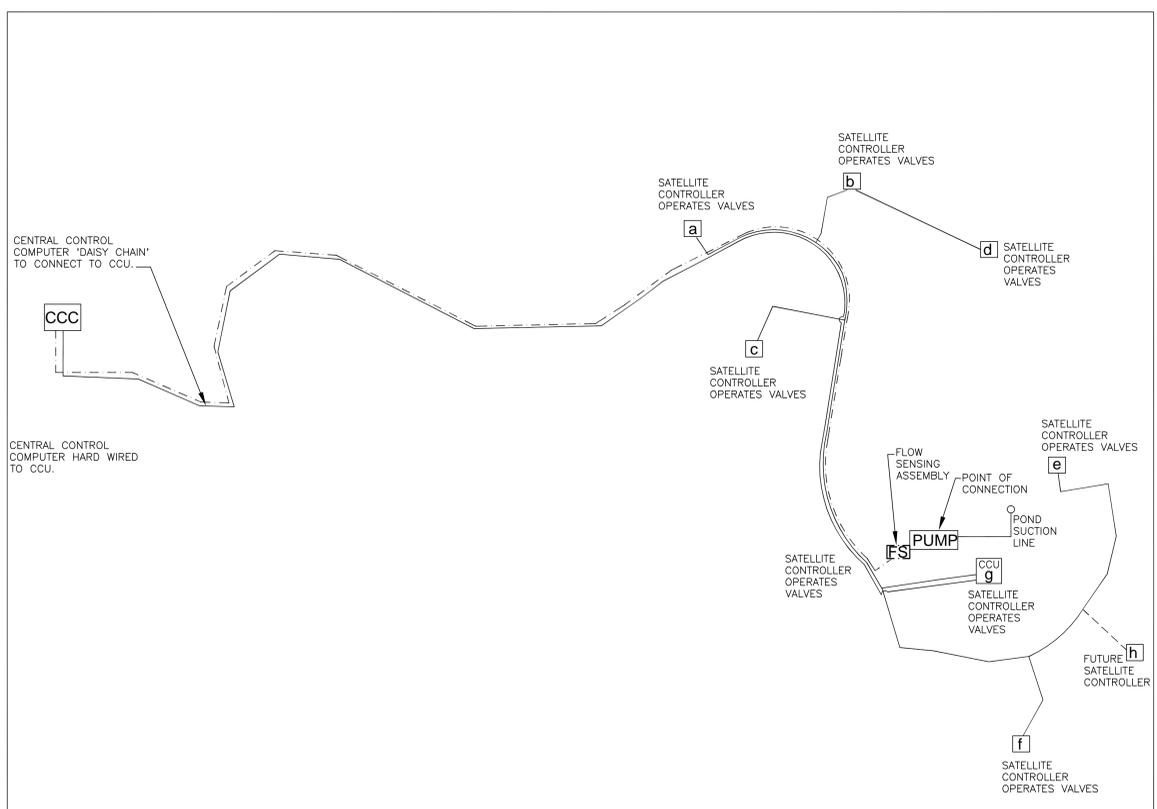
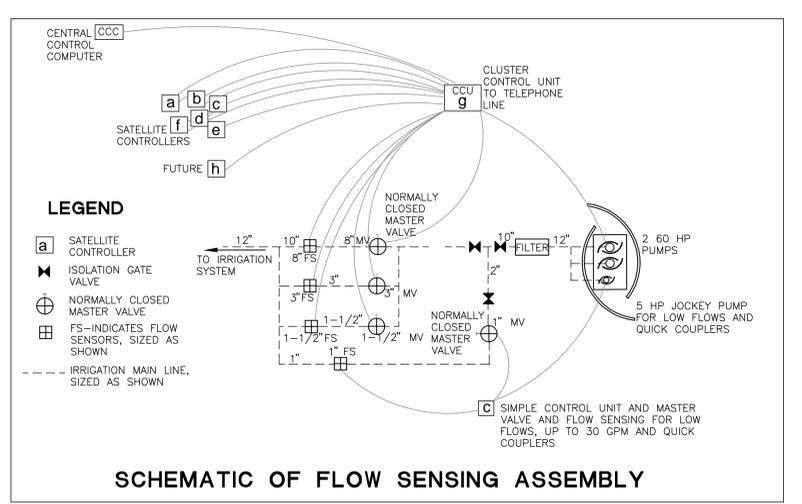


