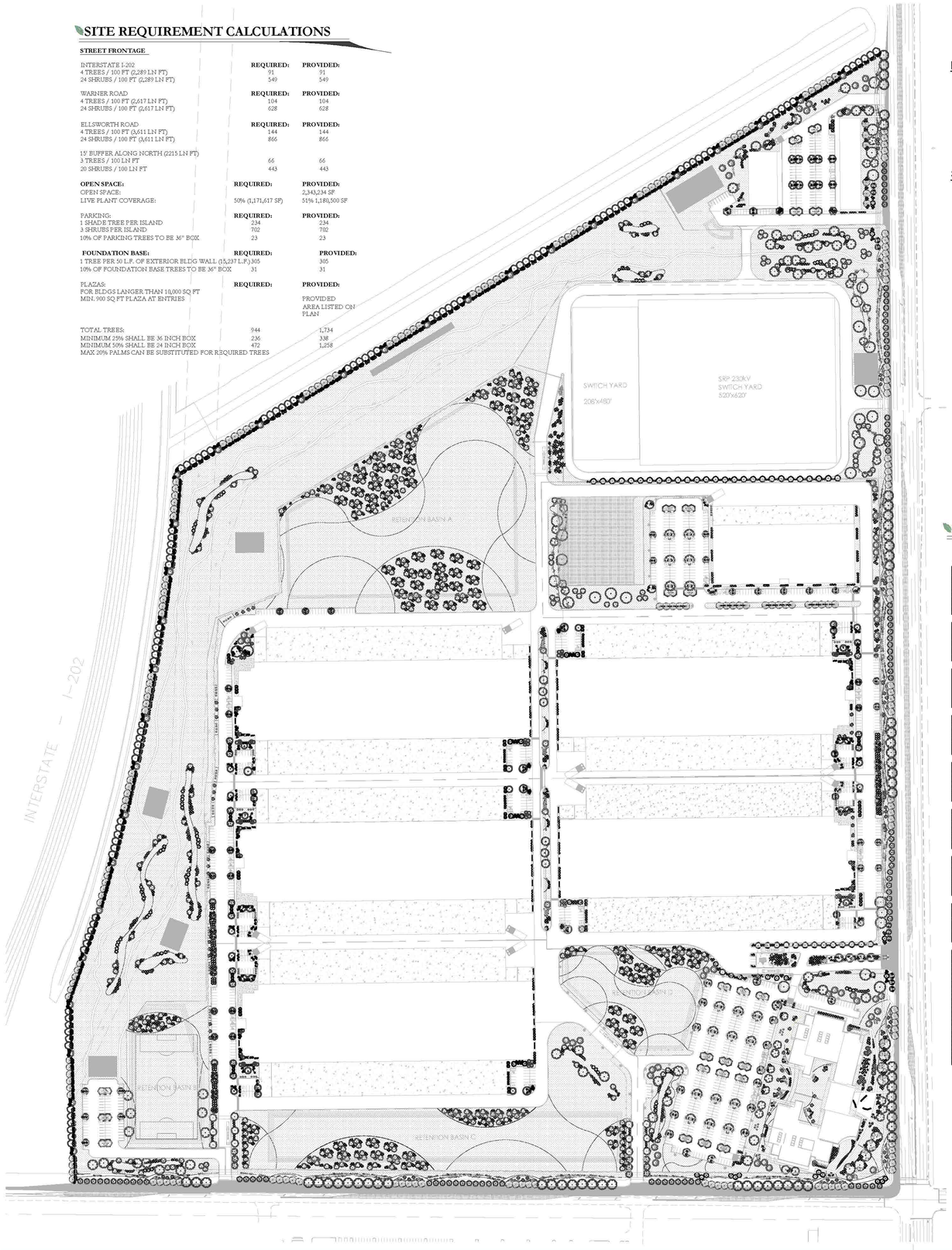
SITE REQUIREMENT CALCULATIONS

STREET FRONTAGE

	REQUIRED:	PROVIDED:
INTERSTATE I-202		
4 TREES / 100 FT (2,289 LN FT)	91	91
24 SHRUBS / 100 FT (2,289 LN FT)	549	549
WARNER ROAD		
4 TREES / 100 FT (2,617 LN FT)	104	104
24 SHRUBS / 100 FT (2,617 LN FT)	628	628
ELLSWORTH ROAD		
4 TREES / 100 FT (3,611 LN FT)	144	144
24 SHRUBS / 100 FT (3,611 LN FT)	866	866
15' BUFFER ALONG NORTH (2215 LN FT)		
3 TREES / 100 LN FT	66	66
20 SHRUBS / 100 LN FT	443	443
OPEN SPACE:	**REQUIRED:**	**PROVIDED:**
OPEN SPACE:		2,343,234 SF
LIVE PLANT COVERAGE:	50% (1,171,617 SF)	51% 1,180,500 SF
PARKING:	**REQUIRED:**	**PROVIDED:**
1 SHADE TREE PER ISLAND	234	234
3 SHRUBS PER ISLAND:	702	702
10% OF PARKING TREES TO BE 36" BOX	23	23
FOUNDATION BASE:	**REQUIRED:**	**PROVIDED:**
1 TREE PER 50 L.F. OF EXTERIOR BLDG WALL (15,237 L.F.)	305	305
10% OF FOUNDATION BASE TREES TO BE 36" BOX	31	31
PLAZAS:	**REQUIRED:**	**PROVIDED:**
FOR BLDGS LANGER THAN 10,000 SQ FT		
MIN. 900 SQ FT PLAZA AT ENTRIES		PROVIDED AREA LISTED ON PLAN
TOTAL TREES:	944	1,734
MINIMUM 25% SHALL BE 36 INCH BOX	236	338
MINIMUM 50% SHALL BE 24 INCH BOX	472	1,258
MAX 20% PALMS CAN BE SUBSTITUTED FOR REQUIRED TREES		



PLANT LEGEND

(NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE)

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
DECIDUOUS TREES						
	AW'P	496	Acacia willardiana Palo Blanco	24"box	2"Cal	
	CDD	50	Chilopsis linearis 'MSWNLopur' Desert Diva® Desert Willow	24"box	Multi-trunked	6'-7'
	CL'L	81	Chilopsis linearis 'Burgundy Lace' Burgundy Lace Desert Willow	36"box	Multi-trunked	
	LI'D	23	Lagerstroemia indica 'Whit II' Dynamite® Crape Myrtle	20 gal.	Clump	
	PDM	20	Parkinsonia x 'Desert Museum' Desert Museum Palo Verde	24"box	Multi-trunked	6'-7'
	PCR	126	Pistacia chinensis 'Red Push' Red Push Chinese Pistache	36"box	2"Cal	
	PCT	52	Prosopis chilensis 'Thornless' Thornless Chilean Mesquite	24"box	2"Cal	
	UPS	40	Ulmus parvifolia 'Sempervirens' Chinese Elm	36"box	2"Cal	
EVERGREEN TREES						
	AA'M	200	Acacia aneura Mulga	24"box	2"Cal	
	ASW	41	Acacia salicina Willow Acacia	24"box	2"Cal	
	BPB	86	Brachychiton populneus Bottle Tree	24"box	2"Cal	
	NO'R	91	Nerium oleander Red Oleander	24"box	2"Cal	
	O'SH	36	Olea europaea 'Swan Hill' Swan Hill Fruitless Olive	24"box	Multi-trunked	7'-9'
	PPT	102	Pithecellobium flexicaule Texas Ebony	24"box	2"Cal	
	QV'H	108	Quercus virginiana 'QVTIA' Highrise Live Oak	24"box	2"Cal	
PALMS						
	CH'M	24	Chamaerops humilis Mediterranean Fan Palm	48"box	Clump	
	PC'D	88	Phoenix canariensis Pineapple Palm	48"box		10-12'
	PD'D	14	Phoenix dactylifera Date Palm	48"box		10-12'

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
EVERGREEN SHRUBS				
	CL'J	35	Callistemon citrinus 'Little John' Little John Bottlebrush	5 gal
	CM'B	316	Carissa macrocarpa 'Boxwood Beauty' Boxwood Beauty Natal Plum	5 gal
	DV'H	81	Dodonaea viscosa Hopseed Bush	5 gal
	EP'B	270	Encelia farinosa Brittlebush	5 gal
	EH'B	72	Eremophila hygrophana 'Blue Bells' Blue Bells Emu Bush	5 gal
	EM'V	93	Eremophila maculata 'Valentine' Valentine Spotted Emu Bush	5 gal
	JH'W	26	Juniperus horizontalis 'Wiltonii' Blue Rug Juniper	5 gal
	LG'M	21	Lantana camara 'Gold Mound' Gold Mound Lantana	5 gal
	LP'G	811	Leucophyllum frutescens 'Green Cloud' Green Cloud Texas Sage	5 gal
	LT'C	69	Larrea tridentata Creosote Bush	5 gal
	LZ'C	115	Leucophyllum zygophyllum Cimmeron Texas Sage	5 gal
	MB'T	139	Myrtus communis 'Boetica' Boetica Twisted Common Myrtle	5 gal
	OE'M	792	Olea europaea 'Montra' Little Ollie® Olive	5 gal
	PT'V	10	Pittosporum tobira 'Variegata' Variegated Mock Orange	5 gal
	RE'F	55	Russelia equisetiformis Firecracker Plant	5 gal
	RI'B	211	Rhaphiolepis indica 'Ballerina' Ballerina Indian Hawthorn	5 gal
	RI'P	115	Rhaphiolepis indica 'Pink Lady' Pink Lady Indian Hawthorn	5 gal
	RO'P	78	Rosmarinus officinalis 'Prostratus' Creeping Rosemary	5 gal
	RO'T	13	Rosmarinus officinalis 'Tuscan Blue' Tuscan Blue Rosemary	5 gal
	SC'J	138	Simmondsia chinensis Jojoba	5 gal
	SS'L	33	Sophora secundiflora Texas Mountain Laurel	15 gal
PERENNIALS				
	G'WB	302	Gaura lindheimeri 'Whirling Butterflies' Whirling Butterflies Wandflower	1 gal
	LS'S	118	Lavandula stoechas Spanish Lavender	1 gal
	SG'R2	544	Salvia greggii 'Red' Red Autumn Sage	1 gal
SUCCULENTS				
	A'BF	54	Agave shawii x attenuata 'Blue Flame' Blue Flame Agave	5 gal
	AM'V	13	Agave americana 'Marginata' Variegated Century Plant	5 gal
	AP'T	129	Agave parryi var. truncata Artichoke Parry's Agave	5 gal
	DQ'M	149	Dasylirion quadrangulatum Mexican Grass Tree	5 gal
	FS'O	6	Fouquieria splendens Ocotillo	5 gal
	HP'P	60	Hesperaloe parviflora 'Perpa' TM Brakelights Red Yucca	5 gal
	NM'B	34	Nolina microcarpa Beargrass	5 gal
GRASSES				
	MC'L	2,173	Muhlenbergia capillaris 'Lenca' Regal Mist® Pink Muhly Grass	1 gal
	ML'L	489	Muhlenbergia lindheimeri 'Lemi' Autumn Glow™ Lindheimer's Muhly	1 gal
	MR'D	964	Muhlenbergia rigens Deer Grass	1 gal

SITE MATERIALS LEGEND

(NOTE: SITE MATERIALS QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE)

1 LANDSCAPE			
	L-01	MIDIRON BERMUDA GRASS SOD LAWN AREAS SHALL BE SOD. NEW TURF AREAS TO BE SODDED WITH MIDIRON BERMUDA GRASS OR APPROVED EQUAL. USED FOR PARKS, SCHOOLS, HOMES. CAN OVERSEED IN WINTER. SEE SOD LANDSCAPE NOTES FOR FURTHER INFORMATION. SHEET LP-101.	86,331 sf
	L-15	1" GREY CRUSHED ROCK. SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	558,991 sf
	L-17	1" ROSE CRUSHED ROCK. SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	13,420 sf
	L-21	3/4" ROSE CRUSHED ROCK. SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	292,239 sf
	L-22	1/2" GOLD CRUSHED ROCK. SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	216,375 sf
	L-23	1/2" GREY CRUSHED ROCK. SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	134,544 sf
	L-25	1/2" ROSE CRUSHED ROCK. SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	58,775 sf
	L-26	2-4" ROSE COLORED ROCK. SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 4" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	420,124 sf
	L-31	SOUTHWEST NATIVE GRASS MIX HYDROSEED WITH EQUAL AMOUNTS OF: SIDEOATS GRAMA BLUE GRAMA PLAINS BRISTLEGRASS ALKALI SACATON INDIAN RICEGRASS SPIKE MUHLY SAND DROPSEED HYDROSEED AT 8 LBS PER ACRE. SEE SHEET LP 101 FOR FURTHER HYDROSEEDING INSTRUCTIONS. REFER TO GRANITESEED.COM FOR SEED MIX.	1,023,502 sf
2 HARDSCAPE			
	2-02	BOULDERS- DECORATIVE 42 INCH. SUBMIT COLOR SAMPLES FOR ARCHITECT AND OWNER APPROVAL. SEE PLACEMENT INSTRUCTIONS ON DETAIL SHEET LP-501.	946
	2-05	5" DEEP STEEL EDGING - INSTALL PER MANUFACTURER SPECIFICATION.	27,484 lf

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002						

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC.
1-800-782-5348
www.bluestakes.org

0' 75' 150' 300' 600'
GRAPHIC SCALE: 1" = 150'

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

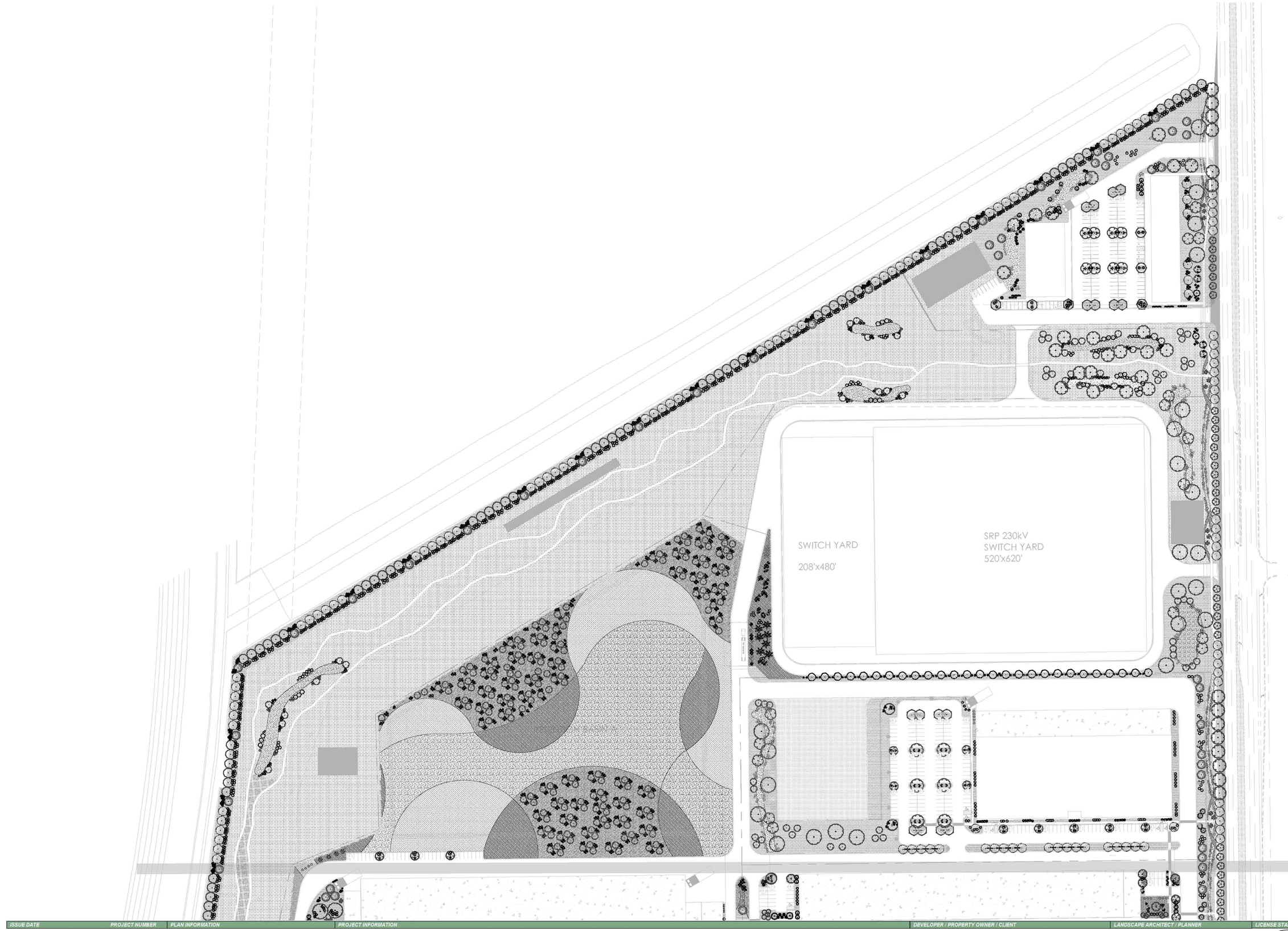
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
CERTIFICATE NO. 75840
KRISTINA AINSWORTH
12-03-2024
ARIZONA, U.S.A.

LANDSCAPE

CITY PERMIT SET

LP-100

DRAWING INFO
PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 1/19/2025



ISSUE DATE | PROJECT NUMBER | PLAN INFORMATION | PROJECT INFORMATION | DEVELOPER / PROPERTY OWNER / CLIENT | LANDSCAPE ARCHITECT / PLANNER | LICENSE STAMP | DRAWING INFO

1/19/2025

AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

0' 40' 80' 160' 320'
GRAPHIC SCALE: 1" = 80'

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture // Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

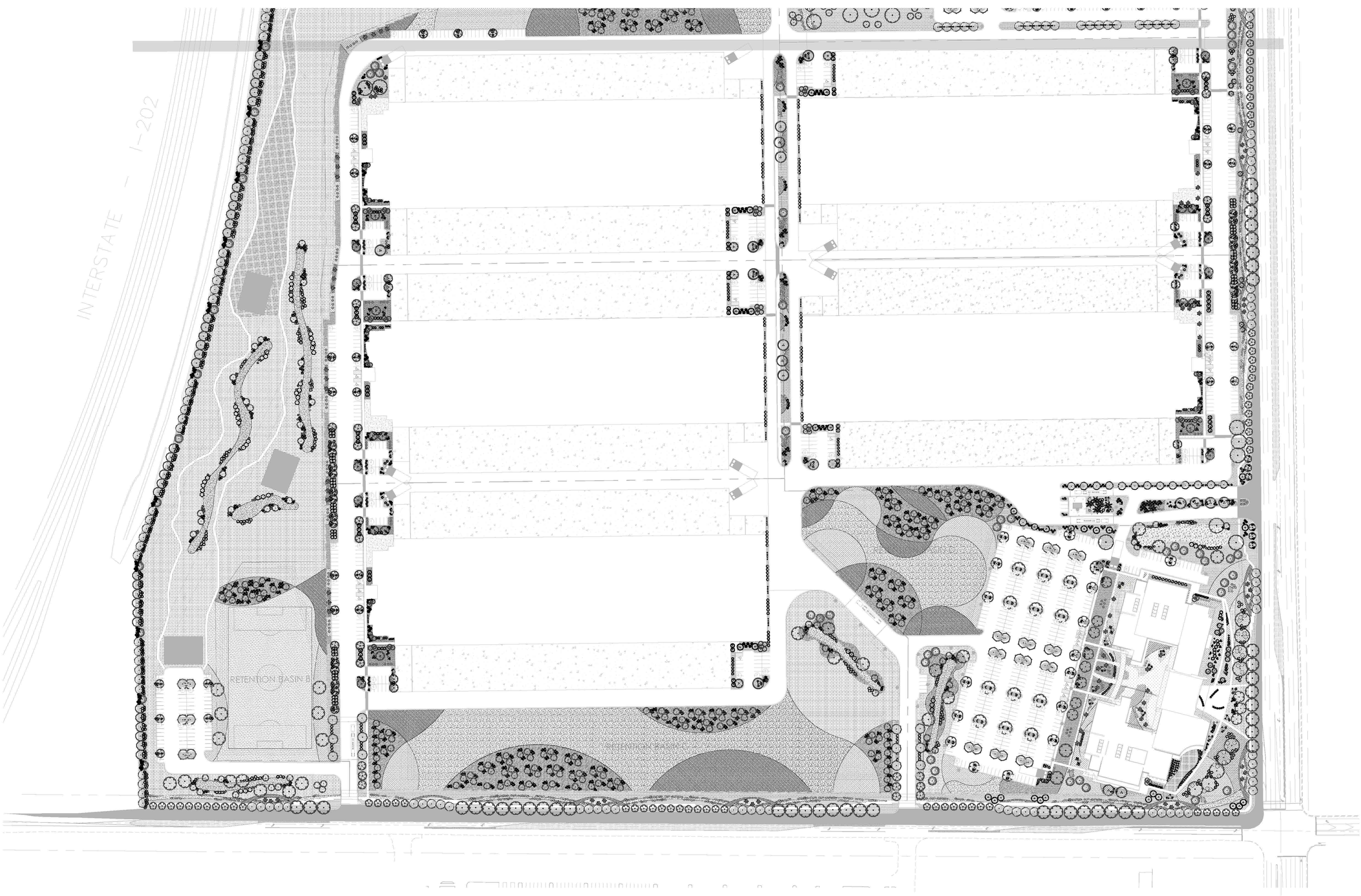
LICENSE STAMP: REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT 75945 KRISTINA AINSWORTH 12-03-2024 ARIZONA, USA

DRAWING INFO
INT: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 1/19/2025

LANDSCAPE

CITY PERMIT SET

LP-100A



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002						

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

0' 40' 80' 160' 320'
GRAPHIC SCALE: 1" = 80'

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture // Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
75940
KRISTINA AINSWORTH
12-03-2024
ARIZONA, U.S.A.

LANDSCAPE

CITY PERMIT SET

LP-100B

DRAWN: JTA
CHECKED: ACP
PLOT DATE: JMA
1/19/2025

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. Site Conditions
2. Guarantees
3. Maintenance
4. Soil Amendments
5. Fine Grading
6. Landscape Edging
7. Furnish and Installing Plant
8. Turf Planting
9. Weed Barrier

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 3" 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 75% native soil and 25% top soil, thoroughly mixed together prior to placement.

F. Top soil: 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 Curb 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.

I. Landscape Metal Edging: 3.5" steel edging with 18" dowels into the ground for stabilization.

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 two 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 top soil mixture needs to be added. It should be a course 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.

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: Sod is to be delivered to the site in good condition. It is to be inspected upon arrival and installed within 24 hours. Sod is to be moist and cool to ensure that decomposition has not begun and is to be free of pests, diseases, or blemishes. The Contractor shall satisfy him self as to the existing conditions prior to any construction. The Contractor shall be fully responsible for furnishing and laying 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 any discrepancy in the amount of sod to be removed or un-cout 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 in the detail and be lightly watered before laying. 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 ensure that good contact is made between edges and also the ground. If voids or holes are discovered, the sod piece(s) is (are) to be raised and topsoil is to be used to fill in the areas until level. Sod laid on any sloped areas shall be anchored with wooden dowels or other materials which are accepted by the grass sod industry.

F. Sod shall be rolled with a roller that is at least 50% full immediately after installation to ensure the full contact with soil is made.

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

H. 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.

I. 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.

J. 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. For the health of the soil and the microorganisms, weed barrier is not recommended. If use is required or requested, do not place in annual or grass areas.

