

# IRRIGATION LEGEND

## LOW VOLUME SURFACE IRRIGATION

SYMBOL	MFR.	MODEL NUMBER	COLOR	DESCRIPTION	REMARKS	GPH.	GPM.	PSI.	DETAIL
⊗	AGRIFIM	CFL 2	BLUE	CUATRO-FLO BUBBLER w/ DISTRIBUTION TUBING	4 OUTLETS	1.9 GPH / outlet	0.13	25	G-1
⊗	AGRIFIM	CFL 2	BLUE	CUATRO-FLO BUBBLER w/ DISTRIBUTION TUBING	INSTALL (4) TUBES FROM EACH BUBBLER TO EACH TREE				G-50
⊗	AGRIFIM	MFBL 2	BLUE	MAXI-FLO BUBBLER w/ DISTRIBUTION TUBING	4 OUTLETS	1.9 GPH / outlet	0.13	25	G-1
⊗	AGRIFIM	MFBL 2	BLUE	MAXI-FLO BUBBLER w/ DISTRIBUTION TUBING	6 OUTLETS	2.3 GPH / outlet	0.23	25	G-2
					INSTALL THE NUMBER OF TUBES (OUTLETS) TO EACH SHRUB & VINE AS LISTED IN THE "LOW FLOW BUBBLER SCHEDULE"				G-50
(no symbol)	AGRIFIM	A 250		POLYETHYLENE BUBBLER DISTRIBUTION TUBING	INSTALL TUBING ON GRADE, BELOW MULCH, MAX. 15 FT. RUN				G-50
(no symbol)	AGRIFIM	PC 250		PLUG FOR BUBBLER OUTLET	INSTALL ON ALL UNUSED BUBBLER OUTLETS				G-1, G-2
(no symbol)	AGRIFIM	BP 220		INSECT PLUG FOR DISTRIBUTION TUBING	INSTALL AT THE END OF DIST. TUBES TO SHRUBS & VINES				G-1, G-2
(no symbol)	AGRIFIM	S6		PLASTIC SUPPORT STAKE	INSTALL (1) AT THE END OF DIST. TUBES TO SHRUBS & VINES				G-1, G-2
(no symbol)	AGRIFIM	S8		8" GALV. WIRE STAKE (12-gauge)	INSTALL AT A MAX. OF 3'-0" O.C. ALONG DIST. TUBING				G-1, G-2
(no symbol)	(APPROVED)	6" x 1" x 6" 11-gauge		GALV. WIRE STAPLE FOR EROSION CONTROL FABRIC	MAY BE SUBSTITUTED FOR S8 WIRE STAKE ON DIST. TUBING				G-1, G-2

## DRIP IRRIGATION

SYMBOL	MFR.	MODEL NUMBER	COLOR	DESCRIPTION	EMITTERS	GPH.	GPM.	PSI.	DETAIL
---	TORO	RGF-212	BLACK	DL2000 PRESSURE COMP. DRIPLINE w/ ROOTGUARD (FACTORY PRE-ASSEMBLED)	12" O.C.	0.53 GPH	0.88 / 100'	15 - 60	H-12, H-13
---					INSTALL ROWS AT 12" O.C. THROUGHOUT PLANTED AREA				
---					INSTALL DRIPLINE 4" BELOW FINISH GRADE				
---	TORO	T-FAM16		1" LOC-EZE PVC TO DRIPLINE MALE ADAPTER	1/2" MIPT x DRIPLINE				H-12
---	TORO	T-FT16		1" LOC-EZE PVC TO DRIPLINE ADAPTER TEE	1/2" MIPT x DRIPLINE x DRIPLINE				H-13
---	TORO	T-YD-500-34		AIR VACUUM RELIEF VALVE (1/2" MIPT)	INSTALL IN #1-FT16 TEE IN A 6" ROUND VALVE BOX				H-14
---	TORO	T-FJ16		1" LOC-EZE MANUAL FLUSH CAP	FOR IN-LINE INSTALLATION, INSTALL OFF-SIDE OUTLET OF #1-FT16 TEE USING SHORT PIECE OF DRIPLINE				H-17