IRRIGATION INSTALLATION NOTES

1. THERE ARE SEVEN IRRIGATION CONTROLLERS, ONE POINT OF CONNECTION AND A PUMPING SYSTEM PACKAGE FOR PHASE 1. THE SYSTEM IS DESIGNED FOR THE MINIMUM OPERATING PRESSURE OF 100 PSI AND THE MAXIMUM DEMAND 1,500 GPM. THE CONTRACTOR SHALL VERIFY THE EXISTING WATER PRESSURE ON SITE PRIOR TO CONSTRUCTION. REPORT TO THE LANDSCAPE ARCHITECT ANY DIFFERENCES GREATER THAN 10% BETWEEN THE WATER PRESSURE SHOWN ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE POINT OF CONNECTION. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
2. ALL IRRIGATION EQUIPMENT SHALL BE NEW AND INSTALLED IN SUCH A MANNER THAT THE NEW IRRIGATION SYSTEM WILL BE COMPLETE AND EFFICIENT.
3. CONTRACTOR SHALL INSTALL ALL PIPE MATERIALS AND EQUIPMENT AS SHOWN IN THE CONSTRUCTION DETAILS AND SHALL REFER TO PROJECT SPECIFICATIONS.
4. SLEEVE ALL PRESSURE MAINLINE PIPE, LATERAL PIPE AND CONTROL WIRES UNDER ALL HARDSCAPE WALKWAYS WITH SCHEDULE 40 PVC PIPE A MIN. OF TWICE THE DIAMETER OF THE PIPE THROUGH AND AT THE SPECIFIED DEPTH. IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.
5. FLUSH AND ADJUST ALL LINES, SPRAY HEADS, ROTORS AND VALVES FOR OPTIMUM PERFORMANCE. ADJUST ALL NOZZLES TO ELIMINATE OVERSPRAY ON ADJACENT WALKS, STREETS, ETC.
6. CONTACT THE CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE TO DISCUSS AND RECEIVE APPROVAL FOR ALL FIELD ADJUSTMENTS THAT WILL IMPACT THE DESIGN AND EFFICIENCY OF THE SYSTEMS. IF THE CONTRACTOR HAS NOT RECEIVED WRITTEN AUTHORIZATION TO CONDUCT FIELD ADJUSTMENTS, THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS/ADJUSTMENTS.
7. THE FINAL LOCATION OF THE IRRIGATION CONTROLLER SHALL BE APPROVED BY BOTH THE LANDSCAPE ARCHITECT AND THE VA REPRESENTATIVE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM/HER SELF WITH THE SITE. THE CONTRACTOR SHALL USE EXTREME CARE WHEN EXCAVATING OR WORKING NEAR EXISTING UTILITIES AND ORDNANCES. IF THE CONTRACTOR HAS NOT RECEIVED WRITTEN AUTHORIZATION TO CONDUCT FIELD ADJUSTMENTS, THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS/ADJUSTMENTS.
9. IRRIGATION CONTRACTOR SHALL COORDINATE ALL IRRIGATION SLEEVES, MAIN LINE AND COMMUNICATION CABLE INSTALLATION PRIOR TO CONCRETE FLATWORK INSTALLATION.
10. IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES, BY LICENSED CONTRACTORS AND EXPERIENCED WORKMEN. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO HIS WORK.
11. TRENCHING IS TO BE OF SUFFICIENT DEPTH TO PROVIDE 30" OF COVER OVER IRRIGATION MAIN LINES AND CONTROL WIRE, 18" OF COVER OVER 12" POP-UP HEADS AND ROTOR HEAD LATERAL LINES, AND 12" OF COVER OVER ALL 6" POP-UP SPRAY HEAD LATERAL LINES AND BUBBLER HEAD LATERAL LINES. ALL LINES UNDER SIDEWALKS SHALL HAVE 36" OF COVER. IRRIGATION MAIN LINES ARE TO BE INSTALLED IN THE ROADWAY AS MUCH AS POSSIBLE AND ALWAYS ON THE OPPOSITE SIDE OF ROAD CENTER LINE AS STORM DRAIN LINE. MAIN LINE DEPTH SHALL BE 36" BELOW SUB BASE OF ROADWAY MINIMUM. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT, AND VA REPRESENTATIVE, WITH ANY DISCREPANCIES.
