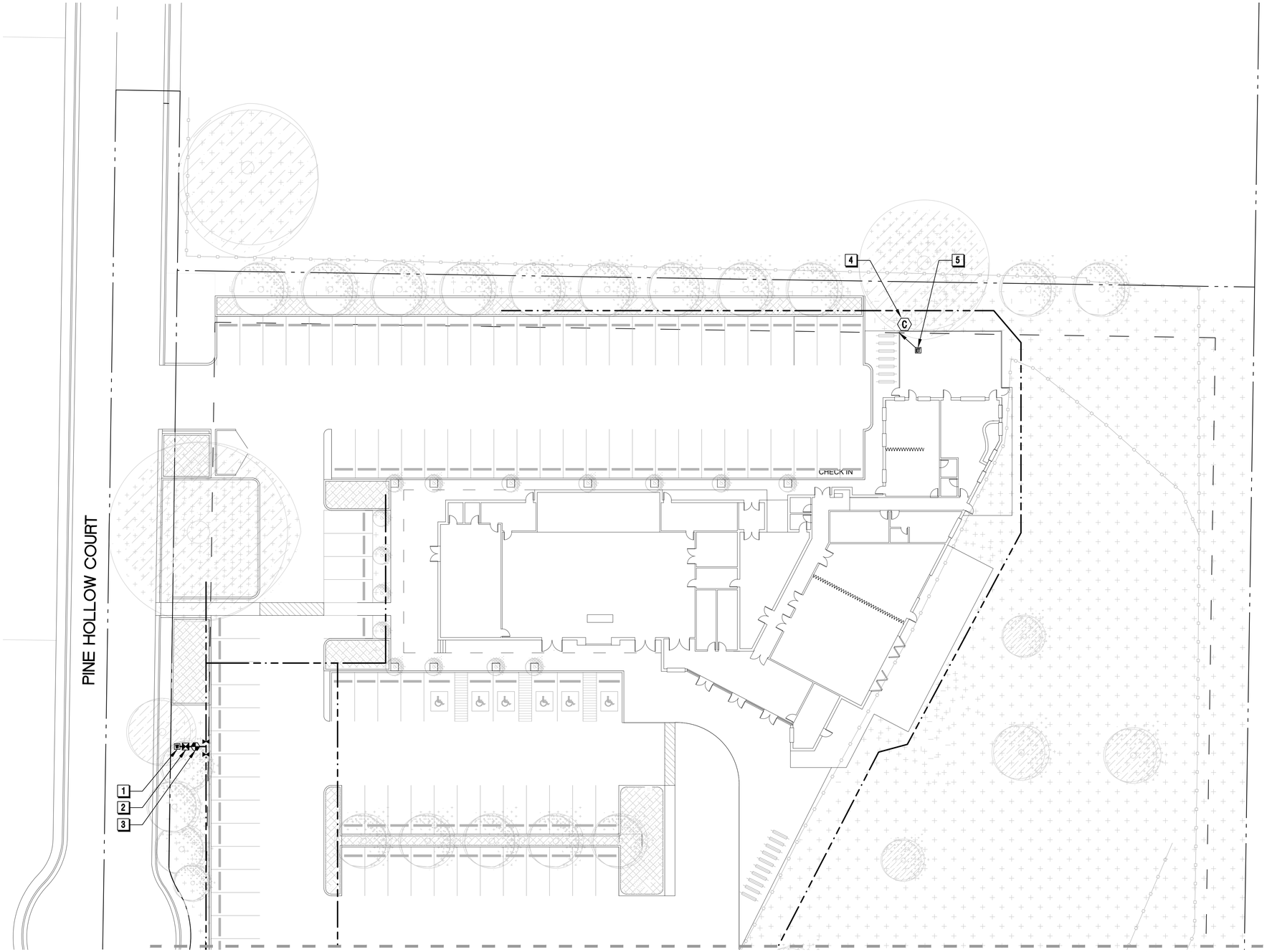

MATCHLINE - SEE SHEET L101

DESIGN DEVELOPMENT PLAN

SHEET NOTES

1. 5/8" CCWD POTABLE WATER METER SHALL BE PROVIDED FOR IRRIGATION UNDER CCWD WORK, SEE CIVIL PLANS. IRRIGATION DEMAND: 15 GPM (MAXIMUM AT QCV) AT xx PSI STATIC PRESSURE PER THE CONTRA COSTA WATER DISTRICT. FIELD LOCATE THE EXACT LOCATION OF (E) 5/8" CCWD WATER METER.

2. 3/4" REDUCED PRESSURE BACKFLOW ASSEMBLY FOR IRRIGATION PROVIDED BY CCWD. IRRIGATION POINT OF CONNECTION: CONNECT MAIN LINE PIPE TO DISCHARGE SIDE PIPE OF (E) 3/4" CCWD BACKFLOW ASSEMBLY.

3. MASTER CONTROL VALVE AND FLOW SENSOR: USING HUNTER ACCU-SYNC PRESSURE REGULATOR AT MCV, SET DYNAMIC DISCHARGE PRESSURE (UNDER FLOW) TO 50 PSI.

4. IRRIGATION CONTROLLER (PEDESTAL MOUNT):
   IRRIGATION CONTRACTOR SHALL COORDINATE, PROVIDE AND INSTALL:
   1. THE CONTROLLER, PEDESTAL MOUNTED IN LANDSCAPE AREA AS DIRECTED BY THE OWNER AND THE GENERAL CONTRACTOR.
   2. THE 120 VAC ELECTRICAL CONNECTIONS TO THE CONTROLLER TERMINALS.
   3. UNLESS OTHERWISE ARRANGED WITH THE GENERAL CONTRACTOR, THE PVC ELECTRICAL CONDUIT, PULL BOXES AND SWEEP ELLS FROM CONTROLLER TO THE EXTERIOR PLANTER.
   4. THE WEATHER SENSOR DEVICE.
   5. LAMINATED IRRIGATION PLANS AND SCHEDULES AS THE SPECIFICATIONS INDICATE.
   6. GROUNDING OF CONTROLLER.
   7. CONDUIT UNDER CONCRETE PAVEMENT FOR LOW VOLTAGE WIRES.

   ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL:
   1. THE 120 VAC/15 AMP SERVICE (1 AMP DEMAND) ELECTRICAL SERVICE TO CONTROLLER LOCATION.
   2. THE RIGID STEEL ELECTRICAL CONDUIT, PULL BOXES AND SWEEP ELLS FROM ELECTRICAL SOURCE TO CONTROLLER LOCATION. WIRE TYPE IN BUILDING STRUCTURE OR CONDUIT TO MATCH THE BUILDING ELECTRICAL SPECIFICATIONS.

5. HUNTER SOLAR SYNC LOCATION: INSTALL ON TOP EDGE OF BUILDING PER HUNTER INSTRUCTIONS.

DIGALERT 811

PROGRESS SET
NOT FOR CONSTRUCTION

REVISIONS

#	DATE	DESCRIPTION

CLAYTON COMMUNITY CHURCH

1027 PINE HALLOW COURT,
CLAYTON CA 94517

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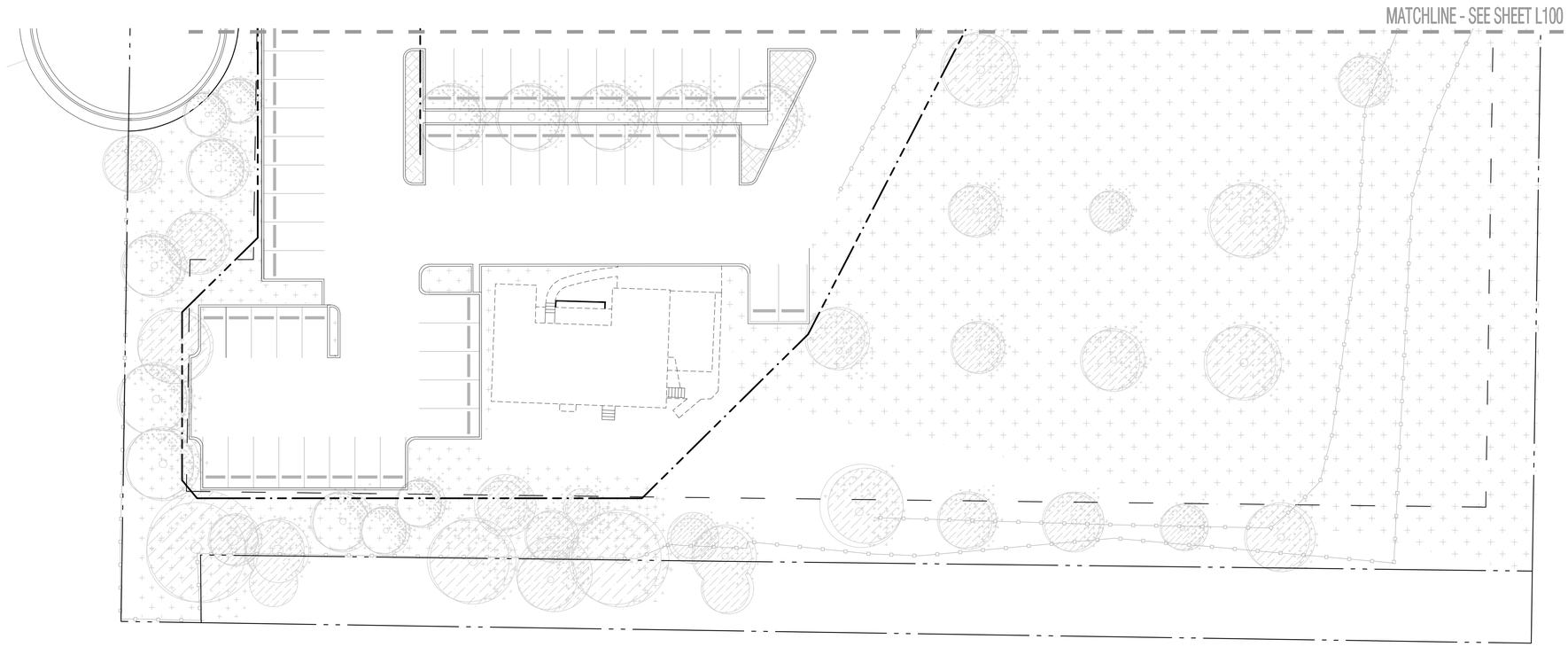
JDE # 20038

