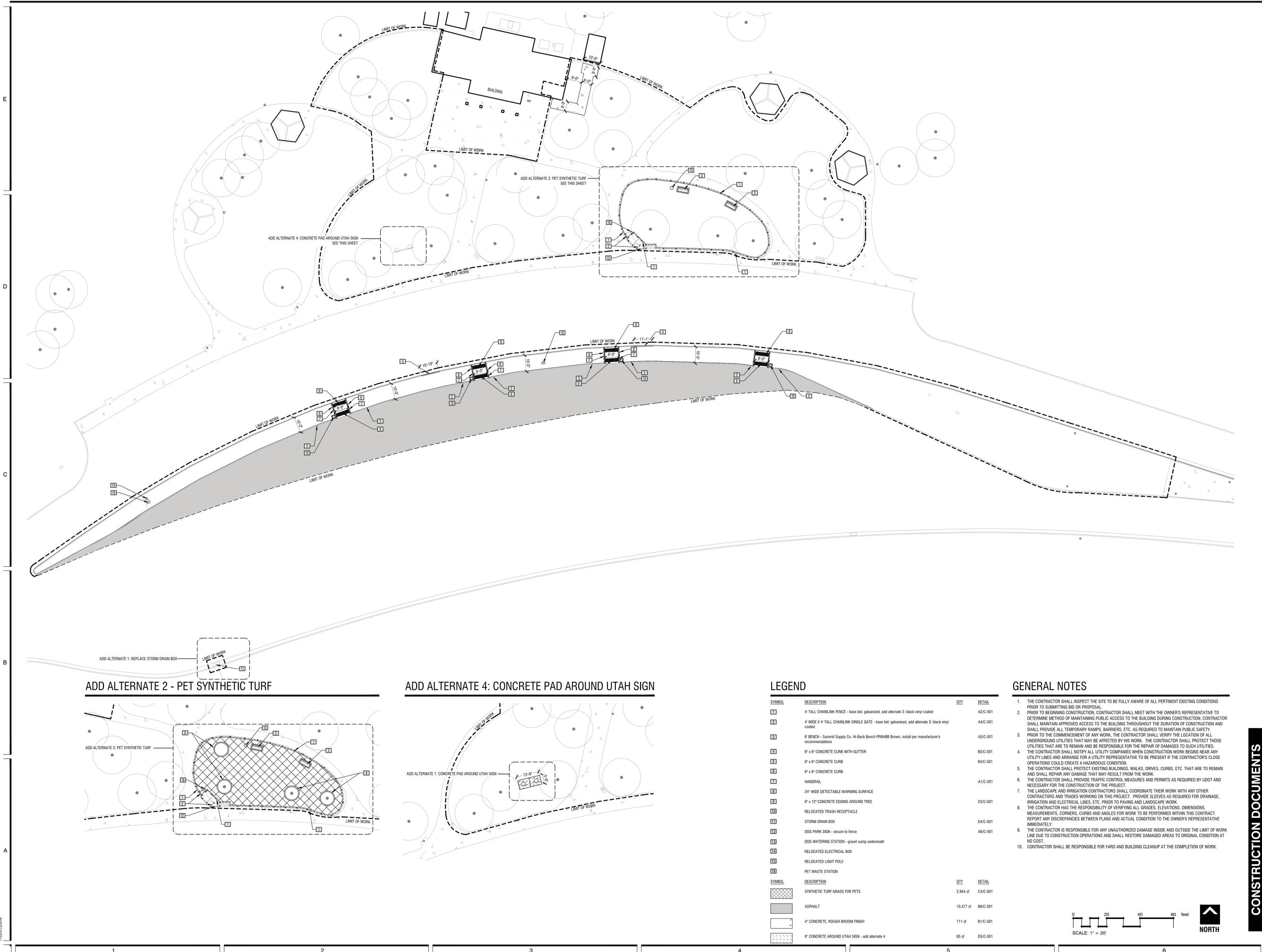
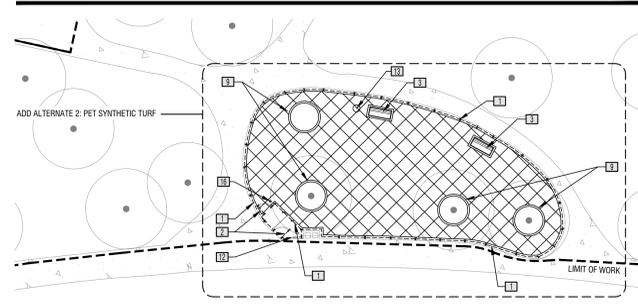




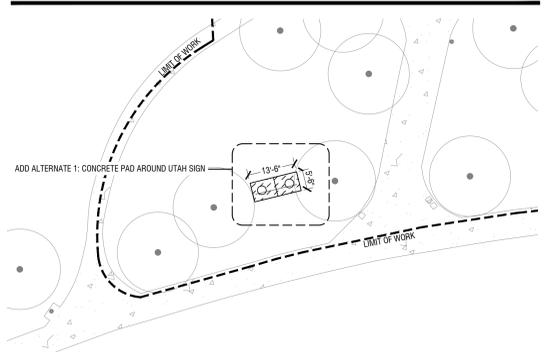
DCM APPROVAL



ADD ALTERNATE 2 - PET SYNTHETIC TURF



ADD ALTERNATE 4: CONCRETE PAD AROUND UTAH SIGN

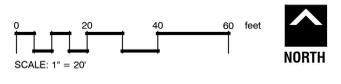


LEGEND

SYMBOL	DESCRIPTION	QTY	DETAIL
[Symbol]	4" TALL CHAINLINK FENCE - base bid galvanized, add alternate 3: black vinyl coated		A2/C-501
[Symbol]	4" WIDE X 4" TALL CHAINLINK SINGLE GATE - base bid galvanized, add alternate 3: black vinyl coated		A4/C-501
[Symbol]	6" BENCH - Summit Supply Co. Hi-Back Bench PR6HBB Brown, install per manufacturer's recommendations		A5/C-501
[Symbol]	6" x 6" CONCRETE CURB WITH GUTTER		B5/C-501
[Symbol]	6" x 6" CONCRETE CURB		B4/C-501
[Symbol]	6" x 6" CONCRETE CURB		
[Symbol]	HANDRAIL		A1/C-501
[Symbol]	24" WIDE DETECTABLE WARNING SURFACE		
[Symbol]	6" x 12" CONCRETE EDGING AROUND TREE		C5/C-501
[Symbol]	RELOCATED TRASH RECEPTACLE		
[Symbol]	STORM DRAIN BOX		D4/C-501
[Symbol]	DOG PARK SIGN - secure to fence		A6/C-501
[Symbol]	DOG WATERING STATION - gravel sump underneath		
[Symbol]	RELOCATED ELECTRICAL BOX		
[Symbol]	RELOCATED LIGHT POLE		
[Symbol]	PET WASTE STATION		
SYMBOL	DESCRIPTION	QTY	DETAIL
[Symbol]	SYNTHETIC TURF GRASS FOR PETS	2,944 sf	C4/C-501
[Symbol]	ASPHALT	10,477 sf	B6/C-501
[Symbol]	4" CONCRETE, ROUGH BROOM FINISH	711 sf	B1/C-501
[Symbol]	6" CONCRETE AROUND UTAH SIGN - add alternate 4	65 sf	D5/C-501