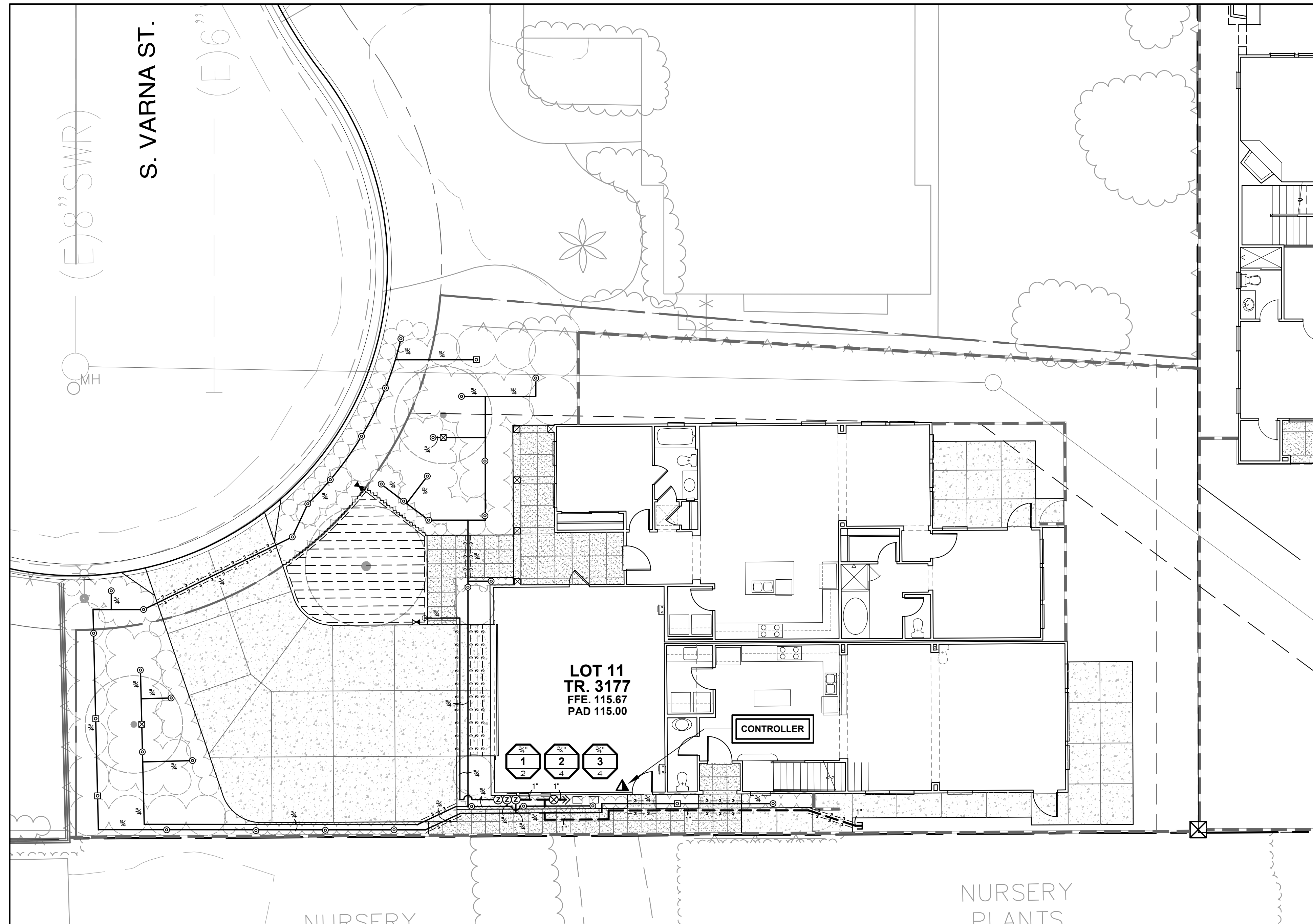
## DISTRIBUTION & CONTROL EQUIPMENT

SYMBOL	MFR.	MODEL NUMBER	DESCRIPTION	REMARKS	DETAIL
▲	HUNTER	PC-400	PRO-C "SMART" CONTROLLER	4 STA., INDOOR, WALL MOUNT	B-2
(no symbol)	HUNTER	WSS-SEN	WIRELESS SOLAR-SYNC SENSOR	INSTALL ONE FOR EACH CONTROLLER	B-21
⊗	NBCO	T-580	BRONZE BALL VALVE (THREADED)	LINE SIZE	G-2
⊗	TORO	DZK-EZ-075-LF	DRIP ZONE VALVE KIT w/ AVB, Y-FILTER & REGULATOR	3/4", 150 MESH, 0.25 - 8 GPM, 25 PSI	A-21, E-81
---	(APPROVED)	SCHEDULE 40 PVC	PRESSURE MAIN LINE (POTABLE WATER SOURCE)	FOR UNDERGROUND INSTALLATION, SIZES NOTED	A-1
---	(APPROVED)	SCHEDULE 40 PVC	NON-PRESSURE LATERAL LINE (POTABLE SOURCE)	FOR UNDERGROUND INSTALLATION, SIZES NOTED (3/4" MIN.)	A-1
---	(APPROVED)	SDR 35 ABS	MAIN LINE, LATERAL LINE, & CONTROL WIRE SLEEVE	3" DIAMETER EACH	A-3
SYMBOL	DESCRIPTION	REMARKS	DETAIL		
(no symbol)	WATER METER	3/4" POTABLE WATER METER (BY OTHERS)			