IRRIGATION PLAN

SCALE	PROJECT #	DATE ISSUED
1" = 20'-0"	--	12.10.20

L100



DESIGN DEVELOPMENT PLAN

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IRRIGATION INSTALLATION NOTES

NOTE: REFER TO IRRIGATION SPECIFICATIONS FOR DETAILED INFORMATION.

1. PROVIDE INSTALLATION BY PERSONS FAMILIAR WITH IRRIGATION WORK AND UNDER THE SUPERVISION OF A QUALIFIED SUPERVISOR.
2. OBTAIN THE PERMITS REQUIRED AND PROVIDE LABOR AND MATERIALS NECESSARY TO FULLY COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS AND THE SPECIFICATIONS.
3. LOCATE AND PROTECT NEW AND EXISTING UTILITIES PRIOR TO EXCAVATION. DO NOT DAMAGE EXISTING UTILITIES, PAVING OR STRUCTURES. PROVIDE THE NECESSARY REPAIRS AT NO ADDITIONAL COST TO THE OWNER.
4. REMOVE DEBRIS AND ACCUMULATION OF DEBRIS AS A RESULT OF IRRIGATION CONSTRUCTION FROM THE SITE AND LEAVE AREA IN A CLEAN CONDITION ACCEPTABLE TO THE OWNER.
5. MAINTAIN SITE FOR THE SPECIFIED CALENDAR DAYS FOLLOWING ACCEPTANCE OF THE WORK BY THE OWNER AND MAKE CORRECTIONS OR REPAIRS TO THE IRRIGATION AS DIRECTED BY THE OWNER AT THE COMPLETION OF THE MAINTENANCE PERIOD.
6. THE DRAWINGS ARE DIAGRAMMATIC. EQUIPMENT AND PIPING SHOWN IN PAVING IS FOR CLARITY ONLY, INSTALL IN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, ALL OFFSETS, FITTINGS, SLEEVES, ETC. WHICH MAY BE REQUIRED ARE NOT INDICATED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS GRADE DIFFERENCES OR AREA DIFFERENCES WHICH MAY HAVE NOT BEEN CONSIDERED IN THE ENGINEERING. WHERE FIELD CHANGES EXIST, COORDINATE THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AS PER THE CONTRACT SPECIFICATIONS. COORDINATE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT, OR SLEEVES OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING, STRUCTURE, ETC. BEFORE CONSTRUCTION. ASSUME FULL RESPONSIBILITY FOR REQUIRED REVISIONS IF THESE NOTIFICATIONS ARE NOT PERFORMED.
7. THE INTENT OF THIS IRRIGATION SYSTEM DESIGN IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.
8. PROGRAM THE CONTROLLER TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. MAKE ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS AND SLOPES, SUN, SHADE AND WIND EXPOSURES.
9. 120 VOLT A.C. (2.5 AMP DEMAND) ELECTRICAL SERVICE TO IRRIGATION CONTROLLER LOCATION TO BE COORDINATED WITH THE GENERAL CONTRACT WORK. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER AND PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.
10. INSTALL NEW BATTERIES IN CONTROLLER (AS REQUIRED) TO RETAIN PROGRAM IN MEMORY DURING TEMPORARY POWER FAILURES. USE QUANTITY, TYPE, AND SIZE REQUIRED AS PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.
11. SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE CONTRACTOR, THE OWNER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER.
12. THE IRRIGATION SYSTEM IS DESIGNED FOR ONE VALVE TO OPERATE AT ONE TIME. THIS WILL ALLOW THE SYSTEM TO IRRIGATE IN LESS THAN 8 HOURS ACCORDING TO WEATHER CONDITIONS. TOTAL GPM DEMAND OF SYSTEM WILL BE APPROXIMATELY 15 GPM AT A QCV. DO NOT UNDER ANY CIRCUMSTANCE EXCEED 15 GPM OR OPERATE MORE THAN ONE VALVE AT A TIME.
13. IRRIGATION CONTROL WIRES: SOLID STRAND COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND, SIZE AWG-UF #14-1. SPLICES: MADE WITH 3M-DBY SEAL PACKS. INSTALL TWO (2) SPARE WIRES OF A DIFFERENT COLOR ALONG THE ENTIRE MAIN LINE. LOOP 36" OF EXCESS SPARE WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES. WEATHERPROOF UNUSED WIRE ENDS. SPLICING OF 24 VOLT WIRES IS NOT PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" LONG, 1" DIAMETER COIL OF EXCESS WIRE AT EACH SPLICE AND A 36" LONG EXPANSION LOOP EVERY 100 FEET ALONG WIRE RUN. MULTI-STRAND WIRE IS NOT PERMITTED.
14. PLASTIC VALVE BOXES ARE TO BE GREEN IN COLOR WITH BOLT DOWN, NON-HINGED COVER MARKED "IRRIGATION". BOX BODY SHALL HAVE KNOCK OUTS. MANUFACTURER: CARSON, APPLIED ENGINEERING OR APPROVED EQUAL. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, ETC. AND EACH BOX SHALL BE 12" APART. SHORT SIDE OF RECTANGULAR VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC. REFER TO BOX INSTALLATION DETAIL. FIRMLY BOLT DOWN THE LID WHEN WORK IS COMPLETE.
15. IRRIGATION SUBSURFACE EMITTER TUBE LAYOUT AND PIPING AS SHOWN ON THE DRAWINGS IS INDICATIVE OF THE WORK TO BE INSTALLED. IRRIGATION PIPING AT CERTAIN LOCATIONS MAY REQUIRE FIELD ADJUSTMENT OF TUBING TO WORK AROUND SIGNS, LIGHTS, HYDRANTS, AND BURIED UTILITY BOXES.
16. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWING. VERIFY EXACT WATER PRESSURE IN THE FIELD, PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S REPRESENTATIVE. IRRIGATION DEMAND: 15 GPM AT 80-110 PSI AT THE POINT OF CONNECTION. STATIC PRESSURE IN THE STREET MAIN DOMESTIC PIPING IS 80-110 PSI PER CCWD. CONFIRM EXACT STATIC PRESSURE N THE FIELD.
17. PIPE SIZING SHOWN ON THE DRAWINGS IS TYPICAL. AS CHANGES IN LAYOUT OCCUR DURING STAKING AND CONSTRUCTION ADJUST THE SIZE ACCORDINGLY.
18. PIPE THREAD SEALANT COMPOUND SHALL BE APPROPRIATE SEALANT FOR EACH TYPE OF THREADED PIPE.
19. BEFORE COMMENCING WITH WORK UNDER THIS CONTRACT, NOTIFY UNDERGROUND SERVICE ALERT AT 811. DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES, PIPES, AND STRUCTURES BEFORE COMMENCING WORK. COSTS OF DAMAGES WHICH OCCUR FROM FAILURE TO ACCURATELY LOCATE AND PRESERVE THESE UTILITIES IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.
20. MAIN LINE PIPE, REMOTE CONTROL VALVES, AND LATERAL LINE PIPE HAVE BEEN SIZED TO ELIMINATE PRESSURE LOSS WITHIN THE SYSTEM. DO NOT UNDERSIZE THESE COMPONENTS OR THE PRESSURE LOSSES OF THE SYSTEM WILL BE INCREASED AND THE HEADS MAY NOT OPERATE. OPERATE ONE VALVE AT ONE TIME.
21. JDE ASSOCIATES HAS COMPLIED WITH THE CRITERIA OF THE CITY OF CLAYTON AND THE CCWD ORDINANCE AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

ABBREVIATIONS:

