LANDSCAPE PLAN SPECIFICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes landscape procedures for the Project including all labor, materials, and installation necessary, but not limited to, the following:

1. Soil Amendments
2. Fine Grading
3. Cultivation
4. Landscape Edging
5. Turf Planting
6. Furnish and Installing Plant
7. Maintenance
8. Mowing
9. Weeding

1.2 SITE CONDITIONS

A. Examination: Before submitting a Bid, each Contractor shall carefully examine the Contract Documents; shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the Bid the cost of all items required by the Contract Documents are at a variance with the applicable laws, building codes, rules, regulations, or contain obvious erroneous or uncoordinated information, the Contractor shall promptly notify the Project Representative and the necessary changes shall be accomplished by Addendum.

B. Protection: Contractor to conduct the Work in such a manner to protect all existing underground utilities or structures. Contractor to repair or replace any damaged utility or structure using identical materials to match existing at no expense to the Owner.

C. Irrigation System: Do not begin planting until the irrigation system is completely installed, is adjusted for full coverage and is completely operational.

1.3 PERMITS

A. Blue Stake/ Dig Line: When digging is required, "Blue Stake" or "Dig Line" the work site and identify the approximate location of all known underground utilities or structures.

1.4 PLANT DELIVERY, QUALITY, AND AVAILABILITY

A. Unauthorized substitutions will not be accepted. If proof is submitted that specific plants or plant sizes are unobtainable, written substitution requests will be considered for the nearest equivalent plant or size. All substitution requests must be made in writing and preferably before the bid due date.

1.5 FINAL INSPECTION

A. All plants will be inspected at the time of Final Inspection prior to receiving a Landscape Substantial Completion for conformance to specified planting procedures, and for general appearance and vitality. Any plant not approved by the Project Representative will be rejected and replaced immediately.

1.6 LANDSCAPE SUBSTANTIAL COMPLETION

A. A Substantial Completion Certificate will only be issued by the Project Representative for "landscape and irrigation" in their entirety. Substantial Completion will not be proportioned to be designated areas of a project.

1.7 MAINTENANCE

A. Plant Material: The Contractor is responsible to maintain all planted materials in a healthy and growing condition for 30 days after receiving a Landscape Substantial Completion at which time the Guarantee period commences. This maintenance is to include mowing, weeding, cultivating, fertilizing, monitoring water schedules, controlling insects and diseases, re-guying and staking, and all other operations of care necessary for the promotion of root growth and plant life so that all plants are in a condition satisfactory at the end of the guarantee period. The Contractor shall be held responsible for failure to monitor watering operations and shall replace any and all plant material that is lost due to improper application of water.

1.8 GUARANTEE

A. Guarantee: A guarantee period of one year shall begin from end of maintenance period and final acceptance for trees, shrubs, and ground covers. All plants shall grow and be healthy for the guarantee period and trees shall live and grow in acceptable upright position. Any plant not alive, in poor health, or in poor condition at the end of the guarantee period will be replaced immediately. Any plant will only need to be replaced once during the guarantee period. Contractor to provide documentation showing where each plant to be replaced is located. Any outside factors, such as vandalism or lack of maintenance on the part of the Owner, shall not be part of the guarantee

PART II - PRODUCTS

2.1 LANDSCAPE MATERIALS

A. Tree Staking: All trees shall be staked for one year warranty period. All trees not plumb shall be replaced. Staked trees shall use vinyl tree ties and tree stakes two (2) inch by two (2) by eight (8) foot common pine stakes used as shown on the details.

B. Tree Wrap: Tree wrap is not to be used.

C. Mulch/Rock: See Plans. All planter beds to receive a minimum 4" layer for trees, shrubs, and perennials and 1" for groundcovers.

D. Weed Barrier: DeWitt 5 oz. weed barrier fabric. Manufactured by DeWitt Company, dewittcompany.com or approved equal.

E. Tree, Shrub, and Grass Backfill Mixture; Backfill mixture to be 50% native soil and 50% topsoil, thoroughly mixed together prior to placement.

F. Topsoil: Required for turf areas, planter beds and Backfill Mixture. Acceptable topsoil shall meet the following standards:

a. PH: 5.5-7.5

b. EC (electrical conductivity): < 2.0 mmhos per centimeter

c. SAR (sodium absorption ration): < 3.0

d. % OM (percent organic matter): >1%

e. Texture (particle size per USDA soil classification): Sand <70%; Clay < 30%; Silt < 70%, Stone fragments (gravel or any soil particle greater than two (2) mm in size) < 5% by volume.

G. Turf Sod: All sod shall be 18 month old as specified on plans (or approved equal) that has been cut fresh the morning of installation. Only sod that has been grown on a commercial sod farm shall be used. Only use sod from a single source.

H. Landscape Edging: Headers and Edging six (6) inches by four (4) inches extruded concrete curb made up of the following materials:

a. Washed mortar sand free of organic material.

b. Portland Cement (see concrete spec. below for type)

c. Reinforced fiber - Specifically produced for compatibility with aggressive alkaline environment of Portland cement-based composites.

d. Only potable water for mixing.

PART III - EXECUTION

3.1 GRADING

A. Topsoil Preparation: Grade planting areas according to the grading plan. Eliminate uneven areas and low spots. Provide for proper grading and drainage.

B. Topsoil Placement: Slope surfaced away from building at two (2) percent slope with no pockets of standing water. Establish finish grades of one (1) inches for planters below grade of adjacent paved surfaced. Provide neat, smooth, and uniform finish grades. Remove surplus sub-soil and topsoil from the site.

C. Compaction: compaction under hard surface areas (asphalt paths and concrete surfaces) shall be ninety-five (95) percent. Compaction under planting areas shall be between eighty-five (85) and ninety (90) percent.

3.2 TURF GRADING

A. The surface on which the sod is to be laid shall be firm and free from footprints, depressions, or undulations of any kind. The surface shall be free of all materials larger than 1/2" in diameter.

B. The finish grade of the topsoil adjacent to all sidewalks, mow-strips, etc. prior to the laying of sod, shall be set such that the crown of the grass shall be at the same level as the adjacent concrete or hard surface. No exceptions.

3.3 PLANTING OPERATIONS

A. Review the exact locations of all trees and shrubs with the Project Representative for approval prior to the digging of any holes. Prepare all holes according to the details on the drawings.

B. Water plants immediately upon arrival at the site. Maintain in moist condition until planted.

C. Before planting, locate all underground utilities prior to digging. Do not place plants on or near utility lines.

D. The tree planting hole should be the same depth as the root ball, and three times the diameter of the root ball.

E. Trees must be placed on undisturbed soil at the bottom of the planting hole.

F. The tree hole depth shall be determined so that the tree may be set slightly high of finish grade, 1" to 2" above the base of the trunk flare, using the top of the root ball as a guide.

G. Plant immediately after removal of container for container plants.

H. Set tree on soil and remove all burlap, wire baskets, twine, wrappings, etc. before beginning and backfilling operations. Do not use planting stock if the ball is cracked or broken before or during planting operation.

I. Apply vitamin B-1 root stimulator at the rate of one (1) tablespoon per gallon.

J. Upon completion of backfilling operation, thoroughly water tree to completely settle the soil and fill any voids that may have occurred. Use a watering hose, not the area irrigation system. If additional prepared topsoil mixture needs to be added. It should be a courser mix as required to establish finish grade as indicated on the drawings.

K. The amount of pruning shall be limited to the minimum necessary to remove dead or injured twigs and branches. All cuts, scars, and bruises shall be properly treated according to the direction of the Project Representative. Proper pruning techniques shall be used. Do not leave stubs and do not cut the leader branch. Improper pruning shall be cause for rejection of the plant material.

L. Prepare a watering circle of 2' diameter around the trunk. For conifers, extend the watering well to the drip line of the tree canopy. Place mulch around the planted trees.

3.4 TURF - SOD LAYING

A. Top Soil Amendments: Prior to laying sod, commercial fertilizer shall be applied and incorporated into the upper four (4) inches of the topsoil at a rate of four pounds of nitrogen per one thousand (1,000) square feet. Adjust fertilization mixture and rate of application as needed to meet recommendations given by topsoil analysis. Include other amendments as required.

B. Fertilization: Three weeks after sod placement fertilize the turf at a rate of ½ pound of nitrogen per 1000 square feet. Use fertilizer specified above. Adjust fertilization mixture and rates to meet recommendations given by topsoil analysis.

C. Sod Availability and Condition: The Contractor shall satisfy himself as to the existing conditions prior to any construction. The Contractor shall be fully responsible for furnishing and lay all sod required on the plans. He shall furnish new sod as specified above and lay it so as too completely satisfy the intent and meaning of the plans and specification at no extra cost to the owner. In the case of plans and specification at no extra cost to the owner. In the case of any discrepancy in the amount of sod to be removed or amount to be used, it shall be the Contractor's responsibility to report such to the Project Representative prior to commencing the work.

D. Sod Laying: The surface upon which the new sod to be laid will be prepared as specified above. Areas where sod is to be laid shall be cut trimmed, or shaped to receive full width sod (minimum twelve (12) inches). No partial strip or pieces will be accepted.

E. Sod shall be tamped lightly as each piece is set to insure that good contact is made between edges and also the ground. Sod laid on any sloped areas shall be anchored with wooden dowels or other materials which are accepted by the grass sod industry.

F. Apply water directly after laying sod. Rainfall is not acceptable.

G. Watering of the sod shall be the complete responsibility of the Contractor by whatever means necessary to establish the sod in an acceptable manner to the end of the Maintenance period. If an irrigation system is in place on the site, but for whatever reason, water is not available in the system. It is the responsibility of the Contractor to water the sod by whatever means, until the sod is accepted by the Project Representative.

H. Protection of the newly laid sod shall be the complete responsibility of the Contractor. The Contractor shall provide acceptable visual barriers, to include barricades set appropriate distances with strings or tapes between barriers, as an indication of new work. The Contractor is to restore any damaged areas caused by others (including vehicular traffic), erosion, etc, until such time as the lawn is accepted by the Owner.

I. All sod that has not been laid within 24 hours shall be deemed unacceptable and will be removed from the site.

3.5 WEED BARRIER

A. Cut a slit or x at each plant location no larger than necessary to install plant.

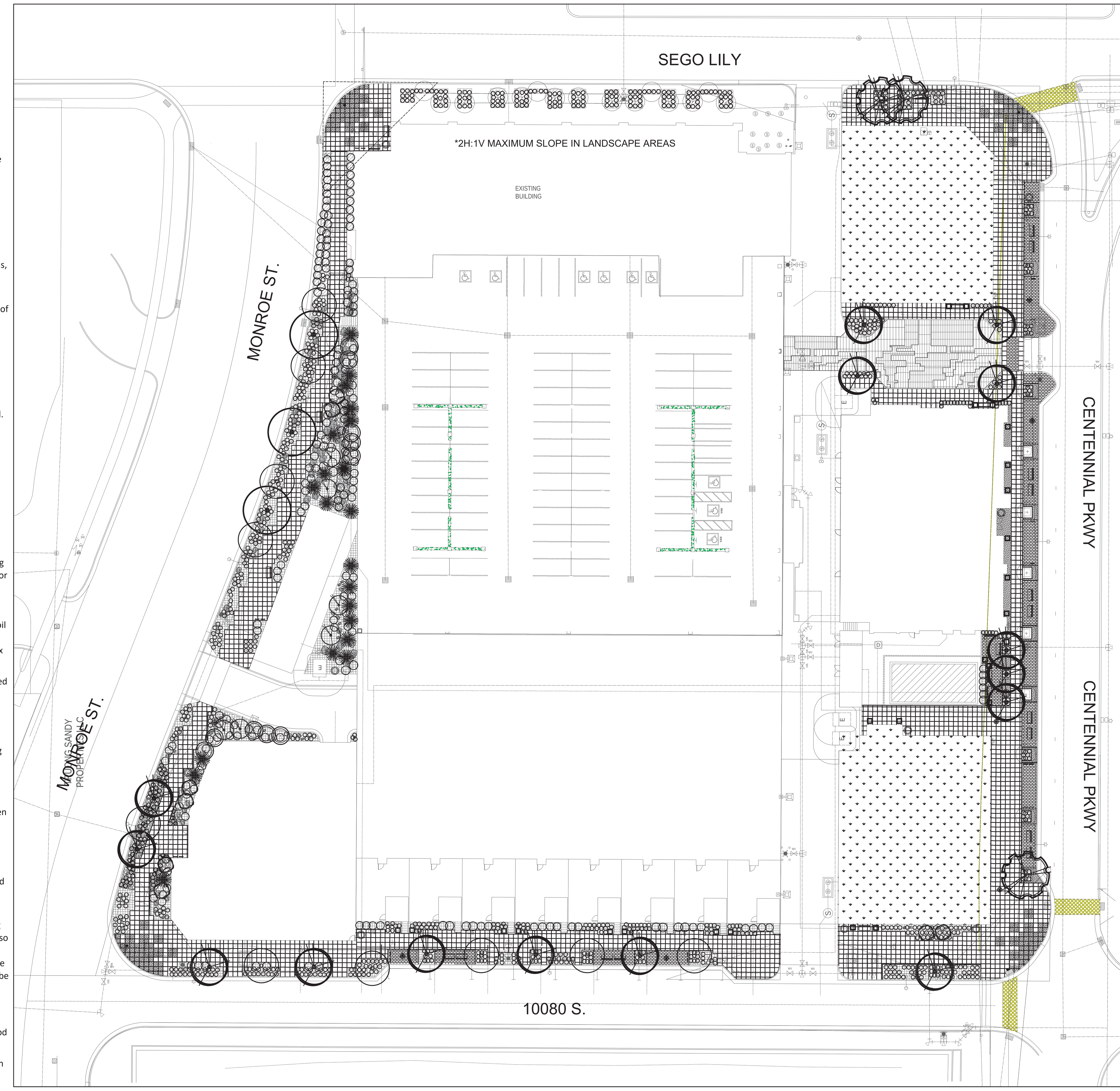
B. Overlap rows of fabric min. 6"

C. Stable fabric edges and overlaps to ground.

END OF SECTION

LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS FOR BIDDING AND INSTALLATION PURPOSES. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
2. PLANT MATERIAL TO BE INSTALLED PER PLANT LEGEND. IF SUBSTITUTIONS ARE WANTED, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PLANTING.
3. NEW LAWN AREAS TO BE SODDED WITH DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
4. SANDY LOAM TOPSOIL TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 6" TOPSOIL (WITH 2" HUMUS MIXED INTO TOPSOIL PRIOR TO SPREADING) IN ALL NEW PLANTER AREAS AND 4" IN ALL NEW LAWN AREAS. PLANTER BEDS TO BE EXCAVATED AS NECESSARY IN ORDER TO ACCOMMODATE NEW TOPSOIL AND/OR PLANTER BED MULCH TO REACH FINISHED GRADE.
5. 4"X6" EXTRUDED CONCRETE MOW CURB TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS PER PLAN. ANY TREES LOCATED IN LAWN MUST HAVE A 4' CONCRETE TREE RING.
6. DeWitt 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN.
7. ROCK MULCH TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 3" IN ALL TREE, SHRUB, AND PERENNIAL PLANTER AREAS; ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL. PULL BARK MULCH MIN. 3" AWAY FROM BASE OF ALL PERENNIALS AND SHRUBS AND MIN. 6" AWAY FROM ALL TREES.
8. CONTRACTOR TO PROVIDE NEW AUTOMATIC UNDERGROUND IRRIGATION SYSTEM TO BE INSTALLED IN ALL LANDSCAPE AREAS. ALL LAWN AREA TO RECEIVE 100% HEAD TO HEAD COVERAGE WITH SPRAY AND ROTARY SPRINKLER HEADS. ALL PLANTER AREAS NEED TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB ON PROJECT. SEE IRRIGATION PLAN.



SANDY CITY STANDARD IRRIGATION/LANDSCAPE NOTES

IRRIGATION/LANDSCAPE NOTES (TO BE ADDED TO THE IRRIGATION/LANDSCAPE PLAN)

1. MULCH: AFTER COMPLETION OF ALL PLANTING, ALL IRRIGATED NON-TURF AREAS SHALL BE COVERED WITH A MINIMUM LAYER OF FOUR (4) INCHES OF MULCH TO RETAIN WATER, INHIBIT WEED GROWTH AND MODERATE SOIL TEMPERATURE. NON-POROUS MATERIAL SHALL NOT BE PLACED UNDER THE MULCH. 4" MULCH IN ALL IRRIGATED NON-TURF AREAS. IF ROCK MULCH, MINIMUM IS 3".

2. LANDSCAPE WATER METER: A WATER METER AND BACKFLOW PREVENTION ASSEMBLY THAT ARE IN COMPLIANCE WITH STATE CODE SHALL BE INSTALLED FOR LANDSCAPE IRRIGATION SYSTEMS, AND THE LANDSCAPE WATER METER AND BACKFLOW PREVENTION ASSEMBLY SHALL BE SEPARATE FROM THE WATER METER AND BACKFLOW PREVENTION ASSEMBLY INSTALLED FOR INDOOR USES. THE SIZE OF THE METER SHALL BE DETERMINED BASED ON IRRIGATION DEMAND.

3. PRESSURE REGULATION: A PRESSURE REGULATING VALVE SHALL BE INSTALLED AND MAINTAINED BY THE CONSUMER IF THE STATIC SERVICE PRESSURE EXCEEDS 80 POUNDS PER SQUARE INCH (PSI). THE PRESSURE-REGULATING VALVE SHALL BE LOCATED BETWEEN THE LANDSCAPE WATER METER AND THE FIRST POINT OF WATER USE, OR FIRST POINT OF DIVISION IN THE PIPE, AND SHALL BE SET AT THE MANUFACTURER'S RECOMMENDED PRESSURE FOR SPRINKLERS.

4. AUTOMATIC CONTROLLER: ALL IRRIGATION SYSTEMS SHALL INCLUDE AN ELECTRIC AUTOMATIC CONTROLLER WITH MULTIPLE PROGRAM AND MULTIPLE REPEAT CYCLE CAPABILITIES AND A FLEXIBLE CALENDAR PROGRAM. ALL CONTROLLERS SHALL BE EQUIPPED WITH AN AUTOMATIC RAIN SHUT-OFF DEVICE.

5. ON SLOPES EXCEEDING 30%, THE IRRIGATION SYSTEM SHALL CONSIST OF DRIP EMITTERS, BUBBLERS, OR SPRINKLERS WITH A MAXIMUM PRECIPITATION RATE OF 0.85 INCHES PER HOUR AND ADJUSTED SPRINKLER CYCLE TO ELIMINATE RUNOFF.

6. EACH VALVE SHALL IRRIGATE A LANDSCAPE WITH SIMILAR SITE, SLOPE AND SOIL CONDITIONS AND PLANT MATERIALS WITH SIMILAR WATERING NEEDS. TURF AND NON-TURF AREAS SHALL BE IRRIGATED ON SEPARATE VALVES.

7. DRIP EMITTERS OR A BUBBLER SHALL BE PROVIDED FOR EACH TREE WHERE PRACTICABLE. BUBBLERS SHALL NOT EXCEED 1.5 GALLONS PER MINUTE PER DEVICE. BUBBLERS FOR TREES SHALL BE ON SEPARATE VALVE UNLESS SPECIFICALLY EXEMPTED BY THE SANDY CITY PUBLIC UTILITIES DEPARTMENT DUE TO THE LIMITED NUMBER OF TREES ON THE PROJECT SITE.

8. SPRINKLERS SHALL HAVE MATCHED PRECIPITATION RATE WITH EACH CONTROL VALVE CIRCUIT.

9. CHECK VALVES SHALL BE REQUIRED WHERE ELEVATION DIFFERENCES WILL CAUSE LOW-HEAD DRAINAGE. PRESSURE COMPENSATING VALVES AND SPRINKLERS SHALL BE REQUIRED WHERE A SIGNIFICANT VARIATION IN WATER PRESSURE WILL OCCUR WITHIN THE IRRIGATION SYSTEM DUE TO ELEVATION DIFFERENCES.

10. DRIP IRRIGATION LINES SHALL BE PLACED UNDERGROUND OR OTHERWISE PERMANENTLY COVERED, EXCEPT FOR DRIP EMITTERS AND WHERE APPROVED AS A TEMPORARY INSTALLATION. FILTERS AND END FLUSH VALVES SHALL BE PROVIDED AS NECESSARY.

11. IRRIGATION ZONES WITH OVERHEAD SPRAY OR STREAM SPRINKLERS SHALL BE DESIGNED TO OPERATE BETWEEN 6:00 P.M. AND 10:00 A.M. TO REDUCE WATER LOSS FROM WIND AND EVAPORATION. THIS WOULD EXCLUDE DRIP OR BUBBLER ZONES.

12. PROGRAM VALVES FOR MULTIPLE REPEAT CYCLES WHERE NECESSARY TO REDUCE RUNOFF, PARTICULARLY SLOPES AND SOILS WITH SLOW INFILTRATION RATES.

13. FOLLOWING CONSTRUCTION AND PRIOR TO RELEASE OF THE SECONDARY BOND GUARANTEE POSTED FOR THE PROJECT, A WATER USE EFFICIENCY REVIEW WILL BE CONDUCTED BY A LANDSCAPE IRRIGATION AUDITOR. THE AUDITOR SHALL BE INDEPENDENT OF THE CONTRACTOR, DESIGN FIRM, AND OWNER/DEVELOPER OF THE PROJECT. THE WATER PERFORMANCE AUDIT WILL VERIFY THAT THE IRRIGATION SYSTEM COMPLIES WITH THE MINIMUM STANDARDS REQUIRED BY SANDY CITY ORDINANCE. THE MINIMUM EFFICIENCY REQUIRED FOR THE IRRIGATION SYSTEM IS 60% FOR DISTRIBUTION EFFICIENCY FOR ALL FIXED SPRAY SYSTEMS AND 70% DISTRIBUTION EFFICIENCY FOR ALL ROTOR SYSTEMS. THE AUDITOR SHALL FURNISH A CERTIFICATE TO THE CITY, DESIGNER, INSTALLER AND OWNER/DEVELOPER CERTIFYING COMPLIANCE WITH THE MINIMUM DISTRIBUTION REQUIREMENTS. COMPLIANCE WITH THIS PROVISION IS REQUIRED BEFORE THE CITY WILL RELEASE THE BOND FOR THIS PROJECT.

14. PLANTS WHICH REQUIRE DIFFERENT AMOUNTS OF WATER SHALL BE IRRIGATED BY SEPARATE VALVES. IF ONE VALVE IS USED FOR A GIVEN AREA, ONLY PLANTERS WITH SIMILAR WATER USE SHALL BE USED IN THAT AREA. LAWN AREAS AND PLANTERS SHALL BE IRRIGATED BY SEPARATE VALVES.

15. A SEPARATE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED FOR THE IRRIGATION SYSTEM.

16. A RAIN SENSING OVERRIDING DEVICE SHALL BE UTILIZED SO THAT THE IRRIGATION SYSTEM WILL AUTOMATICALLY TURN OFF IN THE EVENT OF RAIN.

17. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO PREVENT OVERSPRAY AND WATER RUN-OFF ONTO ADJACENT-PROPERTY, NON-IRRIGATED AREAS, WALKS, ROADWAYS OR STRUCTURES.

18. AN AUTOMATIC IRRIGATION SYSTEM USING POP-UP SPRINKLER HEADS SHALL BE REQUIRED FOR ALL NEW LANDSCAPES. LOW FLOW SPRINKLER HEADS SHALL BE USED WHEREVER POSSIBLE.

19. NO IRRIGATION OF WALKWAYS OR DRIVE. 20. WATER AUDIT IS REQUIRED PRIOR TO BOND BEING RELEASED. SUGGEST THE AUDIT BE DONE WITHIN 60 DAYS OF INSTALLING IRRIGATION AND LANDSCAPE. IF YOU HAVE ANY QUESTIONS WITH THESE REQUIREMENT, PLEASE CONTACT CHALEURN "LENNIE" CHANTHAPHUANG, P.E. AT 801-568-7293

*2H:1V MAXIMUM SLOPE IN LANDSCAPE AREAS

SITE REQUIREMENT CALCULATIONS

STREET FRONTAGE

*TREES SELECTED FROM THE RECOMMENDED SANDY CITY TREE LIST

SEGO LILY: 1 TREE PER 35 FEET. 15 TREES ARE EXISTING. ADDED 3 TREES
MONROE ST: 1 TREE PER 35 FEET. 3 TREES EXISTING. ADDED 7 TREES
CENTENNIAL PKWY: 1 TREE PER 35 FEET. 11 TREES ARE EXISTING. ADDED 1 TREE
10080 S. = 1 TREE PER 35 FEET = 15 TREES

FORMAL LANDSCAPING: CENTENNIAL & 10080 S.
INTERRUPTION IN PAVEMENT EVERY 50 FEET: PROVIDED
SIDEWALK TO MAINTAIN 8' CLEAR WALKWAY: PROVIDED
2 DIFFERENT TREE SPECIES: PROVIDED

INFORMAL LANDSCAPING: MONROE & SEGO LILY ST.
70% COVERAGE IN PLANTER BEDS
40% SOFTSCAPE OF LOT FRONTAGE: PROVIDED 65% OF SEGO LILY & 100% MONROE ST.
INTERRUPTION IN PAVEMENT EVERY 75 FEET: PROVIDED
SIDEWALK TO MAINTAIN 8' CLEAR WALKWAY: PROVIDED
3 DIFFERENT TREE SPECIES: PROVIDED

INTERIOR LANDSCAPING:
1 TREE / 400 SQ. FT. OF LANDSCAPING REQUIRED 25 TREES PROVIDED 32 TREES

EXISTING TREE PRESERVATION: THE RETENTION OF EXISTING HEALTHY, DESIRABLE TREE SPECIES ON SITE IS STRONGLY ENCOURAGED.
*29 EXISTING TREES TO BE PROTECTED

NATIVE REVEGETATION SEED MIX - NON- IRRIGATED

NAME	VARIETY	SCIENTIFIC NAME	BULK LBS.	BULK%	PLS LBS.	PLS%	PLS/ACRE
WHEATGRASS CRESTED	EPHRAIM	AGROPYRON CHRISTANTUM	4.59	27.03	4.59	27.03	4
WHEATGRASS STREAMBANK	SODAR	LANCEOLATUS SSP. LANCEOLATUS	4.59	27.03	4.59	27.03	4
FESCUE SHEEP	VNS	FESTUCA VINA VAR. OVINA	1.15	6.76	1.15	6.76	1
LEWIS FLAX	APPAR	LINUM LEWWISII	1.15	6.76	1.15	6.76	1
WHEATGRASS WESTERN	BARTON	PASCOPYRUM SMITHII	2.30	13.51	2.30	13.51	2
BLUGRASS SANDBERG	VNS	POA SECUNDA	0.57	3.38	0.57	3.38	0.5
WHEATGRASS SNAKE RIVER	SECAR	ELYMUS WAWAWAIENSIS	2.30	13.51	2.30	13.51	2
ALKALI SACATON	VNS	SPOROBOLUS AINOIDES	0.34	2.03	0.34	2.03	0.3
			17.00	100.0%	17.00	100.0%	14.8

SITE MATERIALS (TOTAL GROUND LEVEL)

PAVER STYLE AREA #1: 1,811 SQ.FT
LEHI BLOCK - THE HOLLAND - 4 X 8 PAVER IN THREE SHADES OF RED/TAN TO DELINEATE THE ADJOINING AREAS.

PAVER STYLE AREA #2: 2,636 SQ.FT
BELGARD - CATALINA GRANA PAVER CONTEMPORARY

PAVER STYLE AREA #3: 923 SQ.FT
BELGARD - OLD WORLD PAVER CLASSIC

2" - 4" COBBLE ROCK AREAS: 1,604 SQ. FT.

DECORATIVE ROCK AREAS: 9,097 SQ. FT.
DECORATIVE ROCK AREAS SHALL INCLUDE THE PLANTER BEDS AS STATED ON THE PLAN. PLANTER BEDS SHALL BE CONSTRUCTED WITH TWELVE INCHES (12") OF SCREENED, SANDY LOAM TOP SOIL AND SHALL BE COMPLETELY FINISH-COVERED WITH 1 INCH (1") TAN AND GRAY COBBLE ROCK. APPLY DECORATIVE ROCK TO A MINIMUM DEPTH OF FOUR INCHES (4") OVER ENTIRE AREA. PRIOR TO INSTALLATION OF DECORATIVE ROCK. DEWITT PRO5 WEED BARRIER FABRIC SHALL BE APPLIED TO THE PLANTER BEDS, ON TOP OF FINISHED TOP SOIL GRADE. ALL TREES AND SHRUBS WITHIN DECORATIVE ROCK AREAS SHALL BE WATERED WITH POINT-SOURCE DRIP IRRIGATION.