		(WATER METERS ARE INSTALLED UNDER SEPARATE CONTRACT PER THE STREET AND/OR WATER IMPROVEMENT PLANS)			
→	POINT OF CONNECTION (P.O.C.)	CONNECT TO EXISTING 1" WATER SUPPLY LINE AT TEE PROVIDED NEAR SHUT OFF VALVE FOR HOUSE, SUPPLY LINE & P.O.C. LOCATIONS ARE APPROXIMATE - IRRIGATION CONTRACTOR SHALL VERIFY IN THE FIELD.	G-2		
---	SCHEDULE 40 PVC CAP	CAP PIPE FOR FUTURE USE. MARK LOCATION ON SITE.			
		NOTE LOCATION ON RECORD DRAWINGS USING MEASUREMENTS FROM FIXED OBJECTS.			
⊗	INDICATES CONTROL VALVE SIZE				
▲	INDICATES CONTROLLER STATION NUMBER				
---	INDICATES FLOW IN GALLONS PER MINUTE				

WHENEVER ANY ITEM OF "DISTRIBUTION & CONTROL EQUIPMENT" IS SIZED SMALLER THAN THE MAIN LINE OR LATERAL LINE PIPING ON WHICH IT IS PLACED, THE REDUCTION IN PIPE SIZE SHALL ONLY OCCUR AT THE THREADED FITTING WHICH ADAPTS THE PIPE TO THE PIECE OF EQUIPMENT.