12. INSTALL SPRINKLER HEADS 2" CLEAR OF CURBS, SIDEWALKS, PAVING, HEADERS, OR UTILITY BOXES.
13. FLUSH MAIN LINES PRIOR TO THE INSTALLATION OF REMOTE CONTROL VALVES, OR QUICK COUPLER VALVES. FLUSH LATERAL LINES PRIOR TO THE INSTALLATION OF IRRIGATION HEADS.
14. PRESSURE TEST LATERAL LINES UNDER OPERATING PRESSURE PRIOR TO BACKFILLING.
15. IRRIGATION CONTROL WIRE SHALL BE NO. 14-1 AWG UL (UL) APPROVED FOR DIRECT BURIAL. WIRE COLORS FOR THIS PHASE OF THE WORK SHALL BE AS FOLLOWS: COMMON WIRE - WHITE, PILOT WIRES - RED, ALL SPARE WIRES - YELLOW. NO EXCEPTIONS.
16. THE IRRIGATION SYSTEM IS DRAWN DIAGRAMMATICALLY. ALL PIPING, VALVES, ETC. AS SHOWN WITHIN PAVED AREAS ARE FOR CLARITY ONLY. INSTALL ALL EQUIPMENT IN PLANTING AREAS.
17. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS DIAGRAMMATICALLY SHOWN WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, OR DIFFERENCES IN SITE DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN FORESEEN IN THE ENGINEERING. THE PROJECT INSPECTOR SHALL BE GIVEN WRITTEN NOTICE THAT SUCH CONDITIONS EXIST. IF NO SUCH NOTIFICATION IS GIVEN, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS AND REPAIR WORK THAT MAY BE DEEMED NECESSARY.
18. DRAINAGE OF IRRIGATION WATER THROUGH ANY SPRINKLER HEADS (LOW HEAD DRAINAGE) WILL NOT BE ALLOWED. THE CONTRACTOR SHALL INSTALL BUILT IN CHECK VALVES AS REQUIRED FOR ANY SPRINKLER HEAD SHOWING SIGNS OF DRAINAGE AFTER THE IRRIGATION SYSTEM HAS OPERATED FROM AN ON TO OFF POSITION. THIS INCLUDES SPRAY HEADS AND ROTORS HEADS. THE INSTALLATION OF HEADS WITH INTEGRAL CHECK VALVE FEATURE SHALL BE INCLUDED IN THE BID PRICE WITHOUT ADDITIONAL COST TO THE OWNER.
19. INSTALL QUICK COUPLER VALVES WITHIN A 10" ROUND PLASTIC VALVE BOX WITH BOLT-DOWN LID. TOP OF QCV SHALL BE 2" BELOW RIM OF BOX.
20. ALL WIRE SPLICES ARE TO BE MADE WITHIN A VALVE BOX. SPLICES ARE TO BE MADE WITH A COPPER CRIMP TYPE CONNECTOR AND INSTALLED WITHIN A 3"-M4. DBY SEALING PACK.
21. REMOTE CONTROL VALVE BOXES ARE TO BE INSTALLED 1/2" ABOVE FINISH GRADE IN SHRUB AND GROUNDCOVER AREAS AND FLUSH WITH GRADE IN ROADWAYS AND LAWN AREAS. ALIGN VALVE BOXES WITH ADJACENT PAVEMENT EDGES, ARCHITECTURAL FEATURES, OR ADJACENT VALVE BOXES, AS APPLICABLE FOR A NEAT APPEARANCE. VALVE BOXES ARE TO CONFORM WITH FINISH GRADES (NOT NECESSARILY LEVEL).
22. OPERATE IRRIGATION CONTROLLER WITHIN THE TWELVE HOUR WATERING WINDOW AND SHALL BE DURING THE HOURS OF 7:00 P.M. TO 7:00 A.M.
23. ALL REMOTE CONTROL VALVES SHALL HAVE A PERMANENT VALVE TAG (AS MANUFACTURED BY "T. CHRISTY" OR APPROVED EQUAL) ATTACHED TO THE VALVE INDICATING THE CONTROLLER STATION NUMBER.
24. THE CONTRACTOR SHALL INSTALL TWO (2) SPARE WIRES PLUS COMMON STARTING FROM THE CONTROLLER, LOOPED TO EACH VALVE BOX AND TO BOTH ENDS OF THE MAIN LINE, WITHOUT SPLICES. THESE SPARE WIRES SHALL BE YELLOW IN COLOR.
25. ALL IRRIGATION MAIN LINES ARE TO BE INSTALLED IN THE ROADWAY AS MUCH AS POSSIBLE AND ALWAYS ON THE OPPOSITE SIDE OF ROAD CENTER LINE STORM DRAIN LINE. MAIN LINE DEPTH SHALL BE 36" MINIMUM BELOW SUB BASE OF ROADWAY FROM.