REVEGETATION MIX : 16,946 SQ.FT.
SEE NON IRRIGATED - NATIVE REVEGETATION SEED MIX
INSTALL UNTIL CONSTRUCTION STARTS ON PAD AREA.

TRASH & RECYCLE: APEX RECEPTACLE FORMS + SURFACES

BIKE RACK: BIKE GARDEN FORMS + SURFACES	18
BOARDWALK BENCH FORMS + SURFACES	26
4'-5' SANDSTONE BOULDERS	60
2'-3' SANDSTONE BOULDER	54
BLACK METAL EDGING	672 LN. FT.
PUBLIC ART AREA	8

TREE LEGEND (TOTAL PLANT COUNT GROUND LEVEL)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
TA	TILIA AMERICANA	AMERICAN LINDEN	3	2" CAL.	LOW	*TO MATCH EXISTING STREET TREES
ZS	ZELKOVA SERRATA	JAPANESE ZELKOVA	15	2" CAL.	LOW	
PN'A	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	21	6' TALL	LOW	
M'P	AMELANCHIER X GRANDIFLORA	SERVICEBERRY	6	2" CAL.	LOW	
CO	CRATAEGUS CRUS-GALLI 'INERMIS'	THORNLESS COCKSPUR HAWTHORN	3	2" CAL	LOW	
M'S	AMELANCHIER ALNIFOLIA	SASKATOON SERVICEBERRY	8	2" CAL.	LOW	
UP	ULMUS PARVIFOLIA	LACEBARK ELM	10	2"CAL	LOW	
PT'E	POPULUS TREULA ERECTA	SWEDISH ASPEN	10	2" CAL	LOW	

SHRUBS LEGEND (TOTAL PLANT COUNT GROUND LEVEL)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
BT'C	POTENTILLA FRUITICOSA	SHRUBBY CINCUEFOIL	33	5 GAL	LOW	
R'KO	ROSA 'MEICOUBLAN'	MEIDILAND ROSE	25	5 GAL.	LOW	

PERENNIALS / GRASSES LEGEND (TOTAL PLANT COUNT GROUND LEVEL)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
H'LB	MUHLENBERGIA REVERCHONII	RUBY MUHLY GRASS	23	2 GAL	HIGH	
MS'D	MISCANTHUS SINENSIS 'DIXIELAND'	DWARF VARIEGATED MAIDEN GRASS	53	2 GAL.	LOW	
PA'H	ORYZOPSIS HYMENOIDES	INDIAN GRASS	441	1 GAL	HIGH	
H'SD	HEMEROCALLIS SP. 'STELLA DE ORO'	STELLA DE ORO DAYLILY	291	2 GAL.	MODERATE	
CA'F	CALAMAGROSTIS A. 'FOERSTER'	FOERSTER FEATHER GRASS	80	2 GAL	HIGH	
CV'M	COREOPSIS VERTICILLATA 'MOONBEAM'	MOONBEAM THREADLEAF TICKSEED	12	2 GAL	LOW	
PV'S	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	242	2 GAL.	MODERATE	

0' 20' 40' 80' 160'

GRAPHIC SCALE: 1" = 40'

ARCHITECT'S INFORMATION:
RUSSELL PLATT ARCHITECTURE
Russell Platt Architecture
4301 West 4570 South
West Valley City, Utah 84120
801-580-0108

RUSSELL PLATT
RUSSELLPLATT@GMAIL.COM

PROFESSIONAL STAMP:

CODE OFFICIAL STAMP:

PROJECT NAME:

CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

ISSUED:

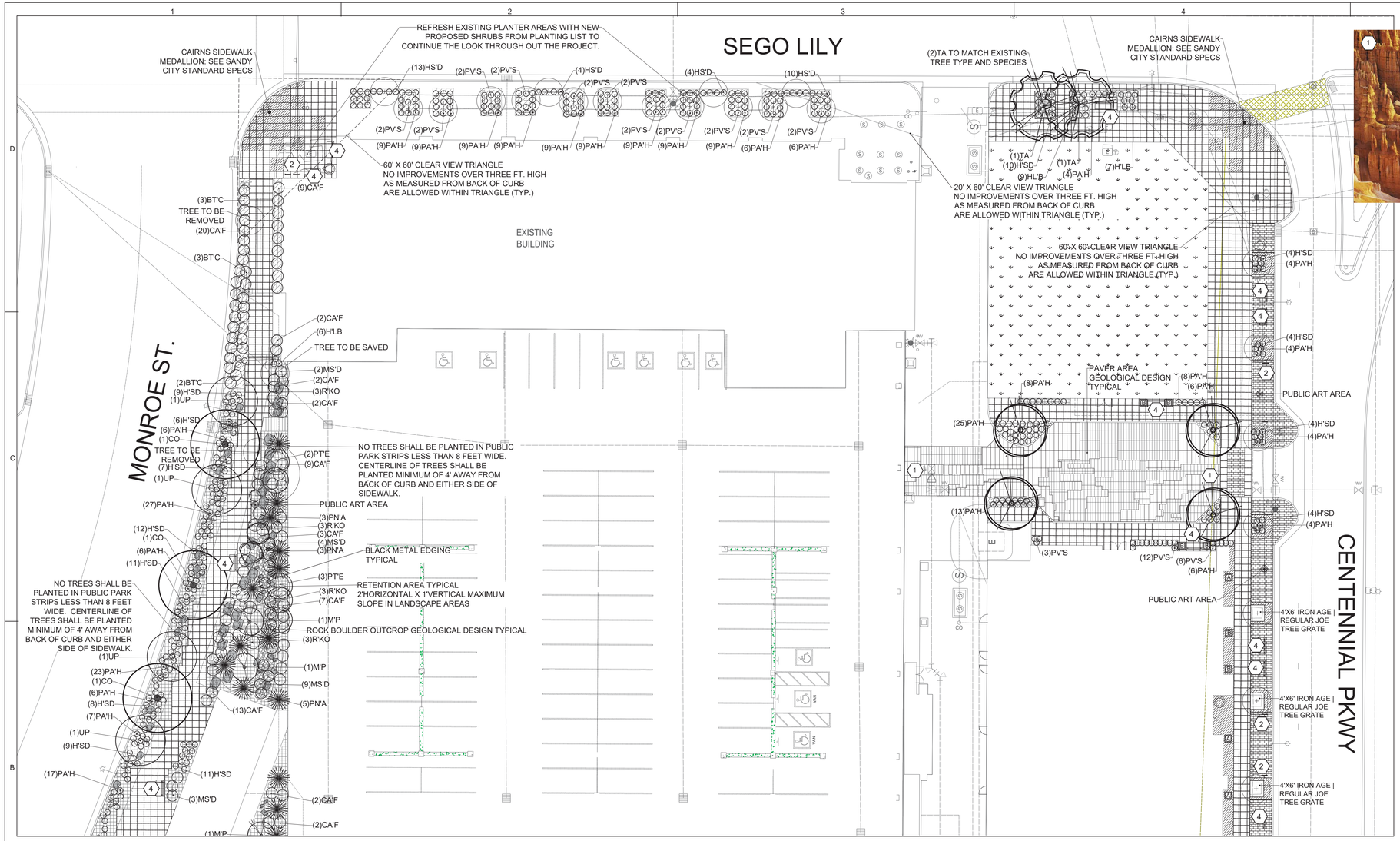
NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

SHEET TITLE:
LANDSCAPE COVER

SHEET NUMBER:
LP-1.0

Last Plotted: 03-15-19



BRICK PAVERS ON SERVICE ROAD FOR PEDESTRIANS TO MIMIC BRYCE CANYON

BIKE GARDEN FORMS + SURFACES

MILENIO BENCH FOR COURTYARD

BOARDWALK BENCH FORMS + SURFACES

PLANTER POTS

SANDY CITY STANDARD IRRIGATION/LANDSCAPE NOTES

IRRIGATION/LANDSCAPE NOTES (TO BE ADDED TO THE IRRIGATION/LANDSCAPE PLAN)

1. MULCH: AFTER COMPLETION OF ALL PLANTING, ALL IRRIGATED NON-TURF AREAS SHALL BE COVERED WITH A MINIMUM LAYER OF FOUR (4) INCHES OF MULCH TO RETAIN WATER, INHIBIT WEED GROWTH AND MODERATE SOIL TEMPERATURE. NON-POROUS MATERIAL SHALL NOT BE PLACED UNDER THE MULCH. 4" MULCH IN ALL IRRIGATED NON-TURF AREAS. IF ROCK MULCH, MINIMUM IS 3".
2. LANDSCAPE WATER METER: A WATER METER AND BACKFLOW PREVENTION ASSEMBLY THAT ARE IN COMPLIANCE WITH STATE CODE SHALL BE INSTALLED FOR LANDSCAPE IRRIGATION SYSTEMS, AND THE LANDSCAPE WATER METER AND BACKFLOW PREVENTION ASSEMBLY SHALL BE SEPARATE FROM THE WATER METER AND BACKFLOW PREVENTION ASSEMBLY INSTALLED FOR INDOOR USES. THE SIZE OF THE METER SHALL BE DETERMINED BASED ON IRRIGATION DEMAND.
3. PRESSURE REGULATION: A PRESSURE REGULATING VALVE SHALL BE INSTALLED AND MAINTAINED BY THE CONSUMER IF THE STATIC SERVICE PRESSURE EXCEEDS 80 POUNDS PER SQUARE INCH (PSI). THE PRESSURE-REGULATING VALVE SHALL BE LOCATED BETWEEN THE LANDSCAPE WATER METER AND THE FIRST POINT OF WATER USE, OR FIRST POINT OF DIVISION IN THE PIPE, AND SHALL BE SET AT THE MANUFACTURER'S RECOMMENDED PRESSURE FOR SPRINKLERS.
4. AUTOMATIC CONTROLLER: ALL IRRIGATION SYSTEMS SHALL INCLUDE AN ELECTRIC AUTOMATIC CONTROLLER WITH MULTIPLE PROGRAM AND MULTIPLE REPEAT CYCLE CAPABILITIES AND A FLEXIBLE CALENDAR PROGRAM. ALL CONTROLLERS SHALL BE EQUIPPED WITH AN AUTOMATIC RAIN SHUT-OFF DEVICE.
5. ON SLOPES EXCEEDING 30%, THE IRRIGATION SYSTEM SHALL CONSIST OF DRIP EMITTERS, BUBBLERS, OR SPRINKLERS WITH A MAXIMUM PRECIPITATION RATE OF 0.85 INCHES PER HOUR AND ADJUSTED SPRINKLER CYCLE TO ELIMINATE RUNOFF.
6. EACH VALVE SHALL IRRIGATE A LANDSCAPE WITH SIMILAR SITE, SLOPE AND SOIL CONDITIONS AND PLANT MATERIALS WITH SIMILAR WATERING NEEDS. TURF AND NON-TURF AREAS SHALL BE IRRIGATED ON SEPARATE VALVES.
7. DRIP EMITTERS OR A BUBBLER SHALL BE PROVIDED FOR EACH TREE WHERE PRACTICABLE. BUBBLERS SHALL NOT EXCEED 1.5 GALLONS PER MINUTE PER DEVICE. BUBBLERS FOR TREES SHALL BE ON SEPARATE VALVE UNLESS SPECIFICALLY EXEMPTED BY THE SANDY CITY PUBLIC UTILITIES DEPARTMENT DUE TO THE LIMITED NUMBER OF TREES ON THE PROJECT SITE.
8. SPRINKLERS SHALL HAVE MATCHED PRECIPITATION RATE WITH EACH CONTROL VALVE CIRCUIT.
9. CHECK VALVES SHALL BE REQUIRED WHERE ELEVATION DIFFERENCES WILL CAUSE LOW-HEAD DRAINAGE. PRESSURE COMPENSATING VALVES AND SPRINKLERS SHALL BE REQUIRED WHERE A SIGNIFICANT VARIATION IN WATER PRESSURE WILL OCCUR WITHIN THE IRRIGATION SYSTEM DUE TO ELEVATION DIFFERENCES.
10. DRIP IRRIGATION LINES SHALL BE PLACED UNDERGROUND OR OTHERWISE PERMANENTLY COVERED, EXCEPT FOR DRIP EMITTERS AND WHERE APPROVED AS A TEMPORARY INSTALLATION. FILTERS AND END FLUSH VALVES SHALL BE PROVIDED AS NECESSARY.
11. IRRIGATION ZONES WITH OVERHEAD SPRAY OR STREAM SPRINKLERS SHALL BE DESIGNED TO OPERATE BETWEEN 6:00 P.M. AND 10:00 A.M. TO REDUCE WATER LOSS FROM WIND AND EVAPORATION. THIS WOULD EXCLUDE DRIP OR BUBBLER ZONES.
12. PROGRAM VALVES FOR MULTIPLE REPEAT CYCLES WHERE NECESSARY TO REDUCE RUNOFF, PARTICULARLY SLOPES AND SOILS WITH SLOW INFILTRATION RATES.
13. FOLLOWING CONSTRUCTION AND PRIOR TO RELEASE OF THE SECONDARY BOND GUARANTEE POSTED FOR THE PROJECT, A WATER USE EFFICIENCY REVIEW WILL BE CONDUCTED BY A LANDSCAPE IRRIGATION AUDITOR. THE AUDITOR SHALL BE INDEPENDENT OF THE CONTRACTOR, DESIGN FIRM, AND OWNER/DEVELOPER OF THE PROJECT. THE WATER PERFORMANCE AUDIT WILL VERIFY THAT THE IRRIGATION SYSTEM COMPLIES WITH THE MINIMUM STANDARDS REQUIRED BY SANDY CITY ORDINANCE. THE MINIMUM EFFICIENCY REQUIRED FOR THE IRRIGATION SYSTEM IS 60% FOR DISTRIBUTION EFFICIENCY FOR ALL FIXED SPRAY SYSTEMS AND 70% DISTRIBUTION EFFICIENCY FOR ALL ROTOR SYSTEMS. THE AUDITOR SHALL FURNISH A CERTIFICATE TO THE CITY, DESIGNER, INSTALLER AND OWNER/DEVELOPER CERTIFYING COMPLIANCE WITH THE MINIMUM DISTRIBUTION REQUIREMENTS. COMPLIANCE WITH THIS PROVISION IS REQUIRED BEFORE THE CITY WILL RELEASE THE BOND FOR THIS PROJECT.
14. PLANTS WHICH REQUIRE DIFFERENT AMOUNTS OF WATER SHALL BE IRRIGATED BY SEPARATE VALVES. IF ONE VALVE IS USED FOR A GIVEN AREA, ONLY PLANTERS WITH SIMILAR WATER USE SHALL BE USED IN THAT AREA. LAWN AREAS AND PLANTERS SHALL BE IRRIGATED BY SEPARATE VALVES.
15. A SEPARATE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED FOR THE IRRIGATION SYSTEM.
16. A RAIN SENSING OVERRIDING DEVICE SHALL BE UTILIZED SO THAT THE IRRIGATION SYSTEM WILL AUTOMATICALLY TURN OFF IN THE EVENT OF RAIN.
17. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO PREVENT OVERSPRAY AND WATER RUN-OFF ONTO ADJACENT-PROPERTY, NON-IRRIGATED AREAS, WALKS, ROADWAYS OR STRUCTURES.
18. AN AUTOMATIC IRRIGATION SYSTEM USING POP-UP SPRINKLER HEADS SHALL BE REQUIRED FOR ALL NEW LANDSCAPES. LOW FLOW SPRINKLER HEADS SHALL BE USED WHEREVER POSSIBLE.
19. NO IRRIGATION OF WALKWAYS OR DRIVE. 20. WATER AUDIT IS REQUIRED PRIOR TO BOND BEING RELEASED. SUGGEST THE AUDIT BE DONE WITHIN 60 DAYS OF INSTALLING IRRIGATION AND LANDSCAPE. IF YOU HAVE ANY QUESTIONS WITH THESE REQUIREMENT, PLEASE CONTACT CHALEURN "LENNIE" CHANTHAPHUANG, P.E. AT 801-568-7293

SITE MATERIALS (TOTAL GROUND LEVEL)

PAVER STYLE AREA #1: 1,811 SQ.FT
LEHI BLOCK - THE HOLLAND - 4 X 8 PAVER IN THREE SHADES OF RED/TAN TO DELINEATE THE ADJOINING AREAS.

PAVER STYLE AREA #2: 2,636 SQ.FT
BELGARD - CATALINA GRANA PAVER CONTEMPORARY

PAVER STYLE AREA #3: 923 SQ.FT
BELGARD - OLD WORLD PAVER CLASSIC

2" - 4" COBBLE ROCK AREAS: 1,604 SQ. FT.

DECORATIVE ROCK AREAS: 7,467 SQ. FT.
DECORATIVE ROCK AREAS SHALL INCLUDE THE PLANTER BEDS AS STATED ON THE PLAN. PLANTER BEDS SHALL BE CONSTRUCTED WITH TWELVE INCHES (12") OF SCREENED, SANDY LOAM TOP SOIL AND SHALL BE COMPLETELY FINISH-COVERED WITH 1 INCH (1") TAN AND GRAY COBBLE ROCK. APPLY DECORATIVE ROCK TO A MINIMUM DEPTH OF FOUR INCHES (4") OVER ENTIRE AREA. PRIOR TO INSTALLATION OF DECORATIVE ROCK. DEWITT PRO5 WEED BARRIER FABRIC SHALL BE APPLIED TO THE PLANTER BEDS, ON TOP OF FINISHED TOP SOIL GRADE. ALL TREES AND SHRUBS WITHIN DECORATIVE ROCK AREAS SHALL BE WATERED WITH POINT-SOURCE DRIP IRRIGATION.

REVEGETATION MIX : 16,946 SQ.FT.
SEE NON IRRIGATED - NATIVE REVEGETATION SEED MIX
INSTALL UNTIL CONSTRUCTION STARTS ON PAD AREA.

TRASH & RECYCLE: APEX RECEPTACLE FORMS + SURFACES

BIKE RACK: BIKE GARDEN FORMS + SURFACES 18

BOARDWALK BENCH FORMS + SURFACES 26

4'-5' SANDSTONE BOULDERS 60

2'-3' SANDSTONE BOULDER 54

BLACK METAL EDGING 672 LN. FT.

PUBLIC ART AREA 8

TREE LEGEND (TOTAL PLANT COUNT GROUND LEVEL)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
TA	TILIA AMERICANA	AMERICAN LINDEN	3	2" CAL.	LOW	*TO MATCH EXISTING STREET TREES
ZS	ZELKOVA SERRATA	JAPANESE ZELKOVA	15	2" CAL.	LOW	
PN'A	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	21	6' TALL	LOW	
M'P	AMELANCHIER X GRANDIFLORA	SERVICEBERRY	6	2" CAL.	LOW	
CO	CRATAEGUS CRUS-GALLI 'INERMIS'	THORNLESS COCKSPUR HAWTHORN	3	2" CAL.	LOW	
M'S	AMELANCHIER ALNIFOLIA	SASKATOON SERVICEBERRY	8	2" CAL.	LOW	
UP	ULMUS PARVIFOLIA	LACEBARK ELM	10	2"CAL	LOW	
P'T'E	POPULUS TREULA ERECTA	SWEDISH ASPEN	10	2" CAL	LOW	

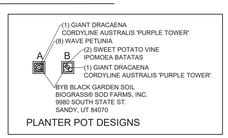
SHRUBS LEGEND (TOTAL PLANT COUNT GROUND LEVEL)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
BT'C	POTENTILLA FRUITICOSA	SHRUBBY CINCUEFOIL	33	5 GAL	LOW	
R'KO	ROSA 'MEICOUBLAN'	MEIDILAND ROSE	25	5 GAL.	LOW	

PERENNIALS / GRASSES LEGEND (TOTAL PLANT COUNT GROUND LEVEL)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
H'LB	MUHLENBERGIA REVERCHONII	RUBY MUHLY GRASS	23	2 GAL	HIGH	
MS'D	MISCANTHUS SINENSIS 'DIXIELAND'	DWARF VARIEGATED MAIDEN GRASS	53	2 GAL.	LOW	
PA'H	ORYZOPSIS HYMENOIDES	INDIAN GRASS	441	1 GAL	HIGH	
H'SD	HEMEROCALLIS SP. 'STELLA DE ORO'	STELLA DE ORO DAYLILY	291	2 GAL.	MODERATE	
CA'F	CALAMAGROSTIS A. 'FOERSTER'	FOERSTER FEATHER GRASS	80	2 GAL	HIGH	
CV'M	COREOPSIS VERTICILLATA 'MOONBEAM'	MOONBEAM THREADLEAF TICKSEED	12	2 GAL	LOW	
PV'S	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	242	2 GAL.	MODERATE	

***2H:1V MAXIMUM SLOPE IN LANDSCAPE AREAS**



PLANTER POT DESIGNS

0' 10' 20' 40' 80'

GRAPHIC SCALE: 1" = 20'

ARCHITECT'S INFORMATION:
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Russell Platt Architecture
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PROFESSIONAL STAMP:

CODE OFFICIAL STAMP:

PROJECT NAME:
CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

ISSUED:

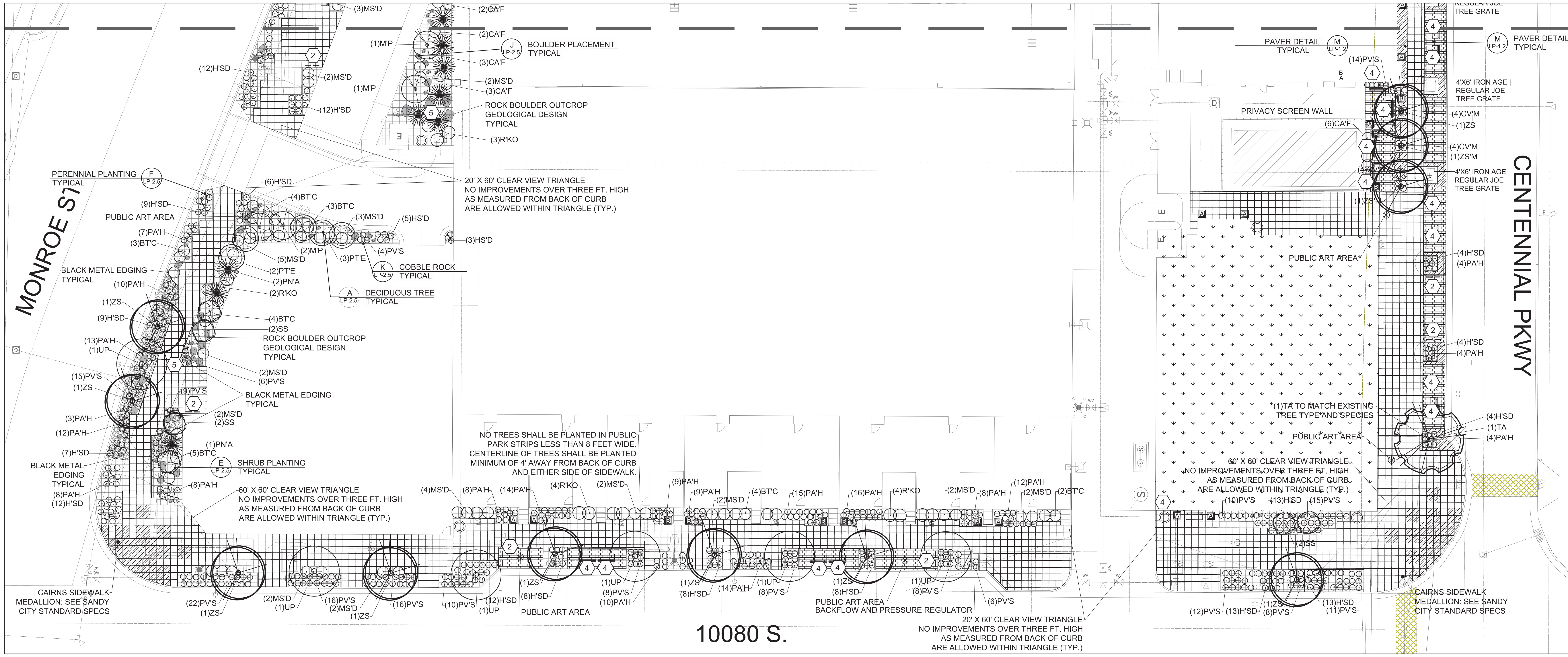
NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

SHEET TITLE:
LANDSCAPE PLAN

SHEET NUMBER:
LP-1.1

Last Plotted: 03-15-19



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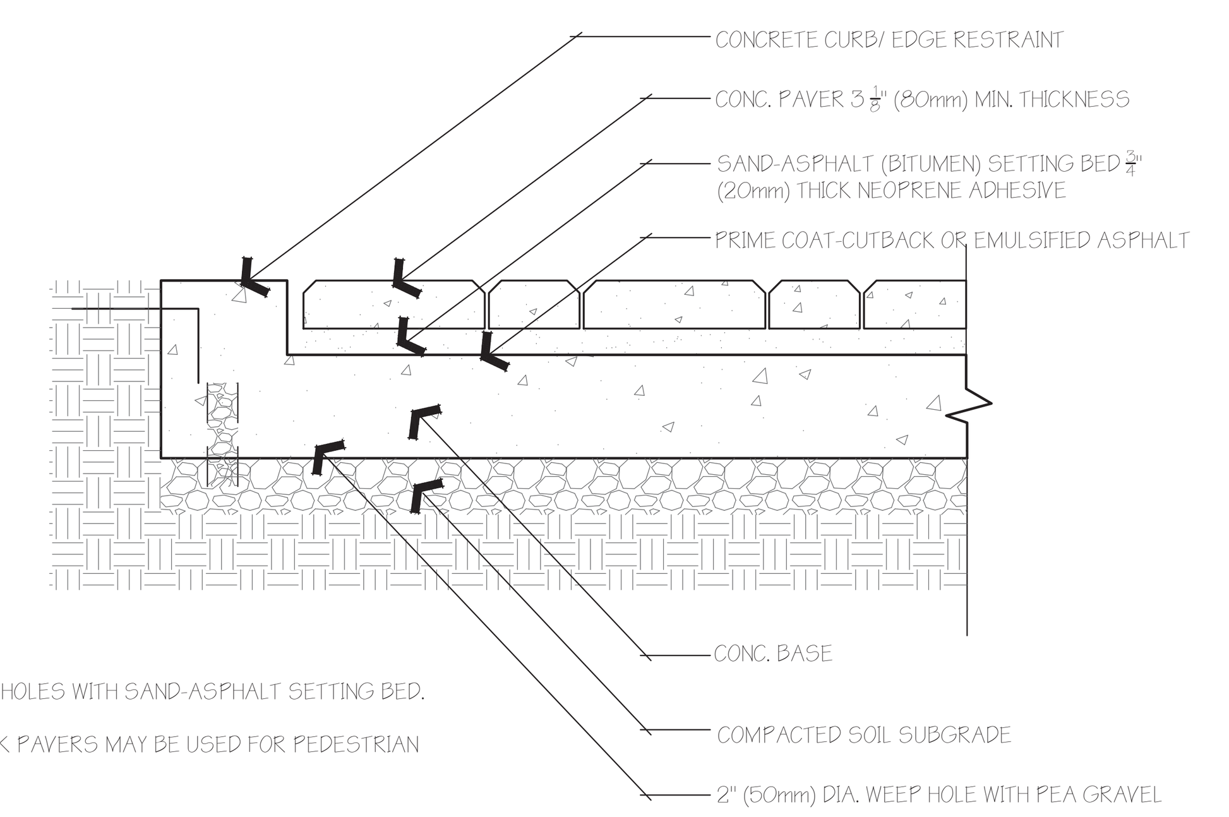

NOTE:
1. DO NOT COVER WEEP HOLES WITH SAND-ASPHALT SETTING BED.
2. 2 3/8IN. (60mm) THICK PAVERS MAY BE USED FOR PEDESTRIAN APPLICATIONS.