## IRRIGATION NOTES (Residential Systems)

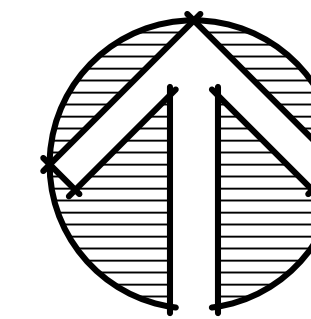
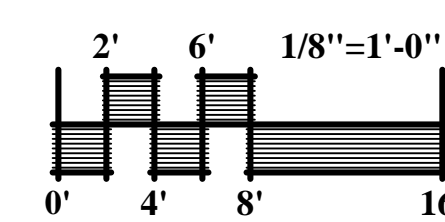
- INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND/OR AS STATED IN THE WRITTEN SPECIFICATIONS PREPARED BY THE LANDSCAPE ARCHITECT AND THE MANUFACTURERS.
- THIS DESIGN IS DIAGRAMMATIC. ANY EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY, AND IS TO BE INSTALLED WITHIN PLANTED AREAS WHEREVER POSSIBLE.
- THE IRRIGATION CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS INDICATED ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT WERE NOT KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE, OR THE LANDSCAPE ARCHITECT, OTHERWISE THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY REVISIONS.
- THE SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN AT EACH POINT OF CONNECTION. THE IRRIGATION CONTRACTOR SHALL VERIFY ALL PRESSURES ON SITE PRIOR TO COMMENCING WITH THE INSTALLATION OF THE IRRIGATION SYSTEM.
- FINAL LOCATION OF AUTOMATIC CONTROLLERS IS TO BE DETERMINED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
- 117-VOLT 60HZ SINGLE PHASE ELECTRICAL POWER OUTLETS FOR IRRIGATION CONTROLLERS ARE TO BE PROVIDED BY THE OWNER/DEVELOPER. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE HOOK-UP FROM THE POWER OUTLETS TO THE CONTROLLERS.
- ALL WIRE FROM THE CONTROLLER TO THE ELECTRIC CONTROL VALVES SHALL BE MINIMUM #18-AWG SOLID CORE COPPER WIRE, UL-LISTED, AND RATED "UF" FOR DIRECT BURIAL. WIRE MEETING THIS SPECIFICATION AND BUNDLED INTO MULTI-CONDUCTOR CABLES WITH POLYETHYLENE JACKETING IS ACCEPTABLE. CONTROL, COMMON, AND SPARE WIRES SHALL EACH BE UNIQUELY COLOR-CODED. CONTRACTOR SHALL INSTALL (2) SPARE WIRES FROM THE CONTROLLER FOR FUTURE USE. INSTALL WIRES IN COMMON TRENCH WITH MAIN LINE PIPING WHEREVER POSSIBLE. FASTEN WIRES TO UNDERSIDE OF MAIN LINE WITH NYLON WIRE TIES AT 10 FT. INTERVALS. PROVIDE A MINIMUM OF 18" OF COVER.
- ALL WIRE CONNECTIONS SHALL BE MADE WITH APPROVED WATERPROOF WIRE CONNECTORS. WIRE SPLICES WILL NOT BE PERMITTED UNLESS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE, OR THE LANDSCAPE ARCHITECT. WIRE SPLICES SHALL BE LOCATED ON RECORD DRAWINGS AS PER THE SPECIFICATIONS.
- PROVIDE A MINIMUM OF 24" OF COVER OVER ALL PRESSURE MAIN LINE PIPING 3" AND LARGER, 18" OF COVER OVER ALL OTHER PRESSURE MAIN LINE PIPING, AND 12" OVER ALL NON-PRESSURE LATERAL LINE PIPING. PROVIDE A MINIMUM OF 36" COVER OVER ALL SLEEVES UNDER STREETS AND VEHICULAR TRAFFIC AREAS. ALL SLEEVES SHALL BE INSTALLED UNDER PAVED AREAS PRIOR TO PAVING.
- THE IRRIGATION CONTRACTOR SHALL FLUSH ALL LINES AND ADJUST ALL HEADS FOR MAXIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO ALL WALKS, WALLS, FENCES, DRIVES, AND BUILDINGS AS MUCH AS POSSIBLE. THIS WORK SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT ANY EXISTING SITE CONDITIONS.
- THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY ADDITIONAL ANTI-DRAIN VALVES, TO PREVENT DAMAGE AND EROSION DUE TO EXCESSIVE LOW HEAD RUNOFF, CAUSED BY ELEVATION DIFFERENCES IN THE FIELD CONDITIONS.
- UPON COMPLETION OF THE JOB, THE CONTRACTOR IS TO PROVIDE THE OWNER WITH A RECORD DRAWING OF THE IRRIGATION PLANS.
- THE SYSTEM SHALL BE FULLY GUARANTEED FOR A PERIOD OF ONE YEAR. ANY DEFECTIVE MATERIAL OR POOR WORKMANSHIP SHALL BE REPLACED OR CORRECTED BY THE IRRIGATION CONTRACTOR AT NO COST TO THE OWNER(S).



