEND

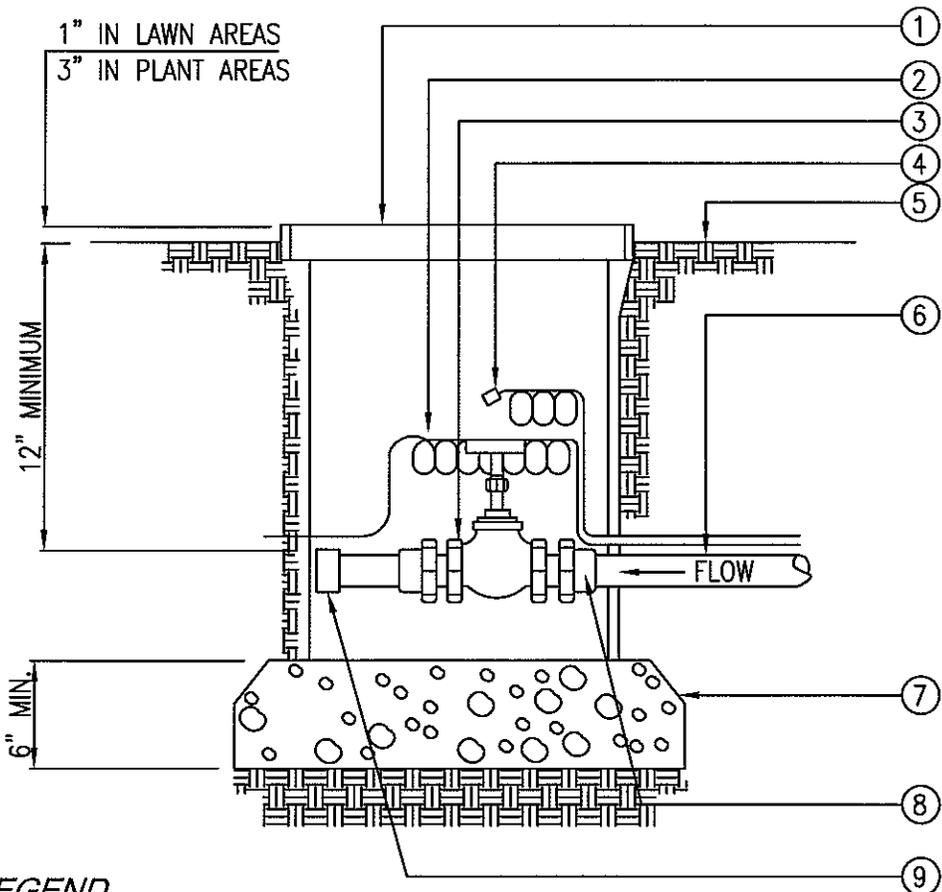
- ① BRASS ANGLE VALVE WITH UNION – SAME SIZE AS RCV
- ② PVC WYE STRAINER WITH INTEGRAL BALL FLUSH VALVE AND SCHRADER PRESSURE TEST VALVE
- ③ REMOTE CONTROL VALVE – PLAN SIZED W/ PRESSURE REGULATOR
- ④ SCH. 80 PVC CLOSE NIPPLE
- ⑤ SCH. 80 UNION WITH TOE NIPPLE ASSEMBLY
- ⑥ SCH. 40 PVC S X S X T TEE
- 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 RIDIG PVC HEADER)
- ⑪ JUMBO PLASTIC VALVE BOX WITH LOCKING LID SHALL BE BRANDED "RCV" WITH STATION NUMBERS FOR CONTROL VALVES
- ⑫ SOLENOID WIRES. PIC –TAIL EACH 24" LONG

NOTE:

1). PLACE AGGREGATE PRIOR TO INSTALLING VALVE BOX

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		REMOTE CONTROL VALVE FOR DRIP SYSTEMS	NO. 558
			08/31/2009 DATE		



LEGEND

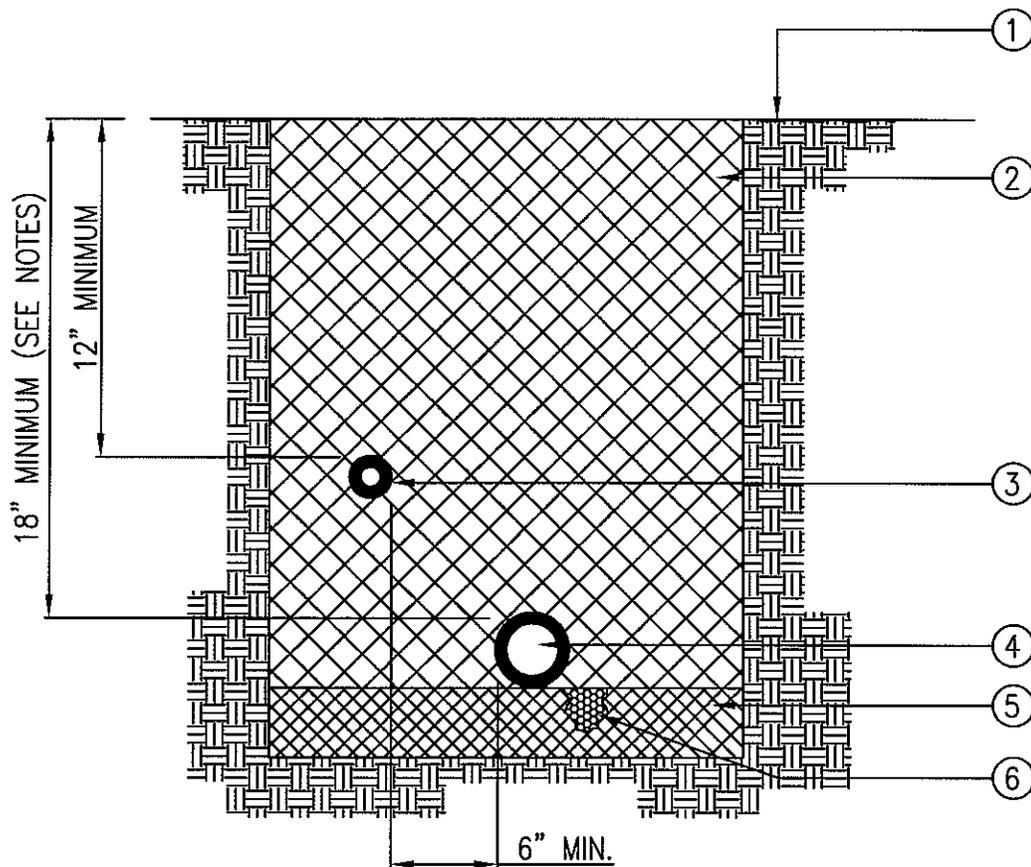
- ① PLASTIC VALVE BOX WITH LOCKING LID - BRANDED X -RCV
REFER TO CITY RCV BOX STANDARD # 557
- ② PIG-TAIL COMMON WIRE (CONTINUOUS LOOP)
- ③ BRASS GATE VALVE - LINE SIZE
- ④ PIG-TAIL PILOT WIRE AND WATERPROOF END (SEE DETAIL # 551)
- ⑤ FINISH GRADE
- ⑥ SUPPLY LINE-SIZE PER PLAN
- ⑦ 3/4" WASHED CRUSHED 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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY		PREPARED BY PUBLIC WORKS	
		CITY ENGINEER		IRRIGATION STUB-OUT BOX	
		08/31/2009 DATE		NO. 560	