M SAND SET CONCRETE PAVERS FOR PEDESTRIANS & VEHICLES
NOT TO SCALE

PKJ DESIGN GROUP

CANYON WALL WITH ROUGH CUT SQUARE BOULDERS

TREE LEGEND (TOTAL PLANT COUNT GROUND LEVEL)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
TA	TILIA AMERICANA	AMERICAN LINDEN	3	2" CAL.	LOW	*TO MATCH EXISTING STREET TREES
ZS	ZELKOVA SERRATA	JAPANESE ZELKOVA	15	2" CAL.	LOW	
PN'A	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	21	6' TALL	LOW	
M'P	AMELANCHIER X GRANDIFLORA	SERVICEBERRY	6	2" CAL.	LOW	
CO	CRATAEGUS CRUS-GALLI 'INERMIS'	THORNLESS COCKSPUR HAWTHORN	3	2" CAL	LOW	
M'S	AMELANCHIER ALNIFOLIA	SASKATOON SERVICEBERRY	8	2" CAL.	LOW	
UP	ULMUS PARVIFOLIA	LACEBARK ELM	10	2"CAL	LOW	
PT'E	POPULUS TREULA ERECTA	SWEDISH ASPEN	10	2" CAL	LOW	

SHRUBS LEGEND (TOTAL PLANT COUNT GROUND LEVEL)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
BT'C	POTENTILLA FRUITICOSA	SHRUBBY CINCUEFOIL	33	5 GAL	LOW	
R'KO	ROSA 'MEICOUBLAN'	MEIDILAND ROSE	25	5 GAL.	LOW	

PERENNIALS / GRASSES LEGEND (TOTAL PLANT COUNT GROUND LEVEL)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
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MS'D	MISCANTHUS SINENSIS 'DIXIELAND'	DWARF VARIEGATED MAIDEN GRASS	53	2 GAL.	LOW	
PA'H	ORYZOPSIS HYMENOIDES	INDIAN GRASS	441	1 GAL	HIGH	
H'SD	HEMEROCALLIS SP. 'STELLA DE ORO'	STELLA DE ORO DAYLILY	291	2 GAL.	MODERATE	
CA'F	CALAMAGROSTIS A. 'FOERSTER'	FOERSTER FEATHER GRASS	80	2 GAL	HIGH	
CV'M	COREOPSIS VERTICILLATA 'MOONBEAM'	MOONBEAM THREADLEAF TICKSEED	12	2 GAL	LOW	
PV'S	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	242	2 GAL.	MODERATE	

SITE MATERIALS (TOTAL GROUND LEVEL)

- PAVER STYLE AREA #1: 1,811 SQ.FT
  LEHI BLOCK - THE HOLLAND - 4 X 8 PAVER IN THREE SHADES OF RED/TAN TO DELINEATE THE ADJOINING AREAS.
- PAVER STYLE AREA #2: 2,636 SQ.FT
  BELGARD - CATALINA GRANA PAVER CONTEMPORARY
- PAVER STYLE AREA #3: 923 SQ.FT
  BELGARD - OLD WORLD PAVER CLASSIC
- 2" - 4" COBBLE ROCK AREAS: 1,604 SQ. FT.
- DECORATIVE ROCK AREAS: 7,467 SQ. FT.
  DECORATIVE ROCK AREAS SHALL INCLUDE THE PLANTER BEDS AS STATED ON THE PLAN. PLANTER BEDS SHALL BE CONSTRUCTED WITH TWELVE INCHES (12") OF SCREENED, SANDY LOAM TOP SOIL AND SHALL BE COMPLETELY FINISH-COVERED WITH 1 INCH (1") TAN AND GRAY COBBLE ROCK. APPLY DECORATIVE ROCK TO A MINIMUM DEPTH OF FOUR INCHES (4") OVER ENTIRE AREA. PRIOR TO INSTALLATION OF DECORATIVE ROCK. DEWITT PRO5 WEED BARRIER FABRIC SHALL BE APPLIED TO THE PLANTER BEDS, ON TOP OF FINISHED TOP SOIL GRADE. ALL TREES AND SHRUBS WITHIN DECORATIVE ROCK AREAS SHALL BE WATERED WITH POINT-SOURCE DRIP IRRIGATION.
- REVEGETATION MIX : 16,946 SQ.FT.
  SEE NON IRRIGATED - NATIVE REVEGETATION SEED MIX INSTALL UNTIL CONSTRUCTION STARTS ON PAD AREA.
- TRASH & RECYCLE: APEX RECEPTACLE FORMS + SURFACES
- BIKE RACK: BIKE GARDEN FORMS + SURFACES 18
- BOARDWALK BENCH FORMS + SURFACES 26
- 4'-5' SANDSTONE BOULDERS 60
- 2'-3' SANDSTONE BOULDER 54
- BLACK METAL EDGING 672 LN. FT.
- PUBLIC ART AREA 8

ARCHITECT'S INFORMATION:
RUSSELL PLATT ARCHITECTURE
Russell Platt Architecture
4301 West 4570 South
West Valley City, Utah 84120
801-580-0108

RUSSELL PLATT
RUSSELLPLATT@GMAIL.COM

PROFESSIONAL STAMP:
LICENSED LANDSCAPE ARCHITECT JEREMY ARCHDETH 8128121-5301 05/06/2019 STATE OF UTAH

CODE OFFICIAL STAMP:

PROJECT NAME:
CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

ISSUED:

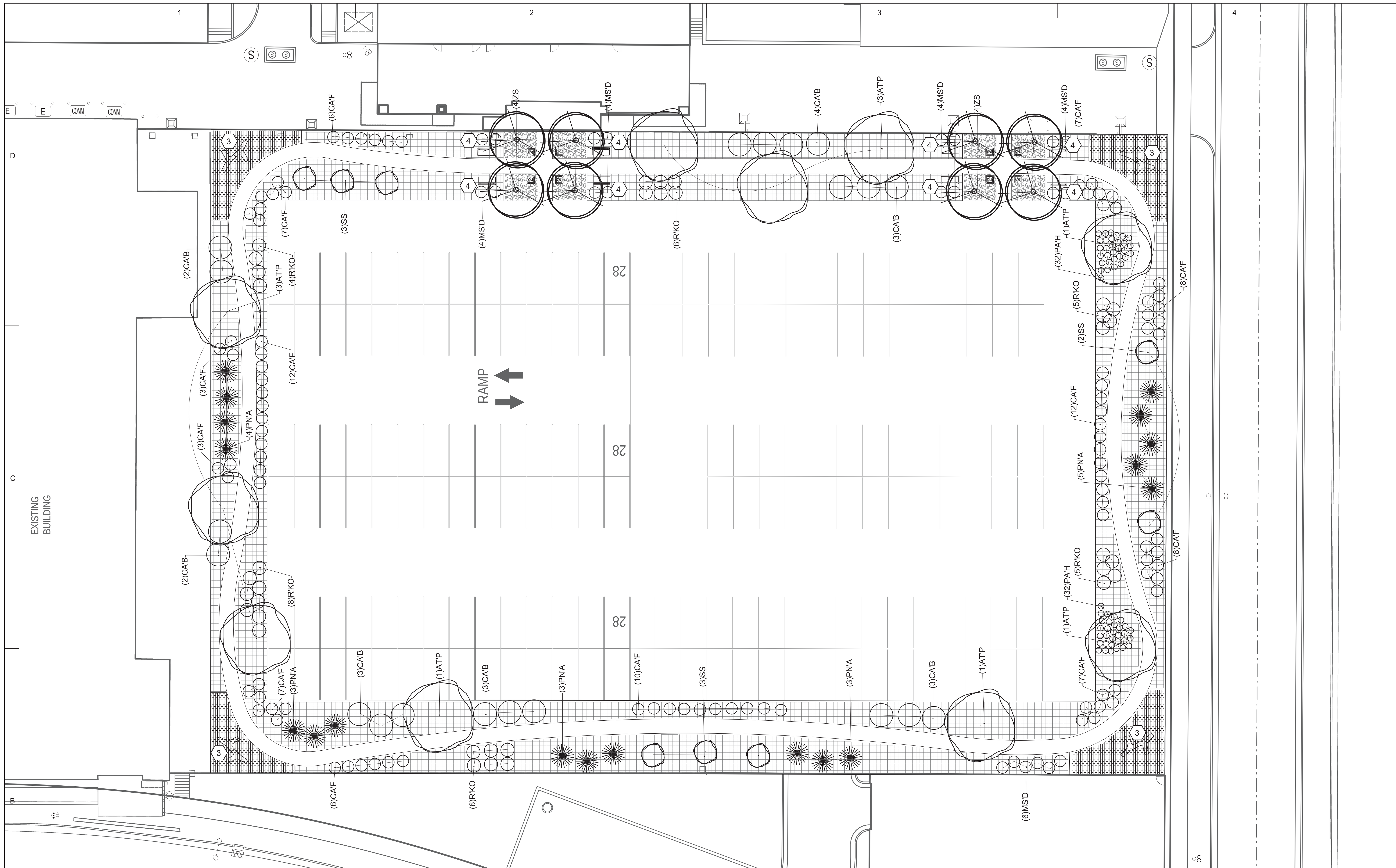
NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

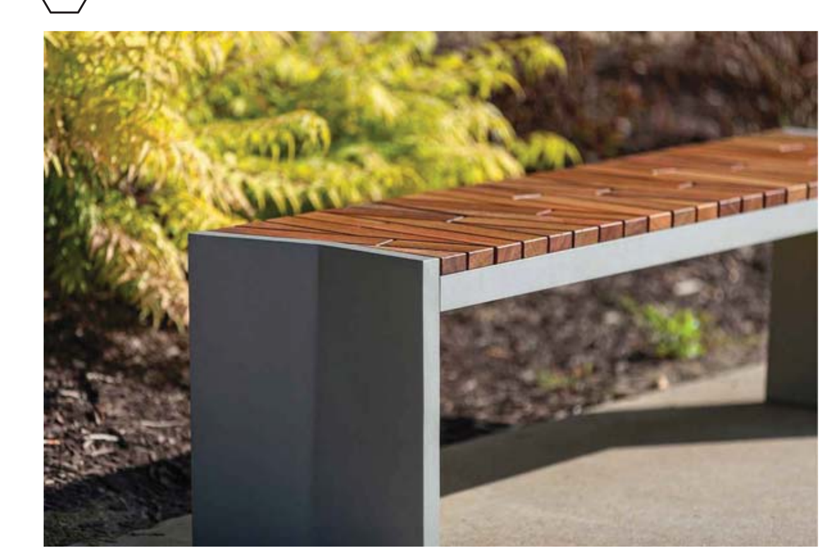
SHEET TITLE:
LANDSCAPE PLAN

SHEET NUMBER:
LP-1.2

Last Plotted: 03-15-19



MILENIO BENCH FOR COURTYARD



BOARDWALK BENCH
FORMS + SURFACES

PLANTER POTS

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1. MULCH: AFTER COMPLETION OF ALL PLANTING, ALL IRRIGATED NON-TURF AREAS SHALL BE COVERED WITH A MINIMUM LAYER OF FOUR (4) INCHES OF MULCH TO RETAIN WATER, INHIBIT WEED GROWTH AND MODERATE SOIL TEMPERATURE. NON-POROUS MATERIAL SHALL NOT BE PLACED UNDER THE MULCH. 4" MULCH IN ALL IRRIGATED NON-TURF AREAS. IF ROCK MULCH, MINIMUM IS 3".
2. LANDSCAPE WATER METER: A WATER METER AND BACKFLOW PREVENTION ASSEMBLY THAT ARE IN COMPLIANCE WITH STATE CODE SHALL BE INSTALLED FOR LANDSCAPE IRRIGATION SYSTEMS, AND THE LANDSCAPE WATER METER AND BACKFLOW PREVENTION ASSEMBLY SHALL BE SEPARATE FROM THE WATER METER AND BACKFLOW PREVENTION ASSEMBLY INSTALLED FOR INDOOR USES. THE SIZE OF THE METER SHALL BE DETERMINED BASED ON IRRIGATION DEMAND.
3. PRESSURE REGULATION: A PRESSURE REGULATING VALVE SHALL BE INSTALLED AND MAINTAINED BY THE CONSUMER IF THE STATIC SERVICE PRESSURE EXCEEDS 80 POUNDS PER SQUARE INCH (PSI). THE PRESSURE-REGULATING VALVE SHALL BE LOCATED BETWEEN THE LANDSCAPE WATER METER AND THE FIRST POINT OF WATER USE, OR FIRST POINT OF DIVISION IN THE PIPE, AND SHALL BE SET AT THE MANUFACTURER'S RECOMMENDED PRESSURE FOR SPRINKLERS.
4. AUTOMATIC CONTROLLER: ALL IRRIGATION SYSTEMS SHALL INCLUDE AN ELECTRIC AUTOMATIC CONTROLLER WITH MULTIPLE PROGRAM AND MULTIPLE REPEAT CYCLE CAPABILITIES AND A FLEXIBLE CALENDAR PROGRAM. ALL CONTROLLERS SHALL BE EQUIPPED WITH AN AUTOMATIC RAIN SHUT-OFF DEVICE.
5. ON SLOPES EXCEEDING 30%, THE IRRIGATION SYSTEM SHALL CONSIST OF DRIP EMITTERS, BUBBLERS, OR SPRINKLERS WITH A MAXIMUM PRECIPITATION RATE OF 0.85 INCHES PER HOUR AND ADJUSTED SPRINKLER CYCLE TO ELIMINATE RUNOFF.
6. EACH VALVE SHALL IRRIGATE A LANDSCAPE WITH SIMILAR SITE, SLOPE AND SOIL CONDITIONS AND PLANT MATERIALS WITH SIMILAR WATERING NEEDS. TURF AND NON-TURF AREAS SHALL BE IRRIGATED ON SEPARATE VALVES.
7. DRIP EMITTERS OR A BUBBLER SHALL BE PROVIDED FOR EACH TREE WHERE PRACTICABLE. BUBBLERS SHALL NOT EXCEED 1.5 GALLONS PER MINUTE PER DEVICE. BUBBLERS FOR TREES SHALL BE ON SEPARATE VALVE UNLESS SPECIFICALLY EXEMPTED BY THE SANDY CITY PUBLIC UTILITIES DEPARTMENT DUE TO THE LIMITED NUMBER OF TREES ON THE PROJECT SITE.
8. SPRINKLERS SHALL HAVE MATCHED PRECIPITATION RATE WITH EACH CONTROL VALVE CIRCUIT.
9. CHECK VALVES SHALL BE REQUIRED WHERE ELEVATION DIFFERENCES WILL CAUSE LOW-HEAD DRAINAGE. PRESSURE COMPENSATING VALVES AND SPRINKLERS SHALL BE REQUIRED WHERE A SIGNIFICANT VARIATION IN WATER PRESSURE WILL OCCUR WITHIN THE IRRIGATION SYSTEM DUE TO ELEVATION DIFFERENCES.
10. DRIP IRRIGATION LINES SHALL BE PLACED UNDERGROUND OR OTHERWISE PERMANENTLY COVERED, EXCEPT FOR DRIP EMITTERS AND WHERE APPROVED AS A TEMPORARY INSTALLATION. FILTERS AND END FLUSH VALVES SHALL BE PROVIDED AS NECESSARY.
11. IRRIGATION ZONES WITH OVERHEAD SPRAY OR STREAM SPRINKLERS SHALL BE DESIGNED TO OPERATE BETWEEN 6:00 P.M. AND 10:00 A.M. TO REDUCE WATER LOSS FROM WIND AND EVAPORATION. THIS WOULD EXCLUDE DRIP OR BUBBLER ZONES.
12. PROGRAM VALVES FOR MULTIPLE REPEAT CYCLES WHERE NECESSARY TO REDUCE RUNOFF, PARTICULARLY SLOPES AND SOILS WITH SLOW INFILTRATION RATES.
13. FOLLOWING CONSTRUCTION AND PRIOR TO RELEASE OF THE SECONDARY BOND GUARANTEE POSTED FOR THE PROJECT, A WATER USE EFFICIENCY REVIEW WILL BE CONDUCTED BY A LANDSCAPE IRRIGATION AUDITOR. THE AUDITOR SHALL BE INDEPENDENT OF THE CONTRACTOR, DESIGN FIRM, AND OWNER/DEVELOPER OF THE PROJECT. THE WATER PERFORMANCE AUDIT WILL VERIFY THAT THE IRRIGATION SYSTEM COMPLIES WITH THE MINIMUM STANDARDS REQUIRED BY SANDY CITY ORDINANCE. THE MINIMUM EFFICIENCY REQUIRED FOR THE IRRIGATION SYSTEM IS 60% FOR DISTRIBUTION EFFICIENCY FOR ALL FIXED SPRAY SYSTEMS AND 70% DISTRIBUTION EFFICIENCY FOR ALL ROTOR SYSTEMS. THE AUDITOR SHALL FURNISH A CERTIFICATE TO THE CITY, DESIGNER, INSTALLER AND OWNER/DEVELOPER CERTIFYING COMPLIANCE WITH THE MINIMUM DISTRIBUTION REQUIREMENTS. COMPLIANCE WITH THIS PROVISION IS REQUIRED BEFORE THE CITY WILL RELEASE THE BOND FOR THIS PROJECT.
14. PLANTS WHICH REQUIRE DIFFERENT AMOUNTS OF WATER SHALL BE IRRIGATED BY SEPARATE VALVES. IF ONE VALVE IS USED FOR A GIVEN AREA, ONLY PLANTERS WITH SIMILAR WATER USE SHALL BE USED IN THAT AREA. LAWN AREAS AND PLANTERS SHALL BE IRRIGATED BY SEPARATE VALVES.
15. A SEPARATE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED FOR THE IRRIGATION SYSTEM.
16. A RAIN SENSING OVERRIDING DEVICE SHALL BE UTILIZED SO THAT THE IRRIGATION SYSTEM WILL AUTOMATICALLY TURN OFF IN THE EVENT OF RAIN.
17. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO PREVENT OVERSPRAY AND WATER RUN-OFF ONTO ADJACENT-PROPERTY, NON-IRRIGATED AREAS, WALKS, ROADWAYS OR STRUCTURES.
18. AN AUTOMATIC IRRIGATION SYSTEM USING POP-UP SPRINKLER HEADS SHALL BE REQUIRED FOR ALL NEW LANDSCAPES. LOW FLOW SPRINKLER HEADS SHALL BE USED WHEREVER POSSIBLE.
19. NO IRRIGATION OF WALKWAYS OR DRIVE. 20. WATER AUDIT IS REQUIRED PRIOR TO BOND BEING RELEASED. SUGGEST THE AUDIT BE DONE WITHIN 60 DAYS OF INSTALLING IRRIGATION AND LANDSCAPE. IF YOU HAVE ANY QUESTIONS WITH THESE REQUIREMENT, PLEASE CONTACT CHALEURN "LENNIE" CHANTHAPHUANG, P.E. AT 801-568-7293

SITE MATERIALS (TOTAL PLANT COUNT PARKING PLAZA)

PAVER STYLE AREA #2: 1,833 SQ.FT
BELGARD - CATALINA GRANA PAVER
CONTEMPORARY

4" -6" COBBLE ROCK AREAS: 802 SQ. FT.

DECORATIVE ROCK AREAS: 14,864 SQ. FT.
DECORATIVE ROCK AREAS SHALL INCLUDE THE PLANTER BEDS AS STATED ON THE PLAN. PLANTER BEDS SHALL BE CONSTRUCTED WITH TWELVE INCHES (12") OF SCREENED, SANDY LOAM TOP SOIL AND SHALL BE COMPLETELY FINISH-COVERED WITH TWO TO FOUR INCH (2"-4") TAN AND GRAY COBBLE ROCK. APPLY DECORATIVE ROCK TO A MINIMUM DEPTH OF THREE INCHES (3") OVER ENTIRE AREA. PRIOR TO INSTALLATION OF DECORATIVE ROCK. DEWITT PRO5 WEED BARRIER FABRIC SHALL BE APPLIED TO THE PLANTER BEDS, ON TOP OF FINISHED TOP SOIL GRADE. ALL TREES AND SHRUBS WITHIN DECORATIVE ROCK AREAS SHALL BE WATERED WITH POINT-SOURCE DRIP IRRIGATION.

BOARDWALK BENCH FORMS + SURFACES (8)

***2H:1V MAXIMUM SLOPE IN LANDSCAPE AREAS**

TREE LEGEND (TOTAL PLANT COUNT PARKING PLAZA)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
AT'P	ACER TATARICUM	TATARIAN MAPLE	10	2" CAL.	LOW	
ZS	ZELKOVA SERRATA	JAPANESE ZELKOVA	8	2" CAL.	LOW	
PN'A	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	21	6' TALL	LOW	
SS	AMELANCHIER ALNIFOLIA	SASKATOON SERVICEBERRY	8	2" CAL.	LOW	

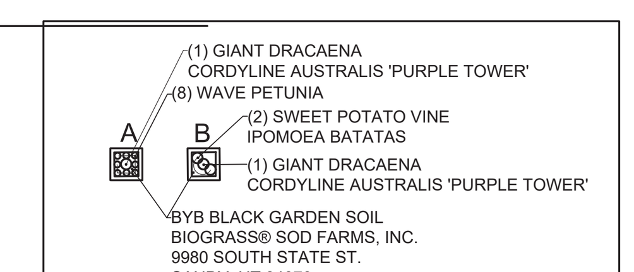
1 TREE PER 400 SQ. FT. LANDSCAPING: REQUIRED 44 TREES

SHRUBS LEGEND (TOTAL PLANT COUNT PARKING PLAZA)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
R'KO	ROSA 'MEICOUBLAN'	MEIDILAND ROSE	34	5 GAL.	LOW	
CA'B	CORNUS ALBA 'BAILHALO'	IVORY HALO DOGWOOD	20	5 GAL	MODERATE	

PERENNIALS / GRASSES LEGEND (TOTAL PLANT COUNT PARING PLAZA)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
H'LB	MUHLENBERGIA REVERCHONII	RUBY MUHLY GRASS	23	2 GAL	HIGH	
MS'D	MISCANTHUS SINENSIS 'DIXIELAND'	DWARF VARIEGATED MAIDEN GRASS	22	2 GAL.	LOW	
PA'H	ORYZOPSIS HYMENOIDES	INDIAN GRASS	62	2 GAL	HIGH	
H'SD	HEMEROCALLIS SP. 'STELLA DE ORO'	STELLA DE ORO DAYLILY	291	2 GAL.	MODERATE	
CA'F	CALAMAGROSTIS A. 'FOERSTER'	FOERSTER FEATHER GRASS	96	2 GAL	HIGH	
CV'M	COREOPSIS VERTICILLATA 'MOONBEAM'	MOONBEAM THREADLEAF TICKSEED	12	2 GAL	LOW	
PV'S	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	242	2 GAL.	MODERATE	



PLANTER POT DESIGNS

0' 10' 20' 40' 80'

GRAPHIC SCALE: 1" = 20'

ARCHITECT'S INFORMATION:

RUSSELLPLATT ARCHITECTURE

Russell Platt Architecture
4301 West 4570 South
West Valley City, Utah 84120
801-580-0108

RUSSELL PLATT
RUSSELLPLATT@GMAIL.COM

PROFESSIONAL STAMP:

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8128121-5301
05/05/2019
STATE OF UTAH

CODE OFFICIAL STAMP:

PROJECT NAME:

CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

ISSUED:

NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

SHEET TITLE:

LANDSCAPE PLAN

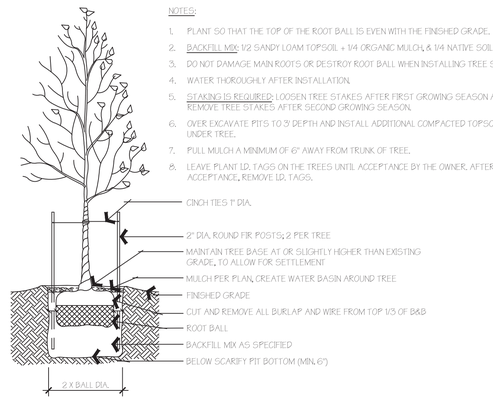
SHEET NUMBER:

LP-1.1

Last Plotted: 03-15-19

NOTES:

1. PLANT SO THAT THE TOP OF THE ROOT BALL IS EVEN WITH THE FINISHED GRADE.
2. BACKFILL MIX: 1/2 SANDY LOAM TOPSOIL + 1/4 ORGANIC MULCH, & 1/4 NATIVE SOILS.
3. DO NOT DAMAGE MAIN ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE STAKES.
4. WATER THOROUGHLY AFTER INSTALLATION.
5. STAKING IS REQUIRED: LOOSEN TREE STAKES AFTER FIRST GROWING SEASON AND REMOVE TREE STAKES AFTER SECOND GROWING SEASON.
6. OVER EXCAVATE PITS TO 3' DEPTH AND INSTALL ADDITIONAL COMPACTED TOPSOIL UNDER TREE.
7. PULL MULCH A MINIMUM OF 6" AWAY FROM TRUNK OF TREE.
8. LEAVE PLANT I.D. TAGS ON THE TREES UNTIL ACCEPTANCE BY THE OWNER, AFTER FINAL ACCEPTANCE, REMOVE I.D. TAGS.

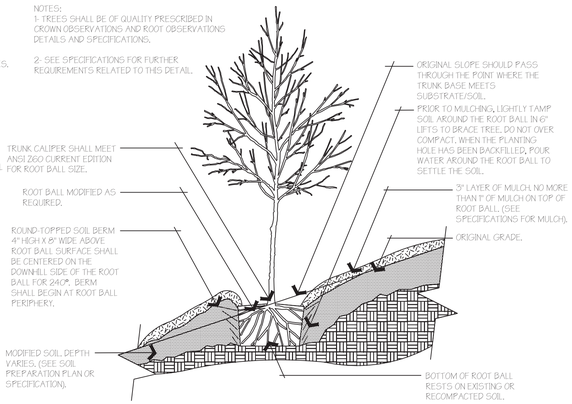


A DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE — PKJ DESIGN GROUP

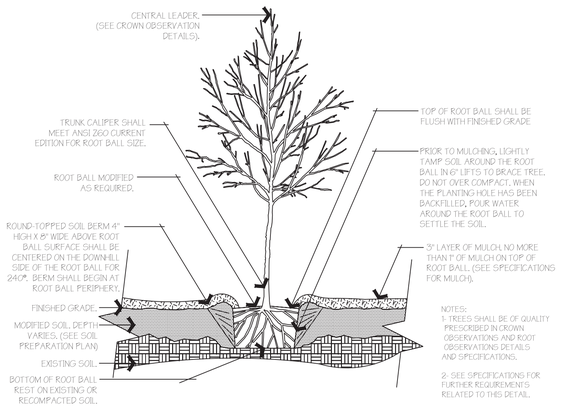
NOTES:

1. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.



B TREE ON SLOPE 5% (20:1) TO 50% (2:1)

NOT TO SCALE — PKJ DESIGN GROUP



NOTES:

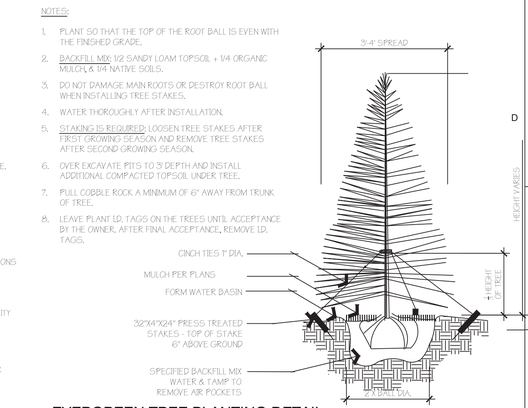
1. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

C TREE w/ BERM (EXISTING SOIL MODIFIED)

NOT TO SCALE — PKJ DESIGN GROUP

NOTES:

1. PLANT SO THAT THE TOP OF THE ROOT BALL IS EVEN WITH THE FINISHED GRADE.
2. BACKFILL MIX: 1/2 SANDY LOAM TOPSOIL + 1/4 ORGANIC MULCH, & 1/4 NATIVE SOILS.
3. DO NOT DAMAGE MAIN ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE STAKES.
4. WATER THOROUGHLY AFTER INSTALLATION.
5. STAKING IS REQUIRED: LOOSEN TREE STAKES AFTER FIRST GROWING SEASON AND REMOVE TREE STAKES AFTER SECOND GROWING SEASON.
6. OVER EXCAVATE PITS TO 3' DEPTH AND INSTALL ADDITIONAL COMPACTED TOPSOIL UNDER TREE.
7. PULL COBBLE ROCK A MINIMUM OF 6" AWAY FROM TRUNK OF TREE.
8. LEAVE PLANT I.D. TAGS ON THE TREES UNTIL ACCEPTANCE BY THE OWNER, AFTER FINAL ACCEPTANCE, REMOVE I.D. TAGS.