SCHEMATIC OF CENTRAL CONTROL SYSTEM



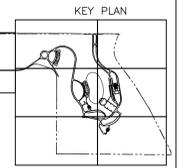
SCHEMATIC OF FLOW SENSING ASSEMBLY

IRRIGATION LEGEND

SYMBOL	DESCRIPTION*	PSI	GPM	RADIUS	PRECIP. RATE
⊙	6" POP-UP ROTOR W/ FULL CIRCLE NOZZLE, STAINLESS STEEL RISER	70 PSI	24.70	68"	1.03
⊙	6" POP-UP ROTOR W/ PART CIRCLE NOZZLE, STAINLESS STEEL RISER	70 PSI	24.70	68"	1.03
⊙	6" POP-UP ROTOR W/ PART CIRCLE NOZZLE, STAINLESS STEEL RISER	70 PSI	16.10	59"	0.89
⊙	6" POP-UP ROTOR W/ ADJ. NOZZLE TO 360, STAINLESS STEEL RISER	60 PSI	7.60	49"	0.72
⊙	6" POP-UP ROTOR W/ ADJ. NOZZLE TO 180, STAINLESS STEEL RISER	60 PSI	7.60	49"	0.72
⊙	6" POP-UP ROTOR W/ ADJ. NOZZLE TO 90, STAINLESS STEEL RISER	60 PSI	3.7	40"	0.45
⊙	6" POP-UP ROTOR W/ ADJ. NOZZLE TO 180, STAINLESS STEEL RISER	60 PSI	2.20	36"	0.33
⊙	5.5" POP-UP ROTOR W/ FULL CIRCLE NOZZLE, STAINLESS STEEL RISER	70 PSI	24.70	68"	1.03
⊙	5.5" POP-UP ROTOR W/ PART CIRCLE NOZZLE, STAINLESS STEEL RISER	70 PSI	24.70	68"	1.03
⊙	5.5" POP-UP ROTOR W/ PART CIRCLE NOZZLE, STAINLESS STEEL RISER	70 PSI	16.10	59"	0.89
⊙	12" POP-UP ROTOR W/ ADJ. NOZZLE TO 360, STAINLESS STEEL RISER	60 PSI	7.60	49"	0.72
⊙	12" POP-UP ROTOR W/ ADJ. NOZZLE TO 180, STAINLESS STEEL RISER	60 PSI	7.60	49"	0.72
⊙	12" POP-UP ROTOR W/ ADJ. NOZZLE TO 90-180, STAIN. STEEL RISER	60 PSI	3.7	40"	0.45
⊙	12" POP-UP ROTOR W/ ADJ. NOZZLE TO 90-180, STAIN. STEEL RISER	60 PSI	2.20	36"	0.33
⊙	6" POP-UP SPRAY HEAD W/ VARIABLE ARC NOZZLE AT 360 DEGREES, 30 PSI	30 PSI	5.32	18"	1.74
⊙	6" POP-UP SPRAY HEAD W/ VARIABLE ARC NOZZLE AT 180 & 90 DEG. 30 PSI	30 PSI	2,666/1,33	18"	1.74
⊙	6" POP-UP SPRAY W/ BUILT IN PRESSURE REG. W/ FULL CIRCLE NOZ. 30 PSI	30 PSI	3.70	15"	1.83
⊙	6" POP-UP SPRAY W/ HALF CIRCLE & QUARTER, CIRCLE NOZ. 30 PSI	30 PSI	1.85/0.92	15"	1.83
⊙	6" POP-UP SPRAY W/ VARIABLE ARC NOZZLE AT 180 & 90 DEG. 30 PSI	30 PSI	1.85/0.92	15"	1.83
⊙	6" POP-UP SPRAY W/ BUILT IN PRESSURE REG. W/ FULL CIRCLE NOZ. 30 PSI	30 PSI	2.60	12"	1.74
⊙	6" POP-UP SPRAY W/ HALF CIRCLE & QUARTER, CIRCLE NOZ. 30 PSI	30 PSI	1.30/0.65	12"	1.74
⊙	6" POP-UP SPRAY HEAD W/ VARIABLE ARC NOZZLE AT 180 & 90 DEG. 30 PSI	30 PSI	1.30/0.65	12"	1.74
⊙	6" POP-UP SPRAY W/ HALF CIRCLE & QUARTER, CIRCLE NOZ. 30 PSI	30 PSI	0.79/0.39	10"	1.75
⊙	6" POP-UP SPRAY HEAD W/ VARIABLE ARC NOZZLE AT 180 & 90 DEG. 30 PSI	30 PSI	1.45/0.75	10"	2.90
⊙	6" POP-UP SPRAY W/ HALF CIRCLE & QUARTER, CIRCLE NOZ. 30 PSI	30 PSI	0.52/0.26	8"	1.75
⊙	12" POP-UP SPRAY HEAD W/ VARIABLE ARC NOZZLE AT 180 & 90 DEG. 30 PSI	30 PSI	2,666/1,33	18"	1.74
⊙	12" POP-UP SPRAY W/ BUILT IN PRESSURE REG. W/ FULL CIRCLE NOZ. 30 PSI	30 PSI	3.70	15"	1.83
⊙	12" POP-UP SPRAY W/ HALF CIRCLE & QUARTER, CIRCLE NOZ. 30 PSI	30 PSI	1.85/0.92	15"	1.83
⊙	12" POP-UP SPRAY HEAD W/ VARIABLE ARC NOZZLE AT 180 & 90 DEG. 30 PSI	30 PSI	1.85/0.92	15"	1.83
⊙	12" POP-UP SPRAY W/ BUILT IN PRESSURE REG. W/ FULL CIRCLE NOZ. 30 PSI	30 PSI	2.60	12"	1.74
⊙	12" POP-UP SPRAY W/ HALF CIRCLE & QUARTER, CIRCLE NOZ. 30 PSI	30 PSI	1.30/0.65	12"	1.74
⊙	12" POP-UP SPRAY HEAD W/ VARIABLE ARC NOZZLE AT 180 & 90 DEG. 30 PSI	30 PSI	1.30/0.65	12"	1.74
⊙	12" POP-UP SPRAY W/ BUILT IN PRESSURE REG. W/ FULL CIRCLE NOZ. 30 PSI	30 PSI	1.53	10"	1.52
⊙	12" POP-UP SPRAY W/ HALF CIRCLE & QUARTER, CIRCLE NOZ. 30 PSI	30 PSI	0.79/0.39	10"	1.52
⊙	12" POP-UP SPRAY HEAD W/ VARIABLE ARC NOZZLE AT 180 & 90 DEG. 30 PSI	30 PSI	1.45/0.75	10"	2.90
⊙	PRESSURE COMPENSATING BUBBLERS, INSTALL BUBBLER HEADS 30 PSI	0.25	3'	N/A	
⊙	1" ABOVE GRADE ON A RISER.				