AV	AIR VALVE
CI	CAST IRON
CU	COPPER
DEG	DEGREES
DI	DUCTILE IRON
DIA	DIAMETER
ECV	EMITTER CONTROL VALVE
EFF	EFFICIENCY
ETWU	ESTIMATED TOTAL WATER USE
ETO(ET)	EVAPOTRANSPIRATION
(E)	EXISTING
(F)	FUTURE
FC	FULL CIRCLE (360°)
FT	FEET
FIPT	FEMALE IRON PIPE THREAD
FPS	FEET PER SECOND
FS	FLOW SENSOR
FV	FLUSH VALVE
GA	GAUGE
GI	GALVANIZED IRON
GV	GATE VALVE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
ID	INTERNAL DIAMETER
IN	INCHES
IRR	IRRIGATION
LA	LANDSCAPE ARCHITECT
MAWA	MAXIMUM APPLIED WATER ALLOWANCE
MAX	MAXIMUM
MCV	MASTER CONTROL VALVE
MV	MASTER VALVE
MIN	MINIMUM
MIPT	MALE IRON PIPE THREAD
MPR	MATCHED PRECIPITATION RATE
MWELO	MODEL WATER EFFICIENT LANDSCAPE ORDINANCE
(N)	NEW
NIC	NOT IN CONTRACT
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
PC	PART CIRCLE (20°-360°)
PE	POLYETHYLENE
POC	POINT OF CONNECTION
PRECIP	PRECIPITATION
PRV	PRESSURE REDUCING VALVE
PVBA	PRESSURE VACUUM BREAKER ASSEMBLY
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYLCHLORIDE
PW	POTABLE WATER
QTY	QUANTITY
QCV	QUICK COUPLING VALVE
RCV	REMOTE CONTROL VALVE
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY
RS	RIGID STEEL
RW	RECYCLED WATER
SCH	SCHEDULE
SF	SQUARE FOOT OR FEET
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
TBD	TO BE DETERMINED
TBE	THREADED BOTH ENDS
TOE	THREADED ONE END
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPC	UNIFORM PLUMBING CODE
USA	UNDERGROUND SERVICE ALERT
UV	ULTRAVIOLET
UVR	ULTRAVIOLET RESISTANT
VAC	VOLTS-ALTERNATING CURRENT
VB	VALVE BOX
WM	WATER METER

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	PSI	GPM	RADIUS MIN.-MAX.	PRECIP. RATE
12" POP-UP SHRUB SPRAY						
▽ ▽ ▽	570Z-12P-PRX-COM/OT-15-H,T,Q	TORO	30	1.2,0.8,0.6	12-15	1.0 IN/HR
▽	570Z-12P-PRX-COM/OT-12-H	TORO	30	0.74	10-12	1.0 IN/HR
▽	570Z-12P-PRX-COM/OT-8-Q	TORO	30	0.17	6-8	1.0 IN/HR
SHRUB BUBBLER						
•	1401	RAIN BIRD BUBBLER	30	0.25	BUBBLER	0.25 GPM
SHRUB MULTI-OUTLET EMITTER						
•	XBD-81	RAIN BIRD EIGHT-OUTLET EMITTER, 1 GPH PER OUTLET AT 30 PSI				
TREE BUBBLER						
"	[RWS-B-C-1401]+[RWS-SOCK]	RAIN BIRD TREE BUBBLER, 0.25 GPM AT 30 PSI, 2 PER TREE, NEW TREES ONLY				
SUBSURFACE DRIPPERLINE						
12" SPACING		SUBSURFACE IRRIGATION FOR SHRUB ZONE: HUNTER SUB-SURFACE DRIPPERLINE AS FOLLOWS: 5/8" HDL PRESSURE COMPENSATING DRIP LINE WITH CHECK VALVES, MODEL HDL-06-12-CV, 0.6 GPH, STANDARD COLOR, 12" EMITTER SPACING, WITH HUNTER FITTINGS. INSTALL TUBING AT A SPACING OF 10"-12" BETWEEN ROWS UNLESS OTHERWISE NOTED ON THE PLANS, 4"-6" FROM PAVEMENT OR LANDSCAPE EDGE, AND TRIANGULATE THE EMITTER PORTS BETWEEN ROWS. INSTALL EACH ZONE WITH AIR VALVE AND FLUSH VALVE AS INDICATED IN THE DRIPPERLINE CONSTRUCTION DETAILS. LOCATE AIR VALVE AND FLUSH VALVE IN SHRUB AREAS, NOT IN TURF AREA. PROVIDE 3"-4" SOIL COVER.				
		EACH DRIPPERLINE TUBING ZONE SHALL INCLUDE THE FOLLOWING ITEMS:				
–	PLD-BV	HUNTER HOSE END FLUSH DEVICE FOR FLUSHING THE PIPING AT END RUNS OF THE DRIPPERLINE SYSTEMS. INSTALL AT ENDS OF DRIPPERLINE AREAS.				
–	PLD-AVR	HUNTER DRIPPERLINE AIR VENT/VACUUM RELIEF VALVE. INSTALL IN THE MIDDLE OF DRIPPERLINE SYSTEMS TO EXHAUST AIR OR RELIEVE VACUUM.				
VALVES						
	(BY CCWD)	3/4" REDUCED PRESSURE BACKFLOW ASSEMBLY INSTALLED BY CCWD.				
	[PGV-101G]+[AS-ADJ]+[FLOW-CLICK]+[FCT-100]	HUNTER MASTER CONTROL VALVE, NORMALLY CLOSED, HUNTER ACCU-SYNC PRESSURE REGULATOR, FLOW-CLIK SENSOR AND TEE, AND PAIGE P7171D FLOW SENSOR CABLE IN 1" ELECTRICAL CONDUIT.				
	PCZ-101-40	HUNTER 1" EMITTER CONTROL VALVE, 0.5-15 GPM, 40 PSI REGULATOR				
	PGV-101G	HUNTER 1" REMOTE CONTROL VALVE, 0,2-40 GPM, SPRAY & BUBBLER ZONES				
	33DNP (3/4")	RAIN BIRD NON-POTABLE QUICK COUPLING VALVE				
	T-113IRR-K	NIBCO THREADED GATE VALVE, SIZE EQUAL TO MAIN LINE SIZE				
CONTROLLER						
C	[IC-600-M]+[ICM-600]+[ICM-600]+[ACC-PED]	HUNTER "I-CORE" 18 STATION CONTROLLER WITH 6-STATION BASE CONTROLLER AND TWO 6-STATION EXPANSION MODULES, WALL MOUNT TO PEDESTAL MOUNT. (xx STATIONS USED; x EXTRA STATIONS).				
ET	WSS-SEN	HUNTER WIRELESS "SOLAR SYNC" SENSOR FOR ON-SITE SOLAR AND TEMPERATURE DATA USED IN THE CALCULATION OF EVAPOTRANSPIRATION.				
C01 / 1" 20		CONTROLLER STATION NUMBER FLOW (APPROX. GPM) REMOTE CONTROL VALVE SIZE				
SLEEVES AND PIPE						
		MAIN LINE PIPE: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC PLASTIC SOLVENT WELDED FITTINGS. 18" SOIL COVER, 18" COVER UNDER PEDESTRIAN PAVEMENT, AND 24" COVER UNDER VEHICULAR PAVEMENT. SIZE: 1-1/2" DIA.				
		LATERAL LINE: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC PLASTIC SOLVENT WELDED FITTINGS. 12" SOIL COVER, 12" COVER UNDER PEDESTRIAN PAVEMENT, AND 24" COVER UNDER VEHICULAR PAVEMENT. SIZE 1" UNLESS OTHERWISE NOTED.				
		SLEEVE: 1120-SCHEDULE 40 PVC PLASTIC PIPE. COVER TO BE EQUAL TO PIPE DEPTH OF COVER CONTAINED WITHIN THE SLEEVE. COVER TO BE 24" FROM TOP OF PAVEMENT TO TOP OF PIPE. SIZE 2" UNLESS OTHERWISE NOTED.				