LEGEND

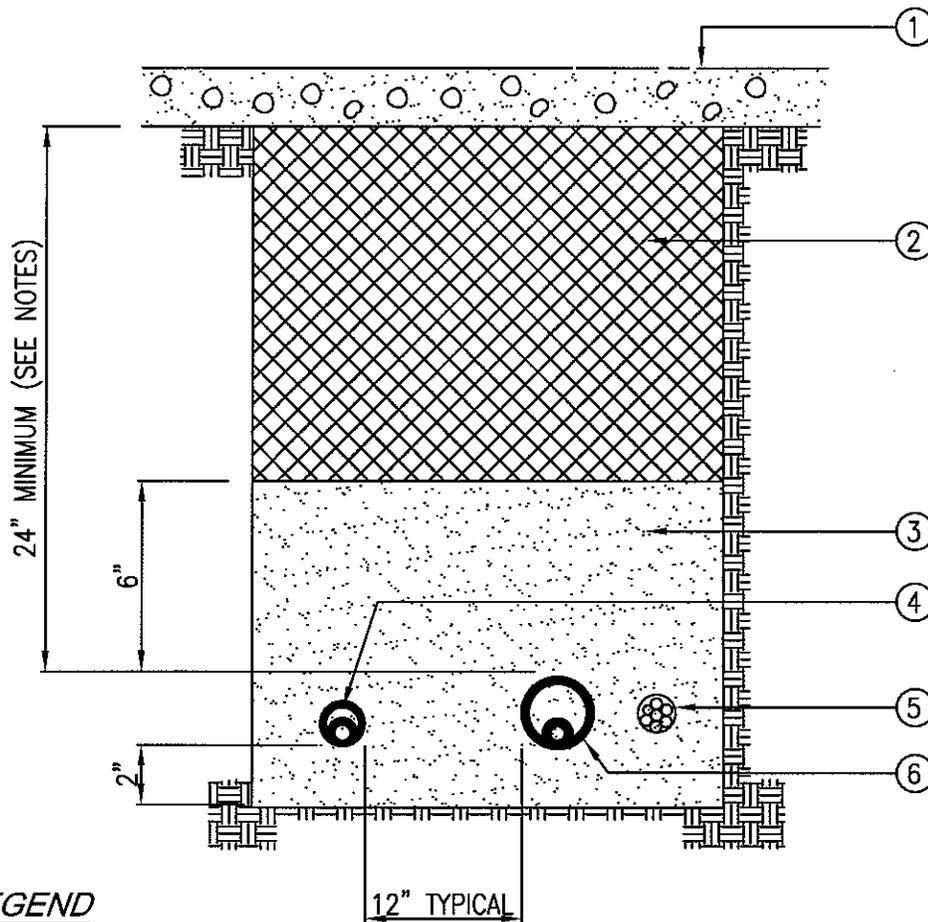
- ① FINISH GRADE
- ② CLEAN BACKFILL—SEE SPECS. FOR MATERIAL, 90% COMPACTION REQUIRED
- ③ NON - PRESSURE LATERAL LINE
- ④ PRESSURE SUPPLY LINE
- ⑤ PROVIDE 2" OF CLEAN BACKFILL
- ⑥ CONTROL WIRES - BUNDLE AND TAPE AT 15" O.C. AND INSTALL BELOW PRESSURE SUPPLY LINE

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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		08/11/2009	TRENCHING DETAIL
			DATE	NO. 561	

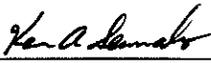


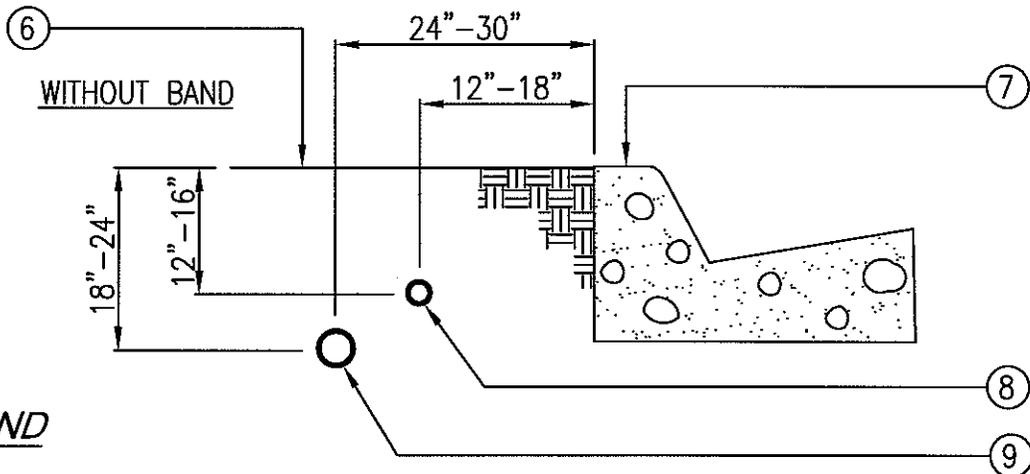
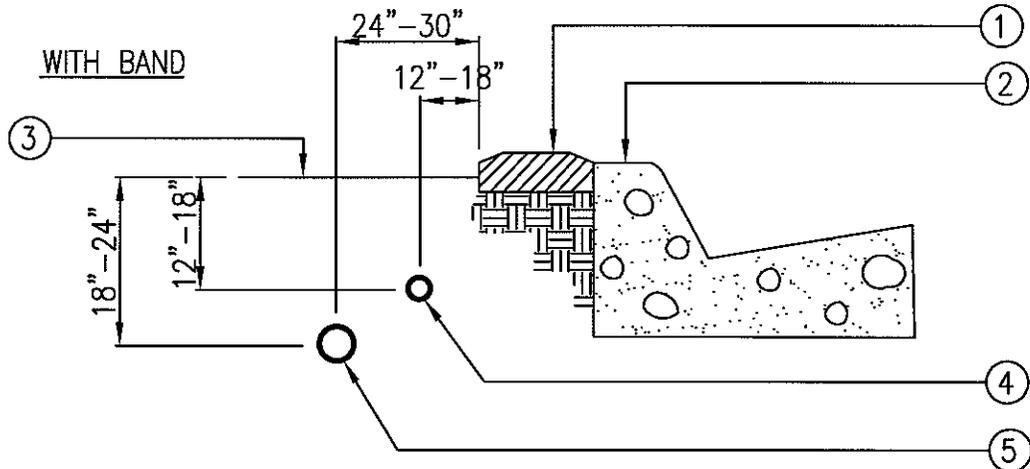
LEGEND

- ① HARDCAPING
- 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 HARDCAPE AT BOTH ENDS

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		SLEEVING DETAIL	NO. 562
		08/31/2009 DATE			

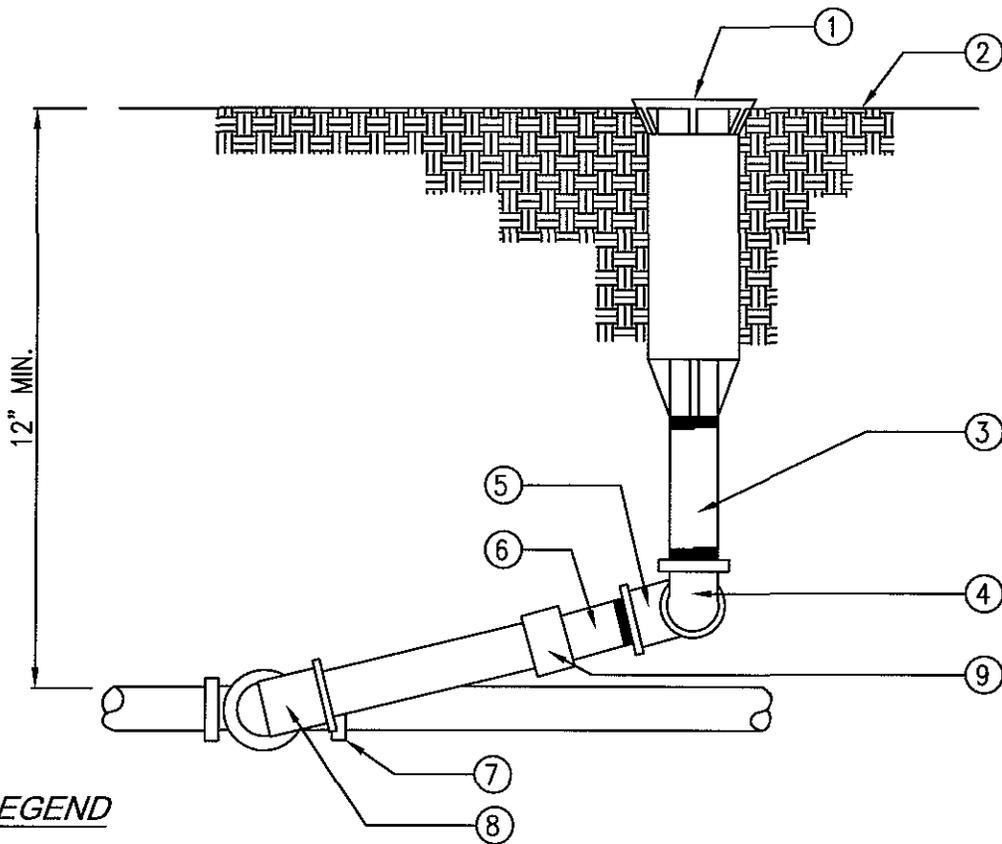


LEGEND

- 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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE		
DATE	APPROVED					PREPARED BY PUBLIC WORKS
		APPROVED BY		MEDIAN AND PARKWAY IRRIGATION LINE INSTALLATION		
		 CITY ENGINEER				NO. 563
		08/31/2009 DATE				