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## LOW FLOW BUBBLER SCHEDULE

TREES:	NUMBER OF TUBES (OUTLETS) TO EACH PLANT:
CDM CITRUS IMPROVED MEYER'	MEYER'S LEMON 1
CNO CITRUS NAVAL ORANGE	NAVAL ORANGE 1
LTO LAGERSTROEMIA INDICA 'TUSCARORA'	TUSCARORA CRAPE MYRTLE 1
SHRUBS:	
AGE ABELIA GRANDIFLORA 'EDWARD GOUCHER'	GLOSSY ABELIA 2
AES AEONIUM 'SUNBURST'	COPPER PINWHEEL AEONIUM 1
AAP AGAPANTHUS AFRICANUS 'PETER PAN'	PETER PAN LILY OF THE NILE 1
AAQ AGAPANTHUS AFRICANUS 'QUEEN ANNE'	QUEEN ANNE LILY OF THE NILE 1
OP CISTUS PURPUREUS	ORCHID ROCKROSE 1
EBR ECHEVERIA 'BIG RED'	BIG RED ECHEVERIA 1
KNU KNIPHOFIA UVARIA (HYBRIDS)	RED-HOT POKER 1
LJT LIGUSTRUM JAPONICUM 'TEXANUM'	TEXAS PRIVET 2
NDH NANDINA DOMESTICA 'HARBOUR DWARF'	HARBOUR DWARF HEAVENLY BAMBOO 1
RB RHAPHIOLEPIS INDICA 'BALLERINA'	BALLERINA PINK INDIAN HAWTHORN 1
RRF ROSE RED CARPET	RED CARPET ROSE 1
RCA ROSA CALIFORNICA	CALIFORNIA ROSE 1



THESE PLANS HAVE BEEN EXAMINED AND IS APPROVED ONLY AS TO COMPATIBILITY WITH ADJOINING EXISTING OR FUTURE IMPROVEMENTS AND CONFORMANCE WITH CITY OF ANAHEIM STANDARD DETAILS AND THE REQUIREMENTS FOR THE FOLLOWING APPLICABLE FACTORS: RIGHT-OF-WAY, ROADWAY MATERIALS, ALIGNMENTS AND GRADES, HYDROLOGY AND HYDRAULIC DESIGN OF STORMDRAIN OR SANITARY SEWER SYSTEMS AND UNDER GROUND CONDUIT OR OPEN CHANNEL CHANNEL ALIGNMENTS, GRADES, SIZES AND MATERIALS.

ENGINEER'S NOTE TO CONTRACTOR:  
THE EXISTENCE LOCATION OF ANY UNDERGROUND UTILITIES, PIPES, AND/OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL AS CERTAIN THE TRUE VERTICAL AND HORIZONTAL LOCATION AND SIZE OF THOSE TO BE USED OF ANY UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES AS SHOWN HEREON.

## REVISIONS

NO.	INIT.	DATE	DESCRIPTION	DATE	APP'D

## REFERENCES

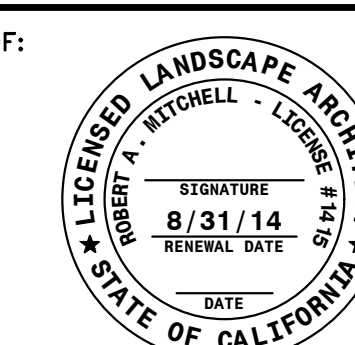
BENCH MARK:	ELEVATION:
PLANS FOR THESE IMPROVEMENTS:	
STREET:	
SEWER:	
STORM DRAIN:	
LANDSCAPE:	

MINIMUM OPERATING PRESSURE OF THIS IRRIGATION SYSTEM HAS BEEN CALCULATED TO BE 34 P.S.I. AT 4 G.P.M. FLOW, AT THE POINT OF CONNECTION OF THE 1" DOMESTIC WATER SUPPLY LINE TO THE WATER MAIN IN THE STREET. (AVAILABLE STATIC PRESSURE = 68 P.S.I.)

FOR APPROVAL SEE PLAN

PREPARED UNDER THE SUPERVISION OF:

Robert A. Mitchell  
DATE: 7/1/15



LANDSCAPE ARCHITECT:

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LAND SOLUTIONS  
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(949) 254-0135  
Contact: Jeff Weber

TRACT No. 3177 Lot 11  
PRIVATE STREET IMPROVEMENT PLANS

CITY OF ANAHEIM

SHEET 2 OF 13

PLAN NO.

FOR CITY USE ONLY