B. Cut weed barrier back to the edge of the plant rootball.

C. Overlap rows of fabric min. 6"

D. Stable fabric edges and overlaps to ground.

END OF SECTION

LANDSCAPE NOTES

INSTALLATION

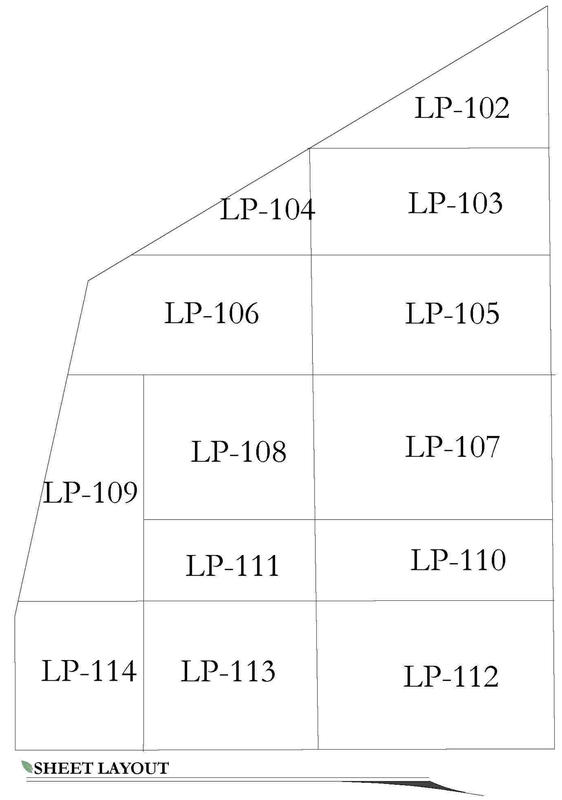
1. LANDSCAPE CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.
2. DURING THE BIDDING AND INSTALLATION PROCESS, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
3. ALL PLANT MATERIAL SHALL BE PLANTED ACCORDING TO INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) STANDARDS WITH CONSIDERATION TO INDIVIDUAL SOIL AND SITE CONDITIONS, AND NURSERY CARE AND INSTALLATION INSTRUCTIONS.
4. SELECTED PLANTS WILL BE ACCORDING TO THE PLANT LEGEND. IF SUBSTITUTIONS ARE NECESSARY, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO LAYING SOD.
5. SHOULD THE SITE REQUIRE ADDITIONAL TOPSOIL, REFER TO SOIL TEST WHEN MATCHING EXISTING SOIL. IF A MATCHING SOIL IS NOT LOCATABLE, A 6" DEPTH OF SANDY LOAM TOPSOIL (MIXED PRIOR TO SPREADING WITH 3% ORGANIC MATTER) CAN BE INCORPORATED INTO THE EXISTING SOIL USING THE FOLLOWING DIRECTIONS: SCARIFY TOP 6" OF EXISTING SUBSOIL AND INCORPORATE 3" OF NEW COMPOST ENRICHED TOPSOIL. SPREAD REMAINING TOPSOIL TO REACH FINISHED GRADE.
6. SOD FOR NEW LAWN AREAS SHALL BE A DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
7. EDGING, AS INDICATED ON PLAN, IS TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS. ANY TREES LOCATED IN LAWN MUST HAVE A 4-0" TREE RING OF THE SAME EDGING.
8. IF REQUIRED BY CITY OR OWNER SPECIFIED, DeWitt 5 OZ WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN. WEED BARRIER SHALL BE CUT BACK FROM EACH PLANT TO THE DIAMETER OF THE ROOTBALL.
9. ROCK MULCH (INORGANIC MULCH) TO BE APPLIED 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 (ORGANIC MULCH). NO MULCH SHALL BE PLACED WITHIN 12" OF BASE OF TREE AND 6" WITHIN BASE OF SHRUBS AND PERENNIALS.
10. A NEW UNDERGROUND, AUTOMATIC IRRIGATION SYSTEM IS TO BE INSTALLED BY CONTRACTOR IN ALL LANDSCAPED AREAS. LAWN AREAS TO RECEIVE AT LEAST 100% HEAD TO HEAD COVERAGE AND PLANTER AREAS TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB. POINT SOURCE DRIP OR IN-LINE DRIP TUBING TO BE SECURED AT EDGE OF ROOTBALL, NOT AGAINST TRUNK. SEE IRRIGATION PLAN.
11. UPON REQUEST, A PLANT GUIDE IS AVAILABLE WITH OUR RECOMMENDATIONS REGARDING WEED BARRIER, PLANT CARE AND MAINTENANCE.

INSTALLER RESPONSIBILITIES AND LIABILITIES

1. THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. LANDSCAPE CONTRACTOR IS REQUIRED TO USE TRADE KNOWLEDGE FOR IMPLEMENTATION. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
2. LANDSCAPE CONTRACTOR IS RESPONSIBLE AND LIABLE FOR INSTALLATION OF ALL LANDSCAPING AND IRRIGATION SYSTEMS INCLUDING CODE REQUIREMENTS, TIME EXECUTIONS, INSTALLED PRODUCTS AND MATERIALS.

GRADING AND DRAINAGE REQUIREMENTS

1. AS PER CODE, ALL GRADING IS TO SLOPE AWAY FROM ANY STRUCTURE. SURFACE OF THE GROUND WITHIN 10' FEET OF THE FOUNDATION SHOULD DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6"
2. AS PER CODE, FINISHED GRADE WILL NOT DRAIN ON NEIGHBORING PROPERTIES
3. A MINIMUM OF 6" OF FOUNDATION WILL BE LEFT EXPOSED AT ALL CONDITIONS
4. LANDSCAPE CONTRACTOR TO MAINTAIN OR IMPROVE FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY EXCAVATOR, INCLUDING BUT NOT LIMITED TO ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES
5. LANDSCAPE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY DAMAGED OR IMPROPER WATERFLOW OF ALL SWALES, BERMS, OR GRADE
6. DEVICES FOR CHANNELING ROOF RUN-OFF SHOULD BE INSTALLED FOR COLLECTION AND DISCHARGE OF RAINWATER AT A MINIMUM OF 10' FROM THE FOUNDATION, OR BEYOND THE LIMITS OF FOUNDATION WALL BACKFILL, WHICHEVER DISTANCE IS GREATER.



SHEET LAYOUT

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002		NOVVA - MESA ELLSWORTH ELLSWORTH RD. & WARNER RD. MESA, ARIZONA	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture // Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	REGISTERED LANDSCAPE ARCHITECT 75828 KRISTINA AINSWORTH 12-03-2024 ARIZONA, USA	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 1/19/2025

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC.
1-800-782-5348
www.bluestakes.org

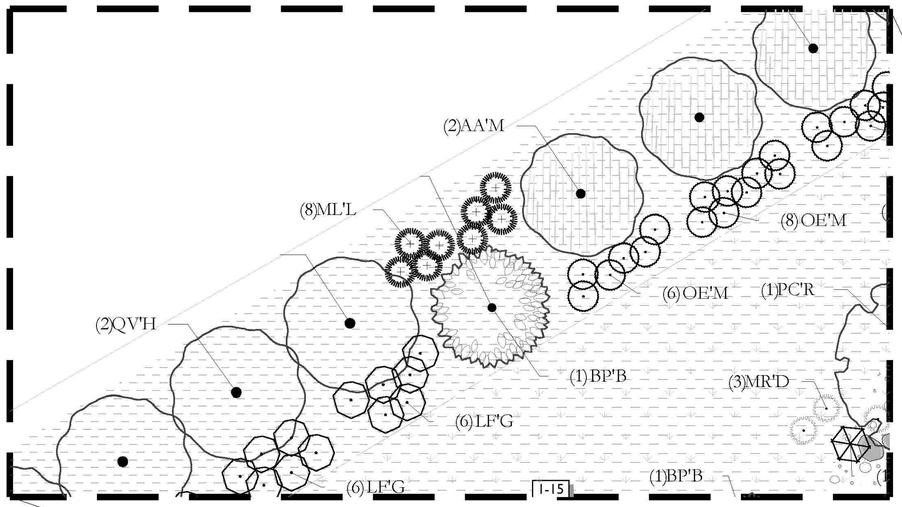
COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE

CITY PERMIT SET

LP-101



TYPICAL FRONTAGE

SCALE: 1:10'

SHEET LP 103

SHEET LP 103

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002						P.M.: JTA
							DRAWN: ACP
							CHECKED: JMA
							PLOT DATE: 1/19/2025

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

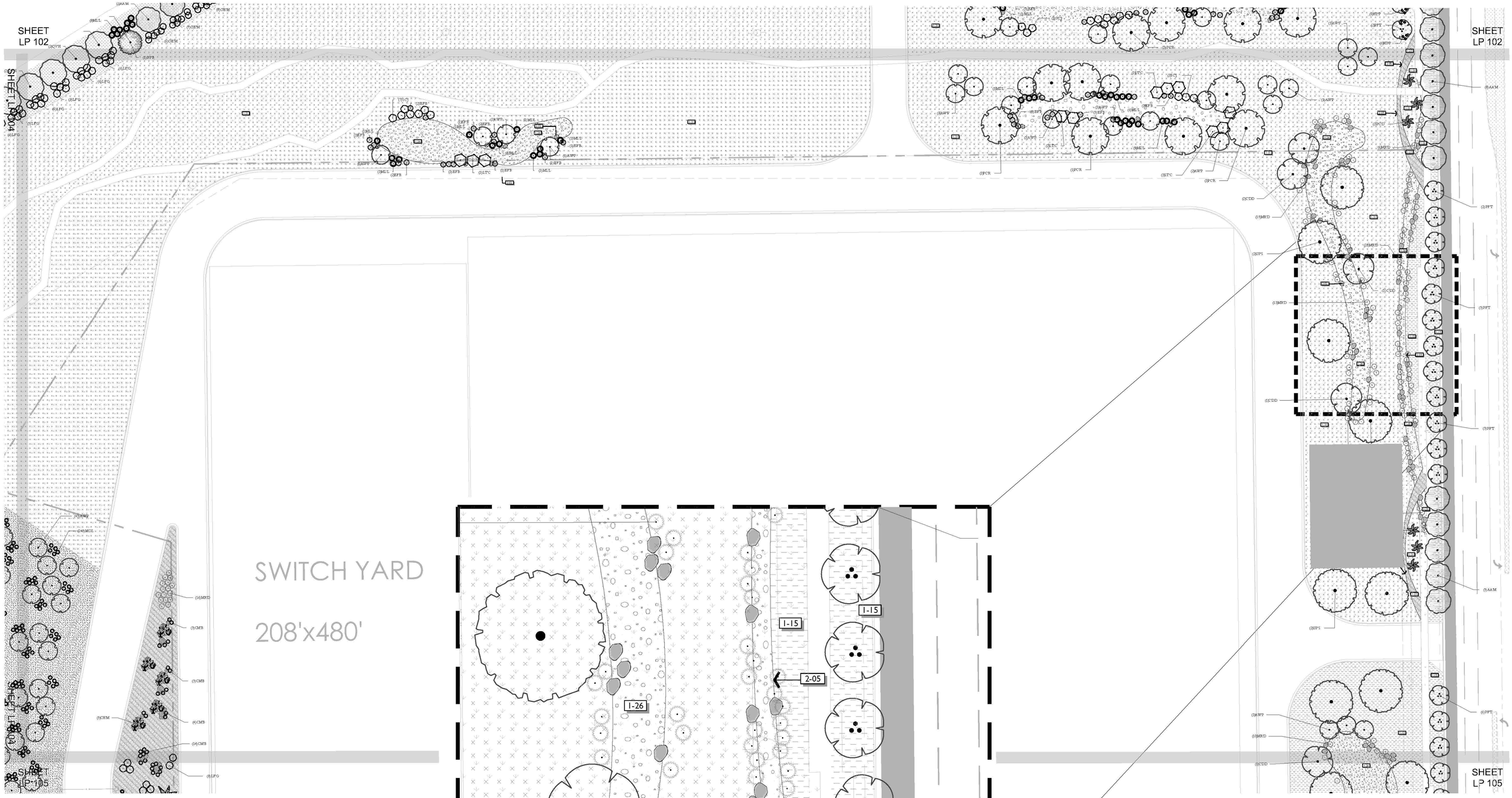
PKJ DESIGN GROUP
Landscape Architecture // Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
75840
KRISTINA AINSWORTH
12-03-2024
ARIZONA, U.S.A.

LANDSCAPE

CITY PERMIT SET

LP-102



TYPICAL DATA CENTER

SCALE: 1:10'

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002						

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC.
1-800-782-5348
www.bluestakes.org

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

NOVVA - MESA ELLSWORTH

ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

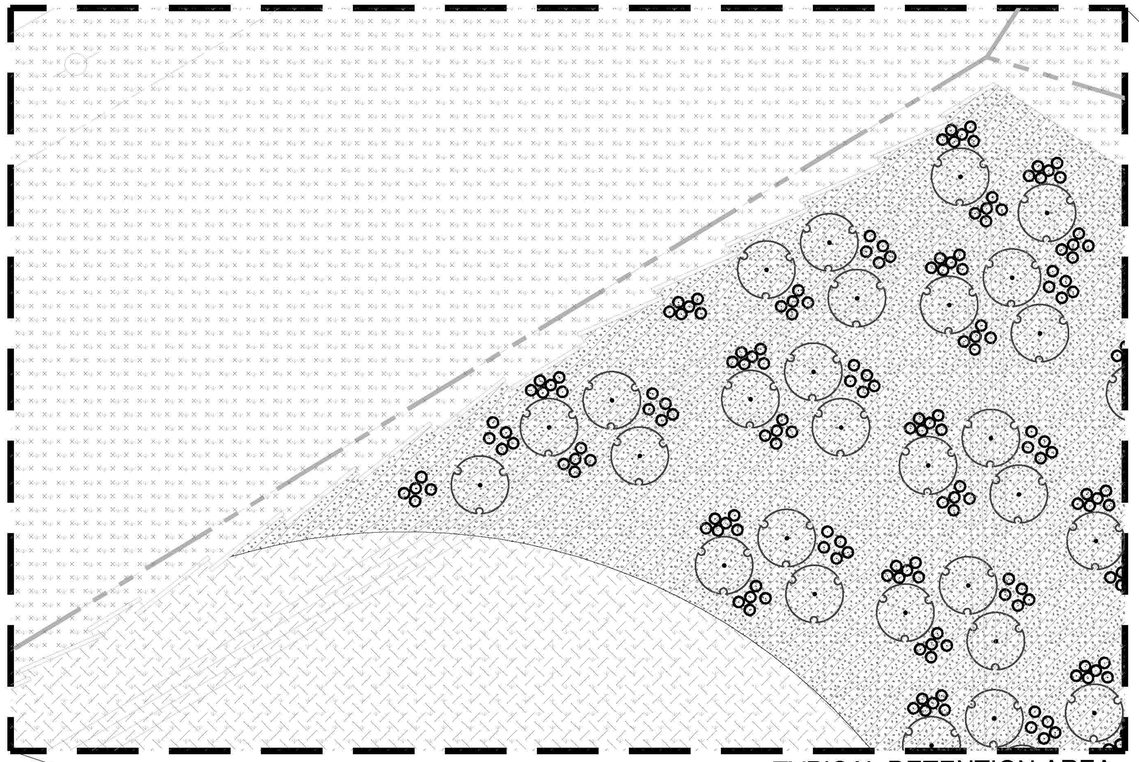
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
75240
KRISTINA AINSWORTH
12-03-2024
ARIZONA, U.S.A.

LANDSCAPE

CITY PERMIT SET

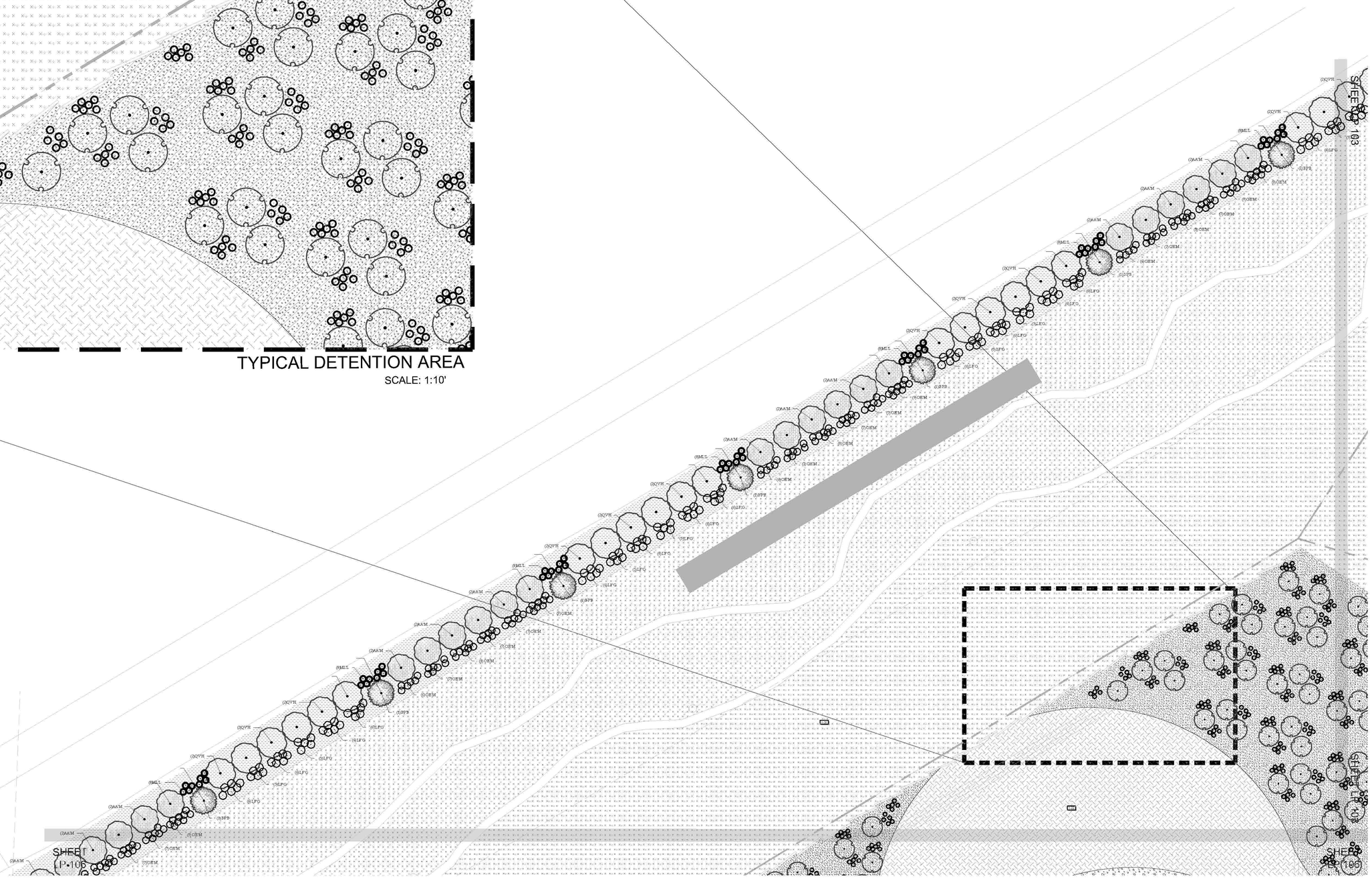
DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/19/2025

LP-103



TYPICAL DETENTION AREA

SCALE: 1:10'



ISSUE DATE	PROJECT NUMBER
1/19/2025	AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

0' 15' 30' 60' 120'

GRAPHIC SCALE: 1" = 30'

NOVVA - MESA ELLSWORTH

ELLSWORTH RD. & WARNER RD.

MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

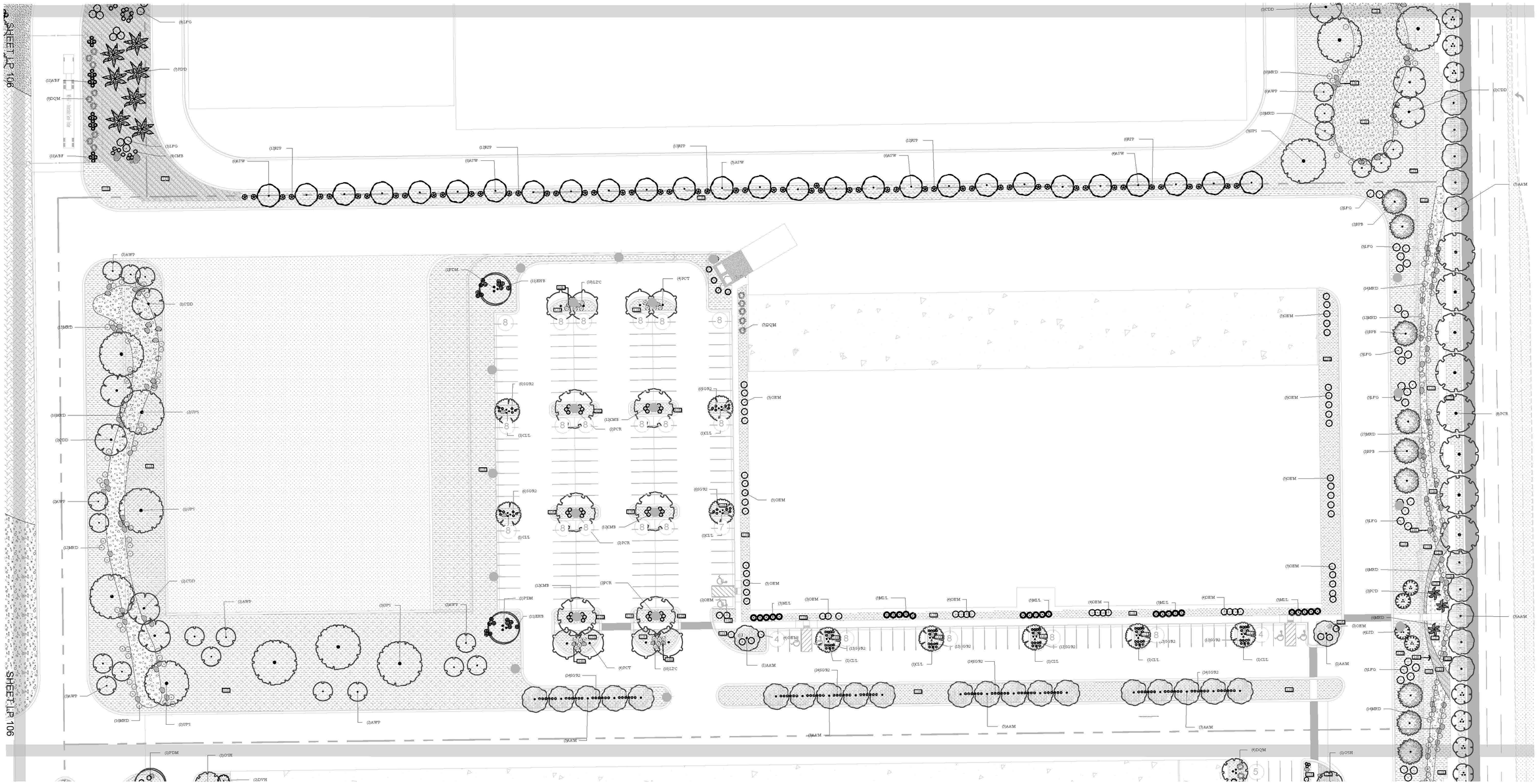
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
JOSEPH TATE
No. 75940
KRISTINA AINSWORTH
12-03-2024
ARIZONA, U.S.A.

DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/19/2025

LANDSCAPE

CITY PERMIT SET

LP-104


SHEET LP 106
SHEET LP 106
(8)LFG
(7)FDD
(1)ASF
(5)DQM
(1)ASF
(3)LFG
(6)CMS
(12)RTP
(6)ASW
(12)RTP
(6)ASW
(11)RTP
(5)ASW
(12)RTP
(6)ASW
(6)RTP
(6)ASW
(1)CDD
(10)MRD
(6)AWP
(19)MRD
(3)UPS
(5)AAM
(3)LFG
(2)SPS
(5)LFG
(14)MRD
(12)MRD
(3)SPS
(3)LFG
(1)LFG
(8)PCR
(27)MRD
(2)SPS
(7)LFG
(6)MRD
(3)PCD
(5)AAM
(5)AWP
(1)PDM
(11)EHE
(18)LZC
(6)PCT
(5)DQM
(5)OEM
(6)SGR2
(1)CLL
(12)CMS
(2)PCR
(1)XLL
(5)OEM
(5)OEM
(5)OEM

RETENTION BASIN A

SHEET LP 105

SHEET LP 105

ISSUE DATE	PROJECT NUMBER
1/19/2025	AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

PLAN INFORMATION

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC.
1-800-782-5348
www.bluestakes.org

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

PROJECT INFORMATION

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
CERTIFICATE NO. 75940
KRISTINA AINSWORTH
12-03-2024
ARIZONA, USA

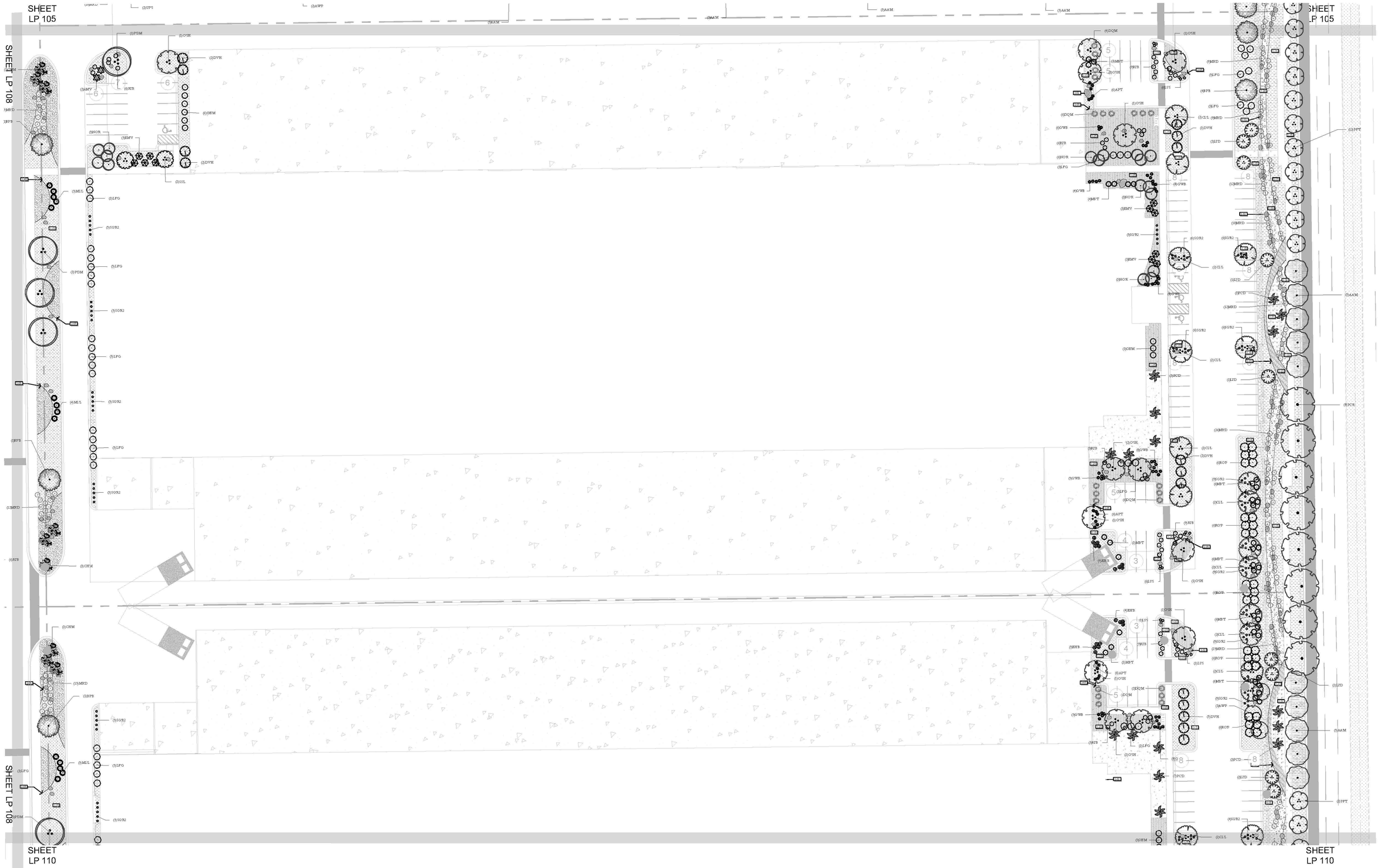
DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/19/2025

LANDSCAPE

CITY PERMIT SET

LP-106



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002						

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

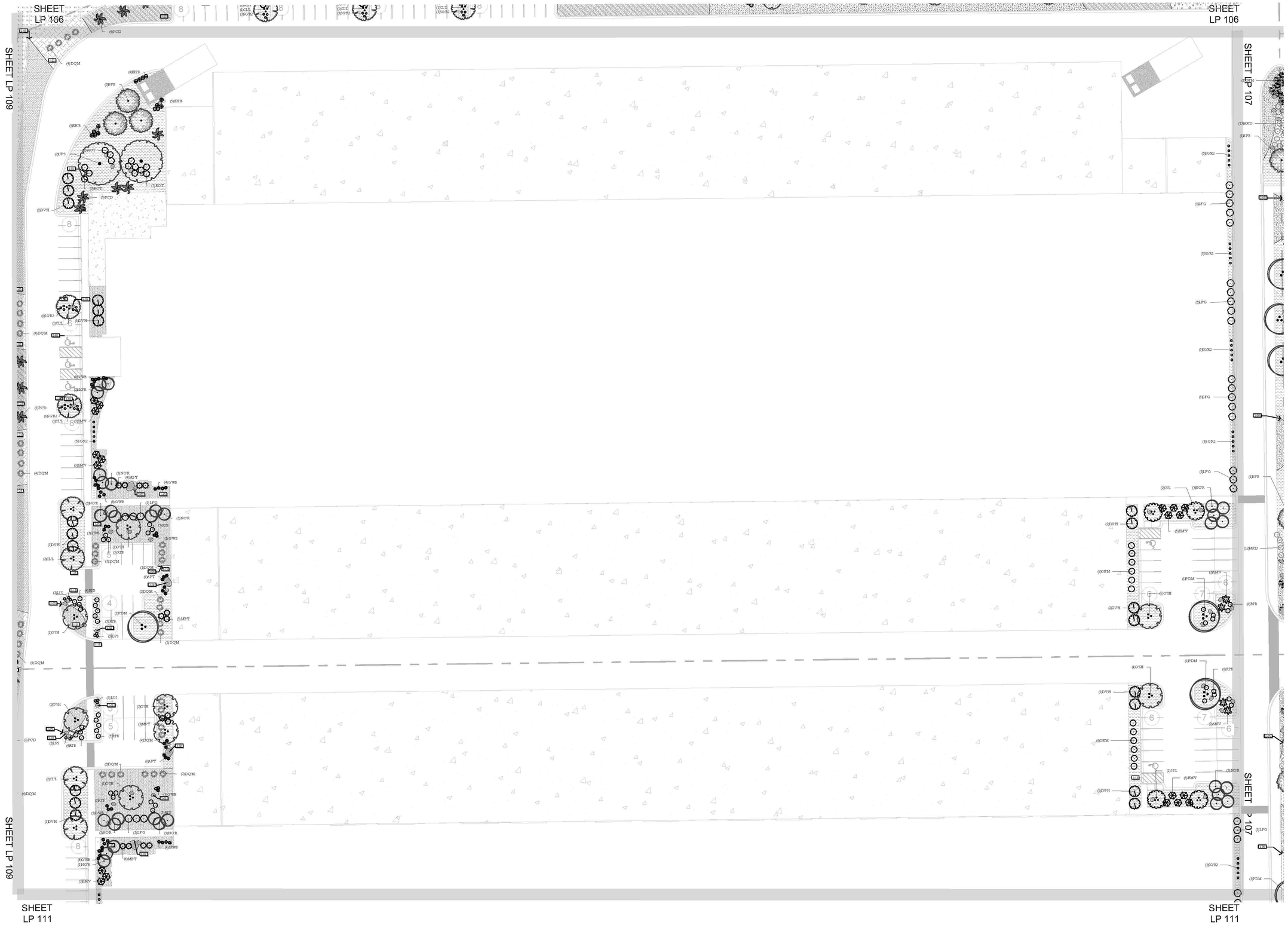
REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO. 75940
KRISTINA AINSWORTH
12-03-2024
ARIZONA, U.S.A.

DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/19/2025

LANDSCAPE

CITY PERMIT SET

LP-107



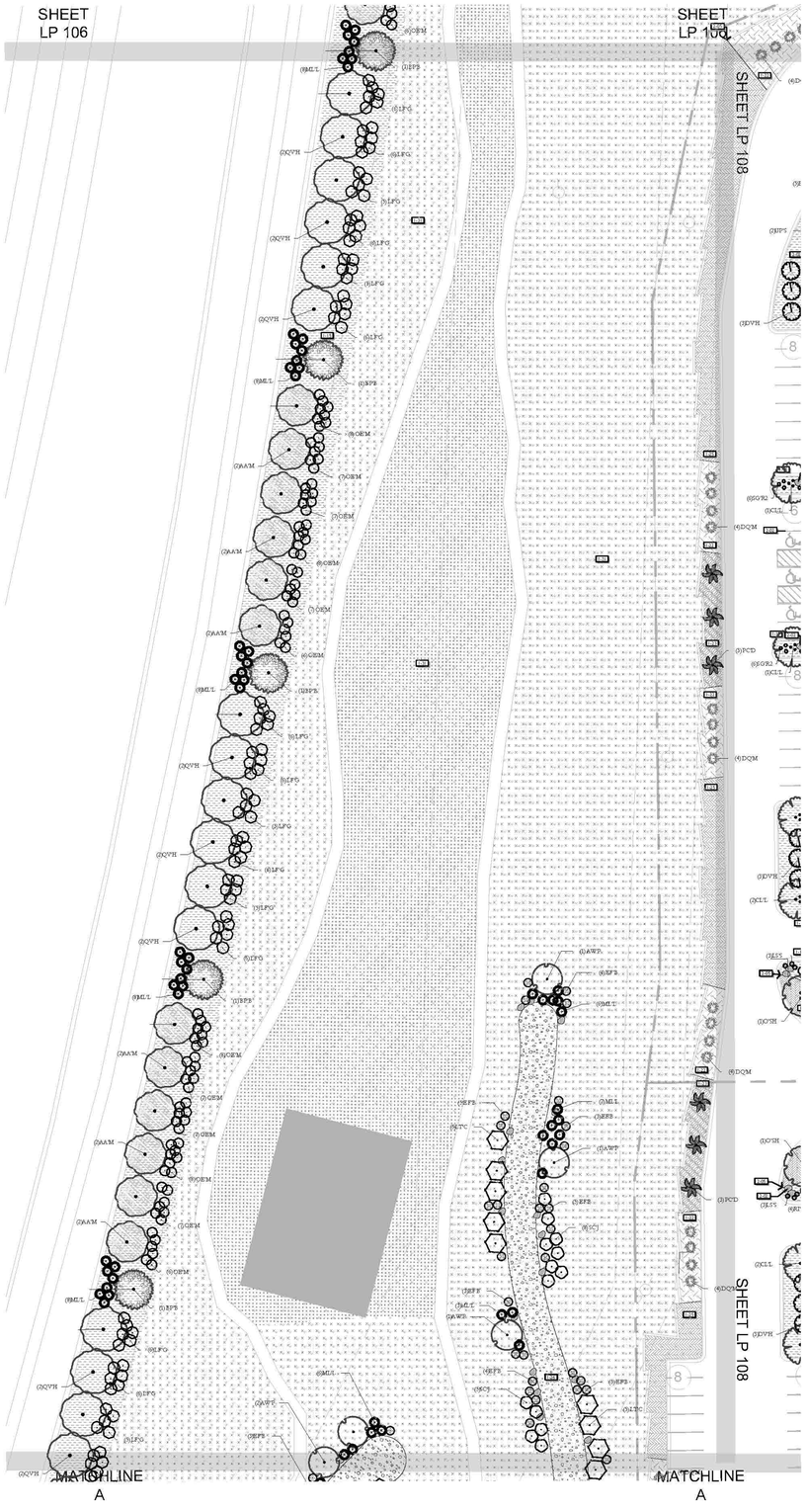
ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002	811 BLUE STAKES OF ARIZONA UTILITY NOTIFICATION CENTER, INC. 1-800-782-5348 www.bluestakes.org	NOVVA - MESA ELLSWORTH ELLSWORTH RD. & WARNER RD. MESA, ARIZONA	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture & Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT 75820 KRISTINA ANSWORTH 12-03-2024 ARIZONA, U.S.A.	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 1/19/2025

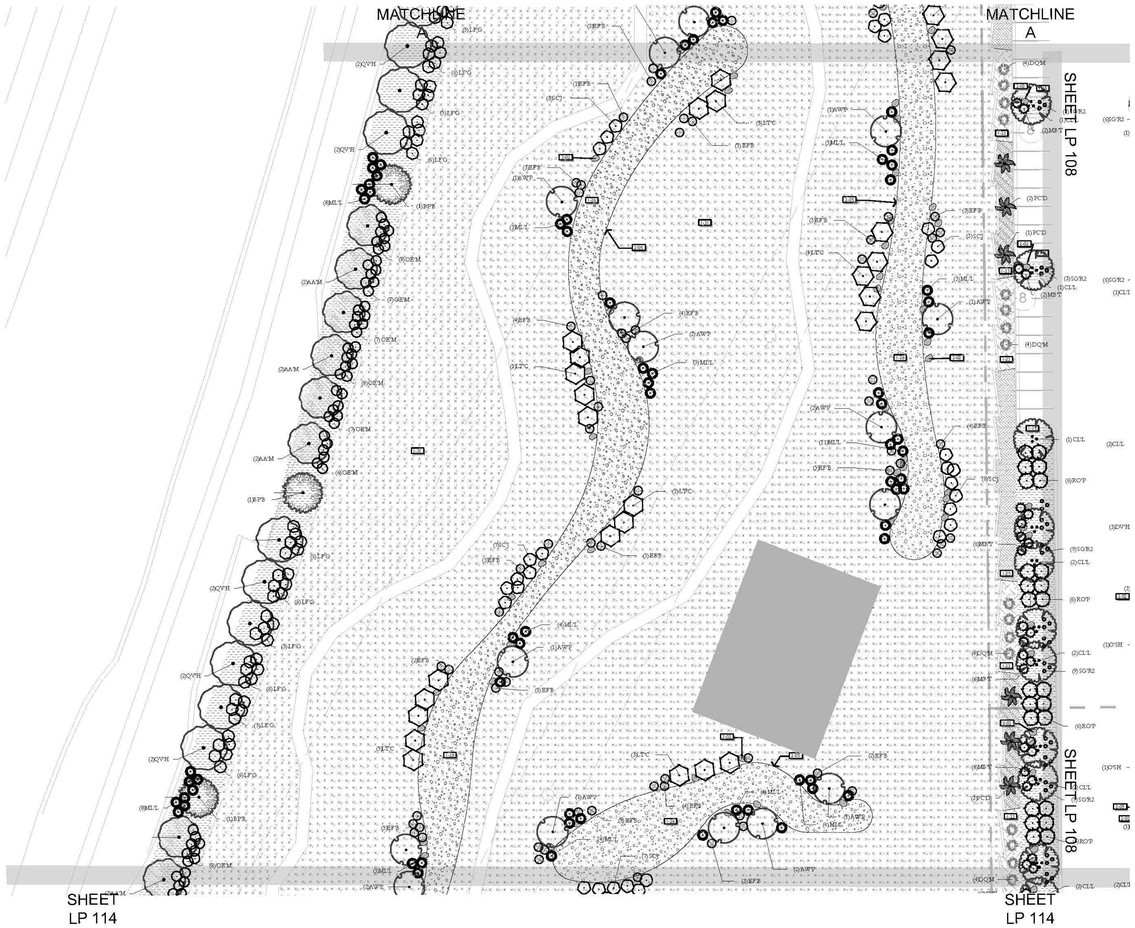
NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

COPYRIGHT
PKJ DESIGN GROUP
THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE
CITY PERMIT SET
LP-108



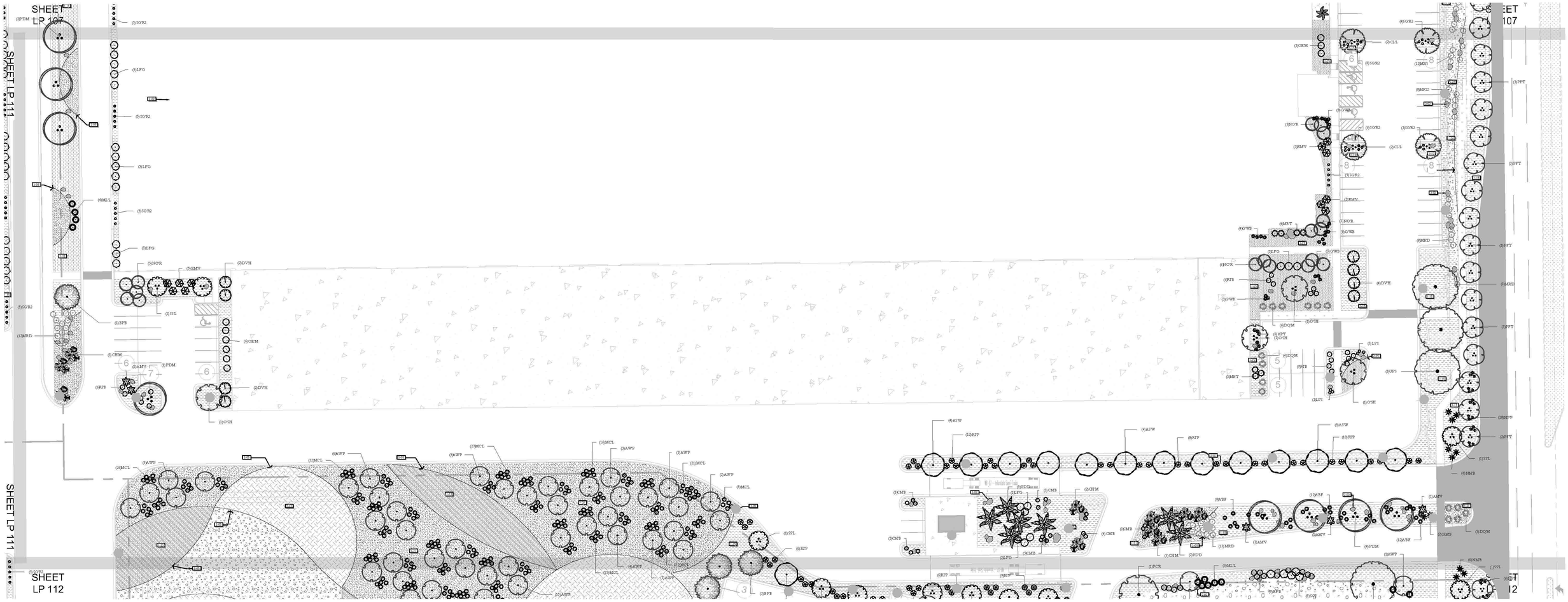


ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002	811 BLUE STAKES OF ARIZONA UTILITY NOTIFICATION CENTER, INC 1-800-782-5348 www.bluestakes.org	NOVVA - MESA ELLSWORTH ELLSWORTH RD. & WARNER RD. MESA, ARIZONA	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture // Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT KRISTINA AINSWORTH 12-03-2024 ARIZONA, USA	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 1/19/2025 LANDSCAPE CITY PERMIT SET LP-109

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

COPYRIGHT:
PKJ DESIGN GROUP
THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.



ISSUE DATE	PROJECT NUMBER
1/19/2025	AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture // Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
KRISTINA AINSWORTH
12-03-2024
ARIZONA, U.S.A.

DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/19/2025

LANDSCAPE

CITY PERMIT SET

LP-110

ISSUE DATE	PROJECT NUMBER
1/19/2025	AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

PLAN INFORMATION

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

PROJECT INFORMATION

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
KRISTINA AINSWORTH
7940
12-03-2024
ARIZONA, U.S.A.

DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/19/2025

LANDSCAPE

CITY PERMIT SET

LP-111

SHEET
LP 110

SHEET LP 113

RETENTION BASIN D

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002						

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

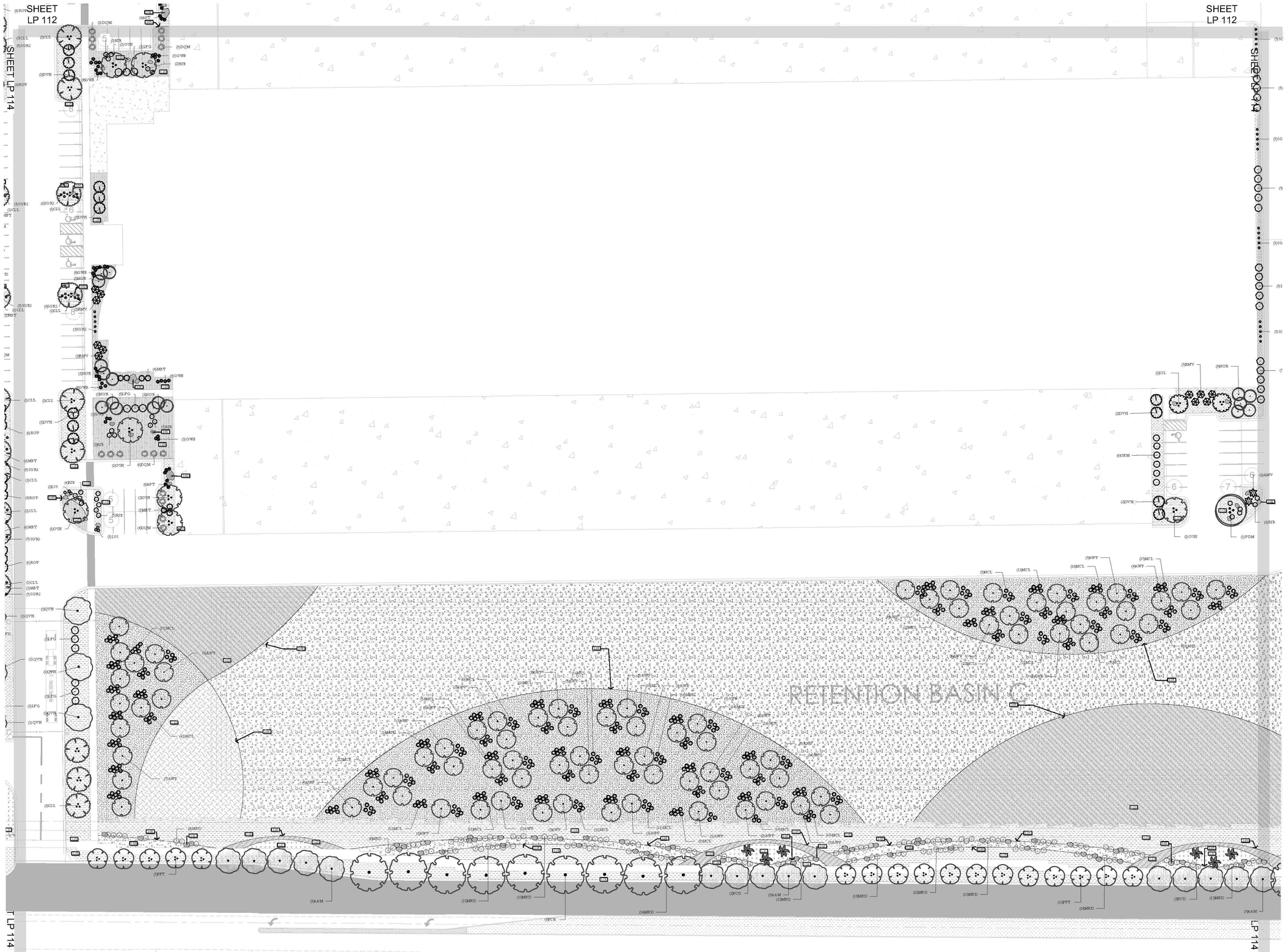
REGISTERED LANDSCAPE ARCHITECT
75920
KRISTINA AINSWORTH
12-03-2024
ARIZONA, USA

LANDSCAPE

CITY PERMIT SET

DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/19/2025

LP-112

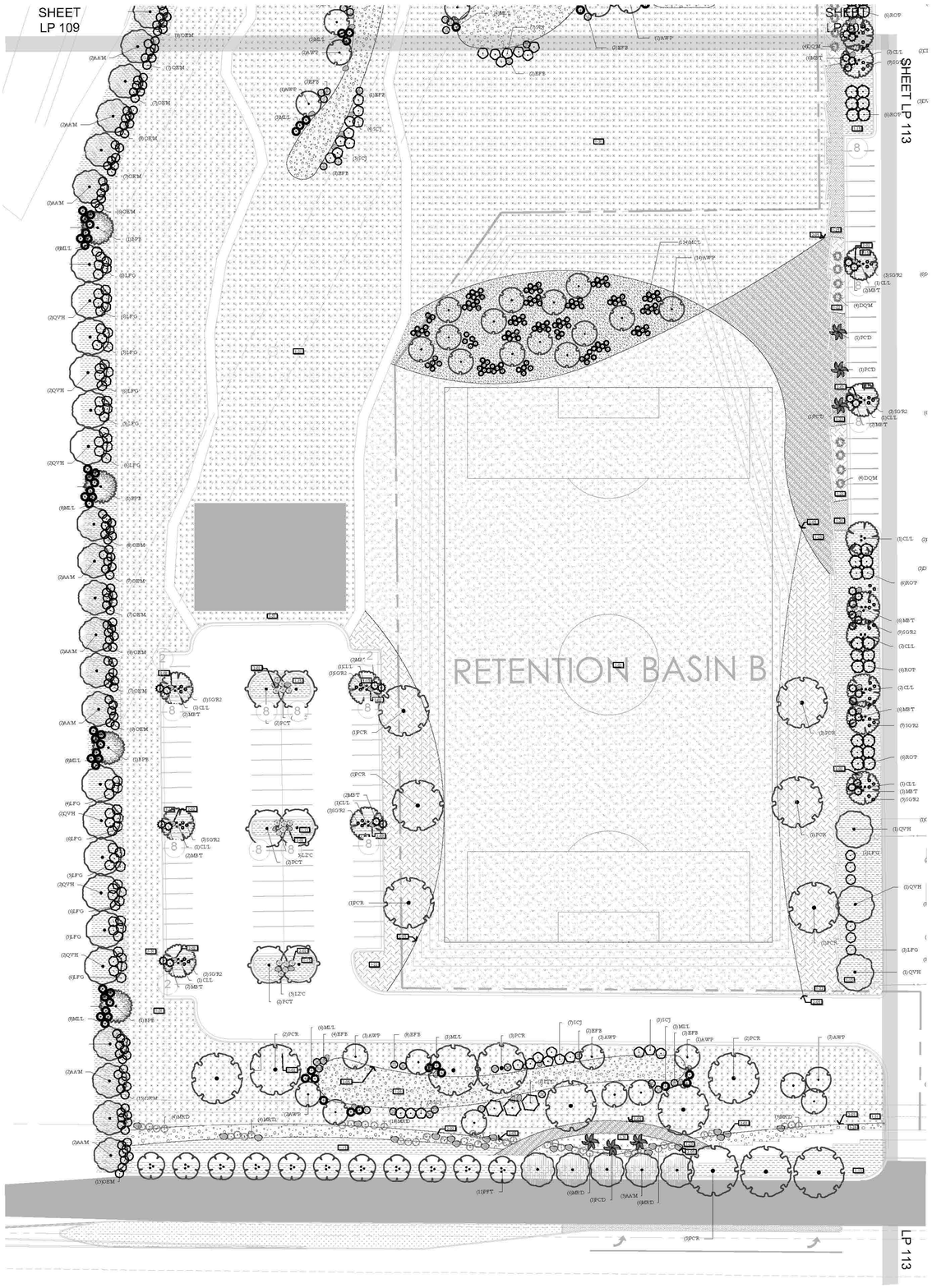


ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002	811 BLUE STAKES OF ARIZONA UTILITY NOTIFICATION CENTER, INC 1-800-782-5348 www.bluestakes.org	NOVVA - MESA ELLSWORTH ELLSWORTH RD. & WARNER RD. MESA, ARIZONA	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture // Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	REGISTERED LANDSCAPE ARCHITECT 75826 KRISTINA AINSWORTH 10-03-2024 ARIZONA, USA	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 1/19/2025 LANDSCAPE CITY PERMIT SET LP-113