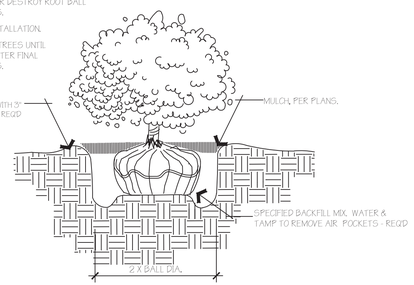


D EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE — PKJ DESIGN GROUP

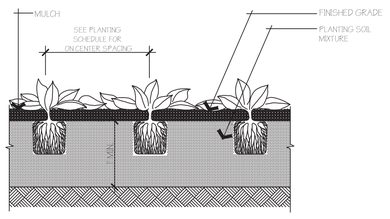
NOTES:

1. IF PLANT IS BALL & BURLAP, CUT AND REMOVE TOP 1/3 OF BURLAP FROM ROOT BALL.
2. IF PLANT IS CONTAINERIZED, SCARIFY ROOT BALL PRIOR TO PLANTING.
3. BACKFILL MIX: 1/2 SANDY LOAM + 1/4 ORGANIC MULCH + 1/4 NATIVE SOILS IF NATIVE SOILS ARE SUITABLE.
4. DO NOT DAMAGE MAIN ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE STAKES.
5. WATER THOROUGHLY AFTER INSTALLATION.
6. LEAVE PLANT I.D. TAGS ON THE TREES UNTIL ACCEPTANCE BY THE OWNER, AFTER FINAL ACCEPTANCE, REMOVE I.D. TAGS.



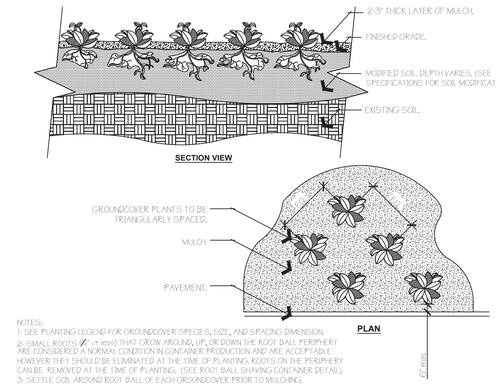
E SHRUB PLANTING DETAIL

NOT TO SCALE — PKJ DESIGN GROUP



F PERENNIAL PLANTING

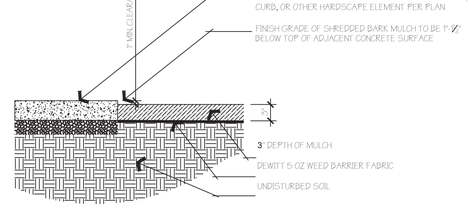
NOT TO SCALE — PKJ DESIGN GROUP



NOTES:
1- SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
2- SMALL ROOTS (1/4" or less) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE. HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).
3- SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.

G GROUNDCOVER

NOT TO SCALE — PKJ DESIGN GROUP

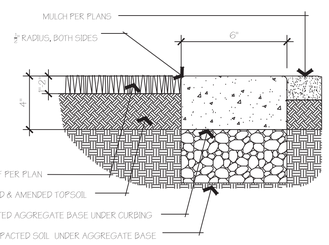


H MULCH DETAIL

NOT TO SCALE — PKJ DESIGN GROUP

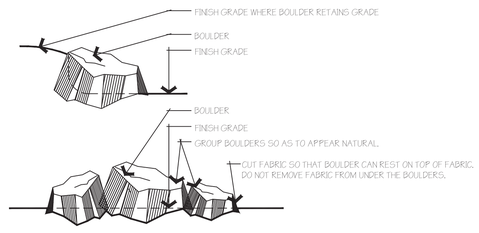
NOTE:

1. PROVIDE CONTROL JOINT IN CONCRETE EDGE AT 10' INTERVALS, PROVIDE EXPANSION JOINTS EVERY 30'.



I CONCRETE MOWCURB DETAIL

NOT TO SCALE — PKJ DESIGN GROUP



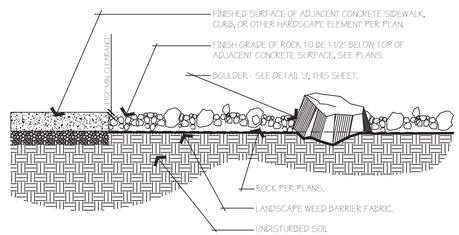
NOTE:
PLACE ALL BOULDERS SUCH THAT 1/4 OF THE TOTAL MASS OF EACH BOULDER IS BELOW FINISH GRADE.

J BOULDER PLACEMENT DETAIL

NOT TO SCALE — PKJ DESIGN GROUP

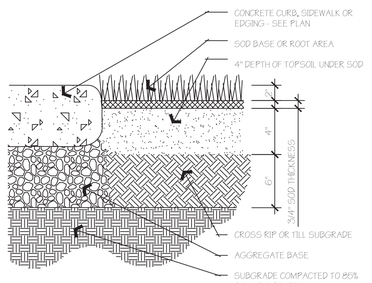
NOTES:

1. KEEP TOP OF COBBLE ROCK 1/2" BELOW ADJACENT WALKS AND CURBS. DO NOT ALLOW COBBLE ROCK TO TOUCH THE TRUNK OF ANY PLANT. INSTALL COBBLE ROCK AFTER INSTALLATION OF WEED BARRIER FABRIC AND PLANT MATERIAL.
2. CONTRACTOR TO ENSURE THAT TOP OF WEED BARRIER FABRIC IS FREE OF SOILS AND DEBRIS PRIOR TO PLACING COBBLE ROCK.
3. SEE LANDSCAPE PLANS FOR ROCK TYPE AND DEPTH.
4. COBBLE ROCK TO BE SCREENED AND WASHED PRIOR TO INSTALLATION.



K COBBLE ROCK AND WEED BARRIER DETAIL

NOT TO SCALE — PKJ DESIGN GROUP



NOTES:

1. ENSURE FINISH GRADE IS 1"- 2" BELOW TOP OF CURB, WALK, OR EDGING.
2. TURF IS THE MOST HEALTHY AND WATER EFFICIENT WHEN MOWED AT A MIN. HEIGHT OF 2" - 2 1/2".

L SOD LAYING DETAIL

NOT TO SCALE — PKJ DESIGN GROUP

ARCHITECT'S INFORMATION:

RUSSELLPLATT ARCHITECTURE

Russell Platt Architecture
4301 West 4570 South
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801-580-0108

RUSSELL PLATT
RUSSELLPLATT@GMAIL.COM

PROFESSIONAL STAMP:

LICENSED LANDSCAPE ARCHITECT — JEREMY ANDERSEN — 5139121-5301 — 05/16/2019 — STATE OF UTAH

CODE OFFICIAL STAMP:

PROJECT NAME:

CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

ISSUED:

NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

SHEET TITLE:

LANDSCAPE DETAILS

SHEET NUMBER:

LP-2.5

Last Plotted: 03-15-19

IRRIGATION SPECIFICATIONS

IRRIGATION SPECIFICATIONS

PART I - GENERAL

1.1 SUMMARY

Work to be done includes all labor, materials, equipment and services required to complete the Project irrigation system as indicated on the Construction Drawings, and as specified herein. Includes but is not limited to: Furnishing and installing underground and above ground sprinkler system complete with any accessories necessary for proper function and operation of the system. All plant material on the Project shall be irrigated. Removal and disposal of any existing sprinkler system components are not to be saved, which are disturbed during the construction process. Restoration of any altered or damaged existing landscape to original state and condition.

1.2 SYSTEM DESCRIPTION

A. Design of irrigation components: Locations of irrigation components on Construction Drawings may be approximate. Piping, sleeving and/or other components shown on Construction drawings may be shown schematically for graphic clarity and demonstration of component groupings and separations. All irrigation components shall be placed in landscaped areas, with the exception of pope and wire in sleeving under hardscapes. Actual routing of pipe, wire or other components may be altered due to site conditions not accounted for in the design process.

B. Construction requirements: Actual placement may vary as required to achieve a minimum of 100% coverage without overspray onto hardscape, buildings or other features.

C. Layout of Irrigation Components: During layout and staking, consult with Owner Approved Representative (hereafter referred to as OAR) to verify proper placement of irrigation components and to provide Contractor recommendations for changes, where revisions may be advisable. Small or minor adjustments to system layout are permissible to avoid existing field obstructions such as utility boxes or street light poles. Contractor shall place remote control valves in groups as practical to economize on quantity of manifold isolation valves. Quick coupler valves shall be placed with manifold groups and protected by manifold isolation valves. Quick coupler valves are shown on Construction Documents in approximate locations.

1.3 DEFINITIONS

A. Water Supply: Culinary water piping and components, furnished and installed by others to provide irrigation water to this Project, including but not limited to backflow preventor, saddles, nipples, spools, shut off valves, corporation stop valves, water meters, pressure regulation valves, and piping upstream of (or prior to) the Point of Connection.

B. Point of Connection: Location where the Contractor shall tie into the water supply. May require backflow preventor, saddle, nipples, spools, isolation valves or Stop and Waste valve for landscape irrigation needs and use.

C. Main Line Piping: Pressurized piping downstream of the Point of Connection to provide water to remote control valves and quick couplers. Normally under constant pressure.

D. Lateral Line Piping: Circuit piping downstream of remote control valves to provide water to sprinkler heads, sprinkler heads, drip systems or bubblers.

1.4 REFERENCES

A. The following standards will apply to the work of this Section:

a. ASTM-American Society for Testing and Materials

b. IA - The Irrigation Association: Main BMP Document, Landscape Irrigation Scheduling and Water Management Document.

1.5 SUBMITTALS

A. At least thirty (30) days prior to ordering of any materials, the Contractor shall provide manufacturer catalog cut sheet and current printed specifications for each element or component of the irrigation system. Submittals shall be in three ring binders or other similar bound form. Provide five copies of submittals to OAR for distribution. Place cover or index sheet indicating order in submittal document. No material shall be ordered, delivered or any work preceded in the field until the required submittals have need reviewed in its entirety and stamped approved. Delivered material shall match the approved samples.

B. Operation and Maintenance Manual:

a. At least thirty (30) days prior to final inspection, the Contractor shall provide Operation and Maintenance manual to OAR, containing:

i. Manufacturer catalog cut sheet and current printed specifications for each element or component of the irrigation system.

ii. Parts list for each operating element of the system

iii. Manufacturer printed literature on operation and maintenance of operating elements of the system.

iv. Section listing instructions for overall system operation and maintenance. Include directions for Spring Start-up and Winterization.

b. Project Record Copy

i. Maintain at project site one copy of all project documents clearly marked “Project Record Copy”. Mark any deviation in material installation on Construction drawings. Maintain and update drawing at least weekly. Project Record Copy to be available to OAR on demand.

ii. Completed Project As-Built Drawings

1. Prior to final inspection, prepare and submit to OAR accurate as-built drawings

2. Show detail and dimension changes made during installation. Show significant details and dimensions that were not shown in original Contract Documents.

3. Field dimension locations of sleeving, points of connection, main line piping, wiring runs not contained in main line pipe trenches, valves and valve boxes, quick coupler valves.

4. Dimensions are to be taken from permanent constructed surfaces, features, or finished edges located at or above finished grade.

5. Controller Map: upon completion of system, place in each controller a color coded copy of the area that controller services: indicating zone number, type of plant material and location on project that zone services. Laminate map with heat shrink clear plastic.

1.6 QUALITY ASSURANCE

A. Acceptance: Do not install work of this section prior to acceptance by OAR of area to receive such work.

B. Regulatory Requirements: All work and materials shall be according to any and all rules, regulations or codes, whether they are State or Local laws and ordinances. Contract documents, drawings or specifications may not be construed or interpreted to permit work or materials not conforming to the above codes.

C. Adequate Water Supply: Water supply to this Project exists, installed by others. Connections to these supply lines shall be by this Contractor. Verify that proper connection is available to supply line and is of adequate size. Verify that secondary connection components may be installed if necessary. Perform static pressure test prior to commencement of work. Notify OAR in writing of problems encountered prior to proceeding.

D. Workmanship and Materials:

a. It is the intent of this specification that all material herein specified and shown on the construction documents shall be of the highest quality available and meeting the requirements specified.

b. All work shall be performed in accordance with the best standards of practice relating to the trade.

E. Contractor Qualifications:

a. Contractor shall provide document or resume including at least the following items:

i. That Contractor has been installing sprinklers on commercial projects for five previous consecutive years.

ii. Contractor is licensed to perform Landscape and Irrigation construction in the State of this Project.

iii. Contractor is bondable for the work to be performed.

iv. References of five projects of similar size and scope completed within the last five years. Three of the projects listed shall be local.

v. Listing of suppliers where materials will be obtained for use on this Project.

vi. Project site Foreman or Supervisor has at least five consecutive years of commercial irrigation installation experience. This person shall be a current Certified Irrigation Contractor in good standing as set forth by the Irrigation Association. This person shall be on Project site at least 75% of each working day.

vii. Evidence that Contractor currently employs workers in sufficient quantities to complete Project within time limits that are established by the Contract.

viii. All General laborers or workers on the Project shall be previously trained and familiar with sprinkler installation and have a minimum of one-year experience. Those workers performing tasks related to PVC pipe shall have certificates designated below.

1.7 DELIVERY-STORAGE-HANDLING

A. During delivery, installation and storage of materials for Project, all materials shall be protected from contamination, damage, vandalism, and prolonged exposure to sunlight. All material stored at Project site shall be neatly organized in a compact arrangement and storage shall not disrupt Project Owner or other trades on Project site. All material to be installed shall be handled by Contractor with care to avoid breakage or damage. Damaged materials attributed to Contractor shall be replaced with new at Contractor's expense.

1.8 SEQUENCING

A. Perform site survey, research utility records, contact utility location services. The Contractor shall familiarize himself with all hazards and utilities prior to work commencement. Install sleeving prior to installation of concrete, paving or other permanent site elements. Irrigation system Point of Connection components, backflow prevention and pressure regulation devices shall be installed and operational prior to all downstream components. All main lines shall be thoroughly flushed of all debris prior to installation of any sprinkler heads.

1.9 WARRANTY

A. Contractor shall provide one year Warranty. Warranty shall cover all materials, workmanship and labor. Warranty shall include filling and or repairing depressions or replacing turf or other plantings due to settlement of irrigation trenches or irrigation system elements. Valve boxes, sprinklers or other components settles from original finish grade shall be restored to proper grade. Irrigation system shall have been adjusted to provide proper, adequate coverage of irrigated areas.

1.10 OWNER'S INSTRUCTION

A. After system is installed, inspected, and approved, instruct Owner's Representatives in complete operation and maintenance procedures. Coordinate instruction with references to previously submitted Operation and Maintenance Manual.

1.11 MAINTENANCE

A. Furnish the following items to Owner's Representative:

a. Two quick coupler keys with hose swivels.

b. One of each type or size of quick coupler valve and remote control valve. Five percent of total quantities used of each sprinkler and sprinkler nozzle.

B. Provide the following services:

a. Winterize entire irrigation system installed under this contract. Winterize by 'blow-out' method using compressed air. Compressor shall be capable of minimum of 175 CFM. This operation shall occur at the end of first growing season after need for plant irrigation but prior to freezing. Compressor shall be capable of evacuation system of all water pressure regulation device. Compressor shall be regulated to not more than 60 PSI. Start up system the following spring after danger of freezing has passed. Contractor shall train Owner's Representative in proper start-up and winterization procedure.

PART 2 - PRODUCTS

2

2.1 GENERAL NOTES

A. Contractor shall provide materials to be used on this Project. Contractor shall not remove any material purchased for this Project from the Project Site, nor mix Project materials with other Contractor owned materials. Owner retains right to purchase and provide project material.

2.2 POINT OF CONNECTION

A. The Contractor shall connect onto existing irrigation or water main line as needed for Point(s) of Connection. Contractor shall install new main line as indicate.

2.3 CONNECTION ASSEMBLY

A. Culinary water shall be used on this Project. Install backflow preventor and RPZ as needed.

2.4 CONTROL SYSTEM

A. Power supply to the irrigation controller shall be provided for by this Contract.

B. Controller shall be as specified in the drawings. Controller shall be surge protected.

a. Installation of wall-mount controllers: Irrigation contractor shall be responsible for this task. Power configuration for wall-mount controllers shall be 120 VAC unless otherwise noted.

b. Locate Controller(s) in general location shown on Construction drawings. Coordinate power supply and breaker allocation with electrical contractor. Contractor shall be responsible for all power connections to Controllers, whether they are wall mount or pedestal mount. Contractor shall coordinate with electrical or other Project trades as needed to facilitate installation of power to controllers.

C. Wires connecting the remote control valves to the irrigation controller are single conductors, type PE. Wire construction shall incorporate a solid copper conductor and polyethylene (PE) insulation with a minimum thickness of 0.045 inches. The wires shall be UL listed for direct burial in irrigation systems and be rated at a minimum of 30 VAC. Paige Electric Co., LP specification number P7079D.

a. A minimum of 24” of additional wire shall be left at each valve, each splice box and at each controller.

b. Common wire shall be white in color, 12 gauge. Control wire shall be red in color, 14 gauge. Spare wire shall be looped within each valve box of the grouping it is to service.

D. RCV wire splicing connectors shall be 3M brand DBY or DBR. Wire splicing between controller and valves shall be avoided if at all possible. Any wire splices shall be contained within a valve box. Splices within a valve box that contains no control valves shall be stamped 'WIRE SPLICE' or 'WS' on box lid.

2.5 SLEEVING

A. Contractor shall be responsible to protect existing underground utilities and components. Sleeving minimum size shall be 2”. Sleeving 2” through 4” in size shall be S/40 PVC solvent weld. Sleeving 6” and larger shall be CL 200 PVC gasketed. Sleeve diameter shall be at least two times the diameter of the pipe within the sleeve. Sleeves shall be extended 6” minimum beyond walk or edge of pavement. Wire or cable shall not be installed in the same sleeve as piping, but shall be installed in separate sleeves. Sleeve ends on sleeve sizes 4” and larger shall be capped with integral corresponding sized PVC slip cap, pressure fit, until used, to prevent contamination. Sleeves shall be installed at appropriate depths for main line pipe or lateral pipe.

2.6 MAIN LINE PIPE

A. All main line pipe 4” and larger shall be Class 200 gasketed bell end. All main line pipe 3” in size and smaller shall be Schedule 40 PVC solvent weld bell end.

a. Maximum flows allowed through main line pipe shall be:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM
4"	180 GPM

b. Main line pipe shall be buried with 24” cover

2.7 MAIN LINE FITTINGS

A. All main line fittings 3” and larger shall be gasketed ductile iron material. All ductile iron fittings having change of direction shall have proper concrete thrust block installed. All main line fittings smaller than 3” in size shall be Schedule 80 PVC.

2.8 ISOLATION VALVES

A. Isolation valves 3” and larger shall be Waterous brand model 2500 cast iron gate valve, resilient wedge, push on type, with 2” square operating nut. Place sleeve of 6” or larger pipe over top of valve vertically and then extend to grade. Place 10” round valve box over sleeve at grade.

B. Isolation valves 2-1/2” and smaller shall be Apollo brand 70 series brass ball valves, contained in a Carson Standard size valve box. Valves shall be installed with S/80 PVC TOE Nipples on both sides of the valve. Valve shall be placed so that the handle is vertical toward the top of the valve box in the 'off' position.

2.9 MANIFOLDS

A. Action Manifold fittings shall be used to create unions on both sides of each control valve, allowing the valve to be removed from the box without cutting piping. Valves shall be located in boxes with ample space surrounding them to allow access for maintenance and repair. Where practical, group remote control valves in close proximity, and protect each grouping with a manifold isolation valve as shown in details. Manifold Main Line (or Sub-Main Line) and all manifold components and isolation valves shall be at least as large as the largest diameter lateral served by the respective manifold.

2.10 REMOTE CONTROL VALVES

A. Remote control valves shall be as specified on the drawings. Remote control valves shall be located separately and individually in separate control boxes.

2.11 MANUAL CONTROL VALVES

A. Quick coupler valve shall be attached to the manifold sub-main line using a Lasco G17S212 swing joint assembly with snap-lock outlet and brass stabilizer elbow. Quick coupler valve shall be placed within a Carson 10” round valve box. Top of quick coupler valve cover shall allow for complete installation of valve box lid, but also allow for insertion and operation of key. Base of quick coupler valve and top of quick coupler swing joint shall be encased in ¾” gravel. Contractor shall not place quick coupler valves further than 200 feet apart, to allow for spot watering or supplemental irrigation of new plant material. Quick coupler valve at POC shall not be eliminated or relocated.

2.12 LATERAL LINE PIPE

A. All lateral piping shall be Schedule 40 PVC, solvent weld, and bell end. Lateral pipe shall be buried with 12-18” of cover typically. Lateral pipe shall be ¾”, 1”, 1 ¼”, 1 ½” or 2” in size as indicated on Construction Drawings.

2.13 LATERAL LINE FITTINGS

A. All lateral line fittings shall be S/40 PVC

2.14 Spray Sprinklers

A. Spray head sprinklers shall be as specified on the drawings. Nozzles shall be as specified on the drawings.

2.15 VALVE BOXES

A. Carson valve boxes shall be used on this project. Sizes are as directed in these Specifications, detail sheets or plan sheets. Valve boxes shall be centered over the control valve or element they cover. Valve box shall be sized large enough to allow ample room for services access, removal or replacement of valve or element. Valve box shall be set to flush to finish grade of topsoil or barked areas. Contractor shall provide extensions or stack additional valve boxes as necessary to bring valve box pit to proper grade.

2.16 IMPORT BACKFILL

A. All main line pipe, lateral line pipe and other irrigation elements shall be bedded and backfilled with clean soil, free of rocks 1” and larger. Contractor shall furnish and install additional backfill material as necessary due to rocky conditions. Trenches and other elements shall be compacted and/or water settled to eliminate settling. Debris from trenching operations un-usable for fill shall be removed from project and disposed of properly by Contractor.

2.17 OTHER PRODUCTS

A. Substitution of equivalent products is subject to the OAR's approval and must be designated as accepted in writing.

a. The Contractor shall provide materials to make the system complete and operational.

PART 3 - EXECUTION

3

3.1 PREPARATION

A. Contractor shall repair or replace work damaged by irrigation system installation. If damaged work is new, replacement or the original installer of that work shall perform repairs. The existing landscape of this Project shall remain in place. Contractor shall protect and work around existing plant material. Coordination of trench and valve locations shall be laid out the OAR prior to any excavation occurring. Plant material deemed damaged by the OAR shall be replaced with new plant material at Contractor's expense. Contractor shall not cut existing tree roots larger than 2” to install this Project. Route pipe, wire and irrigation elements around tree canopy drip line to minimize damage to tree roots. Contractor shall have no part of existing system used by other portions of site landscape without water for without water for more than 24 hours at a time.

3.2 TRENCHING AND BACKFILING

A. Pulling of pipe shall not be permitted on this project. Over excavate trenches both in width and depth. Ensure base of trench is rock or debris free to protect pipe and wire. Grade trench base to ensure flat, even support of piping. Backfill with clean soil or import material. Contractor shall backfill no less than 2” around entire pipe with clean, rock free fill. Main line piping and fittings shall not be backfilled until OAR has inspected and pipe has passed pressure testing. Perform balance of backfill operation to eliminate any settling.

3.3 SLEEVING

A. Sleeve all piping and wiring that pass under paving or hardscape features. Wiring shall be placed in separate sleeving from piping. Sleeves shall be positioned relative to structures or obstructions to allow for pipe or wire within to be removed if necessary.

3.4 GRADES AND DRAINAGE

A. Place irrigation pipe and other elements at uniform grades. Winterization shall be by evacuation with compressed air. Automatic drains shall not be installed on this Project. Manual drains shall only be installed at POC where designated on Construction Drawings.

3.5 PVC PIPE

A. Install pipe to allow for expansion and contraction as recommended by pipe manufacturer.

B. Install main line pipes with 18” of cover, lateral line pipes with 12” of cover.

C. Drawings show diagrammatic or conceptual location of piping - Contractor shall install piping to minimize change of direction, avoid placement under large trees or large shrubs, avoid placement under hardscape features.

D. Plastic pipe shall be cut squarely. Burrs shall be removed. Spigot ends of pipes 3” and larger shall be beveled.

E. Pipe shall not be glued unless ambient temperature is at least 50 degress F. Pipe shall not be glued in rainy conditions unless properly tented. All solvent weld joints shall be assembled using IPS 711 glue and P70 primer according to manufacturer's specification, no exceptions. All workers performing glue operations shall provide evidence of certification. Glued main line pipe shall cure a minimum of 24 hours prior to being energized. Lateral lines shall cure a minimum of 2 hours prior to being energized and shall not remain under constant pressure unless cured for 24 hours.

F. Appropriate thrust blocking shall be performed on fittings 3” and larger. All threaded joints shall be wrapped with Teflon tape or paste unless directed by product manufacturer or sealing by o-ring.

3.6 CONTROLLERS

A. All grounding for pedestal controllers shall be as directed by controller manufacturer and ASIC guidelines, not to exceed a resistance reading of 5 OHMs.

B. Locate controllers in protected, inconspicuous places, when possible. Coordinate location of pedestal controllers with Landscape Architect to minimize visibility.

C. Coordinate location of wall mount controllers with building or electrical Contractor to facilitate electrical service and future maintenance needs. Wall mount shall be securely fastened to surface. If exterior mounted, wall mount controllers shall have electrical service wire and field control wire in separate, appropriate sized weatherproof electrical conduit, PVC pipe shall not be used.

D. Wire under hardscape surfaces shall be placed continuously in conduit. Contractor shall be responsible to coordinate sleeving needs for conduit or sweeps elbows from exterior to interior of building.

E. Pedestal controllers shall be placed upon VIT-Strong Box Quick Pad as per manufacturer's recommendations. Controllers shall be oriented such that Owner's Representative maintenance personnel may access easily and perform field system tests efficiently.

F. Place Standard valve box at base of controller or nearby to allow for three to five feet of slack field control wire to be placed at each controller. This Contractor shall provide conduit access if needed for Electrical Contractor. Electrical supply and installation, as well as hook-up to controller shall be by this Contractor.

3.7 VALVES

A. Isolation valves, remote control valves, and quick coupler valves shall be installed according to manufacturer recommendation and Contract Specifications and Details.

B. Valve boxes shall be set over valves so that all parts of the valve can be reached for service.

C. Valve box and lid shall be set to be flush with finished grade. Only o ne remote control valve may be installed in a Carson 1419124 box. Place a minimum of 4” of ¾” washed gravel beneath valve box for drainage. Bottom of remote control valve shall be a minimum of 2” above gravel.

3.8 SPRINKLER HEADS

A. No sprinkler shall be located closer than 6” to walls, fences, or buildings.

B. Heads adjacent to walks, curbs. Or paths shall be located at grade and 2” away from hardscape.

C. Control valves shall be opened and fully flush lateral line pipe and swing joints prior to installation of sprinklers.

D. Spray heads shall be installed and flushed again prior to installation of nozzles.

E. Contractor shall be responsible for adjustment if necessary due to grade changes during landscape construction.

3.9 FIELD QUALITY CONTROL

A. Main line pipes shall not be backfilled or accepted until the system has been tested for 2 hours at 100 psi.

B. Main line pressure test shall include all pipe and components from the point of connection to the upstream side of remote control valves. Test shall include all manifold components under constant pressure. Piping may be tested in sections that can be isolated.

C. Contractor shall provide pressurized water pump to increase or boost pressure where existing static pressure is less than 100 psi.

D. Schedule testing with OAR 48 hours in advance for approval.

E. Leaks or defects shall promptly be repaired or rectified at the Contractors expense and retested until able to pass testing.

F. Grounding resistance at pedestal controller shall also be tested and shall not exceed 5 OHMs.

3.10 ADJUSTMENT

A. Sprinkler heads shall be adjusted to proper height when installed. Changes in grade or adjustment of head height after installation shall be considered a part of the original contract and at Contractor's expense.

B. Adjust all sprinkler heads for arc, radius, proper trim and distribution to cover all landscaped areas that are to be irrigated.