LEGEND

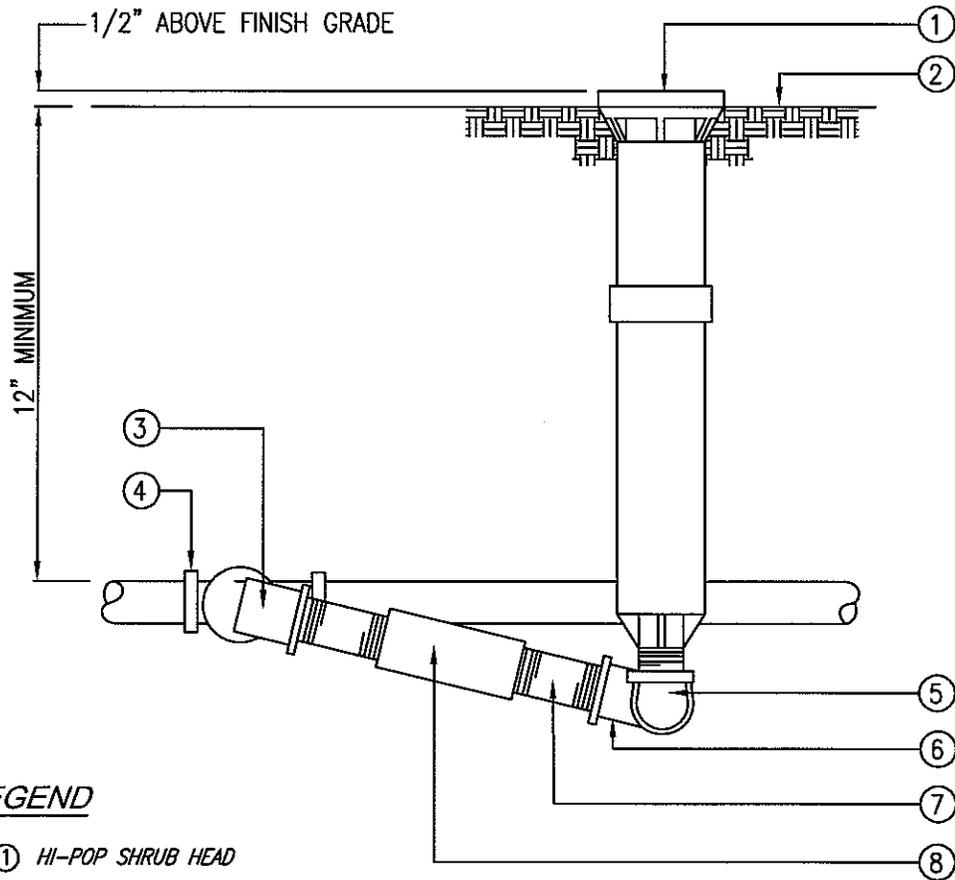
- ① POP-UP HEAD
- ② FINISH GRADE
- ③ SCH. 80 PVC NIPPLE LENGTH AS NECESSARY
- ④ SCH. 40 PVC T x T 90 DEGREE ELL
- ⑤ MARLEX 90 DEGREE STREET ELL
- ⑥ SCH. 80 PVC NIPPLE (6" LONG)
- ⑦ NON-PRESSURE LATERAL LINE & TEE FITTING
- ⑧ MARLEX 90 DEGREE ELL
- ⑨ ANTI-DRAIN VALVE-ALL DOWN SLOPE HEADS-IF NOT RETROFITTED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

NOTE:

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

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		08/31/2009 DATE	6" POP-UP SPRAY HEAD



LEGEND

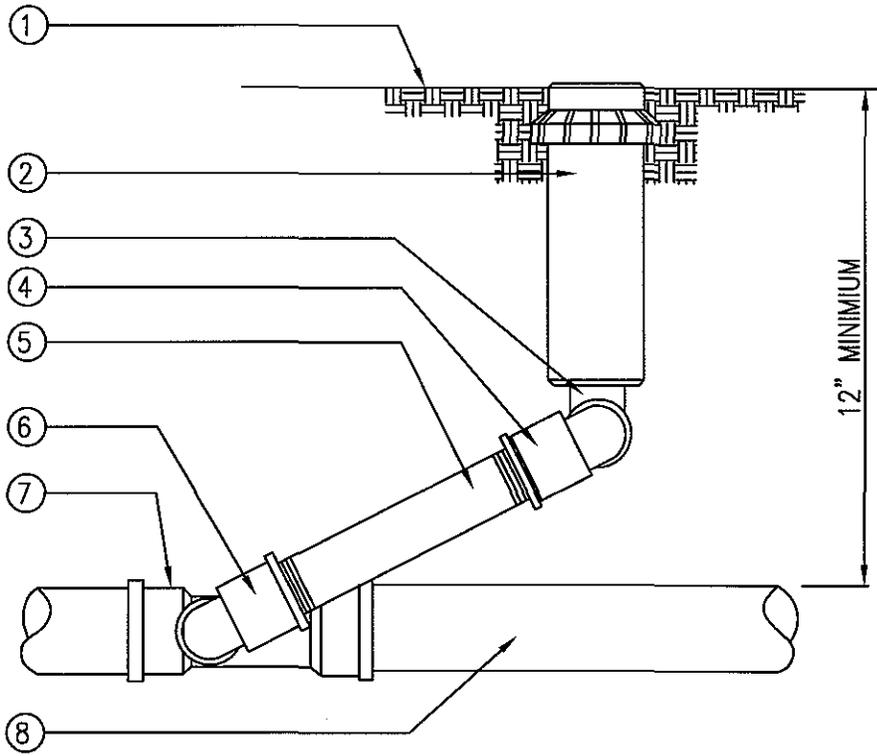
- ① HI-POP SHRUB HEAD
- ② FINISH GRADE
- ③ MARLEX 90 DEGREE STREET ELL
- ④ NON PRESSURE LATERAL LINE & TEE FITTING
- ⑤ SCH 80 PVC 90 DEGREE STREET ELL
- ⑥ MARLEX 90 DEGREE STREET ELL
- ⑦ SCH 80 PVC NIPPLE - TYPICAL (2) PLACES
- ⑧ ANTI-DRAIN VALVE-ALL DOWN SLOPE HEADS-IF NOT RETROFITTED IN HEAD

NOTES:

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

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		12" POP-UP SPRAY HEAD	NO. 565
		08/31/2009 DATE			



LEGEND

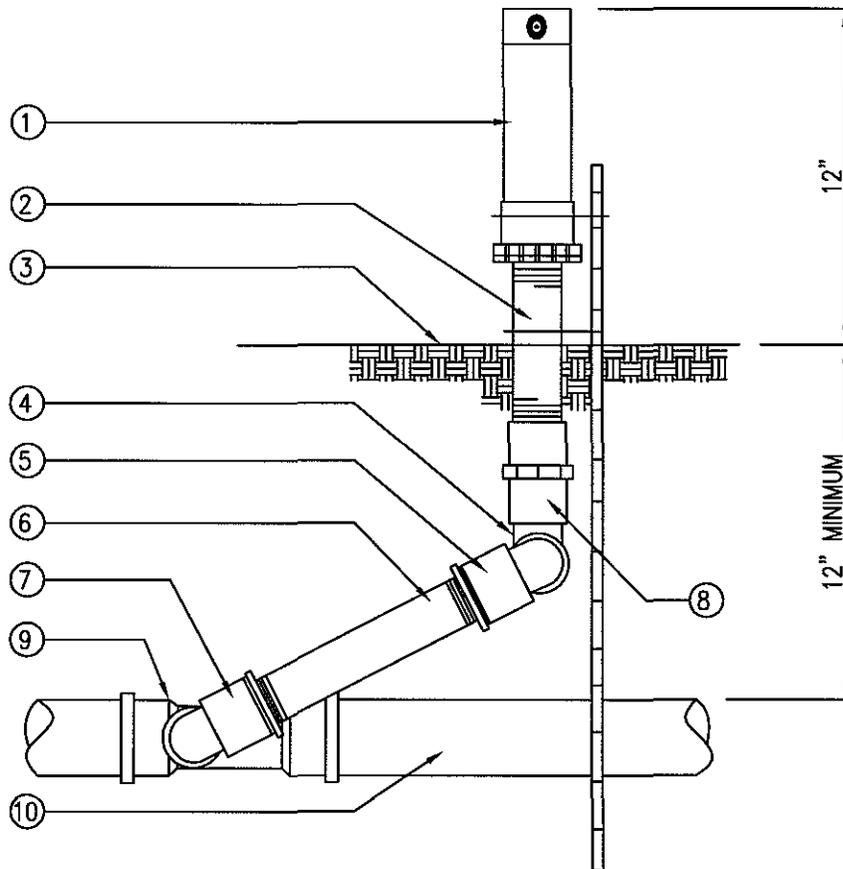
- ① FINISH GRADE
- ② POP-UP GEARED ROTOR W/INTERNAL ANTI-DRAIN VALVES
- ③ 3/4" SCH. 40 PVC 90 DEGREE STREET ELL
- ④ 3/4" MARLEX 90 DEGREE STREET ELL
- ⑤ 3/4" SCH. 80 NIPPLE (LENGTH AS REQUIRED)
- ⑥ 3/4" MARLEX 90 DEGREE STREET ELL
- ⑦ PVC TEE
- ⑧ NON - PRESSURE LATERAL

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 (THESE MINIMUMS MAY BE INCREASED PER SPEC.)