GENERAL NOTES

- THE CONTRACTOR SHALL INSPECT THE SITE TO BE FULLY AWARE OF ALL PERTINENT EXISTING CONDITIONS PRIOR TO SUBMITTING BID OR PROPOSAL.
- PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL MEET WITH THE OWNER'S REPRESENTATIVE TO DETERMINE METHOD OF MAINTAINING PUBLIC ACCESS TO THE BUILDING DURING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN APPROVED ACCESS TO THE BUILDING THROUGHOUT THE DURATION OF CONSTRUCTION AND SHALL PROVIDE ALL TEMPORARY RAMPS, BARRIERS, ETC. AS REQUIRED TO MAINTAIN PUBLIC SAFETY.
- PRIOR TO THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY HIS WORK. THE CONTRACTOR SHALL PROTECT THOSE UTILITIES THAT ARE TO REMAIN AND BE RESPONSIBLE FOR THE REPAIR OF DAMAGES TO SUCH UTILITIES.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES WHEN CONSTRUCTION WORK BEGINS NEAR ANY UTILITY LINES AND ARRANGE FOR A UTILITY REPRESENTATIVE TO BE PRESENT IF THE CONTRACTOR'S CLOSE OPERATIONS COULD CREATE A HAZARDOUS CONDITION.
- THE CONTRACTOR SHALL PROTECT EXISTING BUILDINGS, WALKS, DRIVES, CURBS, ETC. THAT ARE TO REMAIN AND SHALL REPAIR ANY DAMAGE THAT MAY RESULT FROM THE WORK.
- THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES AND PERMITS AS REQUIRED BY UDOT AND NECESSARY FOR THE CONSTRUCTION OF THE PROJECT.
- THE LANDSCAPE AND IRRIGATION CONTRACTORS SHALL COORDINATE THEIR WORK WITH ANY OTHER CONTRACTORS AND TRADES WORKING ON THIS PROJECT. PROVIDE SLEEVES AS REQUIRED FOR DRAINAGE, IRRIGATION AND ELECTRICAL LINES, ETC. PRIOR TO PAVING AND LANDSCAPE WORK.
- THE CONTRACTOR HAS THE RESPONSIBILITY OF VERIFYING ALL GRADES, ELEVATIONS, DIMENSIONS, MEASUREMENTS, CORNERS, CURBS AND ANGLES FOR WORK TO BE PERFORMED WITHIN THIS CONTRACT. REPORT ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL CONDITION TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY UNAUTHORIZED DAMAGE INSIDE AND OUTSIDE THE LIMIT OF WORK LINE DUE TO CONSTRUCTION OPERATIONS AND SHALL RESTORE DAMAGED AREAS TO ORIGINAL CONDITION AT NO COST.
- CONTRACTOR SHALL BE RESPONSIBLE FOR YARD AND BUILDING CLEANUP AT THE COMPLETION OF WORK.



CONSTRUCTION DOCUMENTS

MARK	DATE	DESCRIPTION

PROJECT #: 823291
 DRAWN BY: J. CLEMENTS
 CHECKED BY: B. WRIGHT
 ISSUED: 08.09.2024



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SECTION 32 8423 UNDERGROUND SPRINKLERS

PART 1 - GENERAL

1.01 SUMMARY
A. THE WORK COVERED BY THESE SPECIFICATIONS CONSISTS OF FURNISHING ALL LABOR, MATERIAL, EQUIPMENT AND SUPPLIES IN PERFORMING ALL OPERATIONS IN CONNECTION WITH PROVIDING AN IRRIGATION SYSTEM AND ALL SITE WORK IN STRICT ACCORDANCE WITH REPRESENTATIVE UNLESS THE SUPERINTENDENT CHANGES HIS STATUS AS AN EMPLOYEE OF THE CONTRACTOR...

1.02 SECTION INCLUDES
A. PIPE AND FITTINGS, VALVES, SPRINKLER HEADS, EMITTERS, AND ACCESSORIES.
1.03 DEFINITION
A. CIRCUIT PIPING: DOWNSTREAM FROM CONTROL VALVES TO SPRINKLERS, SPECIALTIES, AND DRAIN VALVES. PIPING IS UNDER PRESSURE DURING FLOW.

1.04 PROJECT CONDITIONS
A. IRRIGATION SYSTEM SHALL BE PROVIDED BY THE FOLLOWING:
1. MAIN LINE SHALL BE CONNECTED TO EXISTING MAINLINE.
2. DESIGN PRESSURE OF THE IRRIGATION DESIGN IS 65 PSI.

1.05 SYSTEM PERFORMANCE REQUIREMENTS
A. MINIMUM WATER COVERAGE:
1. IRRIGATION HEADS IN LAWN AREAS SHALL BE SPACED 85% OF THE RADIUS FOR ROTORS AND 90% OF THE RADIUS FOR SPRAY HEADS.
2. SHRUBS AND PERENNIALS SHALL HAVE ADEQUATE WATER APPLIED TO THE ROOT ZONES TO ENSURE PLANT HEALTH AND DEVELOPMENT.

1.06 PIPE MATERIALS
A. PVC PIPE: ASTM D2241; 200 PSI @ 138 MPa PRESSURE RATED UPSTREAM FROM CONTROLS, 160 PSI @ 110 MPa DOWNSTREAM, SOLVENT WELDED SOCKETS.
1. ALL LATERAL PIPING SMALLER THAN 3" SHALL BE SCHEDULE 40 PRESSURE RATED PVC GLUE JOINT PIPE WITH RATINGS PRINTED ON OUTSIDE OF PIPE.

1.07 QUALITY ASSURANCE
A. MANUFACTURER QUALIFICATIONS: LICENSED FIRMS REGULARLY ENGAGED IN MANUFACTURE OF IRRIGATION SYSTEM PRODUCTS OF TYPES, MATERIALS AND SIZES SPECIFIED, WHOSE PRODUCTS HAVE BEEN IN USE IN SIMILAR SERVICE.
B. WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH LATEST RULES AND REGULATIONS, AND OTHER APPLICABLE STATE OR LOCAL LAWS. NOTHING IN APPROVED CONTRACT DOCUMENTS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1.08 CODES AND STANDARDS
A. PLUMBING CODE COMPLIANCE: COMPLY WITH ANY APPLICABLE PORTIONS OF THE UTAH STATE PLUMBING CODE PERTAINING TO THE SELECTION OF MATERIALS AND THE INSTALLATION OF IRRIGATION SYSTEMS.
B. WATER PURVEYOR COMPLIANCE: COMPLY WITH REQUIREMENTS OF PURVEYOR SUPPLYING WATER TO THE PROJECT.

1.09 CONTRACTORS USE OF PREMISES
A. CONTRACTOR IS RESPONSIBLE FOR DAMAGES AND INTERRUPTION OF ALL EXISTING UTILITIES.
B. CONTRACTOR SHALL NOT UNREASONABLY ENCUMBER SITE WITH MATERIALS AND EQUIPMENT.
C. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR PROTECTION AND SECURITY OF VALVE BOX AND COVER. ALL BOXES TO HAVE LOCKING LIDS.

