

GENERAL NOTES

IRRIGATION SYSTEM DESIGN CRITERIA FOR CAPITAL PROJECTS:

WATER SERVICE: CONTRACTOR SHALL CONTACT THE CITY OF RIVERSIDE, PUBLIC UTILITIES, WATER DEPARTMENT OR WESTERN MUNICIPAL WATER DISTRICT AND OBTAIN AND PAY FOR NEW WATER METER(S) AS NECESSARY TO ADEQUATELY SERVE THE IRRIGATION SYSTEM AS DESIGNED. METER AND BACKFLOW DEVICES SHALL BE LOCATED IN THE PARKWAY (WITHIN PUBLIC RIGHT-OF-WAY) A MINIMUM OF 100' FROM ANY INTERSECTION OR MAJOR DRIVEWAY (CURB RETURN TYPE DRIVEWAY OPENING). CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATER COSTS THROUGHOUT THE MAINTENANCE AND PLANT ESTABLISHMENT PERIOD IF APPLICABLE.

ELECTRIC SERVICE: CONTRACTOR SHALL CONTACT THE CITY OF RIVERSIDE, PUBLIC UTILITIES, ELECTRICAL DIVISION TO OBTAIN AND PAY FOR A NEW 'NON-METERED' ELECTRICAL SERVICE AS NECESSARY TO SERVE EACH NEW IRRIGATION CONTROLLER(S). SERVICE SHALL BE UNDERGROUND TYPE. COORDINATE LOCATION AND OBTAIN APPROVAL FROM THE CITY'S INSPECTOR.

IRRIGATION CONTROLLER: THE IRRIGATION CONTROLLER(S) (ONE REQUIRED AT EACH POINT OF CONNECTION, I.E. P.O.C.), EACH SHALL BE SIZED TO ACCOMMODATE THE NUMBER OF VALVES REQUIRED TO SERVE THE ENTIRE PROJECT AND TO PROVIDE A MINIMUM OF TWO SPARE STATIONS. THE CONTROLLER AND ENCLOSURE SHALL BE THE TYPE AND MANUFACTURER AS INDICATED ON THE PLANS AND/OR IRRIGATION LEGEND. CONTROLLER SHALL BE WEATHERPROOF, PER CITY SPECS, INSTALLED WITHIN A LOCKING STAINLESS STEEL METAL ENCLOSURE TO SUPPORT CONTROLLER MANUFACTURER REQUIREMENTS, AS WELL AS CITY REQUIREMENTS, AND SHALL BE LOCATED A MINIMUM OF 100' FROM ANY INTERSECTION OR MAJOR DRIVEWAY (CURB RETURN DRIVEWAY OPENING). A CONCRETE PAD THE SAME WIDTH AND THICKNESS, AS THE CONTROLLER PAD SHALL BE INSTALLED BETWEEN THE CONTROLLER AND THE BACK OF SIDEWALK.

ENRNGWG: SLEEVES SHALL BE INSTALLED IN STRAIGHT LINES (NO TURNS OR BENDS, EITHER VERTICAL OR HORIZONTAL).
 *** ALL LINES BENEATH STREET AREAS (I.E. NOT WITHIN THE LANDSCAPE PLANTING AREAS) SHALL BE CONSTANT PRESSURE LINES INSTALLED IN SLEEVES WITH TRACER TAPE (TYPE OF SLEEVE INDICATED ON TAPE) INSTALLED SIX INCHES ABOVE EACH SLEEVE.
 *** MAIN LINE SLEEVES UNDER STREET AREAS SHALL BE CLASS 315 PVC OR SCH. 40
 *** CONTROLLER WIRES INSTALLED WITHIN STREETS SHALL BE SLEEVED IN GRAY PVC SCH. 40 CONDUIT, WITH 12" MINIMUM SEPARATION FROM THE MAINLINE WATER SLEEVE.
 *** MAIN LINE, LATERAL LINES AND CONTROL WIRES INSTALLED BENEATH HARDSCAPE WITHIN THE LANDSCAPE AREA EXTENDING FOR FIVE FEET OR MORE MUST BE SLEEVED. THE SLEEVE SHALL EXTEND TWELVE INCHES BEYOND EDGE OF HARDSCAPE.
 *** MAIN LINE AND LATERAL LINES SHALL BE SLEEVED IN SCH. 40 PVC.
 *** CONTROLLER WIRES SHALL BE INSTALLED GRAY SCH. 40 PVC CONDUIT.

CONTROL WIRE: ALL CONTROL WIRE LOCATED UNDER PAVEMENT OF ANY TYPE SHALL BE SEPARATELY SLEEVED FROM MAIN LINE AND LATERALS. PROVIDE A MINIMUM OF TWO SPARE CONTROL WIRES AT EACH TERMINATING END OF THE MAINLINE, STUBBED OUT IN A VALVE BOX WITH THE LID MARKED "SW". STATION CONTROL WIRE SHALL BE 14 GAUGE, COMMON WIRE 12 GAUGE AND SPARE WIRES 14 GAUGE. SPARE WIRE SHALL BE A DIFFERENT COLOR FROM STATION AND COMMON WIRES.

MAINLINE: SIZE ALL MAINLINES AS NECESSARY TO KEEP WATER VELOCITY BELOW 5 FEET PER SECOND. PRESSURE SUPPLY LINES 2 INCHES IN DIAMETER AND UP TO 8 INCHES IN DIAMETER SHALL BE EITHER CLASS 315 SOLVENT WELD PVC OR GASKET TYPE PVC. SOLVENT WELD AND RING TYPE PIPE SHALL NOT BE USED TOGETHER ON THE SAME PRESSURE SUPPLY LINE. PRESSURE SUPPLY LINES 1 1/2" IN DIAMETER AND SMALLER SHALL BE SCH. 40 PVC. PROVIDE A LINE SIZE GATE VALVE WITHIN A VALVE BOX IMMEDIATELY UPSTREAM OF LINE ENTERING A SLEEVE PASSING UNDER THE STREET AREA. THRUST BLOCKS SHALL BE INSTALLED PER PIPE MANUFACTURER REQUIREMENTS OR AS DIRECTED BY CITY INSPECTOR.

LATERAL LINES: SIZE ALL LATERAL LINES AS NECESSARY TO KEEP WATER VELOCITY BELOW 5 FEET PER SECOND. DESIGN LATERAL LINE PLACEMENTS AT EDGES OF PLANTING SPACES TO AVOID CONFLICT WITH PLANTINGS, THE PIPE SHALL BE SCH. 40 PVC. ALL MAIN LINE AND LATERAL LINES RUNNING PARALLEL TO THE LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 12 INCHES.

CONTROL VALVES: ALL IRRIGATION CONTROL VALVES SHALL BE BRASS, PRESSURE REGULATING (MASTER VALVE NON-PRESSURE REGULATING), SIZED TO PROVIDE THE WATER VOLUME REQUIRED WITH PRESSURE LOSS THROUGH THE VALVE KEPT AT BELOW A MAXIMUM OF 10% OF THE AVAILABLE STATIC PRESSURE. INSTALL VALVES IN "INLINE" CONFIGURATION. ALL STATIONS SHALL BE SIZED TO AVOID 100 GPM DEMAND OR 50 HEADS PER STATION, WHICHEVER IS GREATER. ALL VALVE BOXES SHALL BE CONCRETE BODY, WITH CAST IRON, HINGED, LOCKING LIDS. LIDS SHALL BE MARKED BY MANUFACTURER OF LIDS (WELDED INTO TOP OF LID) WITH NUMBERS FOR STATION IDENTIFICATION, "GV" FOR GATE VALVE, "QC" FOR QUICK COUPLER, "MV" FOR MASTER VALVE, "FM" FOR FLOW METER, "SW" FOR SPARE WIRE, "SB" FOR WIRE SPLICE BOX AND "FI" FOR FERTILIZER INJECTOR.

QUICK COUPLERS: PROVIDE QUICK COUPLER VALVES AT A MINIMUM OF 50' FROM THE END OF THE LANDSCAPED AREA IN EACH ISLAND/PARKWAYS AND SPACED AT A MAXIMUM OF 100' O.C. IN SHRUB AND TURF AREAS.

BUBBLERS: ALL BUBBLERS SHALL BE OF THE TYPE AND MANUFACTURER INDICATED ON THE PLANS AND SHALL BE INSTALLED WITH TRIPLE SWING JOINTS IN A 3" PVC PERFORATED DRAIN PIPE, WITH A 3" PVC CAP FILLED WITH CRUSHED 1" ROCK AS DETAILED. TWO BUBBLERS SHALL BE INSTALLED AT EACH TREE, WITH 48" MINIMUM SPACING BETWEEN EACH BUBBLER. TREES SHALL BE PLANTED 50' MINIMUM FROM EACH NOSE, THEN SPACED 45' MINIMUM BETWEEN EACH TREE.

MISCELLANEOUS: THE RAIN BUCKET AND THE ET GAUGE SHALL BE INSTALLED PER MANUFACTURER REQUIREMENTS.
CURB MARKING: STENCIL VALVE BOX MARKINGS TO CURB TOP ALONG RIGHT-OF-WAY WITH A COMMERCIAL QUALITY ALKYD MARKING PAINT (EQUAL TO SHERWIN-WILLIAMS SETFAST PREMIUM ALKYD ZONE MARKING PAINT, A303 YELLOW, A305 BLACK - (800) 524-5979. PAINT BLACK 3" MARKINGS ATOP A YELLOW BACKGROUND, WHICH EXTENDS A MINIMUM 1" BEYOND STENCILED MARKINGS.

RECORD PRINTS: INITIALS SHALL BE MARKED UP BLUE LINE PRINTS, ALL DIMENSIONS NOTED ON A COMPACT DISC (CD) WITH ALL GLOBAL POSITIONING SYSTEM (GPS) COORDINATES FOR EACH REQUIRED ITEM, AND ALL INFORMATION IS TO BE TRANSFERRED TO EITHER SEPIA MYLAR OR PHOTO MYLAR PRINTS PRIOR TO TURN-OVER TO THE CITY AT FINAL ACCEPTANCE OF THE PROJECT.

PUBLIC LANDSCAPING:

1. ALL RELATED WORK SHALL CONFORM TO THE CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT STANDARDS AND SPECIFICATIONS FOR PLANTING AND IRRIGATION WORK (LANDSCAPE).

2. BOTH A PUBLIC LANDSCAPE PERMIT, AS ISSUED BY PUBLIC WORKS, AND A PUBLIC WORKS CONSTRUCTION PERMIT AS ISSUED BY PUBLIC WORKS, ARE REQUIRED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY FOR LANDSCAPE IMPROVEMENTS IN THE RIGHT OF WAY. THE PUBLIC LANDSCAPE PERMIT MAY BE OBTAINED BY CONTACTING THE PUBLIC WORKS DEPARTMENT, AT (951) 826-5341. THE PUBLIC WORKS CONSTRUCTION PERMIT MAY BE OBTAINED AT THE PUBLIC WORKS COUNTER, 4TH FLOOR, CITY HALL, 3900 MAIN STREET, RIVERSIDE, 92522.

3. WHEN CALLING FOR INSPECTIONS CONTACT THE PUBLIC WORKS LANDSCAPE INSPECTOR AT (951) 351-6313 A MINIMUM OF 48 HOURS IN ADVANCE TO SCHEDULE AN INSPECTION. A WRITTEN APPROVAL WILL BE PROVIDED ON THE PUBLIC LANDSCAPE PERMIT CARD FOR EACH STAGE OF INSPECTION. A VERBAL APPROVAL WILL NOT BE ACCEPTABLE. INSPECTIONS ARE REQUIRED PER THE STANDARD SPECIFICATIONS, AND INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING:

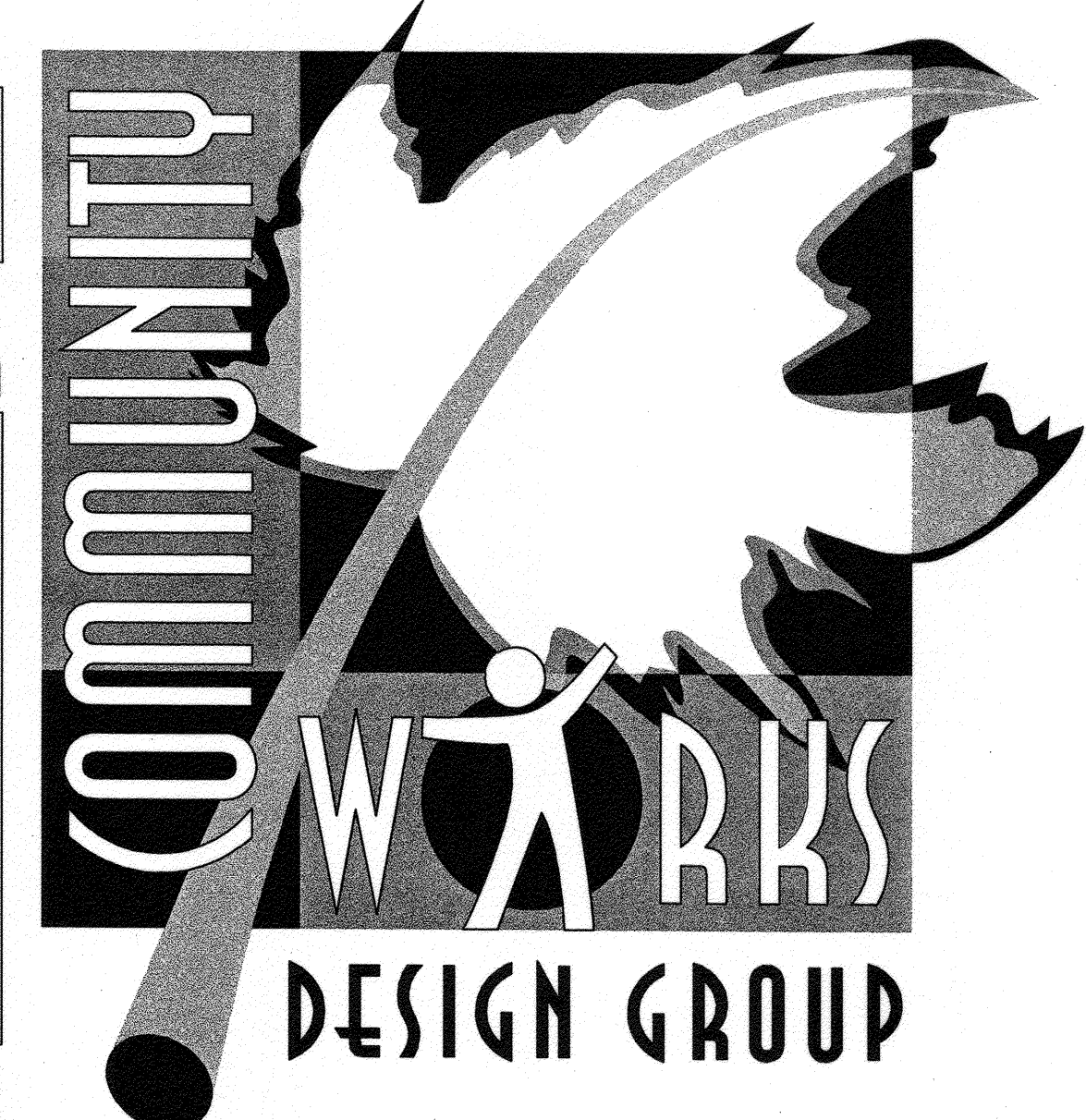
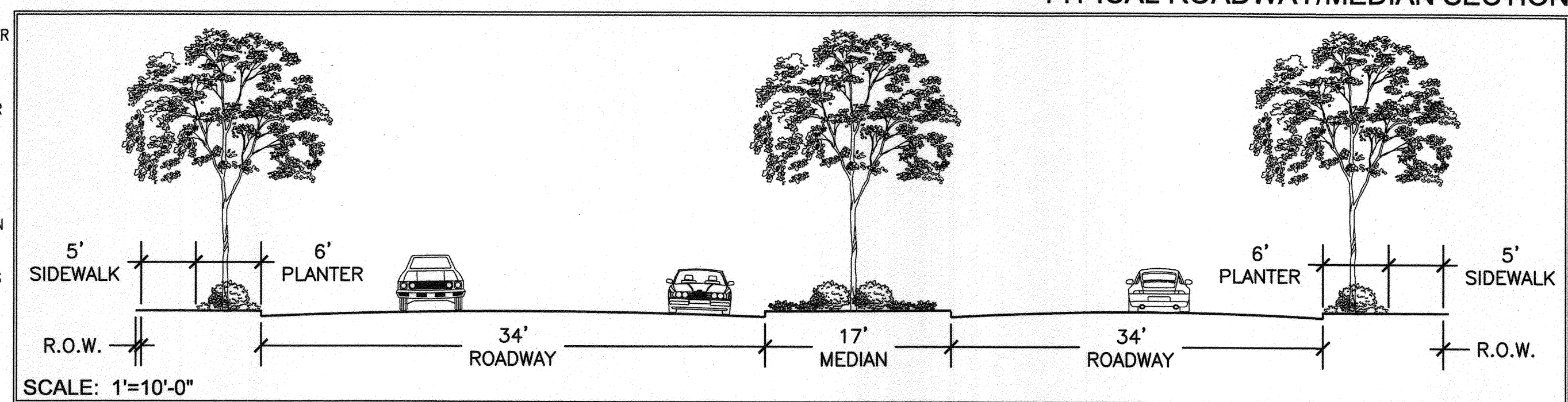
- 3.1. AFTER COMPLETION OF FINAL GRADING AND WHEN ALL UTILITY SERVICES HAVE BEEN MARKED, BUT PRIOR TO INITIATING ANY LANDSCAPE WORK WITHIN THE PUBLIC RIGHT-OF-WAY;
 - 3.2. AT TIME OF INSTALLATION OF IRRIGATION SLEEVES AND CONSTANT PRESSURE MAINLINES, BUT PRIOR TO BACKFILL OF TRENCHES FOR SAME (NOTE: MAINLINES MUST BE PRESSURE TESTED IN THE PRESENCE OF THE PUBLIC WORKS LANDSCAPE INSPECTOR);
 - 3.3. AT TIME OF INSTALLATION OF IRRIGATION VALVES, LATERALS AND HEADS;
 - 3.4. FOR SPOTTING OF ALL TREES PRIOR TO DIGGING PLANTING PITS;
 - 3.5. WHILE DIGGING PLANT PITS AND PLANTING/RELOCATING TREES;
 - 3.6. AFTER PLANTING AND ALL OTHER INDICATED WORK HAS BEEN COMPLETED, FOR START OF MAINTENANCE;
 - 3.7. AT SUBSTANTIAL COMPLETION OF THE PROJECT FOR CITY'S ACCEPTANCE TO START THE MAINTENANCE PERIOD;
 - 3.8. AT THE END OF THE MAINTENANCE PERIOD, THE CONTRACTOR/DEVELOPER SHALL CALL THE PUBLIC WORKS LANDSCAPE INSPECTOR AT THE NUMBER LISTED ABOVE FOR A FINAL ACCEPTANCE INSPECTION IN ORDER TO BE RELEASED FROM MAINTENANCE. CONTRACTOR'S BOND WILL NOT BE RELEASED UNTIL AFTER THE CITY'S ISSUANCE OF WRITTEN NOTIFICATIONS THAT THE PROJECT HAS PASSED FINAL INSPECTION AND THE PUBLIC WORKS DEPARTMENT IS ASSUMING MAINTENANCE RESPONSIBILITIES.
4. THE DEVELOPER SHALL BE RESPONSIBLE TO ACCEPTABLY MAINTAIN ALL PLANTINGS FOR A MINIMUM PERIOD AS SPECIFIED IN THE BID DOCUMENTS.

*** NOTE:** IN THE INTEREST OF PUBLIC SAFETY AND MAINTENANCE THE PUBLIC WORKS LANDSCAPE INSPECTOR SHALL HAVE THE AUTHORITY TO REVISE THE TREE QUANTITIES AND LOCATIONS SHOWN ON APPROVED PLANS BASED UPON FIELD CONDITIONS FOUND AT THE TIME OF INSTALLATION OF THE TREES.

JURUPA AVENUE EXTENSION PHASE 2

LANDSCAPE QUANTITIES:

• TOTAL LANDSCAPE/HARDSCAPE AREA	= 27,225 SQ. FT.
• TOTAL GROUNDCOVER AREA	= 22,200 SQ. FT.
• TOTAL DECORATIVE PAVEMENT	= 3,470 SQ. FT.
• TOTAL AREA MAINTAINED BY CITY	= 27,225 SQ. FT.