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER

<table border="1"> <tr> <th>REVISION</th> <th>DATE</th> <th>APPROVED</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		REVISION	DATE	APPROVED													<p>ENGINEERING DATE 07/09</p> <p>APPROVED BY</p> <p><i>Paula Hancock</i> 08/31/2009 CITY ENGINEER DATE</p>	<p>CITY OF LAKE ELSINORE</p> <p>PREPARED BY PUBLIC WORKS</p>	<p>NO. 566</p>
REVISION	DATE	APPROVED																	
		<p>POP-UP ROTARY HEAD</p>																	

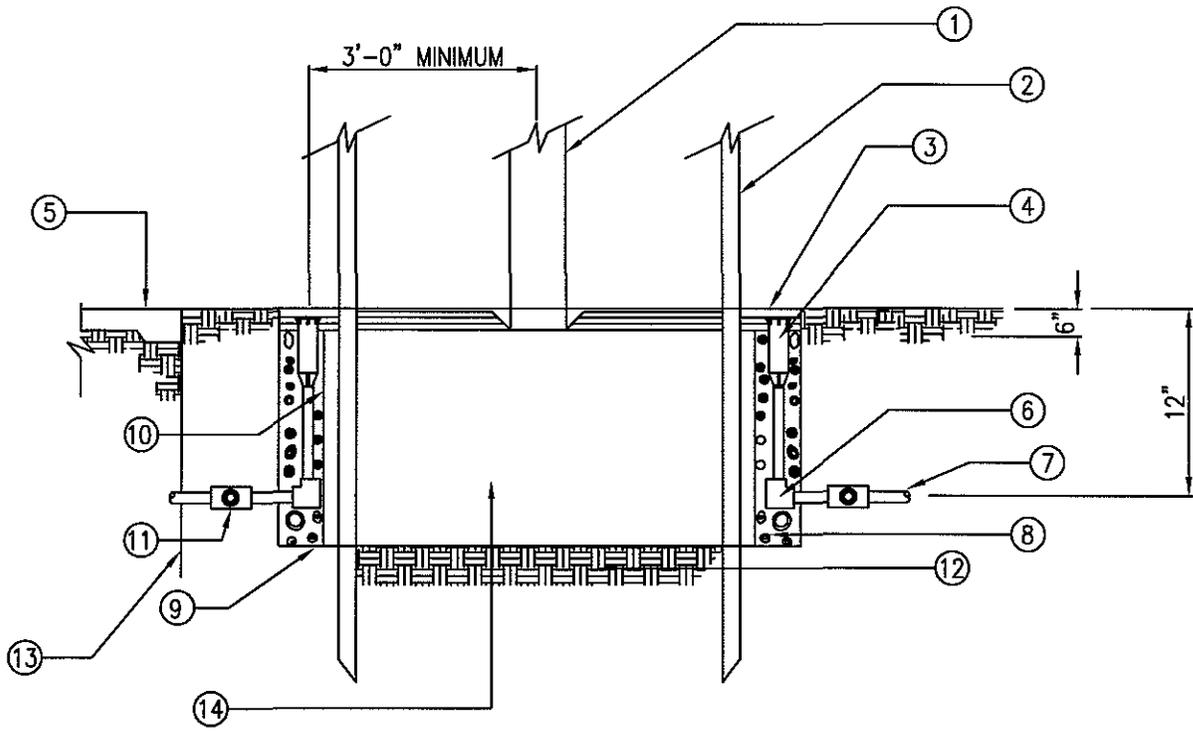


LEGEND

- 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.

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		08/31/2009 DATE	ROTOR INSTALLATION ON FIXED RISER
				NO. 567	



LEGEND

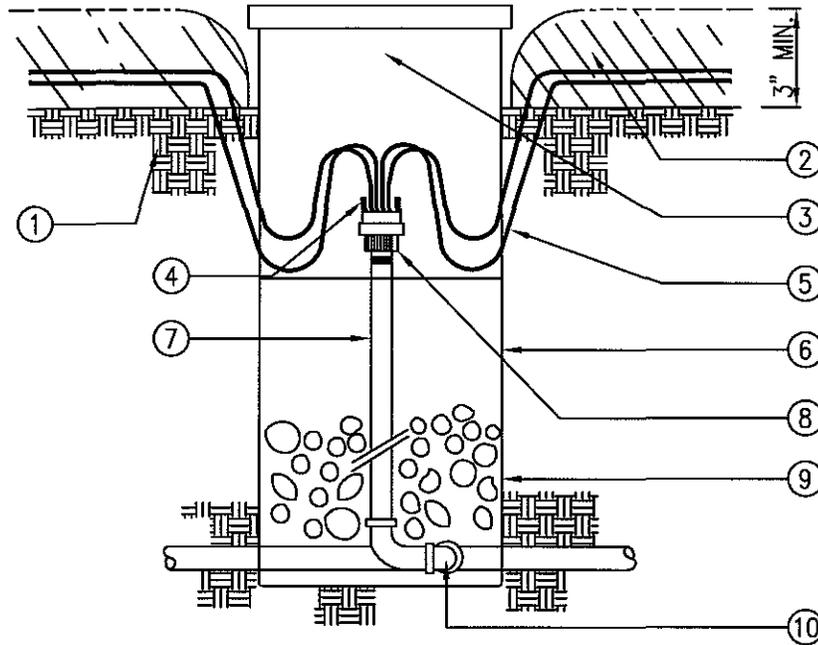
- ① TREE TRUNK
- ② 2" LODGE POLE STAKES (PER CITY STANDARDS)
- ③ FINISH GRADE: 2" BELOW TOP OF WALK
- ④ 6" POP UP SPRINKLER WITH FLOOD BUBBLER INSERT (PER PLAN)
- ⑤ EXISTING HARDSCAPE EDGE
- ⑥ MARLEX DOUBLE STREET ELLS
- ⑦ CL. 200 PVC LATERAL IRRIGATION LINE -THRU "CHIMNEY" - BOTH SIDES
- ⑧ 6" DIAMETER 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.

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY		PREPARED BY PUBLIC WORKS	
		CITY ENGINEER		DEEP WELL TREE IRRIGATION: DRIP AND/OR BUBBLER	
		08/31/2009 DATE		NO. 568	



LEGEND

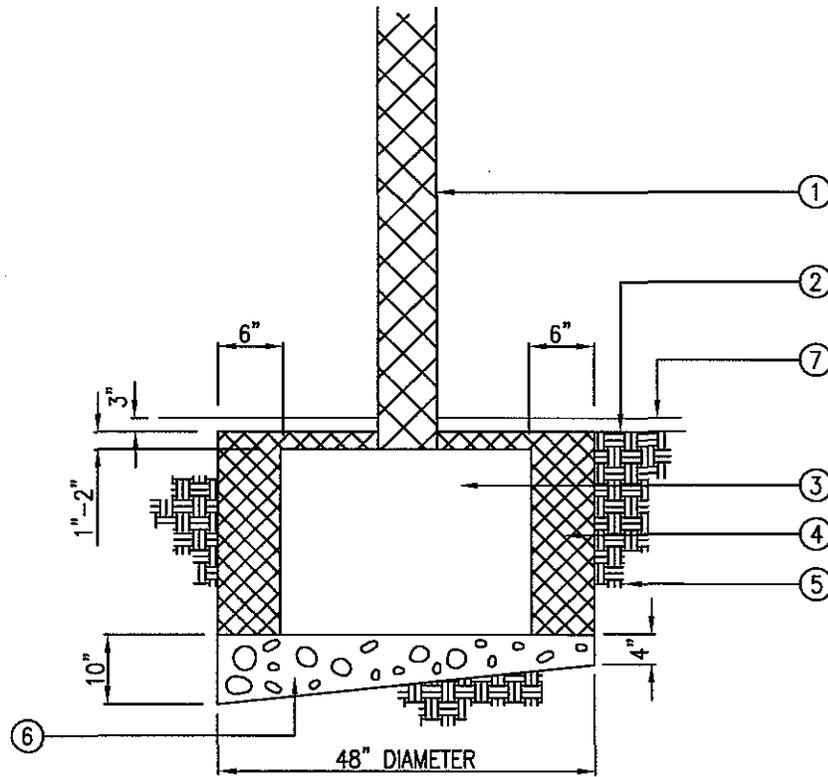
- ① FINISH GRADE
- ② MEDIUM GRIND SHREDDED MULCH COVER OVER DIST. TUBES -IN PLANTER BEDS
- ③ VALVE BOX 3" ABOVE FINISH GRADE
- ④ EMITTER OUTLET - CAP/PLUG UNUSED OUTLETS IF NECESSARY
- ⑤ DISTRIBUTION TUBES WITH OUTLET CHECK VALVE CAPS. (MIN. 2 PER SHRUB) INSTALL WITH PLASTIC TUBE STAKES)
- ⑥ 10" PLASTIC 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 ELLS 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.