- PVC CLASS 200, LATERAL LINE.
- INSTALL PVC SCHEDULE 40 FOR PRESSURE MAIN LINE SIZED 3" AND SMALLER, SOLVENT WELD. INSTALL PVC CLASS 200 SDR-21 FOR ALL PRESSURE MAIN LINE SIZED 4" AND LARGER AND USE ALL DUCTILE IRON FITTINGS. SIZE AS NOTED ON PLAN.
- COMMUNICATION CABLE. INSTALL IN MAIN LINE TRENCH. CABLE SHALL BE INSTALLED IN 1-1/4" PVC CONDUIT. CONNECT ALL CONTROLLERS a THROUGH h TO CCU ASSEMBLY WITH COM. CABLE.
- IRRIGATION CONTROLLER WIRE RUNS.
- PROPOSED PVC SLEEVES. INSTALL PVC SCHEDULE 40 FOR ALL SLEEVES SIZED 3" OR SMALLER. INSTALL CLASS 150 PVC FOR SLEEVES LARGER THAN 3" SIZE. ALL IRRIGATION LINES WHICH CROSS WALKS OR UNDER PAVING SHALL BE SLEEVED WHETHER SHOWN ON PLANS OR NOT.
- CONDUIT FOR CONTROL WIRES: GRAY SCHEDULE 40 PVC ELECTRICAL CONDUIT.
- INSTALL FLANGED GATE VALVE FOR VALVES 4"-6" SIZE AND LARGER. INSTALL THREADED BRONZE GATE VALVE FOR GATE VALVES SMALLER THAN 4" SIZE. ALL GATE VALVES ARE LINE SIZED AND INSTALLED IN A VALVE BOX PER SPECIFICATIONS. REFER TO DETAIL ON SHEET I-11.
- 1" QUICK COUPLER VALVE. INSTALL IN LOCKING VALVE BOX PER DETAIL ON SHEET I-11.
- INSTALL PVC REMOTE CONTROL VALVE 2" SIZE AND SMALLER SHALL BE MADE GLASS-FILLED NYLON CONSTRUCTION, WITH GLOBE CONFIGURATION. ALL REMOTE VALVES SIZED 3" SHALL BE MADE OF BRASS BODY AND GLASS FILLED NYLON BONNET WITH SCRUBBER MECHANISM. BOTH TYPES OF VALVES SHALL HAVE PRESSURE REGULATING MODULE BUILT IN AND ARE TO BE SIZED AS NOTED ON PLAN. SET PRESSURE TO REQUIRED PRESSURE OF THE FARTHEST HEAD ON CIRCUIT. ALL REMOTE CONTROL VALVES ARE TO HAVE STANDARD IDENTIFICATION TAGS CORRESPONDING TO CONTROLLER STATION NUMBER ON THE VALVE.
- CENTRAL CONTROL COMPUTER DESK TOP CENTRAL CONTROL PACKAGE INCLUDES COMPUTER, SOFTWARE, TRAINING, AND ONE YEAR SUPPORT PLAN.
- 32 STATION CLUSTER UNIT CONTROLLER ASSEMBLY IS INSTALLED IN STAINLESS STEEL ENCLOSURE AND CONNECTED TO A DEDICATED TELEPHONE LINE. THIS CONTROLLER ASSEMBLY IS EQUIPPED TO ACT AS THE CCU AND TO COMMUNICATE WITH THE OTHER CONTROLLERS THAT ARE CONNECTED VIA COMMUNICATION CABLE.
- FUTURE CONTROLLER (NIC)
- SATELLITE CONTROLLER ENCLOSURE ASSEMBLY, TO INCLUDE THE FOLLOWING EQUIPMENT: 22" SIZED, STAINLESS STEEL TOP ENTRY ENCLOSURE ON 22" PEDESTAL, 32-STATION WALL MOUNT SATELLITE CONTROLLER WHICH COMMUNICATES TO THE CCU, ISOTEL SURGE PROTECTION, TERMINAL STRIPS AND MOUNTING HARDWARE AND ALL DETAILS REQUIRED FOR POWER UP.