4649 Brockton Avenue

Riverside, CA 92506

Phone: (951) 369-0700

Fax: (951) 369-4039

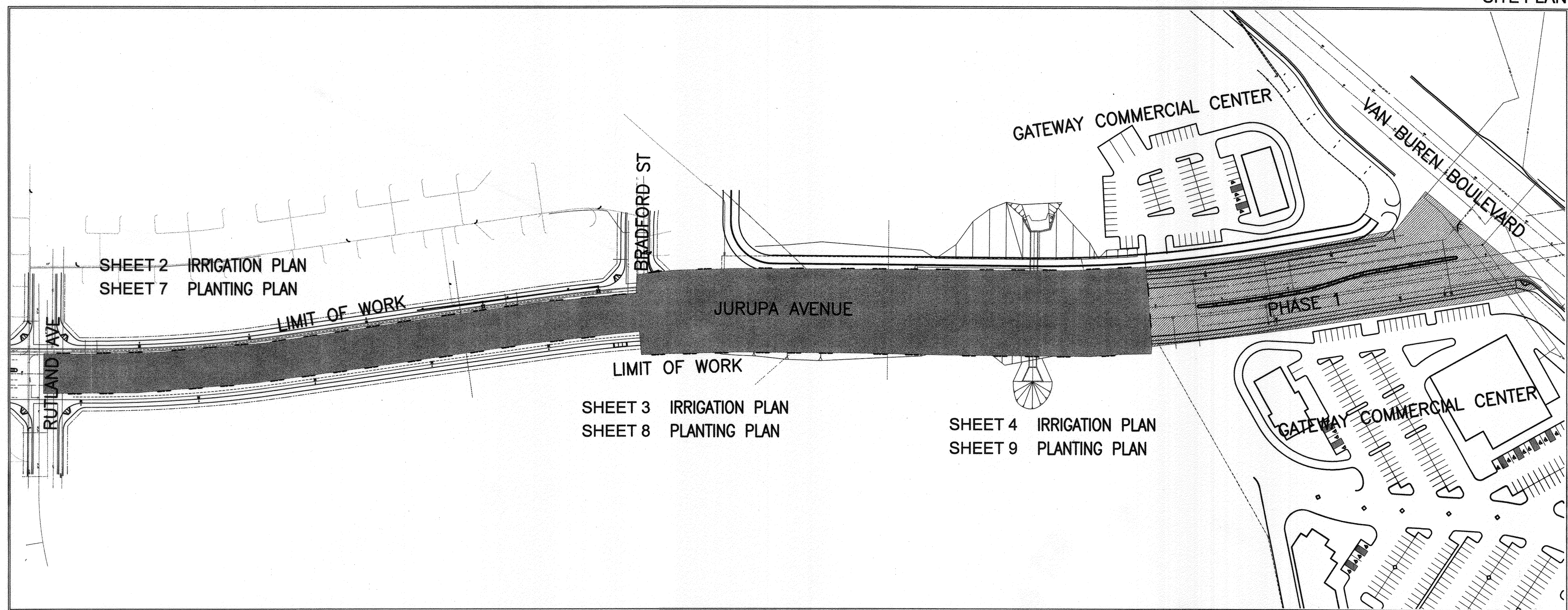
www.comworksdg.com

LANDSCAPE ARCHITECTURE

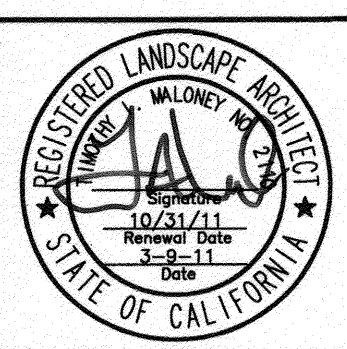
Contact: Kay Kite

SHEET INDEX:

1	TITLE SHEET		
2	IRRIGATION PLAN	7	PLANTING PLAN
3	IRRIGATION PLAN	8	PLANTING PLAN
4	IRRIGATION PLAN	9	PLANTING PLAN
5	IRRIGATION DETAILS	10	PLANTING DETAILS
6	IRRIGATION DETAILS		



Underground Service Alert
 Call: TOLL FREE
 1-800-227-2600
 TWO WORKING DAYS BEFORE YOU DIG



4649 Brockton Avenue
 Riverside, CA 92506
 (951) 369-0700
 Fax: (951) 369-4039
 www.comworksdg.com

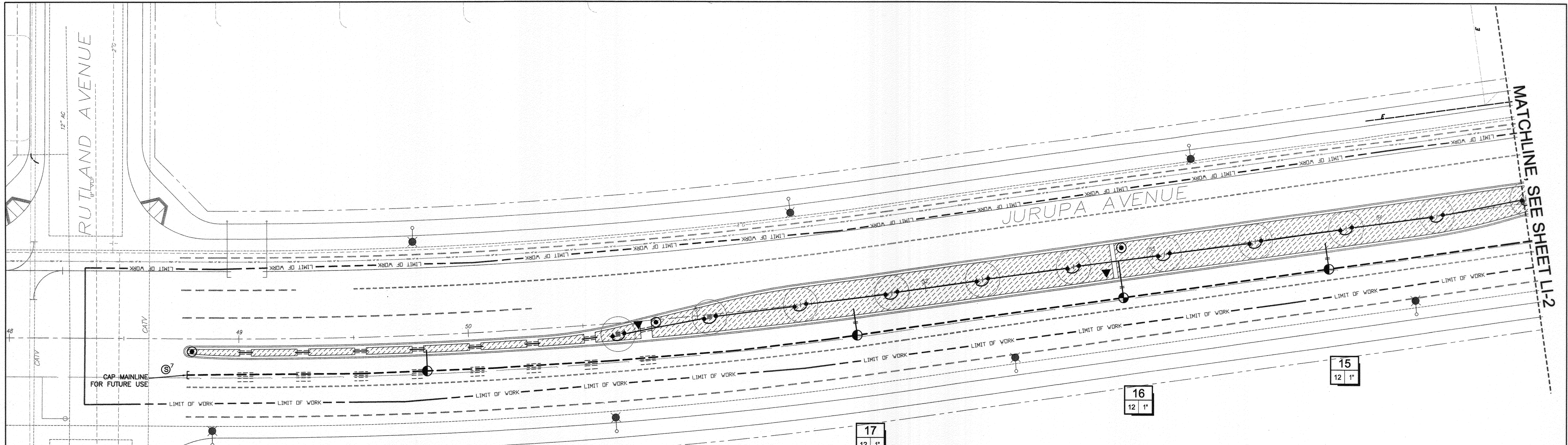
BENCHMARK: G3-F2
 CITY OF RIVERSIDE BENCHMARK No. G3-F2 BRASS DISK IN A MONUMENT WELL AT THE INTERSECTION OF ARLINGTON AVENUE AND VAN BUREN BOULEVARD
ELEVATION: 736.332

REMOVE AND REVISED PLANTING AROUND CULVERTS. ADD PHASE 1 REPAIR WORK	3/9/11
MARK	REVISIONS
DESIGNED BY: KCK	DRAWN BY: KCK
CHECKED BY: TIM	

CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT
 APPROVED BY: [Signature] DATE: 3/15/11
 PRINCIPAL ENGINEER: [Signature] DATE: 3/15/11
 TRAFFIC DIVISION: [Signature] DATE: 3/15/11
 LANDSCAPE DIVISION: [Signature] DATE: 3/15/11
 DATE: 3/15/11

LANDSCAPE & IRRIGATION PLANS
 JURUPA AVENUE
 EXTENSION PHASE 2
 STA. 48+32.98 TO 64+90.00
 TITLE SHEET
 HORIZ. SCALE: 1"=40'-0"

PW07-0110
 ACCOUNT NUMBER
 R-4146L
 SHEET 1 of 10
 JOB NUMBER: 090310



PRESSURE LOSS CALCULATIONS
STATION: 17 FLOW: 12 GPM

LOSS THRU 2" WATER METER	0.10 PSI
LOSS THRU 2" MASTER VALVE	2.90 PSI
LOSS THRU 2" BACKFLOW PREVENTER	11.00 PSI
LOSS THRU 1840' OF 2" MAIN	2.39 PSI
LOSS THRU 1 GATE VALVE	1.00 PSI
LOSS THRU 1" RCV VALVE	2.90 PSI
LOSS THRU LATERAL LINES	1.00 PSI
ELEVATION GAIN / LOSS	-3.46 PSI
MISC. LOSS THRU FITTINGS (10%)	2.50 PSI
TOTAL SYSTEM LOSSES	37.25 PSI
PRESSURE REQUIRED AT HEAD	30.00 PSI
AVAILABLE STATIC PRESSURE	96.00 PSI
REGULATED STATIC PRESSURE	60.00 PSI
RESIDUAL PRESSURE	2.75 PSI

EQUIPMENT LEGEND

SYMBOL	MANUFACTURER/MODEL #	SIZE	DETAIL	NOTES
NOT SHOWN	IRRIGATION WATER METER	2"	N/A	-
NOT SHOWN	EXISTING CALSENSE 12 STATION CONTROLLER. CONTRACTOR TO COORDINATE EXPANSION OF EXISTING CONTROLLER WITH CALSENSE	12 STA.	N/A	-
NOT SHOWN	EXISTING BACKFLOW PREVENTER TO REMAIN, PROTECT IN PLACE	2"	N/A	-
NOT SHOWN	EXISTING PRESSURE REGULATOR TO REMAIN, PROTECT IN PLACE. CONTRACTOR TO ADJUST OUTPUT SETTING TO 60 PSI	2"	N/A	(1,2)
NOT SHOWN	EXISTING MASTER VALVE & FLOW SENSOR TO REMAIN, PROTECT IN PLACE	2"	N/A	(1,2)
⊘	NIBCO T-113-K BRONZE BALL VALVE	2"	'A', LI-4	(1,2)
●	RAINBIRD 44NP QUICK COUPLING VALVE	1"	'B', LI-4	(1,2)
⊕	TORO DZK-TVP-1-MF DRIP CONTROL ZONE ASSEMBLY	1"	'C', LI-4	(1,2)
⊕	TORO P-22-S+EFF-KIT-60HZ REMOTE CONTROL VALVE	1"	'D', LI-4	(1,2)
⊕	TORO YD-500-34 AIR/VACUUM RELIEF VALVE (LOCATE AT HIGHEST POINT)	3/4"	'B', LI-5	(1,2)
▽	TORO FCH-H FLUSH VALVE	3/4"	'C', LI-5	(1,2)
---	EXISTING IRRIGATION MAINLINE TO REMAIN, PROTECT IN PLACE	2"	N/A	(1,2)
---	CLS 315 NON-POTABLE PURPLE PVC IRRIGATION MAINLINE (DIAGRAMMATIC LOCATION) - 24" MIN. COVER	2"	'E', LI-4	(1,2)
---	SCHEDULE 40 NON-POTABLE PURPLE PVC NON-PRESSURE LATERAL LINE - 12" MIN. COVER	PLAN SIZE	'E', LI-4	(1,2)
---	TORO RGP-218-E DRIFLINE AT 18" O.C.	5/8"	'D'-G', LI-5	(2)
---	SCH 40 PVC IRRIGATION PIPE / WIRE SLEEVE - 24" MIN. COVER	SEE CHART	'F', LI-4	-
NOT SHOWN	UF RATED CONTROL WIRE, 12 GA COMMON, 14 GA PILOT	12/14 GA	'G', LI-4	-
Ⓢ ¹	SPARE WIRES PULLED	-	'H', LI-4	(1)
Ⓟ	CONTROL WIRE PULL BOX	-	'H', LI-4	(1)
Ⓛ	SOLVENT WELD LINE SIZE PVC CAP WITH 1.5 CU. FT. CONCRETE THRUST BLOCK	N/A	N/A	(1,2)
◆	RAINBIRD RWS-C-B-1402 ROOT WATERING SYSTEM	0.50 GPM	'H', LI-5	-

(1) PIPING AND VALVES ARE SHOWN IN HARDSCAPE FOR CLARITY ONLY. IRRIGATION PLANS ARE DIAGRAMMATIC.
(2) ALL IRRIGATION EQUIPMENT AND PIPING TO BE EQUIPPED WITH NON-POTABLE WATER COMPONENTS.

DRIFLINE FORMULAS PER DESIGN GUIDES

TOTAL LENGTH OF DRIFLINE = $\frac{\text{AREA} \times 12}{\text{O.C. LINE SPACING}}$

TOTAL NUMBER OF EMITTERS = $\frac{\text{LENGTH OF DRIFLINE} \times 12}{\text{EMITTER SPACING}}$

TOTAL GPM = $\frac{\text{NUMBER OF EMITTERS} \times \text{GPH}}{60}$

PIPE SIZING CHART

---	3/4" PIPE
---	1" PIPE
---	1 1/4" PIPE
---	1 1/2" PIPE
---	2" PIPE
---	2 1/2" PIPE
---	3" PIPE
---	4" PIPE
---	6" PIPE
---	8" PIPE

SCH 40 PVC SLEEVING CHART

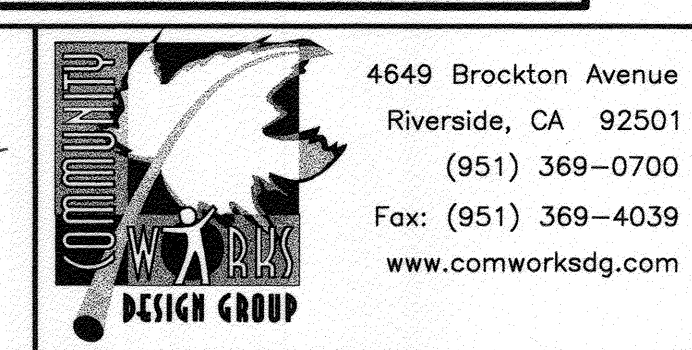
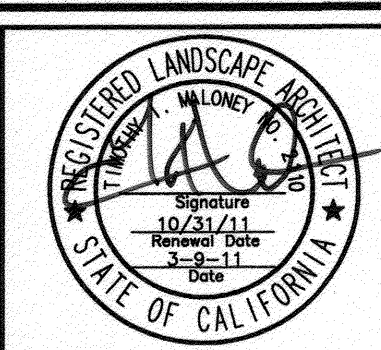
1 1/4" SLEEVE	1-4 WIRES	1/2" PIPE
1 1/2" SLEEVE	5-10 WIRES	3/4" PIPE
2" SLEEVE	11-20 WIRES	1" PIPE
2 1/2" SLEEVE	21-30 WIRES	1 1/4" PIPE
3" SLEEVE	31-40 WIRES	1 1/2" PIPE
4" SLEEVE	41-60 WIRES	2" PIPE
6" SLEEVE	61-99 WIRES	2 1/2"-3" PIPE
8" SLEEVE	100+ WIRES	4" PIPE
10" SLEEVE	N/A	6" PIPE

STATION # / CONTROLLER

FLOW (GPM)	VALVE SIZE
------------	------------

- PHASE 1 REPAIR WORK TO BE INCLUDED:**
- RUN ADDITIONAL WIRE & REWIRE REMOTE CONTROL VALVES TO EXISTING CONTROLLER WHERE WIRES HAVE BEEN CUT AND STOLEN (3 VALVES)
 - REPLACE (2) DAMAGED REMOTE CONTROL VALVE BOXES
 - REWIRE IRRIGATION CONTROLLER TO STREET LIGHT CIRCUIT WIRES (COORDINATE WITH REPLACEMENT OF STREET LIGHT CIRCUIT WIRES)
 - INSTALL (20) SPARE WIRES FROM CONTROLLER TO PHASE 1 SPARE WIRE BOX.
- CONTRACTOR TO COORDINATE REPAIR OF PHASE 1 IRRIGATION WITH THE CITY OF RIVERSIDE

Underground Service Alert
Call: TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG



BENCHMARK: G3-F2
CITY OF RIVERSIDE BENCHMARK No. G3-F2 BRASS DISK IN A MONUMENT WELL AT THE INTERSECTION OF ARLINGTON AVENUE AND VAN BUREN BOULEVARD
ELEVATION: 736.332

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: BF DRAWN BY: BF CHECKED BY: TIM

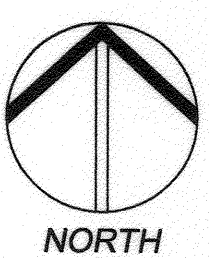
CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT

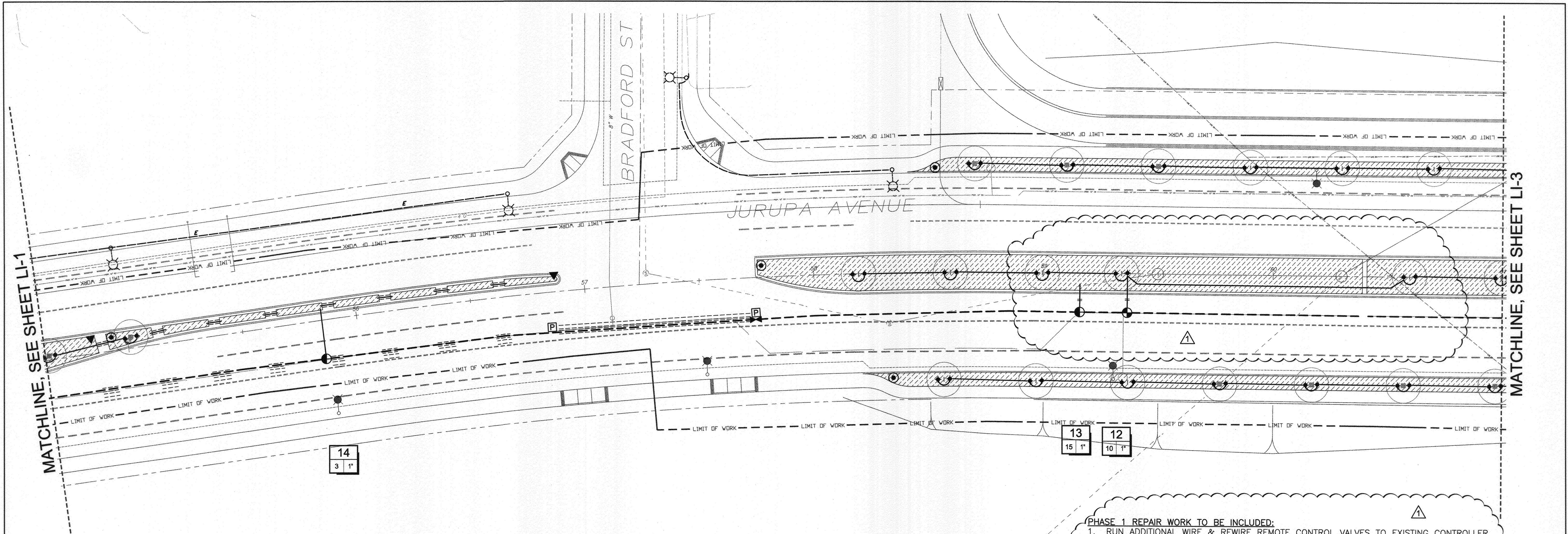
APPROVED BY	DATE	BY	APPROVED BY
PRINCIPAL ENGINEER	2-11-11		
TRAFFIC DIVISION	2-11-11		
LANDSCAPE DIV.	2-11-11		

DATE: 3/15/11

LANDSCAPE & IRRIGATION PLANS
JURUPA AVENUE EXTENSION PHASE 2
STA. 48+32.98 TO 54+64.52
LI-1 IRRIGATION PLAN
HORIZ. SCALE: 1"=20'

PW07-0110
ACCOUNT NUMBER
R-4146L
SHEET 2 of 10
JOB NUMBER: 090310





EQUIPMENT LEGEND				
SYMBOL	MANUFACTURER/MODEL #	SIZE	DETAIL	NOTES
NOT SHOWN	IRRIGATION WATER METER	2"	N/A	-
NOT SHOWN	EXISTING CALSENSE 12 STATION CONTROLLER. CONTRACTOR TO COORDINATE EXPANSION OF EXISTING CONTROLLER WITH CALSENSE	12 STA.	N/A	-
NOT SHOWN	EXISTING BACKFLOW PREVENTER TO REMAIN, PROTECT IN PLACE	2"	N/A	-
NOT SHOWN	EXISTING PRESSURE REGULATOR TO REMAIN, PROTECT IN PLACE. CONTRACTOR TO ADJUST OUTPUT SETTING TO 60 PSI	2"	N/A	(1,2)
NOT SHOWN	EXISTING MASTER VALVE & FLOW SENSOR TO REMAIN, PROTECT IN PLACE	2"	N/A	(1,2)
	NIBCO T-113-K BRONZE BALL VALVE	2"	'A', LI-4	(1,2)
	RAINBIRD 44NP QUICK COUPLING VALVE	1"	'B', LI-4	(1,2)
	TORO DZK-TVP-1-MF DRIP CONTROL ZONE ASSEMBLY	1"	'C', LI-4	(1,2)
	TORO P-22-S+EFF-KIT-60HZ REMOTE CONTROL VALVE	1"	'D', LI-4	(1,2)
	TORO YD-500-34 AIR/VACUUM RELIEF VALVE (LOCATE AT HIGHEST POINT)	3/4"	'B', LI-5	(1,2)
	TORO FCH-H FLUSH VALVE	3/4"	'C', LI-5	(1,2)
	EXISTING IRRIGATION MAINLINE TO REMAIN, PROTECT IN PLACE	2"	N/A	(1,2)
	CLS 315 NON-POTABLE PURPLE PVC IRRIGATION MAINLINE (DIAGRAMMATIC LOCATION) - 24" MIN. COVER	2"	'E', LI-4	(1,2)
	SCHEDULE 40 NON-POTABLE PURPLE PVC NON-PRESSURE LATERAL LINE - 12" MIN. COVER	PLAN SIZE	'E', LI-4	(1,2)
	TORO RGP-218-E DRIPLINE AT 18" O.C.	5/8"	'D'-G', LI-5	(2)
	SCH 40 PVC IRRIGATION PIPE / WIRE SLEEVE - 24" MIN. COVER	SEE CHART	'F', LI-4	-
NOT SHOWN	UF RATED CONTROL WIRE, 12 GA COMMON, 14 GA PILOT	12/14 GA	'G', LI-4	-
	SPARE WIRES PULLED	-	'H', LI-4	(1)
	CONTROL WIRE PULL BOX	-	'H', LI-4	(1)
	SOLVENT WELD LINE SIZE PVC CAP WITH 1.5 CU. FT. CONCRETE THRUST BLOCK	N/A	N/A	(1,2)
	RAINBIRD RWS-C-B-1402 ROOT WATERING SYSTEM	0.50 GPM	'H', LI-5	-

(1) PIPING AND VALVES ARE SHOWN IN HARDSCAPE FOR CLARITY ONLY. IRRIGATION PLANS ARE DIAGRAMMATIC.
 (2) ALL IRRIGATION EQUIPMENT AND PIPING TO BE EQUIPPED WITH NON-POTABLE WATER COMPONENTS.