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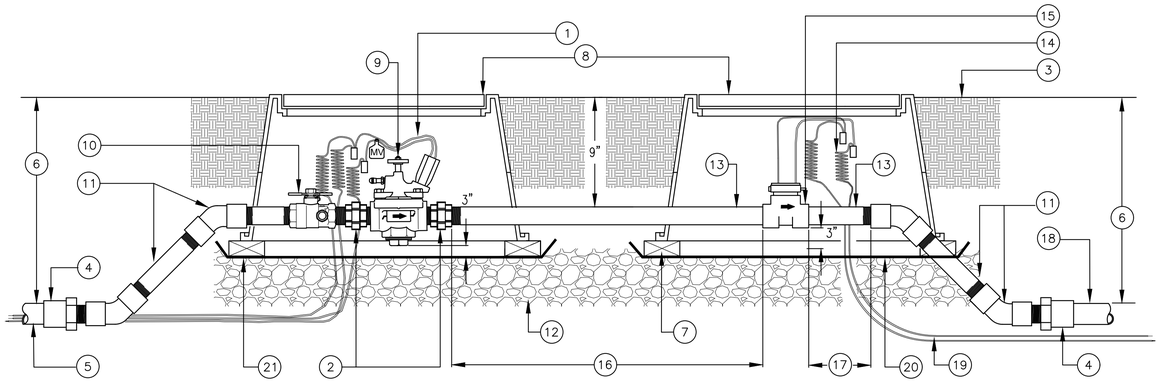
IRRIGATION LEGEND & NOTES

SCALE	PROJECT #	DATE ISSUED
AS NOTED	--	12.10.20

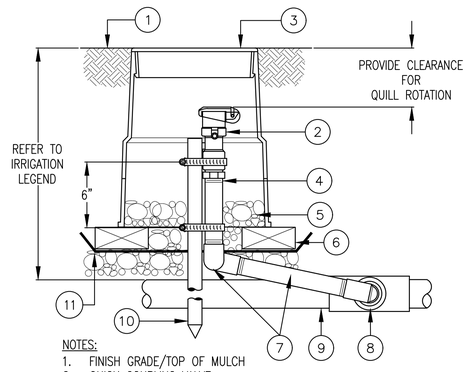
L102



ITEM LIST AND INSTALLATION NOTES:

1. VALVE CONTROL WIRE – PROVIDE 3M DBY SEAL PACKS AT SPLICES, 36" OF EXCESS UF WIRE IN A 1" DIAMETER COIL AND VALVE TAG
2. UNION, PVC SCH 80, MIPT X THREAD, 2 TOTAL, KBI U-XXXX-TMV SERIES
3. FINISH GRADE
4. MALE ADAPTER, PVC (SCHEDULE AS SPECIFIED IN IRRIGATION LEGEND)
5. PVC MAIN LINE FROM WATER METER
6. REFER TO IRRIGATION LEGEND OR SPECIFICATIONS FOR SOIL COVER
7. COMMON BRICK, 8 TOTAL, INSTALL AT EACH CORNER OF EACH VALVE BOX
8. VALVE BOX, PLASTIC, RECTANGULAR WITH BOLT-DOWN LID. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL. TOP DIMENSION 11-3/4" X 17" X 12" DEEP.
9. MASTER CONTROL VALVE WITH PRESSURE REGULATION, FLOW CONTROL, AND MANUAL BLEED (SIZE AS SPECIFIED IN IRRIGATION LEGEND)
10. BALL VALVE, BRASS, FULL PORT, THREADED
11. ELBOWS (45 DEG), NIPPLES (TBE), PVC SCH 80, THREADED, AS REQUIRED
12. PEA GRAVEL – 6" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
13. NIPPLE, PVC SCH 80, TOE (BETWEEN MASTER VALVE & FLOW SENSOR; AT DISCHARGE FROM FLOW SENSOR)
14. CONTROL WIRE: PROVIDE 3M DBY SEAL PACKS AT SPLICES, 36" OF EXCESS WIRE IN A 1" DIAMETER COIL (#14 AWG-UF WIRE) AND CONTROLLER I.D. TAG
15. FLOW SENSOR WITH SOLVENT WELD TEE, SIZE AS SPECIFIED IN LEGEND. INSTALL FLOW SENSOR TO ALLOW STRAIGHT-FLOW OF A MINIMUM OF TEN TIMES THE DIAMETER OF THE MAIN LINE PIPE ON THE INLET SIDE AND FIVE TIMES THE DIAMETER OF THE MAIN LINE PIPE ON THE OUTLET SIDE OF THE SENSOR. WIRE TO CONTROLLER AS DIRECTED BY MANUFACTURER'S REPRESENTATIVE. DO NOT ALLOW EXCESS SOLVENT CEMENT TO ENTER INSIDE THE TEE AND DISRUPT THE FLOW SENSOR MECHANISM.
16. PROVIDE TEN (10) X THE PIPE DIAMETER; EX: 10 X 1" PIPE = 10" MINIMUM
17. PROVIDE FIVE (5) X THE PIPE DIAMETER; EX: 5 X 1" = 5" MINIMUM
18. PVC MAIN LINE TO IRRIGATION SYSTEM
19. PAIGE P7171D FLOW SENSOR CONTROL WIRE FROM FLOW SENSOR TO CONTROLLER. INSTALL CABLE INSIDE A 1" ELECTRICAL CONDUIT AND INSTALL PULL BOXES EVERY 200 FEET AS NEEDED. DO NOT SPLICE SENSOR CABLE BETWEEN CONTROLLER AND FLOW SENSOR OR EXCEED 2000 FEET OF WIRE.
20. METAL WIRE MESH TO PREVENT GOPHER INTRUSION, 1/2" MESH, 19 GAUGE, GALVANIZED

1 1" MASTER CONTROL VALVE & FLOW SENSOR
NOT TO SCALE



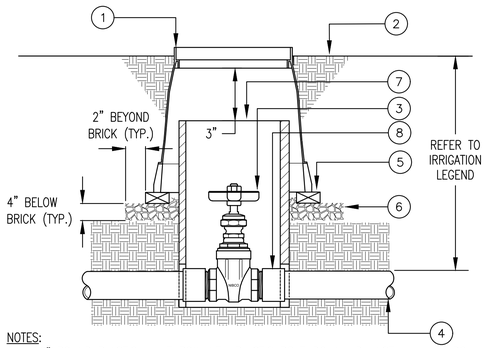
NOTES:

1. FINISH GRADE/TOP OF MULCH
2. QUICK COUPLING VALVE
3. 10" ROUND PLASTIC VALVE BOX WITH PLASTIC BOLT-DOWN LID. INSTALL VALVE BOX FLUSH WITH GRADE IN TURF AND 1" ABOVE FINISH GRADE IN SHRUB AREAS.
4. PVC SCH 80 NIPPLE, TBE, SIZED EQUAL TO VALVE, LENGTH AS REQUIRED
5. PEA GRAVEL BASE, 6" DEEP
6. COMMON BRICK-2 TOTAL, 180 DEGREES APART. KEEP BRICKS AWAY FROM PIPE.
7. RAIN BIRD TSJ SWING JOINT
8. TEE OR ELL PER MAIN LINE SPECIFICATION
9. PVC MAIN LINE PIPE
10. #4 X 30" REBAR STAKE WITH STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM
11. WIRE MESH TO PREVENT GOPHER INTRUSION, GALVANIZED STEEL, 1/2" MESH, 19 GAUGE

CONSTRUCTION NOTES:

1. FURNISH THREADED FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.
2. INSTALL VALVE IN GROUNDCOVER AREAS, NOT IN LAWN.

2 QUICK COUPLING VALVE
NOT TO SCALE



NOTES:

1. 10" ROUND PLASTIC VALVE BOX WITH PLASTIC BOLT-DOWN LID. INSTALL VALVE BOX FLUSH WITH FINISH GRADE IN TURF AND 1" ABOVE FINISH GRADE IN SHRUB AREAS.
2. FINISH GRADE
3. GATE VALVE
4. PVC MAIN LINE, SIZE AND TYPE PER SPECIFICATIONS
5. COMMON BRICK, 2 TOTAL, 180 DEGREES APART. KEEP BRICKS AWAY FROM PIPE.
6. PEA GRAVEL BASE, 6" DEEP
7. 8" DIAMETER PVC VERTICAL SLEEVE FOR ACCESS – NOTCH SLEEVE TO FIT OVER PIPE
8. PVC SCH 80 MALE ADAPTER, 2 TOTAL, SIZED EQUAL TO GATE VALVE

3 F.I.P.T. GATE VALVE
NOT TO SCALE

PROGRESS SET
NOT FOR CONSTRUCTION

REVISIONS

#	DATE	DESCRIPTION

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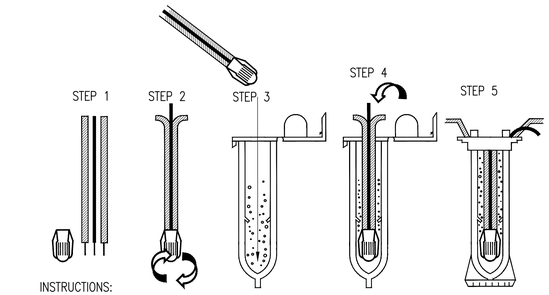
JDE # 20038