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

COPYRIGHT:
PKJ DESIGN GROUP
THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/19/2025	AZ24002						PM: JTA
							DRAWN: ACP
							CHECKED: JMA
							PLOT DATE: 1/19/2025

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

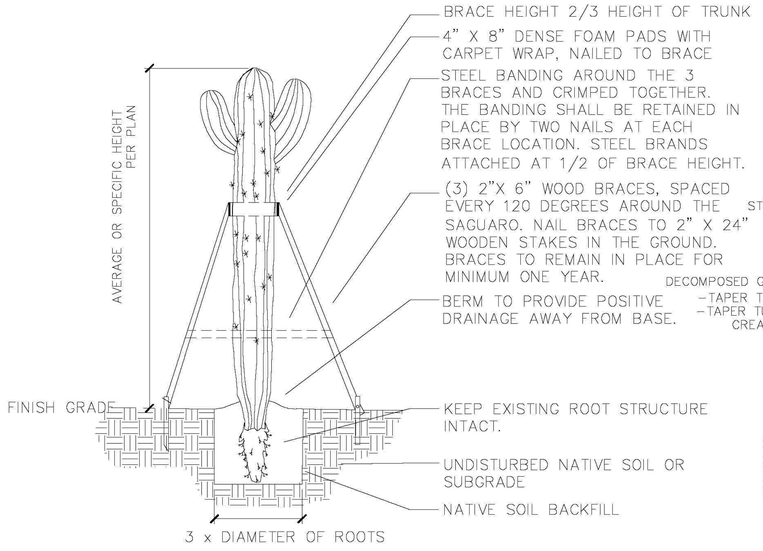
PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO. 75870
KRISTINA AINSWORTH
12-03-2024
ARIZONA, U.S.A.

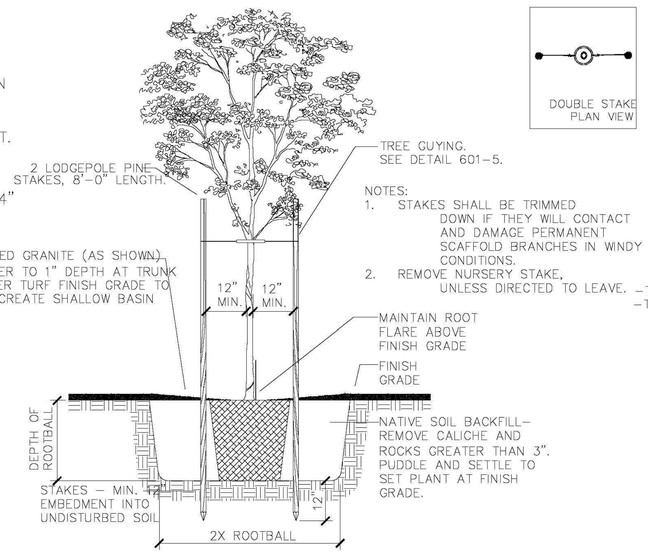
LANDSCAPE

CITY PERMIT SET

LP-114

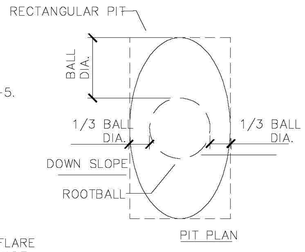


SAGUARO PLANTING WITH WOOD BRACES
NOT TO SCALE

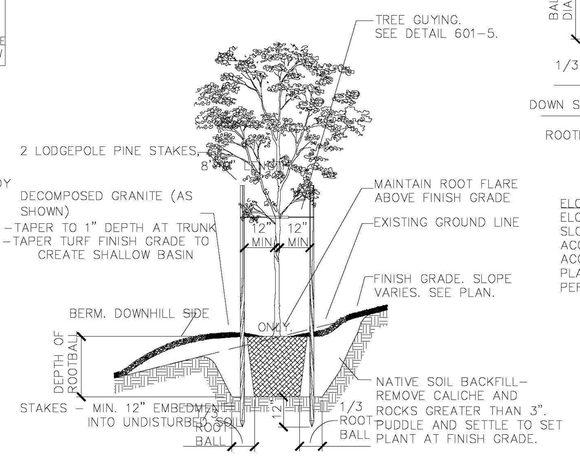


NOTES:
1. STAKES SHALL BE TRIMMED DOWN IF THEY WILL CONTACT AND DAMAGE PERMANENT SCAFFOLD BRANCHES IN WINDY CONDITIONS.
2. REMOVE NURSERY STAKE, UNLESS DIRECTED TO LEAVE.

DOUBLE STAKE TREE 5 GAL., 15 GAL., 24" BOX
NOT TO SCALE

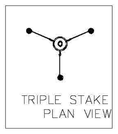


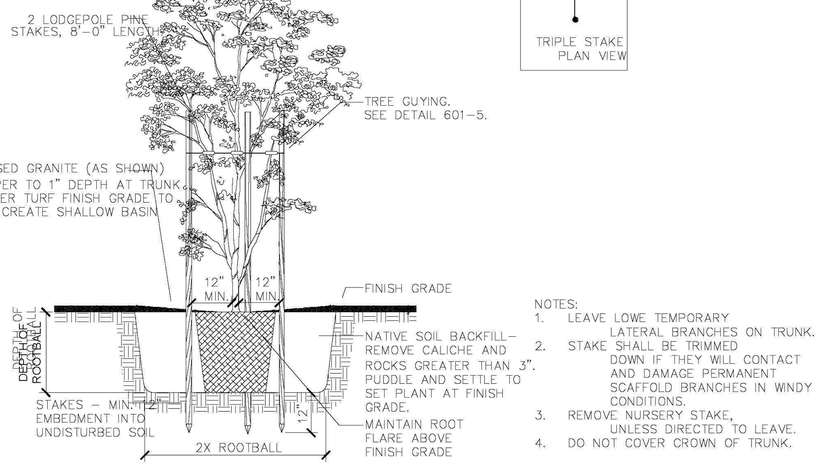
ELOGATED SLOPE PIT
ELOGATED SLOPE PITS SHALL BE USED ON SLOPES. RECTANGULAR PITS ARE ACCEPTABLE PROVIDED THEY ACCOMODATE THE PLANTS AS SHOWN. PLANTS SET VERTICALLY, AND NOT PERPENDICULAR TO SLOPE FACE



NOTES:
1. STAKES SHALL BE TRIMMED DOWN IF THEY WILL CONTACT AND DAMAGE PERMANENT SCAFFOLD BRANCHES IN WINDY CONDITIONS.
2. REMOVE NURSERY STAKE, UNLESS DIRECTED TO LEAVE.

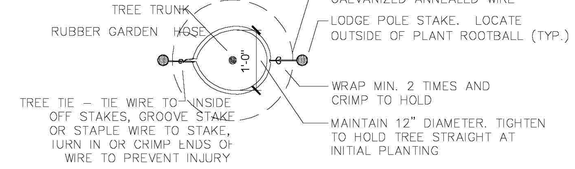
DUAL STAKE TREE ON SLOPE 5 GAL., 15 GAL., 24" BOX
NOT TO SCALE



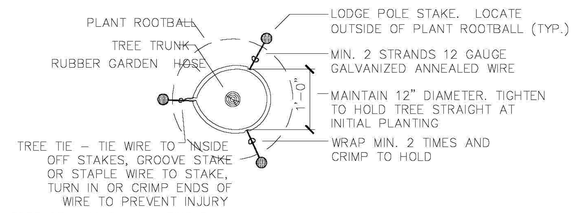


NOTES:
1. LEAVE LOWE TEMPORARY LATERAL BRANCHES ON TRUNK.
2. STAKE SHALL BE TRIMMED DOWN IF THEY WILL CONTACT AND DAMAGE PERMANENT SCAFFOLD BRANCHES IN WINDY CONDITIONS.
3. REMOVE NURSERY STAKE, UNLESS DIRECTED TO LEAVE.
4. DO NOT COVER CROWN OF TRUNK.

MULTI-TRUNK TREE 24" BOX OR GREATER
NOT TO SCALE

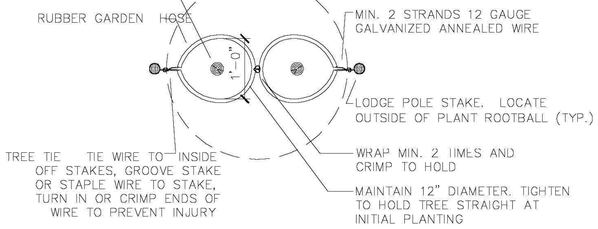


TREE STAKING PLAN - DOUBLE

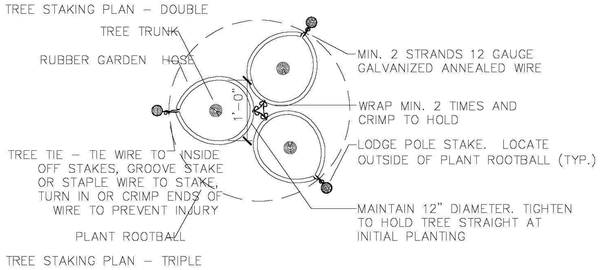


TREE STAKING PLAN - TRIPLE

TREE STAKING AND GUYING (SINGLE TRUNK)
NOT TO SCALE



TREE STAKING PLAN - DOUBLE



TREE STAKING PLAN - TRIPLE

TREE STAKING AND GUYING (MULTIPLE TRUNK)
NOT TO SCALE

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
1/19/2025	AZ24002	

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

PROJECT INFORMATION

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT 75940 KRISTINA AINSWORTH 12-03-2024 ARIZONA, USA

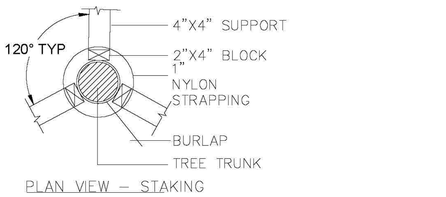
DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/19/2025

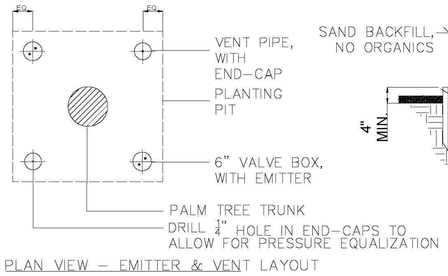
LANDSCAPE

CITY PERMIT SET

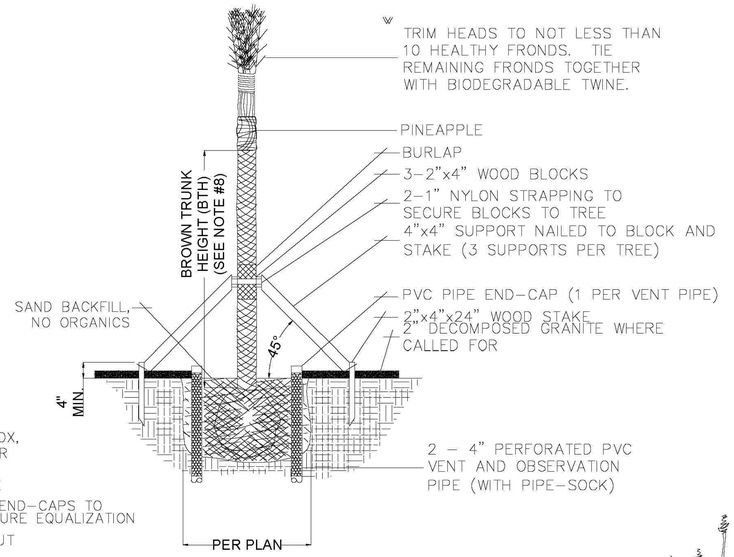
LP-500



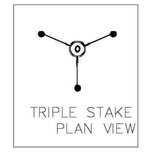
PLAN VIEW – STAKING

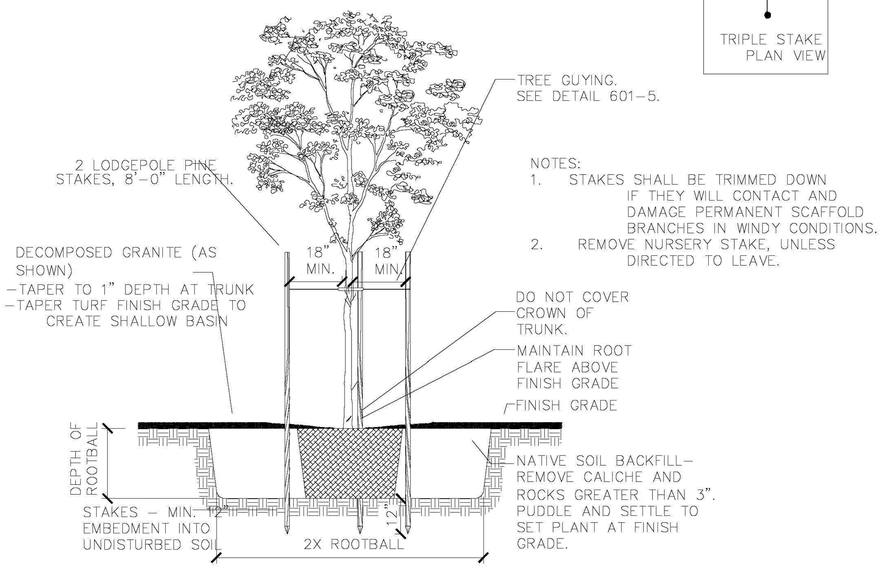


PLAN VIEW – EMITTER & VENT LAYOUT

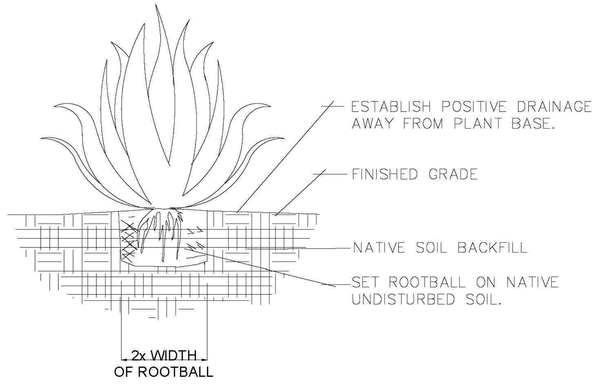


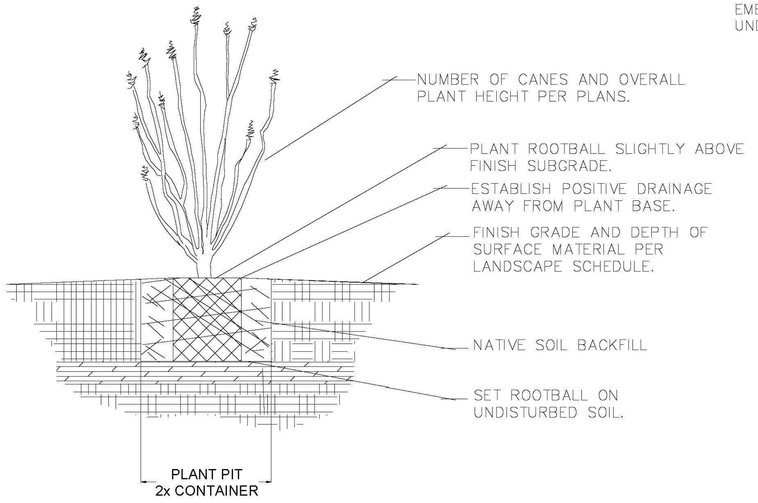
NOTES:
1. DO NOT BURY PALM – TOP OF ROOTBALL TO BE EQUAL TO, BUT NOT MORE THAN (MAX.) 6" BELOW FINISH GRADE.
2. DO NOT PLACE EMITTERS IN PVC VENT/OBSERVATION PIPES.
3. PLACE EMITTERS IN 6" ROUND VALVE BOXES.
4. INSTALL PIPE END–CAPS AT EACH VENT/OBSERVATION PIPE.
5. " DRILL ONE (1) ₄ HOLE IN EACH END–CAP TO ALLOW FOR PRESSURE EQUALIZATION AND EASE OF REMOVING END–CAP FOR OBSERVATION.
6. ADD ONE PIPE–SOCK PER VENT/OBSERVATION PIPE.
7. INSTALL TREES TRUE AND PLUMB.
8. BTH IS THE VERTICAL DISTANCE BETWEEN THE ROOTBALL AND THE BOTTOM OF THE PINEAPPLE.

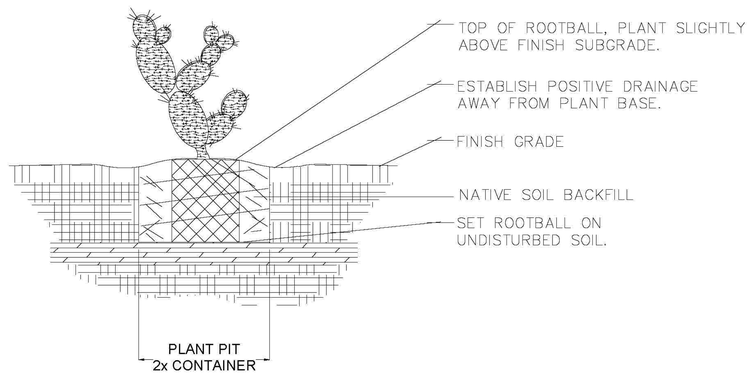


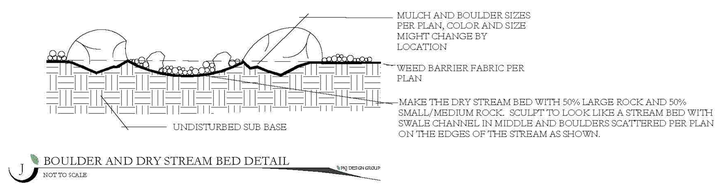


NOTES:
1. STAKES SHALL BE TRIMMED DOWN IF THEY WILL CONTACT AND DAMAGE PERMANENT SCAFFOLD BRANCHES IN WINDY CONDITIONS.
2. REMOVE NURSERY STAKE, UNLESS DIRECTED TO LEAVE.









BOULDER AND DRY STREAM BED DETAIL
NOT TO SCALE

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO

1/19/2025 AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT
PKJ DESIGN GROUP
THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

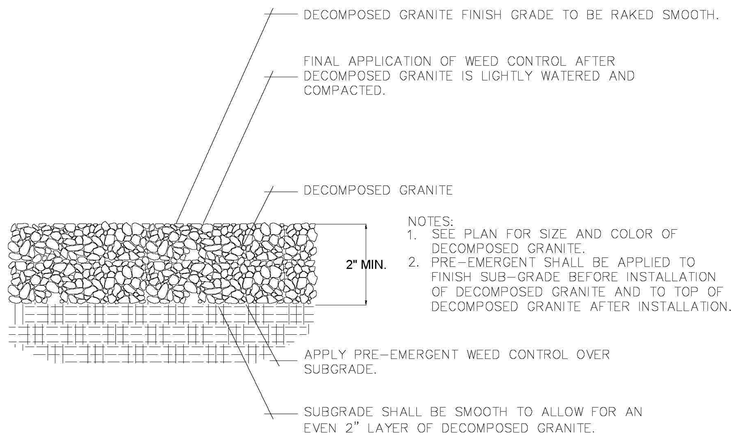
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT 75620 KRISTINA AINSWORTH 12-03-2024 ARIZONA, U.S.A.

LANDSCAPE

CITY PERMIT SET

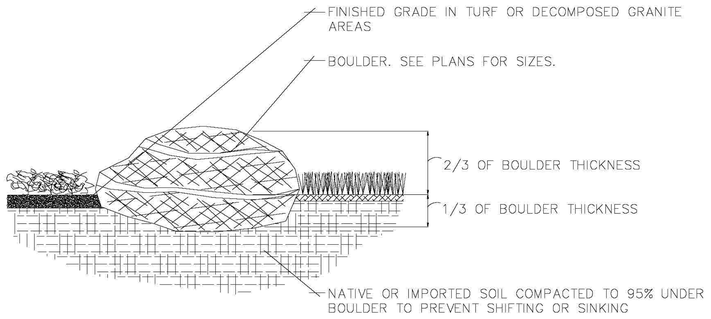
LP-501

DRAWING INFO
PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 1/19/2025



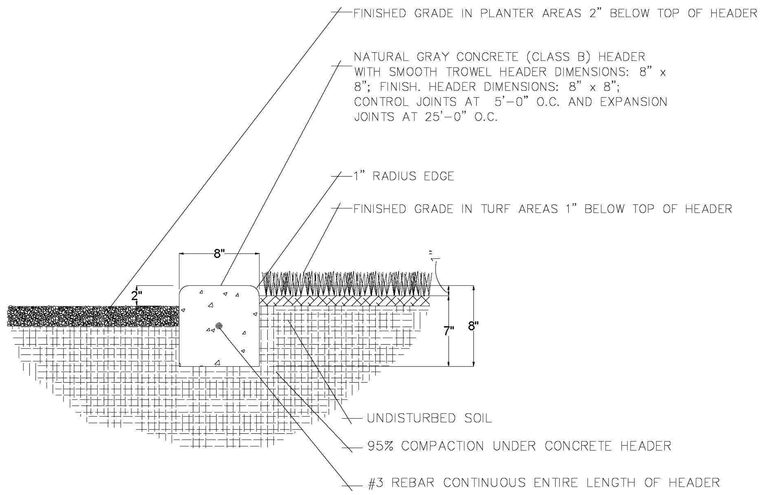
NOTES:
1. SEE PLAN FOR SIZE AND COLOR OF DECOMPOSED GRANITE.
2. PRE-EMERGENT SHALL BE APPLIED TO FINISH SUB-GRADE BEFORE INSTALLATION OF DECOMPOSED GRANITE AND TO TOP OF DECOMPOSED GRANITE AFTER INSTALLATION.

A DECOMPOSED GRANITE
NOT TO SCALE

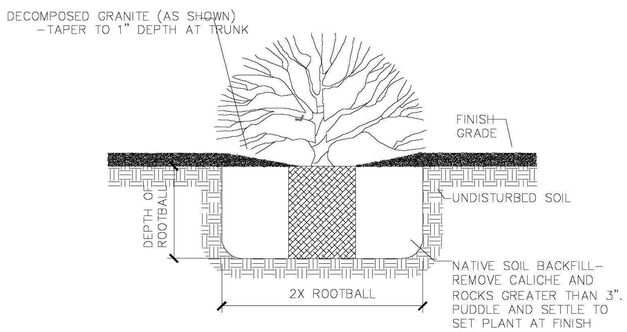


NOTES:
1. BOULDER SIZE AND TYPE SHALL BE PER PLAN.
2. BOULDER LOCATIONS AND FACE SHALL BE APPROVED PRIOR TO PLACEMENT.