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		DRIP EMITTER INSTALLATION	NO. 569
			08/31/2009 DATE		



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:

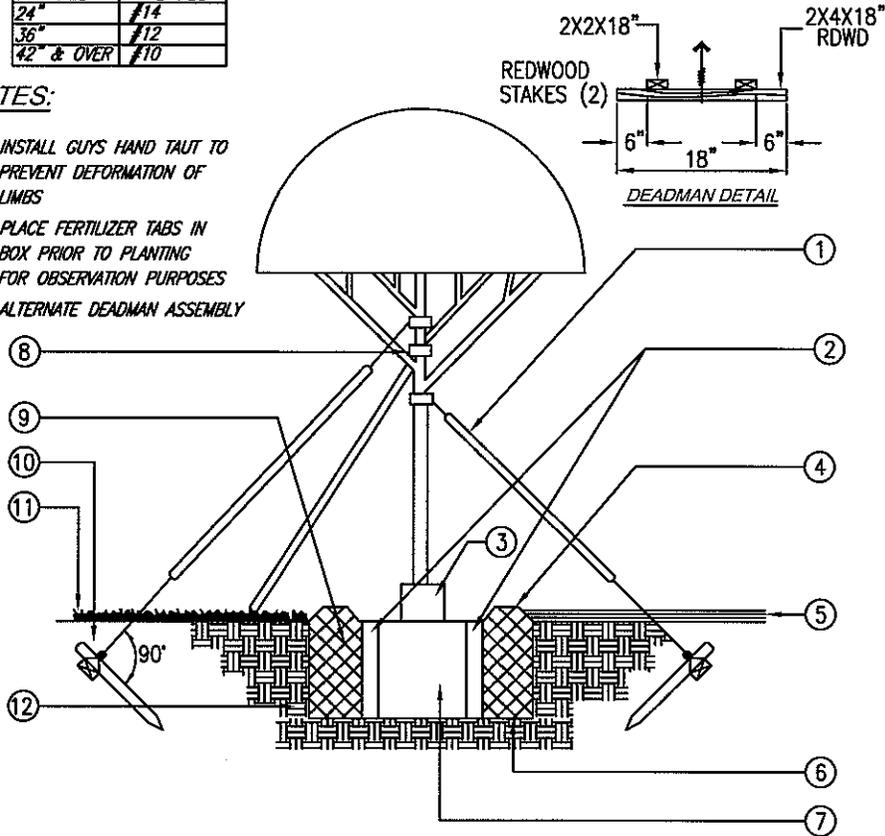
- 1.) ALL PALMS SHALL BE TRIMMED & TIED PRIOR TO PLANTING, LEAVE TIED 30 DAYS MIN.
- 2.) TRIMMED PALM TO HAVE 6-8 FRONDS MAX.
- 3.) UPON INSTALLATION REPRESENTATIVES OF THE CITY, THE LANDSCAPE ARCHITECT, AND THE LANDSCAPE CONTRACTOR SHALL DETERMINE IF PALMS REQUIRE GUYING

<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISION	DATE	APPROVED													<p align="center">ENGINEERING DATE 07/09</p> <p>APPROVED BY</p> <p align="center"><i>Ken A. Samuels</i> CITY ENGINEER 08/31/2009 DATE</p>	<p align="center">CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS</p>	<p align="center">NO. 580</p>
REVISION	DATE	APPROVED																	
		<p align="center">PALM TREE PLANTING</p>																	

WIRE SIZE LEGEND	
BOX SIZE	WIRE SIZE
24"	#14
36"	#12
42" & OVER	#10

NOTES:

- 1.) INSTALL GUYS HAND TAUT TO PREVENT DEFORMATION OF LIMBS
- 2.) PLACE FERTILIZER TABS IN BOX PRIOR TO PLANTING FOR OBSERVATION PURPOSES
- 3.) ALTERNATE DEADMAN ASSEMBLY

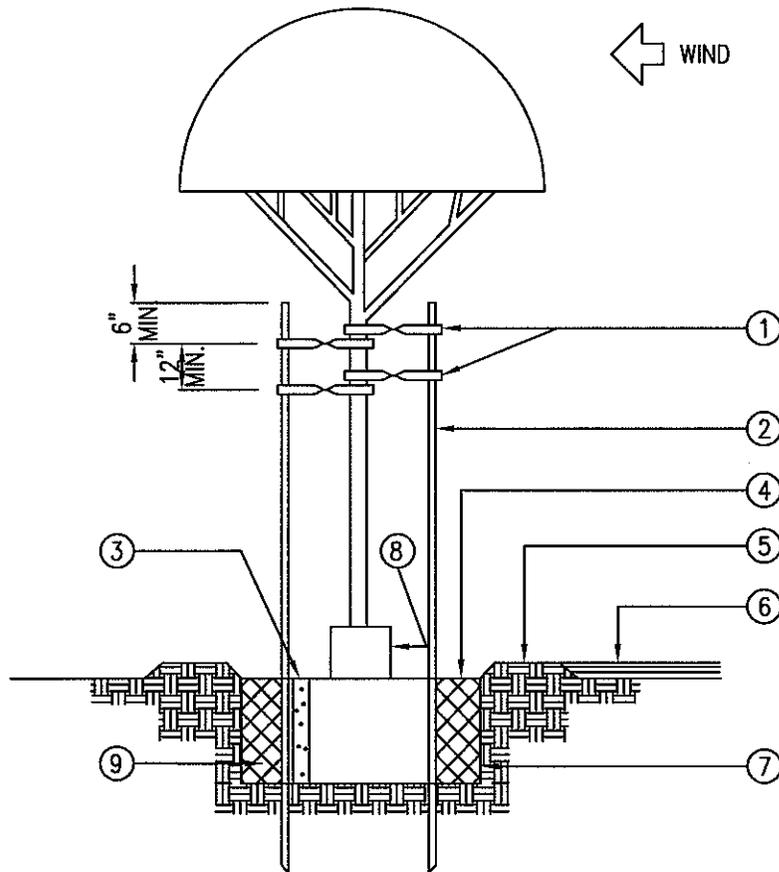


LEGEND:

- ① (3) DOUBLE STRAND GALV. 12 GA. WIRE GUYS SPACED EQUALLY AROUND TREE - COVER WITH 3/8" DIA. x3" WHITE PVC TUBING
- ② REFER TO DETAIL STANDARD MV-568 FOR IRRIGATION METHOD
- ③ USE TRUNK GUARD WHERE TREE IS INSTALLED IN TURF AREAS
- ④ 4" BERM 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.

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY		PREPARED BY PUBLIC WORKS	
		 CITY ENGINEER		TREE GUYING DETAIL - 36" BOX OR LARGER	
		08/31/2009 DATE		NO. 581	



LEGEND:

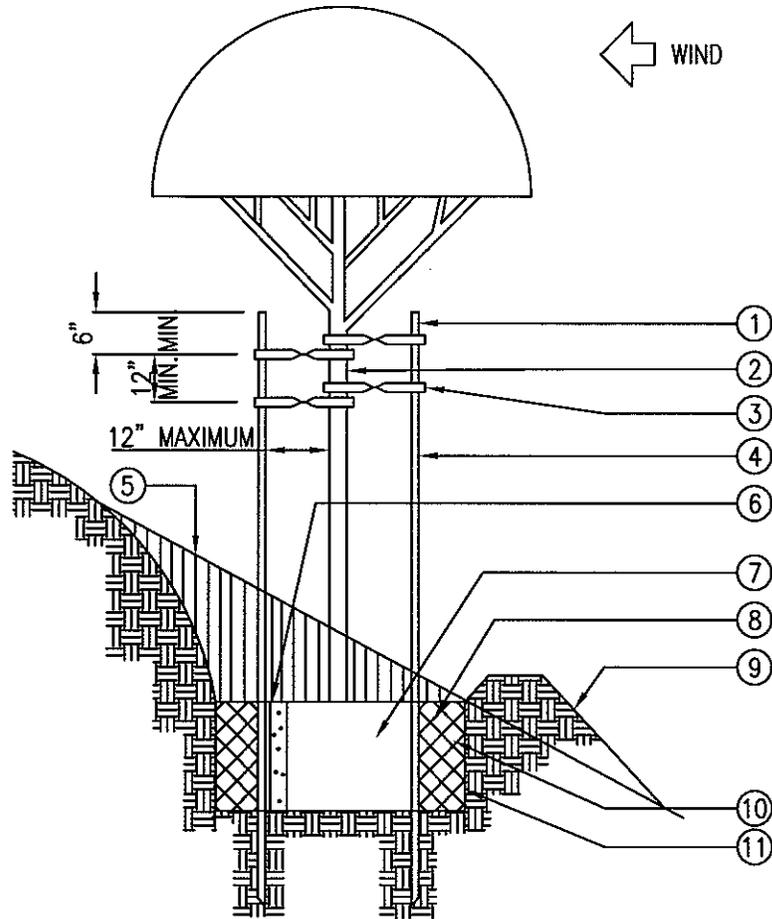
- ① TREE TIES 4 REQ'D
- ② 2" LODGEPOLE PINE STAKE
- ③ REFER TO MV-568 CITY STANDARD FOR IRRIGATION METHOD
- ④ BACKFILL MIX PER SPECIFICATIONS
- ⑤ 4" BERM FOR TEMPORARY WATERING UNTIL SEEDING
- ⑥ 3" THICK SHREDDED MULCH - WHERE APPLICABLE IN PLANTER BEDS
- ⑦ PLANT PIT: 2 TIMES WIDTH OF ROOT BALL & SAME DEPTH AS ROOT BALL
- ⑧ TRUNK GUARD IN TURF AREAS
- ⑨ PLACE PLANT TABS PER MANUFACTURERS RECOMMENDATION

NOTE:

1.) INSTALL STAKES 12" FROM TREE TRUNK

* SEE CITY STANDARD EQUIPMENT LIST FOR MANUFACTURER.