PHASE 1 REPAIR WORK TO BE INCLUDED:

1. RUN ADDITIONAL WIRE & REWIRE REMOTE CONTROL VALVES TO EXISTING CONTROLLER WHERE WIRES HAVE BEEN CUT AND STOLEN (3 VALVES)
2. REPLACE (2) DAMAGED REMOTE CONTROL VALVE BOXES
3. REWIRE IRRIGATION CONTROLLER TO STREET LIGHT CIRCUIT WIRES (COORDINATE WITH REPLACEMENT OF STREET LIGHT CIRCUIT WIRES)
4. INSTALL (20) SPARE WIRES FROM CONTROLLER TO PHASE 1 SPARE WIRE BOX.

CONTRACTOR TO COORDINATE REPAIR OF PHASE 1 IRRIGATION WITH THE CITY OF RIVERSIDE

DRIPLINE FORMULAS PER DESIGN GUIDES

$$\text{TOTAL LENGTH OF DRIPLINE} = \frac{\text{AREA} \times 12}{\text{O.C. LINE SPACING}}$$

$$\text{TOTAL NUMBER OF EMITTERS} = \frac{\text{LENGTH OF DRIPLINE} \times 12}{\text{EMITTER SPACING}}$$

$$\text{TOTAL GPM} = \frac{\text{NUMBER OF EMITTERS} \times \text{GPH}}{60}$$

PIPE SIZING CHART

3/4" PIPE
1" PIPE
1 1/4" PIPE
1 1/2" PIPE
2" PIPE
2 1/2" PIPE
3" PIPE
4" PIPE
6" PIPE
8" PIPE

SCH 40 PVC SLEEVING CHART

1 1/4" SLEEVE	1-4 WIRES	1/2" PIPE
1 1/2" SLEEVE	5-10 WIRES	3/4" PIPE
2" SLEEVE	11-20 WIRES	1" PIPE
2 1/2" SLEEVE	21-30 WIRES	1 1/4" PIPE
3" SLEEVE	31-40 WIRES	1 1/2" PIPE
4" SLEEVE	41-60 WIRES	2" PIPE
6" SLEEVE	61-99 WIRES	2 1/2"-3" PIPE
8" SLEEVE	100+ WIRES	4" PIPE
10" SLEEVE	N/A	6" PIPE

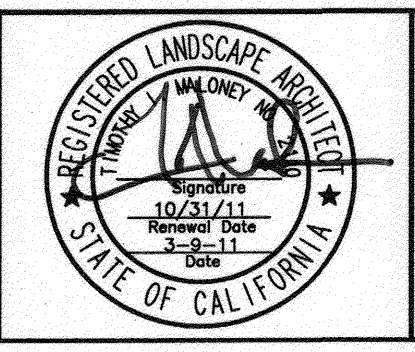
STATION # / CONTROLLER

FLOW (GPM)	VALVE SIZE
------------	------------

Underground Service Alert

Call: TOLL FREE
1-800-227-2600

TWO WORKING DAYS BEFORE YOU DIG



COMWORKS DESIGN GROUP

4649 Brockton Avenue
Riverside, CA 92501
(951) 369-0700
Fax: (951) 369-4039
www.comworksdesign.com

BENCHMARK: G3-F2
 CITY OF RIVERSIDE BENCHMARK No. G3-F2 BRASS DISK IN A MONUMENT WELL AT THE INTERSECTION OF ARLINGTON AVENUE AND VAN BUREN BOULEVARD

ELEVATION: 736.332

REMOVE AND REVISED PLANTING AROUND CULVERTS. ADD PHASE 1 REPAIR WORK	3/9/11
REVISIONS	APPR. DATE
DESIGNED BY: BF	DRAWN BY: BF
CHECKED BY: TIM	

CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT

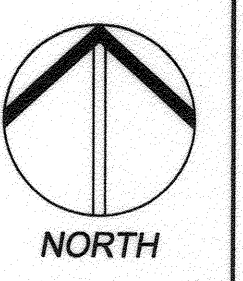
APPROVED BY: *[Signature]* DATE: 3-11-11
 PRINCIPAL ENGINEER
 TRAFFIC DIVISION
 LANDSCAPE DIVISION 1-R-11 1/2

APPROVED BY: *[Signature]* DATE: 3/11/11
 CITY ENGINEER

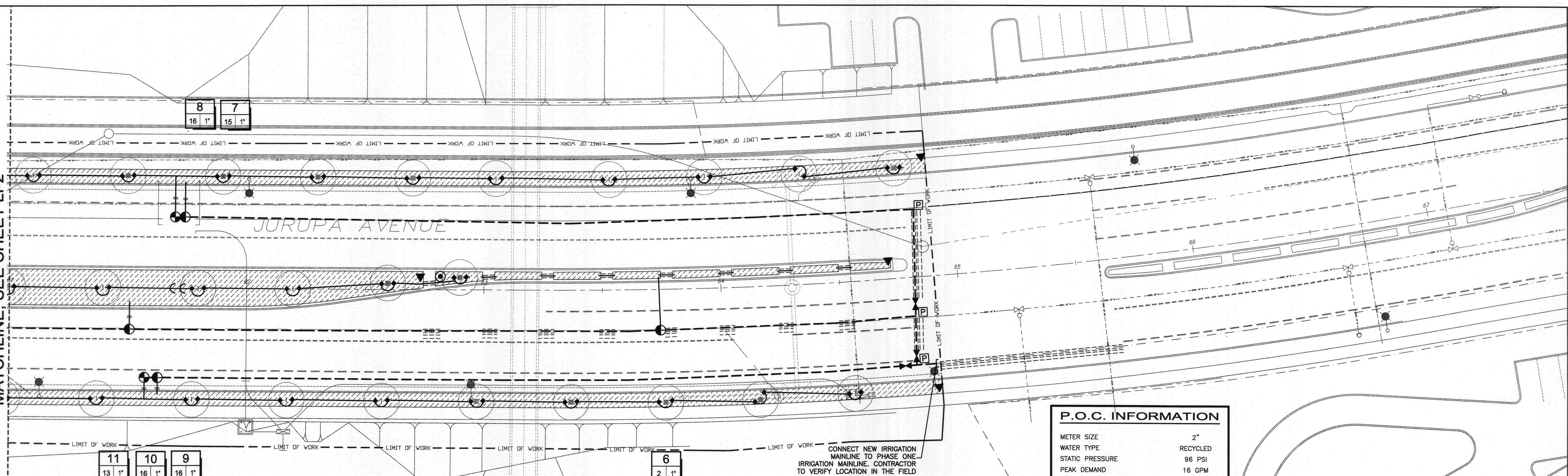
DATE: 3/11/11

LANDSCAPE & IRRIGATION PLANS
JURUPA AVENUE EXTENSION PHASE 2
 STA. 54+64.52 TO 61.00+00
 LI-2 IRRIGATION PLAN
 HORIZ. SCALE: 1"=20'

PW07-0110
 ACCOUNT NUMBER
R-4146L
 SHEET 3 of 10
 JOB NUMBER: 090310



MATCHLINE, SEE SHEET LI-2



PRESSURE LOSS CALCULATIONS
STATION: 10 FLOW: 16 GPM

LOSS THRU 2" WATER METER	0.10 PSI
LOSS THRU 2" MASTER VALVE	2.90 PSI
LOSS THRU 2" BACKFLOW PREVENTER	11.00 PSI
LOSS THRU 85' OF 2" MAIN	1.88 PSI
LOSS THRU 1 GATE VALVE	1.00 PSI
LOSS THRU 1" RCV VALVE	2.90 PSI
LOSS THRU LATERAL LINES	1.50 PSI
ELEVATION GAIN / LOSS	-2.16 PSI
MISC. LOSS THRU FITTINGS (10%)	2.50 PSI
TOTAL SYSTEM LOSSES	25.95 PSI
PRESSURE REQUIRED AT HEAD	30.00 PSI
AVAILABLE STATIC PRESSURE	96.00 PSI
REGULATED STATIC PRESSURE	60.00 PSI
RESIDUAL PRESSURE	4.05 PSI

P.O.C. INFORMATION

METER SIZE	2"
WATER TYPE	RECYCLED
STATIC PRESSURE	96 PSI
PEAK DEMAND	16 GPM
SOURCE AT CRWD	TONI
DATE INFO OBTAINED	3/23/09

EQUIPMENT LEGEND

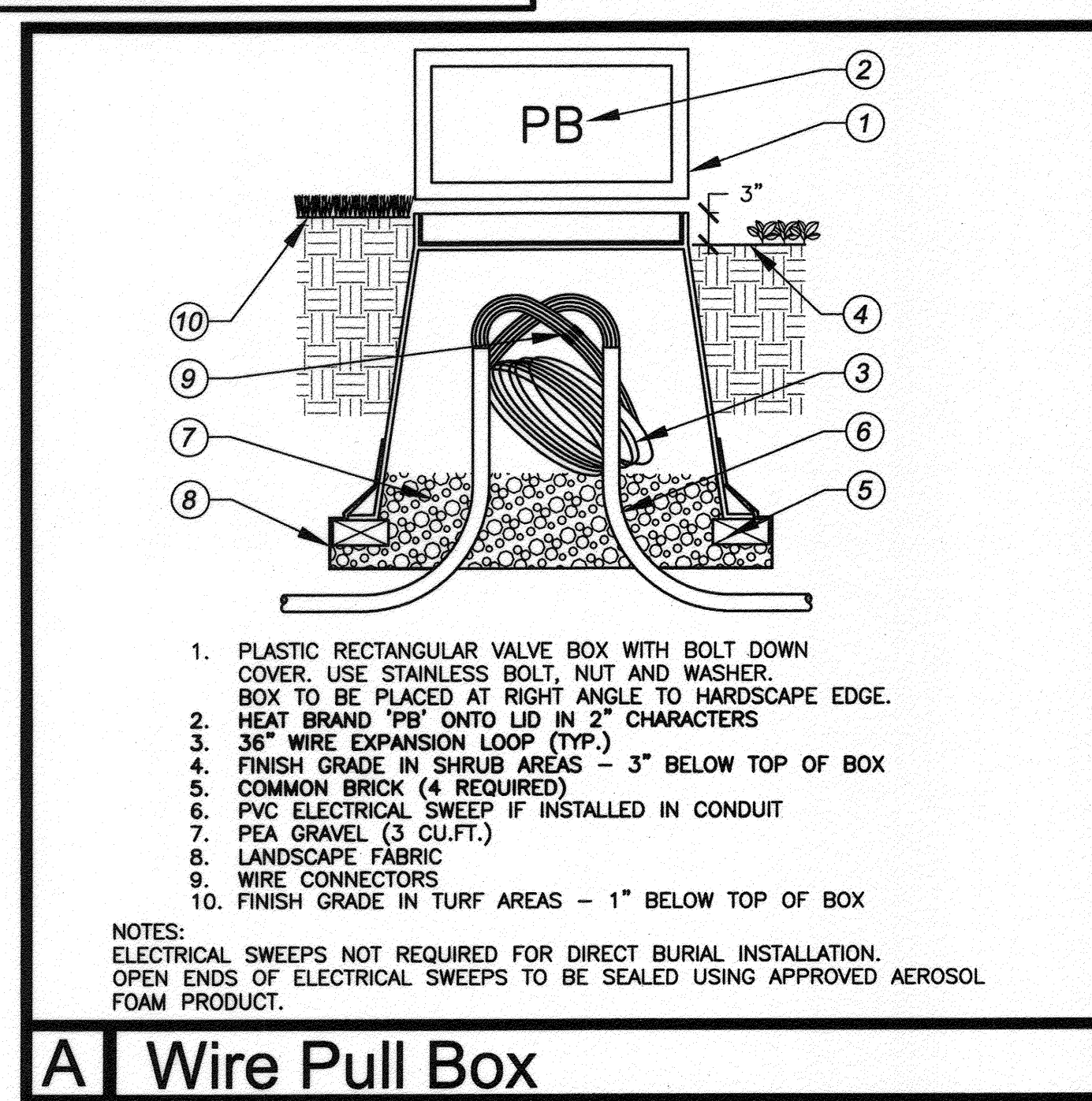
SYMBOL	MANUFACTURER/MODEL #	SIZE	DETAIL	NOTES
NOT SHOWN	IRRIGATION WATER METER	2"	N/A	-
NOT SHOWN	EXISTING CALSENSE 12 STATION CONTROLLER, CONTRACTOR TO COORDINATE EXPANSION OF EXISTING CONTROLLER WITH CALSENSE	12 STA.	N/A	-
NOT SHOWN	EXISTING BACKFLOW PREVENTER TO REMAIN, PROTECT IN PLACE	2"	N/A	-
NOT SHOWN	EXISTING PRESSURE REGULATOR TO REMAIN, PROTECT IN PLACE, CONTRACTOR TO ADJUST OUTPUT SETTING TO 60 PSI	2"	N/A	(1,2)
NOT SHOWN	EXISTING MASTER VALVE & FLOW SENSOR TO REMAIN, PROTECT IN PLACE	2"	N/A	(1,2)
⊘	NIBCO T-113-K BRONZE BALL VALVE	2"	'A', LI-4	(1,2)
●	RAINBIRD 44NP QUICK COUPLING VALVE	1"	'B', LI-4	(1,2)
⊕	TORO DZK-TVP-1-MF DRIP CONTROL ZONE ASSEMBLY	1"	'C', LI-4	(1,2)
⊖	TORO P-22-S+EFF-KIT-60HZ REMOTE CONTROL VALVE	1"	'D', LI-4	(1,2)
⊙	TORO YD-500-34 AIR/VACUUM RELIEF VALVE (LOCATE AT HIGHEST POINT)	3/4"	'B', LI-5	(1,2)
▽	TORO FCH-H FLUSH VALVE	3/4"	'C', LI-5	(1,2)
---	EXISTING IRRIGATION MAINLINE TO REMAIN, PROTECT IN PLACE	2"	N/A	(1,2)
---	CLS 315 NON-POTABLE PURPLE PVC IRRIGATION MAINLINE (DIAGRAMMATIC LOCATION) - 24" MIN. COVER	2"	'E', LI-4	(1,2)
---	SCHEDULE 40 NON-POTABLE PURPLE PVC NON-PRESSURE LATERAL LINE - 12" MIN. COVER	PLAN SIZE	'E', LI-4	(1,2)
---	TORO RGP-218-E DRIPLINE AT 18" O.C.	5/8"	'D', LI-5	(2)
---	SCH 40 PVC IRRIGATION PIPE / WIRE SLEEVE - 24" MIN. COVER	SEE CHART	'F', LI-4	-
○	NOT SHOWN UF RATED CONTROL WIRE, 12 GA COMMON, 14 GA PILOT	12/14 GA	'G', LI-4	-
Ⓢ	SPARE WIRES PULLED	-	'H', LI-4	(1)
P	CONTROL WIRE PULL BOX	-	'H', LI-4	(1)
□	SOLVENT WELD LINE SIZE PVC CAP WITH 1.5 CU. FT. CONCRETE THRUST BLOCK	N/A	N/A	(1,2)
+	RAINBIRD RWS-C-B-1402 ROOT WATERING SYSTEM	0.50 GPM	'H', LI-5	-

(1) PIPING AND VALVES ARE SHOWN IN HARDSCAPE FOR CLARITY ONLY. IRRIGATION PLANS ARE DIAGRAMMATIC.
(2) ALL IRRIGATION EQUIPMENT AND PIPING TO BE EQUIPPED WITH NON-POTABLE WATER COMPONENTS.

- PHASE 1 REPAIR WORK TO BE INCLUDED:**
- RUN ADDITIONAL WIRE & REWIRE REMOTE CONTROL VALVES TO EXISTING CONTROLLER WHERE WIRES HAVE BEEN CUT AND STOLEN (3 VALVES)
 - REPLACE (2) DAMAGED REMOTE CONTROL VALVE BOXES
 - REWIRE IRRIGATION CONTROLLER TO STREET LIGHT CIRCUIT WIRES (COORDINATE WITH REPLACEMENT OF STREET LIGHT CIRCUIT WIRES)
 - INSTALL (20) SPARE WIRES FROM CONTROLLER TO PHASE 1 SPARE WIRE BOX.
- CONTRACTOR TO COORDINATE REPAIR OF PHASE 1 IRRIGATION WITH THE CITY OF RIVERSIDE

DRIPLINE FORMULAS PER DESIGN GUIDES

TOTAL LENGTH OF DRIPLINE	=	AREA x 12	O.C. LINE SPACING
TOTAL NUMBER OF EMITTERS	=	LENGTH OF DRIPLINE x 12	EMITTER SPACING
TOTAL GPM	=	NUMBER OF EMITTERS x GPH	60

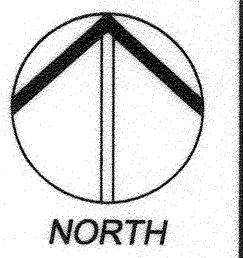
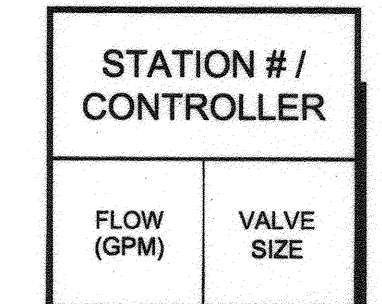


PIPE SIZING CHART

---	3/4" PIPE
---	1" PIPE
---	1 1/4" PIPE
---	1 1/2" PIPE
---	2" PIPE
---	2 1/2" PIPE
---	3" PIPE
---	4" PIPE
---	6" PIPE
---	8" PIPE

SCH 40 PVC SLEEVING CHART

1 1/4" SLEEVE	1-4 WIRES	1/2" PIPE
1 1/2" SLEEVE	5-10 WIRES	3/4" PIPE
2" SLEEVE	11-20 WIRES	1" PIPE
2 1/2" SLEEVE	21-30 WIRES	1 1/4" PIPE
3" SLEEVE	31-40 WIRES	1 1/2" PIPE
4" SLEEVE	41-60 WIRES	2" PIPE
6" SLEEVE	61-99 WIRES	2 1/2"-3" PIPE
8" SLEEVE	100+ WIRES	4" PIPE
10" SLEEVE	N/A	6" PIPE



A Wire Pull Box

Underground Service Alert

Call: TOLL FREE
1-800-227-2600

TWO WORKING DAYS BEFORE YOU DIG

4649 Brockton Avenue
Riverside, CA 92501
(951) 369-0700
Fax: (951) 369-4039
www.comworksdg.com

BENCHMARK : G3-F2
CITY OF RIVERSIDE BENCHMARK No. G3-F2 BRASS DISK IN A MONUMENT WELL AT THE INTERSECTION OF ARLINGTON AVENUE AND VAN BUREN BOULEVARD

ELEVATION : 736.332

DESIGNED BY: BF DRAWN BY: BF CHECKED BY: TIM

CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT

APPROVED BY: [Signature] DATE: 3/15/14
PRINCIPAL ENGINEER

TRAFFIC DIVISION: [Signature] DATE: 1-14-11
LANDSCAPE DIVISION: [Signature] DATE: 1-14-11