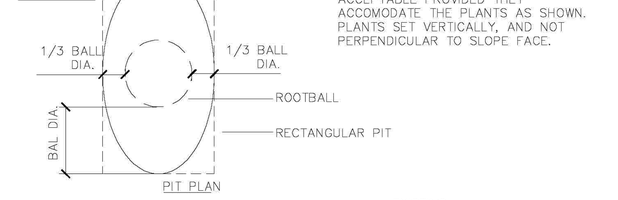
A BOULDER INSTALLATION
NOT TO SCALE



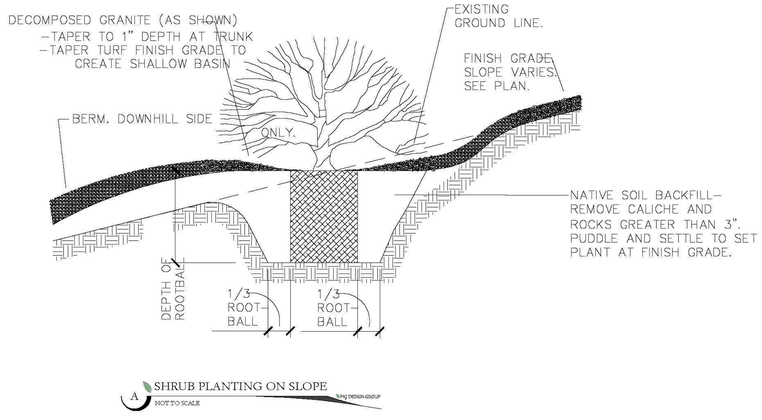
A CONCRETE HEADER
NOT TO SCALE



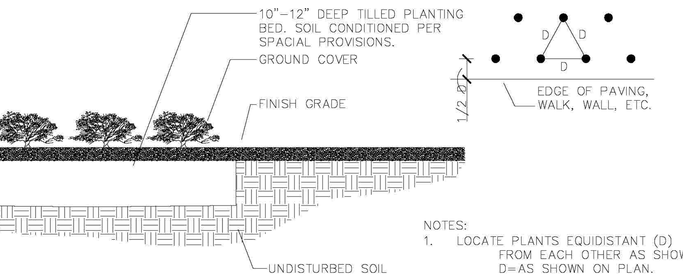
A SHRUB PLANTING
NOT TO SCALE



ELOGATED SLOPE PIT
ELOGATED SLOPE PITS SHALL BE USED ON SLOPES. RECTANGULAR PITS ARE ACCEPTABLE PROVIDED THEY ACCOMODATE THE PLANTS AS SHOWN. PLANTS SET VERTICALLY, AND NOT PERPENDICULAR TO SLOPE FACE.

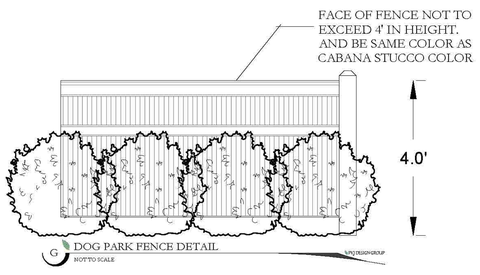


A SHRUB PLANTING ON SLOPE
NOT TO SCALE

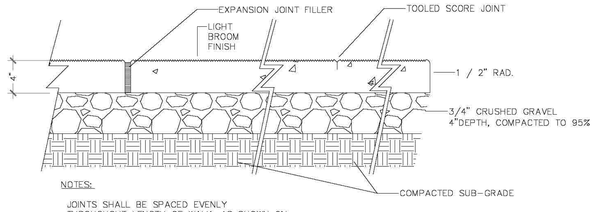


NOTES:
1. LOCATE PLANTS EQUIDISTANT (D) FROM EACH OTHER AS SHOWN. D=AS SHOWN ON PLAN.

A GROUNDCOVER PLANTING
NOT TO SCALE



G DOG PARK FENCE DETAIL
NOT TO SCALE



NOTES:
JOINTS SHALL BE SPACED EVENLY THROUGHOUT LENGTH OF WALK, AS SHOWN ON DRAWINGS.

F CONCRETE FLATWORK DETAIL
NOT TO SCALE

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO

1/19/2025 AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

NOVVA - MESA ELLSWORTH
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture // Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

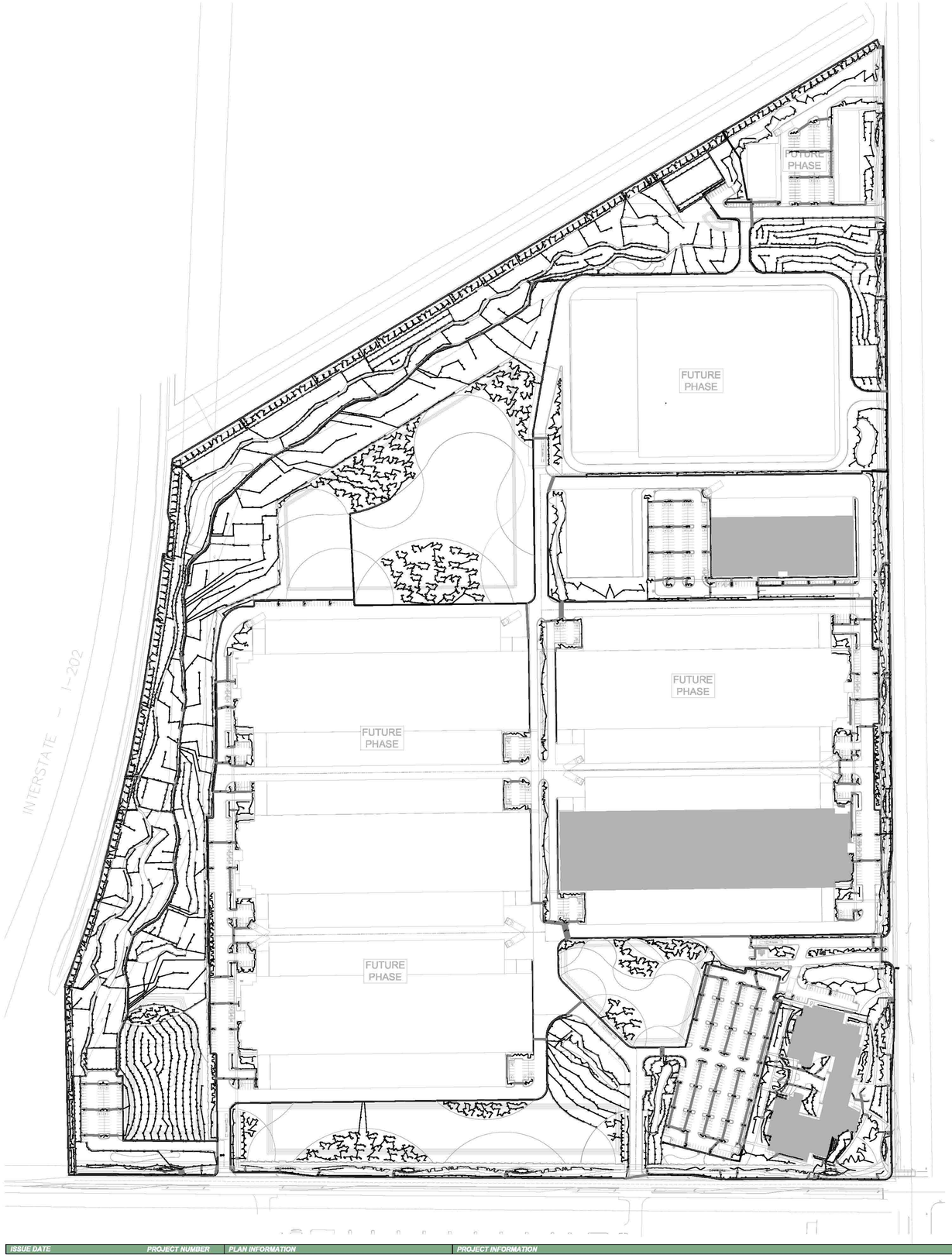
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
KRISTINA AINSWORTH
12-03-2024
ARIZONA, USA

LANDSCAPE

CITY PERMIT SET

LP-502

DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/19/2025



IRRIGATION LEGEND

(BOTH PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE) IF YOU NEED HELP WITH A WATER AUDIT CONSULTATION, OR A PLANT MAINTENANCE SCHEDULE, CONTACT PKJ@PKJDESIGNGROUP.COM

M2	Rain Bird EFB-CP-PRS-D 2" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
C1	Rain Bird ESPLXIVMP 240 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVMP 240-Station, Indoor/Outdoor, Plastic Wall-Mount Enclosure. System Requirements: Rain Bird LXIVM-XXX - Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LXIVMSD Surge Device in Rain Bird Round Valve Boxes. Install Per Manufacturers Recommendations.	1
C2	Rain Bird ESPLXIVMP 240 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVMP 240-Station, Indoor/Outdoor, Plastic Wall-Mount Enclosure. System Requirements: Rain Bird LXIVM-XXX - Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LXIVMSD Surge Device in Rain Bird Round Valve Boxes. Install Per Manufacturers Recommendations.	1
WS	Rain Bird WR2-RC Wireless Rain Sensor Combo, includes 1 receiver and 1 rain sensor transmitter.	1
WS	Rain Bird WR2-RC Wireless Rain Sensor Combo, includes 1 receiver and 1 rain sensor transmitter.	1
FS	Rain Bird FS-200-B 2in. Flow Sensor, Brass Model. Suggested Operating Range 10 GPM to 100 GPM. Size for Flow Not According to Pipe Size. Rain Bird Compatible Controllers: ESP-LXIVM(P) | LXD | LXME2(P) | ME3, or Controllers Accepting Custom K-Factor and Offset. Install in Rain Bird Valve Box.	2
F	Amiad 2 TAG Disc Element 200mm Amiad 2in. Tagline filter, NPT. Disc Screen Element. Maximum working pressure 116psi.	2
POC 1"	Point of Connection 2"	1
POC2 1"	Point of Connection 2"	1
	Irrigation Lateral Line: PVC Class 200 SDR 21	335.0 Lf.
	Irrigation Lateral Line: PVC Class 200 SDR 21 1/2"	75,055 Lf.
	Irrigation Lateral Line: PVC Class 200 SDR 21 3/4"	11,808 Lf.
	Irrigation Lateral Line: PVC Class 200 SDR 21 1"	13,055 Lf.
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/4"	9,411 Lf.
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/2"	5,823 Lf.
	Irrigation Lateral Line: PVC Class 200 SDR 21 2"	9,390 Lf.
	Irrigation Lateral Line: PVC Class 200 SDR 21 2 1/2"	12,156 Lf.
	Irrigation Lateral Line: PVC Class 200 SDR 21 3"	735.3 Lf.
	Irrigation Lateral Line: PVC Class 200 3/4"	5.5 Lf.
	Irrigation Lateral Line: PVC Class 200 1"	22.9 Lf.
	Irrigation Lateral Line: PVC Class 200 3"	3.8 Lf.
	Irrigation Lateral Line: PVC Class 200 1/2"	5.2 Lf.
	Irrigation Mainline: PVC Schedule 40	29,361 Lf.
	Pipe Sleeve: PVC Class 200 SDR 21	8,113 Lf.

Valve Callout
#1 — Valve Number
#" — Valve Size

P.O.C. CONFIGURATION

(NOTE: PRESSURE TEST SYSTEM TO VERIFY 80 PSI. IF NOT, CONTACT LANDSCAPE ARCHITECT OR INSTALL PRESSURE REDUCING VALVE.)

POC — SOURCE DATA
SHUTOFF VALVE
AMIAD SCREEN FILTER
M — MASTER VALVE
FS — 1" FLOW SENSOR
QUICK COUPLER

IRRIGATION LEGEND

(BOTH PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE) IF YOU NEED HELP WITH A WATER AUDIT CONSULTATION, OR A PLANT MAINTENANCE SCHEDULE, CONTACT PKJ@PKJDESIGNGROUP.COM

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
LST SST RST	Rain Bird R-VAN-STRIP 1806-SAM-P45 Shrub Rotary, 5ft.x15ft. (LCS and RCS), 5ft.x30ft. (SST) Hand Adjustable Multi-Stream Rotary w/ 1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	4	45
14 ADJ 14 F	Rain Bird R-VAN14 1806-SAM-P45 Turf Rotary, 8ft.-14ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	55	45
18 ADJ 18 F	Rain Bird R-VAN18 1806-SAM-P45 Turf Rotary, 13ft.-18ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	20	45
24 ADJ 24 F	Rain Bird R-VAN24 1806-SAM-P45 Turf Rotary, 17ft.-24ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	219	45

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
	Rain Bird 5006-PL-PC-SAM-R-NP-SS-MPR 25 Turf Rotor, 6in. Pop-Up, Stainless Steel Riser, w/Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle) Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Check Valve, In-Stem Pressure Regulator, and Non Potable Purple Cap.	496	25		23'
	Rain Bird 5006-PL-PC-SAM-R-NP-SS-MPR 30 Turf Rotor, 6in. Pop-Up, Stainless Steel Riser, w/Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle) Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Check Valve, In-Stem Pressure Regulator, and Non Potable Purple Cap.	103	25		29'
	Rain Bird 5006-PL-PC-SAM-R-NP-SS-MPR 35 Turf Rotor, 6in. Pop-Up, Stainless Steel Riser, w/Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle) Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Check Valve, In-Stem Pressure Regulator, and Non Potable Purple Cap.	284	25		32'
	Rain Bird 8005-SS-NP 06 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	51	50	5.6	45'
	Rain Bird 8005-SS-NP 08 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	2	50	6.6	49'
	Rain Bird 8005 SS-NP 10 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	1	50	9.3	53'
	Rain Bird 8005-SS-NP 12 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	514	50	11.1	57'
	Rain Bird 8005-SS-NP 24 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	94	50	22.3	63'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird XCZ-100-IVMQ 1" Wide Flow IVM Drip Control Kit for Commercial Applications. 1in. Ball Valve with: 1in. PESBIVM Smart Valve w/ factory installed IVM-SOL 0.3-20 gpm and 1in. Pressure Regulating 40psi Quick-Check Basket Filter 0.3-20 gpm	107
	Rain Bird XFS-09-18 Drip Ring(SHRUB)	1
7 10 12 18 24	Rain Bird PC Single Outlet, Pressure Compensating Drip Emitters with Self-Piercing Barb Inlet. Flow rate: 5 GPH=light brown; 7 GPH=violet; 10 GPH=green; 12 GPH=dark brown; 18 GPH=white; 24 GPH=orange.	10,687

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESB-IVM 1-1/2" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	22
	Rain Bird PESB-IVM 1" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	18
	Rain Bird PESB-IVM 2" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	130
	Rain Bird 44-RC 1" 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Thermoplastic Rubber Cover, and 2-Piece Body.	2
	Shut Off Valve	2
M	Rain Bird EFB-CP-PRS-D 2" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1

ISSUE DATE: 12/5/2024
PROJECT NUMBER: AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 75' 150' 300' 600'
GRAPHIC SCALE: 1" = 150'

PROJECT INFORMATION

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THIS WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

DRAWING INFO

PIC: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 12/5/2024

LANDSCAPE
CITY PERMIT SET

IR-100

IRRIGATION PLAN SPECIFICATIONS

IRRIGATION SPECIFICATIONS

PART 1 - 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. Remove and dispose of any existing sprinkler system components which are disturbed during the construction process and are not to be saved. 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 micor 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: Secondary waste piping and components, furnished and installed by others to provide irrigation water to this Project, including but not limited to: filter, 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 filter, 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, 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 proceeded in the field until the required submittals have been 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 Maps: 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 in this section prior to acceptance by OAR.

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 settled 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 evacuating system of all water pressure regulation devices. 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 procedures.

PART 2 - PRODUCTS

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 indicated.

2.3 CONNECTION ASSEMBLY

A. Secondary water shall be used on this Project. Install filter 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/ground pedestal timer controllers: Irrigation contractor shall be responsible for this task. Power configuration for wall-mount/ground pedestal timer 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., I.P specification number P707SD.

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/extra wire (3 ft.) 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 Watertous 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 (for 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 G175212 swing joint assembly with: strap-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. Rainbird 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

3.1 PREPARATION

A. Contractor shall repair or replace work damaged by irrigation system installation. If damaged work is new, repair or replacement shall be performed by the original installer of that work. 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 for 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 more than 24 hours at a time.

3.2 TRENCHING AND BACKFILLING

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 fair, 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 degrees 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. Wiring 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.

G. Electrical contractor is in charge of providing 1.5" conduit from controller to outside landscape area. Provide power and room for controller. Provide ethernet to hardwire power into the controller.

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 one remote control valve may be installed in a valve 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. Then 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 picked up daily.

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

C. Contractor is responsible for removal and disposal of offsite 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

WATERING SCHEDULE

90 Day Establishment Period Irrigation Schedule

In Ease Water Use Zones	TYPE	IR. HEAD	AMT. H20	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
H Water Use	TURF	MP ROTATOR	.5 INCH		15 MIN.		15 MIN.		15 MIN.		Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GALHR.		2 HOURS				2 HOURS		precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	2 GALHR.		2 HOURS						

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event. Shrubs to be watered so soil is moist 6" below root ball. Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress.

Regular Irrigation Schedule: Begin Spring Watering May 15 (Turf irrigation event once every 5-7 days; Shrubs 2-4 times/month)

In Ease Water Use Zones	TYPE	IR. HEAD	AMT. H20	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
H Water Use	TURF	MP ROTATOR	.5 INCH		60 MIN.						Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GALHR.			2 HOURS					precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	No Water								

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event. Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress. Days of watering may vary based on local restrictions

Regular Irrigation Schedule: Begin Summer Watering June 15 (Turf irrigation event once every 2-3 days; Shrubs 1 time/week)

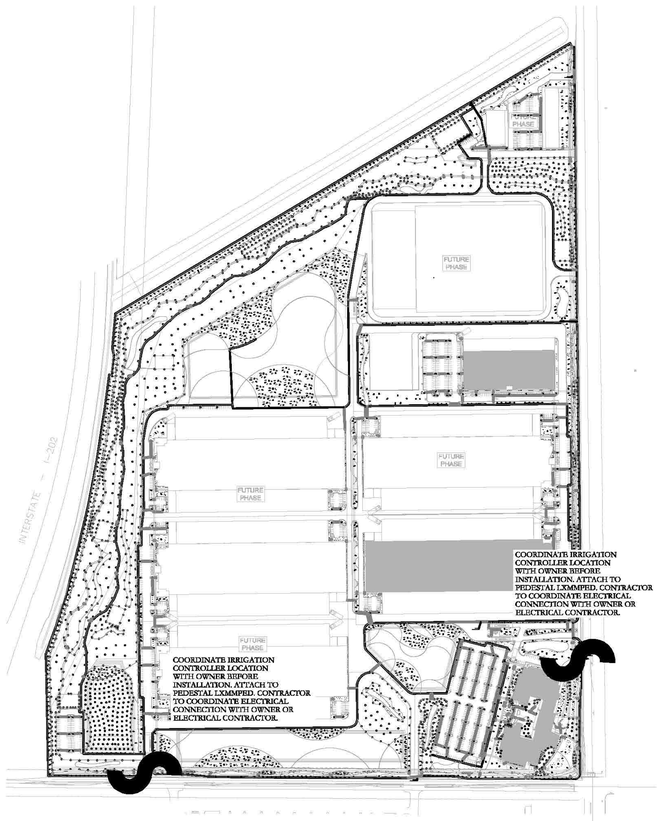
In Ease Water Use Zones	TYPE	IR. HEAD	AMT. H20	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
H Water Use	TURF	MP ROTATOR	.5 INCH		30 MIN.		60 MIN.		60 MIN.		Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GALHR.			2 HOURS					precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	2 GALHR.			1 HOUR					

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event. Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress. Days of watering may vary based on local restrictions Reference Utah DNR weekly watering guide: https://conservewater.utah.gov/weekly-lawn-watering-guide/

Regular Irrigation Schedule: Begin Fall Watering September 1-End Fall Watering October 15 (Turf irrigation event once every 5-7 days; Shrubs 2-4 time/month)

In Ease Water Use Zones	TYPE	IR. HEAD	AMT. H20	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
H Water Use	TURF	MP ROTATOR	.5 INCH		30 MIN.						Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GALHR.			2 HOURS					precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	No Water								

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event. Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress. Days of watering may vary based on local restrictions



2.5" MAINLINE ROUTING ,2-CONTROLLERs AND 2-P.O.C. LOCATIONS OVERVIEW

ISSUE DATE	PROJECT NUMBER
1/16/2025	AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 150' 300' 600' 1200'
GRAPHIC SCALE: 1" = 300'

PROJECT INFORMATION

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

REGISTERED LANDSCAPE ARCHITECT
KRISTINA AINSWORTH
ARIZONA, U.S.A.