<table border="1"> <tr> <th>REVISION</th> <th>DATE</th> <th>APPROVED</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		REVISION	DATE	APPROVED													<p>ENGINEERING DATE 07/09</p> <p>APPROVED BY</p> <p><i>Ken A. Samuels</i> CITY ENGINEER</p> <p>08/31/2009 DATE</p>	<p>CITY OF LAKE ELSINORE</p> <p>PREPARED BY PUBLIC WORKS</p>	<p>TYPICAL DOUBLE STAKE TREE (15 GAL. - 25" BOX)</p>	<p>NO. 582</p>
REVISION	DATE	APPROVED																		

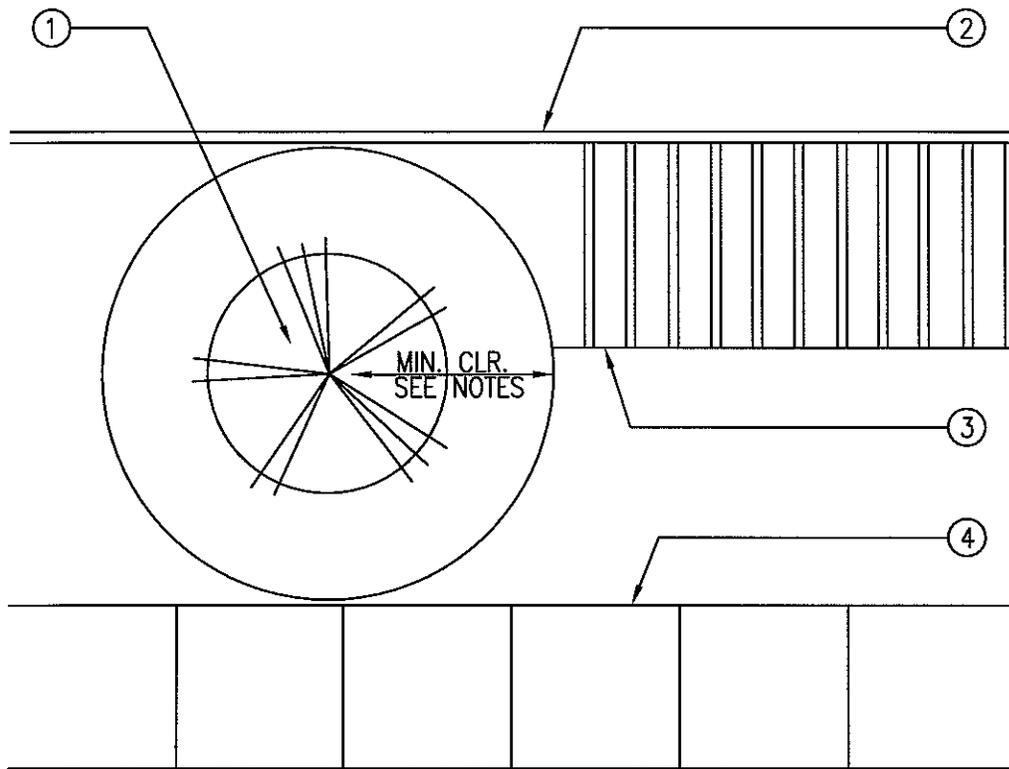


LEGEND

- 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-568 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.

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		08/31/2009 DATE	NO. 583 DOUBLE STAKE TREE ON SLOPE



LEGEND:

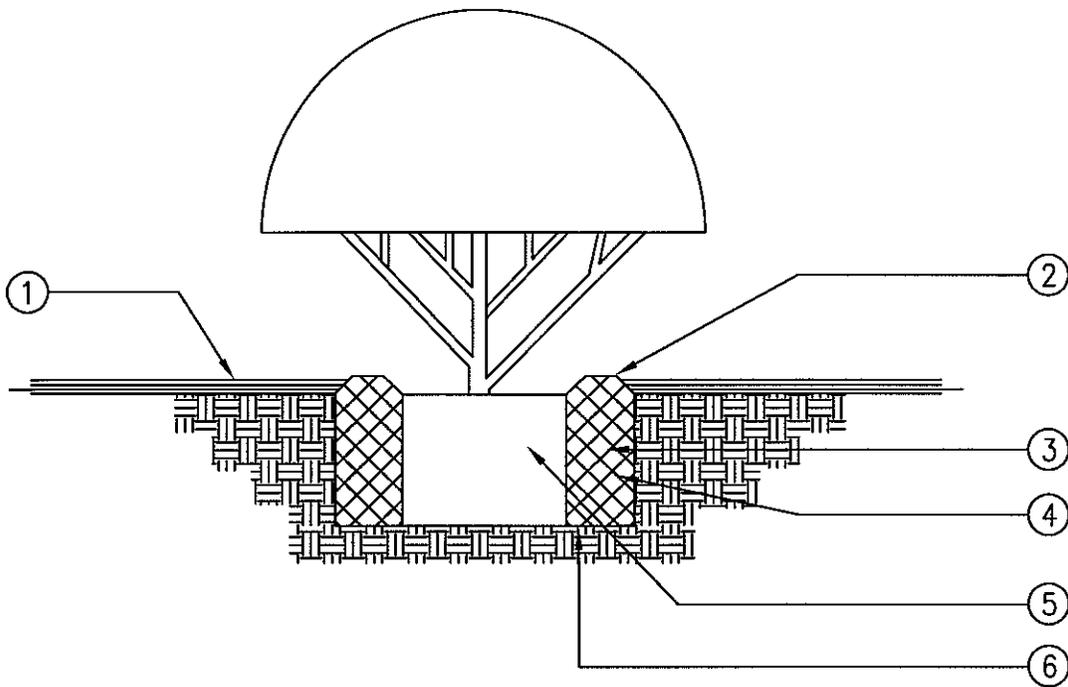
- ① PROPOSED CENTER OF TREE
- ② STRUCTURE /WALL/ETC.
- ③ AWNING/BUILDING OVERHANG
- ④ HARDSCAPING

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.

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY		PREPARED BY PUBLIC WORKS	
		 CITY ENGINEER		TREE SPACING REQUIREMENTS	
		08/31/2009 DATE		NO. 584	

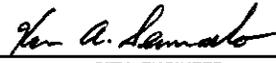


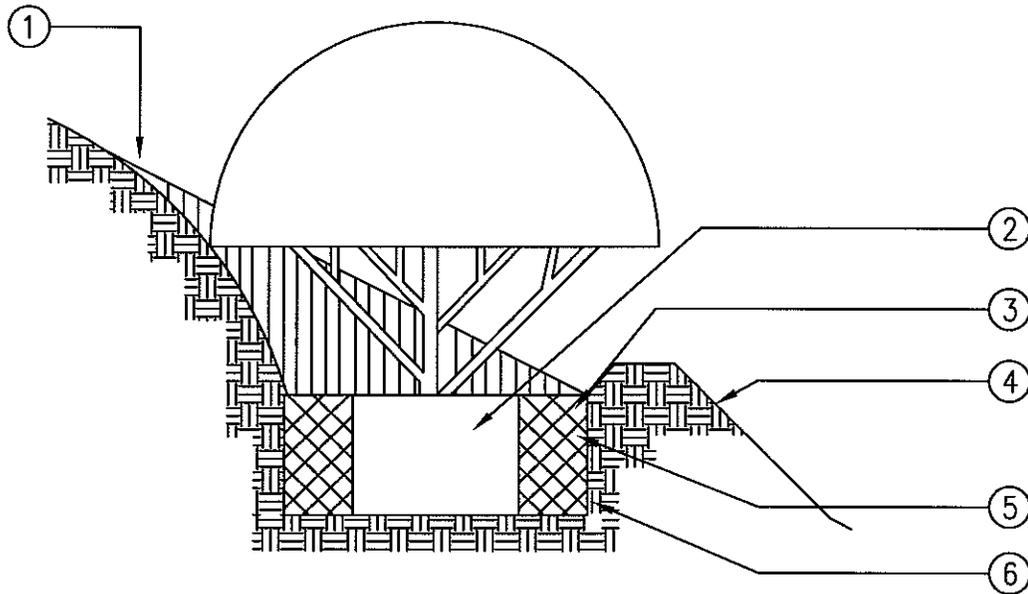
LEGEND:

- 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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED				
		APPROVED BY		CONTAINER PLANTING	
		 CITY ENGINEER			
		08/31/2009 DATE			



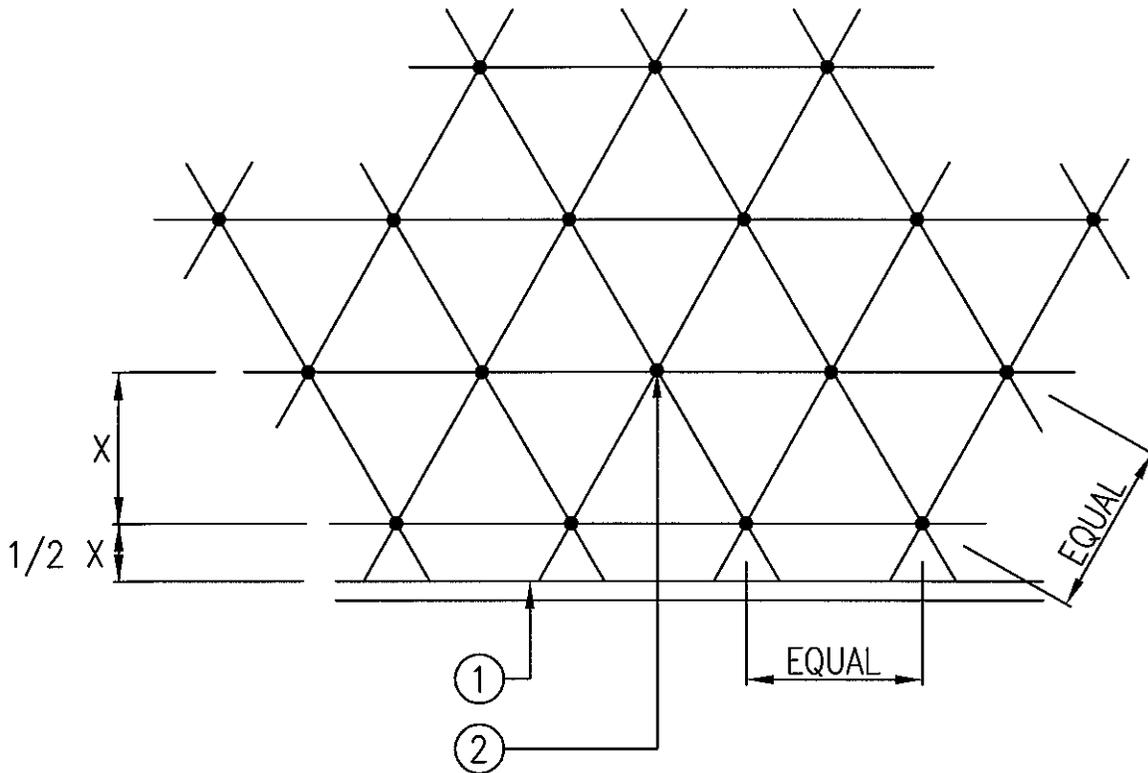
LEGEND:

- 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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE PREPARED BY PUBLIC WORKS	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		08/31/2009 DATE	NO. 586 CONTAINER PLANTING ON SLOPE



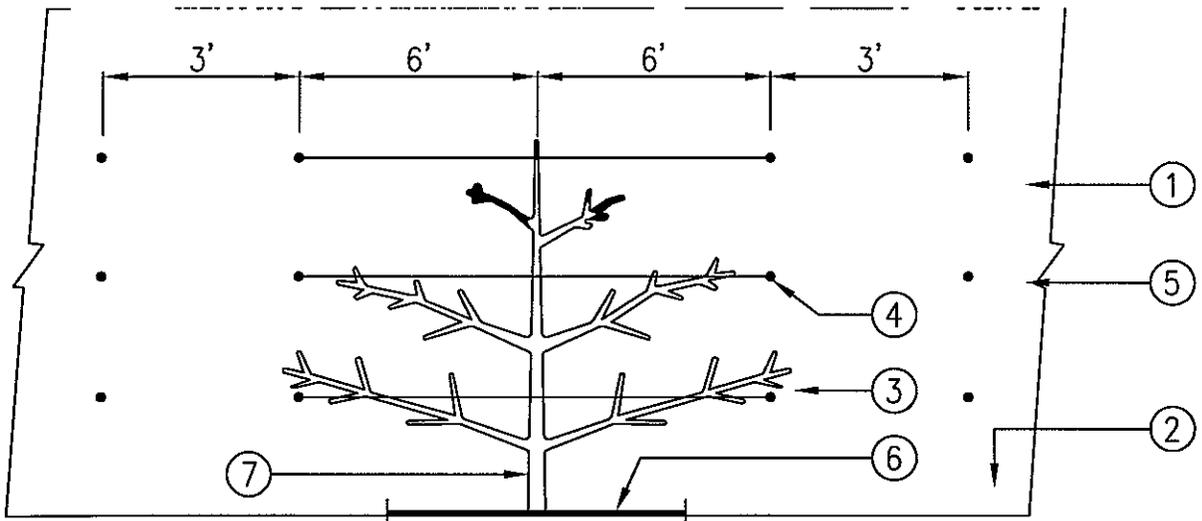
LEGEND

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

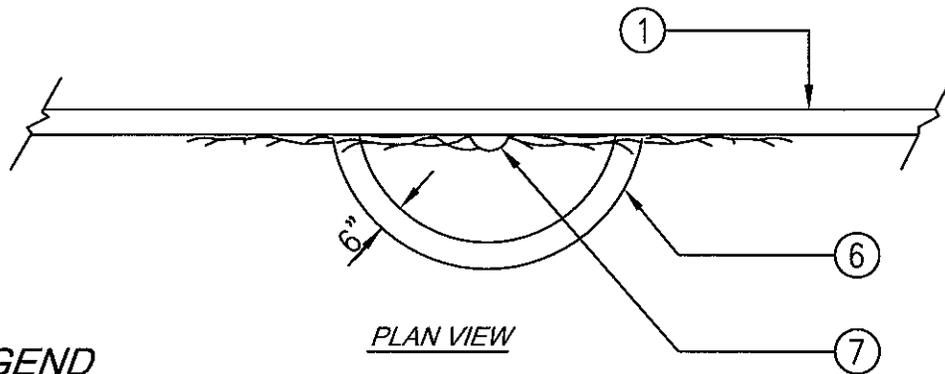
NOTE:

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

REVISION		ENGINEERING		DATE 07/09		CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY					
		 CITY ENGINEER		08/31/2009 DATE		SHRUB/GROUNDCOVER SPACING	
						NO. 587	



ELEVATION

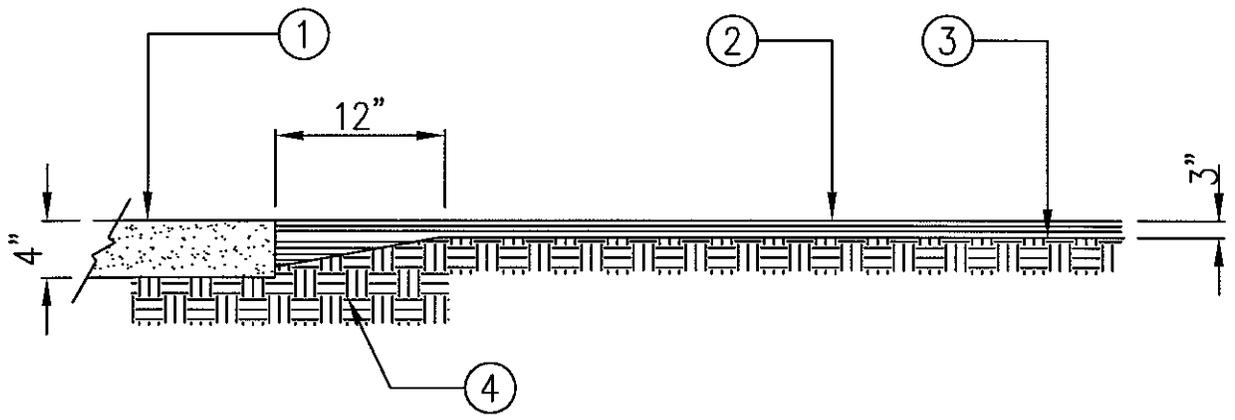


PLAN VIEW

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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED	APPROVED BY		PREPARED BY PUBLIC WORKS	
		 CITY ENGINEER		VINE DETAIL: NON-ADHERING TYPE	
		08/31/2009 DATE		NO. 588	



LEGEND

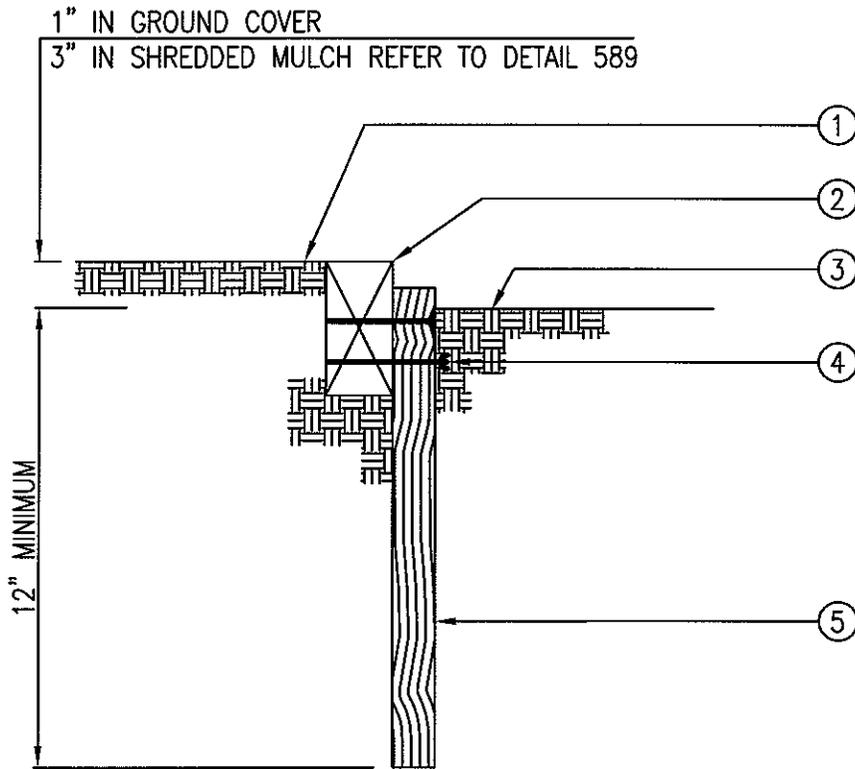
- ① *HARDSCAPING/HEADERBOARD*
- ② *SHREDDED MULCH (MEDIUM GRIND) DO NOT BARK CHIPS*
- ③ *FINISH GRADE*
- ④ *SHOVEL CUT EDGE*

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.*

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE <i>PREPARED BY PUBLIC WORKS</i>	
DATE	APPROVED	APPROVED BY			
		 CITY ENGINEER		MULCH INSTALLATION	NO. 589
		08/31/2009 DATE			



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

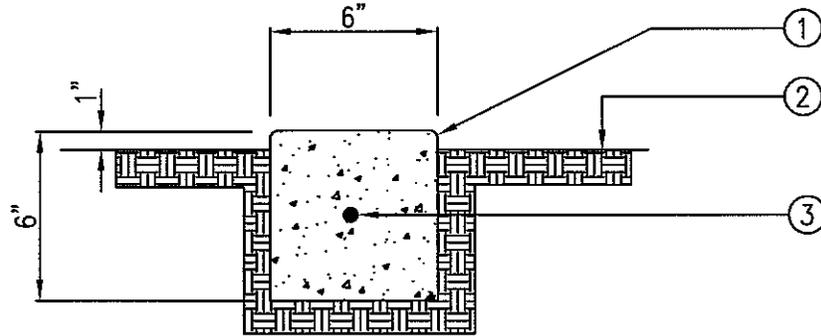
NOTES:

- 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

REVISION		ENGINEERING	DATE 07/09	CITY OF LAKE ELSINORE	
DATE	APPROVED				
		APPROVED BY		2 X 4 REDWOOD HEADER	
		 CITY ENGINEER			
		 DATE			

NOTE:

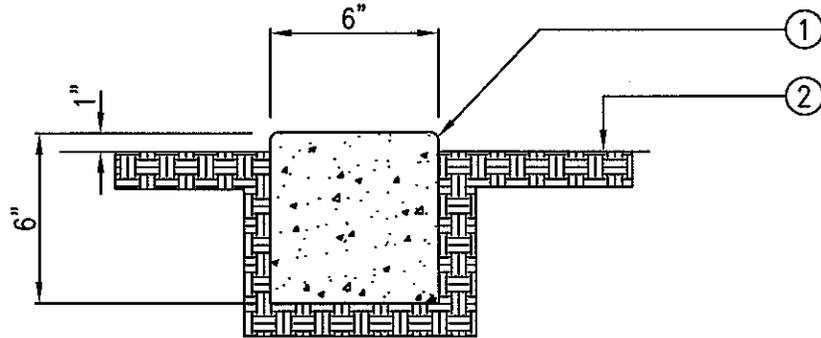
- 1.) PROVIDE SCORE JOINTS AT 10'-0" O.C. AND 3/8" BITUMINOUS FELT EXPANSION JOINTS AT 20'-0" O.C.



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

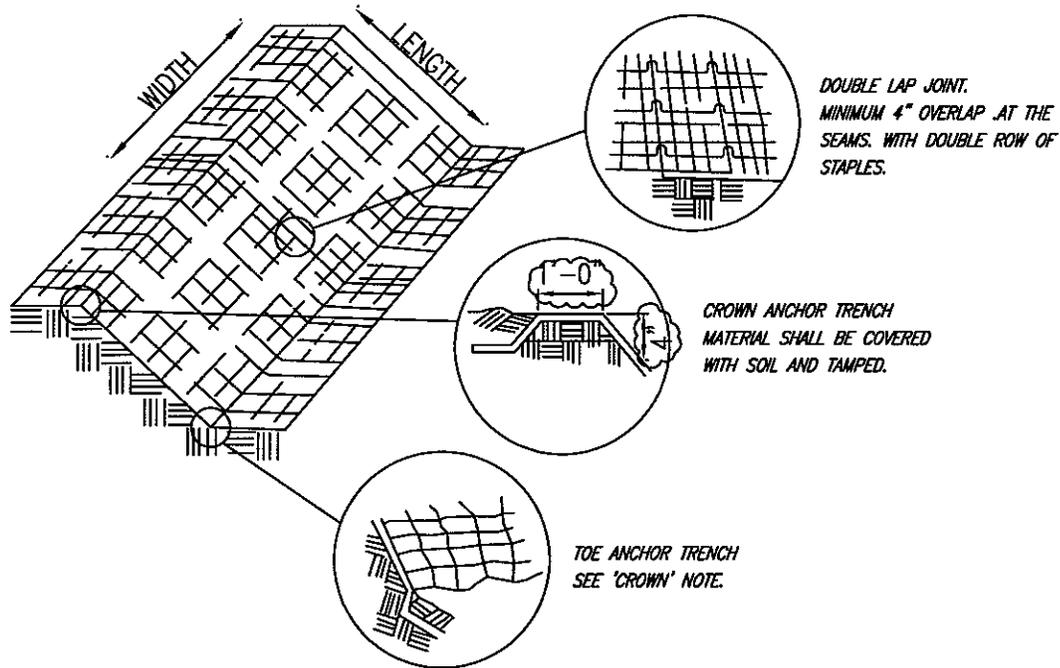


TYPICAL FOR MOW CURBS UNDER 20' IN LENGTH

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)

<table border="1"> <tr> <th>REVISION</th> <th>DATE</th> <th>APPROVED</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		REVISION	DATE	APPROVED													<p>ENGINEERING DATE 07/09</p> <p>APPROVED BY</p> <p><i>Karl Sandoz</i> CITY ENGINEER 08/31/2009 DATE</p>	<p>CITY OF LAKE ELSINORE</p> <p>PREPARED BY PUBLIC WORKS</p>	<p>NO. 591</p>
REVISION	DATE	APPROVED																	
		<p>CONCRETE MOW CURB</p>	<p>NO. 591</p>																



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.

<table border="1"> <tr> <th>REVISION</th> <th>DATE</th> <th>APPROVED</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		REVISION	DATE	APPROVED													<p align="center">ENGINEERING DATE 07/09</p> <p>APPROVED BY</p> <p align="center"><i>John A. Samuels</i> CITY ENGINEER 08/31/2009 DATE</p>	<p align="center">CITY OF LAKE ELSINORE</p> <p align="center">PREPARED BY PUBLIC WORKS</p>	<p align="center">EROSION CONTROL NETTING</p>	<p align="center">NO. 592</p>
REVISION	DATE	APPROVED																		