1.10 PERFORMANCE BOND/BID INSURANCE
A. THE OWNER SHALL HAVE THE RIGHT TO REQUIRE THE CONTRACTOR TO FURNISH BONDS COVERING FAITHFUL PERFORMANCE OF THE CONTRACT AND PAYMENT OF OBLIGATIONS ARISING THEREUNDER AS REGULATED IN BIDDING REQUIREMENTS. A BID BOND, CERTIFIED CHECK, OR CASHIERS CHECK EXECUTED IN FAVOR OF OFCM IN THE AMOUNT OF FIVE PERCENT (5%) OF THE TOTAL BID PRICE MUST BE SUBMITTED WITH THE PROPOSAL AS GUARANTEE THAT BIDDER IS WILLING TO ENTER INTO A CONTRACT. BIDDER MUST ALSO BE ABLE TO PROVIDE A ONE HUNDRED PERCENT (100%) PERFORMANCE AND PAYMENT BOND AT TIME OF AWARD OF CONTRACT.

B. SUCCESSFUL CONTRACTOR MUST MEET FEDERAL, STATE, COUNTY AND CITY CODES AND REGULATIONS. PROOF OF LIABILITY INSURANCE AND WORKMENS COMPENSATION MUST BE SUBMITTED WITH BID.
1.11 SUPERVISION
A. THE CONTRACTOR SHALL PROVIDE A COMPETENT SUPERINTENDENT AND ANY NECESSARY ASSISTANTS ON THE PROJECT WHEN WORK IS IN PROGRESS. THE SUPERINTENDENT SHALL NOT BE CHANGED DURING THE PROJECT WITHOUT THE CONSENT OF THE OWNERS REPRESENTATIVE UNLESS THE SUPERINTENDENT CHANGES HIS STATUS AS AN EMPLOYEE OF THE CONTRACTOR...

1.12 GUARANTEE
A. SUBMIT ONE-YEAR WRITTEN GUARANTEE SIGNED BY UNDERGROUND SPRINKLER CONTRACTOR, AGREEING TO REPAIR OR REPLACE ALL DEFECTS IN MATERIAL, EQUIPMENT, AND WORKMANSHIP.
B. COORDINATE LAWN IRRIGATION PIPING WITH WORK SPECIFIED IN DIVISION 32 9223 "SODDING" AND 32 9300 "PLANTS".
C. COORDINATE LAWN IRRIGATION PIPING WITH UTILITY WORK.

PART 2 - PRODUCTS

2.01 IRRIGATION SYSTEM
A. MANUFACTURERS:
1. RAIN BRD SHALL BE RAIN BRD, INC. N/A. WWW.RAINBRD.COM#W5LE.

2.02 FILL MATERIAL
A. BACKFILL MATERIAL:
1. BACKFILL MATERIAL FOR IRRIGATION PIPE SHALL CONSIST OF SAND, NATIVE MATERIAL OR TOPSOIL WITH NO ROCKS LARGER THAN 1/4 INCH IN ANY DIMENSION FOR PIPE BEDDING HAUNCHES AND INITIAL BACKFILL ABOVE THE PIPE. ABOVE THE INITIAL BACKFILL, THE TRENCH SHALL BE FILLED WITH SOIL WITH NO DEBRIS OR ROCKS GREATER THAN 1/2 INCH IN ANY DIRECTION. LANDSCAPE ARCHITECT SHALL APPROVE NON-SITE MATERIAL FOR BACKFILL OPERATION.
2. BACKFILL FOR IRRIGATION SLEEVES UNDER PAVEMENT SHALL CONSIST OF GRANULAR MATERIAL WITH NO ROCK SIZE LARGER THAN 1/4 INCH IN ANY DIMENSION UP TO THE BASE FOR THE PAVING ABOVE THE PIPE.

2.03 PIPE MATERIALS
A. PVC PIPE: ASTM D2241; 200 PSI @ 138 MPa PRESSURE RATED UPSTREAM FROM CONTROLS, 160 PSI @ 110 MPa DOWNSTREAM, SOLVENT WELDED SOCKETS.
1. ALL LATERAL PIPING SMALLER THAN 3" SHALL BE SCHEDULE 40 PRESSURE RATED PVC GLUE JOINT PIPE WITH RATINGS PRINTED ON OUTSIDE OF PIPE.

2.04 OUTLETS
A. MANUFACTURERS:
1. RAIN BRD.
2. CARSON.
3. SUBSTITUTIONS: SEE SECTION 01 6000 - PRODUCT REQUIREMENTS.
B. ALL CONTROL MASTER VALVE/QUICK COUPLER VALVES.
C. REMOTE CONTROL VALVES.
D. ALL CONTROL VALVES USED SHALL BE SCRUBBER VALVES.
E. DRAIN PIPING:
1. RAIN BRD FEB-PRS-D WITH PRESSURE REGULATION.
D. DRIP IRRIGATION VALVES:
1. RAIN BRD LFV-100.
E. VALVE BOX AND COVER: ALL BOXES TO HAVE LOCKING LIDS.

2.05 VALVES
A. MANUFACTURERS:
1. RAIN BRD.
2. CARSON.
3. SUBSTITUTIONS: SEE SECTION 01 6000 - PRODUCT REQUIREMENTS.
B. ALL CONTROL MASTER VALVE/QUICK COUPLER VALVES.
C. REMOTE CONTROL VALVES.
D. ALL CONTROL VALVES USED SHALL BE SCRUBBER VALVES.
E. DRAIN PIPING:
1. RAIN BRD FEB-PRS-D WITH PRESSURE REGULATION.
D. DRIP IRRIGATION VALVES:
1. RAIN BRD LFV-100.
E. VALVE BOX AND COVER: ALL BOXES TO HAVE LOCKING LIDS.

2.06 CONTROLS
A. CONTROLLER: CONNECT INTO EXISTING CONTROLLER.
B. WIRE CONDUCTORS:

1. ELECTRICAL WIRE:
a. ALL WIRING SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE.
2. TRADITIONAL WIRING:
a. CONTROL WIRE SHALL BE UL LISTED DIRECT BURIAL CABLE NOT SMALLER THAN 1/4 GAUGE. IN SOME CASES 18-GAUGE MULTI-STRAND WIRE IS USED IN SPECIAL SITUATIONS AS SHOWN ON DRAWINGS AND APPROVED BY OWNER.
b. COLORS OF WIRE SHALL BE AS FOLLOWS:
1) CONTROL WIRE FOR SHURB AREAS: RED
2) CONTROL WIRE FOR SHRUB AREAS: YELLOW
3) CONTROL WIRE TO MASTER VALVE: BLUE
4) CONTROL WIRE TO FILTER BLOWOUT VALVE: BROWN
5) COMMON WIRE: WHITE
6) EXTRA WIRES: ORANGE

3. SINGLE WIRE:
a. SHALL BE UF-UL LISTED, COLOR CODED COPPER CONDUCTOR DIRECT BURIAL SIZE 14. DO NOT USE GREY OR RED.
b. USE DBY-6 OR DBR-8 BY 3M OR EQUAL AS APPROVED BY LANDSCAPE ARCHITECT BEFORE INSTALLATION.
4. EXPANSION CURLS: SHALL BE PROVIDED WITHIN THREE (3) FEET OF EACH WIRE CONNECTION TO SOLENOID AND AT LEAST EVERY THREE HUNDRED (300) FEET IN LENGTH. EXPANSION CURLS ARE FORMED BY WRAPPING 36" OF WIRE AROUND A ROD OR PIPE 1" OR MORE IN DIAMETER, THEN WITHDRAWING THE ROD FOR SINGLE STRAND WIRE AND LOOSELY COILED FOR TWO WIRE CABLES.