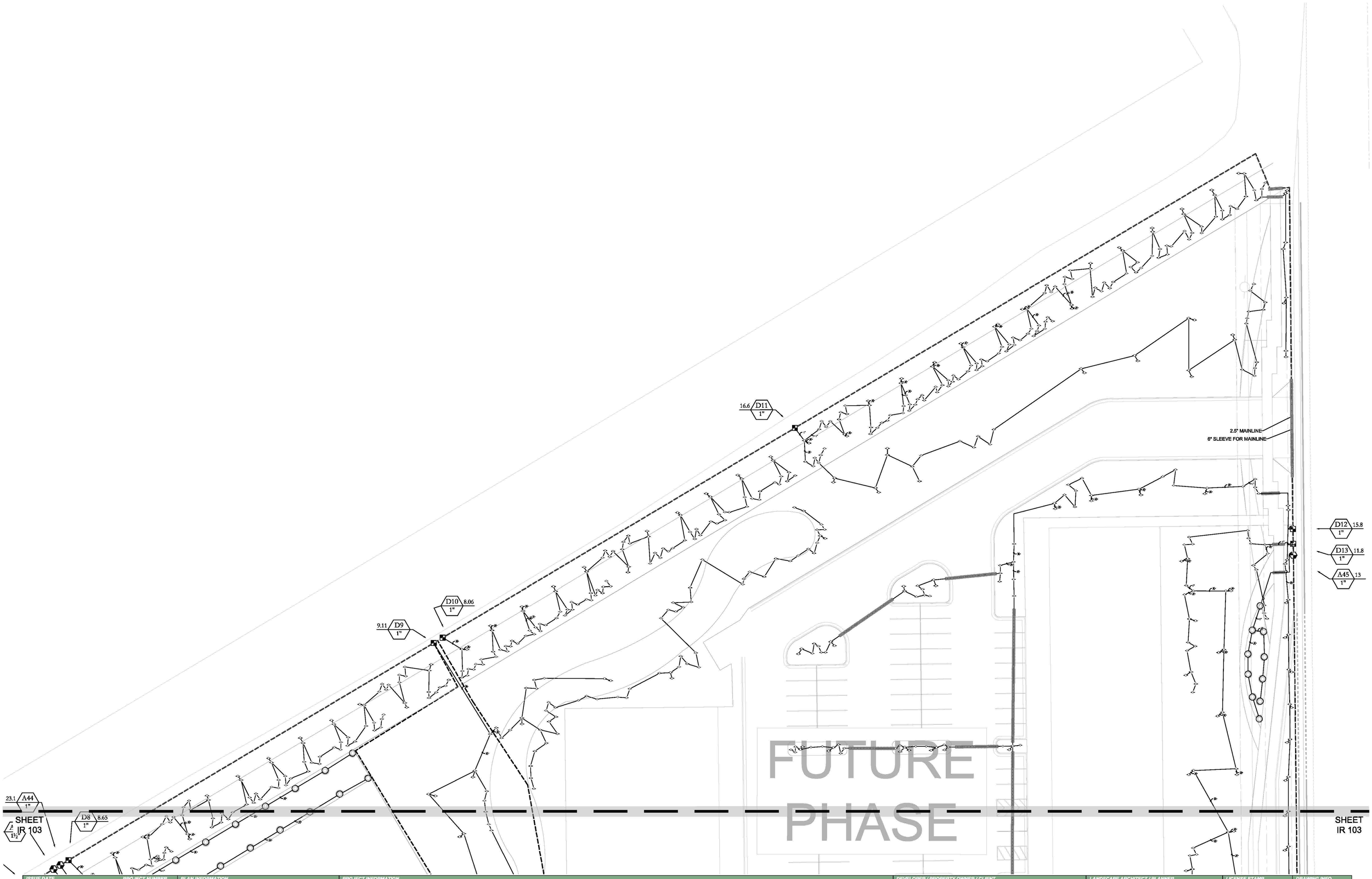
DRAWING INFO

PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 1/16/2025

LANDSCAPE

CITY PERMIT SET

IR-101



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
1/16/2025	AZ24002	

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

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

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

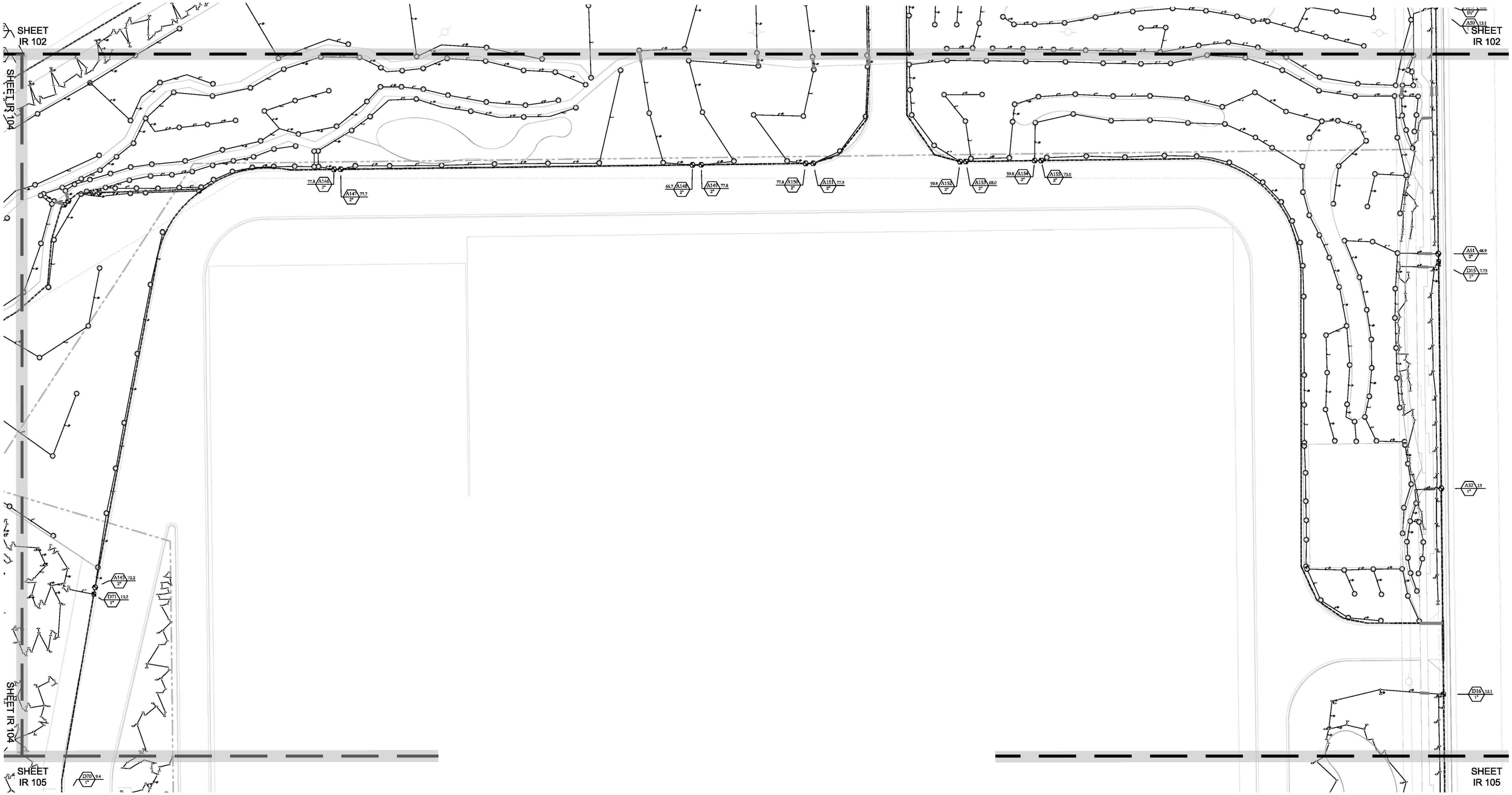
PKJ LICENSED LANDSCAPE ARCHITECT 75940 KRISTINA AINSWORTH ARIZONA, U.S.A.

PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 1/16/2025

LANDSCAPE

CITY PERMIT SET

IR-102



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
1/16/2025	AZ24002	

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

REGISTERED LANDSCAPE ARCHITECT
JOSHUA AINSWORTH
ARIZONA, U.S.A.

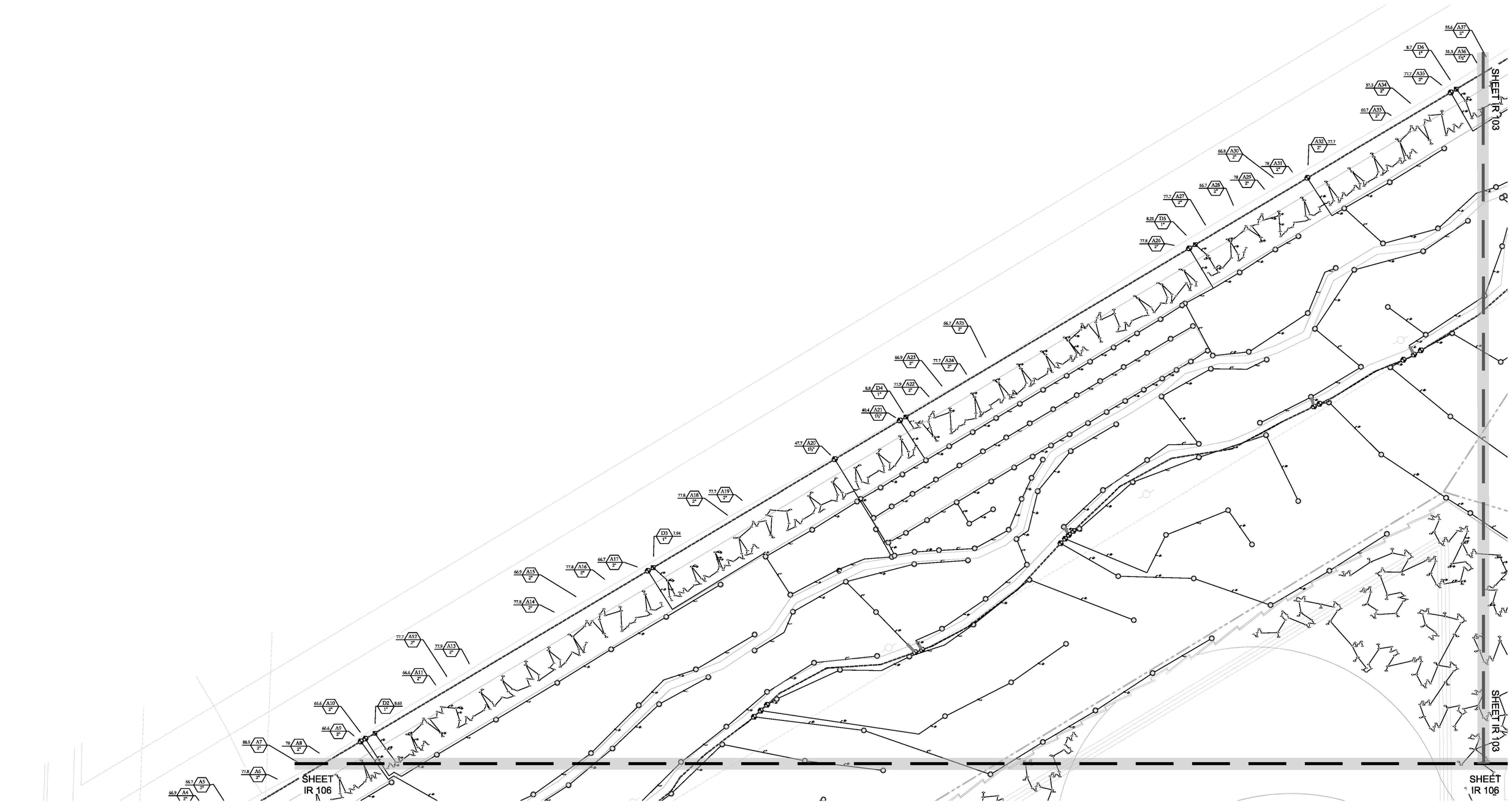
DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/16/2025

LANDSCAPE

CITY PERMIT SET

IR-103



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/16/2025	AZ24002						

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THIS WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

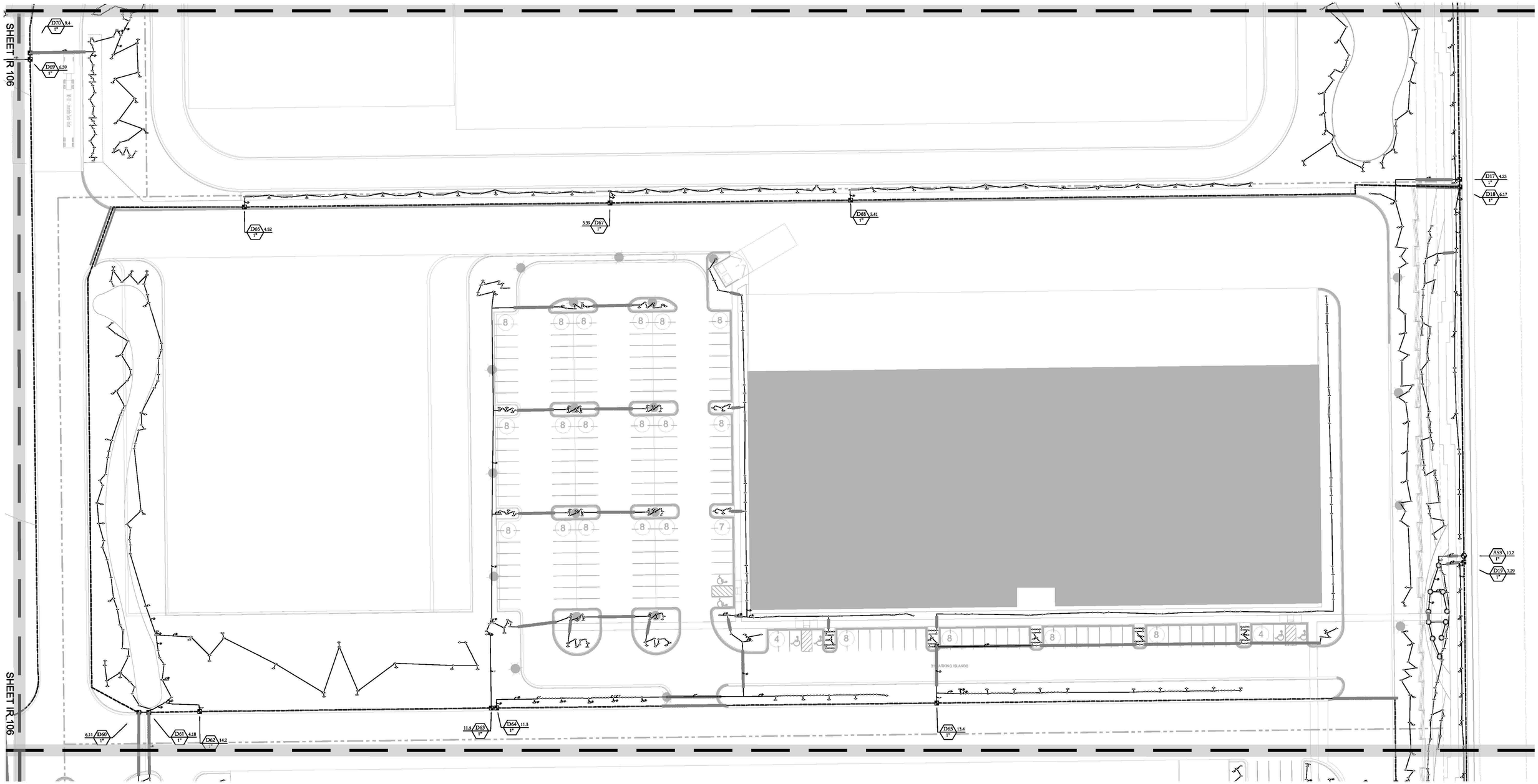
Professional Landscape Architect
75040
KRISTINA AINSWORTH
In Good Standing
ARIZONA, U.S.A.

LANDSCAPE

CITY PERMIT SET

DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/16/2025

IR-104



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/16/2025	AZ24002		BOREALIS ELLSWORTH RD. & WARNER RD. MESA, ARIZONA	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture & Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	75940 KRISTINA AINSWORTH ARIZONA, U.S.A.	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 1/16/2025 LANDSCAPE CITY PERMIT SET IR-105

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

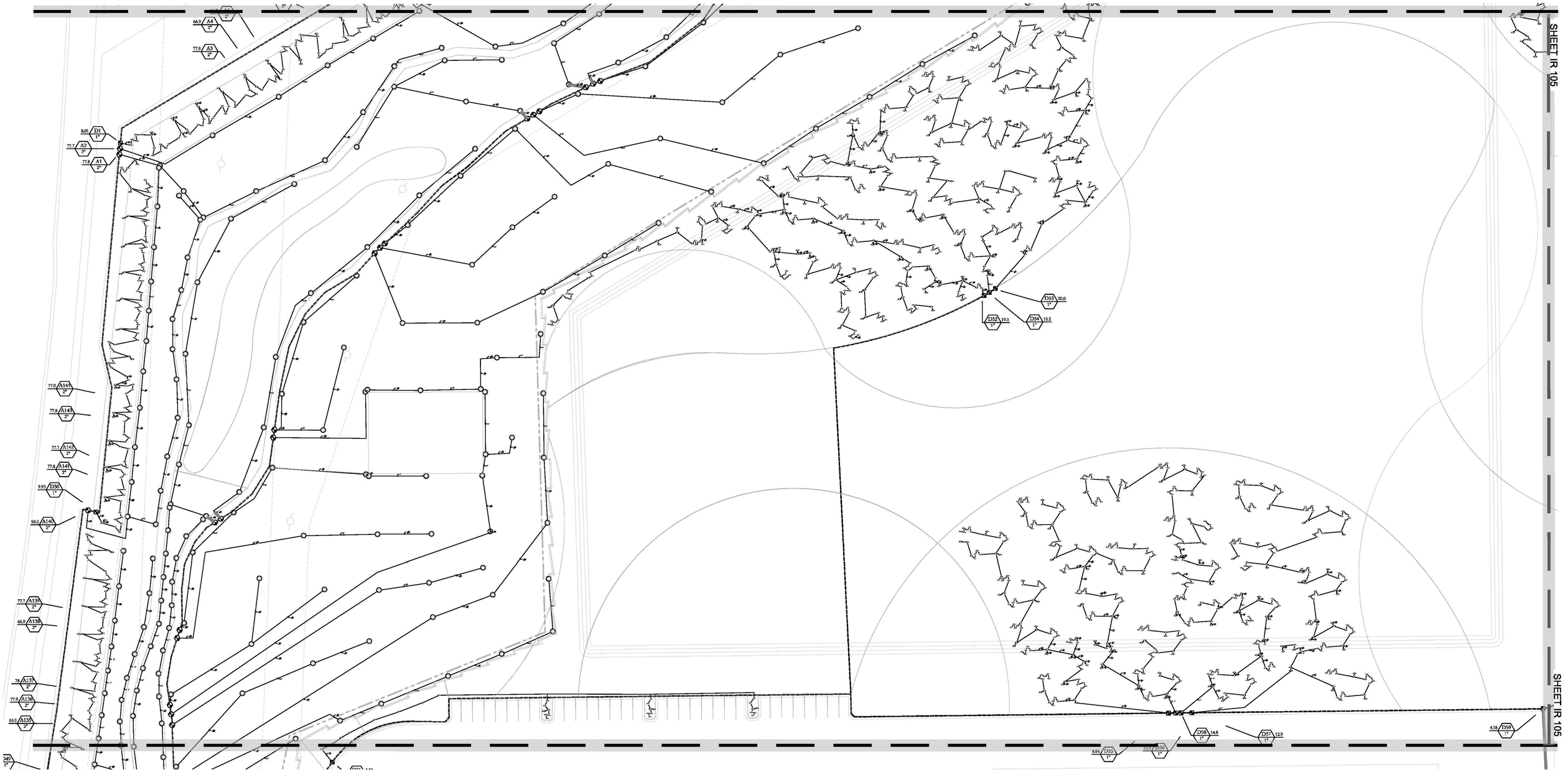
811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
1/16/2025	AZ24002	811 BLUE STAKES OF ARIZONA UTILITY NOTIFICATION CENTER, INC 1-800-782-5348 www.bluestakes.org

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

N

0' 15' 30' 60' 120'

GRAPHIC SCALE: 1" = 30'

PROJECT INFORMATION

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIGN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THIS WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

Registered Landscape Architect 75940 KRISTINA AINSWORTH ARIZONA, U.S.A.

LANDSCAPE

CITY PERMIT SET

IR-106

DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/16/2025

SHEET IR 105

SHEET IR 108

FUTURE PHASE

SHEET IR 110

SHEET IR 105

SHEET IR 108

SHEET IR 110

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
1/16/2025	AZ24002	

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

PROJECT INFORMATION

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THIS WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

REGISTERED LANDSCAPE ARCHITECT
KRISTINA AINSWORTH
ARIZONA, U.S.A.

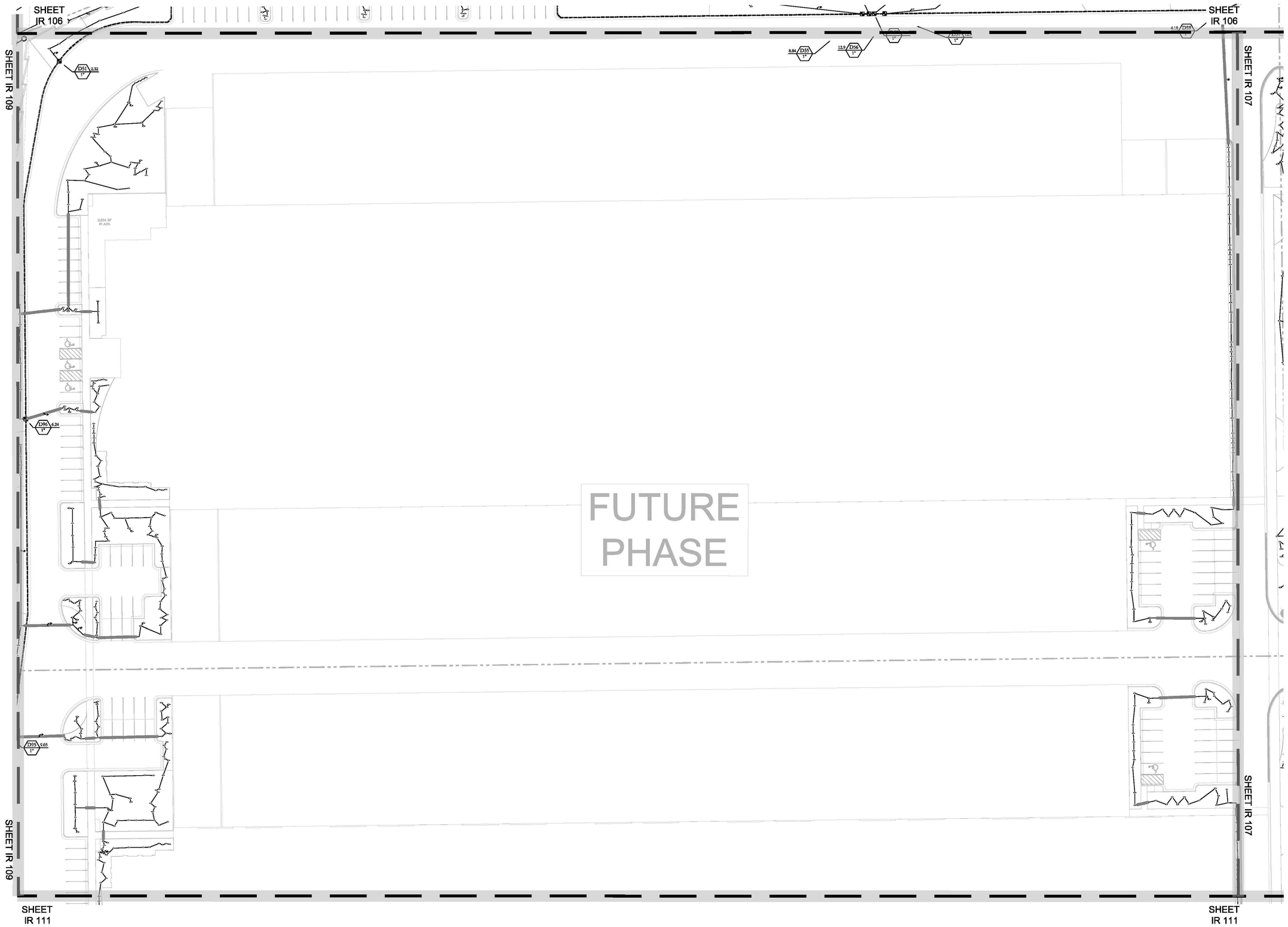
DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/16/2025

LANDSCAPE

CITY PERMIT SET

IR-107



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
1/16/2025	AZ24002	811 BLUE STAKES OF ARIZONA UTILITY NOTIFICATION CENTER, INC 1-800-782-5348 www.bluestakes.org

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

N

0' 15' 30' 60' 120'

GRAPHIC SCALE: 1" = 30'