- SATELLITE CONTROLLER ENCLOSURE ASSEMBLY, TO INCLUDE THE FOLLOWING EQUIPMENT: 22" SIZED, STAINLESS STEEL TOP ENTRY ENCLOSURE ON 22" PEDESTAL, 24-STATION WALL MOUNT SATELLITE CONTROLLER WHICH COMMUNICATES TO THE CCU, ISOTEL SURGE PROTECTION, TERMINAL STRIPS AND MOUNTING HARDWARE AND ALL DETAILS REQUIRED FOR POWER UP.
- NORMALLY CLOSED MASTER VALVE. SIZE AS NOTED ON DIAGRAM ON THIS SHEET AND SHEET I-12. WIRED TO CCU CONTROLLER ENCLOSURE.
- FLOW SENSOR. INSERTION TYPE WITH NON-MAGNETIC, SPINNING IMPELLER (SIX-BLADED DESIGN) CONNECT TO CCU CONTROLLER WITH SENSOR CABLE. REFER TO SPECIFICATIONS AND DETAIL ON SHEET I-12 FOR SIZES AND INSTALLATION PROCEDURES.
- BYPASS FLOW SENSING PACKAGE: INCLUDES 8", 3", 1-1/2" AND 1" MASTER VALVES AND 8", 3", 1-1/2" AND 1" FLOW SENSORS INCLUDING LINE SIZE ISOLATION VALVES FOR MAINTENANCE, AND MAIN LINE SIZED AS SHOWN. FLOW SENSORS SHALL BE HARD WIRED TO THE CONTROLLERS PER DETAIL AND THE CCU CONTROLLER SHALL BE WIRED TO THE MASTER VALVES FOR EMERGENCY SHUT OFF. REFER TO DETAIL ON SHEET I-12 FOR ALL SIZES OF EQUIPMENT.
- QUALITY DUPLEX PUMP PACKAGE MODEL NO. C-8091506-1CPP. CONSISTING OF TWO 5-STAGE WATER LUBE TURBINE, 8" HEAD, W/ JON H CRANE 5610 SEAL, SOLE PLATE, 8"X1-1/4" COLUMN AND SHAFT, WITH SS BASKET STRAINER, PREASSEMBLED TO USE 60 HP, 1800 RPM NRR, RUSI VEHICLE MOTOR INCLUDING GRUNDFOS 60550-9, 5 HP, THREE PHASE, SUBMERSIBLE MOTOR, RATED FOR 1200-1600 GPM AT 100 PSI DISCHARGE PRESSURE. REQUIRES 480 VOLT, THREE-PHASE ELECTRIC SERVICE FOR 225-FULL BREAKER LOAD AMPS. ALSO INCLUDES EMERSON CUSTOM 081106D1 DUPLEX ELECTRIC PANEL W/ SAFETROLS GPM10 VFD, AND 4 AMTROL 57210, 86 GALLON EXPANSION TANKS, 2-HYDRAULIC SELF CLEANING FILTER, AND ASSOCIATED PLUMBING WITHIN PUMP PACKAGE. LANDSCAPE CONTRACTOR TO PROVIDE INTAKE PIPE, SUMP, AND POND SCREEN INLET. SEE DETAILS ON SHEETS I-12 AND I-13.
- 12 STATION CONTROLLER FOR QUICK COUPLERS FOR LOW FLOWS AND MAINTENANCE, THIS CONTROLLER WILL BE CONNECTED TO THE JOCKEY PUMP AT PUMP STATION AND TO 1" FLOW SENSOR/ MASTER VALVE. REFER TO SPECIFICATIONS ON 02811-8.
- INDICATES VALVE NUMBER
- INDICATES NUMBER OF GPM ON A VALVE
- INDICATES SIZE OF VALVE