C. Adjust sprinklers so they do not water buildings, structures, or other hardscape features.

D. Adjust run times of station to meet needs of plant material the station services.

3.11 CLEANING

A. Contractor shall be responsible for cleanliness of jobsite. Work areas shall be swept cleanly and picker up daily.

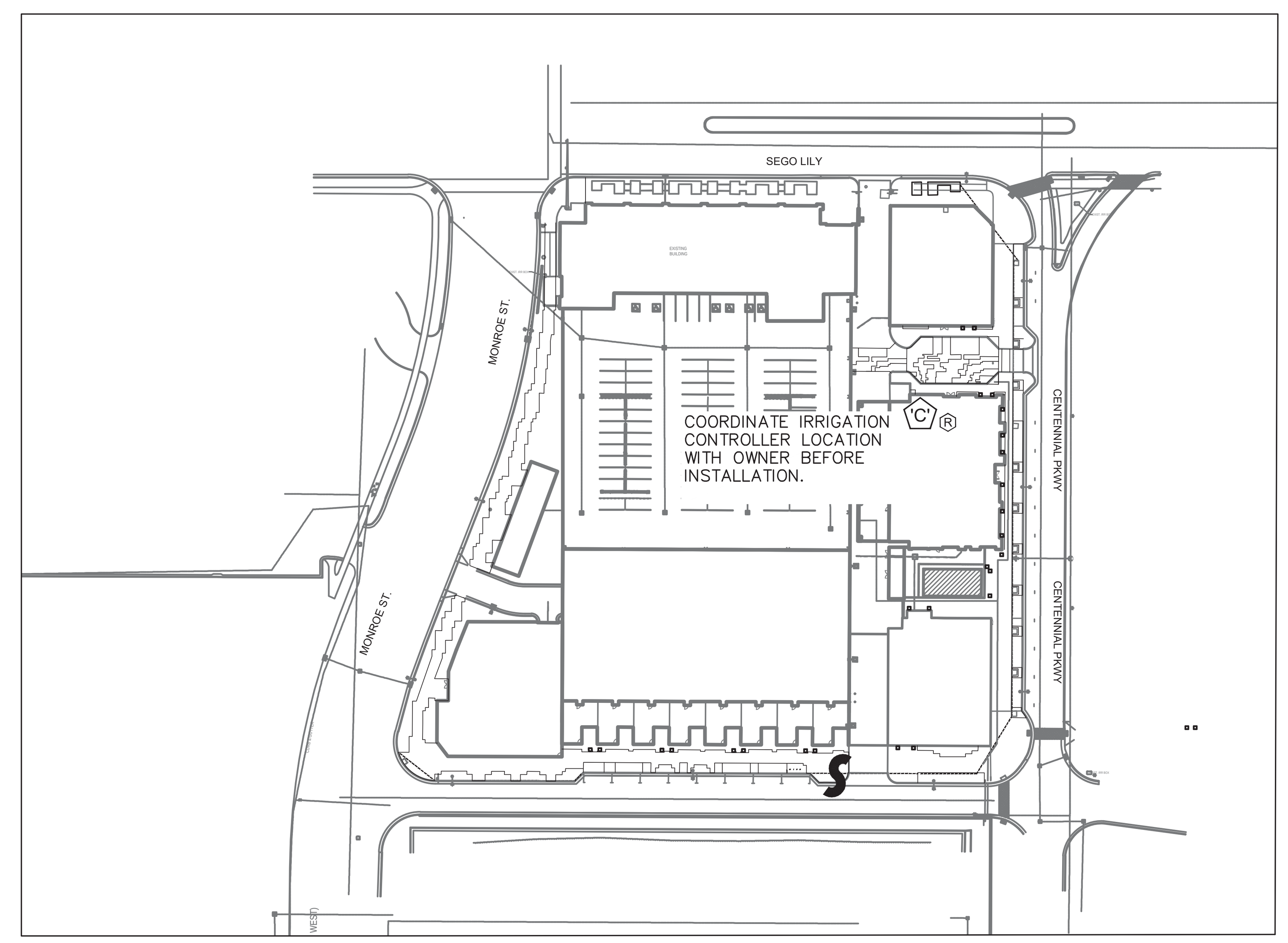
B. Open trenches or hazards shall be protected with yellow caution tape.

C. Contractor is responsible for removal and disposal offsite of trash and debris generated as a result of this Project.

D. OAR shall perform periodic as well as a final cleanliness inspection.

E. Contractor shall leave Project in at least a 'broom clean' condition.

END OF SECTION



2" MAINLINE ROUTING ,CONTROLLER AND P.O.C. LOCATION OVERVIEW

0' 50' 100' 200' 400'

GRAPHIC SCALE: 1" = 100'

ARCHITECT'S INFORMATION:

RUSSELL PLATT ARCHITECTURE

Russell Platt Architecture
4301 West 4570 South
West Valley City, Utah 84120
801-580-0108

RUSSELL PLATT
RUSSELLPLATT@GMAIL.COM

PROFESSIONAL STAMP:

LICENSED LANDSCAPE ARCHITECT JEREMY AINSWORTH 8128121-5301 5/5/2019 ELECTRONIC SEAL STATE OF UTAH

CODE OFFICIAL STAMP:

PROJECT NAME:

CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

ISSUED:

NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

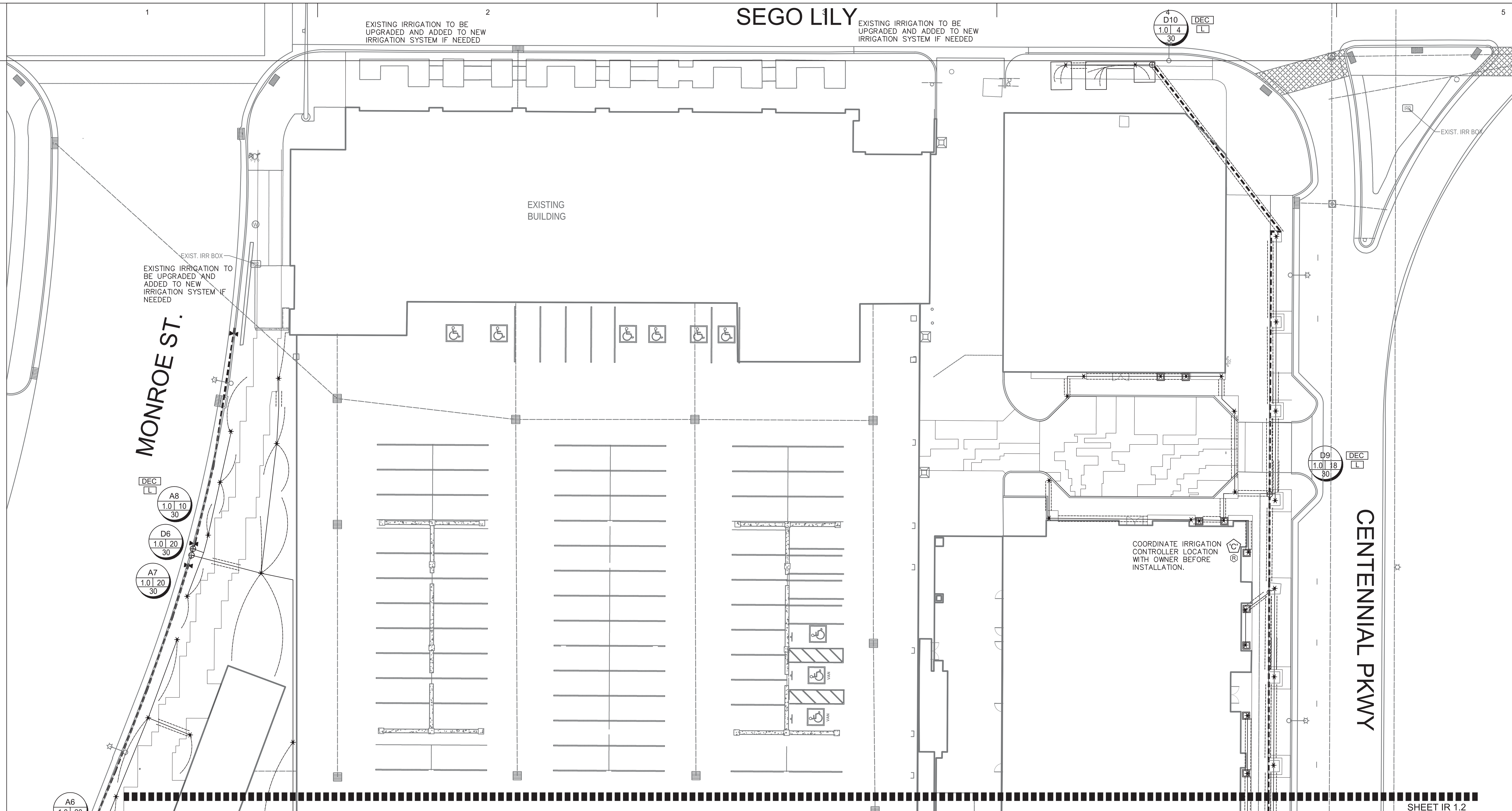
SHEET TITLE:

IRRIGATION PLAN

SHEET NUMBER:

IR-1.0

Last Plotted:



IRRIGATION LEGEND

SYMBOL	MANUFACTURER–MODEL NUMBER	PAT.	RD.	PSI	GPM Q	T	H	TT	TQ	F	QTY	REMARKS
	RAINBIRD RD04-S-PRS POP UP SPRAY 5 SERIES	Q,T,H,F	5'	30	.10	.15	.20	na	na	.40	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 8 U-SERIES	Q,T,H,F	8'	30	.26	.35	.52	na	na	1.05	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 10 U-SERIES	Q,T,H,F	10'	30	.39	.53	.79	na	na	1.58	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 12 U-SERIES	Q,T,H,TT,TQ,F	12'	30	.65	.87	1.30	1.74	1.95	2.60	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 15 U-SERIES	Q,T,H,TT	15'	30	.92	1.23	1.85	2.48	2.78	3.70	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 15 SST	SST	15'	30	1.21						--	
	RAINBIRD RD04-S-PRS POP UP SPRAY 15 EST	EST	15'	30	.61							
	USE HE-VAN NOZZLES										--	
'C'	CONTROLLER: RAINBIRD ESP-LXD CONTROLLER WITH LIMR REMOTE KIT, PLACE IN LXMM PEDISTAL, CONTRACTOR TO ADJUST LOCATION WITH OWNER PRIOR TO CONSTRUCTION.										--	COORDINATE WITH OWNER FOR EXACT LOCATION
DEC	VALVE DECODER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.										--	SEE DETAIL
L	LIGHTNING ARRESTER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.										--	SEE DETAIL
M	MASTER VALVE											SEE DETAIL
F	FLOW SENSOR											SEE DETAIL
R	RAINBIRD WR2-RC WIRELESS RAIN SHUT OFF DEVICE										--	SEE DETAIL
	IRRIGATION POINT OF CONNECTION AND RPZ BACKFLOW PREVENTION - CONNECT TO WATER SERVICE LINE AND METER. (SEE CIVIL PLANS) CONTRACTOR LOCATE AND VERIFY EXACT LOCATION ON SITE.										--	SEE DETAIL
	QUICK COUPLER: RAINBIRD 44LRC INSTALL PER MANUFACTURER'S SPEC.										--	10" RND. VALVE BOX. SEE DETAIL
	ISOLATION BALL VALVE - LINE SIZED INSTALL PER MANUFACTURER'S SPEC.										--	SEE DETAIL
	REMOTE CONTROL VALVE: RAINBIRD PESB-NP-PRS-D AUTOMATIC CONTROL VALVE (SIZE AS NOTED ON PLAN)										--	SEE DETAIL JUMBO BOX-PURPLE LID
	DRIP CONTROL ZONE KIT: RAINBIRD XCZ-(PER PLAN)-PRBR-COM MED FLOW (SIZE AS NOTED ON PLAN)										--	SEE DETAIL
	DRIP CONNECTION. PROVIDE DRIP IRRIGATION TO ALL TREES, SHRUBS,AND PERENNIALS IN PLANTER AREAS										--	INSTALL FLUSH CAP. SEE DETAIL
	DRIP RWS-S-B-1401 (ROOT WATERING SYSTEM) PROVIDE 2 TO EACH TREE LOCATED IN THE LAWN AREAS.											SEE DETAIL
	LOOP MAINLINE: SCHEDULE 40 PVC WITH SCHEDULE 80 FITTINGS, 2" DIAMETER 24" MIN. COVER										--	SEE PIPE SIZING CHART
	LATERAL LINE: SCHEDULE 40 PVC WITH SCH. 40 FITTINGS. SEE PIPE SIZING CHART										--	SEE DETAIL
	DRIP LINE: RAINBIRD XFSP-09-18-100 OR EQUIVALENT										--	SEE DETAIL
	CLASS 200 SLEEVE PER PLAN										--	SEE DETAIL
NOT SHOWN	WIRE CHASE, SIZE TO BE TWICE THE DIAMETER OF THE WIRE BUNDLE WITHIN. 1.1/4" DIAMETER MINIMUM										--	SEE DETAIL
NOT SHOWN	14 GAUGE SOLID COPPER SINGLE STRAND CONTROL WIRE. INSTALL PER MANUFACTURER'S SPEC. PROVIDE 2 WIRE LOOP SYSTEM.										--	SEE DETAIL

DRIP ZONE

TYPE	PART NUMBER	EMITTER FLOW	EMITTER SPACING	ROW SPACING	RECOMMENDED ROW SPACING
XFS DRIPLINE	XFSP-09-18	.9 GPH	18"	18"	18-21 IN.

TOTAL DRIP ZONE FLOW	20 GPM	TIME TO APPLY 1/4" OF WATER	23
MAXIMUM LATERAL LENGTH OF TUBING	350 FT	REQUIRED NUMBER OF STAKES	500
TOTAL LENGTH OF ZONE DRIPLINE	2,000 FT (varies per plan)	NUMBER OF FLUSH POINTS	2
APPLICATION RATE	.64 INCH PER HOUR	SUGGESTED HEADER AND FOOTER PIPE SIZE	CLASS 200 1 1/4"

*NUMBERS MAY CHANGE DUE TO SIZE OF DRIP ZONE PER PLAN

IRRIGATION NOTES

1. ALL PIPE TO BE SCHEDULE 40 PVC PIPE OR BETTER. NO POLY PIPE SHALL BE INCLUDED. FITTINGS MUST BE SCHEDULE 40 OR BETTER ON LATERAL LINES AND SCHEDULE 80 OR BETTER ON MAIN LINE. SIZE PER PLAN.
2. MAIN LINES SHALL BE 24" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
3. CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. PLACE ALL IRRIGATION IN LANDSCAPE AREAS AND ON THE PROPERTY OF THE OWNER.
5. MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE, PER PLANS. DO NOT LOCATE VALVE BOXES IN LAWN AREAS UNLESS DIRECTED TO BY LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL INSTALL A QUICK COUPLER AT POINT OF CONNECTION IN ORDER TO BLOW OUT THE SYSTEM WITH AN AIR COMPRESSOR EACH FALL.
7. CONTRACTOR SHALL USE ONLY COMMERCIAL GRADE IRRIGATION PRODUCTS AND IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS AND QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION PURPOSES.
8. INSTALL DRIP IRRIGATION PER DETAILS. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY.
9. CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN CLASS 200 PIPE. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES. COORDINATE WITH ALL TRADES.
10. WATER LINES AND ELECTRICAL LINES MUST NOT SHARE CONDUITS. ALL WIRE CONNECTIONS MUST BE CONTAINED IN VALVE BOX WITH 3' OF EXTRA WIRE. WIRE TO BE CONNECTED TO MAIN LINE PIPE WHERE POSSIBLE WITH TAPE AT 25' INTERVALS. SLACK IN CONTROL WIRES REQUIRED AT EVERY CHANGE OF DIRECTION. WIRES MUST HAVE SEPARATE COLORS FOR COMMON, CONTROL AND SPARE. MINIMUM 1 SPARE WIRE FOR EVERY 5 VALVES. ALL CONTROL WIRES TO BE INSULATED 14 GAUGE COPPER. ALL SPARE WIRES MUST "HOME RUN" TO CONTROLLER AND SPARE WIRES AVAILABLE AT ALL VALVE MANIFOLDS AND CLUSTERS.
11. ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
12. IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
13. SPACE ALL SPRAY HEADS 2" AWAY FROM ANY HARDSCAPE.
14. CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
15. IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
16. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
17. IRRIGATION INSTALLATION TO COMPLY WITH APPLICABLE CITY SPECIFICATIONS AND DRAWINGS.
18. ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. THE CONTRACTOR IS RESPONSIBLE TO MAKE ADJUSTMENTS AS NEEDED TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS.
19. CONTRACTOR SHALL INSTALL IRRIGATION SYSTEM WITH HEAD TO HEAD COVERAGE IN ALL TURF AREAS. USE HE-VAN NOZZLES AS NECESSARY TO PROVIDE PROPER COVERAGE AND TO KEEP WATER OFF OF BUILDINGS AND HARDSCAPES.
20. POWER TO CONTROLLER TO BE PROVIDED BY OWNER. OWNER TO SPECIFY EXACT LOCATION OF CONTROLLER. INSTALL PER MANUFACTURERS INSTRUCTIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR LANDSCAPE ARCHITECT.
21. DESIGN AND INSTALL THE BACKFLOW PREVENTOR IN THE PROPER PLACE TO ENSURE THAT NO WATER IS CONTAMINATING THE SYSTEM.
22. LATERAL LINES SHALL BE NO SMALLER THAN 3/4". LANDSCAPE CONTRACTOR TO ENSURE THE FOLLOWING PIPE SIZES DO NOT EXCEED THE SUGGESTED GPM LISTED BELOW:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM
4"	180 GPM

90 Day Establishment Period Irrigation Schedule (April, May, June)

	Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Hydro-Zone 1	Turf	15 min	15 min	15 min	15 min	15 min	15 min	15 min	30 psi
Hydro-Zone 2	Shrubs	25 min	0	25 min	0	25 min	0	25 min	40 psi

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Regular Irrigation Schedule (see Seasonal Differential Chart)

	Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Hydro-Zone 1	Turf	15 min	15 min		15 min		15 min		30 psi
Hydro-Zone 2	Shrubs	45 min		45 min		45 min		45 min	40 psi

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Seasonal Differential

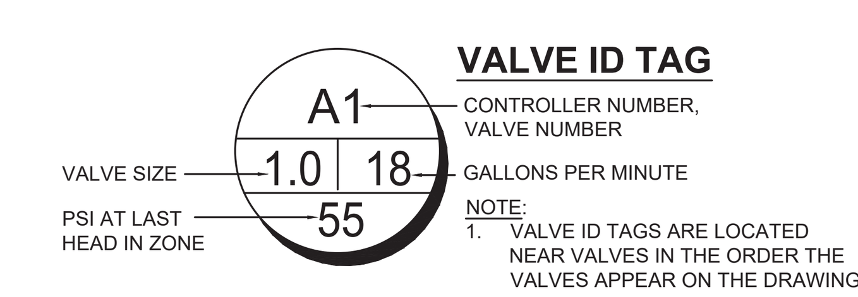
	April	May	June	July	August	Sept.	October
Hyrdo-Zone 1 (Turf)	10 min	10 min	15 min	15 min	15 min	10 min	10 min
Hyrdo-Zone 2 (Shrubs)	30 min	30 min	45 min	45 min	45 min	30 min	30 min

Monthly Landscape Water Allowance

	April	May	June	July	August	Sept.	October	Total Annual Water Allowance (gallons)	Total (SQ.FT.)	Gallons/sq.ft./year
Hydro-Zone1 Totals	19,569.6	26,733.4	31,451.1	36,168.8	32,616.0	21,666.3	13,395.8	181,601.1	9,394.0	19.3316
Hydro-Zone2 Totals	7,373.5	10,072.7	11,850.2	13,627.8	12,289.1	8,163.5	5,047.3	68,424.2	7,079.0	9.6658
	ETO=3.36	ETO=4.59	ETO=5.4	ETO=6.21	ETO=5.6	ETO=3.72	ETO=2.3	250,025.2	16,473.0	15.1778819

Zone 1 (Turf) ETO*1*0.62*Irrigated landscape area
Zone 2 (Shrub) ETO*.5*0.62*Irrigated landscape area
***calculations based on the highest water use plant which is the Japanese Barberry (We used a .5 number based on this information)**

VALVE ID TAG



NOTE:
1. VALVE ID TAGS ARE LOCATED NEAR VALVES IN THE ORDER THE VALVES APPEAR ON THE DRAWING

0' 10' 20' 40' 80'
GRAPHIC SCALE: 1" = 20'

ARCHITECT'S INFORMATION:

RUSSELL PLATT ARCHITECTURE
Russell Platt Architecture
4301 West 4570 South
West Valley City, Utah 84120
801-580-0108

RUSSELL PLATT
RUSSELLPLATT@GMAIL.COM

PROFESSIONAL STAMP:

LICENSED LANDSCAPE ARCHITECT JEREMY AINSWORTH 8128121-5301 5/5/2019 STATE OF UTAH

CODE OFFICIAL STAMP:

PROJECT NAME:

CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

ISSUED:

NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

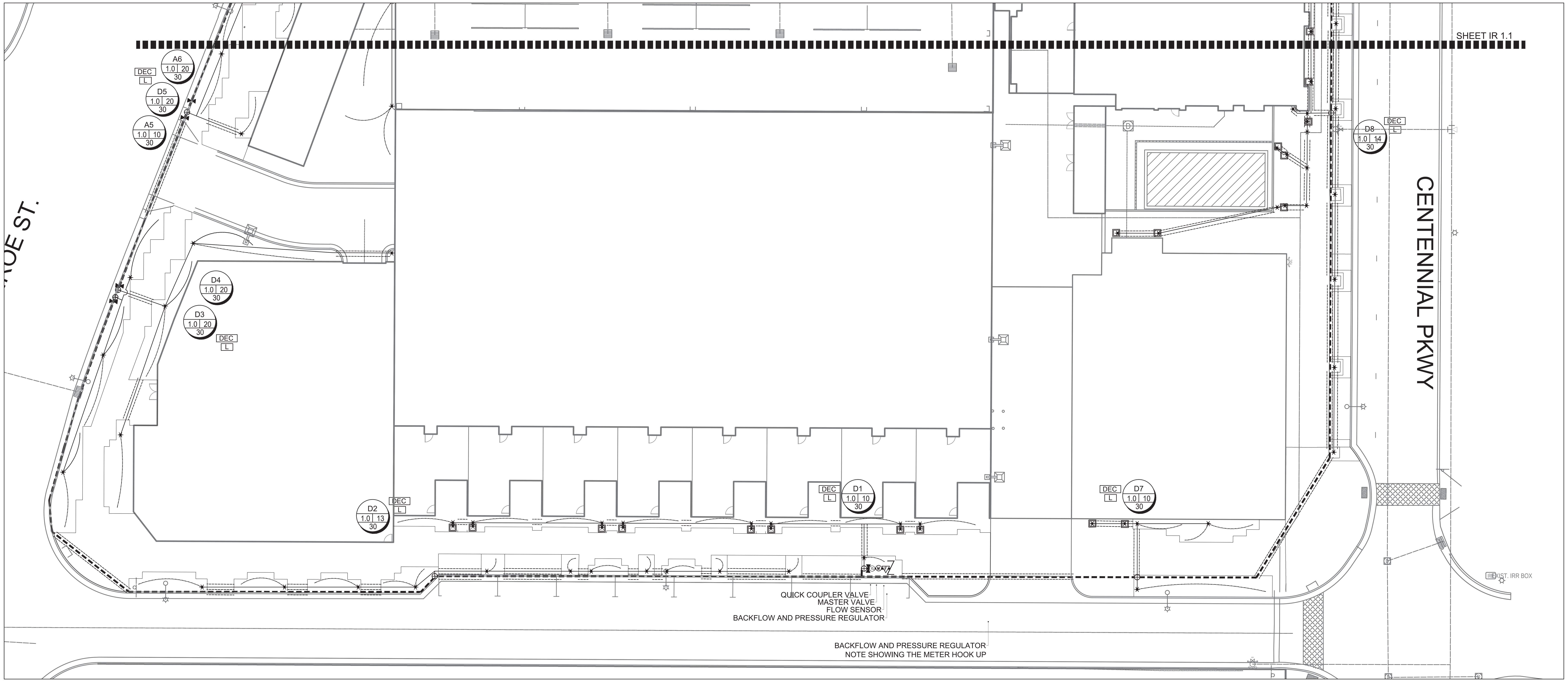
SHEET TITLE:

IRRIGATION PLAN

SHEET NUMBER:

IR-1.1

Last Plotted:



IRRIGATION LEGEND

SYMBOL	MANUFACTURER–MODEL NUMBER	PAT.	RD.	PSI	GPM Q	GPM T	GPM H	GPM TT	GPM TQ	GPM F	QTY	REMARKS
	RAINBIRD RD04-S-PRS POP UP SPRAY 5 SERIES	Q,T,H,F	5'	30	.10	.15	.20	na	na	.40	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 8 U-SERIES	Q,T,H,F	8'	30	.26	.35	.52	na	na	1.05	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 10 U-SERIES	Q,T,H,F	10'	30	.39	.53	.79	na	na	1.58	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 12 U-SERIES	Q,T,H,TT,TQ,F	12'	30	.65	.87	1.30	1.74	1.95	2.60	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 15 U-SERIES	Q,T,H,TT	15'	30	.92	1.23	1.85	2.48	2.78	3.70	--	USE HE-VAN NOZZLES AS NECESSARY
	RAINBIRD RD04-S-PRS POP UP SPRAY 15 SST	SST	15'	30	1.21						--	
	RAINBIRD RD04-S-PRS POP UP SPRAY 15 EST	EST	15'	30	.61							
	USE HE-VAN NOZZLES										--	
'C'	CONTROLLER: RAINBIRD ESP-LXD CONTROLLER WITH LIMR REMOTE KIT, PLACE IN LXMM PEDISTAL, CONTRACTOR TO ADJUST LOCATION WITH OWNER PRIOR TO CONSTRUCTION.										--	COORDINATE WITH OWNER FOR EXACT LOCATION
DEC	VALVE DECODER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.										--	SEE DETAIL
L	LIGHTNING ARRESTER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.										--	SEE DETAIL
M	MASTER VALVE											SEE DETAIL
F	FLOW SENSOR											SEE DETAIL
R	RAINBIRD WR2-RC WIRELESS RAIN SHUT OFF DEVICE										--	SEE DETAIL
	IRRIGATION POINT OF CONNECTION AND RPZ BACKFLOW PREVENTION - CONNECT TO WATER SERVICE LINE AND METER. (SEE CIVIL PLANS) CONTRACTOR LOCATE AND VERIFY EXACT LOCATION ON SITE.										--	SEE DETAIL
Q	QUICK COUPLER: RAINBIRD 44LRC INSTALL PER MANUFACTURER'S SPEC.										--	10" RND. VALVE BOX. SEE DETAIL
	ISOLATION BALL VALVE - LINE SIZED INSTALL PER MANUFACTURER'S SPEC.										--	SEE DETAIL
	REMOTE CONTROL VALVE: RAINBIRD PESB-NP-PRS-D AUTOMATIC CONTROL VALVE (SIZE AS NOTED ON PLAN)										--	SEE DETAIL JUMBO BOX-PURPLE LID
	DRIP CONTROL ZONE KIT: RAINBIRD XCZ-(PER PLAN)-PRBR-COM MED FLOW (SIZE AS NOTED ON PLAN)										--	SEE DETAIL
	DRIP CONNECTION. PROVIDE DRIP IRRIGATION TO ALL TREES, SHRUBS,AND PERENNIALS IN PLANTER AREAS										--	INSTALL FLUSH CAP. SEE DETAIL
	DRIP RWS-S-B-1401 (ROOT WATERING SYSTEM) PROVIDE 2 TO EACH TREE LOCATED IN THE LAWN AREAS.											SEE DETAIL
	LOOP MAINLINE: SCHEDULE 40 PVC WITH SCHEDULE 80 FITTINGS, 2" DIAMETER 24" MIN. COVER										--	SEE PIPE SIZING CHART
	LATERAL LINE: SCHEDULE 40 PVC WITH SCH. 40 FITTINGS. SEE PIPE SIZING CHART										--	SEE DETAIL
	DRIP LINE: RAINBIRD XFSP-09-18-100 OR EQUIVALENT										--	SEE DETAIL
	CLASS 200 SLEEVE PER PLAN										--	SEE DETAIL
NOT SHOWN	WIRE CHASE, SIZE TO BE TWICE THE DIAMETER OF THE WIRE BUNDLE WITHIN. 1.1/4" DIAMETER MINIMUM										--	SEE DETAIL
NOT SHOWN	14 GAUGE SOLID COPPER SINGLE STRAND CONTROL WIRE. INSTALL PER MANUFACTURER'S SPEC. PROVIDE 2 WIRE LOOP SYSTEM.										--	SEE DETAIL