APPROVED BY: [Signature] DATE: 3/15/14
CITY ENGINEER

LANDSCAPE & IRRIGATION PLANS

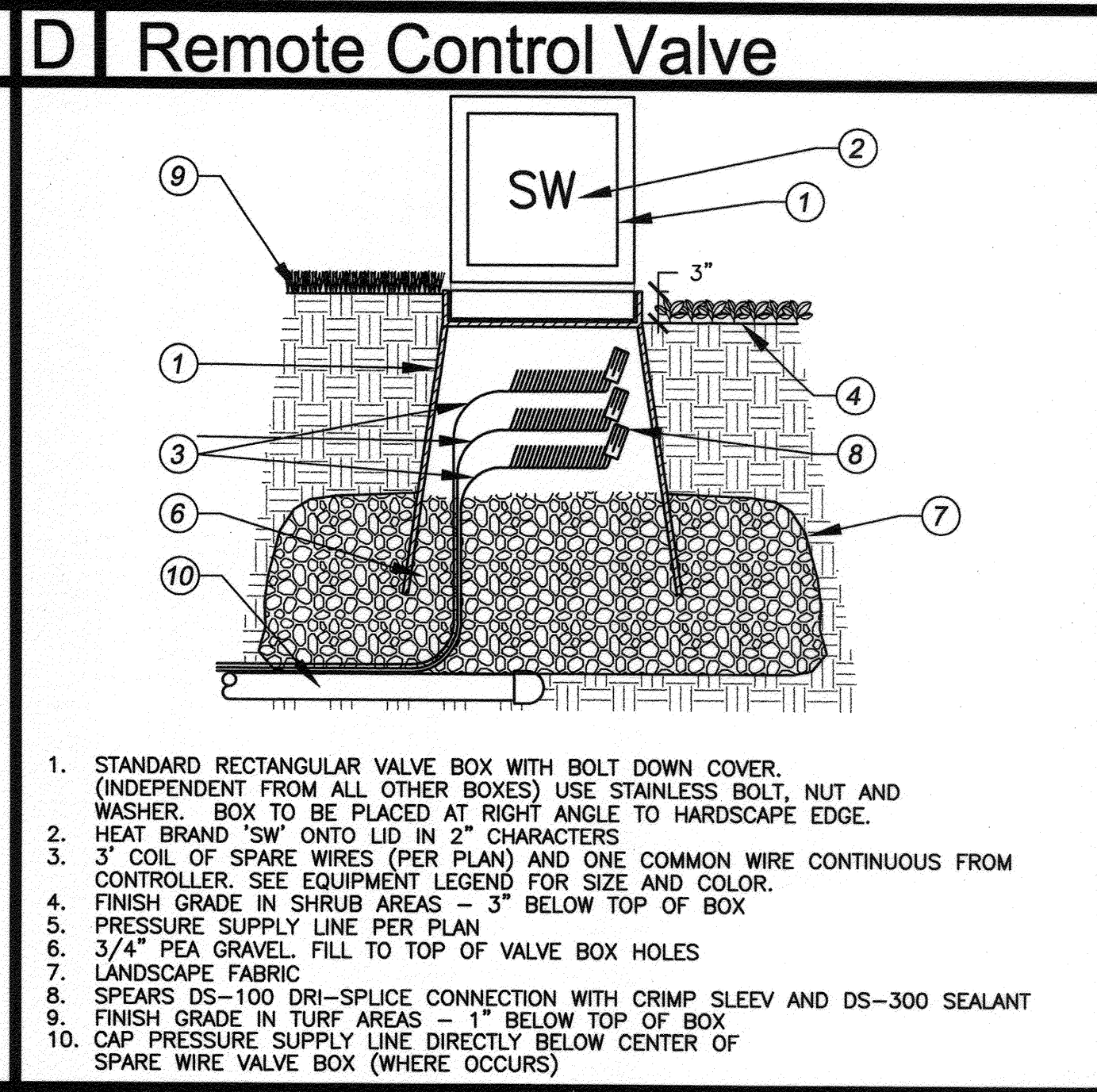
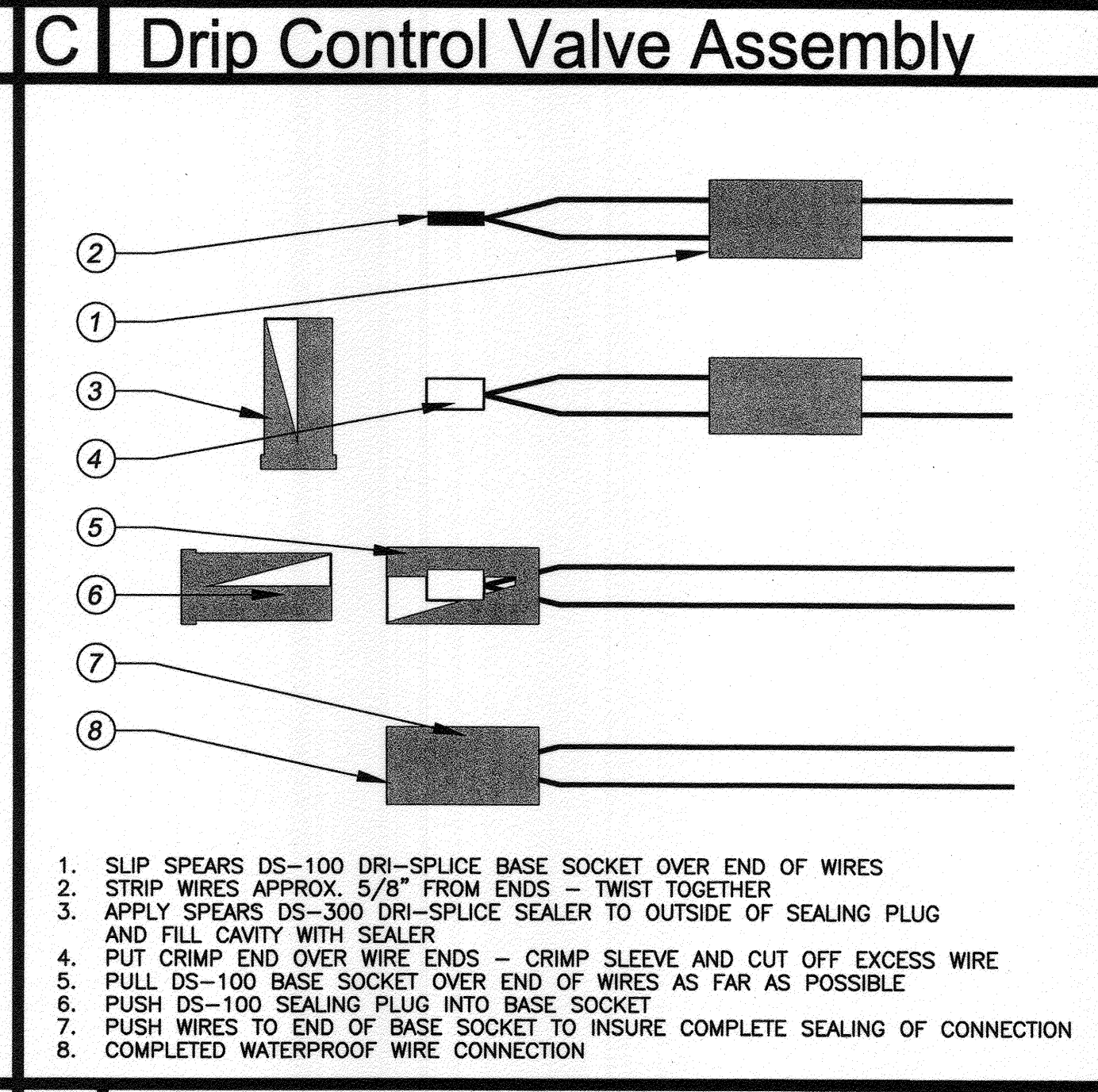
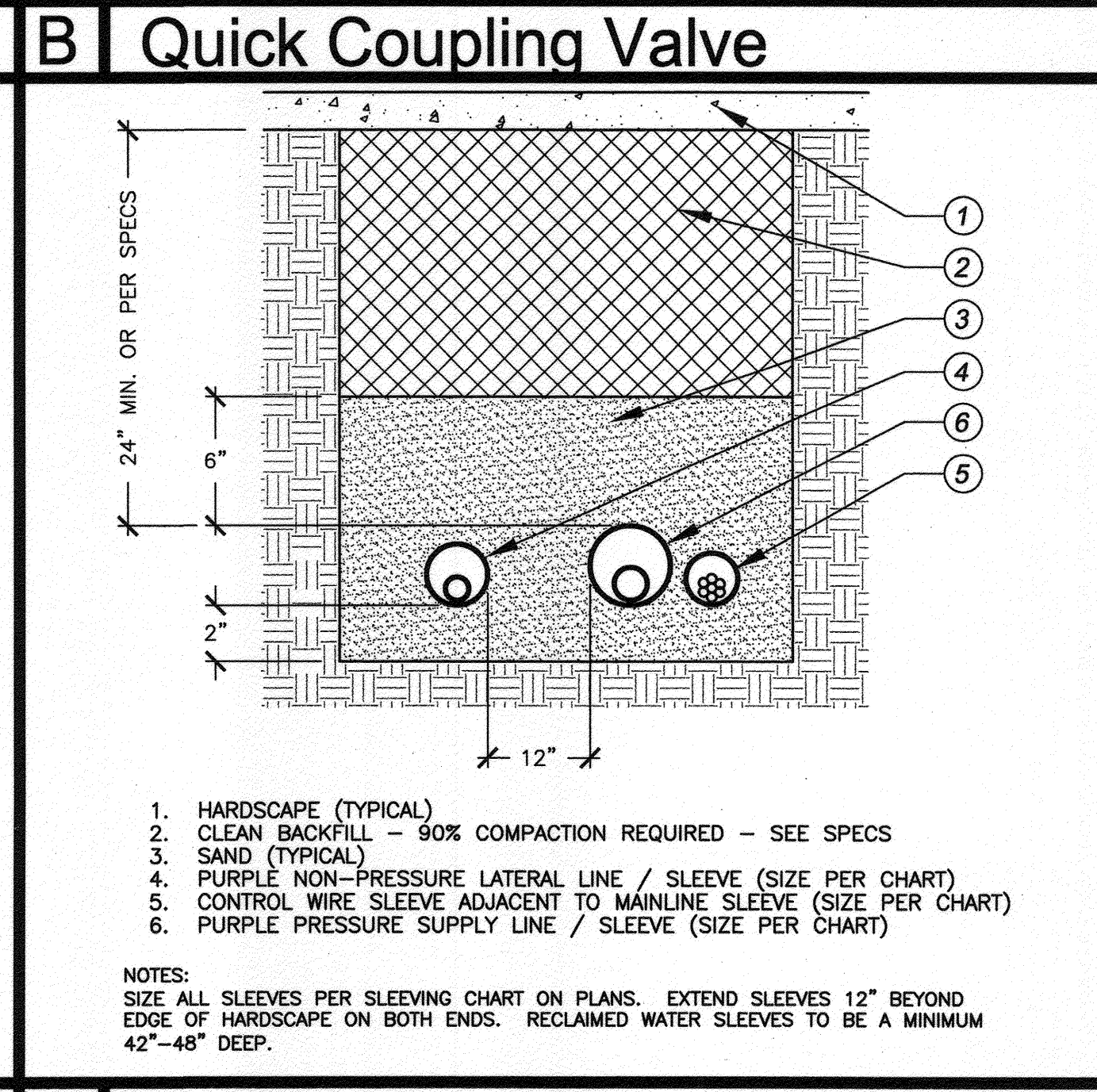
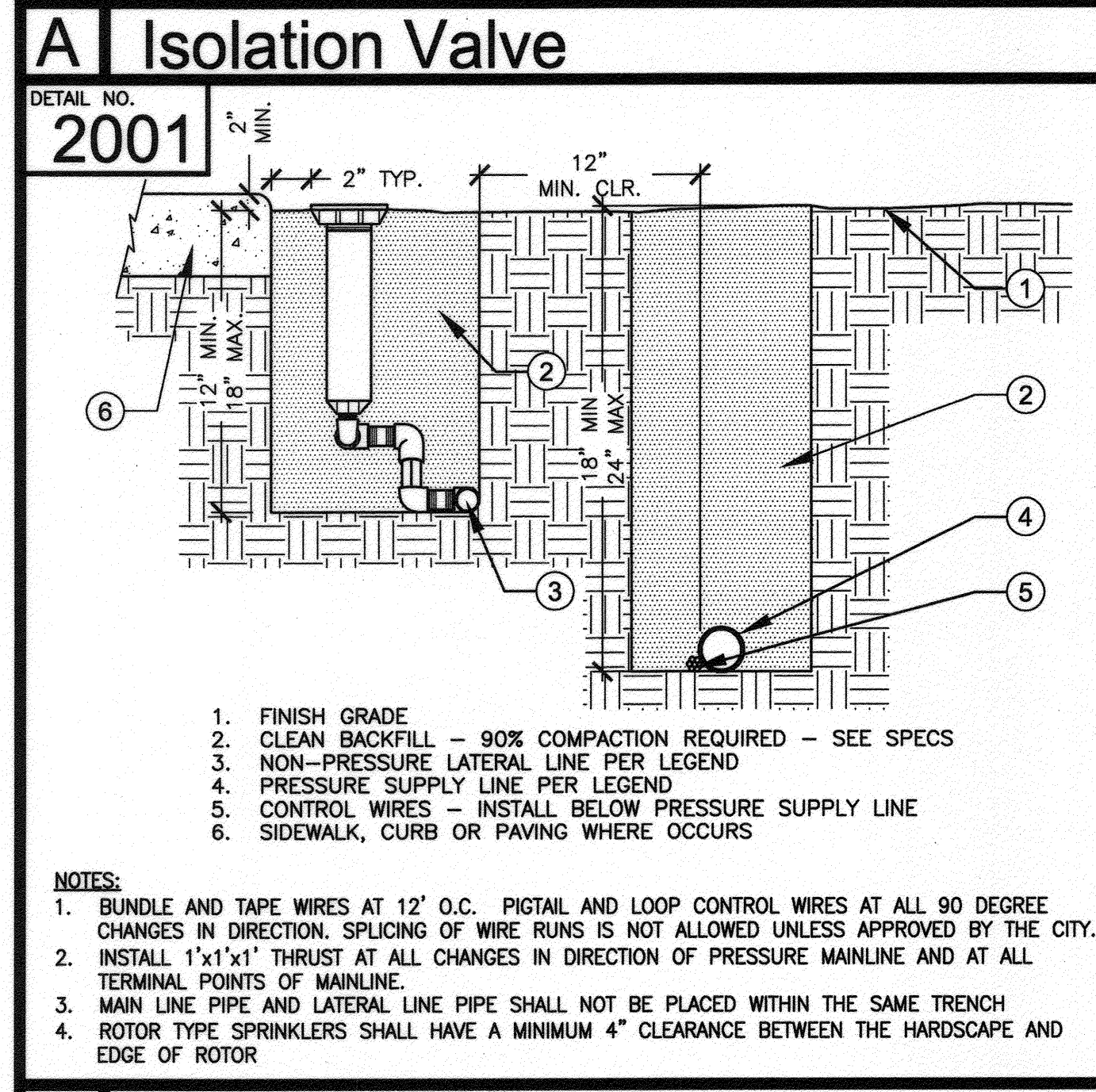
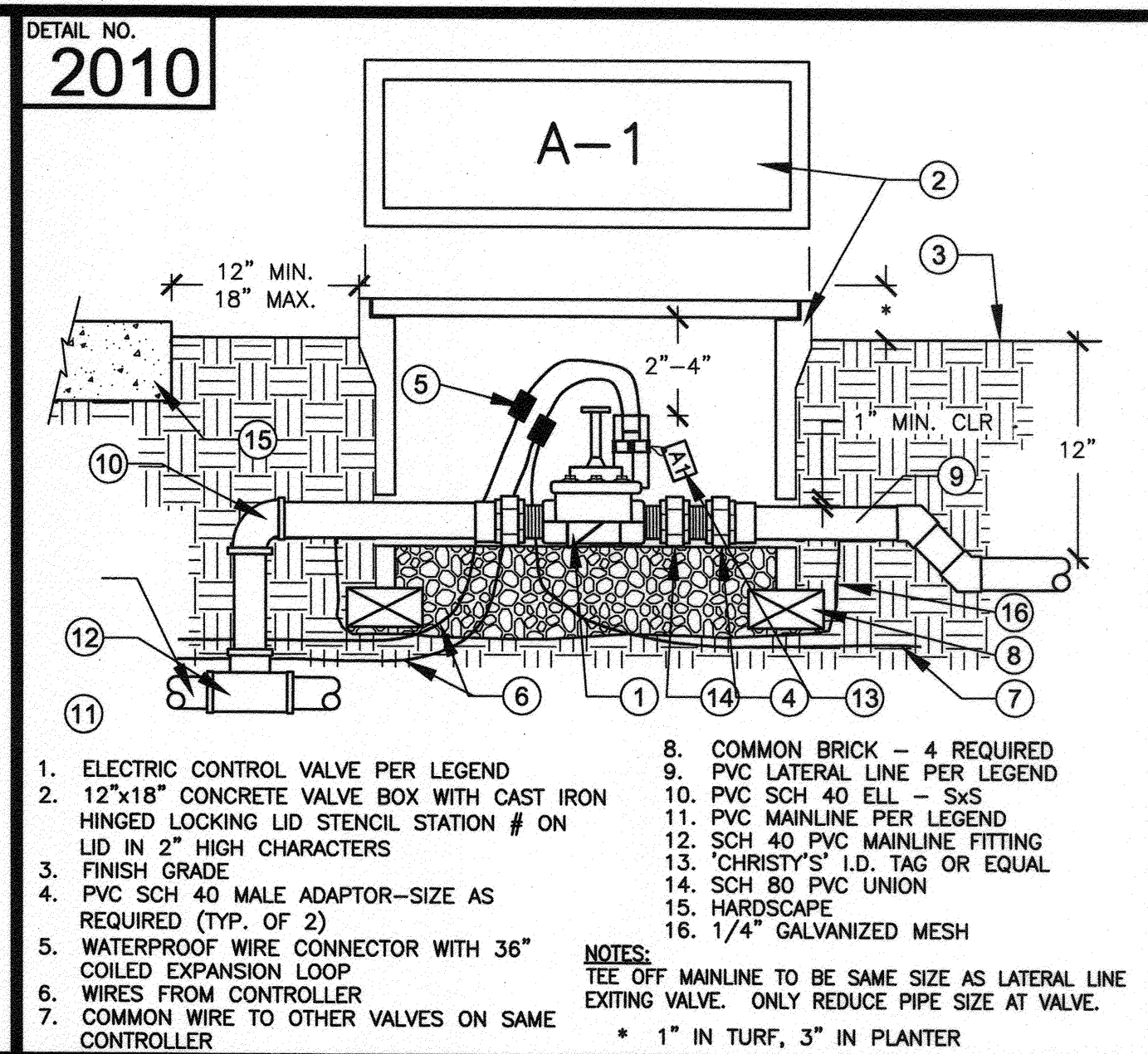
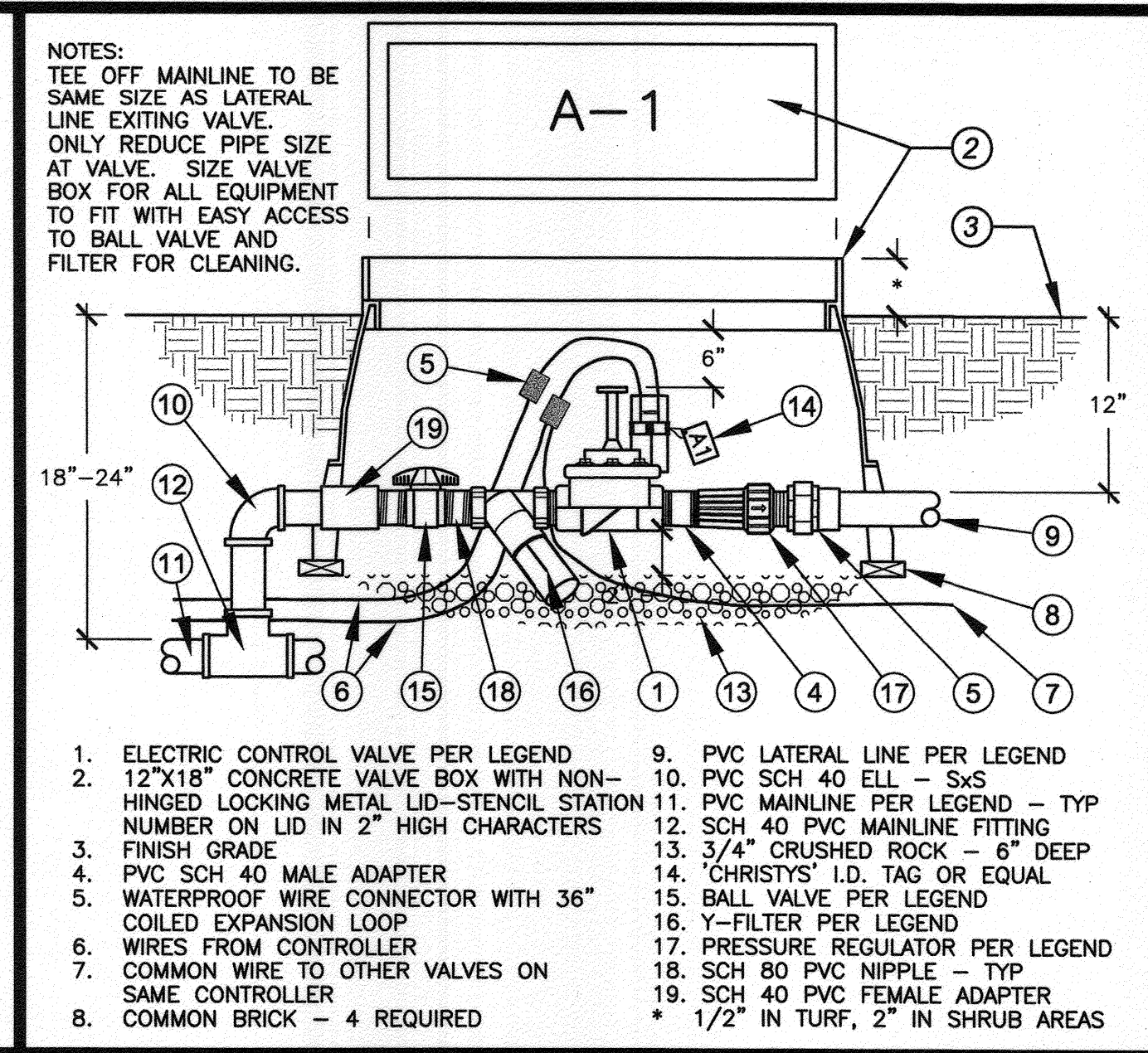
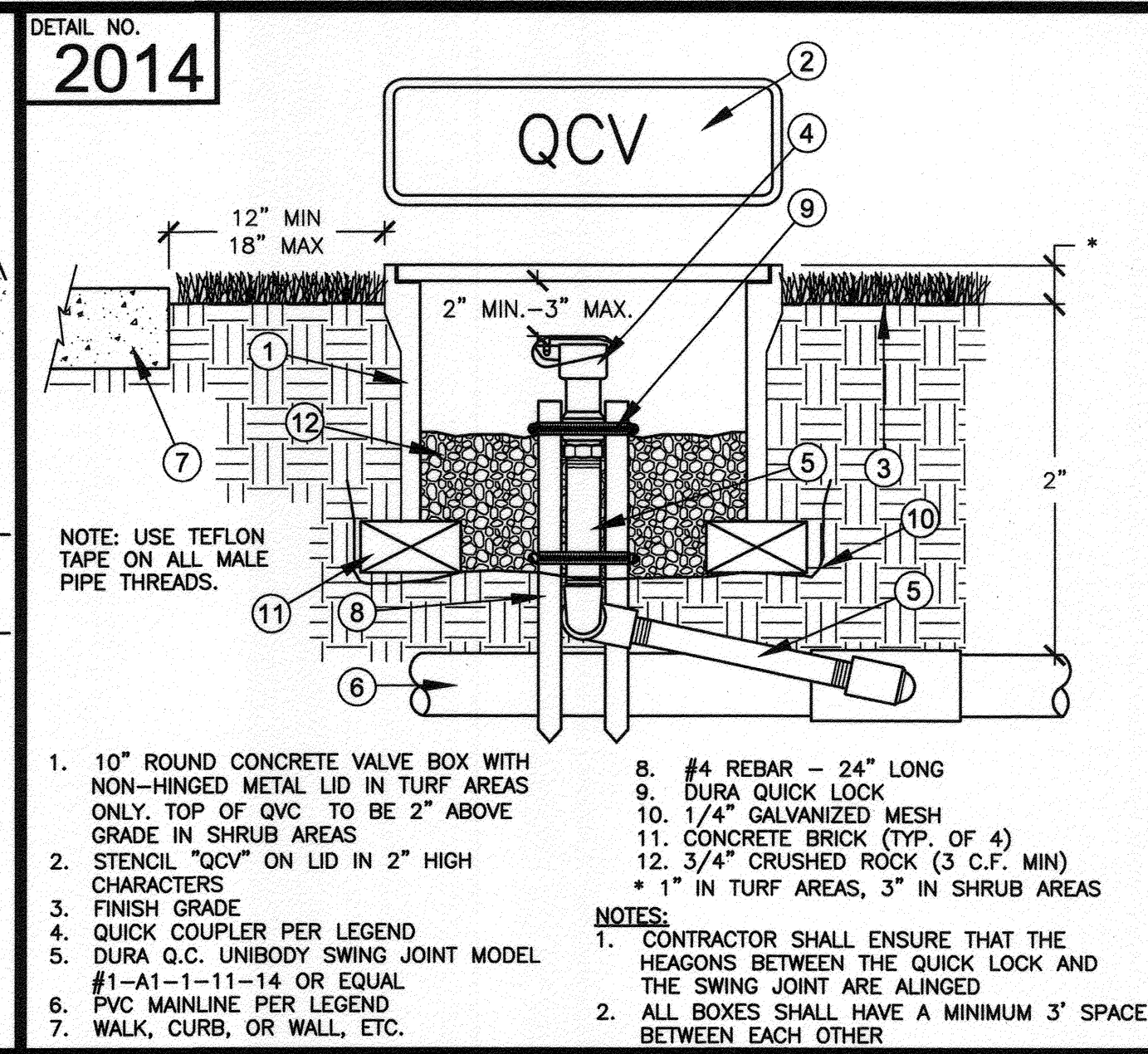
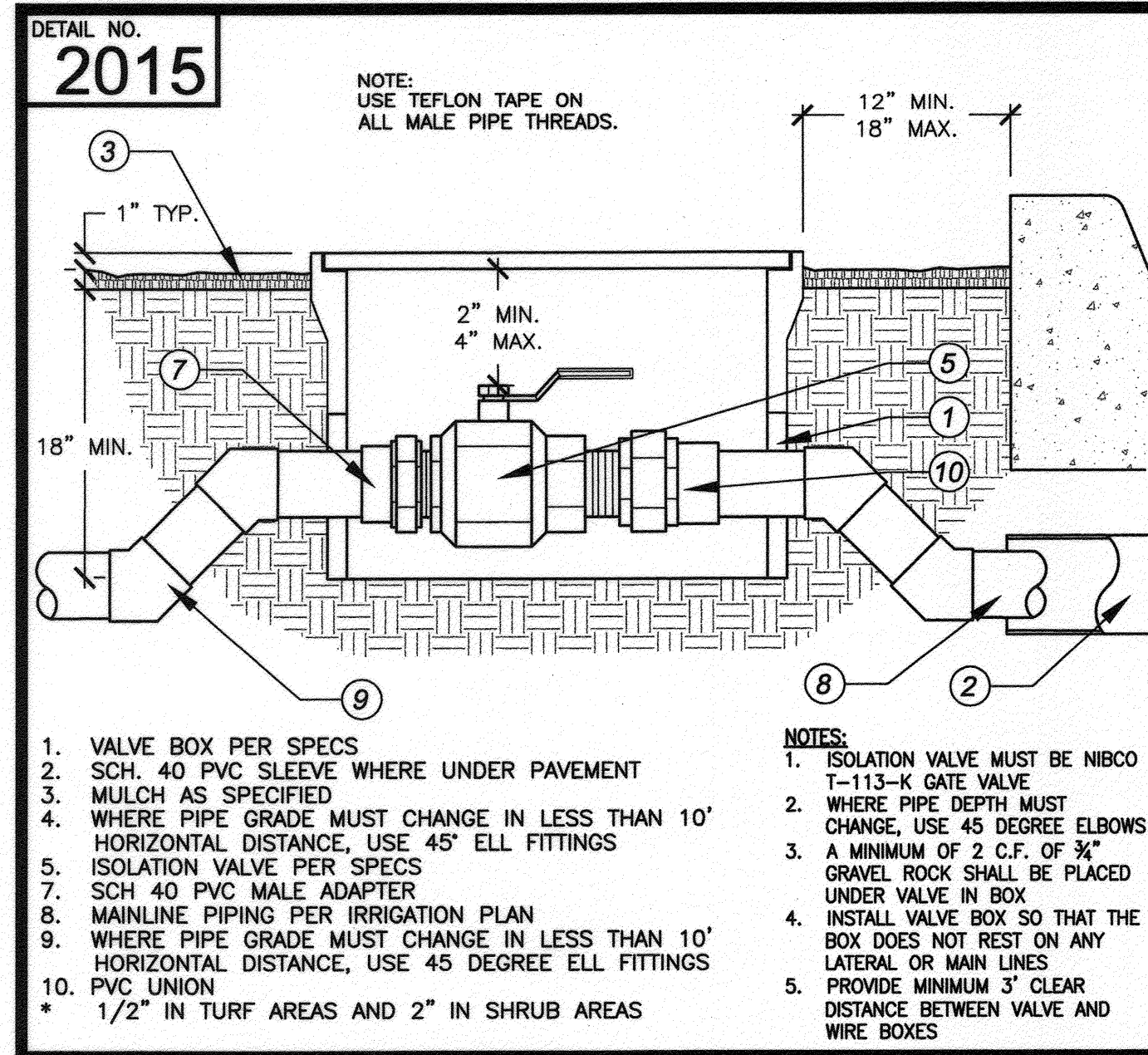
JURUPA AVENUE EXTENSION PHASE 2
STA. 61.00+0 TO 64+90.00
LI-3 IRRIGATION PLAN