* - ALL PRODUCTS SHOWN AND LISTED CAN BE SUBSTITUTED WITH AN OR EQUAL PRODUCT. SUBSTITUTED PRODUCTS MUST MEET THE SAME FUNCTIONAL AND OPERATIONAL CHARACTERISTIC PROVIDED BY THE SYSTEM CONFIGURATION DESCRIBED.

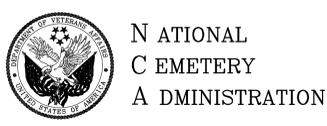


AS - BUILT DRAWINGS

Drawing Title IRRIGATION NOTES & LEGEND	Project Title NEW NATIONAL CEMETERY PHASE 1B DEVELOPMENT	Date: MARCH 2010
Approved: Director, Office of Construction Management	Building Number	Checked JAT
Approved: Director, Project Management Service	Location SACRAMENTO VALLEY VA NATIONAL CEMETERY SOLANO COUNTY, CALIFORNIA	Drawn WWR
Project No. 921CM2001B		DRAWING NO. I-1
		Dwg. 127 of 222

Revisions	Date

Subconsultant List	
DREYFUSS & BLACKFORD	3540 FOLSOM BLVD., SACRAMENTO, CA. 95816 (916) 453-1234
CAPITAL ENGINEERING CONSULTANTS	11020 SUN CENTER DR., STE. 100 RANCHO CORDOVA, CA. 95670 (916) 851-3500
ECOM ENGINEERING CONSULTANTS	1798 TRIBUTE RD., SUITE 100, SACRAMENTO, CA. 95815 (916) 641-5600
BUEHLER & BUEHLER ASSOCIATES	800 Q STREET, STE. 200, SACRAMENTO, CA. 95814 (916) 443-0303
THE SIERRA WEST GROUP, LLC	2730 GATEWAY OAKS DRIVE, STE. 110 SACRAMENTO, CA. 95833 (916) 925-4000
MARCUS H. BOLE & ASSOCIATES	104 BLOCK DR. WHEATLAND, CA. 95692 (530) 633-0117
PAR ENVIRONMENTAL	1906 21ST STREET, SACRAMENTO, CA. 95816 (916) 739-8356
ESPANA GEOTECH CONSULTING (FUGRO)	502 GIUSEPPE CT., ROSEVILLE, CA. 95678 (916) 773-2600
PERRY DESIGN	2091 HIDDEN GOLD TRAIL, COOL, CA. 95614 (530) 823-2621

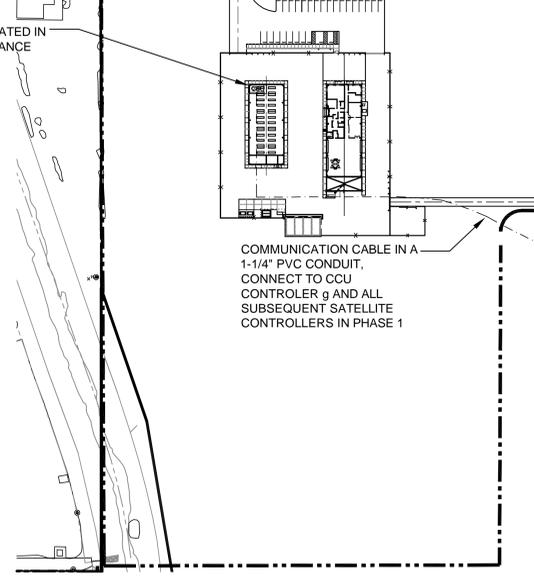
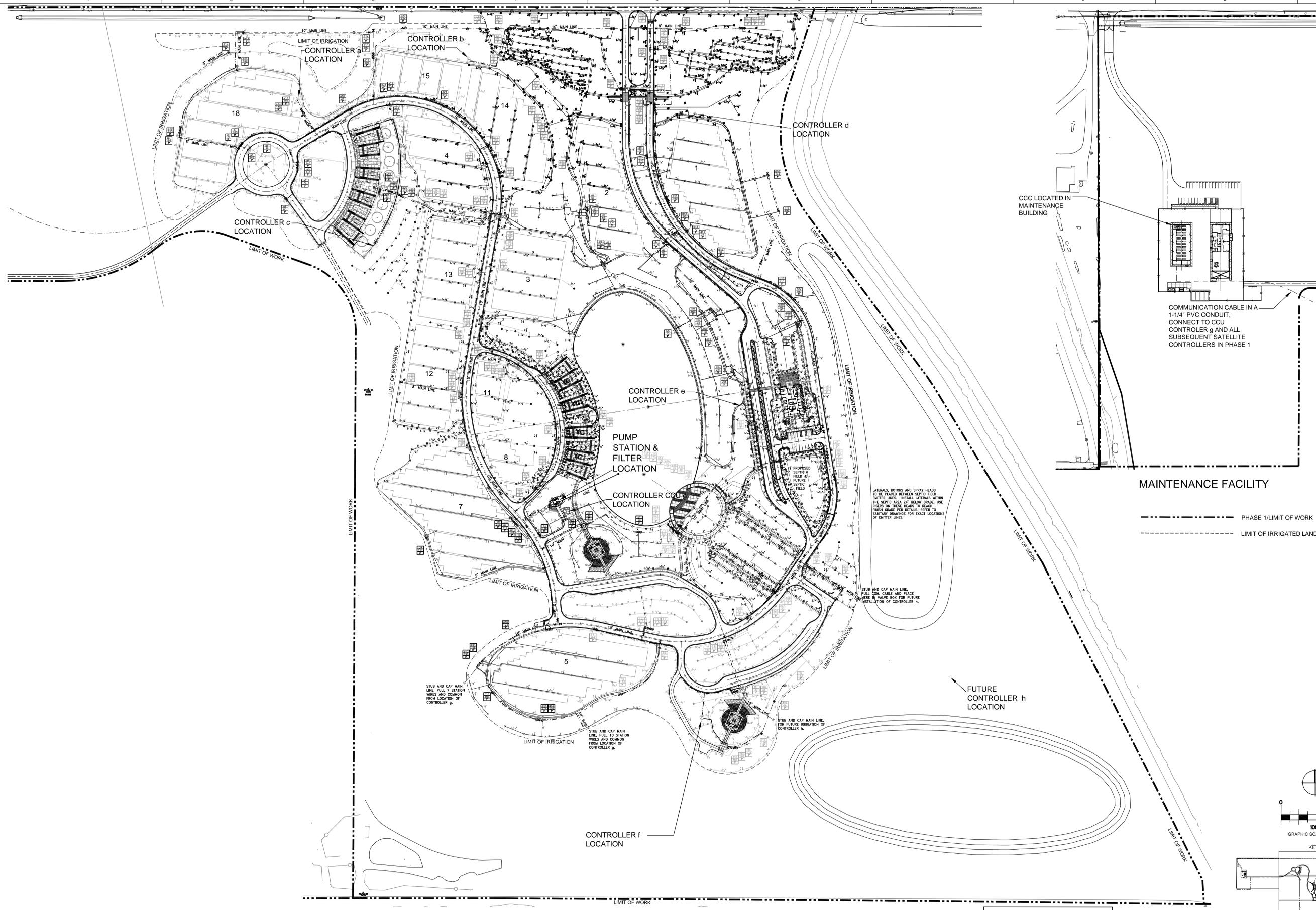