2.07 OTHER COMPONENTS
A. MIXES: CONCRETE FOR THRUST BLOCKS ON IRRIGATION PIPE 3" OR LARGER.
1. ONE CU. FT. CEMENT, 2 CU. FT. SAND, 4 CU. FT. GRAVEL, AND 5 GALLONS MINIMUM TO 6 GALLONS MAXIMUM WATER.
2. MIX THOROUGHLY BEFORE PLACING.
B. SUBMIT OTHER COMPONENTS RECOMMENDED BY MANUFACTURER FOR ARCHITECTS REVIEW AND ACCEPTANCE PRIOR TO INSTALLATION.
C. PROVIDE COMPONENTS NECESSARY TO COMPLETE AND MAKE SYSTEM OPERATIONAL.
D. FURNISH EXTRA MATERIALS DESCRIBED BELOW THAT MATCH PRODUCTS INSTALLED AND THAT ARE PACKAGED WITH PROTECTIVE COVERING FOR STORAGE AND IDENTIFIED WITH LABELS DESCRIBING CONTENTS. DELIVER EXTRA MATERIALS TO OWNER.
1. TWO VALVE BOX COVER KEYS.
2. TWO QUICK COUPLER KEYS WITH BRASS HOSE SWIVEL.
3. TWO MANUAL DRAIN VALVE KEYS.
4. TWO SETS OF SPRINKLER WRENCHES FOR ADJUSTING, CLEANING OR DISASSEMBLY OF EACH TYPE OF SPRINKLER.
5. TWO EACH OF ANY OTHER TOOLS REQUIRED FOR ANY OTHER EQUIPMENT.

PART 3 - EXECUTION

3.01 OWNERS SALVAGE RIGHTS
A. ANY ITEMS REMOVED AND NOT REUSED IN CONTRACT WILL REMAIN OWNERS PROPERTY AND WILL BE RETURNED TO OWNER AT HIS DISCRETION.

3.02 EXAMINATION
A. VERIFY LOCATION OF EXISTING UTILITIES.
B. LOCATE THAT REQUIRED UTILITIES ARE AVAILABLE, IN PROPER LOCATION, AND READY FOR USE.
C. PRIOR TO INSTALLATION OF IRRIGATION SYSTEM, THE CONTRACTOR MUST VERIFY THE SUPPLY PRESSURE AT THE WORK SITE. IF THERE IS A FAILURE TO OBTAIN THE NEEDED PRESSURE OR IF AN EXCESSIVE PRESSURE SITUATION EXISTS FOR NORMAL OPERATION, THE CONTRACTOR MUST CONTACT THE OWNER FOR ANY ADJUSTMENTS TO THE SUPPLY OR IRRIGATION SYSTEM DESIGN. FAILURE TO REPORT ANY DISCREPANCIES IN PRESSURE DUE TO ANY REASON, AND ANY INSTALLATION DONE PRIOR TO NOTIFICATION OF OWNER SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR.

3.03 PREPARATION
A. DURING CONSTRUCTION AND STORAGE, PROTECT MATERIALS FROM DAMAGE AND PROLONGED EXPOSURE TO SUNLIGHT.
B. WORK DAMAGED DURING WORK IN THIS SECTION SHALL BE REPLACED OR REPAIRED AT NO ADDITIONAL COST TO OWNER. IF DAMAGED WORK IS NEW, REPAIR OR REPLACEMENT SHALL BE PERFORMED BY INSTALLER OF ORIGINAL WORK.
C. LAYOUT AND STAKE LOCATIONS OF SYSTEM COMPONENTS.
D. REVIEW LAYOUT REQUIREMENTS WITH OTHER AFFECTED WORK. COORDINATE LOCATIONS OF SLEEVES UNDER PAVING TO ACCOMMODATE SYSTEM.
E. ALL LATERAL LINES SHALL RUN PARALLEL WITH PLANTING AREAS AND AVOID CONFLICT WITH THE LOCATION OF PLANT MATERIALS. WHERE BENCHING IS REQUIRED IN PROXIMITY TO PLANT MATERIALS CARE SHALL BE TAKEN TO AVOID DAMAGE TO ROOTS. DO NOT CUT EXISTING TREE ROOTS MEASURING OVER 2 INCHES IN DIAMETER.

3.04 TRENCING
A. TRENCH SIZE:
1. MINIMUM COVER OVER INSTALLED SUPPLY PIPING: 18 INCHES (457 MM).
2. MINIMUM COVER OVER INSTALLED BRANCH PIPING: 12 INCHES (305 MM).
B. TRENCH TO ACCOMMODATE GRADE CHANGES AND SLOPE TO DRAINS.
C. MAINTAIN TRENCHES FREE OF DEBRIS, MATERIAL, OR OBSTRUCTIONS THAT MAY DAMAGE PIPE.
D. PULLING OF PIPE IS NOT PERMITTED.
E. WHEN DIGGING ON PROJECT SITE, THE AREA SHALL BE STAKED TO IDENTIFY THE APPROXIMATE LOCATION OF ALL KNOWN UNDERGROUND UTILITIES AND STRUCTURES.
F. EXCAVATION WORK SHALL BE AS DEEP AND AS WIDE AS REQUIRED TO SAFELY PERFORM THE WORK, SUCH AS MAKING MAINLINE CONNECTIONS OR FORMING VAULTS. WHERE TRENCHING IS DONE IN ESTABLISHED LAWN, CARE MUST BE TAKEN TO KEEP THE TRENCHES ONLY AS WIDE AS IS NECESSARY TO ACCOMPLISH THE WORK.
G. IF MORE THAN ONE LINE IS REQUIRED IN A SINGLE TRENCH, THAT TRENCH SHALL BE DEEP AND WIDE ENOUGH TO ALLOW FOR AT LEAST 3 INCHES OF SEPARATION BETWEEN PIPES. INSTALL THE PIPING IN A MANNER FOR EASY REPAIR IN THE FUTURE.
H. ADJUST CONTROL SYSTEM TO ACHIEVE THE TIME CYCLES REQUIRED TO PROVIDE PROPER AMOUNTS OF WATER TO ALL PLANTS.