HORIZ. SCALE: 1"=20'

ACCOUNT NUMBER
R-4146L

SHEET **4** OF **10**

JOB NUMBER: 090310



E Trenching

F Sleevling

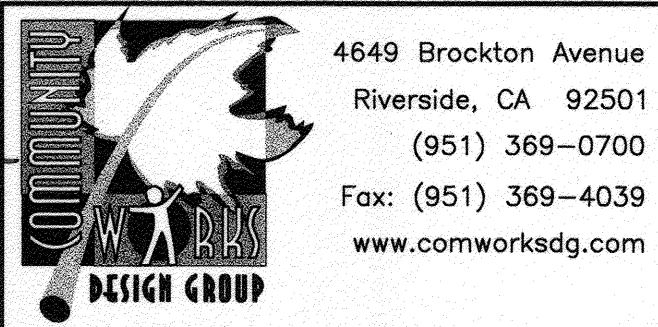
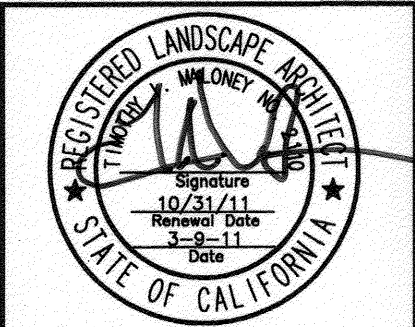
G Wire Connections

H Spare Wire Box

Underground Service Alert

Call: TOLL FREE
1-800-227-2600

TWO WORKING DAYS BEFORE YOU DIG



4649 Brockton Avenue
Riverside, CA 92501
(951) 369-0700
Fax: (951) 369-4039
www.comworksg.com

BENCHMARK: G3-F2
CITY OF RIVERSIDE BENCHMARK No. G3-F2
BRASS DISK IN A MONUMENT WELL AT THE
INTERSECTION OF ARLINGTON AVENUE AND
VAN BUREN BOULEVARD

ELEVATION: 736.332

MARK	REVISIONS	APPR. DATE

DESIGNED BY: BF DRAWN BY: BF CHECKED BY: TIM

**CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT**

APPROVED BY	DATE	BY	APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	2/24/11	BF	CITY ENGINEER	3/6/11	BF
TRAFFIC DIVISION	2/24/11	BF			

DATE: 3/6/11

LANDSCAPE & IRRIGATION PLANS

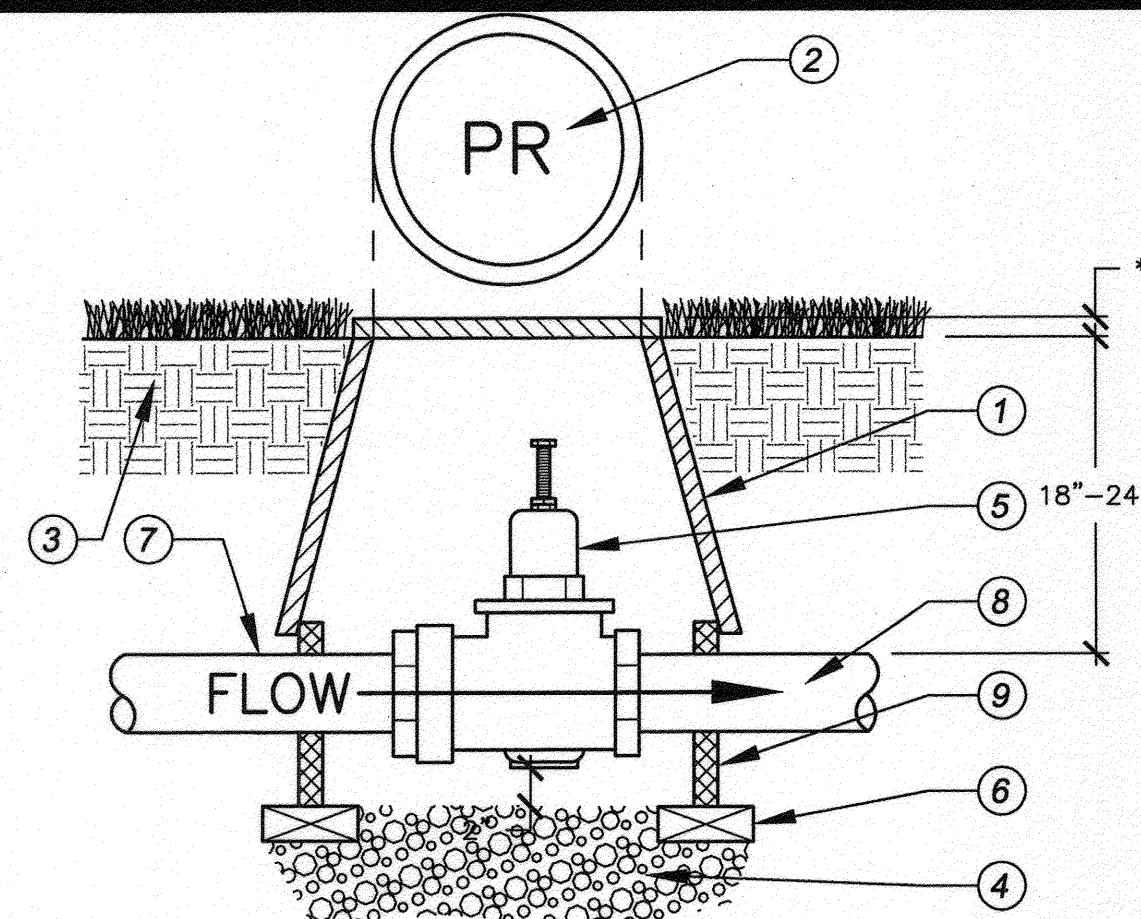
**JURUPA AVENUE
EXTENSION PHASE 2**

STA. 48+32.98 TO 64+90.00
LI-4 IRRIGATION DETAILS

HORIZ. SCALE: N.T.S.

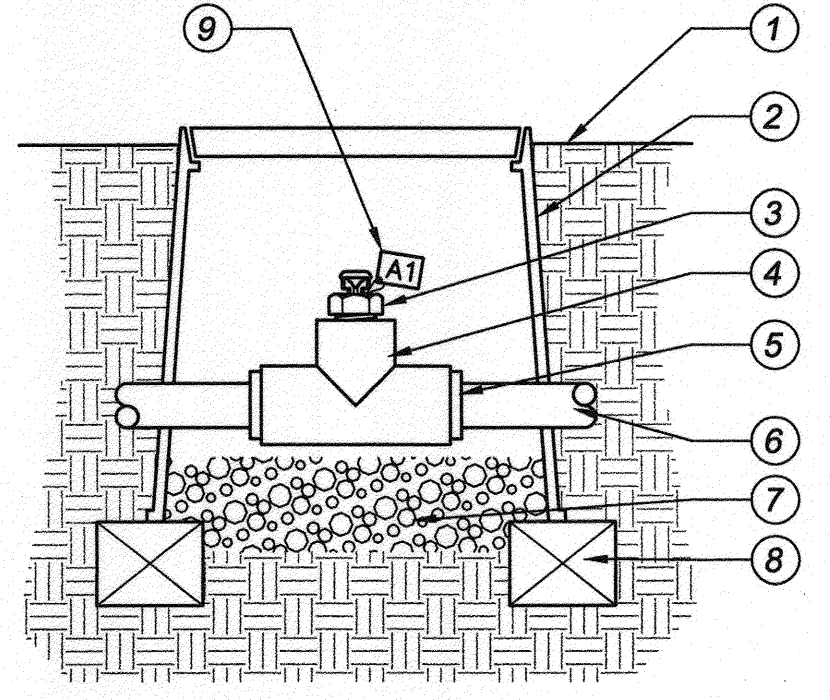
PW07-0110
ACCOUNT NUMBER

R-4146L
SHEET 5 of 10
JOB NUMBER: 090310



1. 10" ROUND PLASTIC VALVE BOX WITH LOCKING LID AND SS BOLT
 2. HEAT BRAND BRAND "PR" ON LID IN 2" HIGH CHARACTERS
 3. FINISH GRADE
 4. 3/4" CRUSHED ROCK - 4" DEEP
 5. PRESSURE REGULATOR PER LEGEND
 6. COMMON BRICK - 4 REQUIRED
 7. PVC MAINLINE FROM POC - PER LEGEND
 8. PVC MAINLINE TO SYSTEM - PER LEGEND
 9. VALVE BOX EXTENSIONS AS REQUIRED
- * 1/2" IN TURF AREAS, 2" IN SHRUB AREAS

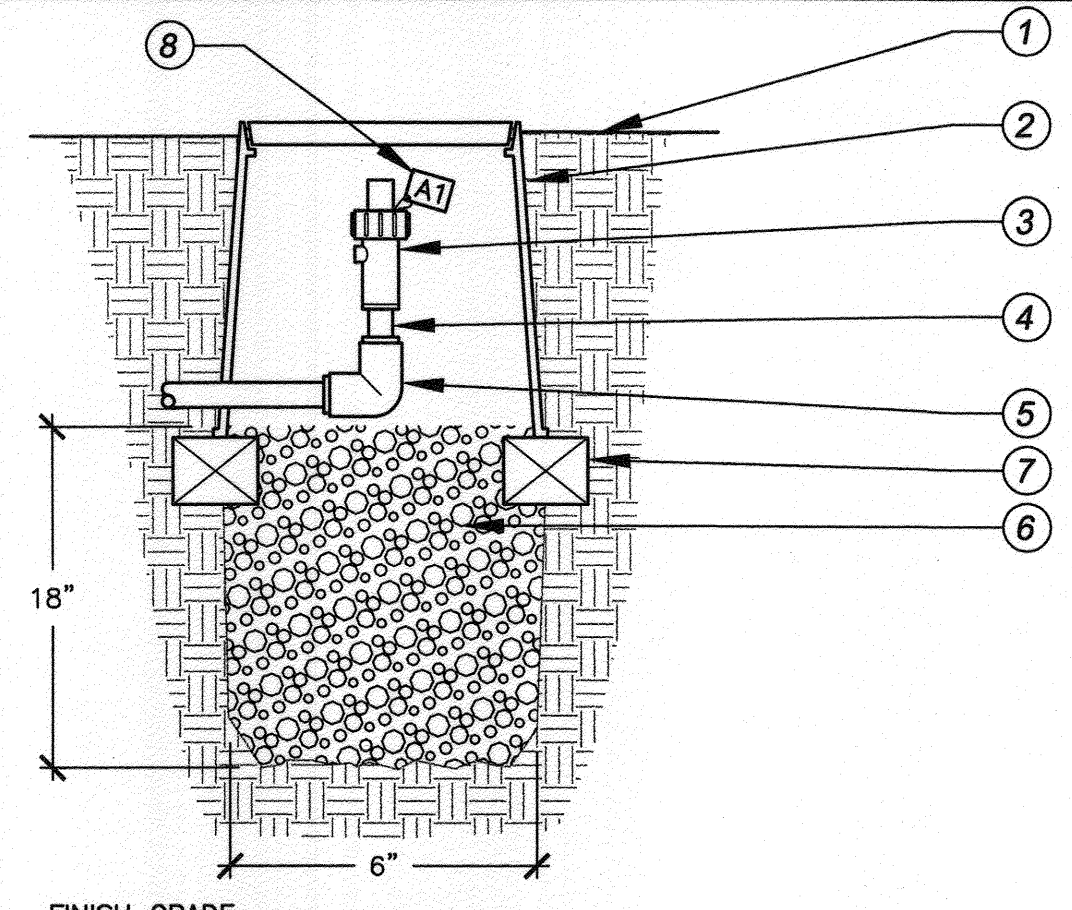
A Pressure Regulating Valve



1. FINISH GRADE
2. 6" ROUND VALVE BOX WITH PURPLE LID
3. AIR/VACUUM RELIEF VALVE PER PLAN
4. PVC SCH 40 LATERAL LINE FITTING
5. COMPRESSION ADAPTER
6. DRIPLINE TUBING OR BLANK TUBING PER PLAN
7. 3/4" CRUSHED ROCK - 6" DEEP
8. BRICK SUPPORT
9. 'CHRISTY'S' NON-POTABLE I.D. TAG OR EQUAL

NOTE:
1. AIR/VACUUM RELIEF VALVE CANNOT BE CONNECTED LOWER THAN DRIPLINE LATERALS.
2. FOR USE ON ZONES OF 7 GPM OR LESS ONLY (PLUMBED TO TUBING).