PROJECT INFORMATION

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

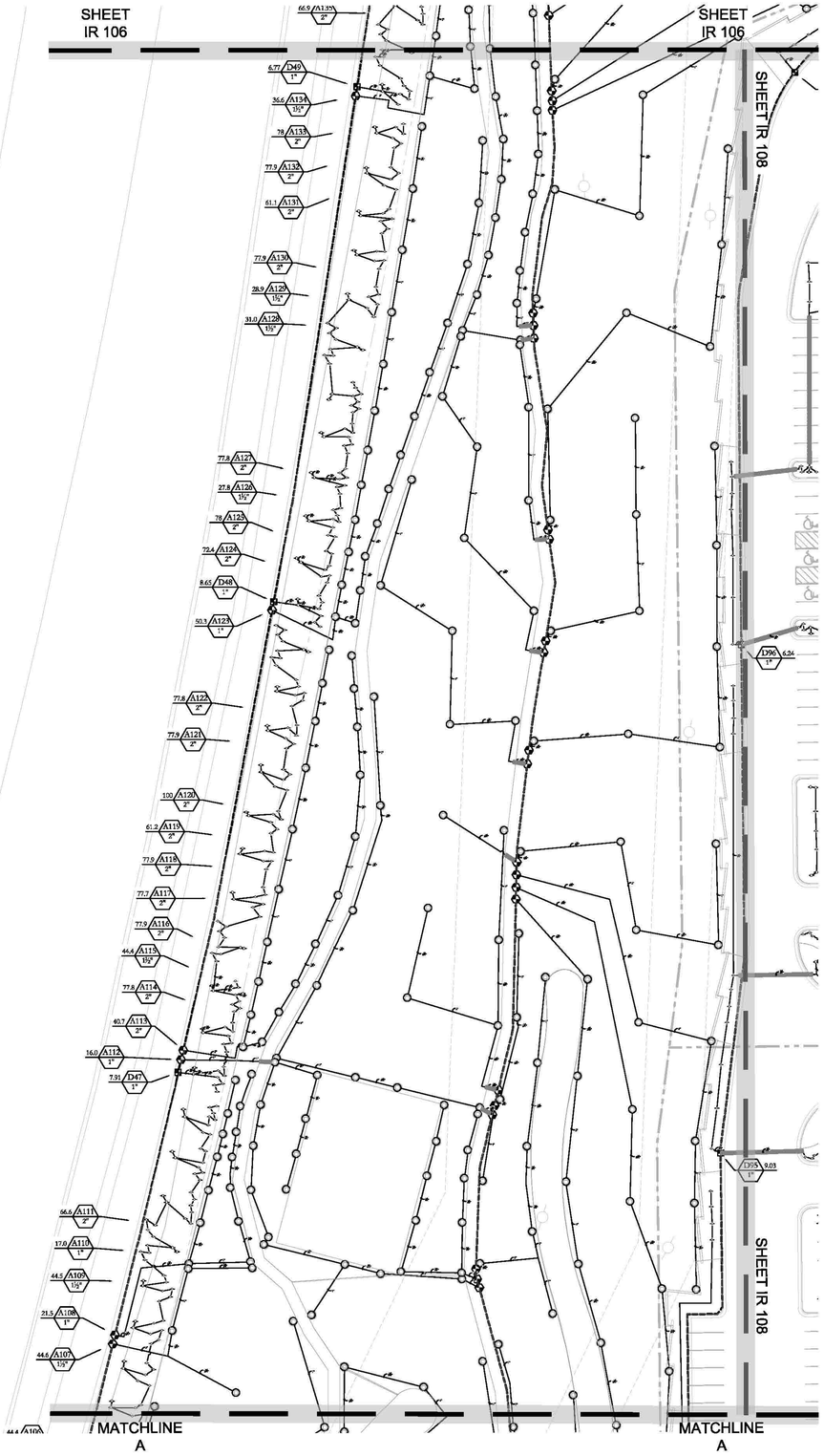
LANDSCAPE

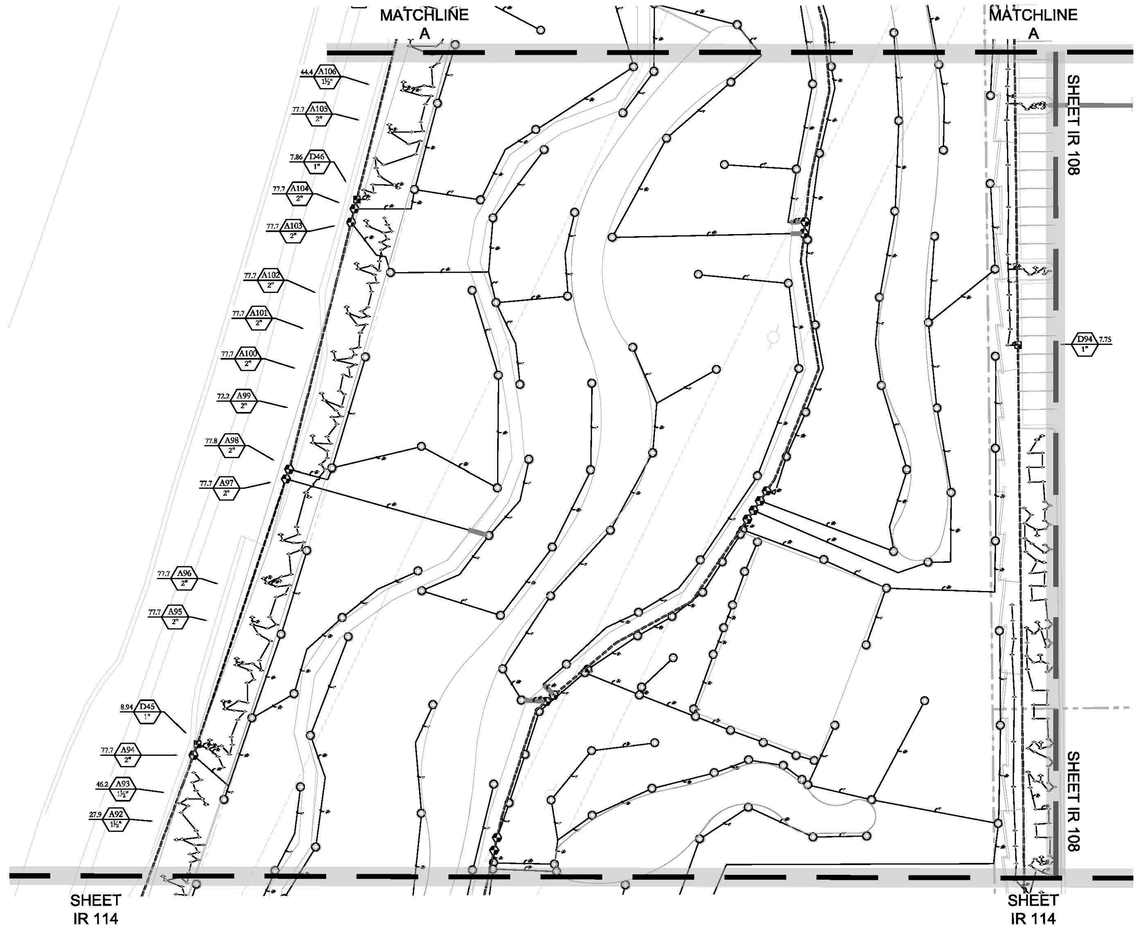
CITY PERMIT SET

DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/16/2025

IR-108





ISSUE DATE | PROJECT NUMBER | PLAN INFORMATION

1/16/2025 AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

PROJECT INFORMATION

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

Registered Professional Landscape Architect
75940
KRISTINA AINSWORTH
ARIZONA, U.S.A.

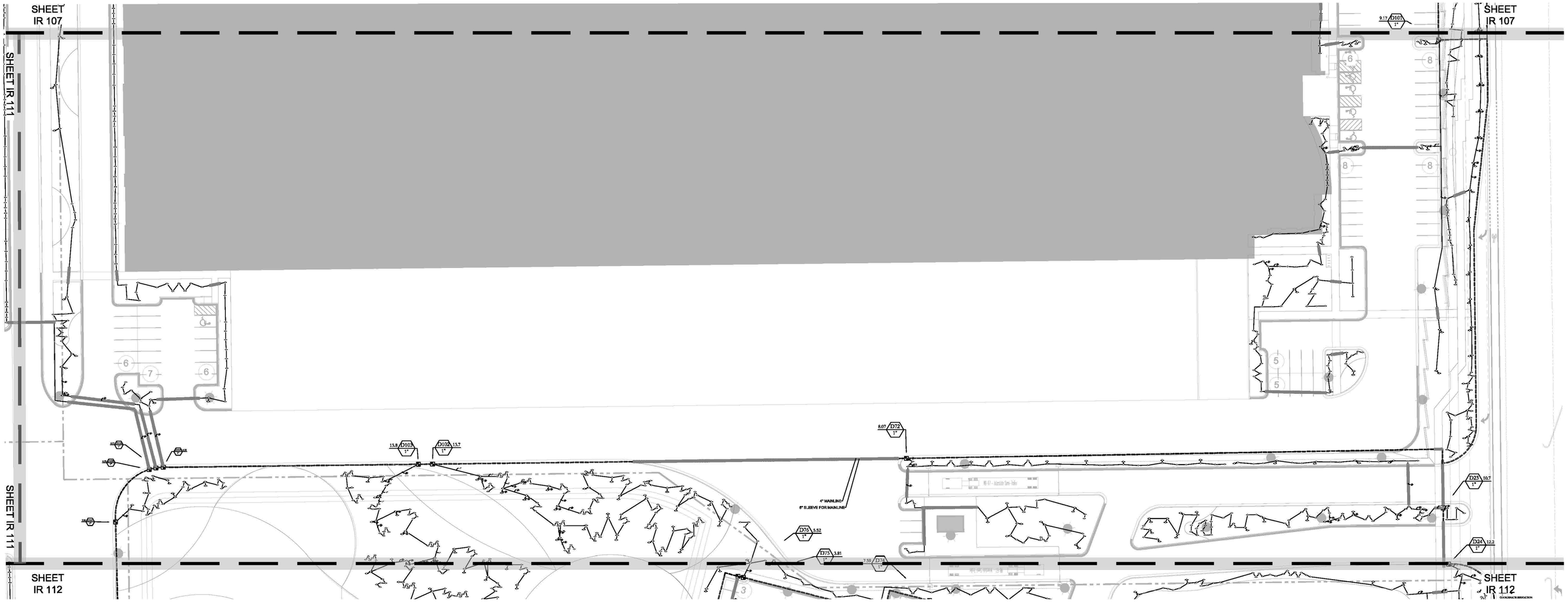
DRAWING INFO

PIC:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/16/2025

LANDSCAPE

CITY PERMIT SET

IR-109



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/16/2025	AZ24002	811 BLUE STAKES OF ARIZONA UTILITY NOTIFICATION CENTER, INC 1-800-782-5348 www.bluestakes.org	BOREALIS ELLSWORTH RD. & WARNER RD. MESA, ARIZONA	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture & Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	REGISTERED LANDSCAPE ARCHITECT 752449 KRISTINA AINSWORTH ARIZONA, U.S.A.	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 1/16/2025

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

N

0' 15' 30' 60' 120'

GRAPHIC SCALE: 1" = 30'

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE

CITY PERMIT SET

IR-110

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/16/2025	AZ24002	811 BLUE STAKES OF ARIZONA UTILITY NOTIFICATION CENTER, INC 1-800-782-5348 www.bluestakes.org	BOREALIS ELLSWORTH RD. & WARNER RD. MESA, ARIZONA	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture & Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	75940 KRISTINA AINSWORTH REGISTERED LANDSCAPE ARCHITECT ARIZONA, U.S.A.	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 1/16/2025

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

N

0' 15' 30' 60' 120'

GRAPHIC SCALE: 1" = 30'

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE

CITY PERMIT SET

IR-111

SHEET IR 110

SHEET IR 110

SHEET IR 113

SHEET IR 113

2.0" MAINLINE
6" SLEEVE FOR MAINLINE

#2
COORDINATE IRRIGATION CONNECTION WITH MECHANICAL PLUMBING DRAWINGS. INSTALLATION ATTENTION TO CONNECTION TO BUILDING. REFER TO MECHANICAL PLUMBING DRAWINGS FOR CONNECTION TO ELECTRICAL CONTRACTOR.

#PLACE PROTECTIVE CAGE ON TOP OF FILTER AND SECURE TO CONCRETE PAD

#PRESSURE TEST SYSTEM TO VERIFY 80 PSI. IF NOT, CONTACT LANDSCAPE ARCHITECT OR INSTALL PRESSURE REDUCING VALV

#REF P.O.D. CONFIGURATION CONNECTIONS ON SHEET IR-100.

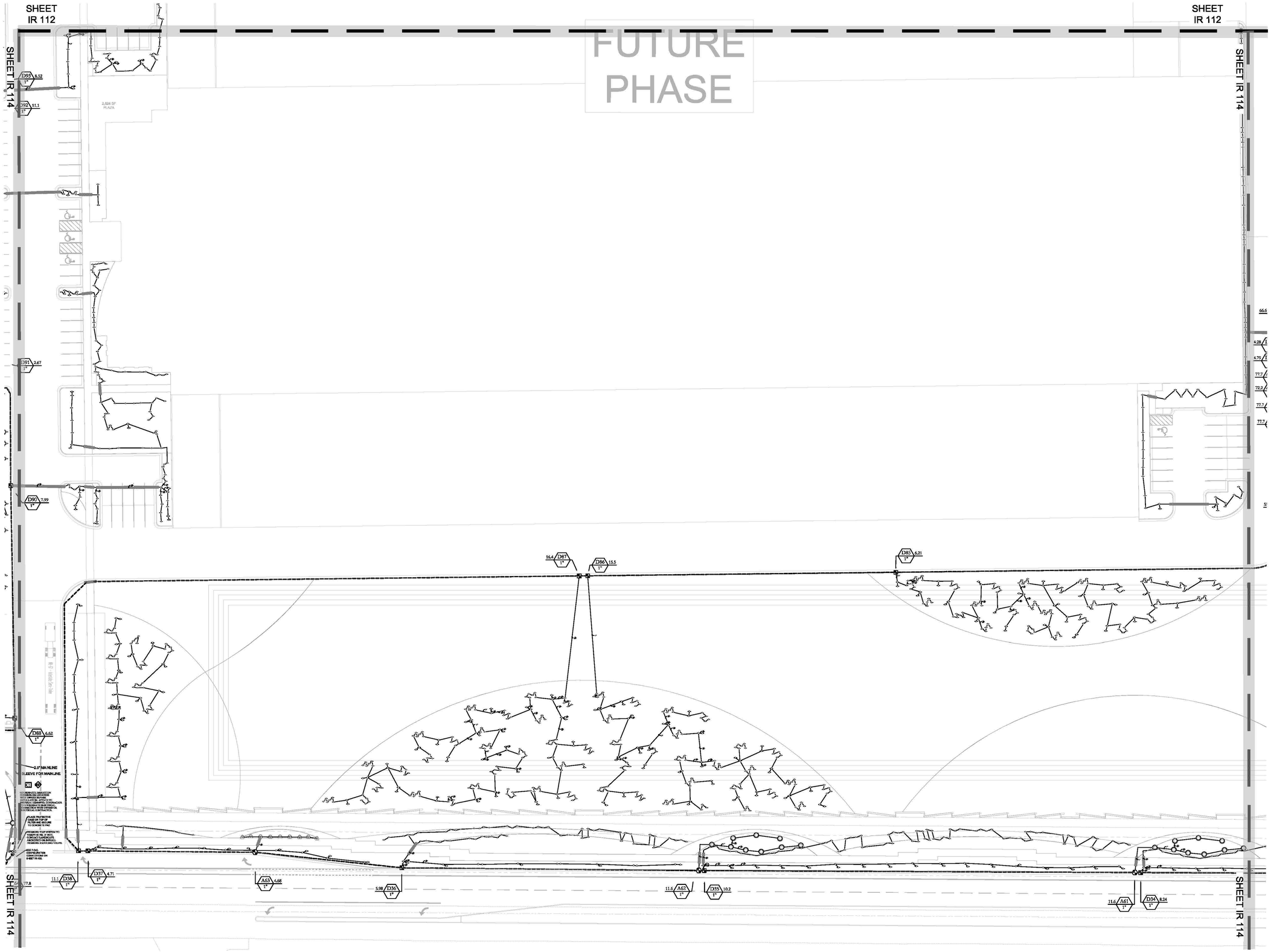
ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/16/2025	AZ24002	811 BLUE STAKES OF ARIZONA UTILITY NOTIFICATION CENTER, INC 1-800-782-5348 www.bluestakes.org	BOREALIS ELLSWORTH RD. & WARNER RD. MESA, ARIZONA	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture & Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	REGISTERED LANDSCAPE ARCHITECT 75940 KRISTINA AINSWORTH ARIZONA, U.S.A.	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 1/16/2025 LANDSCAPE CITY PERMIT SET

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

COPYRIGHT:
PKJ DESIGN GROUP
THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

IR-112



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/16/2025	AZ24002						PM: JTA
							DRAWN: ACP
							CHECKED: JMA
							PLOT DATE: 1/16/2025

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

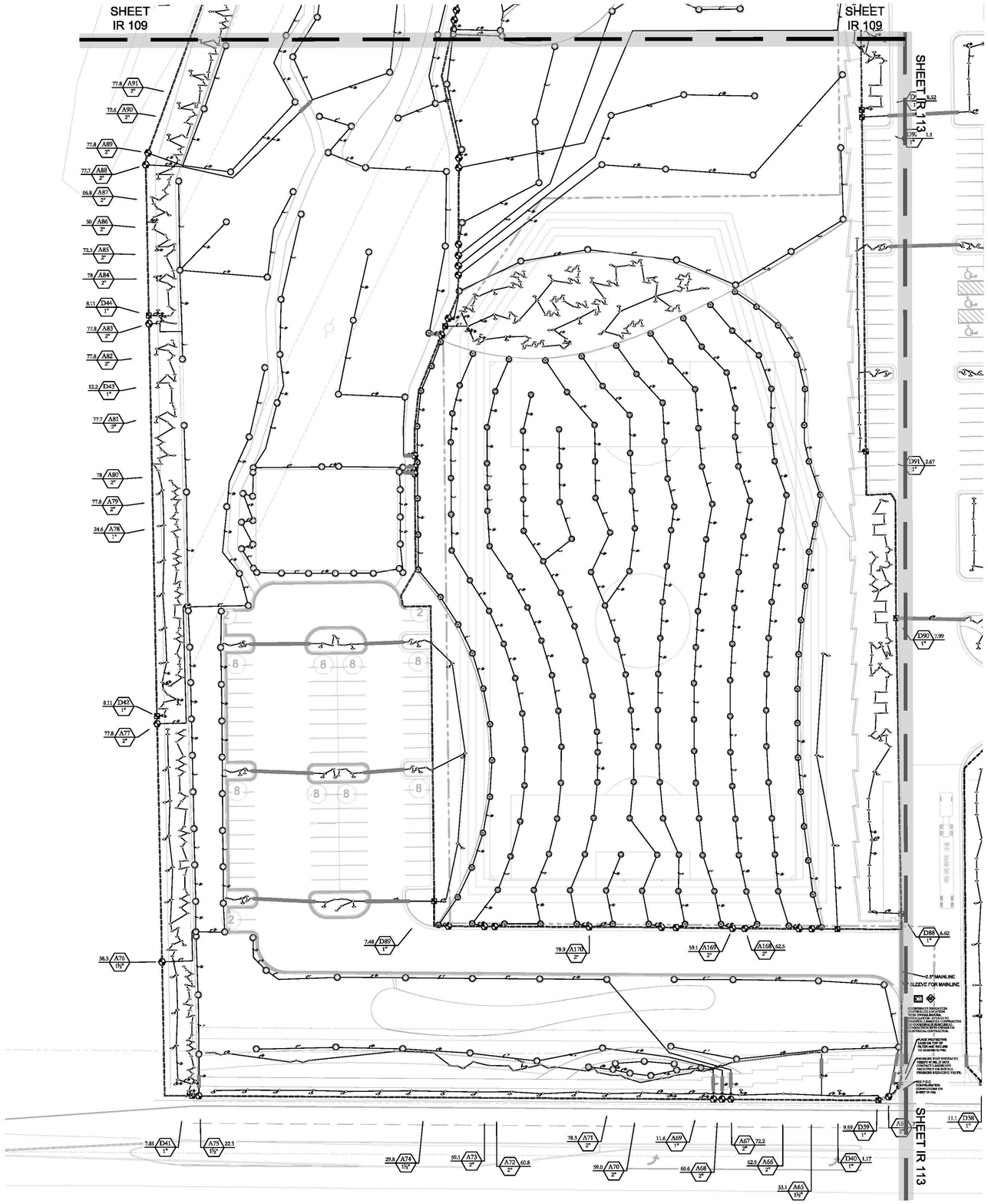
PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

Registered Landscape Architect
CERTIFICATE
75940
KRISTINA AINSWORTH
ARIZONA, U.S.A.

LANDSCAPE

CITY PERMIT SET

IR-113



IRRIGATION LEGEND

WATER PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE. IF YOU NEED HELP WITH A WATER AUDIT CONSULTATION, OR A PLANT MAINTENANCE SCHEDULE, CONTACT PKJ@PKJDESIGNGROUP.COM

	Water Use. With Pressure Regulator.	
M2	Rain Bird BFB-CP-PRS-D 2" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
C1	Rain Bird ESPLXIVMP 240 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVMP 240-Station, Indoor/Outdoor, Plastic Wall-Mount Enclosure. System Requirements: Rain Bird LXIVM-XXX - Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LXIVMSD Surge Device in Rain Bird Round Valve Boxes. Install Per Manufacturers Recommendations.	1
C2	Rain Bird ESPLXIVMP 240 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVMP 240-Station, Indoor/Outdoor, Plastic Wall-Mount Enclosure. System Requirements: Rain Bird LXIVM-XXX - Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LXIVMSD Surge Device in Rain Bird Round Valve Boxes. Install Per Manufacturers Recommendations.	1
RS	Rain Bird WR2-RC Wireless Rain Sensor Combo, includes 1 receiver and 1 rain sensor transmitter.	1
RS	Rain Bird WR2-RC Wireless Rain Sensor Combo, includes 1 receiver and 1 rain sensor transmitter.	1
FS	Rain Bird FS-200-B 2in. Flow Sensor, Brass Model. Suggested Operating Range 10 GPM to 100 GPM. Size for Flow Not According to Pipe Size. Rain Bird Compatible Controllers: ESP LXIVM(P) | LXD | LXME2(P) | ME3, or Controllers Accepting Custom K-Factor and Offset. Install in Rain Bird Valve Box.	2
F	Amiad 2-TAG-Disc Element 200mm Amiad 2in. Tagline filter, NPT. Disc Screen Element. Maximum working pressure 116psi.	2
POC #1	Point of Connection 2"	1
POC2 #1	Point of Connection 2"	1
	Irrigation Lateral Line: PVC Class 200 SDR 21	335.0 l.f.
	Irrigation Lateral Line: PVC Class 200 SDR 21 1/2"	75,055 l.f.
	Irrigation Lateral Line: PVC Class 200 SDR 21 3/4"	11,808 l.f.
	Irrigation Lateral Line: PVC Class 200 SDR 21 1"	13,055 l.f.
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/4"	9,411 l.f.
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/2"	5,823 l.f.
	Irrigation Lateral Line: PVC Class 200 SDR 21 2"	9,390 l.f.
	Irrigation Lateral Line: PVC Class 200 SDR 21 2 1/2"	12,156 l.f.
	Irrigation Lateral Line: PVC Class 200 SDR 21 3"	735.3 l.f.
	Irrigation Lateral Line: PVC Class 200 3/4"	5.5 l.f.
	Irrigation Lateral Line: PVC Class 200 1"	22.9 l.f.
	Irrigation Lateral Line: PVC Class 200 3"	3.8 l.f.
	Irrigation Lateral Line: PVC Class 200 1/2"	5.2 l.f.
	Irrigation Mainline: PVC Schedule 40	29,361 l.f.
	Pipe Sleeve: PVC Class 200 SDR 21	8,113 l.f.

Valve Callout
#1 Valve Number
#2 Valve Flow
#3 Valve Size

IRRIGATION LEGEND

WATER PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE. IF YOU NEED HELP WITH A WATER AUDIT CONSULTATION, OR A PLANT MAINTENANCE SCHEDULE, CONTACT PKJ@PKJDESIGNGROUP.COM

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
LST SST RST	Rain Bird R-VAN-STRIP 1806-SAM-P45 Shrub Rotary, 5ft.x15ft. (LCS and RCS), 5ft.x30ft. (SST) Hand Adjustable Multi-Stream Rotary w/ 1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	4	45
14 ADJ 14 F	Rain Bird R-VAN14 1806-SAM-P45 Turf Rotary, 8ft.-14ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	55	45
18 ADJ 18 F	Rain Bird R-VAN18 1806-SAM-P45 Turf Rotary, 13ft.-18ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	20	45
24 ADJ 24 F	Rain Bird R-VAN24 1806-SAM-P45 Turf Rotary, 17ft.-24ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	219	45

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RAD
	Rain Bird 5006-PL-PC-SAM-R-NP-SS-MPR 25 Turf Rotor, 6in. Pop-Up, Stainless Steel Riser, w/Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle) Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Check Valve, In-Stem Pressure Regulator, and Non Potable Purple Cap.	496	25		23'
	Rain Bird 5006-PL-PC-SAM-R-NP-SS-MPR 30 Turf Rotor, 6in. Pop-Up, Stainless Steel Riser, w/Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle) Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Check Valve, In-Stem Pressure Regulator, and Non Potable Purple Cap.	103	25		29'
	Rain Bird 5006-PL-PC-SAM-R-NP-SS-MPR 35 Turf Rotor, 6in. Pop-Up, Stainless Steel Riser, w/Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle) Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Check Valve, In-Stem Pressure Regulator, and Non Potable Purple Cap.	284	25		32'
	Rain Bird 8005 SS NP 06 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	51	50	5.6	45'
	Rain Bird 8005-SS-NP 08 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	2	50	6.6	49'
	Rain Bird 8005-SS-NP 10 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	1	50	9.3	53'
	Rain Bird 8005-SS-NP 12 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	514	50	11.1	57'
	Rain Bird 8005-SS-NP 24 Turf Rotor, 5in. Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1in. (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cover.	94	50	22.3	63'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird XCZ-100-IVMQ 1" Wide Flow IVM Drip Control Kit for Commercial Applications. 1in. Ball Valve with 1in. PESBIVM Smart Valve w/ factory installed IVM-SOL 0.3-20 gpm and 1in. Pressure Regulating 40psi Quick-Check Basket Filter 0.3-20 gpm	107
	Rain Bird XFS-09-18 Drip Ring(SHRUB)	1
6 7 10 12 18 24	Rain Bird PC Single Outlet, Pressure Compensating Drip Emitters with Self-Piercing Barb Inlet. Flow rate: 5 GPH=light brown; 7 GPH=violet; 10 GPH=green; 12 GPH=dark brown; 18 GPH=white; 24 GPH=orange.	10,687

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESB-IVM 1-1/2" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	22
	Rain Bird PESB-IVM 1" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	18
	Rain Bird PESB-IVM 2" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	130
	Rain Bird 44-RC 1" 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Thermoplastic Rubber Cover, and 2-Piece Body.	2
	Shut Off Valve	2
M	Rain Bird HFB-CP-PRS-D 2" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed	1

ISSUE DATE: 1/16/2025
PROJECT NUMBER: AZ24002

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

PROJECT INFORMATION

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THIS WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

Professional Landscape Architect
75940
KRISTINA AINSWORTH
ARIZONA, U.S.A.

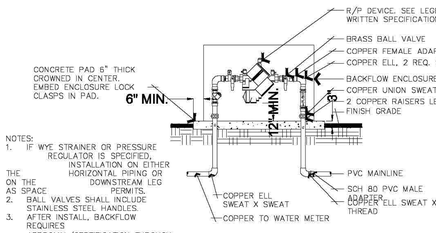
DRAWING INFO

PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 1/16/2025

LANDSCAPE

CITY PERMIT SET

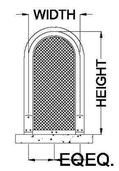
IR-114

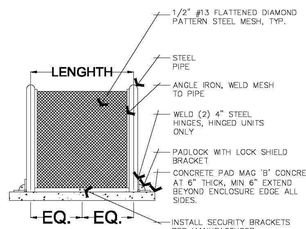


NOTES:
1. IF WYE STRAINER OR PRESSURE REGULATOR IS SPECIFIED, INSTALLATION ON EITHER THE HORIZONTAL PIPING OR DOWNSTREAM LEG ON THE AS SPACE PERMITS.
2. BALL VALVES SHALL INCLUDE STAINLESS STEEL HANDLES.
3. AFTER INSTALL, BACKFLOW REQUIRES APPROVAL/CERTIFICATION THROUGH THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH (USC), OR A THIRD-PARTY CERTIFYING ENTITY THAT IS UNRELATED TO THE PRODUCT'S MANUFACTURER OR VENDOR, THAT IS APPROVED BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY.

A BACKFLOW PREVENTER ASSEMBLY (2" DIA. AND SMALLER)

NOT TO SCALE



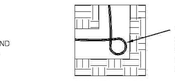


NOTES:
1. ENCLOSURE SHALL BE POWDER COATED BY MANUFACTURER.
2. SEE LEGEND FOR REQUIRED SIZE & COLOR.
3. CONTRACTOR SHALL SUPPLY CONCRETE PAD.

CENTERLINE DIMENSIONS	LIFT OFF UNIT
12"W X 18"H X 12"L	LIFT OFF UNIT
12"W X 24"H X 24"L	LIFT OFF UNIT
12"W X 24"H X 32"L	HINGED UNIT
12"W X 24"H X 42"L	HINGED UNIT
12"W X 30"H X 42"L	HINGED UNIT
18"W X 30"H X 48"L	HINGED UNIT

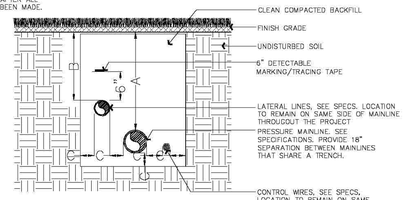
B ENCLOSURE CAGE FOR BACKF LOW PREVENTER

NOT TO SCALE



TIE A 24" LOOP IN ALL WIRING AT CHANGES OF DIRECTION GREATER THAN 30 DEGREES, UNITE AFTER ALL CONFECTIONS HAVE BEEN MADE.

PLAN VIEW – N.T.S.

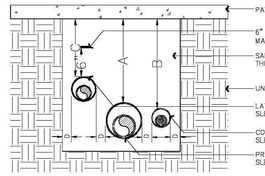


NOTES:
1. ALL PLASTIC PIPING SHALL BE SNAKED WITHIN TRENCH.
2. BUNDLE WIRING AND WRAP WITH TAPE AT TEN FOOT INTERVALS.
3. ALL MAINLINE PIPING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION SPECIFICATIONS.
4. PROVIDE 18" SEPARATION BETWEEN MAIN LINES THAT SHARE A TRENCH.

DIMENSION	A	B	C
LATERAL PIPE 1/2" TO 3"		12"	4"
LATERAL PIPE IN SPORTS FIELDS 1" TO 3"			4"
MAINLINE PIPE 2" TO 4"	18"		4"
MAINLINE PIPE 6" TO 12"	24"		4"
CONTROL WIRE CONDUIT	24"		4"

C PIPE AND WIRE TRENCHING

NOT TO SCALE



NOTES:
1. BUNDLE WIRING AND WRAP WITH ELECTRICAL TAPE AT TEN FOOT INTERVALS.
2. ALL MAINLINE PIPING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION SPECIFICATIONS.
3. ALL PVC MAINLINE, PVC LATERAL LINES, AND CONTROL WIRES SHALL BE SLEEVED BELOW ALL HARDSCAPE ELEMENTS WITH SCH 40 PVC, 2 TIMES THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
4. ALL CURBS SHALL BE MARKED WITH A "SCORE" MARK TO DESIGNATE SLEEVE LOCATION, TYPICAL.

DIMENSION	A	B	C	D
PAVED AREA / DRIVEWAY	36"	36"	24"	4"
PUBLIC ROADS	36"	36"	36"	4"

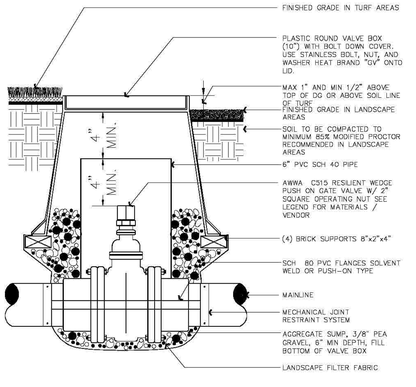
SECTION VIEW – N.T.S.

PVC SLEEVES TO BE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE CARRIED

DETAIL ALSO FOR PIPE INSTALLED IN ROCK SOIL

D SLEEVE TRENCHING

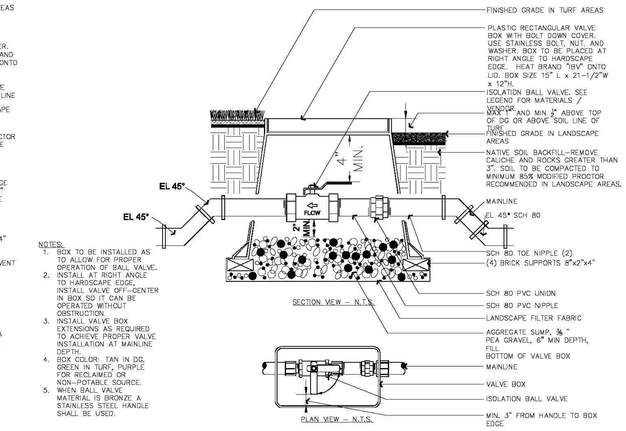
NOT TO SCALE



NOTES:
1. CONTRACTOR TO PROVIDE ONE 5 FOOT LONG TEE WRENCH WITH SQUARE NUT ADAPTER FOR THE OPERATION OF GATE VALVES.
2. INSTALL VALVE BOX AND PIPE EXTENSION AS REQUIRED TO ACHIEVE PROPER VALVE INSTALLATION AT MAINLINE DEPTH.
3. CONCRETE THRUST BLOCKS REQUIRED FOR PIPE LARGER THAN 3" SIZE.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON-POTABLE SOURCE.

E GATE VALVE 2-1/2" AND LARGER ASSEMBLY

NOT TO SCALE



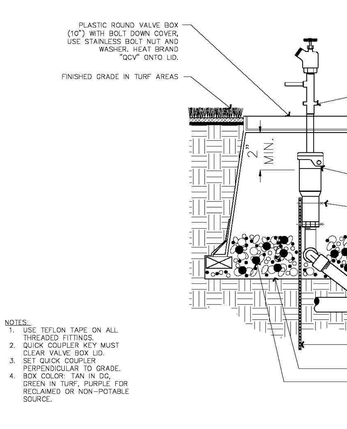
NOTES:
1. BOX TO BE INSTALLED AS TO ALLOW FOR PROPER OPERATION OF BALL VALVE.
2. INSTALL AT RIGHT ANGLE TO HARDSCAPE EDGE. INSTALL VALVE OFF-CENTER IN BOX SO IT CAN BE OPERATED WITHOUT OBSTRUCTION.
3. INSTALL VALVE BOX EXTENSIONS AS REQUIRED TO ACHIEVE PROPER VALVE INSTALLATION AT MAINLINE DEPTH.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON-POTABLE SOURCE.
5. WHEN BALL VALVE MATERIAL IS BRONZE A STAINLESS STEEL HANDLE SHALL BE USED.

SECTION VIEW – N.T.S.

PLAN VIEW – N.T.S.

F ISOLATION VALVE 2" & SMALLER ASSEMBLY

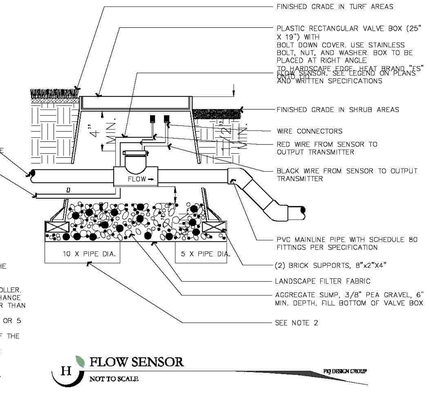
NOT TO SCALE



NOTES:
1. USE TEFLON TAPE ON ALL THREADED FITTINGS.
2. QUICK COUPLER KEY MUST CLEAR VALVE BOX LID.
3. SET QUICK COUPLER PERPENDICULAR TO GRADE.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON-POTABLE SOURCE.

G QUICK COUPLER VALVE ASSEMBLY

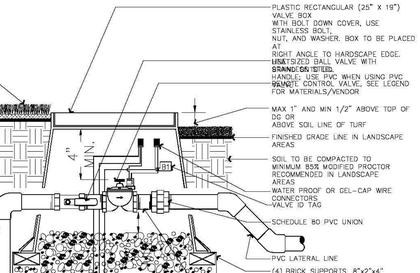
NOT TO SCALE



NOTES:
1. INSTALL FLOW SENSOR AS PER THE MANUFACTURER'S RECOMMENDATIONS.
2. THE MAINLINE PIPE SHALL NOT CHANGE SIZE OR DIRECTION CLOSER THAN 10 PIPE DIAMETERS UPSTREAM OR 5 PIPE DIAMETERS DOWNSTREAM OF THE FLOW SENSOR.
3. USE 45 DEGREE ELLS TO ACHIEVE MAINLINE DEPTH ON THE DOWN-STREAM SIDE OF THE FLOW SENSOR.

H FLOW SENSOR

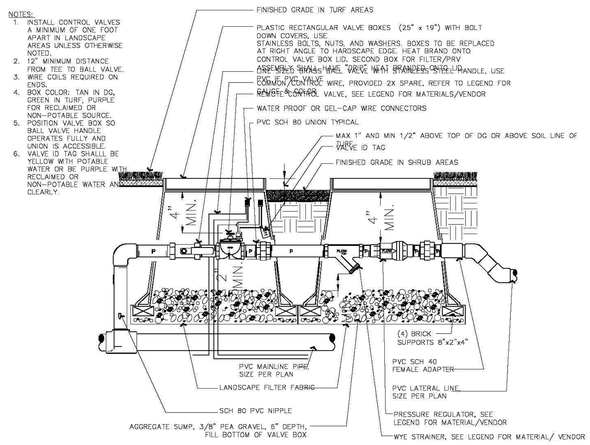
NOT TO SCALE



NOTES:
1. INSTALL CONTROL VALVES A MINIMUM OF ONE FOOT APART IN LANDSCAPE AREAS UNLESS OTHERWISE NOTED.
2. WIRE COILS REQUIRE WIRE CAPS/NUTS.
3. ONE VALVE PER BOX ONLY.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON-POTABLE SOURCE.
5. POSITION VALVE BOX SO BALL VALVE HANDLE OPERATES FULLY AND UNION IS ACCESSIBLE.
6. VALVE ID TAG SHALL BE YELLOW WITH POTABLE WATER OR BE PURPLE WITH RECLAIMED OR NON-POTABLE WATER AND CLEARLY.
7. PRINT CONTROLLER ID & STATION # ON ONE SIDE OF TAG.

J REMOTE CONTROL VALVE ASSEMBLY

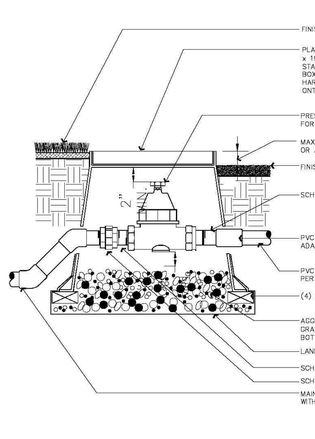
NOT TO SCALE



NOTES:
1. INSTALL CONTROL VALVES A MINIMUM OF ONE FOOT APART IN LANDSCAPE AREAS UNLESS OTHERWISE NOTED.
2. 12" MINIMUM DISTANCE FROM TEE TO BALL VALVE.
3. WIRE COILS REQUIRED ON ENDS.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON-POTABLE SOURCE.
5. POSITION VALVE BOX SO BALL VALVE HANDLE OPERATES FULLY AND UNION IS ACCESSIBLE.
6. VALVE ID TAG SHALL BE YELLOW WITH POTABLE WATER OR BE PURPLE WITH RECLAIMED OR NON-POTABLE WATER AND CLEARLY.

J DRIP REMOTE CONTROLL VALVE & PRESSURE REDUCTION ASSEMBLY

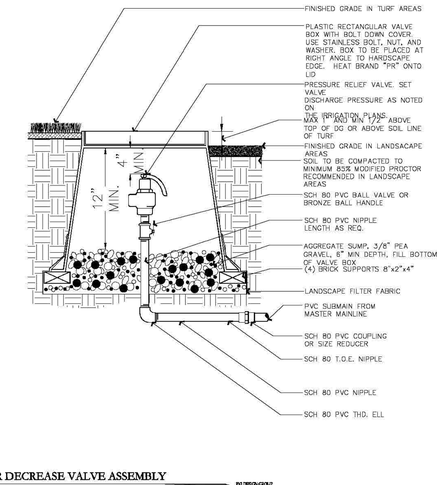
NOT TO SCALE



NOTES:
1. INSTALL VALVE BOXES A MINIMUM OF TWO FOOT APART IN LANDSCAPE AREAS UNLESS OTHERWISE NOTED.
2. USE 45 DEGREE ELLS TO ACHIEVE MAINLINE DEPTH FROM UP-STREAM SIDE OF THE PRESSURE REGULATOR ASSEMBLY.
3. ONLY ONE REGULATOR ALLOWED PER VALVE BOX.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON-POTABLE SOURCE.

K PRESSURE REGULATOR ASSEMBLY

NOT TO SCALE



NOTES:
1. INSTALL PRESSURE RELIEF VALVE ON THE IRRIGATION MAINLINE AS SHOWN ON THE IRRIGATION DRAWINGS.
2. USE SUBMAIN FROM IRRIGATION MAINLINE TO ACTUAL PRESSURE RELIEF VALVE LOCATION.
3. USE TEFLON TAPE ON ALL THREADED FITTINGS.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON-POTABLE SOURCE.

L AIR DECREASE VALVE ASSEMBLY

NOT TO SCALE

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
1/16/2025	AZ24002	

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestakes.org

N

0' 10' 20' 40' 80'

GRAPHIC SCALE: 1" = 20'

PROJECT INFORMATION

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THIS WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

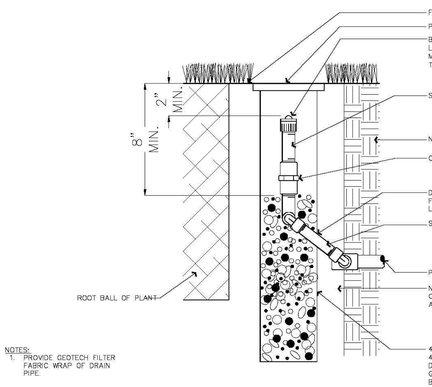
LICENSE STAMP

DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/16/2025

LANDSCAPE

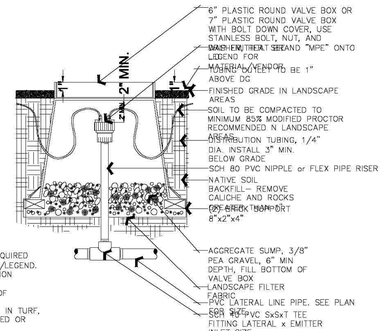
CITY PERMIT SET

IR-501



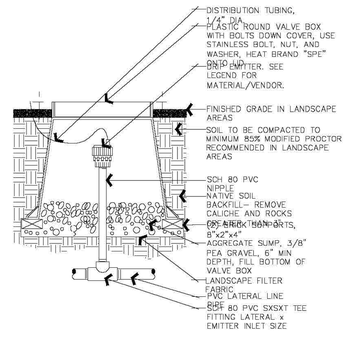
NOTES:
1. PROVIDE GEOTECH FILTER FABRIC WRAP OF DRAIN PIPE.

M ROOT ZONE WATERING EMISSION DEVICE
NOT TO SCALE



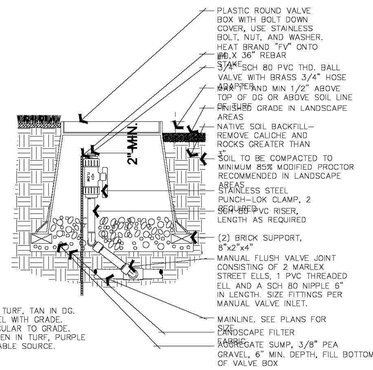
NOTES:
1. BUG CAPS AND SPIKES NOT REQUIRED UNLESS SHOWN ON PLANS/LEGEND.
2. MAXIMUM LENGTH OF DISTRIBUTION TUBING IS 6'.
3. LOCATE TUBING END AT EDGE OF ROOTBALL.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON–POTABLE SOURCE.
5. DO NOT KINK EMITTER TUBES.

N MULTI-OUTLET EMITTER ASSEMBLY
NOT TO SCALE



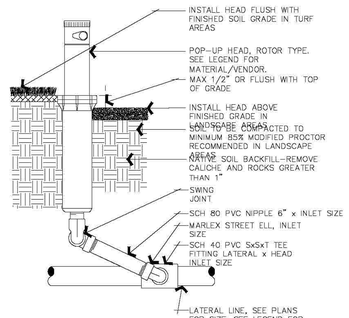
NOTES:
1. BUG CAPS AND SPIKES NOT REQUIRED UNLESS SHOWN ON PLANS/LEGEND.
2. MAXIMUM LENGTH OF DISTRIBUTION TUBING IS 6'.
3. LOCATE TUBING END AT EDGE OF ROOTBALL.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON–POTABLE SOURCE.

O SINGLE-OUTLET DRIP EMITTER ASSEMBLY
NOT TO SCALE

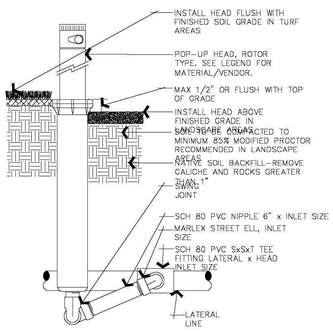


NOTES:
1. VALVE BOX TO BE GREEN IN TURF, TAN IN DG.
2. VALVE BOX TO BE SET LEVEL WITH GRADE.
3. SET FLUSH VALVE PERPENDICULAR TO GRADE.
4. BOX COLOR: TAN IN DG, GREEN IN TURF, PURPLE FOR RECLAIMED OR NON–POTABLE SOURCE.

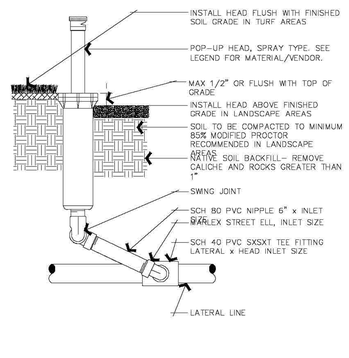
P MANUAL FLUSH VALVE INSTALLED IN BOX
NOT TO SCALE



NOTES:
1. INSTALL HEADS 6" FROM PAVING EDGE IN TURF AREAS.
2. INSTALL HEADS PLUMB. ADJUST NOZZLE STREAM TO COVER LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS OR BUILDINGS.
3. USE TEFLON TAPE ON ALL THREADED FITTINGS.



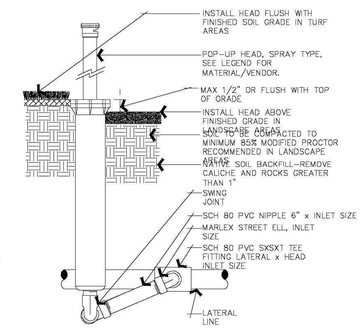
NOTES:
1. INSTALL HEADS 6" FROM PAVING EDGE IN TURF AREAS.
2. INSTALL HEADS PLUMB. ADJUST NOZZLE STREAM TO COVER LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS OR BUILDINGS.
3. USE TEFLON TAPE ON ALL THREADED FITTINGS.



Q POP-UP HEAD ROTOR TYPE (4" & 6")
NOT TO SCALE

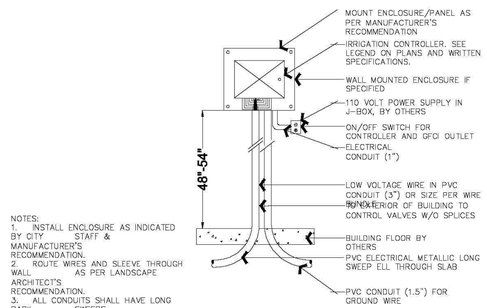
R POP-UP HEAD ROTOR TYPE (12")
NOT TO SCALE

S POP-UP HEAD SPRAY TYPE (4" & 6")
NOT TO SCALE



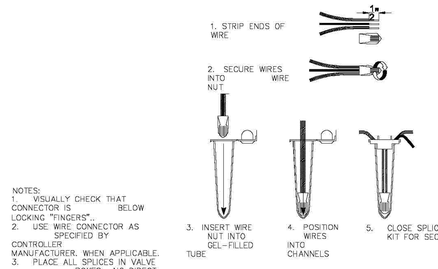
NOTES:
1. INSTALL HEADS 6" FROM PAVING EDGE IN TURF AREAS.
2. INSTALL HEADS PLUMB. ADJUST NOZZLE STREAM TO COVER LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS OR BUILDINGS.
3. USE TEFLON TAPE ON ALL THREADED FITTINGS.

T POP-UP HEAD SPRAY TYPE (12")
NOT TO SCALE



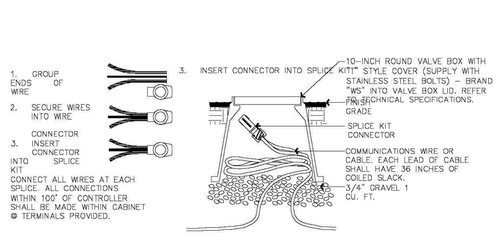
NOTES:
1. INSTALL ENCLOSURE AS INDICATED BY CITY STAFF & MANUFACTURER'S RECOMMENDATION.
2. ROUTE WIRES AND SLEEVE THROUGH WALL AS PER LANDSCAPE ARCHITECT'S RECOMMENDATION.
3. ALL CONDUITS SHALL HAVE LONG RADII SWEEPS.
4. ADDITIONAL CONDUITS MAY BE REQUIRED FOR ADDITIONAL ITEMS SUCH AS COMMS, CABLES, PUMP START RELAY, ANTENNA, ETC.

U IRRIGATION CONTROLLER WALL MOUNT INTERIOR
NOT TO SCALE



NOTES:
1. VISUALLY CHECK THAT CONNECTOR IS BELOW LOCKING "FINGERS".
2. USE WIRE CONNECTOR AS SPECIFIED BY CONTROLLER MANUFACTURER. WHEN APPLICABLE.
3. PLACE ALL SPLICES IN VALVE BOXES, NO DIRECT BURIAL.
4. CONTROLLER MANUFACTURER MUST APPROVE SPICE MANUFACTURER/ MODEL PROPOSED.

V WIRE CONNECTOR
NOT TO SCALE



W CABLE WIRE SPLICE
NOT TO SCALE

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
1/16/2025	AZ24002	

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF ARIZONA
UTILITY NOTIFICATION CENTER, INC
1-800-782-5348
www.bluestake.org

N

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

PROJECT INFORMATION

BOREALIS
ELLSWORTH RD. & WARNER RD.
MESA, ARIZONA

DEVELOPER / PROPERTY OWNER / CLIENT

AE URBIA
909 W. SOUTH JORDAN PARKWAY
SOUTH JORDAN, UT 84095
801-575-6455

COPYRIGHT:
PKJ DESIGN GROUP

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENTS OF PROFESSIONAL SERVICE IS PROPERTY OF PKJ DESIGN GROUP. IT IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture & Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

DRAWING INFO

PIC:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	1/16/2025

LANDSCAPE

CITY PERMIT SET

IR-502