NATIONAL CEMETERY ADMINISTRATION

Carter-Burgess
A Wholly Owned Subsidiary of Jacobs
Consultants in Architecture, Engineering, Planning, and the Environment
Sacramento Office
180 Promenade Circle, Suite 300
Sacramento, California 95834
(916) 929-3323 Fax (916) 929-1772

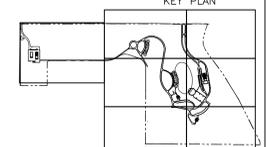
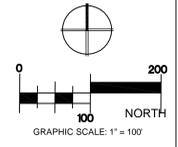
AS-BUILT DRAWINGS
PREPARED FROM AS-BUILT DRAWINGS PROVIDED BY CLARK & SULLIVAN, FEBRUARY, 2010. INFORMATION HAS NOT BEEN FIELD VERIFIED BY A/E.

MARCH 2010



MAINTENANCE FACILITY

--- PHASE 1/LIMIT OF WORK
 - - - - - LIMIT OF IRRIGATED LANDSCAPE



AS - BUILT DRAWINGS

Revisions	Date

MARCH 2010

AS-BUILT DRAWINGS
 PREPARED FROM AS-BUILT DRAWINGS PROVIDED BY CLARK & SULLIVAN, FEBRUARY, 2010. INFORMATION HAS NOT BEEN FIELD VERIFIED BY A/E.

Carter-Burgess
 A Wholly Owned Subsidiary of Jacobs
 Consultants in Architecture, Engineering, Planning, and the Environment
 Sacramento Office
 180 Promenade Circle, Suite 300
 Sacramento, California 95834
 (916) 929-3323 Fax (916) 929-1772

Subconsultant List	
DREYFUSS & BLACKFORD	3540 FOLSOM BLVD., SACRAMENTO, CA. 95816 (916) 453-1234
CAPITAL ENGINEERING CONSULTANTS	11020 SUN CENTER DR., STE. 100 RANCHO CORDOVA, CA. 95670 (916) 851-3500
ECON ENGINEERING CONSULTANTS	1798 TRIBUTE RD., SUITE 100, SACRAMENTO, CA. 95815 (916) 641-5600
BUEHLER & BUEHLER ASSOCIATES	600 Q STREET, STE. 200, SACRAMENTO, CA. 95814 (916) 443-0303
THE SIERRA WEST GROUP, LLC	2730 GATEWAY OAKS DRIVE, STE. 110 SACRAMENTO, CA. 95833 (916) 925-4000
MARCUS H. BOLE & ASSOCIATES	104 BLOCK DR. WHEATLAND, CA. 95692 (530) 633-0117
PAR ENVIRONMENTAL	1906 21ST STREET, SACRAMENTO, CA. 95816 (916) 739-8356
ESPANA GEOTECH CONSULTING (FUGRO)	502 GIUSEPPE CT., ROSEVILLE, CA. 95678 (916) 773-2600
PERRY DESIGN	2091 HIDDEN GOLD TRAIL, COOL, CA 95614 (530) 823-2621



NATIONAL CEMETERY ADMINISTRATION

Drawing Title	IRRIGATION-PHASE I OVERALL PLAN
Approved: Director, Office of Construction Management	
Approved: Director, Project Management Service	

Project Title	NEW NATIONAL CEMETERY PHASE IB DEVELOPMENT	Date:	MARCH 2010
Building Number		Project No.:	921CM2001B
Location	SACRAMENTO VALLEY VA NATIONAL CEMETERY SOLANO COUNTY, CALIFORNIA	Drawing No.:	I-2
Checked	JAT	Drawn	WWR
		Dwg. 128 of 222	