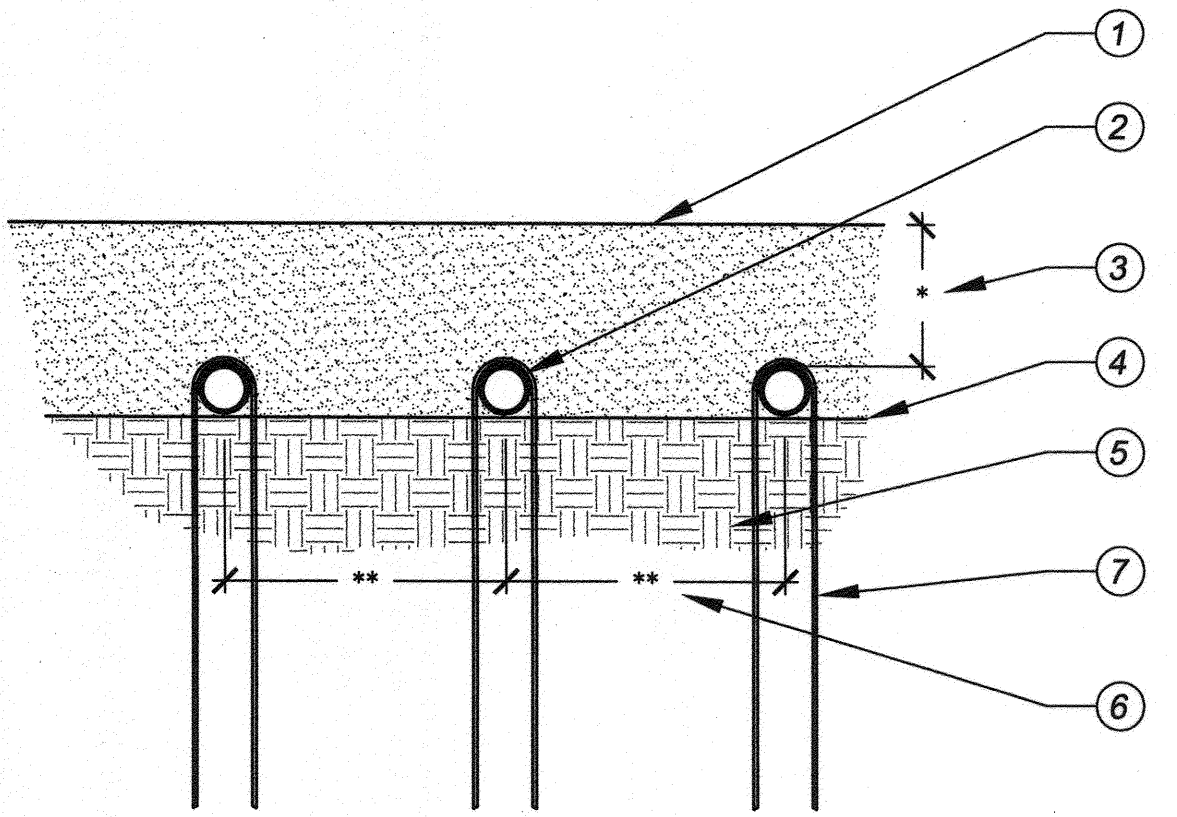
B Air / Vacuum Relief Valve



1. FINISH GRADE
2. 6" ROUND PLASTIC VALVE BOX W/ LOCKING PURPLE LID
3. AUTOMATIC FLUSH VALVE PER IRRIGATION PLAN
4. BLANK DRIPLINE TUBING
5. SCH. 40 PVC COMPRESSION ELBOW
6. 3/4" CRUSHED ROCK - DEPTH 18"
7. COMMON BRICK - 4 REQUIRED
8. 'CHRISTY'S' NON-POTABLE I.D. TAG OR EQUAL

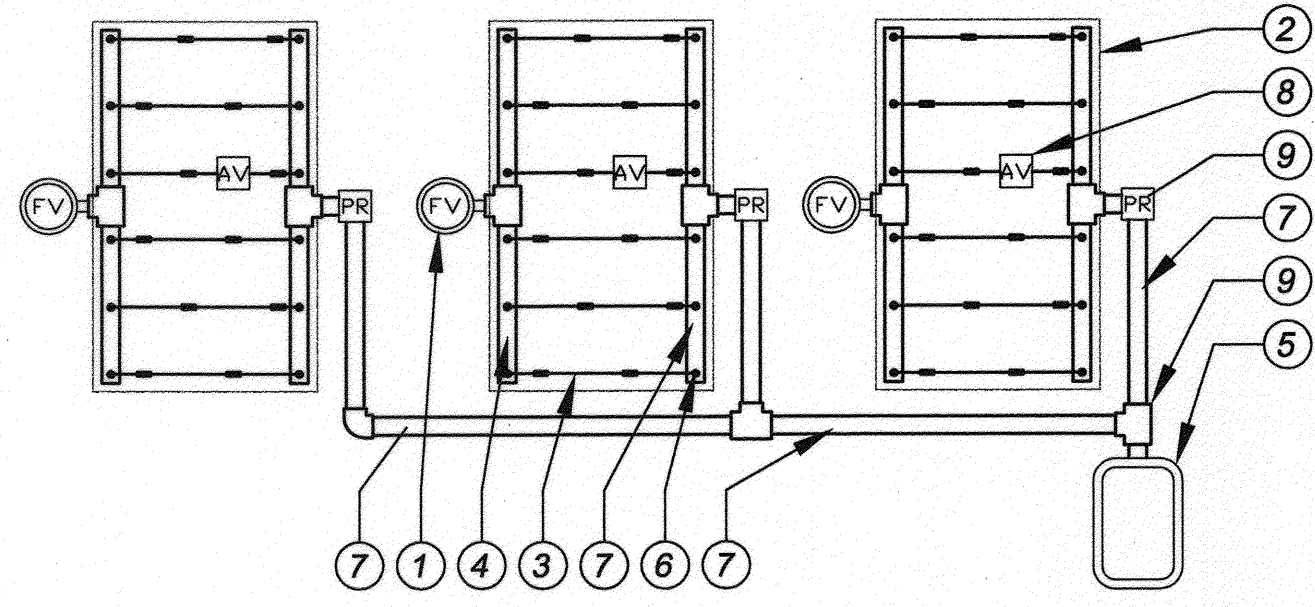
NOTE:
USE TEFLON TAPE ON ALL MALE PIPE THREADS.

C Automatic Flush Valve



1. TOP OF MULCH
2. TECHLINE DRIPLINE
3. (*) TECHLINE BURIAL DEPTH - 3 INCHES
4. FINISHED GRADE
5. SUB-GRADE OF NATIVE SOIL
6. (**) LATERAL DRIPLINE SPACING - 18 INCHES
7. RAINBIRD TDS-050 TIE-DOWN STAKE AT 5' O.C. MAX.

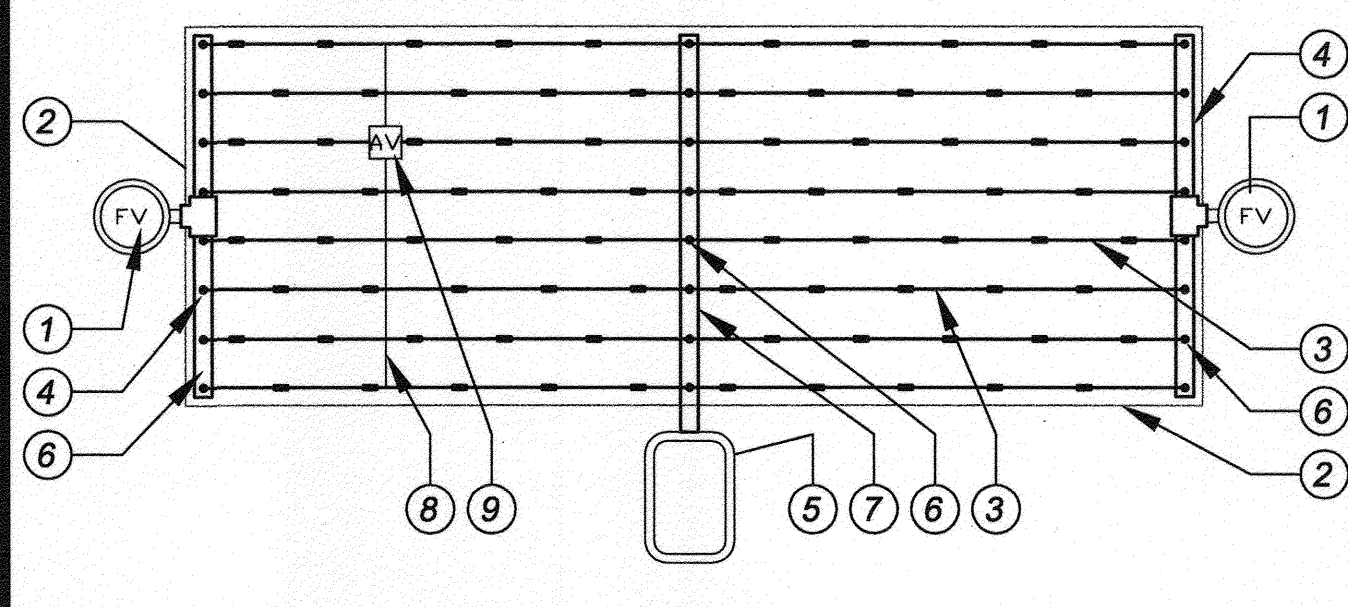
D Techline Burial



1. AUTOMATIC FLUSH VALVE (PER LEGEND) PLUMBED TO TUBING
2. AREA PERIMETER
3. TECHLINE DRIPLINE (PER LEGEND)
4. PVC FLUSH MANIFOLD
5. REMOTE CONTROL VALVE WITH FILTER AND PRESSURE REGULATOR (SEE RCV DETAIL)
6. MANIFOLD-TO-ELBOW CONNECTION
7. PVC SUPPLY MANIFOLD
8. AIR/VACUUM RELIEF VALVE (PER LEGEND) PLUMBED TO BLANK TUBING AT EACH HIGH POINT
9. PRESSURE REGULATOR LOCATED AT EACH SUPPLY MANIFOLD

NOTES:
ALL PERIMETER LATERALS ARE TO BE 2" TO 4" FROM THE EDGE OF PLANTER AREA. CONTRACTOR TO SIZE PVC SUPPLY MANIFOLD TO COMPENSATE FOR FLUSH VALVE FLOWS.

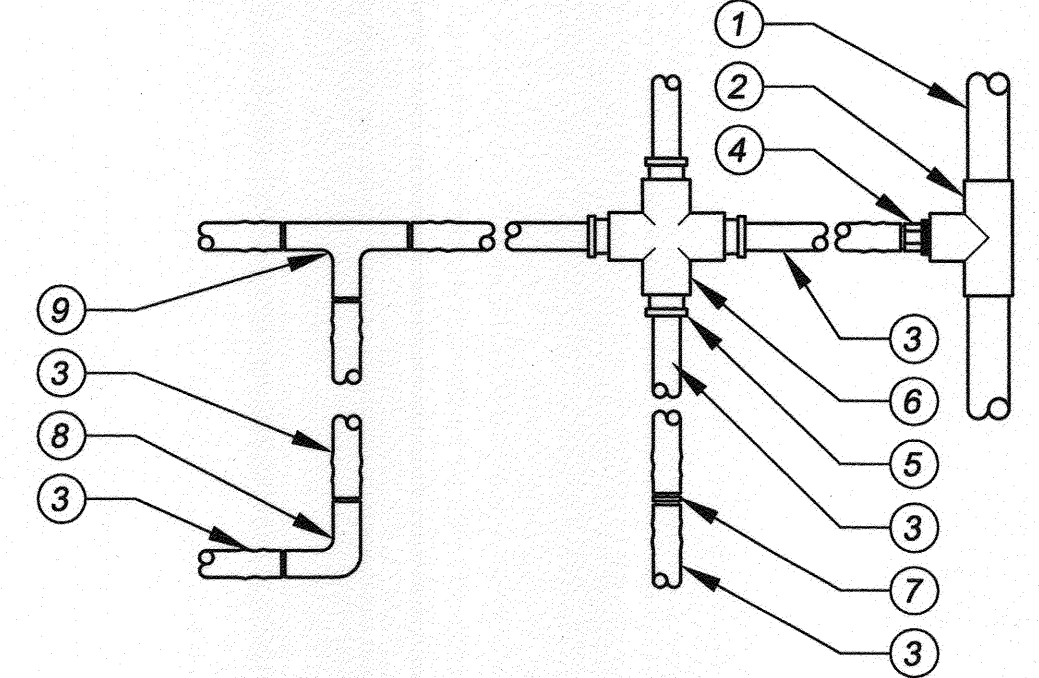
E Techline In Islands



1. AUTOMATIC FLUSH VALVE (PER LEGEND) PLUMBED TO TUBING
2. AREA PERIMETER
3. TECHLINE DRIPLINE (PER LEGEND)
4. PVC FLUSH MANIFOLD
5. REMOTE CONTROL VALVE WITH FILTER AND PRESSURE REGULATOR (SEE RCV DETAIL)
6. MANIFOLD-TO-ELBOW CONNECTION
7. PVC SUPPLY MANIFOLD
8. AIR/VACUUM RELIEF VALVE (PER LEGEND) PLUMBED TO BLANK TUBING AT EACH HIGH POINT
9. AIR/RELIEF BLANK TUBING LATERAL ON MOUNDS OR BERMS

NOTES:
ALL PERIMETER LATERALS ARE TO BE 2" TO 4" FROM THE EDGE OF PLANTER AREA.

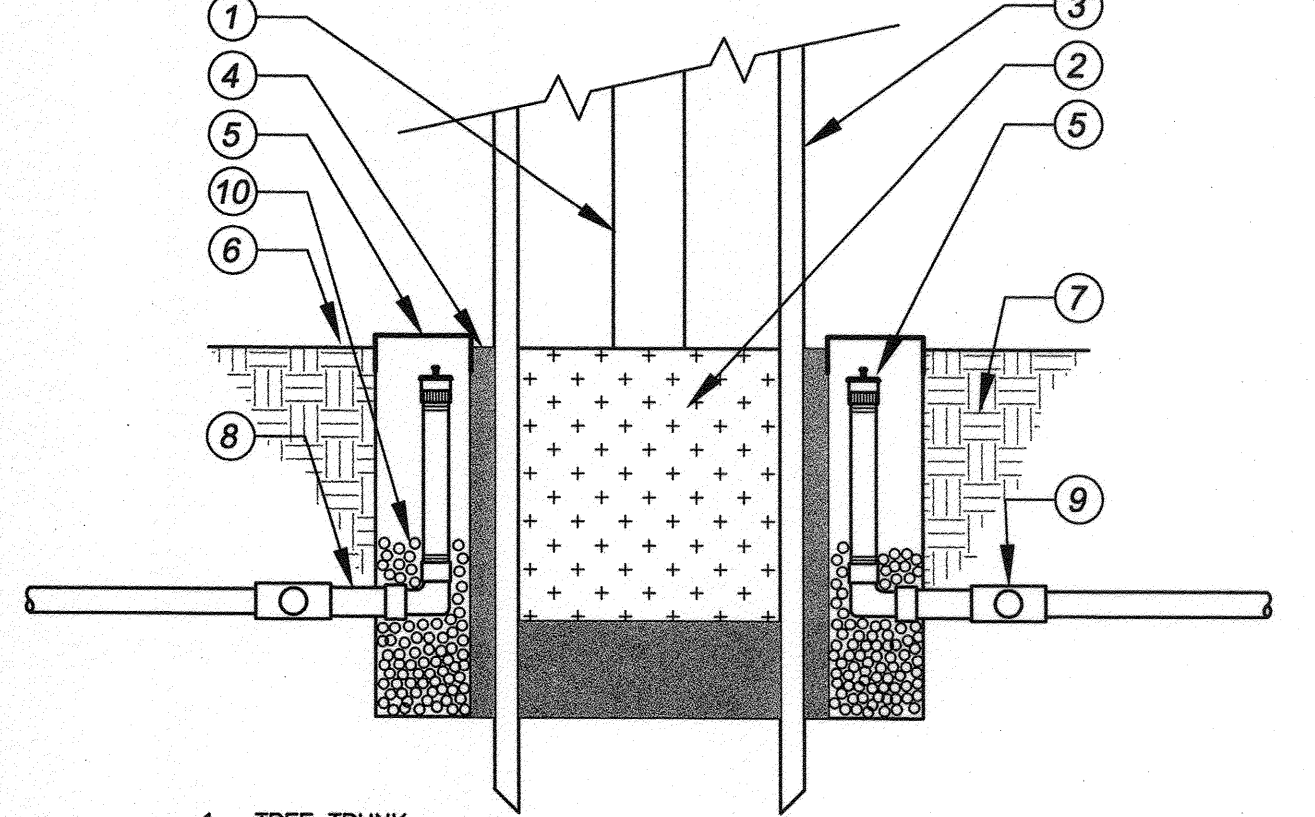
F Techline Center Connection



1. PVC PIPE (PER LEGEND)
2. SCH. 40 PVC TEE
3. TECHLINE DRIPLINE (PER LEGEND)
4. SCH. 40 PVC MALE ADAPTER
5. COMPRESSION ADAPTER FITTING
6. SCH. 40 PVC CROSS
7. COMPRESSION COUPLING
8. COMPRESSION ELBOW FITTING
9. COMPRESSION TEE FITTING

NOTES:
ALL PERIMETER LATERALS ARE TO BE 2" TO 4" FROM THE EDGE OF PLANTER AREA. CONTRACTOR TO SIZE PVC SUPPLY MANIFOLD TO COMPENSATE FOR FLUSH VALVE FLOWS. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIPLINE SHALL NOT EXCEED THE MAXIMUM RUN LENGTH.

G Techline Fittings

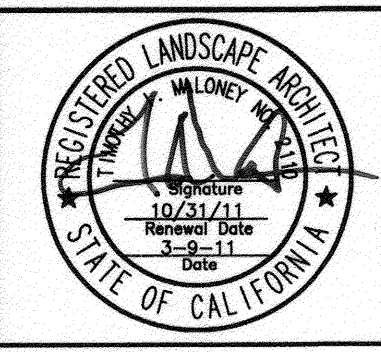


1. TREE TRUNK
2. TREE ROOTBALL
3. 2" LODGE POLE PINE STAKES PER PLANTING PLAN
4. PLANT BACKFILL PER PLANTING PLAN
5. RWS BUBBLER ASSEMBLY WITH RWS-GRADE-P
6. FINISH GRADE
7. UNDISTURBED NATIVE SOIL
8. 1/2" NON-POTABLE PURPLE CLASS 315 PVC LATERAL LINE
9. SCH 40 PVC TEE AROUND PLANTING PIT
10. PEA GRAVEL IN BASE OF DRAIN PIPE

* INSTALL ASSEMBLY WITH CAP WITH TO GRADE

H Tree Bubbler Heads

Underground Service Alert
Call: TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG



DESIGN GROUP
4649 Brockton Avenue
Riverside, CA 92501
(951) 369-0700
Fax: (951) 369-4039
www.comworksdg.com

BENCHMARK: G3-F2
CITY OF RIVERSIDE BENCHMARK No. G3-F2
BRASS DISK IN A MONUMENT WELL AT THE
INTERSECTION OF ARLINGTON AVENUE AND
VAN BUREN BOULEVARD
ELEVATION: 736.332

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: BF DRAWN BY: BF CHECKED BY: TIM

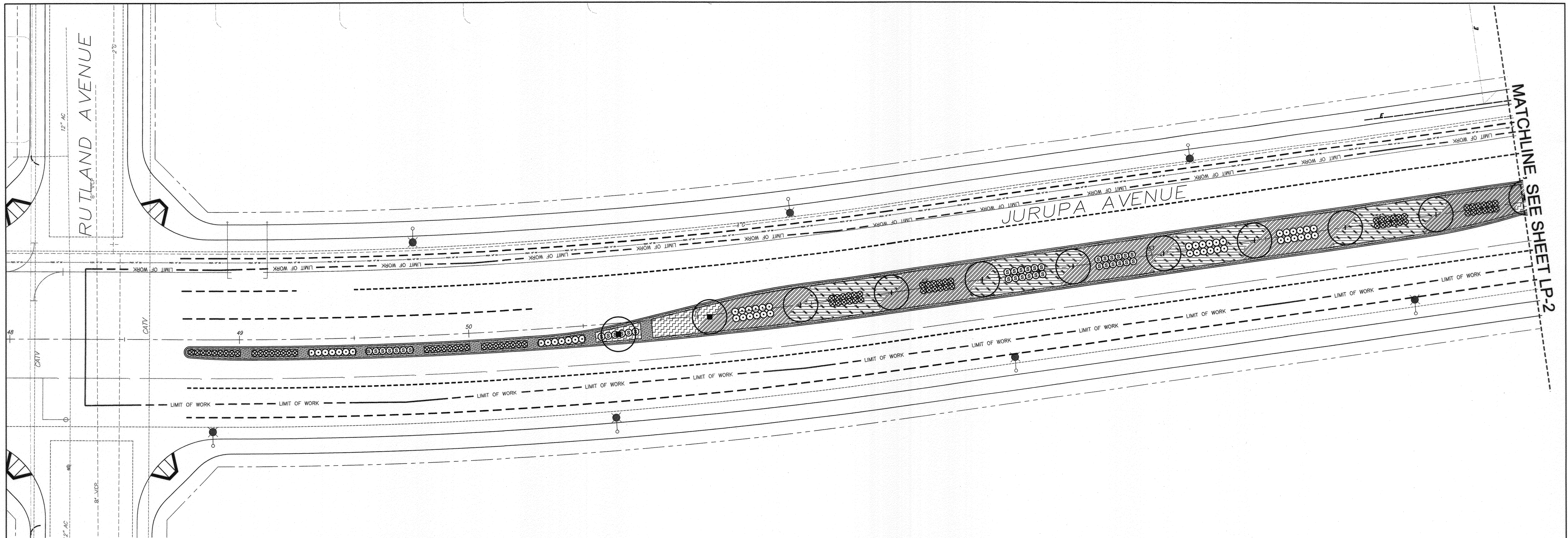
**CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT**

APPROVED BY	DATE	BY	APPROVED BY
PRINCIPAL ENGINEER	3/14/11	TH	
TRAFFIC DIVISION	3/14/11	TH	
LANDSCAPE DIVISION	7-14-11	D.F.	