3.05 INSTALLATION
A. GENERAL:
1. INSTALL PIPE, VALVES, CONTROLS, AND OUTLETS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
2. CONNECT TO UTILITIES.
3. SET OUTLETS AND BOX COVERS AT FINISH GRADE ELEVATIONS AND SLOPED WITH SURROUNDING GRADE.
4. PROVIDE FOR THERMAL MOVEMENT OF COMPONENTS IN SYSTEM.
B. PIPES:
1. INSTALL PIPE IN MANNER TO PROVIDE FOR EXPANSION AND CONTRACTIONS AS RECOMMENDED BY MANUFACTURER.
2. UNLESS OTHERWISE INDICATED ON APPROVED DRAWINGS, INSTALL MAIN LINES AND LATERAL LINES CONNECTING ROTOR POP-UP SPRINKLERS WITH MINIMUM COVER OF 18 INCHES BASED ON FINISHED GRADE. INSTALL REMAINING LATERAL LINES WITH MINIMUM OF 12 INCHES OF COVER BASED ON FINISH GRADE.
3. INSTALL PIPE AND WIRES UNDER DRIVEWAYS OR PARKING AREAS IN SPECIFIED SLEEVES 18 INCHES MINIMUM BELOW FINISH GRADE OR AS SHOWN ON APPROVED DRAWINGS.
4. SLOPE PIPES UNDER PARKING AREAS OR DRIVEWAYS TO DRAIN OUTSIDE THESE AREAS.
5. LOCATE SPRINKLER HEADS NO CLOSER THAN 12 INCHES FROM BUILDING FOUNDATION. HEADS IMMEDIATELY ADJACENT TO MOW STRIPS, WALKS, OR CURBS SHALL BE ONE INCH BELOW TOP OF MOW STRIP, WALK, OR CURB AND HAVE 1 TO 3 INCHES CLEARANCE BETWEEN HEAD AND MOW STRIP, WALK, OR CURB.

6. SLOPE PIPING FOR SELF DRAINAGE TO CONTROL BOX WHERE POSSIBLE.
7. WHERE THIS IS NOT POSSIBLE, SLOPE PIPING TO A MINIMUM NUMBER OF LOW POINTS. INSTALL AT THESE LOW POINTS:
a. 3/4 INCH MANUAL DRAIN
b. INSTALL 2 INCH CLASS 200 PVC PIPE OVER TOP OF MANUAL DRAIN AND CUT AT FINISH GRADE.
c. INSTALL RUBBER VALVE CAP MARKER FLUSH WITH FINISHED GRADE.
d. DO NOT USE AUTOMATIC DRAIN VALVES.
e. CUT PLASTIC PIPE SQUARE, REMOVE BURRS AT CUT ENDS PRIOR TO INSTALLATION SO UNOBSTRUCTED FLOW WILL RESULT.
9. MAKE SOLVENT WELD JOINTS AS FOLLOWS:
a. DO NOT MAKE SOLVENT WELD JOINTS IF AMBIENT TEMPERATURE IS BELOW 40 DEGREES F.
b. CLEAN MATING PIPE AND FITTING WITH CLEAN, DRY CLOTH AND APPLY ONE COAT OF P-70 PRIMER TO EACH.
c. APPLY UNIFORM COAT OF 711 SOLVENT TO OUTSIDE OF PIPE.
d. APPLY SOLVENT TO FITTING IN A SIMILAR MANNER.
e. RE-APPLY LIGHT COAT OF SOLVENT TO PIPE AND QUICKLY INSERT INTO FITTING.
f. GIVE PIPE OR FITTING A QUARTER TURN TO ENSURE EVEN DISTRIBUTION OF SOLVENT AND MAKE SURE PIPE IS RESTRICTED TO FALL DEPTH OF FITTING SOCKET.
g. HOLD IN POSITION FOR 30 SECONDS MINIMUM OR LONG ENOUGH TO SECURE JOINT.
h. WIPE OFF SOLVENT APPEARING AT OUTER SHOULDER OF FITTING.
i. DO NOT USE EXCESSIVE AMOUNT OF SOLVENT THEREBY CAUSING OBSTRUCTION TO FORM ON INSIDE OF PIPE.
j. ALLOW JOINTS TO SET AT LEAST 24 HOURS BEFORE APPLYING PRESSURE TO PVC PIPE.

10. THREADED CONNECTIONS SHALL BE MADE WITH TEFLON TAPE.
C. SLEEVING:
1. CONTRACTOR IS RESPONSIBLE TO COORDINATE THE INSTALLATION OF SLEEVING WITH THE WORK OF OTHER TRADES (I.E. CONCRETE, ASPHALT PAVING, ETC.).
2. SLEEVE IRRIGATION WATER LINES AND CONTROL WIRES UNDER WALKS AND PAVING. EXTEND SLEEVES 6 INCHES MINIMUM BEYOND WALK OR PAVEMENT EDGE. CAP SLEEVES WITH PLUGS AND WIRES ARE INSTALLED TO KEEP SLEEVES CLEAN AND FREE OF DIRT AND DEBRIS.

3. USE ONE WATER PIPE MAXIMUM PER SLEEVE. SLEEVE CONTROL WIRING IN SEPARATE SLEEVE.
4. POSITION SLEEVES WITH RESPECT TO BUILDINGS AND OTHER OBSTRUCTIONS SO PIPE CAN BE EASILY REMOVED.
D. OUTLETS:
1. USE THREADED NIPPLES FOR RISERS TO EACH OUTLET.
2. SPRINKLER HEADS:
a. PRIOR TO INSTALLATION OF SPRINKLER HEADS, OPEN CONTROL VALVES AND USE FULL HEAD OF WATER TO FLUSH OUT SYSTEM.
b. SET SPRINKLER HEADS AND QUICK-COUPLING VALVES PERPENDICULAR TO FINISH GRADE.
c. DO NOT INSTALL SPRINKLERS USING SIDE INLETS. INSTALL USING BASE INLETS ONLY.
d. SET SPRINKLERS AT A CONSISTENT DISTANCE FROM EXISTING WALKS, CURBS, AND OTHER PAVED AREAS AND TO GRADE.
3. TREE BUBBLERS: INSTALL ACCORDING TO MANUFACTURERS RECOMMENDATIONS AND PROJECT DETAILS.
4. POINT SOURCE DRIP LINE EMITTERS INSTALLATION SHALL CONFORM TO THE FOLLOWING:
a. ALL DRIP TUBING SHALL HAVE BUG CAP AT END OF 1/4 INCH DISTRIBUTION TUBING.
b. ALL DRIP TUBING SHALL BE HELD ABOVE MULCH BY 1/4 INCH TUBING STAKE.
c. SPACE THE POINT OF WATER APPLICATION EVENLY AROUND THE PLANTS.
d. FOR TREES REQUIRING EMITTER FLOWS GREATER THAN 2 GPH INSTALL A WATER WELL TO HOLD THE WATER SO IT CAN ADEQUATELY SOAK IN.

5. VALVES & VALVE BOXES:
1. INSTALL CONTROL WIRES, AND VALVES IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND PER ELECTRICAL CODE.
2. INSTALL VALVES, IN PLASTIC BOXES WITH LOCKING REINFORCED HEAVY-DUTY PLASTIC COVERS. LOCATE VALVE BOX TOPS AT FINISH GRADE. DO NOT INSTALL MORE THAN ONE VALVE IN A SINGLE BOX.
3. PLACE PEA GRAVEL A MINIMUM OF 6 INCHES DEEP BELOW VALVE FOR DRAINAGE. EXTEND WASHED GRAVEL 3 INCH MINIMUM BEYOND LIMITS OF VALVE BOX. MAINTAIN 4 INCH MINIMUM BETWEEN BOTTOM OF VALVE AND TOP OF GRAVEL, AND 3 INCHES MINIMUM CLEARANCE BETWEEN VALVE BOX AND BOTTOM OF VALVE.
4. SET VALVE BOXES OVER VALVE SO ALL PARTS OF VALVE CAN BE REACHED FOR SERVICE. SET COVER OF VALVE BOX EVEN WITH FINISH GRADE. VALVE BOX SHALL BE REASONABLY FREE FROM DIRT AND DEBRIS.
5. INSTALL 3/4 INCH BRASS BOX ON DOWNSTREAM SIDE OF AUTOMATIC VALVES IF LATERAL LINE SLOPES TOWARD VALVE BOX.
6. INSTALL QUICK COUPLING VALVES IN APPROPRIATE LOCATIONS IN VALVE BOXES.
7. ISOLATION VALVES, AND ANY OTHER EQUIPMENT REQUIRED BY LOCAL AUTHORITIES SHALL BE INSTALLED ACCORDING TO LOCAL CODES AND REQUIREMENTS IN ORDER TO MAKE THIS SYSTEM COMPLETE.

7. INSTALL ANY OTHER EQUIPMENT REQUIRED BY LOCAL AUTHORITIES ACCORDING TO LOCAL CODES AND REQUIREMENTS IN ORDER TO MAKE THIS SYSTEM COMPLETE.
F. WIRING:
1. STANDARD WIRE:
a. TAPE CONTROL WIRE TO SIDE OF MAIN LINE EVERY 10 FEET. WHERE CONTROL WIRE LEAVES MAIN OR LATERAL LINE, ENCLOSE IT IN CLASS 200 PVC CONDUIT.
b. PLACE ALL WATERPROOF WIRE SPLICE CONNECTORS INSIDE VALVE BOXES.
c. USE WHITE OR GRAY COLOR FOR COMMON WIRE AND OTHER COLORS FOR ALL OTHER WIRE. EACH COMMON WIRE MAY SERVE ONLY ONE CONTROLLER. PROVIDE 12 INCHES OF EXPANSION LOOP SLACK WIRE AT ALL CONNECTIONS INSIDE VALVE BOX.
d. RUN ONE EXTRA COUPLER WIRE FROM PANEL CONTINUOUSLY FROM VALVE TO VALVE THROUGHOUT SYSTEM LIKE THE COMMON WIRE FOR USE IF THE COMMON WIRE FAILS. WIRE SHALL BE A DIFFERENT COLOR THAN ALL OTHER WIRES AND SHALL BE MARKED IN CONTROL BOX AS AN EXTRA WIRE. EXTEND EXTRA CONTROL WIRES 24 INCHES AND LEAVE COILED IN EACH VALVE BOX.
6. AFTER PIPING IS INSTALLED, BUT BEFORE OUTLETS ARE INSTALLED AND BACKFILLING COMMENCES, OPEN VALVES AND FLUSH SYSTEM WITH FULL HEAD OF WATER.

3.06 FIELD QUALITY CONTROL
A. NOTIFY LANDSCAPE ARCHITECT TWO WORKING DAYS MINIMUM PRIOR TO TESTING.
B. FIELD INSPECTION AND TESTING WILL BE PERFORMED UNDER PROVISIONS OF SECTION 01 4000 - QUALITY REQUIREMENTS.
C. PRIOR TO BACKFILLING, TEST SYSTEM FOR LEAKAGE AT MAIN PIPING TO MAINTAIN 100 PSI (690 KPA) PRESSURE FOR SIX HOURS MINIMUM.
D. SYSTEM IS ACCEPTABLE IF NO LEAKAGE OR LOSS OF PRESSURE OCCURS AND SYSTEM SELF DRAINS DURING TEST PERIOD.

3.07 BACKFILLING
A. COVER BOTH TOP AND SIDES OF PIPE WITH 3 INCH (75 MM) OF BACKFILL MATERIAL AS SPECIFIED UNDER PART 2 - PRODUCTS.
B. BACKFILL TRENCH AND COMPACT TO WITHIN 5 INCHES (127 MM) OF FINISH GRADE AS SPECIFIED IN RELATED SECTIONS. PROTECT PIPING FROM DISPLACEMENT. TOP 3 INCHES (75 MM) OF BACKFILL SHALL BE TOPSOIL AS SPECIFIED IN RELATED SECTION.
C. DO NOT COVER PRESSURE MAIN, SPRINKLER PIPE, OR FITTINGS UNTIL PRESSURE TEST HAS BEEN COMPLETED AND ARCHITECT HAS INSPECTED AND APPROVED THE SYSTEM.
D. AFTER BACKFILLING, PERFORM AN OPERATING TEST OF THE ENTIRE SYSTEM, OPERATE THE ENTIRE SYSTEM THROUGH ONE CYCLE OF THE CONTROLLER FOR THE PURPOSE OF CHECKING COVERAGE AND ASSURING THE ABSENCE OF LEAKS. REPAIR WATER LINES, VALVES, OR CONNECTIONS WHICH SHOW EVIDENCE OF LEAKAGE.
E. ALL TRENCHES SHALL BE BACKFILLED AND THEN SATURATED WITH WATER SUFFICIENT TO ENSURE NO SETTLING OF THE SURFACE AFTER LAWN IS PLANTED.
F. ANY PORTION OF THE SYSTEM WHICH SHOWS DEFECTS OR LEAKAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER OR BE REPLACED. AFTER ALL REPAIRS OR REPLACEMENTS HAVE BEEN MADE AND APPROVED BY THE LANDSCAPE ARCHITECT, THE ABOVE REQUIRED TEST SHALL BE MADE AGAIN.

3.08 SYSTEM STARTUP
A. PREPARE AND START SYSTEM IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
B. ADJUST CONTROL SYSTEM TO ACHIEVE THE TIME CYCLES REQUIRED TO PROVIDE PROPER AMOUNTS OF WATER TO ALL PLANTS.
C. ADJUST HEADS TO PROPER GRADE WHEN TURF IS SUFFICIENTLY ESTABLISHED TO ALLOW WALKING ON IT WITHOUT APPRECIABLE HARM. SUCH LOWERING OR RAISING OF HEADS SHALL BE PART OF OPERATING AND MAINTENANCE OF THE SYSTEM.
D. ADJUST SPRINKLER HEADS FOR PROPER DISTRIBUTION AND OR SPRAYS DOES NOT FALL ON BUILDING.