IRRIGATION DETAILS

SCALE	PROJECT #	DATE ISSUED
AS NOTED	--	12.10.20

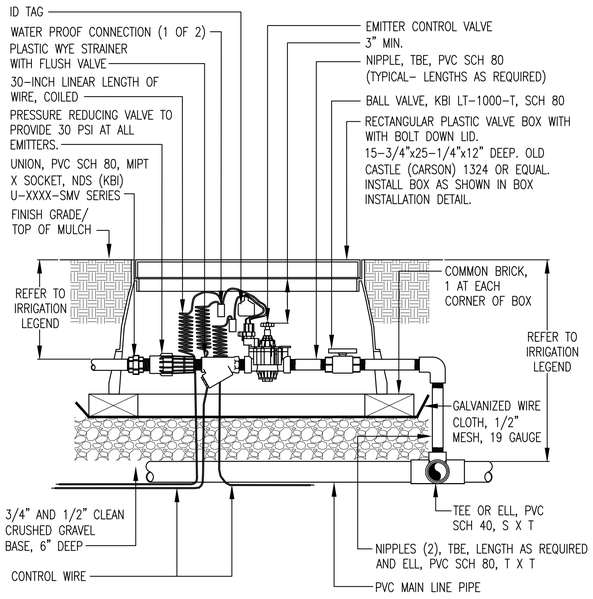
L103



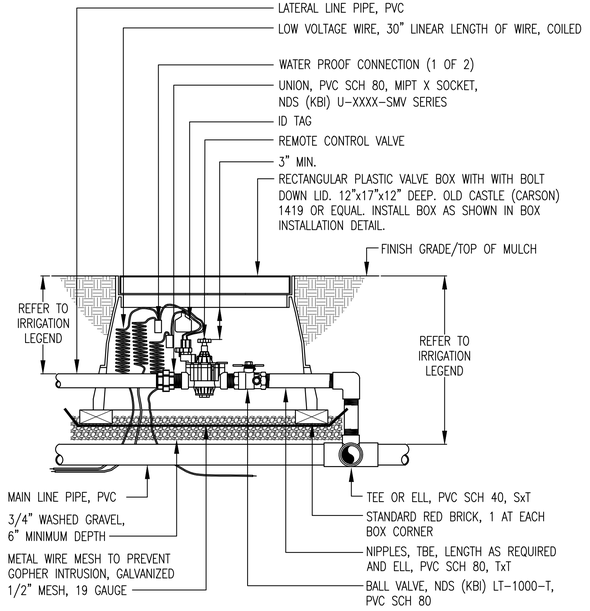
INSTRUCTIONS:

1. STRIP WIRES APPROXIMATELY 1/2" TO EXPOSE WIRE.
2. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
3. INSERT WIRE ASSEMBLY INTO PLASTIC TUBE UNTIL WIRE CONNECTOR SNAPS PAST LIP IN BOTTOM OF TUBE.
4. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS.
5. INSPECT FINAL SPLICE ASSEMBLY TO BE SECURE AND FINISHED.

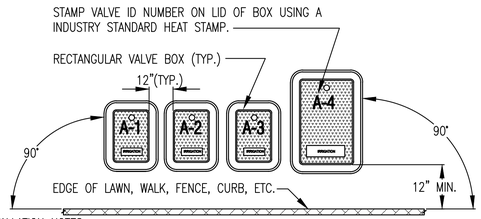
1 WIRE SPLICE
NOT TO SCALE



2 EMITTER CONTROL VALVE
NOT TO SCALE



3 REMOTE CONTROL VALVE
NOT TO SCALE



INSTALLATION NOTES:

1. INSTALL VALVE BOXES AS SHOWN IN THE DETAIL ABOVE.
2. INSTALL VALVE BOX ASSEMBLIES IN SHRUB OR GROUND COVER ZONES. VALVE ASSEMBLIES INSTALLED IN A TURF ZONE IS PERMITTED ONLY IF A SHRUB OR GROUND COVER AREA DOES NOT EXIST IN THE PROXIMITY OF THE IRRIGATION ZONE.
3. PLACE THE CENTER OF THE VALVE BOX OVER THE CENTER OF THE REMOTE CONTROL VALVE. INSTALL VALVE BOX IN A WAY TO ENABLE EASY SERVICING OR REMOVAL OF VALVE.
4. INSTALL TOP OF BOX 1" ABOVE FINISHED GRADE IN SHRUB OR GROUND COVER AREAS OR EQUAL TO THE DEPTH OF THE MULCH AND FLUSH WITH GRADE IN TURF ZONES. INSTALL THE TOP OF BOX AT THE SAME ANGLE AS THE FINISHED GRADE.
5. PREVENT THE COLLAPSE AND DEFORMATION OF VALVE BOX SIDES. DO NOT HEAVILY COMPACT SOIL AGAINST THE SIDES OF THE VALVE BOX.
6. INSTALL EXTENSION RISERS TO VALVE BOX AS REQUIRED TO COMPLETELY ENCLOSE VALVE ASSEMBLY. PROVIDE EXTENSION RISER MANUFACTURED BY THE SAME MANUFACTURER OF THE VALVE BOX.
7. PREVENT SOIL INTRUSION INTO THE BOX. USE POLYETHYLENE TAPE AROUND PIPE CUTOUTS AS NEEDED.
8. SAWCUTTING OR MODIFYING THE VALVE BOXES BEYOND WHAT THE MANUFACTURER ALLOWS IS NOT PERMITTED.
9. WHEN ASSEMBLY IS COMPLETE INSTALL THE GRAVEL BELOW THE VALVE. FINISHED GRAVEL IS TO BE CLEAN WITHOUT DEBRIS IN THE VALVE BOX.
10. USE THE MANUFACTURER PROVIDED BOLT AND BOLT DOWN THE BOX LIDS TO PREVENT TAMPERING OR VANDALISM.

4 BOX INSTALLATION
NOT TO SCALE

REVISIONS

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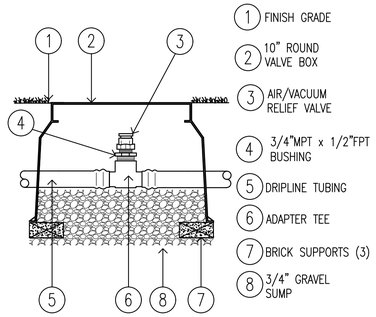
IRRIGATION DETAILS

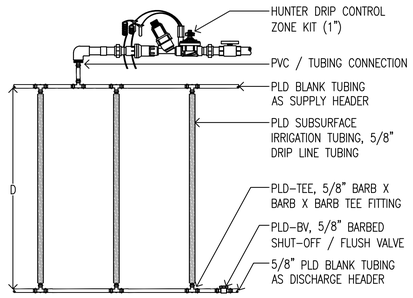
PROGRESS SET NOT FOR CONSTRUCTION

SCALE	PROJECT #	DATE ISSUED
AS NOTED	--	12.10.20

L104

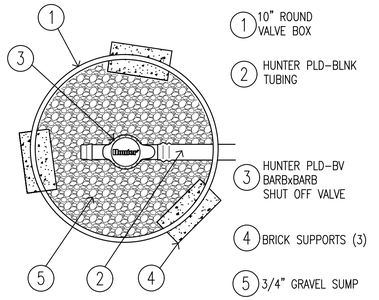


1 AIR RELIEF TUBING
SCALE: 1.5" = 1'-0"

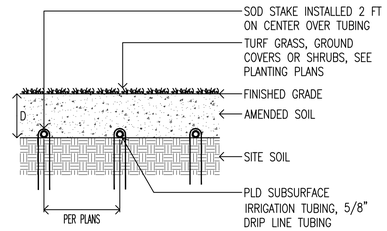


NOTE: SEE CATALOG FOR ALLOWABLE LENGTH OF TUBING RUN (D).

2 PLD - PLAN
SCALE: N.T.S.

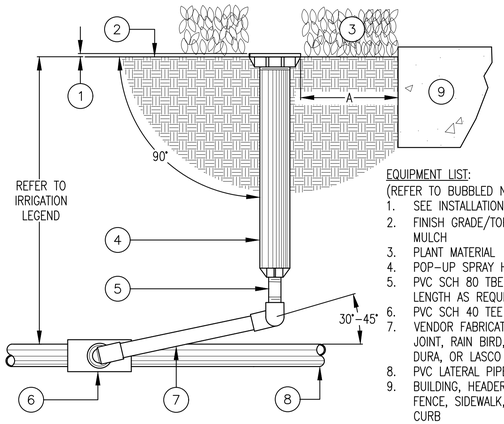


3 MANUAL FLUSH VALVE
SCALE: 1.5" = 1'-0"



INSTALLATION DEPTH (D):
GROUND COVER AREAS: 3-4"
SHRUB AREAS: 3-4"

4 PLD - SECTION
SCALE: N.T.S.

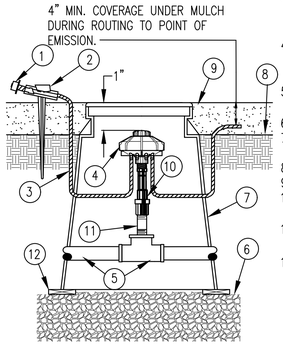


EQUIPMENT LIST:
(REFER TO BUBBLED NUMBERS)
1. SEE INSTALLATION NOTE 1
2. FINISH GRADE/TOP OF MULCH
3. PLANT MATERIAL
4. POP-UP SPRAY HEAD
5. PVC SCH 80 TBE NIPPLE, LENGTH AS REQUIRED
6. PVC SCH 40 TEE OR ELL
7. VENDOR FABRICATED SWING JOINT, RAIN BIRD, TORO, DURA, OR LASCO
8. PVC LATERAL PIPE
9. BUILDING, HEADERBOARD, FENCE, SIDEWALK, OR CURB