DATE: 3/15/11

LANDSCAPE & IRRIGATION PLANS
JURUPA AVENUE
EXTENSION PHASE 2
STA. 48+32.98 TO 64+90.00
LI-5 IRRIGATION DETAILS
HORIZ. SCALE: N.T.S.

PW07-0110
ACCOUNT NUMBER
R-4146L
SHEET 6 of 10
JOB NUMBER: 090310



MATCHLINE SEE SHEET LP-2

PLANTING LEGEND:

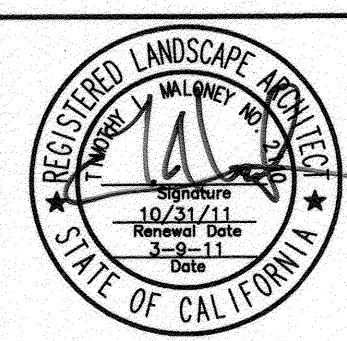
	BOTANIC NAME	COMMON NAME	SIZE / SPACING	DETAIL	QUANTITY
TREES					
	CERCIS CANADENSIS 'FOREST PANSY'	EASTERN REDBUD	24' BOX	'A'-'C', LP-2	22
	GEJERA PARVIFLORA	AUSTRALIAN WILLOW	24' BOX	'A'-'C', LP-2	33
SHRUBS / VINES					
	NANDINA DOMESTICA 'GULF STREAM'	DWARF HEAVENLY BAMBOO	5 GALLON	'D', LP-2	124
	ROSA 'NOARE'	ROSE	5 GALLON	'D', LP-2	168
	STRELITZIA REGINAE	BIRD OF PARADISE	5 GALLON	'D', LP-2	87
GROUNDCOVERS					
	HEMEROCALLIS HYBRID 'BRIGHT N TIGHT ORANGE'	DAY LILY	1 GAL. @ 24" O.C.	'D'&'E', LP-2	1175
	MYOPORUM PARVIFOLIUM 'PINK'	PINK MYOPORUM	1 GAL. @ 6" O.C.	'D'&'E', LP-2	190
	NANDINA DOMESTICA 'GULF STREAM'	DWARF HEAVENLY BAMBOO	1 GAL. @ 24" O.C.	'D'&'E', LP-2	775
	PHORMIUM TENAX 'JACK SPRATT'	NEW ZEALAND FLAX	1 GAL. @ 24" O.C.	'D'&'E', LP-2	695
	ROSMARINUS OFFICINALIS 'HUNTINGTON BLUE'	HUNTINGTON BLUE ROSEMARY	1 GAL. @ 60" O.C.	'D'&'E', LP-2	215

PHASE 1 REPAIR WORK TO BE INCLUDED:

- CONTRACTOR TO PROVIDE AND INSTALL:
 - (39) 5 GALLON NANDINA DOMESTICA 'GULF STREAM' [HEAVENLY BAMBOO]
 - (5) 5 GALLON HEMEROCALLIS HYBRID 'BRIGHT-N-TIGHT ORANGE' [DAY LILY]
 - (1) 5 GALLON ROSA 'NOARE' [ROSE]
 - COORDINATE INSTALLATION AND LOCATION OF NEW PLANT MATERIAL WITH THE CITY OF RIVERSIDE

NOTE:
ALL SHRUB AND GROUNDCOVER AREAS TO RECEIVE A 2" MINIMUM DEPTH LAYER SHREDDED FOREST BARK MULCH

Underground Service Alert
Call: TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG



4649 Brockton Avenue
Riverside, CA 92506
(951) 369-0700
Fax: (951) 369-4039
www.comworksdg.com

BENCHMARK : G3-F2
CITY OF RIVERSIDE BENCHMARK No. G3-F2
BRASS DISK IN A MONUMENT WELL AT THE
INTERSECTION OF ARLINGTON AVENUE AND
VAN BUREN BOULEVARD

ELEVATION : 736.332

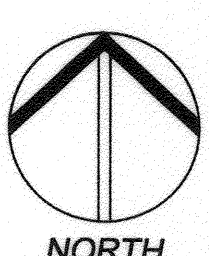
DESIGNED BY : BF	DRAWN BY : BF	CHECKED BY : TIM
------------------	---------------	------------------

**CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT**

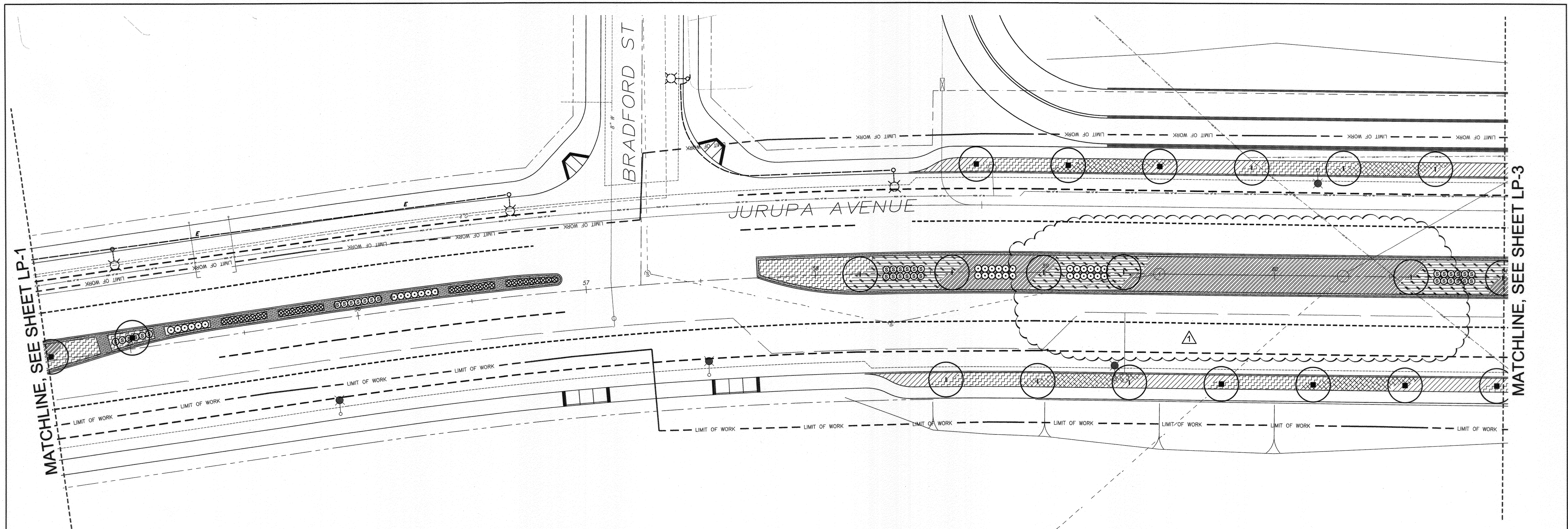
APPROVED BY	DATE	BY	APPROVED BY
PRINCIPAL ENGINEER	2-14-11	TH	<i>[Signature]</i>
TRAFFIC DIVISION	2-11-11	TH	CITY ENGINEER
LANDSCAPE DIVISION	1-14-11	BF	

LANDSCAPE & IRRIGATION PLANS
**JURUPA AVENUE
EXTENSION PHASE 2**
STA. 48+32.98 TO 54+64.52
LP-1 PLANTING PLAN
HORIZ. SCALE: 1"=20'

PW07-0110
ACCOUNT NUMBER
R-4146L
SHEET 7 of 10
JOB NUMBER: 090310



NORTH



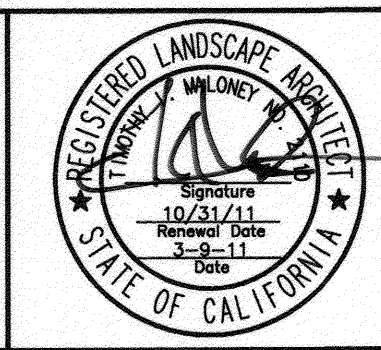
PLANTING LEGEND:

	BOTANIC NAME	COMMON NAME	SIZE / SPACING	DETAIL	QUANTITY
TREES					
■	CERCIS CANADENSIS 'FOREST PANSY'	EASTERN REDBUD	24' BOX	'A'-'C', LP-2	22
I	GEJERA PARVIFLORA	AUSTRALIAN WILLOW	24' BOX	'A'-'C', LP-2	33
SHRUBS / VINES					
○	NANDINA DOMESTICA 'GULF STREAM'	DWARF HEAVENLY BAMBOO	5 GALLON	'D', LP-2	124
⊗	ROSA 'NOARE'	ROSE	5 GALLON	'D', LP-2	168
⊙	STRELITZIA REGINAE	BIRD OF PARADISE	5 GALLON	'D', LP-2	87
GROUNDCOVERS					
[Pattern]	HEMEROCALLIS HYBRID 'BRIGHT N TIGHT ORANGE'	DAY LILY	1 GAL. @ 24" O.C.	'D'&'E', LP-2	1175
[Pattern]	MYOPORUM PARVIFOLIUM 'PINK'	PINK MYOPORUM	1 GAL. @ 6' O.C.	'D'&'E', LP-2	190
[Pattern]	NANDINA DOMESTICA 'GULF STREAM'	DWARF HEAVENLY BAMBOO	1 GAL. @ 24" O.C.	'D'&'E', LP-2	775
[Pattern]	PHORMIUM TENAX 'JACK SPRATT'	NEW ZEALAND FLAX	1 GAL. @ 24" O.C.	'D'&'E', LP-2	695
[Pattern]	ROSMARINUS OFFICINALIS 'HUNTINGTON BLUE'	HUNTINGTON BLUE ROSEMARY	1 GAL. @ 60" O.C.	'D'&'E', LP-2	215

PHASE 1 REPAIR WORK TO BE INCLUDED:
 1. CONTRACTOR TO PROVIDE AND INSTALL:
 • (39) 5 GALLON NANDINA DOMESTICA 'GULF STREAM' [HEAVENLY BAMBOO]
 • (5) 5 GALLON HEMEROCALLIS HYBRID 'BRIGHT-N-TIGHT ORANGE' [DAY LILY]
 • (1) 5 GALLON ROSA 'NOARE' [ROSE]
 ••• COORDINATE INSTALLATION AND LOCATION OF NEW PLANT MATERIAL WITH THE CITY OF RIVERSIDE

NOTE:
 ALL SHRUB AND GROUNDCOVER AREAS TO RECEIVE A 2" MINIMUM DEPTH LAYER SHREDDED FOREST BARK MULCH

Underground Service Alert
 Call: TOLL FREE
 1-800-227-2600
 TWO WORKING DAYS BEFORE YOU DIG



4649 Brockton Avenue
 Riverside, CA 92506
 (951) 369-0700
 Fax: (951) 369-4039
 www.comworksdg.com

BENCHMARK: G3-F2
 CITY OF RIVERSIDE BENCHMARK No. G3-F2
 BRASS DISK IN A MONUMENT WELL AT THE
 INTERSECTION OF ARLINGTON AVENUE AND
 VAN BUREN BOULEVARD
 ELEVATION: 736.332

REMOVE AND REVISED PLANTING AROUND CULVERTS. ADD PHASE 1 REPAIR WORK	3/9/11
DESIGNED BY: BF	DRAWN BY: BF
CHECKED BY: TIM	

**CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT**

APPROVED BY	DATE	BY	APPROVED BY
PRINCIPAL ENGINEER	3-11-11	DH	[Signature]
TRAFFIC DIVISION	3-11-11	[Signature]	CITY ENGINEER
LANDSCAPE DIVISION	3-11-11	[Signature]	

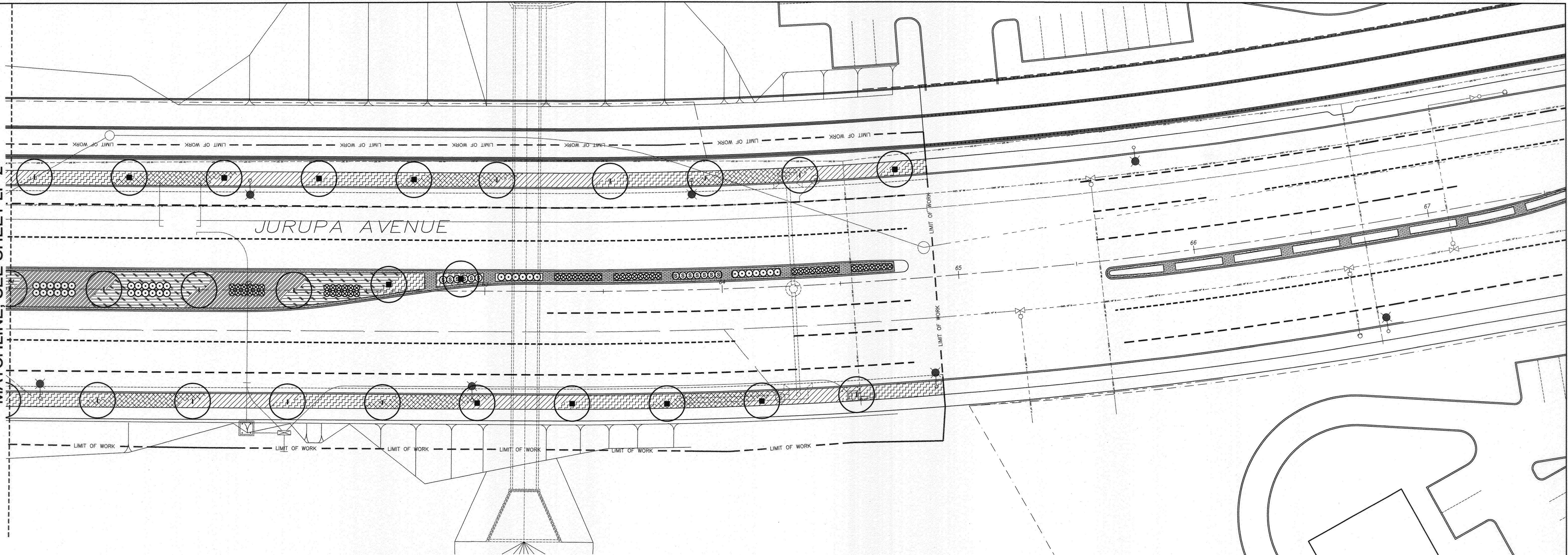
DATE: 3/15/11

LANDSCAPE & IRRIGATION PLANS
 JURUPA AVENUE
 EXTENSION PHASE 2
 STA. 54+64.52 TO 61.00+00
 LP-2 PLANTING PLAN
 HORIZ. SCALE: 1"=20'

NORTH

PW07-0110
 ACCOUNT NUMBER
 R-4146L
 SHEET 8 of 10
 JOB NUMBER: 090310

MATCHLINE SEE SHEET LP-2



PLANTING LEGEND:

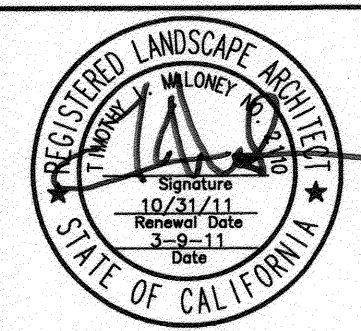
	BOTANIC NAME	COMMON NAME	SIZE / SPACING	DETAIL	QUANTITY
TREES					
	CERCIS CANADENSIS 'FOREST PANSY'	EASTERN REDBUD	24' BOX	'A'-'C', LP-2	22
	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24' BOX	'A'-'C', LP-2	33
SHRUBS / VINES					
	NANDINA DOMESTICA 'GULF STREAM'	DWARF HEAVENLY BAMBOO	5 GALLON	'D', LP-2	124
	ROSA 'NOARE'	ROSE	5 GALLON	'D', LP-2	168
	STRELITZIA REGINAE	BIRD OF PARADISE	5 GALLON	'D', LP-2	87
GROUNDCOVERS					
	HEMEROCALLIS HYBRID 'BRIGHT N TIGHT ORANGE'	DAY LILY	1 GAL. @ 24" O.C.	'D'&'E', LP-2	1175
	MYOPORUM PARVIFOLIUM 'PINK'	PINK MYOPORUM	1 GAL. @ 6' O.C.	'D'&'E', LP-2	190
	NANDINA DOMESTICA 'GULF STREAM'	DWARF HEAVENLY BAMBOO	1 GAL. @ 24" O.C.	'D'&'E', LP-2	775
	PHORMIUM TENAX 'JACK SPRATT'	NEW ZEALAND FLAX	1 GAL. @ 24" O.C.	'D'&'E', LP-2	695
	ROSMARINUS OFFICINALIS 'HUNTINGTON BLUE'	HUNTINGTON BLUE ROSEMARY	1 GAL. @ 60" O.C.	'D'&'E', LP-2	215

PHASE 1 REPAIR WORK TO BE INCLUDED:

- CONTRACTOR TO PROVIDE AND INSTALL:
 - (39) 5 GALLON NANDINA DOMESTICA 'GULF STREAM' [HEAVENLY BAMBOO]
 - (5) 5 GALLON HEMEROCALLIS HYBRID 'BRIGHT-N-TIGHT ORANGE' [DAY LILY]
 - (1) 5 GALLON ROSA 'NOARE' [ROSE]
 - COORDINATE INSTALLATION AND LOCATION OF NEW PLANT MATERIAL WITH THE CITY OF RIVERSIDE

NOTE:
ALL SHRUB AND GROUNDCOVER AREAS TO RECEIVE A 2" MINIMUM DEPTH LAYER SHREDDED FOREST BARK MULCH

Underground Service Alert
Call: TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG



4649 Brockton Avenue
Riverside, CA 92506
(951) 369-0700
Fax: (951) 369-4039
www.comworksdg.com

BENCHMARK: G3-F2
CITY OF RIVERSIDE BENCHMARK No. G3-F2
BRASS DISK IN A MONUMENT WELL AT THE
INTERSECTION OF ARLINGTON AVENUE AND
VAN BUREN BOULEVARD

ELEVATION: 736.332

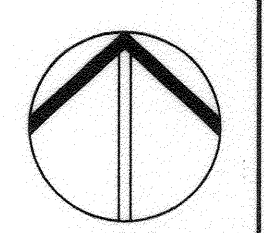
DESIGNED BY: BF	DRAWN BY: BF	CHECKED BY: TIM
-----------------	--------------	-----------------