DRIP ZONE

	TYPE	PART NUMBER	EMITTER FLOW	EMITTER SPACING	ROW SPACING	RECOMMENDED ROW SPACING
	XFS DRIPLINE	XFSP-09-18	.9 GPH	18"	18"	18-21 IN.
	TOTAL DRIP ZONE FLOW		20 GPM	TIME TO APPLY 1/4" OF WATER		23
	MAXIMUM LATERAL LENGTH OF TUBING		350 FT	REQUIRED NUMBER OF STAKES		500
	TOTAL LENGTH OF ZONE DRIPLINE		2,000 FT (varies per plan)	NUMBER OF FLUSH POINTS		2
	APPLICATION RATE		.64 INCH PER HOUR	SUGGESTED HEADER AND FOOTER PIPE SIZE		CLASS 200 1 1/4"

*NUMBERS MAY CHANGE DUE TO SIZE OF DRIP ZONE PER PLAN

IRRIGATION NOTES

1. ALL PIPE TO BE SCHEDULE 40 PVC PIPE OR BETTER. NO POLY PIPE SHALL BE INCLUDED. FITTINGS MUST BE SCHEDULE 40 OR BETTER ON LATERAL LINES AND SCHEDULE 80 OR BETTER ON MAIN LINE. SIZE PER PLAN.
2. MAIN LINES SHALL BE 24" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
3. CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. PLACE ALL IRRIGATION IN LANDSCAPE AREAS AND ON THE PROPERTY OF THE OWNER.
5. MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE, PER PLANS. DO NOT LOCATE VALVE BOXES IN LAWN AREAS UNLESS DIRECTED TO BY LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL INSTALL A QUICK COUPLER AT POINT OF CONNECTION IN ORDER TO BLOW OUT THE SYSTEM WITH AN AIR COMPRESSOR EACH FALL.
7. CONTRACTOR SHALL USE ONLY COMMERCIAL GRADE IRRIGATION PRODUCTS AND IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS AND QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION PURPOSES.
8. INSTALL DRIP IRRIGATION PER DETAILS. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY.
9. CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN CLASS 200 PIPE. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES. COORDINATE WITH ALL TRADES.
10. WATER LINES AND ELECTRICAL LINES MUST NOT SHARE CONDUITS. ALL WIRE CONNECTIONS MUST BE CONTAINED IN VALVE BOX WITH 3' OF EXTRA WIRE. WIRE TO BE CONNECTED TO MAIN LINE PIPE WHERE POSSIBLE WITH TAPE AT 25' INTERVALS. SLACK IN CONTROL WIRES REQUIRED AT EVERY CHANGE OF DIRECTION. WIRES MUST HAVE SEPARATE COLORS FOR COMMON, CONTROL AND SPARE. MINIMUM 1 SPARE WIRE FOR EVERY 5 VALVES. ALL CONTROL WIRES TO BE INSULATED 14 GAUGE COPPER. ALL SPARE WIRES MUST "HOME RUN" TO CONTROLLER AND SPARE WIRES AVAILABLE AT ALL VALVE MANIFOLDS AND CLUSTERS.
11. ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
12. IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
13. SPACE ALL SPRAY HEADS 2" AWAY FROM ANY HARDSCAPE.
14. CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
15. IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
16. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
17. IRRIGATION INSTALLATION TO COMPLY WITH APPLICABLE CITY SPECIFICATIONS AND DRAWINGS.
18. ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. THE CONTRACTOR IS RESPONSIBLE TO MAKE ADJUSTMENTS AS NEEDED TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS.
19. CONTRACTOR SHALL INSTALL IRRIGATION SYSTEM WITH HEAD TO HEAD COVERAGE IN ALL TURF AREAS. USE HE-VAN NOZZLES AS NECESSARY TO PROVIDE PROPER COVERAGE AND TO KEEP WATER OFF OF BUILDINGS AND HARDSCAPES.
20. POWER TO CONTROLLER TO BE PROVIDED BY OWNER. OWNER TO SPECIFY EXACT LOCATION OF CONTROLLER. INSTALL PER MANUFACTURERS INSTRUCTIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR LANDSCAPE ARCHITECT.
21. DESIGN AND INSTALL THE BACKFLOW PREVENTOR IN THE PROPER PLACE TO ENSURE THAT NO WATER IS CONTAMINATING THE SYSTEM.
22. LATERAL LINES SHALL BE NO SMALLER THAN 3/4". LANDSCAPE CONTRACTOR TO ENSURE THE FOLLOWING PIPE SIZES DO NOT EXCEED THE SUGGESTED GPM LISTED BELOW:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM
4"	180 GPM

90 Day Establishment Period Irrigation Schedule (April, May, June)

	Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Hydro-Zone 1	Turf	15 min	15 min	15 min	15 min	15 min	15 min	15 min	30 psi
Hydro-Zone 2	Shrubs	25 min	0	25 min	0	25 min	0	25 min	40 psi

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Regular Irrigation Schedule (see Seasonal Differential Chart)

	Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Hydro-Zone 1	Turf	15 min	15 min		15 min		15 min		30 psi
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Note: Begin irrigation 4:00 am, only 1 cycle per day.

Seasonal Differential

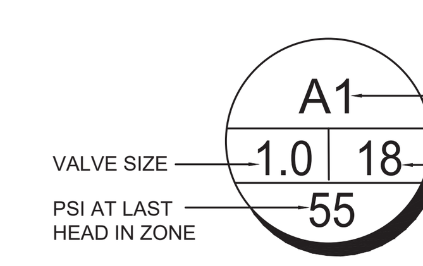
	April	May	June	July	August	Sept.	October
Hyrdo-Zone 1 (Turf)	10 min	10 min	15 min	15 min	15 min	10 min	10 min
Hyrdo-Zone 2 (Shrubs)	30 min	30 min	45 min	45 min	45 min	30 min	30 min

Monthly Landscape Water Allowance

	April	May	June	July	August	Sept.	October	Total Annual Water Allowance (gallons)	Total (SQ.FT.)	Gallons/sq.ft./year
Hydro-Zone1 Totals	**19,569.6**	**26,733.4**	**31,451.1**	**36,168.8**	**32,616.0**	**21,666.3**	**13,395.8**	**181,601.1**	**9,394.0**	19.3316
Hydro-Zone2 Totals	**7,373.5**	**10,072.7**	**11,850.2**	**13,627.8**	**12,289.1**	**8,163.5**	**5,047.3**	**68,424.2**	**7,079.0**	9.6658
	ETO=3.36	**ETO=4.59**	**ETO=5.4**	**ETO=6.21**	**ETO=5.6**	**ETO=3.72**	**ETO=2.3**	**250,025.2**	**16,473.0**	15.1778819

Zone 1 (Turf) ETO*1*0.62*Irrigated landscape area
Zone 2 (Shrub) ETO*.5*0.62*Irrigated landscape area
***calculations based on the highest water use plant which is the Japanese Barberry (We used a .5 number based on this information)**

VALVE ID TAG



NOTE:
1. VALVE ID TAGS ARE LOCATED NEAR VALVES IN THE ORDER THE VALVES APPEAR ON THE DRAWING

0' 10' 20' 40' 80'
GRAPHIC SCALE: 1" = 20'

ARCHITECT'S INFORMATION:

Russell Platt Architecture
4301 West 4570 South
West Valley City, Utah 84120
801-580-0108

RUSSELL PLATT
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PROFESSIONAL STAMP:

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8128121-5301
5/5/2019
ELECTRONIC
STATE OF UTAH

CODE OFFICIAL STAMP:

PROJECT NAME:

CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

ISSUED:

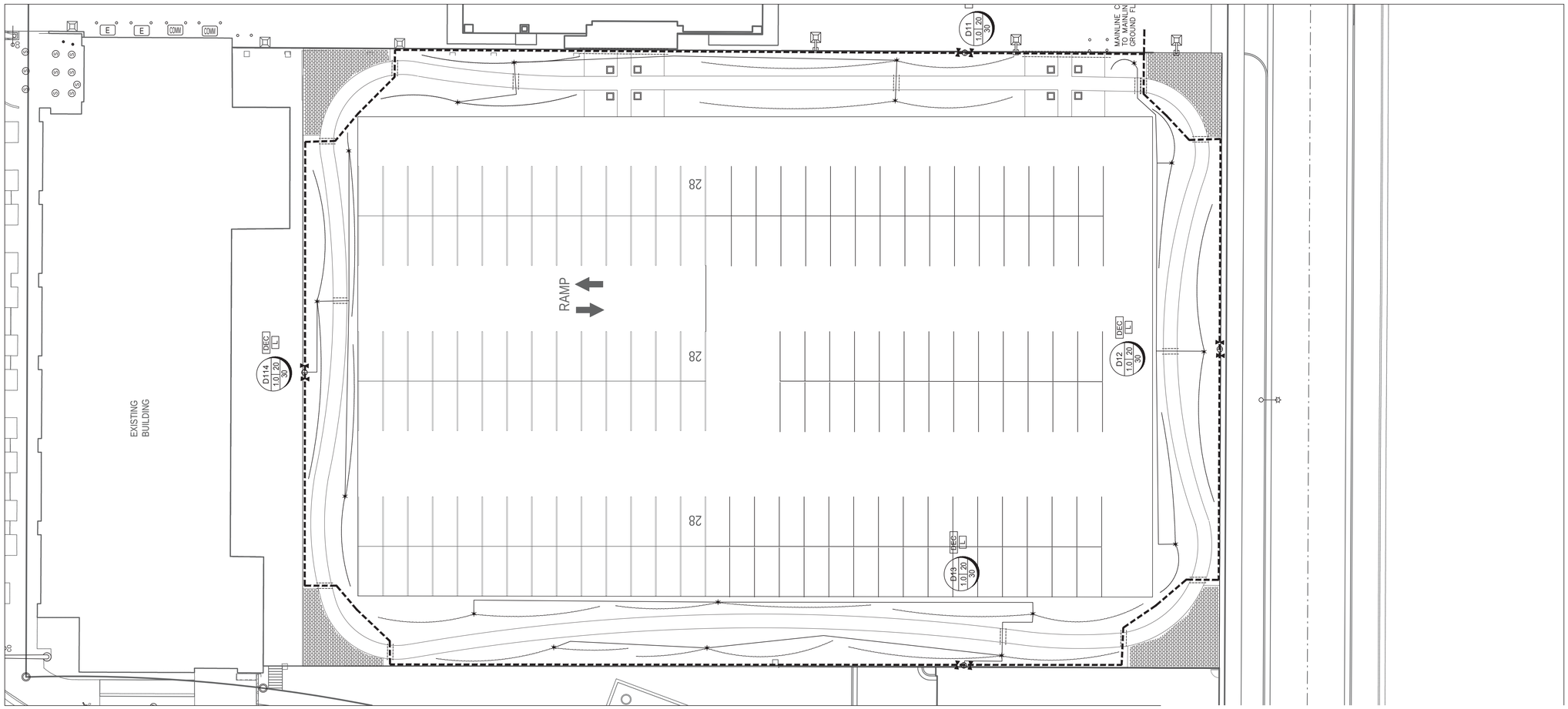
NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

SHEET TITLE:
IRRIGATION PLAN

SHEET NUMBER:
IR-1.2

Last Plotted:



IRRIGATION LEGEND

SYMBOL	MANUFACTURER—MODEL NUMBER	PAT.	RD.	PSI	GPM Q	T	H	TT	TQ	F	QTY	REMARKS
◔ ◓ ◆	RAINBIRD RD04-S-PRS POP UP SPRAY 5 SERIES	Q,T,H,F	5'	30	.10	.15	.20	na	na	.40	--	USE HE-VAN NOZZLES AS NECESSARY
◔ ◓ ●	RAINBIRD RD04-S-PRS POP UP SPRAY 8 U-SERIES	Q,T,H,F	8'	30	.26	.35	.52	na	na	1.05	--	USE HE-VAN NOZZLES AS NECESSARY
◔ ◓ ●	RAINBIRD RD04-S-PRS POP UP SPRAY 10 U-SERIES	Q,T,H,F	10'	30	.39	.53	.79	na	na	1.58	--	USE HE-VAN NOZZLES AS NECESSARY
◔ ◓ ◆	RAINBIRD RD04-S-PRS POP UP SPRAY 12 U-SERIES	Q,T,H,TT,TQ,F	12'	30	.65	.87	1.30	1.74	1.95	2.60	--	USE HE-VAN NOZZLES AS NECESSARY
▽ ▼ ▼	RAINBIRD RD04-S-PRS POP UP SPRAY 15 U-SERIES	Q,T,H,TT	15'	30	.92	1.23	1.85	2.48	2.78	3.70	--	USE HE-VAN NOZZLES AS NECESSARY
◓	RAINBIRD RD04-S-PRS POP UP SPRAY 15 SST	SST	15'	30	1.21						--	
◓	RAINBIRD RD04-S-PRS POP UP SPRAY 15 EST	EST	15'	30	.61							
○	USE HE-VAN NOZZLES										--	
C	CONTROLLER: RAINBIRD ESP-LXD CONTROLLER WITH LIMR REMOTE KIT, PLACE IN LXMM PEDISTAL, CONTRACTOR TO ADJUST LOCATION WITH OWNER PRIOR TO CONSTRUCTION.										--	COORDINATE WITH OWNER FOR EXACT LOCATION
DEC	VALVE DECODER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.										--	SEE DETAIL
L	LIGHTNING ARRESTER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.										--	SEE DETAIL
M	MASTER VALVE											SEE DETAIL
F	FLOW SENSOR											SEE DETAIL
RS	RAINBIRD WR2-RC WIRELESS RAIN SHUT OFF DEVICE										--	SEE DETAIL
	IRRIGATION POINT OF CONNECTION AND RPZ BACKFLOW PREVENTION - CONNECT TO WATER SERVICE LINE AND METER. (SEE CIVIL PLANS) CONTRACTOR LOCATE AND VERIFY EXACT LOCATION ON SITE.										--	SEE DETAIL
Q	QUICK COUPLER: RAINBIRD 44LRC INSTALL PER MANUFACTURER'S SPEC.										--	10" RND. VALVE BOX. SEE DETAIL
	ISOLATION BALL VALVE - LINE SIZED INSTALL PER MANUFACTURER'S SPEC.										--	SEE DETAIL
	REMOTE CONTROL VALVE: RAINBIRD PESB-NP-PRS-D AUTOMATIC CONTROL VALVE (SIZE AS NOTED ON PLAN)										--	SEE DETAIL JUMBO BOX-PURPLE LID
	DRIP CONTROL ZONE KIT: RAINBIRD XCZ-(PER PLAN)-PRBR-COM MED FLOW (SIZE AS NOTED ON PLAN)										--	SEE DETAIL
	DRIP CONNECTION. PROVIDE DRIP IRRIGATION TO ALL TREES, SHRUBS AND PERENNIALS IN PLANTER AREAS										--	INSTALL FLUSH CAP. SEE DETAIL
	DRIP RWS-S-B-1401 (ROOT WATERING SYSTEM) PROVIDE 2 TO EACH TREE LOCATED IN THE LAWN AREAS.											SEE DETAIL
	LOOP MAINLINE: SCHEDULE 40 PVC WITH SCHEDULE 80 FITTINGS, 2" DIAMETER 24" MIN. COVER										--	SEE PIPE SIZING CHART
	LATERAL LINE: SCHEDULE 40 PVC WITH SCH. 40 FITTINGS. SEE PIPE SIZING CHART										--	SEE DETAIL
	DRIP LINE: RAINBIRD XFSP-09-18-100 OR EQUIVALENT										--	SEE DETAIL
	CLASS 200 SLEEVE PER PLAN										--	SEE DETAIL
NOT SHOWN	WIRE CHASE. SIZE TO BE TWICE THE DIAMETER OF THE WIRE BUNDLE WITHIN. 1.1/4" DIAMETER MINIMUM										--	SEE DETAIL
NOT SHOWN	14 GAUGE SOLID COPPER SINGLE STRAND CONTROL WIRE. INSTALL PER MANUFACTURER'S SPEC. PROVIDE 2 WIRE LOOP SYSTEM.										--	SEE DETAIL

DRIP ZONE

TYPE	PART NUMBER	EMITTER FLOW	EMITTER SPACING	ROW SPACING	RECOMMENDED ROW SPACING
XFS DRIPLINE	XFSP-09-18	.9 GPH	18"	18"	18-21 IN.

TOTAL DRIP ZONE FLOW	.20 GPM	TIME TO APPLY 1/4" OF WATER	23
MAXIMUM LATERAL LENGTH OF TUBING	350 FT	REQUIRED NUMBER OF STAKES	500
TOTAL LENGTH OF ZONE DRIPLINE	2,000 FT (varies per plan)	NUMBER OF FLUSH POINTS	2
APPLICATION RATE	.64 INCH PER HOUR	SUGGESTED HEADER AND FOOTER PIPE SIZE	CLASS 200 1 1/4"

*NUMBERS MAY CHANGE DUE TO SIZE OF DRIP ZONE PER PLAN

IRRIGATION NOTES

1. ALL PIPE TO BE SCHEDULE 40 PVC PIPE OR BETTER. NO POLY PIPE SHALL BE INCLUDED. FITTINGS MUST BE SCHEDULE 40 OR BETTER ON LATERAL LINES AND SCHEDULE 80 OR BETTER ON MAIN LINE. SIZE PER PLAN.
2. MAIN LINES SHALL BE 24" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
3. CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. PLACE ALL IRRIGATION IN LANDSCAPE AREAS AND ON THE PROPERTY OF THE OWNER.
5. MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE, PER PLANS. DO NOT LOCATE VALVE BOXES IN LAWN AREAS UNLESS DIRECTED TO BY LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL INSTALL A QUICK COUPLER AT POINT OF CONNECTION IN ORDER TO BLOW OUT THE SYSTEM WITH AN AIR COMPRESSOR EACH FALL.
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8. INSTALL DRIP IRRIGATION PER DETAILS. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY.
9. CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN CLASS 200 PIPE. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES. COORDINATE WITH ALL TRADES.
10. WATER LINES AND ELECTRICAL LINES MUST NOT SHARE CONDUITS. ALL WIRE CONNECTIONS MUST BE CONTAINED IN VALVE BOX WITH 3" OF EXTRA WIRE. WIRE TO BE CONNECTED TO MAI LINE PIPE WHERE POSSIBLE WITH TAPE AT 25' INTERVALS. SLACK IN CONTROL WIRES REQUIRED AT EVERY CHANGE OF DIRECTION. WIRES MUST HAVE SEPARATE COLORS FOR COMMON, CONTROL AND SPARE. MINIMUM 1 SPARE WIRE FOR EVERY 5 VALVES. ALL CONTROL WIRES TO BE INSULATED 14 GAUGE COPPER. ALL SPARE WIRES MUST "HOME RUN" TO CONTROLLER AND SPARE WIRES AVAILABLE AT ALL VALVE MANIFOLDS AND CLUSTERS.
11. ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
12. IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
13. SPACE ALL SPRAY HEADS 2" AWAY FROM ANY HARDSCAPE.
14. CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
15. IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
16. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
17. IRRIGATION INSTALLATION TO COMPLY WITH APPLICABLE CITY SPECIFICATIONS AND DRAWINGS.
18. ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. THE CONTRACTOR IS RESPONSIBLE TO MAKE ADJUSTMENTS AS NEEDED TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS.
19. CONTRACTOR SHALL INSTALL IRRIGATION SYSTEM WITH HEAD TO HEAD COVERAGE IN ALL TURF AREAS. USE HE-VAN NOZZLES AS NECESSARY TO PROVIDE PROPER COVERAGE AND TO KEEP WATER OFF OF BUILDINGS AND HARDSCAPES.
20. POWER TO CONTROLLER TO BE PROVIDED BY OWNER. OWNER TO SPECIFY EXACT LOCATION OF CONTROLLER. INSTALL PER MANUFACTURERS INSTRUCTIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR LANDSCAPE ARCHITECT.
21. DESIGN AND INSTALL THE BACKFLOW PREVENTOR IN THE PROPER PLACE TO ENSURE THAT NO WATER IS CONTAMINATING THE SYSTEM.
22. LATERAL LINES SHALL BE NO SMALLER THAN 3/4". LANDSCAPE CONTRACTOR TO ENSURE THE FOLLOWING PIPE SIZES DO NOT EXCEED THE SUGGESTED GPM LISTED BELOW:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM
4"	180 GPM

90 Day Establishment Period Irrigation Schedule (April, May, June)

	Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Hydro-Zone 1	Turf	15 min	15 min	15 min	15 min	15 min	15 min	15 min	30 psi
Hydro-Zone 2	Shrubs	25 min	0	25 min	0	25 min	0	25 min	40 psi

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Regular Irrigation Schedule (see Seasonal Differential Chart)

	Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Hydro-Zone 1	Turf	15 min	15 min		15 min		15 min		30 psi
Hydro-Zone 2	Shrubs	45 min		45 min		45 min		45 min	40 psi

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Seasonal Differential

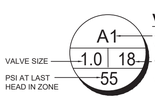
	April	May	June	July	August	Sept.	October
Hydro-Zone 1 (Turf)	10 min	10 min	15 min	15 min	15 min	10 min	10 min
Hydro-Zone 2 (Shrubs)	30 min	30 min	45 min	45 min	45 min	30 min	30 min

Monthly Landscape Water Allowance

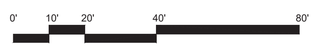
	April	May	June	July	August	Sept.	October	Total Annual Water Allowance (gallons)	Total (SQ.FT.)	Gallons/sq ft./year
Hydro-Zone1 Totals	**19,569.6**	**26,733.4**	**31,451.1**	**36,168.8**	**32,616.0**	**21,666.3**	**13,395.5**	**181,601.1**	**9,384.0**	19.3316
Hydro-Zone2 Totals	**7,373.5**	**10,072.7**	**11,850.2**	**13,627.8**	**12,289.1**	**8,163.5**	**5,047.3**	**68,424.2**	**7,079.0**	9.6658
	ETO=3.36	**ETO=4.59**	**ETO=5.4**	**ETO=6.21**	**ETO=5.6**	**ETO=3.72**	**ETO=2.3**	**250,025.2**	**16,473.0**	15.1778815

Zone 1 (Turf) ETO*(1).62*irrigated landscape area
Zone 2 (Shrub) ETO*.5*(.62*irrigated landscape area
***calculations based on the highest water use plant which is the Japanese Barberry (We used a .5 number based on this information)**

VALVE ID TAG



NOTE:
1. VALVE ID TAGS ARE LOCATED NEAR VALVES IN THE ORDER THE VALVES APPEAR ON THE DRAWING



GRAPHIC SCALE: 1" = 20'

ARCHITECT'S INFORMATION:

RUSSELLPLATT ARCHITECTURE

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801-580-0108

RUSSELL PLATT
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CODE OFFICIAL STAMP:

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SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
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ISSUED:

NO.	DATE	DESCRIPTION

OWNER PROJECT #:
RPA PROJECT #: UT18039
DRAWN BY: KBA
CHECKED BY: JTA
DESIGNED BY: JTA

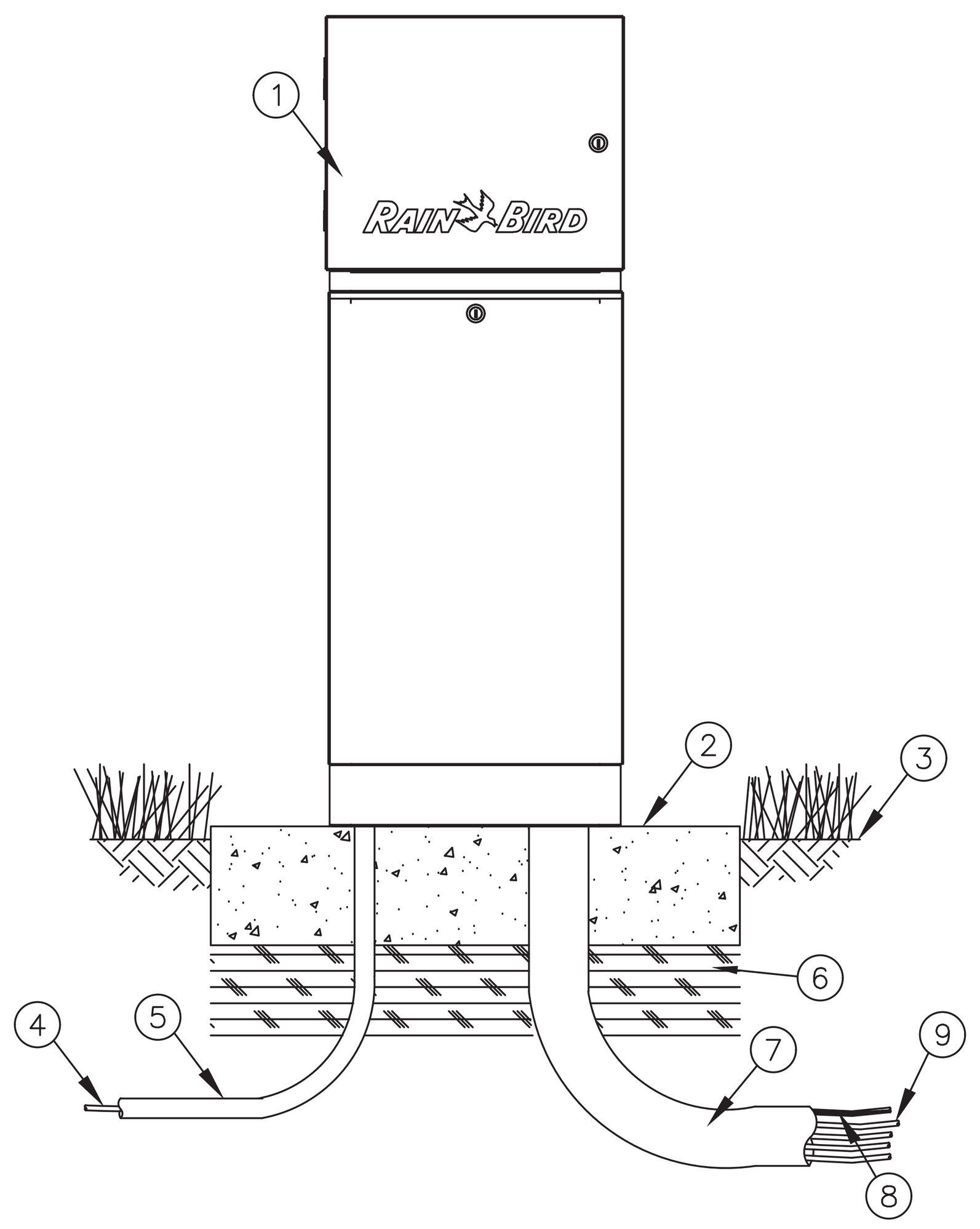
SHEET TITLE:

IRRIGATION PLAN

SHEET NUMBER:

IR-1.3

Last Plotted:

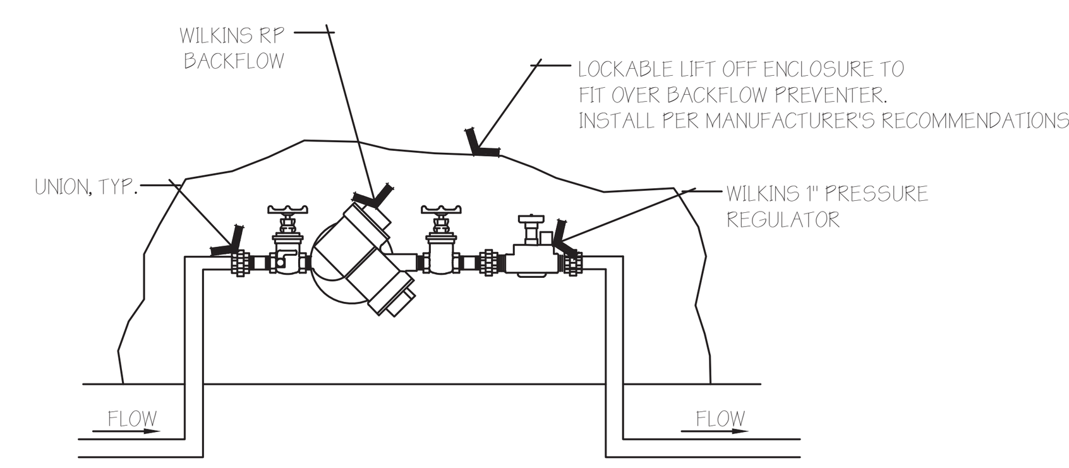


1. IRRIGATION CONTROLLER: RAIN BIRD ESP-LXMEF CONTROLLER WITH FLOW SMART MODULE IN LXMM METAL CABINET AND LXMMPED METAL PEDESTAL. INSTALL CONTROLLER, CABINET AND PEDESTAL PER MANUFACTURER'S RECOMMENDATIONS.
2. CONCRETE PAD: 6-INCH MINIMUM THICKNESS
3. FINISH GRADE
4. POWER SUPPLY WIRE
5. 1-INCH SCH 40 PVC CONDUIT, FITTINGS AND SWEEP ELL FOR POWER SUPPLY
6. COMPACTED SUBGRADE
7. 3-INCH SCH 40 PVC CONDUIT, FITTINGS AND SWEEP ELL FOR STATION WIRES
8. FLOW SENSOR WIRE (PE 39, 89 OR 54) TO FLOW SENSOR
9. MASTER VALVE AND REMOTE CONTROL VALVE WIRES

NOTES:
1. ESP-LXMEF CONTROLLER IS AVAILABLE IN 8- OR 12-STATION BASE MODELS. ADDITIONAL MODULES IN 4-, 8- AND 12-STATION VERSIONS MAY BE ADDED TO BRING THE CONTROLLER UP TO 48 STATIONS MAXIMUM.
2. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.