3.09 CLOSEOUT ACTIVITIES
A. AT THE POINT OF SUBSTANTIAL COMPLETION OF WORK OUTLINED IN THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL CONTACT THE OWNERS REPRESENTATIVE AND ARRANGE FOR A WALK THROUGH TO VERIFY THE INSTALLATION OF THE SYSTEM. A COVERAGE TEST WILL BE COMPLETED AND THE SYSTEM INSTALLATION INSPECTED AND A PUNCH LIST OF FINAL ITEMS NEEDING COMPLETION MADE.
B. AT THE TIME OF FINAL INSPECTION, THE ENTIRE SYSTEM MUST BE TESTED IN THE PRESENCE OF OWNERS REPRESENTATIVE. IT MUST BE FULLY OPERATIONAL IN A SATISFACTORY CONDITION, WITH FULL UNIFORM COVERAGE OF THE AREAS INDICATED TO BE IRRIGATED. ALL HEADS SHALL BE ADJUSTED TO PATTERN, RADIUS, AND GRADE LEVEL.
C. BEFORE THE INSPECTION IS COMPLETE, THE CONTRACTOR MUST FURNISH THE "AS BUILT" DRAWINGS. THESE DRAWINGS SHOULD BE UPDATED ON A DAILY BASIS TO ENSURE ACCURACY. THESE DRAWINGS MUST SHOW THE LOCATION OF ALL PIPING, VALVES, HEADS, WIRE SPLICES AND OTHER PERTINENT INFORMATION. THESE DRAWINGS AND ALL MAINTENANCE MANUALS MUST BE SUBMITTED AT THE TIME OF FINAL INSPECTION, IN ACCORDANCE WITH THESE SPECIFICATIONS.

D. AT THE TIME OF THE FINAL INSPECTION THERE IS ANY ADDITIONAL WORK TO SATISFY CONTRACT REQUIREMENTS, IT WILL BE NOTED ON A "PUNCH LIST". CONTRACTOR SHALL HAVE 10 DAYS IN ORDER TO SATISFY, OR MAKE SUITABLE ARRANGEMENTS WITH OWNER TO SATISFY ITEMS ON THE "PUNCH LIST". AT OWNERS DISCRETION FINAL PAYMENT OR A PORTION THEREOF, COULD BE HELD PENDING COMPLETION OF "PUNCH LIST" ITEMS.
E. CONTRACTOR'S PERSONNEL IN OPERATION AND MAINTENANCE OF THE SYSTEM, INCLUDING ADJUSTING OF SPRINKLER HEADS, USE OPERATION AND MAINTENANCE DATA AS BASIS FOR DEMONSTRATION.

3.10 CLEAN-UP AND MAINTENANCE
A. REMOVE FROM SITE ALL DEBRIS RESULTING FROM WORK OF THIS SECTION.
B. SEE SECTION 01 7000 - EXECUTION AND CLOSEOUT REQUIREMENTS, FOR ADDITIONAL REQUIREMENTS RELATING TO MAINTENANCE SERVICE.
C. PROVIDE ONE COMPLETE START-UP AND A FALL SHUTDOWN BY INSTALLER, AT NO EXTRA COST TO OWNER.

3.11 WARRANTY
A. ALL WORK SHALL BE WARRANTED FOR COMPLIANCE WITH THE CONTRACT REQUIREMENTS, INCLUDING REPLACEMENT, FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION. IF AN UNSATISFACTORY CONDITION DEVELOPS DURING THE WARRANTY PERIOD AND IS DUE TO NEGLIGENCE, FAULTY MATERIALS, OR WORKMANSHIP, CONTRACTOR SHALL IMMEDIATELY REPLACE SUCH ITEMS IN A SATISFACTORY CONDITION. ALL WARRANTIES SHALL BE IN WRITING, SIGNED BY CONTRACTOR OR LEGAL REPRESENTATIVE, AND WORDED AS APPROVED BY OWNER. WARRANTY DOCUMENTS SHALL BE PRESENTED TO OWNER AT THE TIME OF FINAL INSPECTION.
B. DURING ONE-YEAR WARRANTY PERIOD, CONTRACTOR WILL COMPLY WITH THE FOLLOWING:
1. FILL AND REPAIR LOW AREAS AND REPLACE PLANTINGS DUE TO SETTLEMENT OF EXCAVATED AREAS.
2. AT THE END OF THE FIRST WATERING SEASON, CONTRACTOR SHALL SHUT OFF AND WINTERIZE THE SYSTEM.
3. AT THE BEGINNING OF THE NEXT SEASON, CONTRACTOR SHALL RESTART SYSTEM AND MAKE ANY REPAIRS OR ADJUSTMENTS NEEDED TO MAKE SYSTEM FULLY OPERATIONAL.

END OF SECTION



LOGAN, UTAH (435) 752-7031
SALT LAKE CITY, UTAH (801) 559-8221



DCFM APPROVAL

Table with columns: MARK, DATE, DESCRIPTION. Includes project name BRIGHAM CITY REST AREA: SOUTHBOUND - LANDSCAPE UPGRADES, location 9689 MILE MARKER BRIGHAM CITY, UT 84302, and UTAH DEPARTMENT OF TRANSPORTATION.



PROJECT #: 823291
DRAWN BY: J. CLEMENTS
CHECKED BY: B. WRIGHT
ISSUED: 08.09.2024

IRRIGATION SPECIFICATIONS L-001

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E1

D

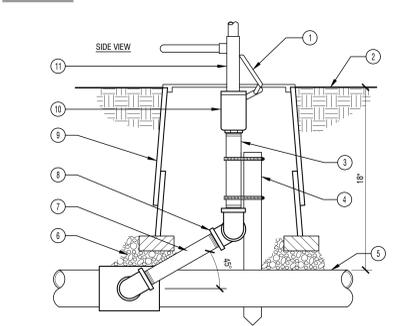
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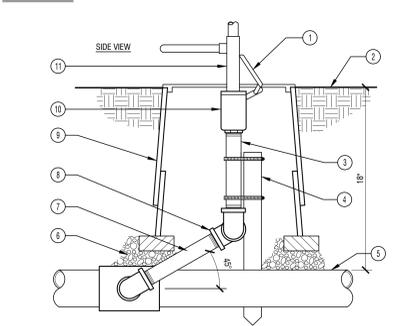
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A1 QUICK COUPLING VALVE WITH WOOD STAKE



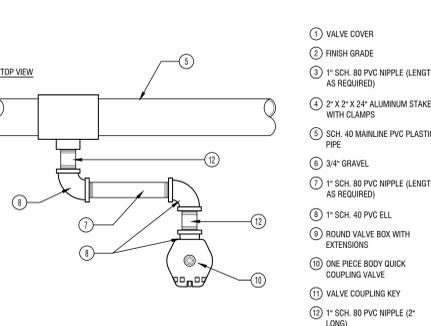
A1 QUICK COUPLING VALVE WITH WOOD STAKE
1 1/2" = 1'-0"
P-8-DFC-BRIG-18

B1 MANUAL DRAIN VALVE



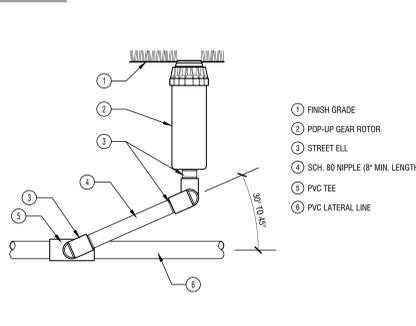
B1 MANUAL DRAIN VALVE
1 1/2" = 1'-0"
P-8-DFC-BRIG-19

B3 THREADED ISOLATION VALVE



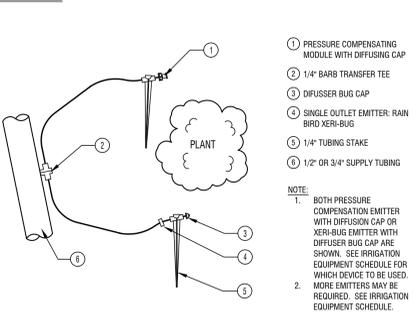
B3 THREADED ISOLATION VALVE
3" = 1'-0"
P-8-DFC-BRIG-20

B4 DRIPLINE CONNECTION IN BOX



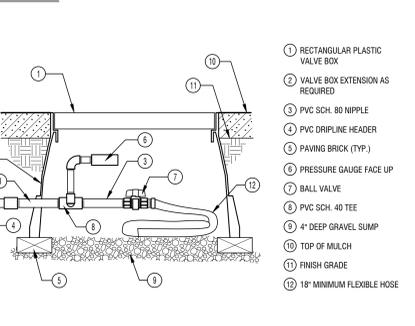
B4 DRIPLINE CONNECTION IN BOX
1 1/2" = 1'-0"
P-8-DFC-BRIG-30

B5 DRIP REMOTE CONTROL VALVE



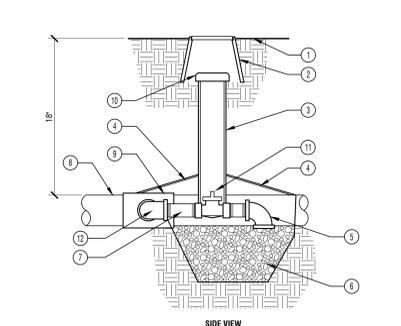
B5 DRIP REMOTE CONTROL VALVE
1 1/2" = 1'-0"
P-8-DFC-BRIG-21

B6 MANIFOLD VALVE & ASSEMBLY



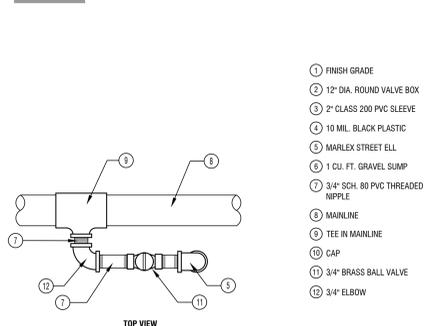
B6 MANIFOLD VALVE & ASSEMBLY
1/2" = 1'-0"
P-8-DFC-BRIG-22

C2 REMOTE CONTROL VALVE



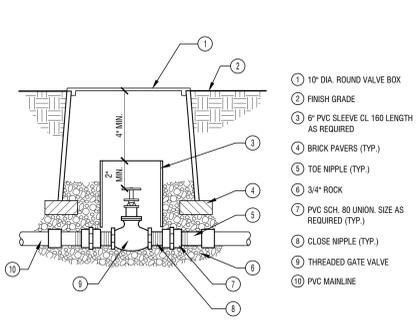
C2 REMOTE CONTROL VALVE
1 1/2" = 1'-0"
P-8-DFC-BRIG-22

C4 VALVE BOX INSTALLATION



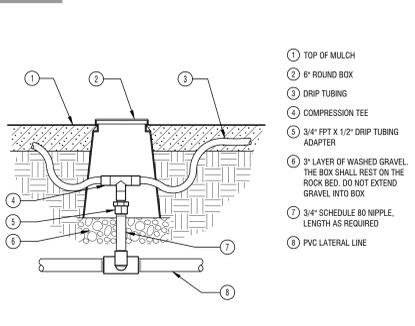
C4 VALVE BOX INSTALLATION
1" = 1'-0"
P-8-DFC-BRIG-23

D4 SOD PLANTING



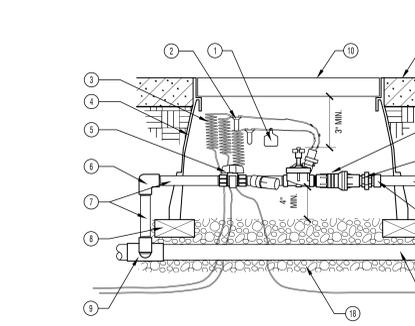
D4 SOD PLANTING
1 1/2" = 1'-0"
P-8-DFC-BRIG-15

D5 TRENCH SECTION



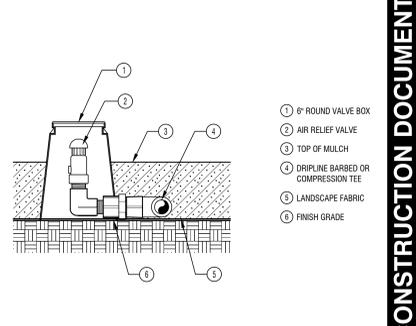
D5 TRENCH SECTION
1 1/2" = 1'-0"
P-8-DFC-BRIG-16

D6 PAVEMENT SLEEVE SECTION



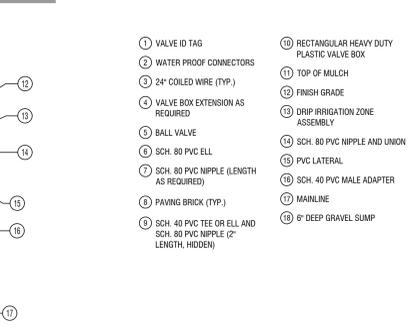
D6 PAVEMENT SLEEVE SECTION
1 1/2" = 1'-0"
P-8-DFC-BRIG-17

E5 SHRUB AND PERENNIAL PLANTING



E5 SHRUB AND PERENNIAL PLANTING
3/4" = 1'-0"
P-8-DFC-BRIG-20

E6 METAL EDGING



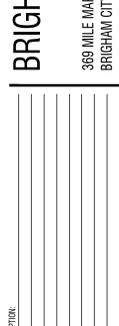
E6 METAL EDGING
3" = 1'-0"
P-8-DFC-BRIG-20

A3 GEAR ROTOR



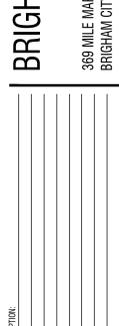
A3 GEAR ROTOR
3" = 1'-0"
P-8-DFC-BRIG-17

A4 DRIP EMITTERS AROUND PLANT



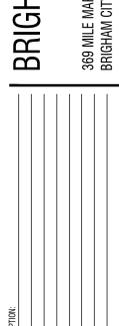
A4 DRIP EMITTERS AROUND PLANT
6" = 1'-0"
P-8-DFC-BRIG-09

A5 DRIPLINE FLUSHING VALVE



A5 DRIPLINE FLUSHING VALVE
1" = 1'-0"
P-8-DFC-BRIG-11

A6 DRIPLINE AIR RELEASE VALVE



A6 DRIPLINE AIR RELEASE VALVE
1 1/2" = 1'-0"
P-8-DFC-BRIG-12



DCM APPROVAL

Table with columns for MARK, DATE, and DESCRIPTION. The table is currently empty.

PROJECT #: 823291
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