INSTALLATION NOTES:
1. INSTALL TOP OF HEAD 1" ABOVE FINISH GRADE IN SHRUB AREAS AND FLUSH WITH GRADE IN TURF AREAS. SIDE INLET USE IS NOT PERMITTED.
2. DIMENSION "A": INSTALL HEAD 4" FROM HEADERBOARD OR FENCE, 24" FROM BUILDINGS, 24" FROM NON-PERMEABLE PAVEMENT IN SHRUB ZONES, AND 2" FROM NON-PERMEABLE PAVEMENT IN TURF ZONES.
3. INSTALL HEAD PERPENDICULAR TO FINISHED GRADE.
4. PRIOR TO NOZZLE INSTALLATION, FLUSH HEAD WITH WATER USING MANUFACTURER'S FLUSH NOZZLE TO ELIMINATE DEBRIS FROM WITHIN HEAD AND RISER.
5. INSTALL NOZZLE SCREEN. INSTALL NOZZLE, HAND TIGHT. RATCHET POP-UP RISER AND ADJUST VARIABLE ARC NOZZLES SO NOZZLE SPRAY IS WITHIN PLANTED AREA. NO OVERSPRAY ON WINDOWS, BUILDINGS, STREETS OR PAVEMENT.

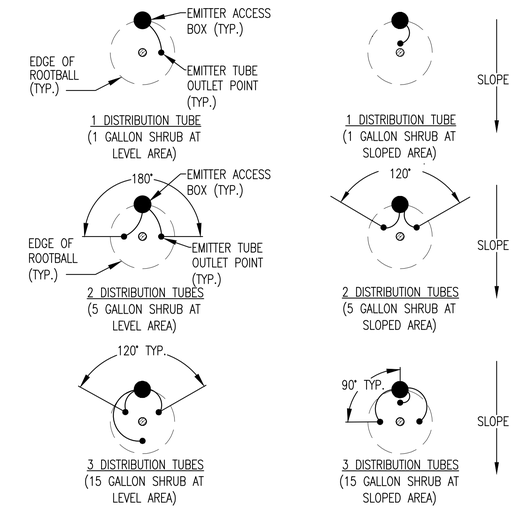
5 POP-UP SPRAY
NOT TO SCALE

NOTES:
1. INSTALL A PORT PLUG ON UNUSED PORTS.
2. PLACE POINT OF WATER EMISSION FROM DISTRIBUTION TUBE TO EMIT WATER DIRECTLY ON THE CONTAINER ROOTBALL OF PLANT OR TREE AS FOLLOWS:
   1 GAL SIZE - 1 TUBE 24" BOX - 4 TUBES
   5 GAL SIZE - 2 TUBES 36" BOX - 6 TUBES
   15 GAL SIZE - 3 TUBES 48" BOX - 8 TUBES
3. EQUAL EQUIPMENT MANUFACTURED BY THE SAME MANUFACTURER MAY BE SUBSTITUTED FOR ITEMS 1, 2, 3, 4, 7, AND 10.



LEGEND
1. RAIN BIRD MODEL NO. DBC-0-025 DIFFUSER BUG CAP
2. RAIN BIRD MODEL NO. TS-025 1/4" TUBING STAKE
3. RAIN BIRD MODEL NO. DT-025 1/4" DISTRIBUTION TUBING (MAX. LENGTH: 10 FEET)
4. RAIN BIRD XERI-BIRD-8 (SEE IRRIGATION EQUIPMENT LEGEND FOR GPH/PORT)
5. PVC LATERAL PIPE AND FITTINGS (DEPTH PER SPECIFICATIONS)
6. PEA GRAVEL
7. RAIN BIRD MODEL NO. SEB-6 OR CARSON 610 EMITTER BOX
8. FINISH GRADE
9. MULCH BED
10. RAIN BIRD MODEL NO. PRS-050 PRESSURE REGULATOR
11. PVC SCH 80 RISER (TBE-LENGTH AS REQUIRED)
12. COMMON HALF BRICK (2 TOTAL)

6 MULTI-OUTLET EMITTER WITH BOX
NOT TO SCALE



7 EMITTER TUBING PLACEMENT DETAIL
NOT TO SCALE

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IRRIGATION DETAILS

PROGRESS SET
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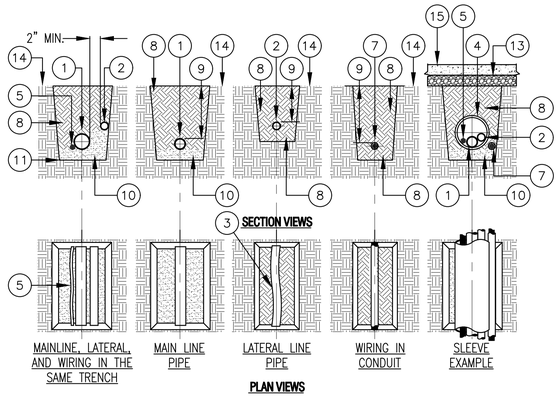
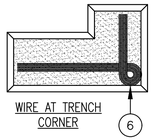
L105

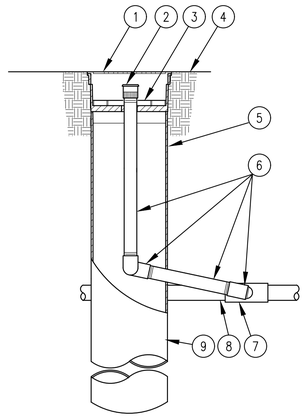




ITEM LIST AND INSTALLATION NOTES:

1. MAIN LINE PIPE; PROVIDE A MINIMUM OF 2" BETWEEN ALL PIPES.
2. LATERAL LINE PIPE; PROVIDE A MINIMUM OF 2" BETWEEN ALL PIPES.
3. SNAKE SOLVENT WELD PLASTIC PIPING IN TRENCH AS SHOWN.
4. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SLEEVING TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
5. WIRE BUNDLE: INSTALL WIRING BENEATH AND BESIDE MAIN LINE. TAPE AND BUNDLE AT 10-FOOT INTERVALS.
6. TIE A 24-INCH LOOP IN WIRING AT CHANGES OF DIRECTION OF 30° OR GREATER. UNTIE AFTER ALL CONNECTIONS HAVE BEEN MADE.
7. LOW VOLTAGE WIRE CONDUIT (WHERE SPECIFIED).
8. CLEAN BACKFILL PER THE SPECIFICATIONS, TYPICAL.
9. FOR PIPE, SLEEVE AND WIRE BURIAL DEPTHS, REFER TO IRRIGATION LEGEND AND SPECIFICATIONS.
10. PROVIDE A SAND BED FOR PIPE (WHERE SPECIFIED).
11. TRENCH BOTTOM OF UNDISTURBED SOIL, TYPICAL.
12. WHERE BORING UNDER EXISTING PAVEMENT IS REQUIRED – REFER TO DRAWINGS FOR SPECIFIC INFORMATION.
13. PAVEMENT AND SUBGRADE
14. FINISH GRADE
15. PAVED OR CONCRETE SURFACE

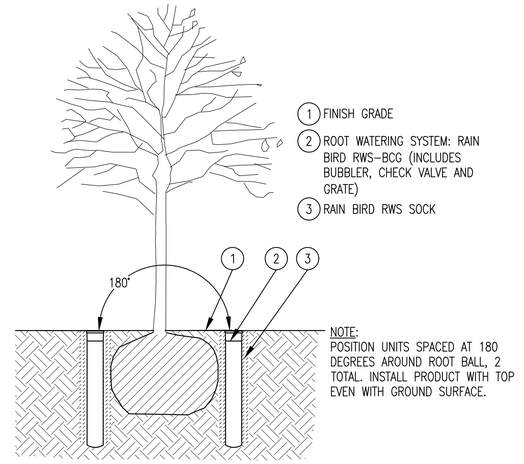
1 TRENCH
NOT TO SCALE



1. 4-INCH GRATE*
2. BUBBLER*
3. ROOT WATERING SYSTEM: RAIN BIRD RWS-BG (INCLUDES CANISTER, BUBBLER WITH SWING JOINT RISER AND GRATE)
4. FINISH GRADE
5. RAIN BIRD RWS SOCK*
6. RAIN BIRD SWING JOINT RISER ASSEMBLY*
7. PVC SCH 40 TEE OR EL
8. LATERAL PIPE
9. 4-INCH BASKET WEAVE CANISTER* -PLACE AGAINST TREE ROOTBALL

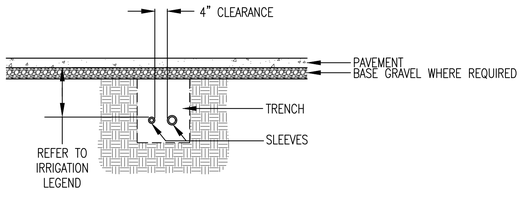
* RAIN BIRD ROOT WATERING SYSTEM INCLUDES CANISTER, BUBBLER, SWING JOINT RISER, SOCK AND GRATE

2 ROOT WATERING SYSTEM
NOT TO SCALE



1. FINISH GRADE
2. ROOT WATERING SYSTEM: RAIN BIRD RWS-BCG (INCLUDES BUBBLER, CHECK VALVE AND GRATE)
3. RAIN BIRD RWS SOCK

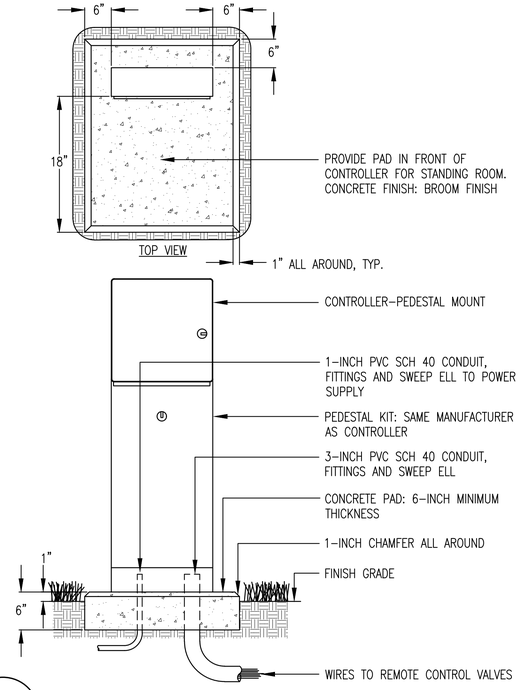
3 TREE WATERING SYSTEM
NOT TO SCALE



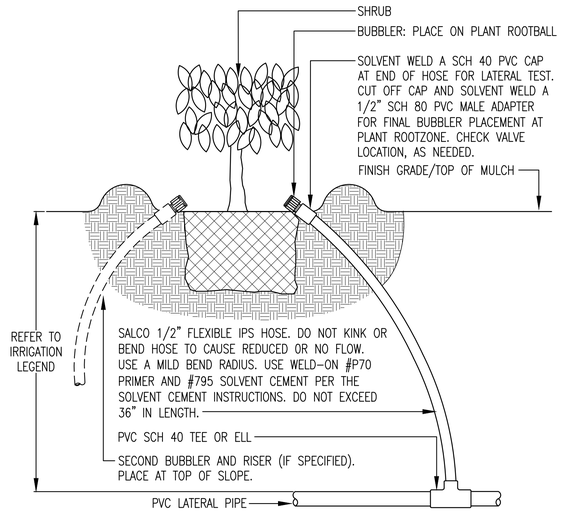
NOTES:

1. IRRIGATION SLEEVES SHALL BE PVC CLASS 200 OR SCH 40 PIPE. USE THE PIPE WITH THE THICKEST WALL DIMENSION.
2. JOINTS SHALL BE SOLVENT WELDED AND WATERTIGHT.
3. IF PIPING IS TO BE INSTALLED AFTER SLEEVING IS BACKFILLED, MARK SLEEVE LOCATION WITH A T. CHRISTY ENTERPRISES FIBERGLASS COMPOSITE MARKING POST, LABELED "IRRIGATION", EXPOSED AT GRADE, MODEL #ID-SF66-IRR.
4. MECHANICALLY TAMP BACKFILL TO 95% COMPACTION.
5. INSTALL SLEEVES LEVEL AND IN A STRAIGHT LINE.
6. AFTER PIPE INSTALLATION, SEAL ENDS OF PIPE WITH GROUT TO PREVENT SOIL AND ROOT INTRUSION INTO THE SLEEVE.

4 SLEEVE INSTALLATION
NOT TO SCALE



5 CONTROLLER
NOT TO SCALE



INSTALLATION NOTE: AT SLOPE AREAS, INSTALL A KBI CV SERIES OR EQUAL SPRING LOADED CHECK VALVE UNDER BUBBLER(S) TO PREVENT LOW BUBBLER DRAINAGE DOWN THE SLOPE. INSTALL BUBBLER(S) ON THE UPHILL SIDE OF THE PLANT ROOTBALL, INSIDE PLANTING BASIN, AND AT FINISHED GRADE AS SHOWN.

6 SHRUB BUBBLER
NOT TO SCALE

PROGRESS SET
NOT FOR CONSTRUCTION

REVISIONS

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IRRIGATION DETAILS

SCALE	PROJECT #	DATE ISSUED
AS NOTED	--	12.10.20

L106

IRRIGATION SCHEDULES

BUBBLER IRRIGATION @ TREES – LOW WATER USE

MANUFACTURER:	RAIN BIRD									TREE CANOPY(SQ.FT.):	19.6				
MODEL:	RWS									SPECIES FACTOR(Kc):	0.3				
PSI:	30									MICROCLIMATE FACTOR(Kmc):	1				
GPM OF BUBBLER:	0.25									DENSITY FACTOR(Kd):	1				
NO. OF BUBBLERS:	2									IRRIGATION EFFICIENCY:	0.81				
GPM OF ALL BUBBLER(S):	0.5									SOIL INFILTRATION RATE(INCHES):	0.2				
TREE CANOPY(FT.):	5									YEAR 2 REDUCTION AMOUNT(%):	10				
MONTH		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	
ADJUSTED ETO/MONTH(INCHES)		1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4	
ADJUSTED ETO/WEEK(INCHES)		0.2	0.3	0.5	0.9	1.2	1.3	1.6	1.4	1.1	0.7	0.3	0.2		
MINUTES PER WEEK	YEAR 1	3	3	5	9	12	13	15	13	10	7	3	2		
	YEAR 2	3	3	5	9	11	12	14	12	9	7	3	2		
DAYS PER WEEK	YEAR 1	1	1	2	2	3	3	3	3	3	3	2	1		
	YEAR 2	1	1	2	2	3	3	3	3	3	3	2	1		
MINUTES OF WATER PER DAY	YEAR 1	3	3	3	5	4	5	5	5	4	3	2	2		
	YEAR 2	3	3	3	5	4	5	5	5	4	3	2	2		
CYCLES PER DAY TO MEET SOIL INFILTRATION RATE	YEAR 1	2	2	2	3	3	3	3	3	2	2	1	1		
	YEAR 2	2	2	2	3	3	3	3	3	2	2	1	1		
MAX. RUN TIME (MINUTES) PER CYCLE	YEAR 1	2	2	2	2	2	2	2	2	2	2	2	2		
	YEAR 2	2	2	2	2	2	2	2	2	2	2	2	2		

BUBBLER IRRIGATION @ TREES – MEDIUM WATER USE

MANUFACTURER:	RAIN BIRD									TREE CANOPY(SQ.FT.):	19.6				
MODEL:	RWS									SPECIES FACTOR(Kc):	0.5				
PSI:	30									MICROCLIMATE FACTOR(Kmc):	1				
GPM OF BUBBLER:	0.25									DENSITY FACTOR(Kd):	1				
NO. OF BUBBLERS:	2									IRRIGATION EFFICIENCY:	0.81				
GPM OF ALL BUBBLER(S):	0.5									SOIL INFILTRATION RATE(INCHES):	0.2				
TREE CANOPY(FT.):	5									YEAR 2 REDUCTION AMOUNT(%):	10				
MONTH		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	
ADJUSTED ETO/MONTH(INCHES)		1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4	
ADJUSTED ETO/WEEK(INCHES)		0.2	0.3	0.5	0.9	1.2	1.3	1.6	1.4	1.1	0.7	0.3	0.2		
MINUTES PER WEEK	YEAR 1	4	5	9	14	19	21	24	21	17	11	5	3		
	YEAR 2	4	5	9	13	18	19	22	19	16	10	5	3		
DAYS PER WEEK	YEAR 1	1	1	2	2	3	3	3	3	3	3	2	1		
	YEAR 2	1	1	2	2	3	3	3	3	3	3	2	1		
MINUTES OF WATER PER DAY	YEAR 1	4	5	5	7	7	7	8	7	6	4	3	3		
	YEAR 2	4	5	5	7	7	7	8	7	6	4	3	3		
CYCLES PER DAY TO MEET SOIL INFILTRATION RATE	YEAR 1	2	2	2	3	3	3	3	3	2	2	1	1		
	YEAR 2	2	2	2	3	3	3	3	3	2	2	1	1		
MAX. RUN TIME (MINUTES) PER CYCLE	YEAR 1	2	3	3	3	3	3	3	3	3	2	3	3		
	YEAR 2	2	3	3	3	3	3	3	3	3	2	3	3		

MULTI-OUTLET EMITTER IRRIGATION – SHRUB – LOW WATER USE

MANUFACTURER:	RAIN BIRD									TOTAL NUMBER OF EMITTER OUTLETS AT PLANT:	1				
MODEL:	XBD-81									TOTAL GPM OF EMITTER(S):	0.02				
PSI:	30									MICROCLIMATE FACTOR(Kmc):	1				
GPH PER OUTLET:	1									DENSITY FACTOR(Kd):	1				
PLANT CANOPY(FT.):	2.5									IRRIGATION EFFICIENCY:	0.81				
PLANT CANOPY(SQ.FT.):	4.9									SOIL INFILTRATION RATE(INCHES):	0.2				
SPECIES FACTOR(Kc):	0.3									YEAR 2 REDUCTION AMOUNT(%):	10				
MONTH		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	
ADJUSTED ETO/MONTH(INCHES)		1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4	
ADJUSTED ETO/WEEK(INCHES)		0.2	0.3	0.5	0.9	1.2	1.3	1.6	1.4	1.1	0.7	0.3	0.2		
MINUTES PER WEEK	YEAR 1	17	22	37	62	85	91	108	93	74	50	21	12		
	YEAR 2	16	20	34	56	77	82	98	84	67	45	19	11		
DAYS PER WEEK	YEAR 1	1	1	2	2	4	4	4	4	4	3	2	1		
	YEAR 2	1	1	2	2	4	4	4	4	4	3	2	1		
MINUTES OF WATER PER DAY	YEAR 1	17	22	19	31	22	23	27	24	19	17	11	12		
	YEAR 2	16	20	18	28	20	21	25	22	18	16	10	11		
CYCLES PER DAY TO MEET SOIL INFILTRATION RATE	YEAR 1	2	2	2	3	2	2	2	2	2	2	1	1		
	YEAR 2	2	2	2	3	2	2	2	2	2	2	1	1		
MAX. RUN TIME (MINUTES) PER CYCLE	YEAR 1	9	11	10	11	11	12	14	12	10	9	11	12		
	YEAR 2	8	10	9	10	10	11	13	11	9	8	10	11		

SUBSURFACE DRIPLINE – SHRUB – LOW WATER USE – 12" EMITTER SPACING

MANUFACTURER:	HUNTER									SPECIES FACTOR(Kc):	0.3				
MODEL:	HDL									MICROCLIMATE FACTOR(Kmc):	1.0				
PSI:	30									DENSITY FACTOR(Kd):	1				
EMITTER SPACING (IN.):	12									IRRIGATION EFFICIENCY:	0.81				
ROW SPACING(IN.):	10									SOIL INFILTRATION RATE(INCHES):	0.2				
EMITTER GPH:	0.6									YEAR 2 REDUCTION AMOUNT (%):	10				
PR RATE(IN./HR.):	1.2														
MONTH:		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	
ADJUSTED ETO/MONTH(INCHES)		1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4	
ADJUSTED ETO/WEEK(INCHES)		0.2	0.3	0.5	0.9	1.2	1.3	1.6	1.4	1.1	0.7	0.3	0.2		
MINUTES PER WEEK	YEAR 1	5	7	11	18	24	26	31	27	21	14	6	4		
	YEAR 2	5	7	10	17	22	24	28	25	19	13	6	4		
DAYS PER WEEK	YEAR 1	1	1	2	2	4	4	4	4	4	3	2	1		
	YEAR 2	1	1	2	2	4	4	4	4	4	3	2	1		
MINUTES OF WATER PER DAY	YEAR 1	5	7	6	9	6	7	8	7	6	5	3	4		
	YEAR 2	5	7	6	9	6	7	8	7	6	5	3	4		
CYCLES PER DAY TO MEET SOIL INFILTRATION RATE	YEAR 1	2	2	2	3	2	2	2	2	2	2	1	1		
	YEAR 2	2	2	2	3	2	2	2	2	2	2	1	1		
MAX. RUN TIME (MINUTES) PER CYCLE	YEAR 1	3	4	3	3	3	4	4	4	3	3	3	4		
	YEAR 2	3	4	3	3	3	4	4	4	3	3	3	4		

MATCHED PRECIPITATION RATE SPRAY IRRIGATION @ SHRUB AREAS – LOW WATER USE

MANUFACTURER:	TORO									Pr RATE(INCHES/HOUR):	1.3				
MODEL:	570Z									SPECIES FACTOR:	0.3				
PSI:	30									IRRIGATION EFFICIENCY:	0.75				
SPACING(FEET):	14.5									SOIL INFILTRATION RATE(INCHES):	0.2				
GPM:	2.4									YEAR 2 REDUCTION AMOUNT(%):	10				
MONTH		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	
Eto/MONTH(INCHES)		1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4	
Eto/WEEK(INCHES)		0.2	0.3	0.5	0.9	1.2	1.3	1.6	1.4	1.1	0.7	0.3	0.2		
MINUTES PER WEEK	YEAR 1	5	6	11	18	24	26	30	26	21	14	6	4		
	YEAR 2	5	6	10	17	22	24	27	24	19	13	6	4		
DAYS PER WEEK	YEAR 1	1	1	2	3	5	5	5	5	5	3	2	1		
	YEAR 2	1	1	2	3	5	5	5	5	5	3	2	1		
MINUTES OF WATER PER DAY	YEAR 1	5	6	6	6	5	6	6	6	5	5	3	4		
	YEAR 2	5	6	6	6	5	6	6	6	5	5	3	4		
CYCLES PER DAY TO MEET SOIL INFILTRATION RATE	YEAR 1	2	2	2	2	2	2	2	2	2	2	1	1		
	YEAR 2	2	2	2	2	2	2	2	2	2	2	1	1		
MAX. RUN TIME (MINUTES) PER CYCLE	YEAR 1	3	3	3	3	3	3	3	3	3	3	3	4		
	YEAR 2	3	3	3	3	3	3	3	3	3	3	3	4		

MULTI-OUTLET EMITTER IRRIGATION – SHRUB – MEDIUM WATER USE

MANUFACTURER:	RAIN BIRD									TOTAL NUMBER OF EMITTER OUTLETS AT PLANT:	1				
MODEL:	XBD-81									TOTAL GPM OF EMITTER(S):	0.02				
PSI:	30									MICROCLIMATE FACTOR(Kmc):	1				
GPH PER OUTLET:	1									DENSITY FACTOR(Kd):	1				
PLANT CANOPY(FT.):	2.5									IRRIGATION EFFICIENCY:	0.81				
PLANT CANOPY(SQ.FT.):	4.9									SOIL INFILTRATION RATE(INCHES):	0.2				
SPECIES FACTOR(Kc):	0.5									YEAR 2 REDUCTION AMOUNT(%):	10				
MONTH		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	
ADJUSTED ETO/MONTH(INCHES)		1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4	
ADJUSTED ETO/WEEK(INCHES)		0.2	0.3	0.5	0.9	1.2	1.3	1.6	1.4	1.1	0.7	0.3	0.2		
MINUTES PER WEEK	YEAR 1	29	36	62	103	141	152	180	154	124	83	35	19		
	YEAR 2	27	33	56	93	127	137	162	139	112	75	32	18		
DAYS PER WEEK	YEAR 1	1	1	2	2	4	4	4	4	4	3	2	1		
	YEAR 2	1	1	2	2	4	4	4	4	4	3	2	1		
MINUTES OF WATER PER DAY	YEAR 1	29	36	31	52	36	38	45	39	31	28	18	19		
	YEAR 2	27	33	28	47	33	35	41	36	28	26	17	18		
CYCLES PER DAY TO MEET SOIL INFILTRATION RATE	YEAR 1	2	2	2	3	2	2	2	2	2	2	1	1		
	YEAR 2	2	2	2	3	2	2	2	2	2	2	1	1		
MAX. RUN TIME (MINUTES) PER CYCLE	YEAR 1	15	18	16	18	18	19	23	20	16	14	18	19		
	YEAR 2	14	17	14	16	17	18	21	18	14	13	17	18		

WATER USE CALCULATIONS

REVISIONS

#	DATE	DESCRIPTION

CLAYTON COMMUNITY CHURCH

1027 PINE HALLOW COURT, CLAYTON CA 94517

ARCHITECT

AMY VANDER HEYDEN ARCHITECTS
5506 SEAN CIRCLE, #112
SAN JOSE, CA 95123
p. 925.353.0363

CIVIL ENGINEER

BKF ENGINEERS
255 SHORELINE DRIVE, SUITE 200
REDWOOD CITY, CA 94065
p. 650.482.6427

GEOTECHNICAL ENGINEER

CORNERSTONE EARTH GROUP, INC.
1220 OAKLAND BLVD, SUITE 200
WALNUT CREEK, CA 94596
p. 925.988.9500

ARBORIST

TREES, BUGS, DIRT
MICHAEL BAEFSKY
TREESBUGSDIRT.COM
p. 925.254.7950

IRRIGATION CONSULTANT

JDE ASSOCIATES
P.O. BOX 2291
DANVILLE, CA 94526
p. 925.867.3339
JDE # 20038

PROGRESS SET
NOT FOR CONSTRUCTION

IRRIGATION WATER USE & SCHEDULES

SCALE	PROJECT #	DATE ISSUED
AS NOTED	--	12.10.20

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