A ESP-LXME CONTROLLER IN METAL PEDISTAL
NOT TO SCALE

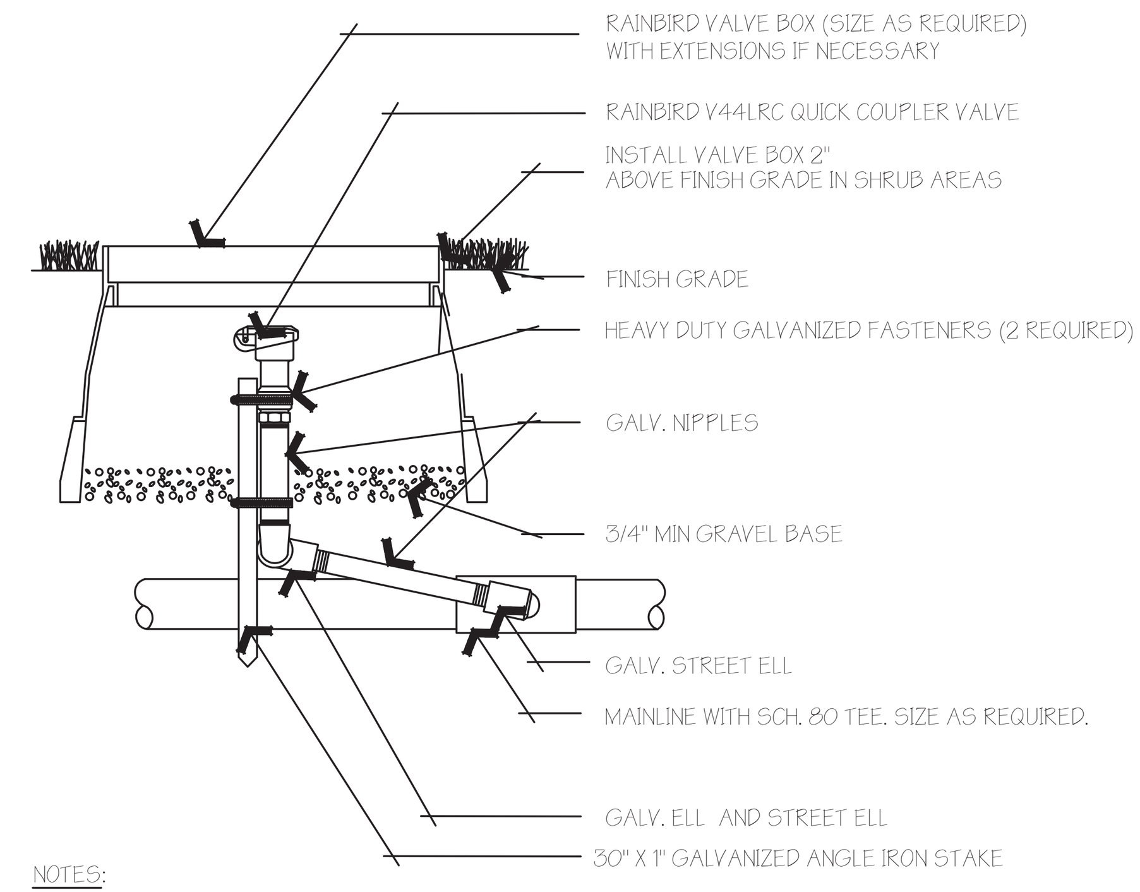
PKJ DESIGN GROUP



NOTES:
1. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
2. WHEREVER AN IRON BASED MATERIAL ADJOINS A BRASS BASED MATERIAL A DIELECTRIC UNION IS REQUIRED. SIZE AS NECESSARY.
3. WRAP ALL THREADS WITH TEFLON TAPE. 1 1/2 TO 2 WRAPS MAXIMUM.
4. MAIN LINE PIPE SIZE SHALL BE 1-1/2". DOWNSIZE TO 1" THRU BACKFLOW PREVENTER ASSEMBLY AND THEN UPSIZE TO 1-1/2" DIRECTLY DOWNSTREAM OF PRESSURE REGULATOR.

B BACKFLOW DETAIL
NOT TO SCALE

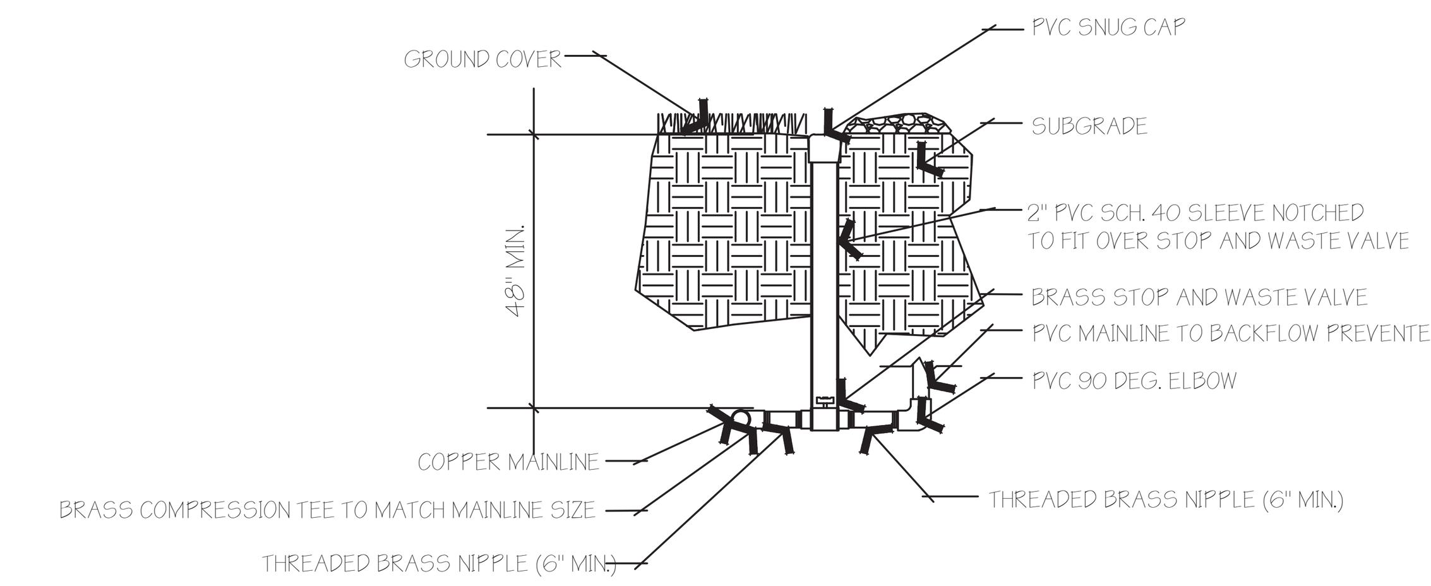
PKJ DESIGN GROUP



NOTES:
1. FLUSH ALL PIPING PRIOR TO INSTALLING VALVE.
2. WRAP ALL THREADS WITH TEFLON TAPE. 1 1/2 TO 2 WRAPS MAXIMUM.
3. COMPACT SOILS AROUND VALVE BOX TO 80% OF ORIGINAL DRY DENSITY.
4. INSTALL GEOFABRIC UNDER VALVE BOXES AND TAPE TO PIPE NIPPLES AND VALVE BOX.
5. BOX COLOR - GREEN IN TURF AND TAN IN PLANTER AREAS.
6. IRRIGATION SYSTEM TO BE BLOWN OUT WITH AIR COMPRESSOR THROUGH QUICK COUPLERS BEFORE FREEZING TEMPERATURES OCCUR, TYP.

C RAINBIRD QUICK COUPLER
NOT TO SCALE

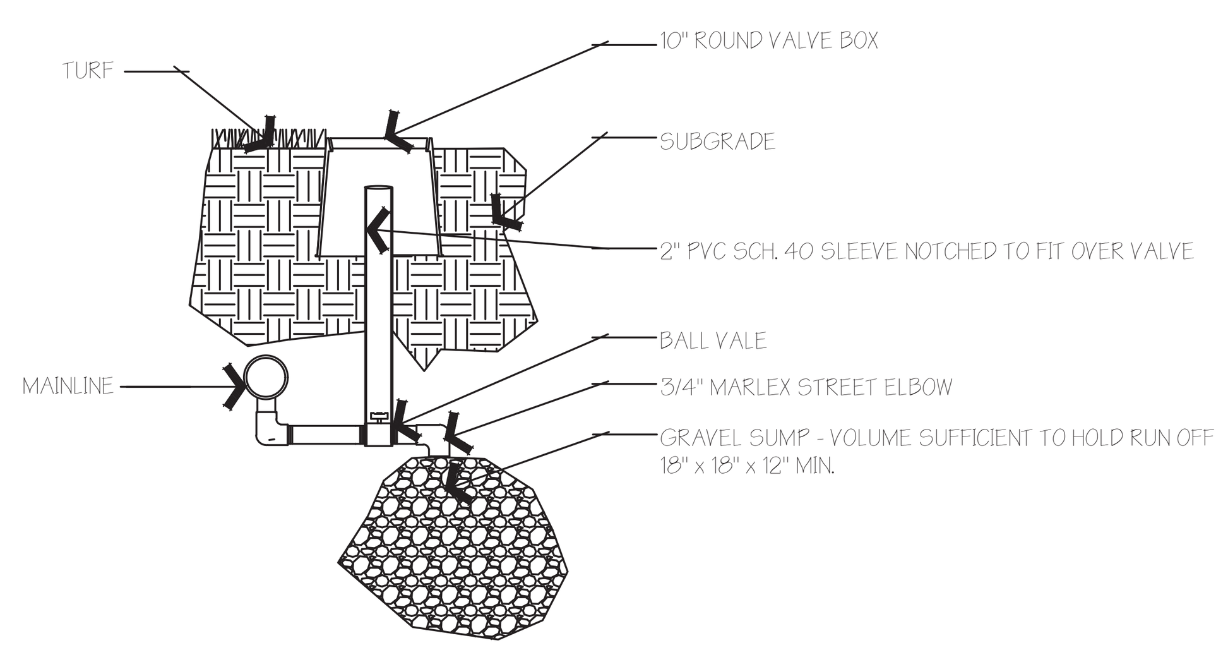
PKJ DESIGN GROUP



NOTES:
1. ALL PVC NIPPLES AND ELBOWS TO BE SCH. 40 UNLESS OTHERWISE NOTED.
2. PROVIDE VALVE KEY TO OWNER

D STOP AND WASTE VALVE ASSEMBLY
NOT TO SCALE

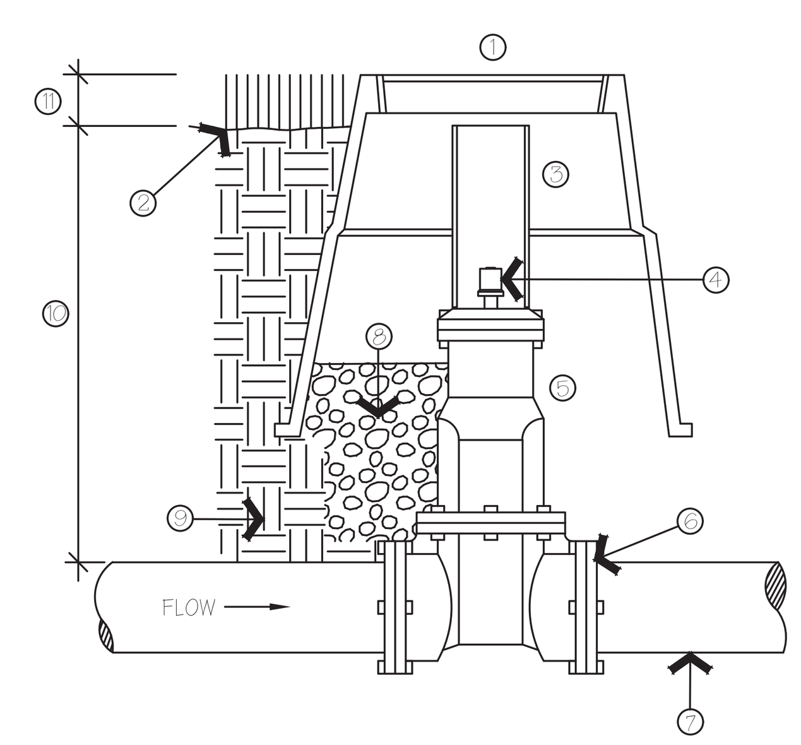
PKJ DESIGN GROUP



NOTES:
1. ALL PVC NIPPLES AND ELBOWS TO BE SCH. 80 UNLESS OTHERWISE NOTED.
2. PROVIDE VALVE KEY TO OWNER

E MANUAL DRAIN ASSEMBLY
NOT TO SCALE

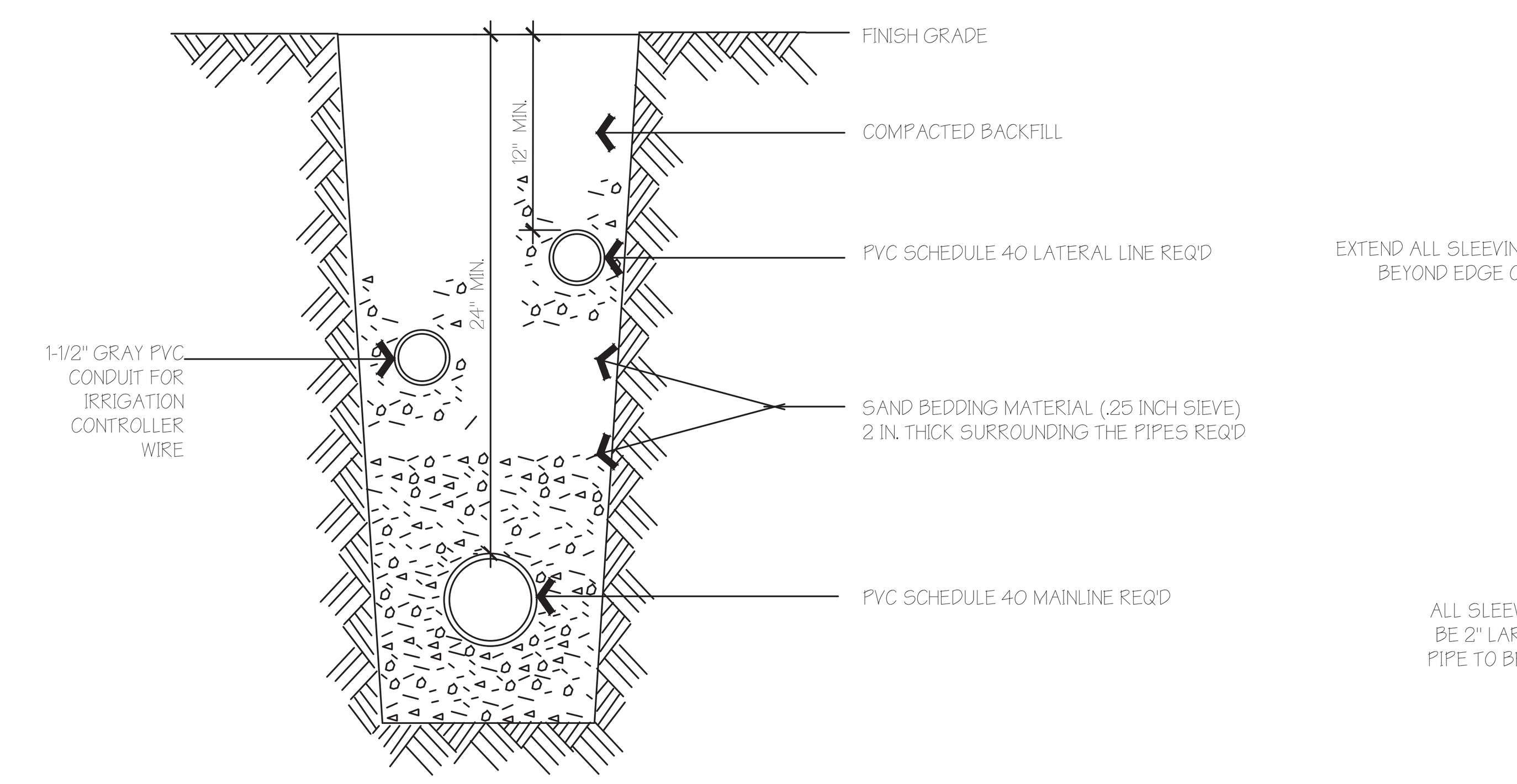
PKJ DESIGN GROUP



1. 10" ROUND GREEN PLASTIC VALVE BOX W/ BOLT LOCK, CARSON - BROOKS
2. FINISH GRADE
3. 6" PVC SCH. 40 PIPE SLEEVE, 4" - 6" BELOW GRADE
4. 2" SQUARE OPERATING NUT
5. FLANGE X FLANGE GATE VALVE SEE EQUIPMENT SCHEDULE
6. SCH. 80 FLANGE ADAPTER
7. MAIN WATER SUPPLY LINE
8. 6" MIN. GRAVEL
9. SUBGRADE COMPACTED TO 95%
10. DEPTH: 18" - 30"
11. SHRUBS - 2": SOD-½"; SEED 1"

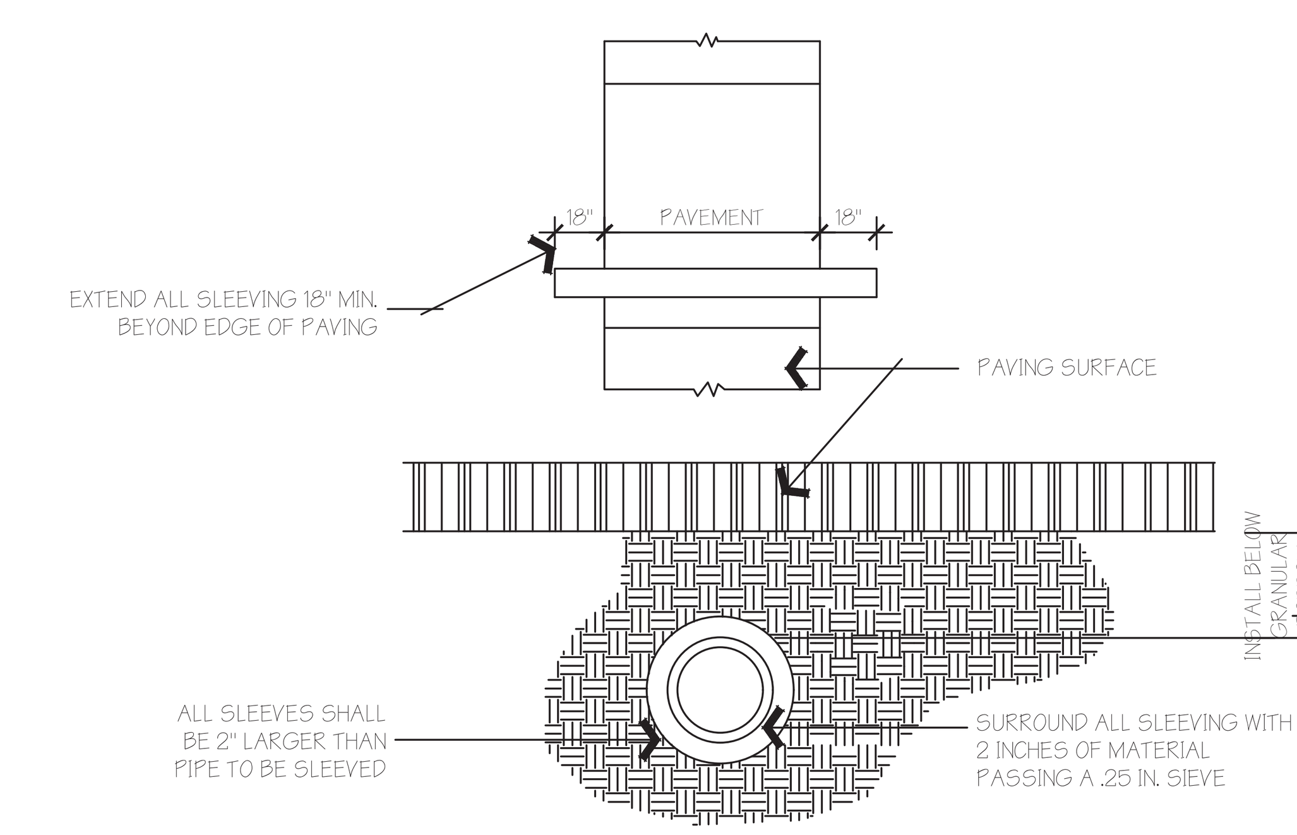
F GATE VALVE ASSEMBLY
NOT TO SCALE

PKJ DESIGN GROUP



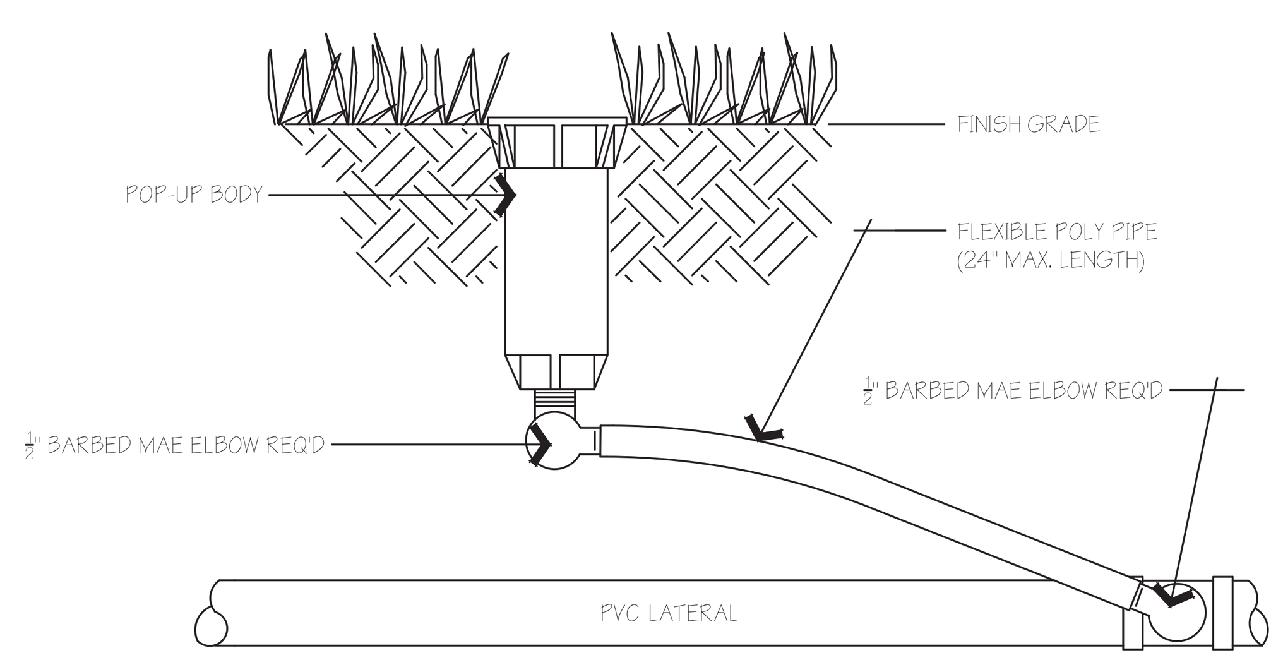
G TRENCHING DETAIL
NOT TO SCALE

PKJ DESIGN GROUP



H TYPICAL SLEEVING
NOT TO SCALE

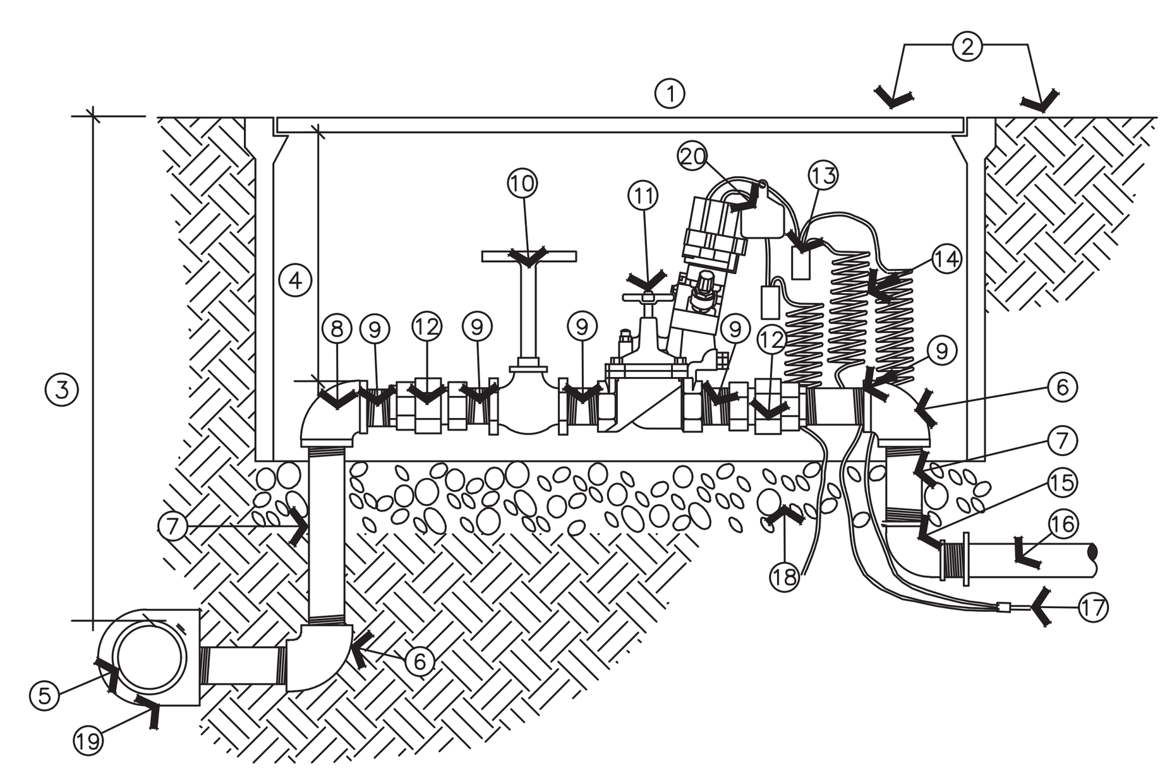
PKJ DESIGN GROUP



NOTES:
1. INSTALL SPRAY AND ROTARY HEADS PER THIS DETAIL.
2. INSTALL 2" AWAY FROM HARDSCAPES.

I SPRAY HEAD DETAIL
NOT TO SCALE

PKJ DESIGN GROUP

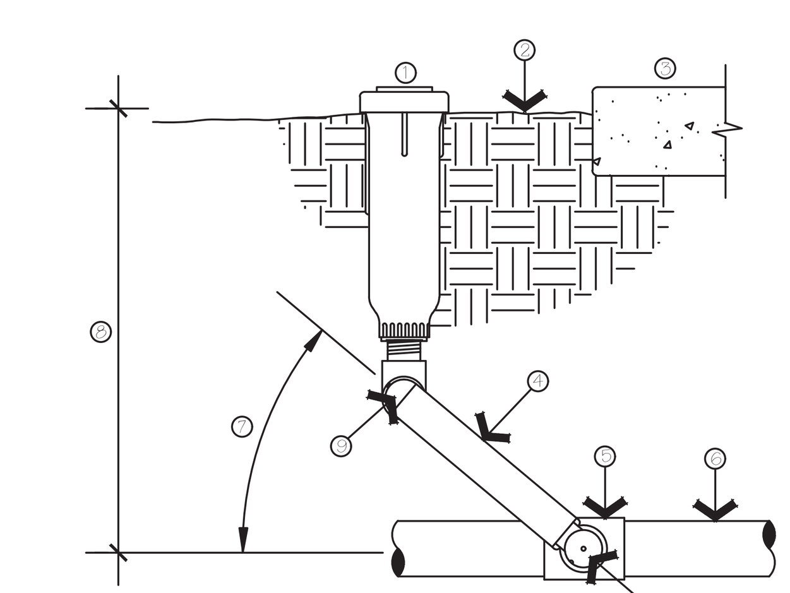


NOTES:
1. ONE REMOTE CONTROL VALVE PER BOX .
2. ALL FITTINGS AND PIPE IN MANIFOLD SHALL BE THREADED SCH. 80 PVC USING TEFLON TAPE AND #5 RECTOR SEAL.