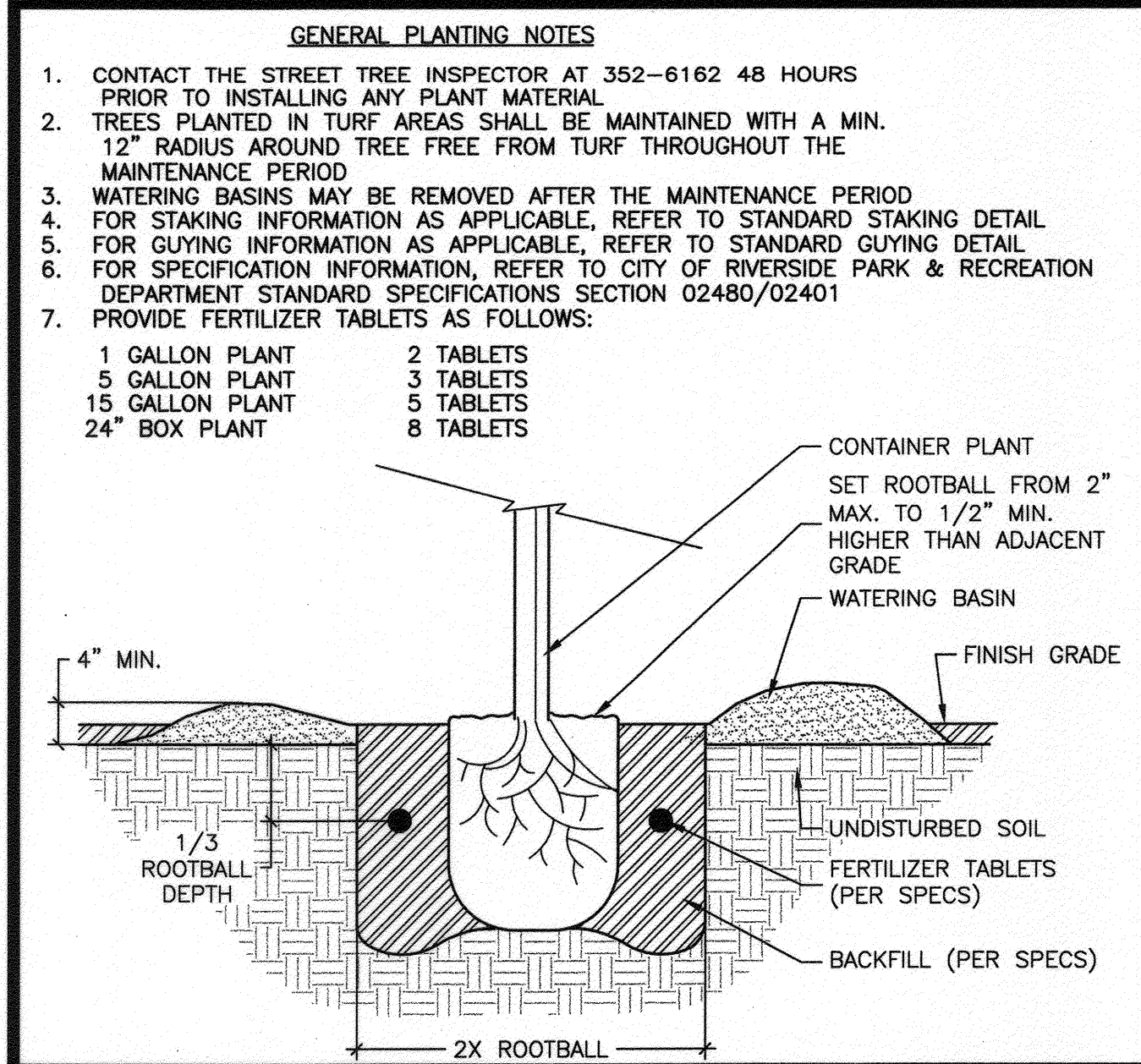
**CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT**

APPROVED BY	DATE	BY	APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	2-11-14	ML	CITY ENGINEER	3/15/14	ML
TRAFFIC DIVISION	2-11-14	ML			
LANDSCAPE DIVISION	2-14-14	ML			

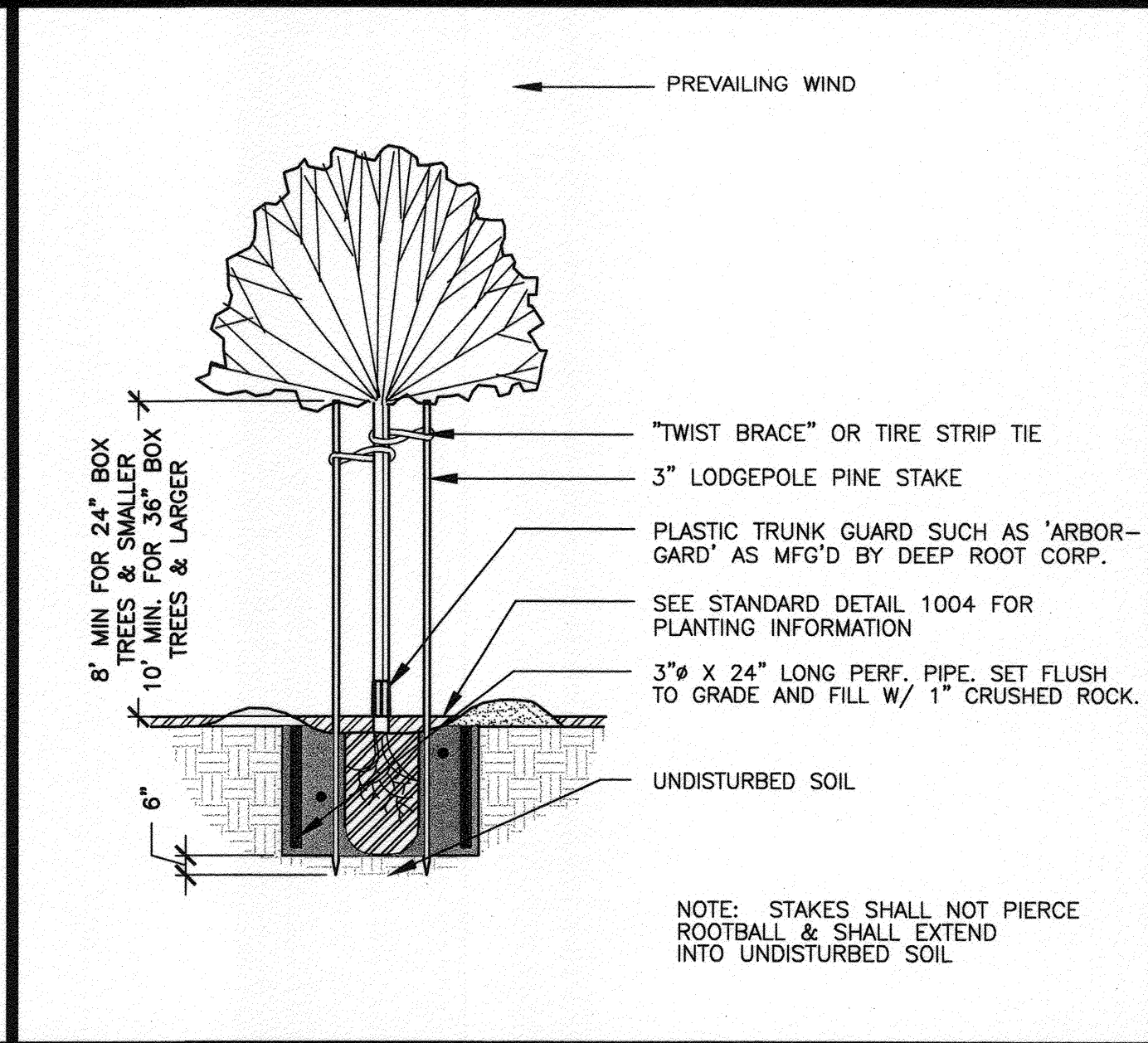
LANDSCAPE & IRRIGATION PLANS
JURUPA AVENUE
EXTENSION PHASE 2
STA. 61.00+0 TO 64+90.00
LP-3 PLANTING PLAN
HORIZ. SCALE: 1"=20'

PW09-0110
ACCOUNT NUMBER
R-4146L
SHEET **9** OF **10**
JOB NUMBER: 090310

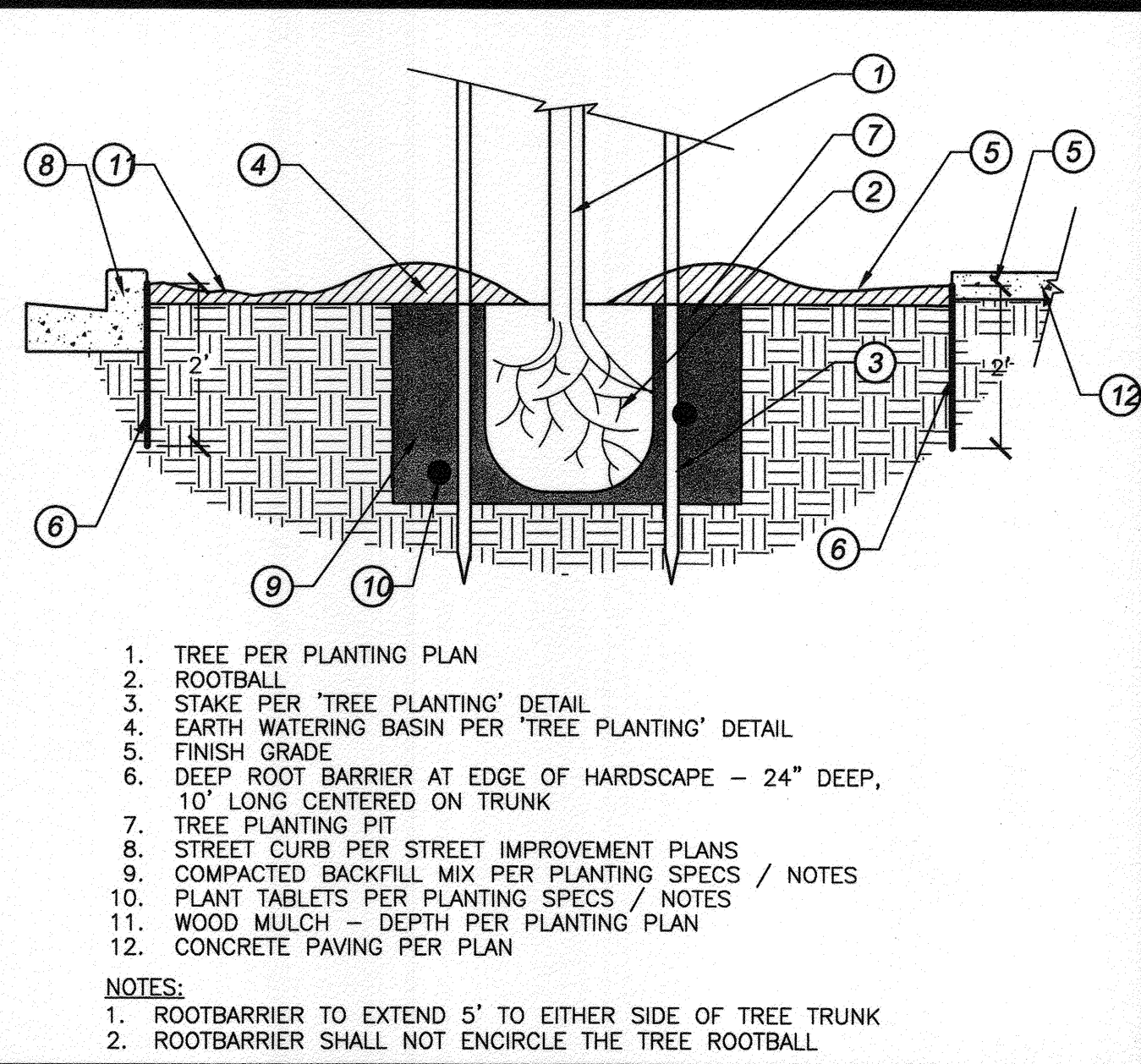




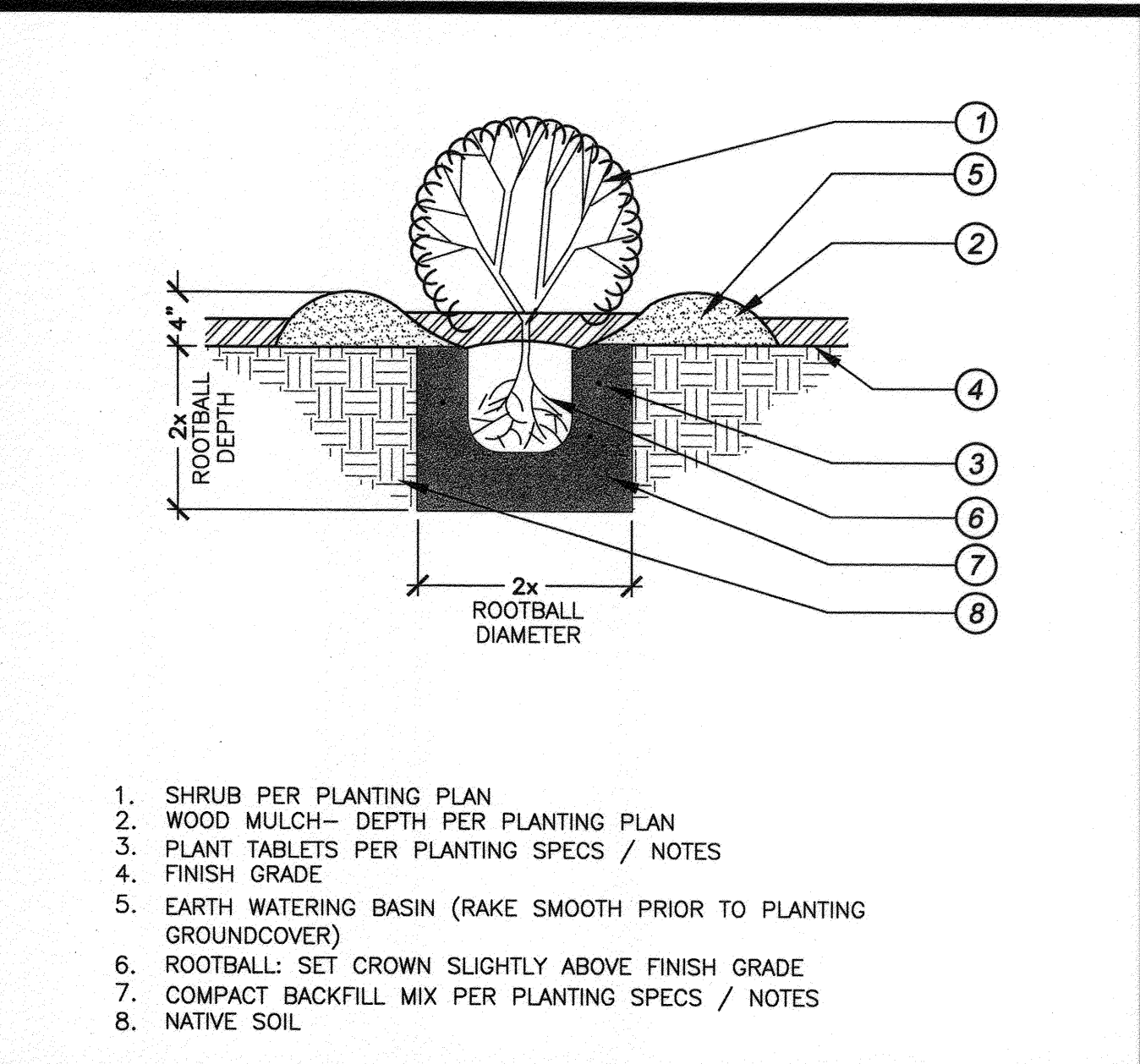
A Tree Planting - City Std 1004



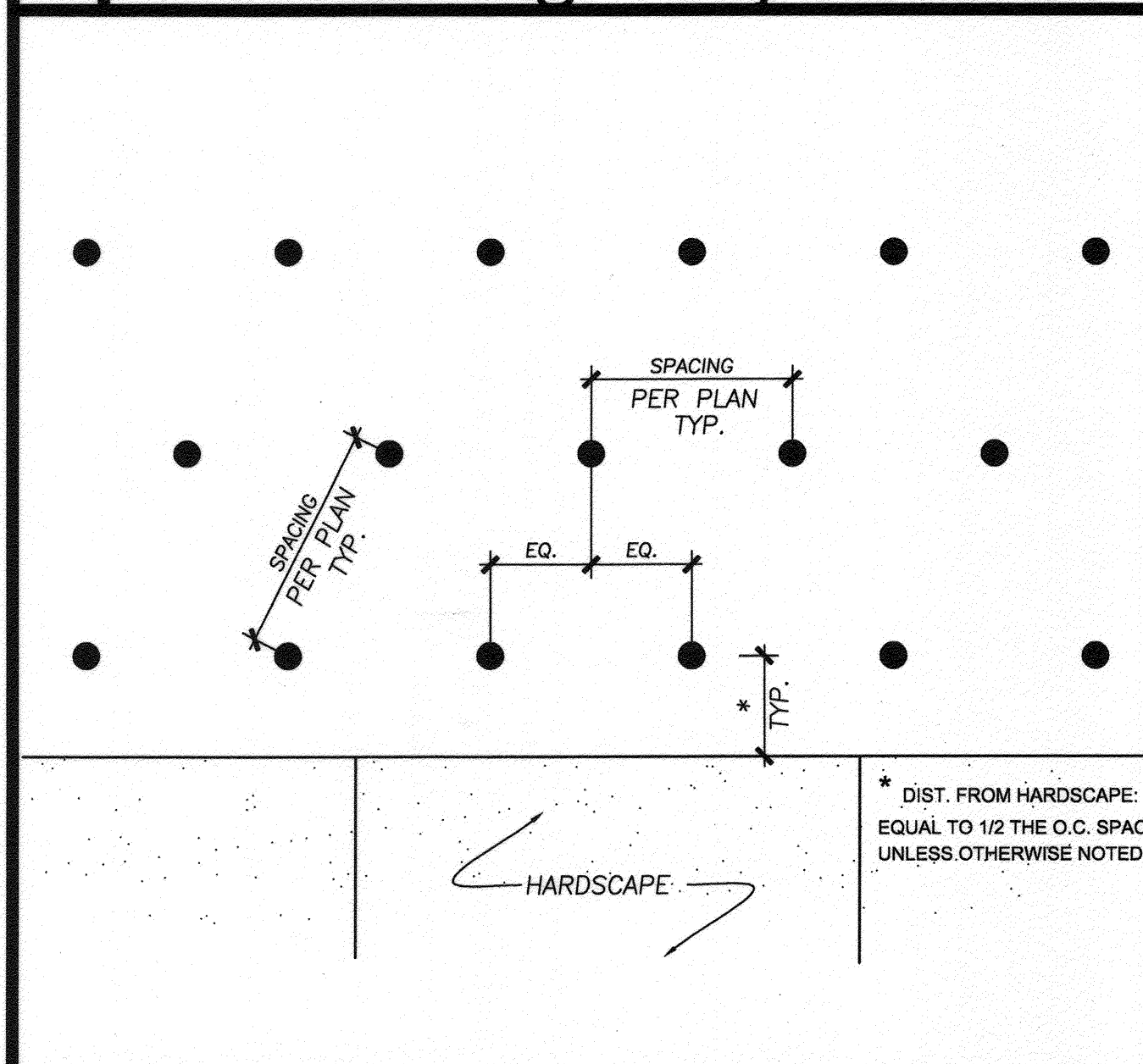
B Tree Staking - City Std 1001



C Linear Root Barrier



D Shrub Planting



E Groundcover Spacing

FERTILIZER PROGRAM:

THREE (3) FERTILIZER APPLICATIONS ARE TO BE APPLIED TO ALL PLANTING AREAS AT THIRTY (30) DAY INTERVALS USING THE FOLLOWING FORMULA:

5 LBS. 16-16-16 COMMERCIAL FERTILIZER PER 1000 SQ. FT.

AFTER ALL SITE GRADING HAS BEEN COMPLETED, THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, AN AGRONOMIC SOILS TEST. THE TEST SHALL BE PERFORMED BY AN APPROVED SOIL LAB AND SHALL INCLUDE ALL OF THE ABOVE INFORMATION. THE RECOMMENDATIONS OF THIS REPORT SHALL TAKE PRECEDENCE OVER THE ABOVE QUANTITIES ONLY WHEN THEY EXCEED THE SPECIFIED MINIMUMS.

SOIL PREPARATION / BACKFILL NOTE:

TO ALL NEW PLANTING AREAS (SHRUB AND GROUND COVER), ROTOTILL THE FOLLOWING AMENDMENTS:

'NITROMULCH' SOIL AMENDMENT - 3 CU. YDS. PER 1000 SQ. FT.
16-16-16 COMMERCIAL FERTILIZER - 12 LBS. PER 1000 SQ. FT.

BACKFILL MIX FOR TREES, SHRUBS, AND VINES SHALL BE AS FOLLOWS:

6 PARTS BY VOLUME ON-SITE SOIL
4 PARTS BY VOLUME ORGANIC AMENDMENT AS ABOVE
1 LB. 16-16-16 COMMERCIAL FERTILIZER PER CU. YD. OF MIX
2 LBS. IRON SULFATE PER CU. YD. OF MIX

'NITROMULCH' SOIL AMENDMENT AVAILABLE FROM 'KELLOG SUPPLY, INC.' (800) 232-2322

F Soil Prep / Fertilizer

G

H

Underground Service Alert Call: TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG	 REGISTERED LANDSCAPE ARCHITECT STATE OF CALIFORNIA	 DESIGN GROUP	4649 Brockton Avenue Riverside, CA 92506 (951) 369-0700 Fax: (951) 369-4039 www.comworksgd.com	BENCHMARK: G3-F2 CITY OF RIVERSIDE BENCHMARK No. G3-F2 BRASS DISK IN A MONUMENT WELL AT THE INTERSECTION OF ARLINGTON AVENUE AND VAN BUREN BOULEVARD	CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT APPROVED BY: [Signature] DATE: 2-14-11 PRINCIPAL ENGINEER TRAFFIC DIVISION LANDSCAPE DIVISION APPROVED BY: [Signature] DATE: 2-14-11 CITY ENGINEER	LANDSCAPE & IRRIGATION PLANS JURUPA AVENUE EXTENSION PHASE 2 STA. 48+32.98 TO 64+90.00 LP-4 PLANTING DETAILS HORIZ. SCALE: N.T.S.	PW07-0110 ACCOUNT NUMBER R-4146L SHEET 10 of 10 JOB NUMBER: 090310
			ELEVATION: 736.332 DESIGNED BY: BF DRAWN BY: BF CHECKED BY: TIM	DATE: 2/15/11			