1. CARSON-BROOKS 1419-12 STANDARD OR 1220-12 JUMBO VALVE BOX WITH STAINLESS STEEL BOLTS (BOLT DOWN LID).
2. INSTALL AT GRADE
3. 30" MAX. DEPTH
4. 10"-14"
5. MAIN WATER SUPPLY LINE
6. PVC SCH. 80 ELBOW
7. PVC SCH. 80 NIPPLE; LENGTH AS REQUIRED (TYP.)
8. PVC SCH. 80 ELL SAME SIZE AS VALVE
9. SCH. 80 NIPPLE. SIZE AS NECESSARY
10. MILWAUKEE BRAND OR APPROVED AMERICAN-MADE BRASS GATE VALVE W/ NON RISING STEM (LINE SIZE)
11. ELECTRIC CONTROL VALVE - SEE EQUIPMENT SCHEDULE
12. PVC SCH. 80 UNION
13. WATER TIGHT CONNECTORS (3M DBY ONLY)
14. PROVIDE 36" EXPANSION LOOP AT EACH WIRE CONNECTOR IN BOX
15. SCH. 80 ELBOW WITH SCH. 80 NIPPLE INTO SxT BUSHING TO LATERAL
16. LATERAL LINE
17. CONTROL WIRES
18. 6" MINIMUM DEPTH OF WASHED 3/4" GRAVEL
19. PVC SCH. 80 TEE SxSxS WITH SCH. 80 SxT BUSHING OR DOUBLE STRAP SADDLE.
20. ID TAG: RAINBIRD VID SERIES OR APPROVED EQUAL

J CONTROL VALVE ASSEMBLY
NOT TO SCALE

PKJ DESIGN GROUP



1. POP-UP ROTOR SPRINKLER - SEE LEGEND
2. FINISH GRADE
3. NOTE: ALL ROTOR HEADS TO BE PLACED 2" CLEAR OF ALL HARDSCAPE SURFACES
4. SCH. 80 THREADED NIPPLE
5. PVC SCH. 40 SxSxT TEE (OR ELL)
6. PVC LATERAL LINE, SIZE AS NOTED ON PLAN
7. SWING JOINT ARM INSTALLED AT ANGLE BETWEEN 30 AND 45 DRG. OF LATERAL PIPE. USE MALE THREAD MODEL
8. DEPTH - SEE NOTES & TRENCH DETAIL
9. MARLEX STREET ELL'S (3)

I POP UP ROTOR DETAIL
NOT TO SCALE

PKJ DESIGN GROUP

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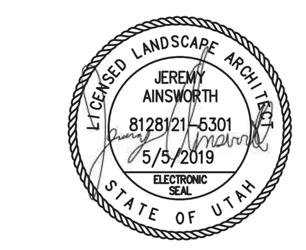


CODE OFFICIAL STAMP:

PROJECT NAME:

CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

ISSUED:

NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

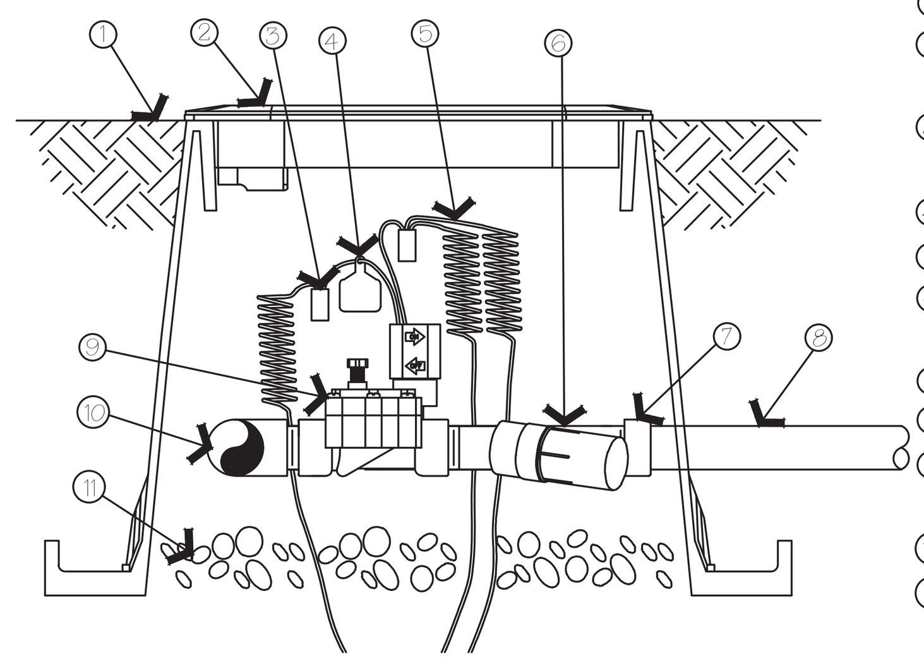
SHEET TITLE:

IRRIGATION DETAILS

SHEET NUMBER:

IR-2.5

Last Plotted:

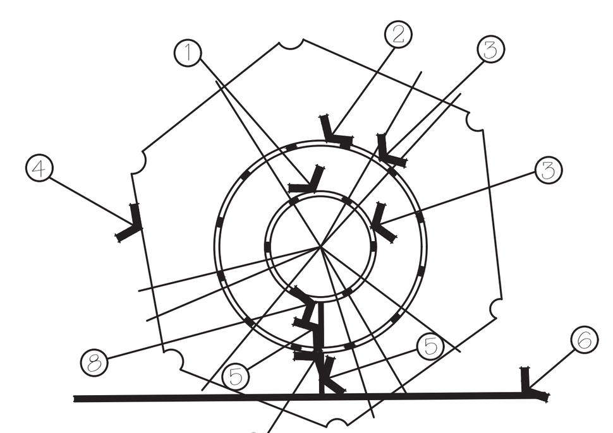


1. FINISH GRADE
2. STANDARD VALVE BOX WITH COVER:
   RAIN BIRD VB-STD
3. WATERPROOF CONNECTION:
   RAIN BIRD DB SERIES
4. VALVE ID TAG
5. 30-INCH LINEAR LENGTH OF WIRE, COILED
6. PRESSURE REGULATING FILTER:
   RAIN BIRD PRF-100-RBY (INCLUDED IN XCZ-100-PRF KIT)
7. PVC SCH 40 FEMALE ADAPTOR
8. LATERAL PIPE
9. REMOTE CONTROL VALVE:
   RAIN BIRD 100-DV (INCLUDED IN XCZ-100-PRF KIT)
10. PVC SCH 40 TEE OR ELL TO MANIFOLD
11. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

L — DRIP CONTROL VALVE ASSEMBLY

NOT TO SCALE

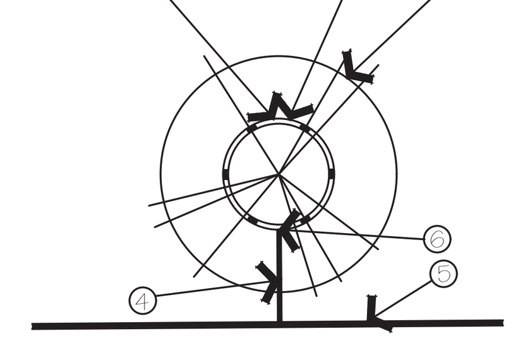
PKJ DESIGN GROUP



TREE

1. 8' RADIUS
2. 16' RADIUS
3. RAIN BIRD XFS-09-18-100 OR EQUIVALENT
4. TREE (DECIDUOUS OR EVERGREEN)
5. RAIN BIRD XT-700 TUBING OR EQUIVALENT AS APPROVED BY ARCHITECT
6. LATERAL LINE
7. 4-WAY BARBED TEE
8. BARBED TEE

NOTES:
1. LAYOUT DRIPLINE SO EMITTERS ARE IN TRIANGULAR PATTERN AS SHOWN
2. APPROXIMATELY 16.2 GPH PER TREE



SHRUB

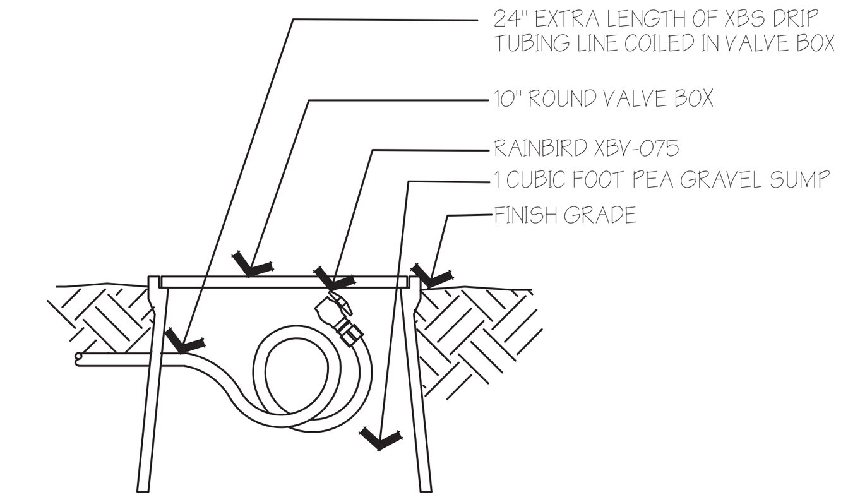
1. 12" RADIUS
2. RAIN BIRD XFS-09-18-100 OR EQUIVALENT
3. SHRUB
4. RAIN BIRD XT-700 TUBING OR EQUIVALENT AS APPROVED BY ARCHITECT
5. LATERAL LINE
6. BARBED TEE

NOTE:
1. APPROXIMATELY 5.4 GPH PER SHRUB

M — DRIP IRRIGATION - IN LINE EMITTERS

NOT TO SCALE

PKJ DESIGN GROUP

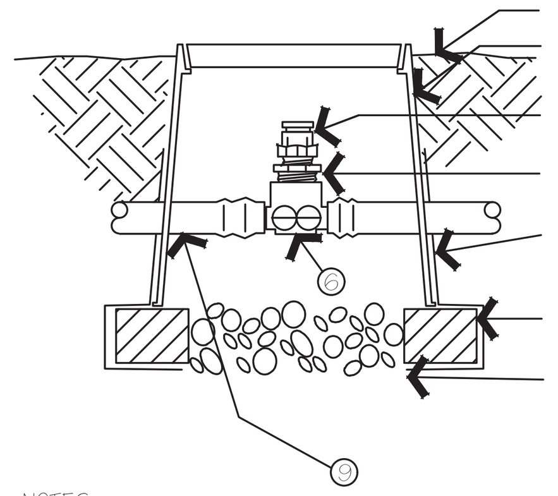


NOTE:
1. INSTALL AT END OF DRIP LINE RUNS FOR WINTERIZATION IN THE FALL.

N — FLUSH CAP BOX

NOT TO SCALE

PKJ DESIGN GROUP



1. FINISH GRADE/TOP OF MULCH
2. VALVE BOX WITH COVER
3. AIR / VACUUM RELIEF VALVE
4. 3/4"M X 1/2"F REDUCTION BUSHING
5. FILTER FABRIC
6. INLINE DRIP TUBING 180 2-WAY ADAPTER TEE
7. BRICK SUPPORTS (THREE)
8. 3" MINIMUM DEPTH OF WASHED PEA GRAVEL
9. INLINE DRIP OR BLANK TUBING

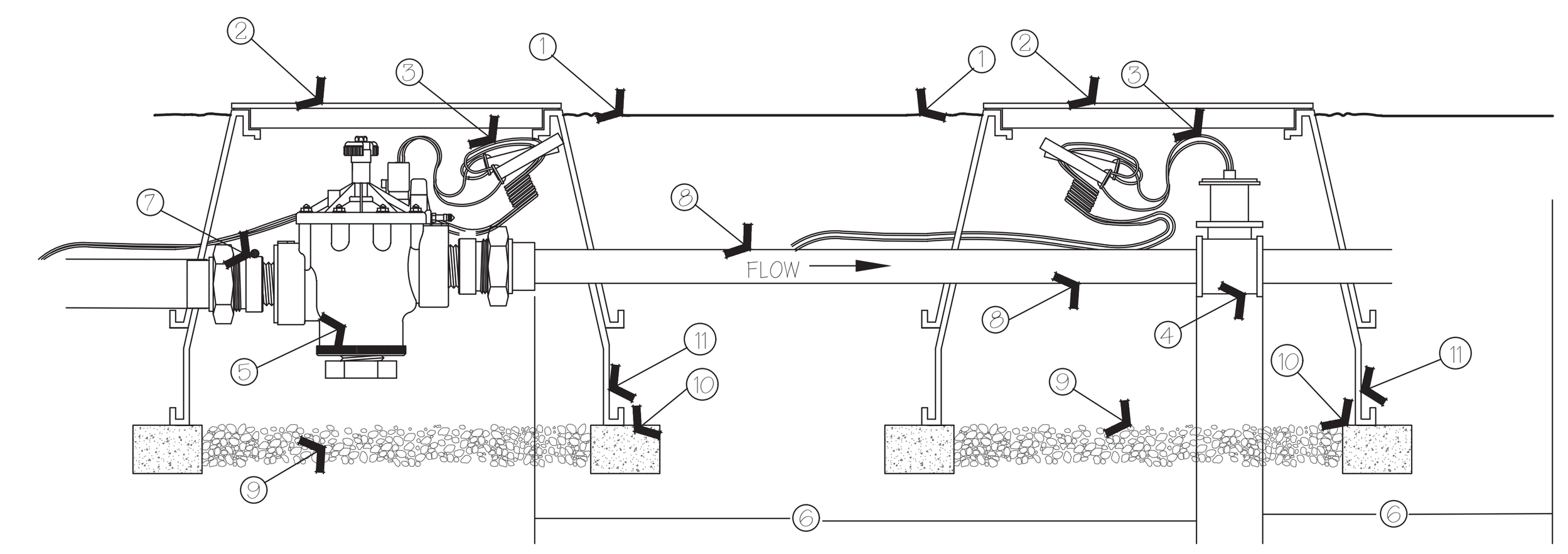
NOTES:
1. SECURE ALL BARB FITTINGS WITH A STAINLESS STEEL PINCH CLAMP.
2. INSTALL A AIR/VACUUM RELIEF VALVE AT HIGH POINTS WITHIN DRIP ZONE.
3. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO PIPE AND VALVE BOX.

O — DRIP AIR/VACUUM RELIEF VALVE ASSEMBLY

NOT TO SCALE

PKJ DESIGN GROUP

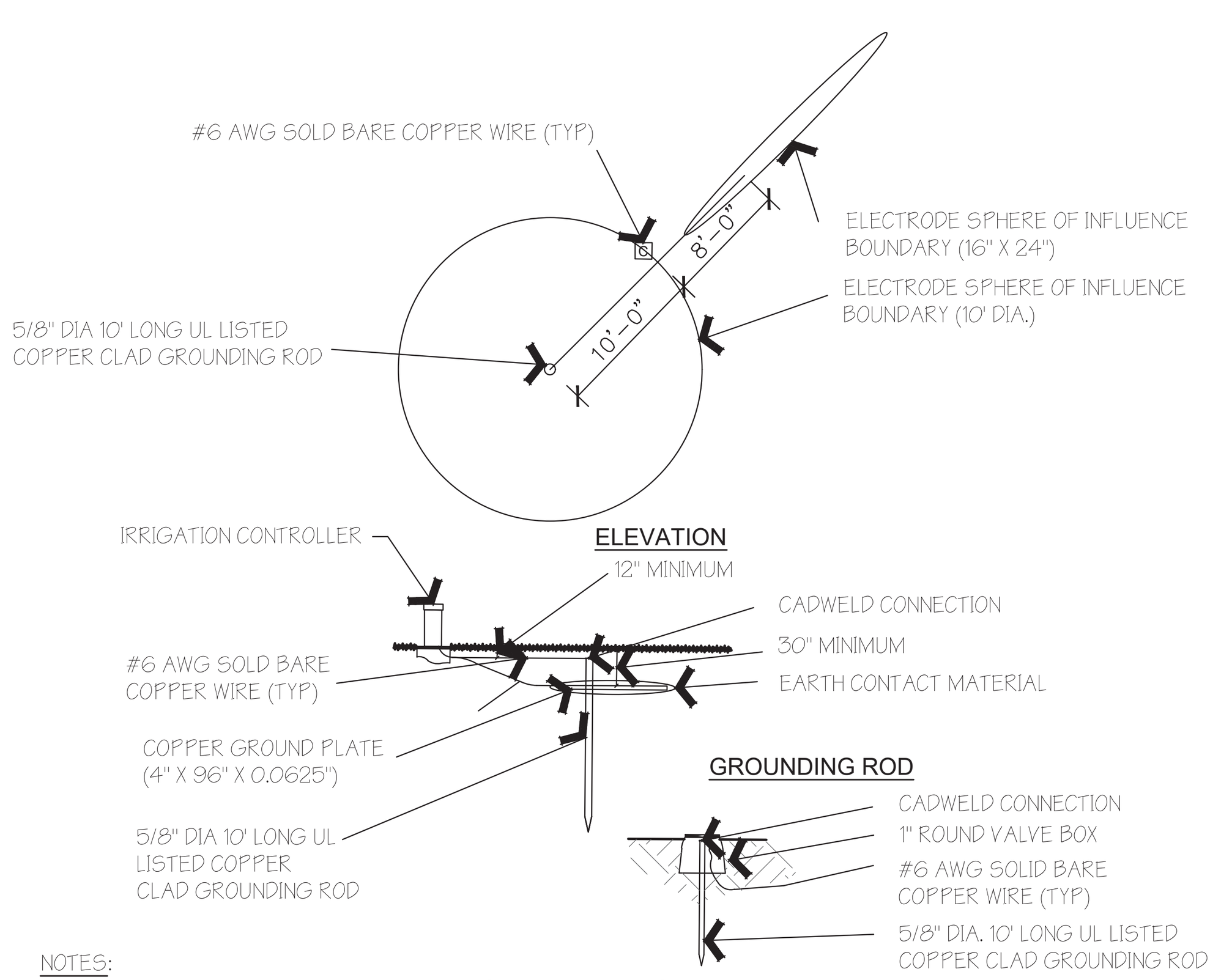
1. FINISH GRADE
2. GREEN VALVE BOX AND COVER
3. CONTROL WIRES WITH 12" MIN. SERVICE COIL AND WATERPROOF WIRE SPLICE CONNECTORS -
4. FLOW SENSOR PER IRRIGATION LEGEND
5. RAIN BIRD PESB SERIES MASTER VALVE
6. STRAIGHT PIPE REQUIRED: MINIMUM 10x PIPE DIAMETER UPSTREAM & MINIMUM 5x PIPE DIAMETER DOWNSTREAM
7. UNIONS
8. PVC MAINLINE - LENGTH AS REQUIRED
9. 6" DEPTH OF WASHED 3/4" GRAVEL
10. CONTINUOUS BRICK SUPPORTS
11. VALVE BOX EXTENSIONS REQUIRED



P — MASTER VALVE & FLOW SENSOR

NOT TO SCALE

PKJ DESIGN GROUP

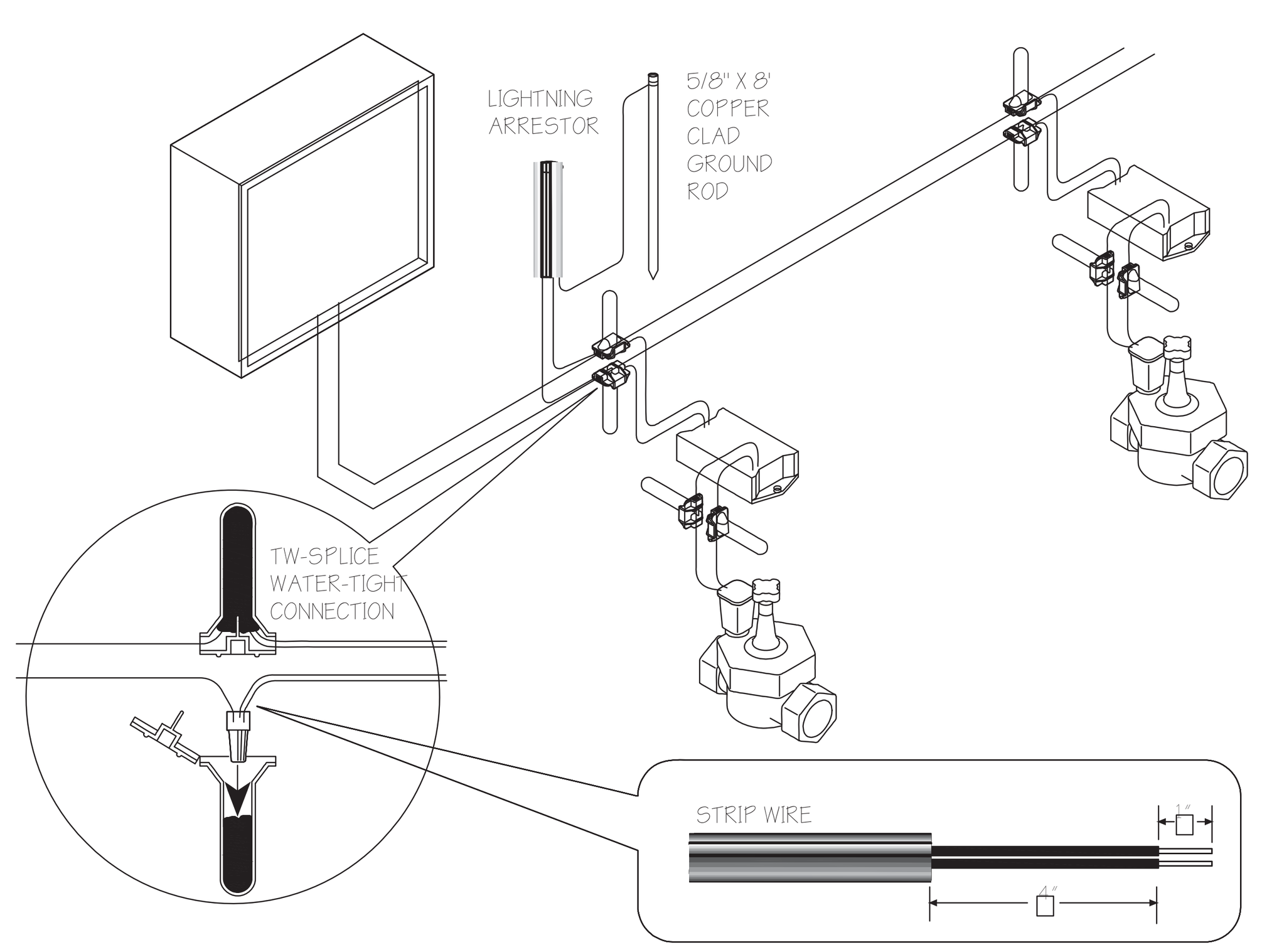


NOTES:
1. DO NOT INSTALL ANY OTHER WIRE OR CABLE WITHIN THE SPHERE OF INFLUENCE.
2. PLACE 100 LB POWER SET SOIL AMENDMENT TO EACH PLATE AS PER MANUFACTURER'S RECOMMENDATIONS.

Q — GROUNDING DETAIL

NOT TO SCALE

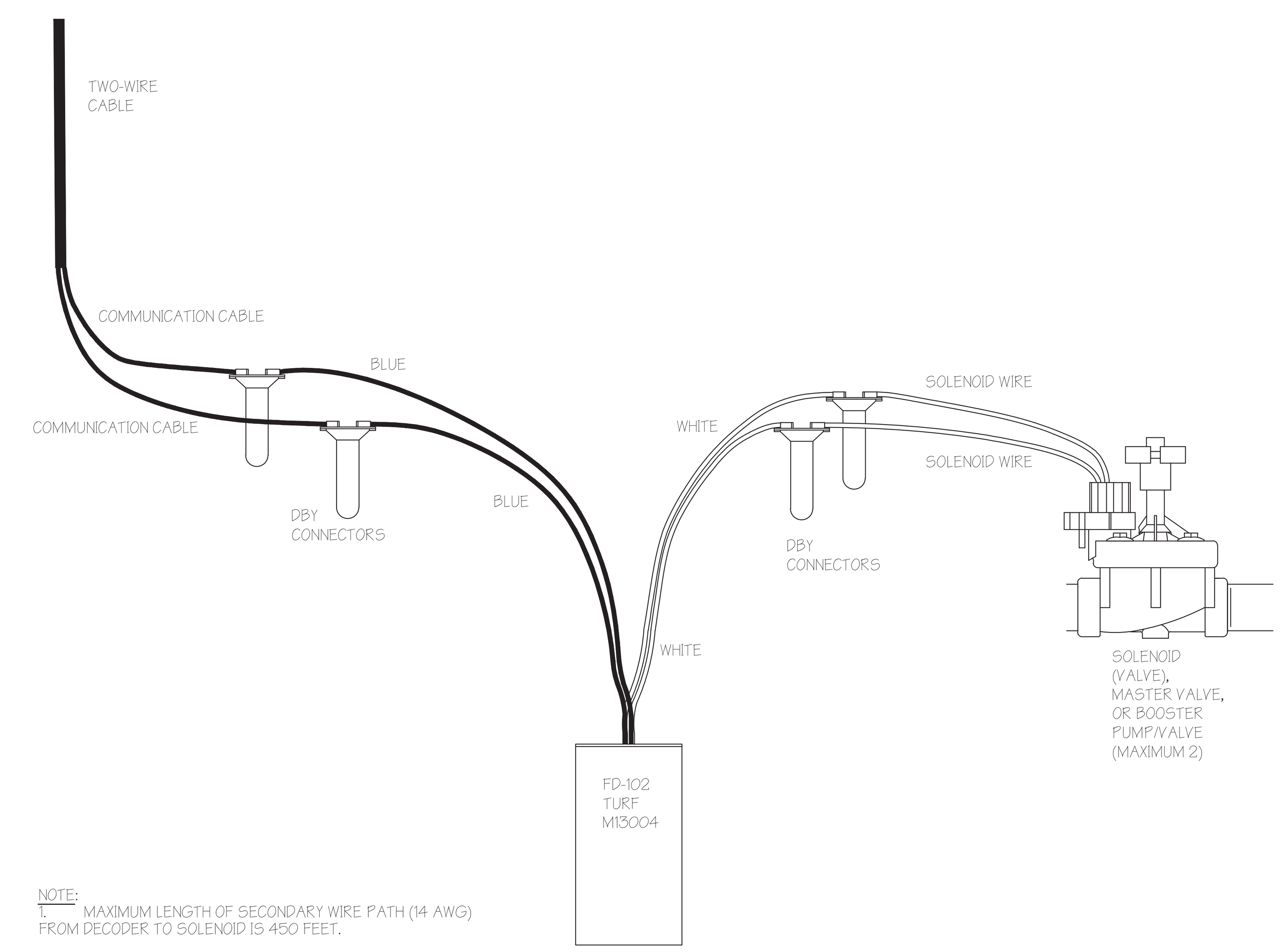
PKJ DESIGN GROUP



R — 2-WIRE CONNECTION

NOT TO SCALE

PKJ DESIGN GROUP



NOTE:
1. MAXIMUM LENGTH OF SECONDARY WIRE PATH (14 AWG) FROM DECODER TO SOLENOID IS 450 FEET.

S — DECODER WIRING

NOT TO SCALE

PKJ DESIGN GROUP

ARCHITECT'S INFORMATION:

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CODE OFFICIAL STAMP:

PROJECT NAME:

CENTENNIAL TOWER 2
10100 SOUTH CENTENNIAL PKWY
SANDY, UTAH

REVISIONS:

NO.	DATE	DESCRIPTION

N

ISSUED:

NO.	DATE	DESCRIPTION

OWNER PROJECT #:	
RPA PROJECT #:	UT18039
DRAWN BY:	KBA
CHECKED BY:	JTA
DESIGNED BY:	JTA

SHEET TITLE:

IRRIGATION DETAILS

SHEET NUMBER:

IR-2.6

Last Plotted: