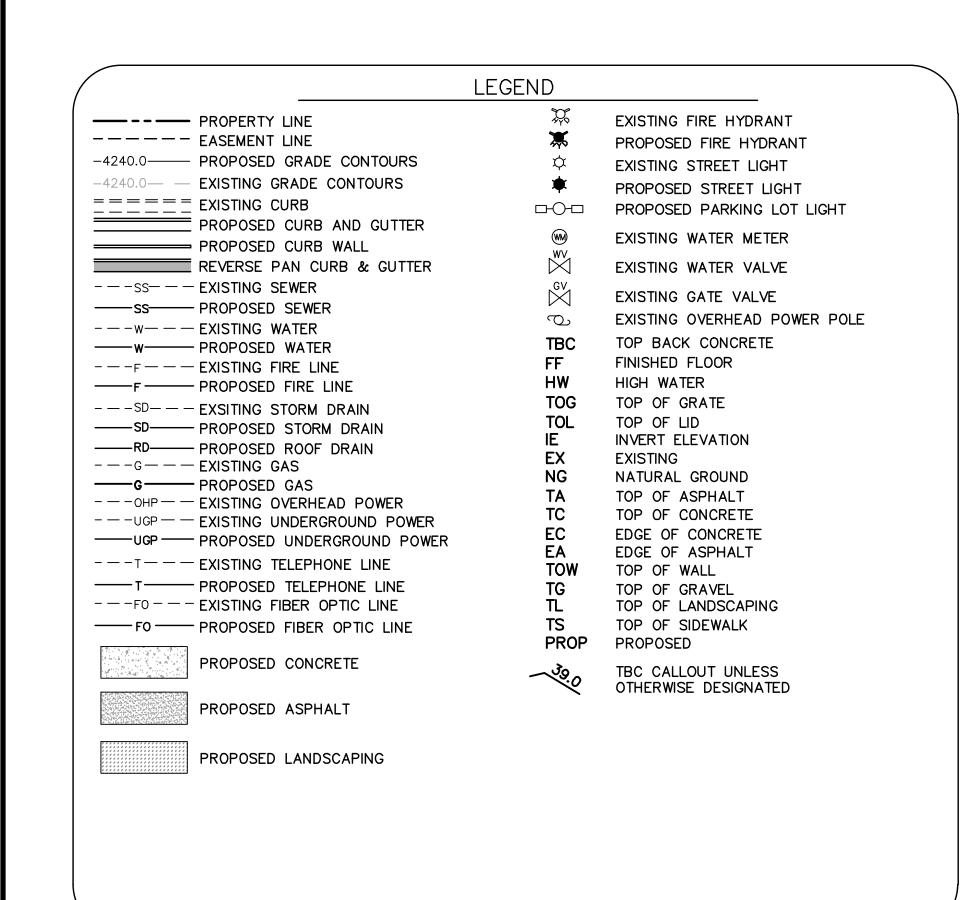
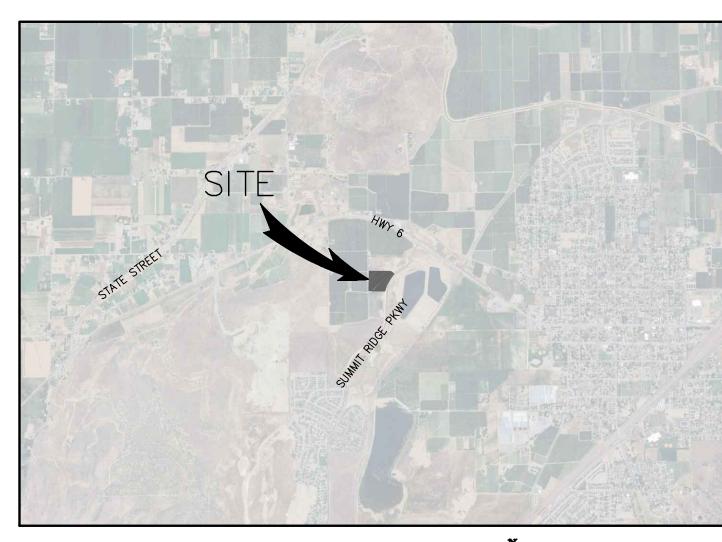
CIVIL SITE PLANS

237 NORTH SUMMIT RIDGE PKWY SANTAQUIN, UTAH 84655

AUGUST 19, 2024 REVISED SEPTEMBER 17, 2024





VICINITY MAP

SHEET INDEX

V COVER SHEET

CO.1 EXISTING CONDITIONS PLAN

1.0 SITE PLAN

2.0 GRADING & DRAINAGE PLAN

3.0 UTILITY PLAN

C4.0 DETAIL SHEET C4.1 DETAIL SHEET

C5.0 EROSION CONTROL PLAN (SWPPP)

C5.1 EROSION CONTROL DETAIL SHEET

PROJECT CONSTRUCTION NOTES:

- 1. CONTRACTOR TO NOTIFY BLUE STAKES PRIOR TO CONSTRUCTION, 1-800-662-4111.
- 2. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION
- 3. SEE SOILS REPORT FOR PAVEMENT SECTION DETAILS, INSTALLATION SPECIFICATIONS AND ALL SITE EARTHWORK REQUIRMENTS.
- 4. ALL CONSTRUCTION SHALL CONFORM TO CITY STANDARDS AND SPECIFICATIONS. IF A CONFLICT BETWEEN THESE PLANS AND THE CITY STANDARDS AND SPECIFICATIONS OCCURS, THE CITY STANDARDS AND SPECIFICATIONS SHALL GOVERN.
- 5. ALL HANDICAP PARKING STALLS TO BE INSTALLED PER ADA STANDARDS. SLOPE ON ANY ADA STALL IS TO BE LESS THAN 2% IN ALL DIRECTIONS.
- 6. CONTRACTOR TO VERIFY PRIOR TO ANY CONSTRUCTION THAT THE BUILDING AND BUILDING LOCATION SHOWN ON CIVIL DRAWINGS MATCHES THE ARCHITECTURAL PLANS.
- 7. CONTRACTOR TO VERIFY, WITH ARCHITECT, THAT F.F. ELEVATION SHOWN ON CIVIL PLANS EQUALS THE ARCHITECTS 100.0'
- 8. CONTRACTOR TO REPLACE IN KIND ANY AREAS THAT ARE DAMAGED DURING CONSTRUCTION
- 9. INSTALL ALL SIDEWALKS PER CITY STANDARDS.
- 10. INSTALL ALL CONCRETE PAVEMENT JOINTS PER CITY STANDARDS.
- 11. ALL SEWER, WATER AND STORM DRAIN PIPES SHALL BE BACKFILLED WITH SELECT GRANULAR FILL PER CITY STANDARDS AND SPECIFICATIONS.
- 12. ALL CATCH BASINS AND MANHOLES TO BE INSTALLED PER CITY STANDARDS.
- 13. ALL STORM DRAIN PIPING TO BE CUT OFF FLUSH WITH INSIDE WALL OF DRAINAGE BOX. INSIDE WALL TO BE GROUTED SMOOTH WITH A NON-SHRINK GROUT.
- 14. FOR STORM DRAIN INLET BOXES AND MANHOLES THE I.E. IN AND I.E. OUT ELEVATIONS ARE THE SAME UNLESS OTHERWISE CALLED OUT ON THE PLANS
- 15. ALL WATER LINES TO HAVE A MINIMUM 5' OF COVER WITH A MINIMUM VERTICAL CLEARANCE OF 1' OF COVER BETWEEN OTHER UTILITY LINES (1.5' VERTICAL SEPARATION WITH SEWER).
- 16. CONTRACTOR SHALL COORDINATE CONSTRUCTION AND INSTALLATION OF ELECTRICAL, TELEPHONE, NATURAL GAS AND CABLE TV SERVICES WITH THE RESPECTIVE UTILITY COMPANY.
- 17. THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITY PIPES, LINES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED AND SHOWN FROM SURVEYED INFORMATION AND EXISTING UTILITY LOCATIONS PROVIDED BY OTHERS. THERE IS NO GUARANTEE THAT ALL EXISTING UTILITY INFORMATION IS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING BLUE STAKES AND FIELD VERIFYING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITY PIPES, LINES AND STRUCTURES, PRIOR TO CONSTRUCTION.
- 18. ANY OFF SITE DAMAGE TO EXISTING ASPHALT, CURB & GUTTER, LANDSCAPING AND ALL UTILITIES TO BE REPLACED IN KIND.
- 19. ALL ACCESSIBLE ROUTES AND ACCESSIBLE MEANS OF EGRESS ROUTES, THE MAXIMUM SLOPE SHALL NOT EXCEED 5% AND THE CROSS SLOPE SHALL NOT EXCEED 2%. ALL EXTERIOR LANDINGS AT DOORS SHALL NOT EXCEED 2% SLOPE.

NOTF:

THE DEVELOPER AND THE GENERAL CONTRACTOR UNDERSTAND THAT IT IS HIS/HER RESPONSIBLITY TO ENSURE THAT ALL IMPROVEMENTS INSTALLED WITHIN THIS DEVELOPMENT ARE CONSTRUCTED IN FULL COMPLIANCE WITH ALL STATE AND SANTAQUIN CITY CODES, ORDINANCES AND STANDARDS. THESE PLANS ARE NOT ALL INCLUSIVE OF ALL MINIMUM CODES, ORDINANCES AND STANDARDS. THIS FACT DOES NOT RELIEVE THE DEVELOPER OR GENERAL CONTRACTOR FROM THE FULL COMPLIANCE WITH ALL MINIMUM STATE AND SANTAQUIN CITY CODES, ORDINANCES AND STANDARDS.

ALL RECOMMENDATIONS MADE IN A PERTINENT GEOTECHNICAL REPORT/STUDY SHALL BE FOLLOWED EXPLICITLY DURING CONSTRUCTION OF BUILDINGS AND SITE IMPROVEMENTS.

CIVIL ENGINEER:

ENGINEERING, L.L.C.
10718 SOUTH BECKSTEAD LANE, STE. 102

SOUTH JORDAN, UT 84095 - PH: 801-949-6296

<u>ARCHITECT:</u>

AE URBIA 2875 south decker lake drive, sui

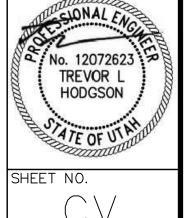
2875 SOUTH DECKER LAKE DRIVE, SUITE 275
SALT LAKE CITY, UTAH 84119
CONTACT PERSON: ANDREW BOLLSCHWEILER
PH: (801) 746-0456



TAMARAK DESIGN BUILD, LLC
PO BOX 970271
OREM, UT 84097
385.201.7848

CONTRACTOR





E24-096 | 08/19/24

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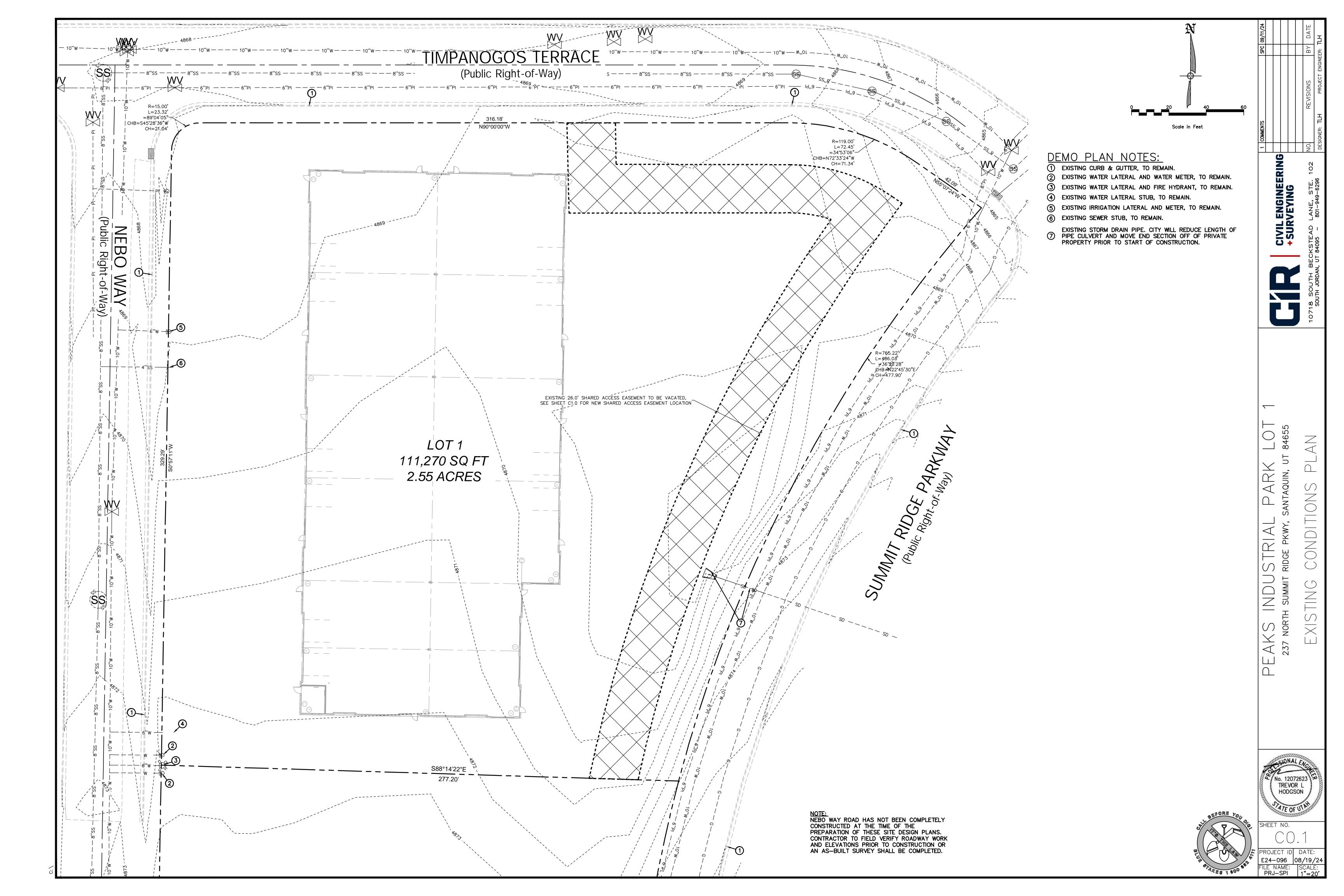
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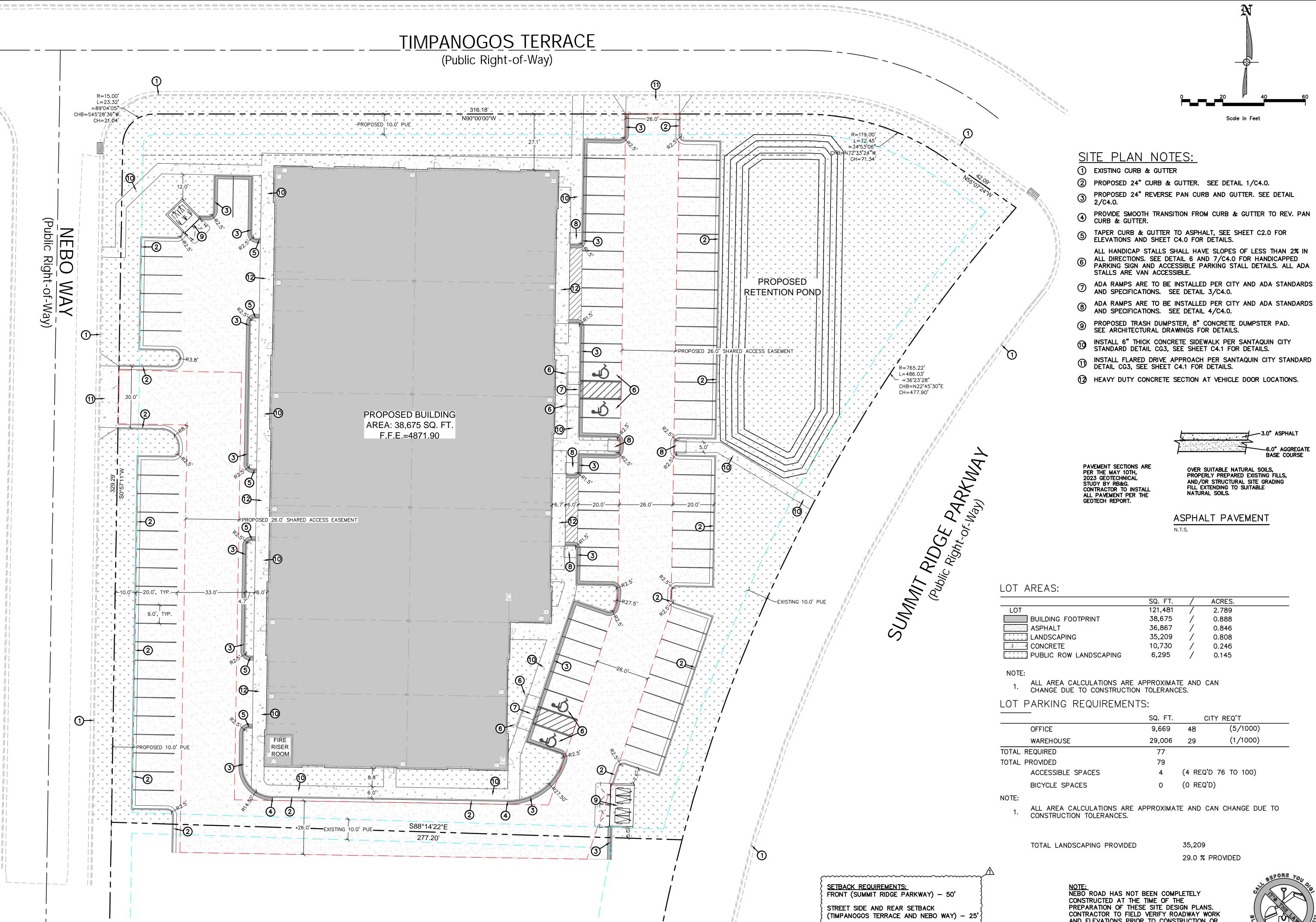
10718 SOUTH BECKST SOUTH JORDAN, UT 8409

JSTRIAL PARK

TRIDGE PKWY, SANTAQUIN, UT

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(TIMPANOGOS TERRACE AND NEBO WAY) - 25'

INTERIOR SIDE SETBACK - 10'

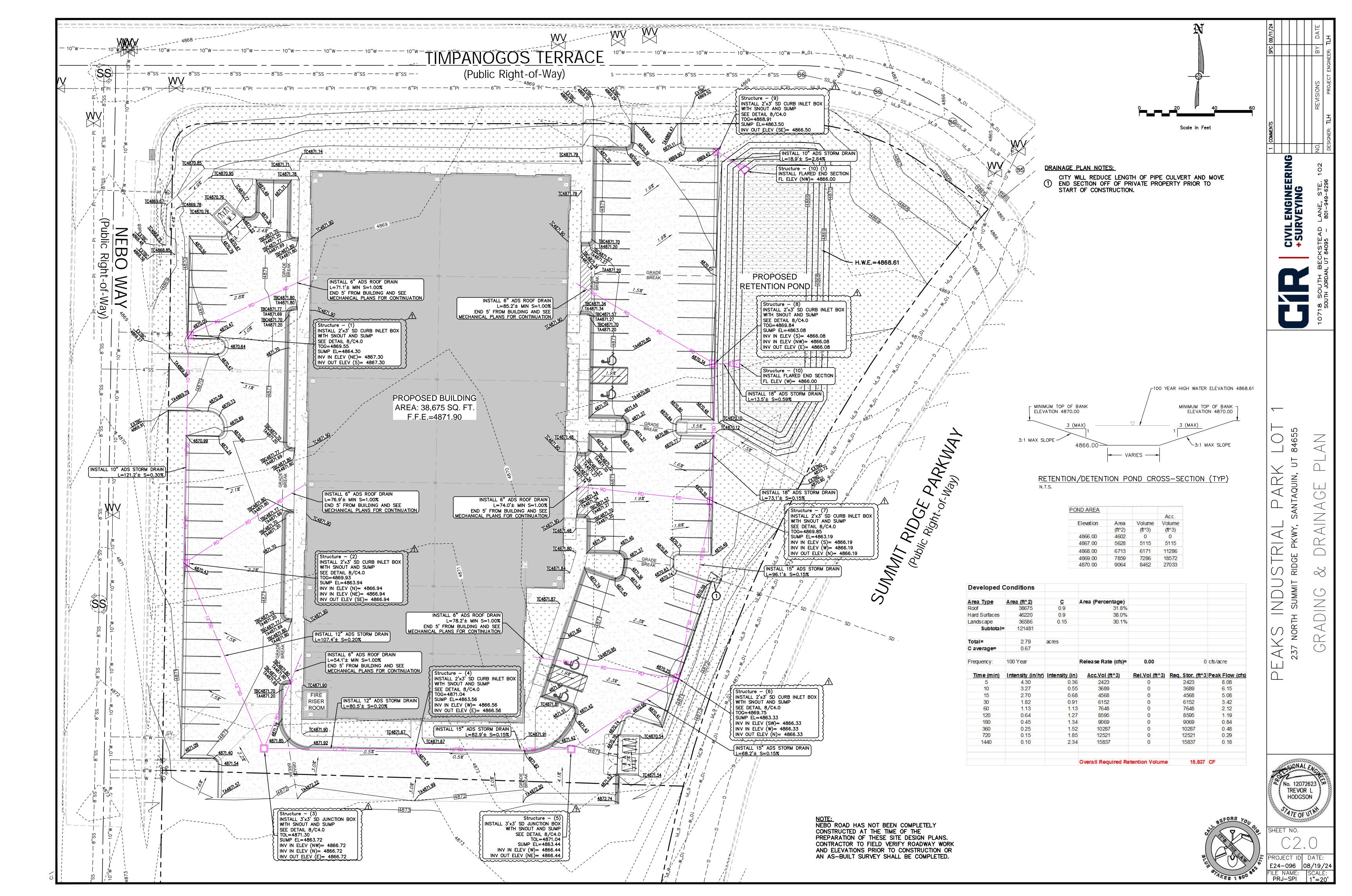
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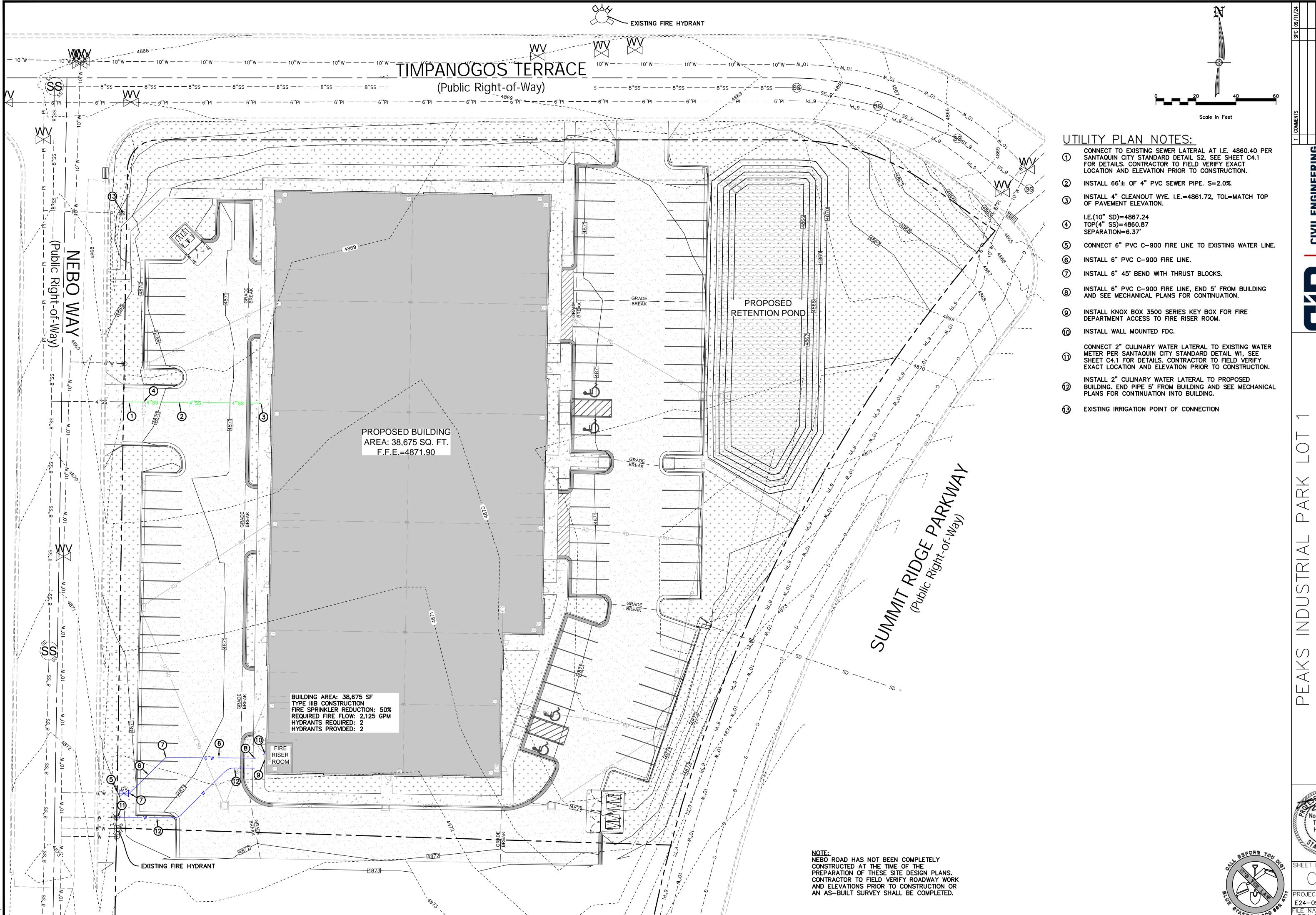
TREVOR L HODGSON ATE OF UTA

AND ELEVATIONS PRIOR TO CONSTRUCTION OR

AN AS-BUILT SURVEY SHALL BE COMPLETED.

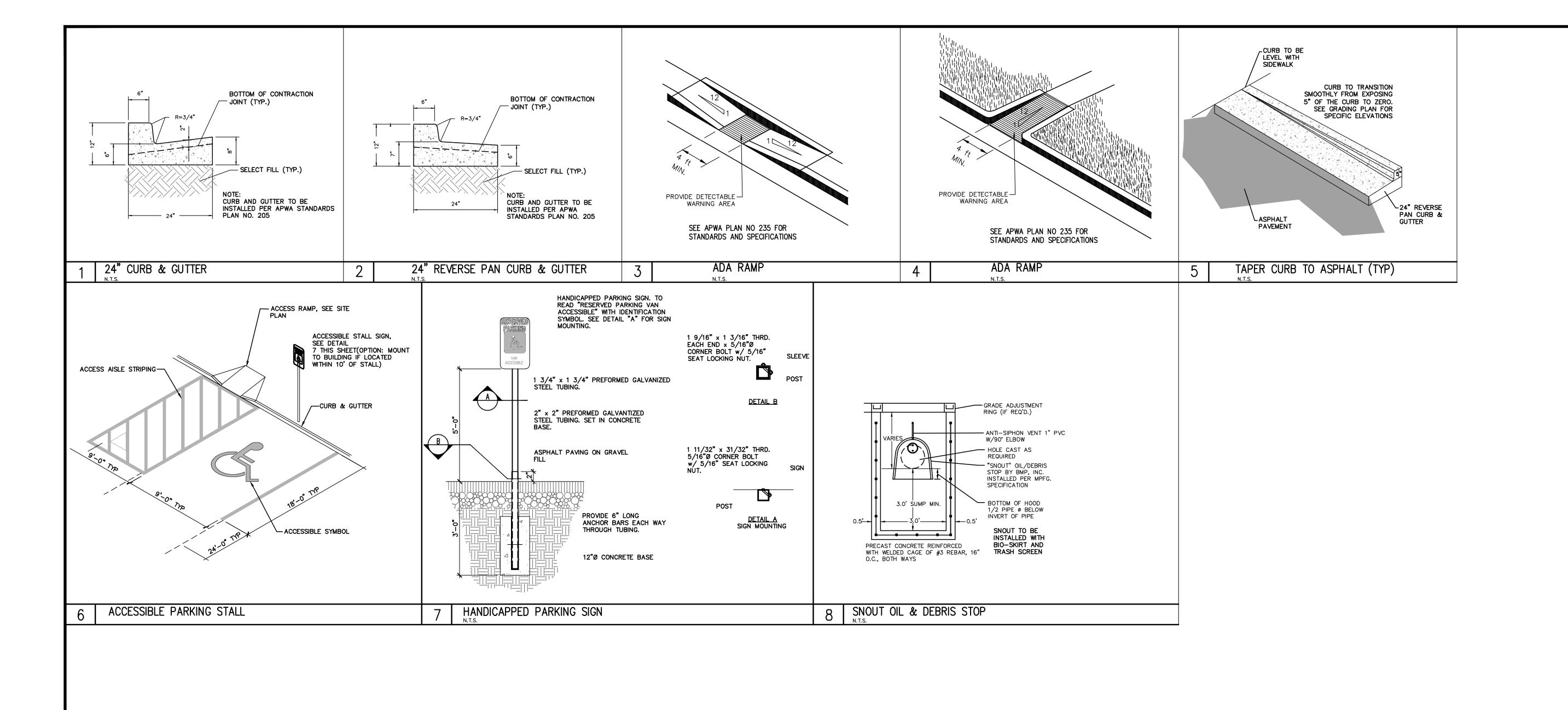
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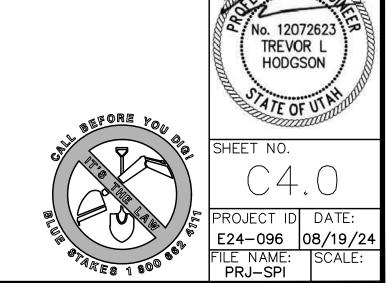
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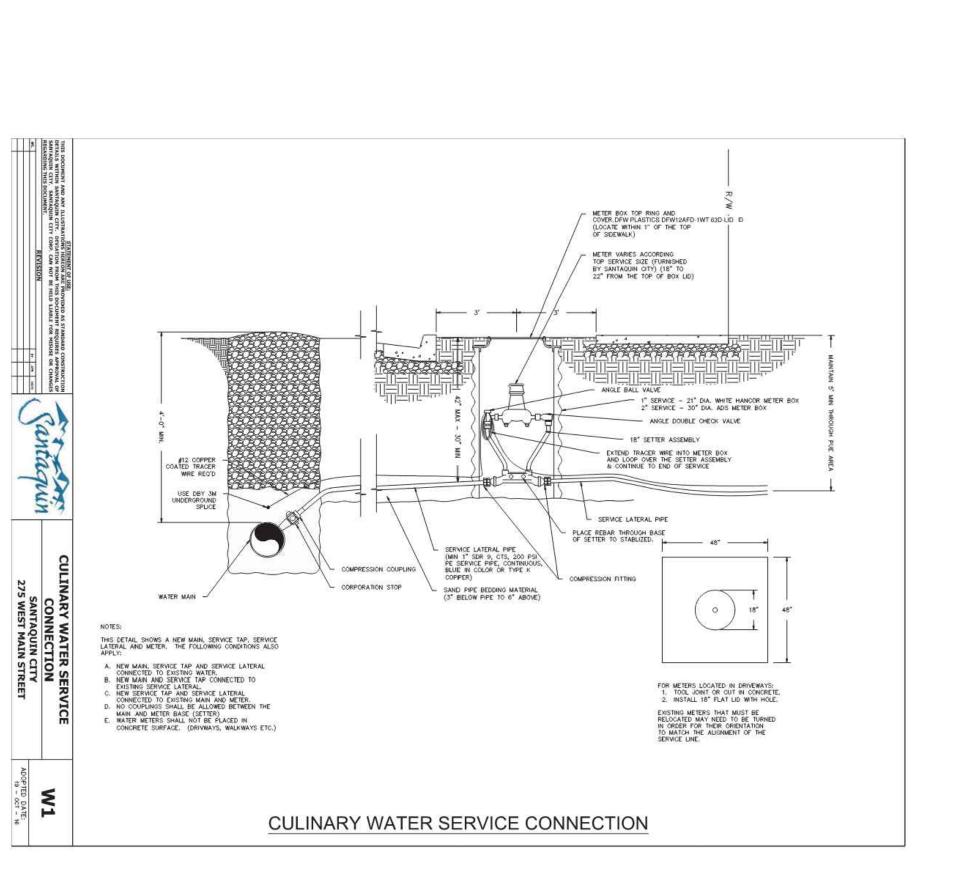


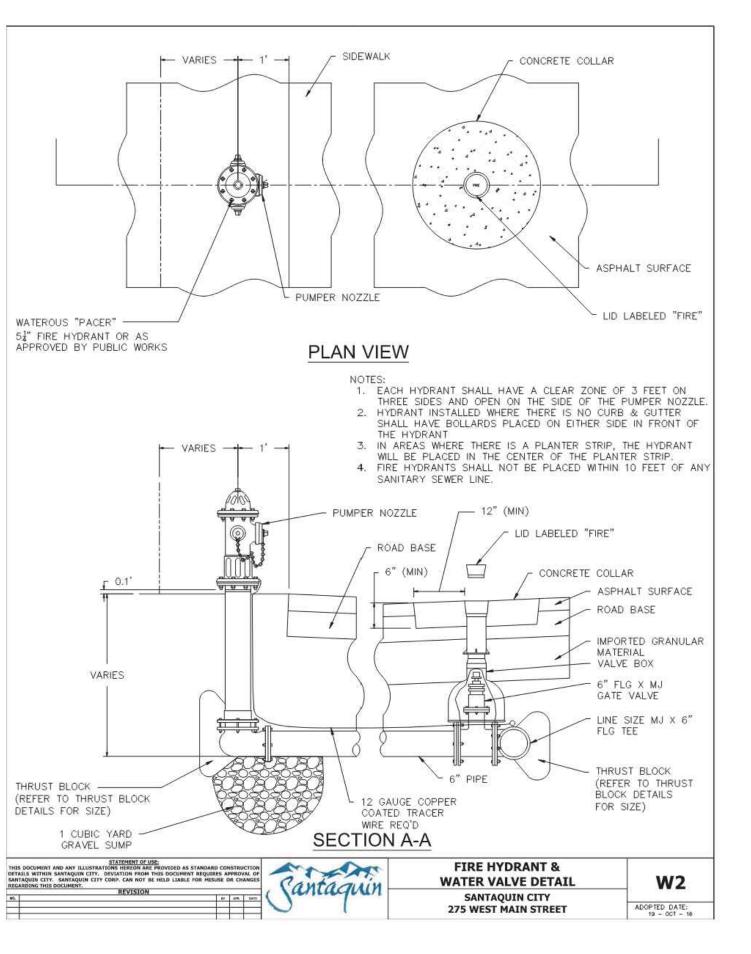


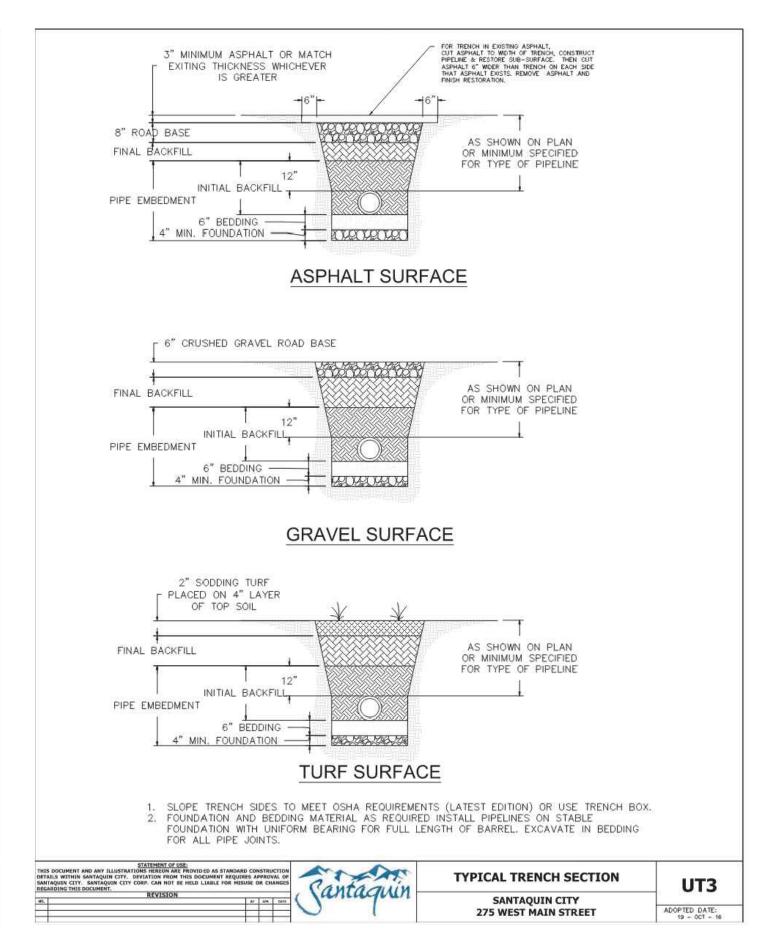
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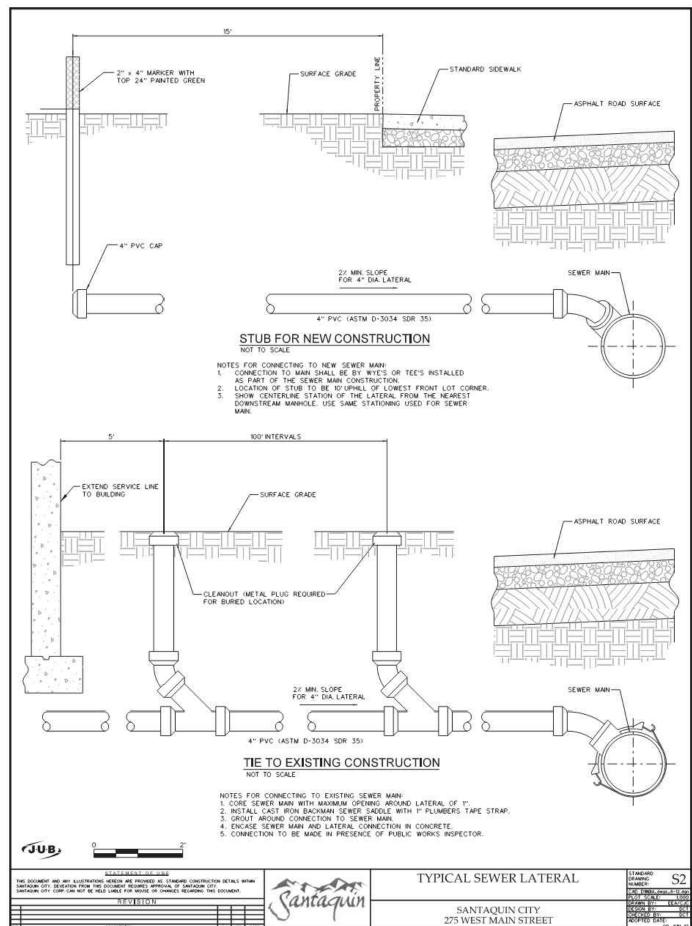
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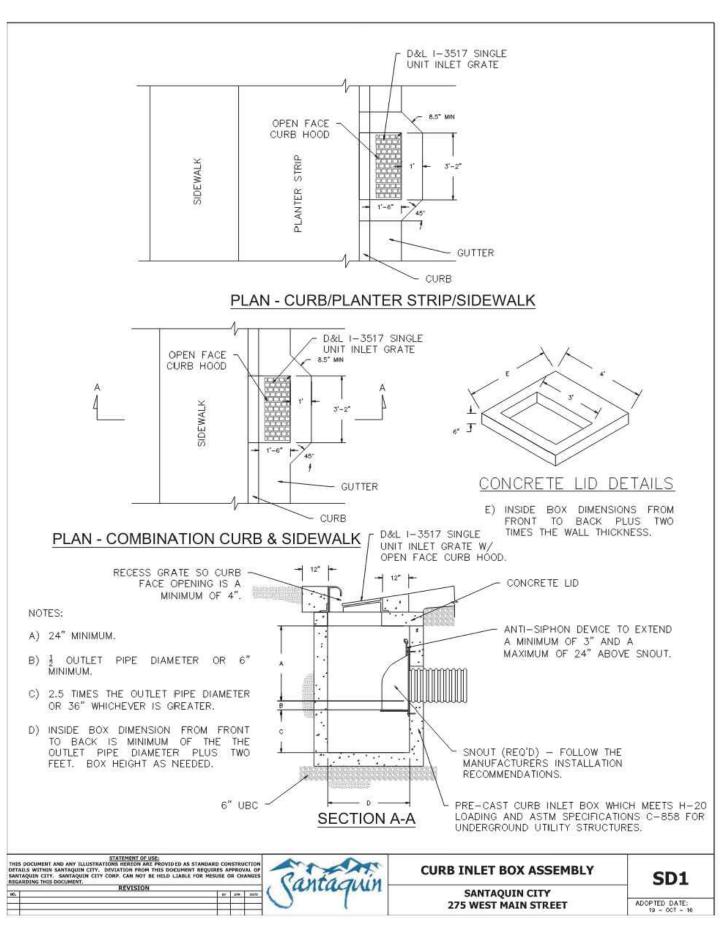


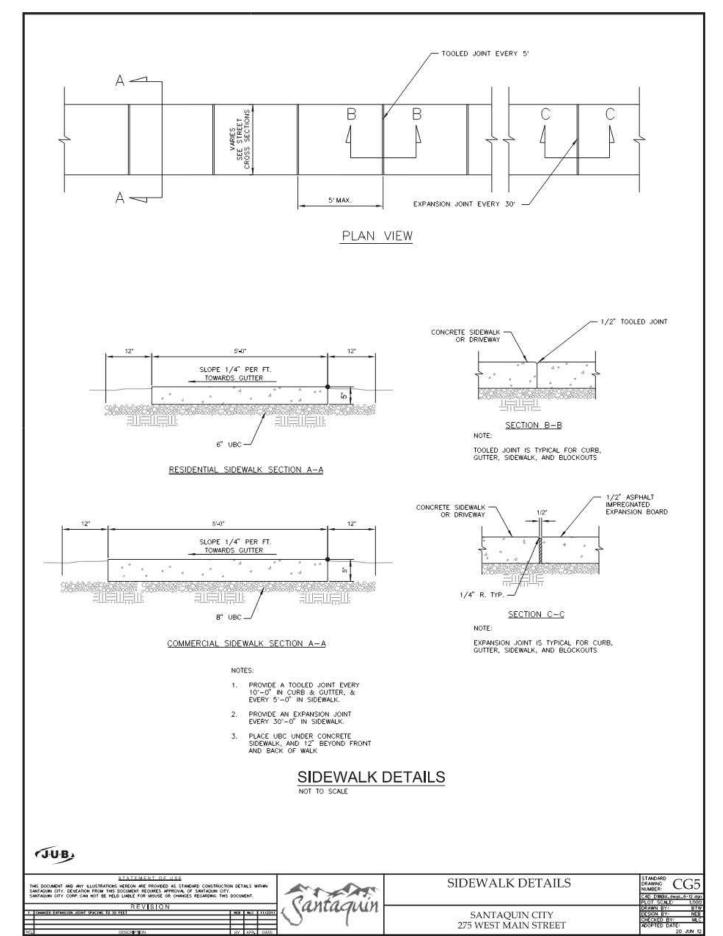


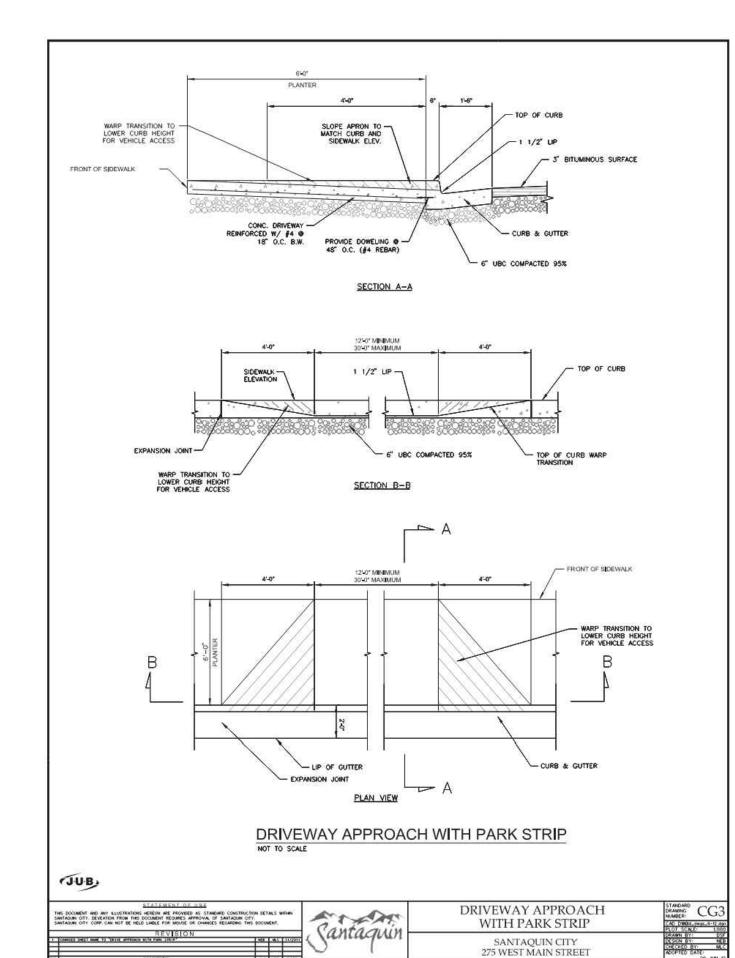


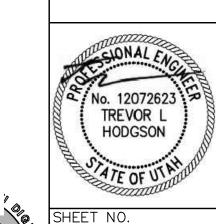




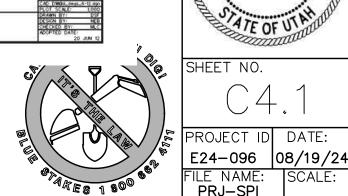


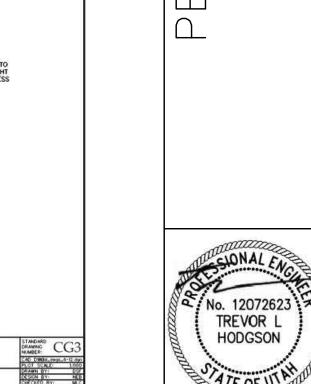






CIVIL ENGINEERIN + SURVEYING





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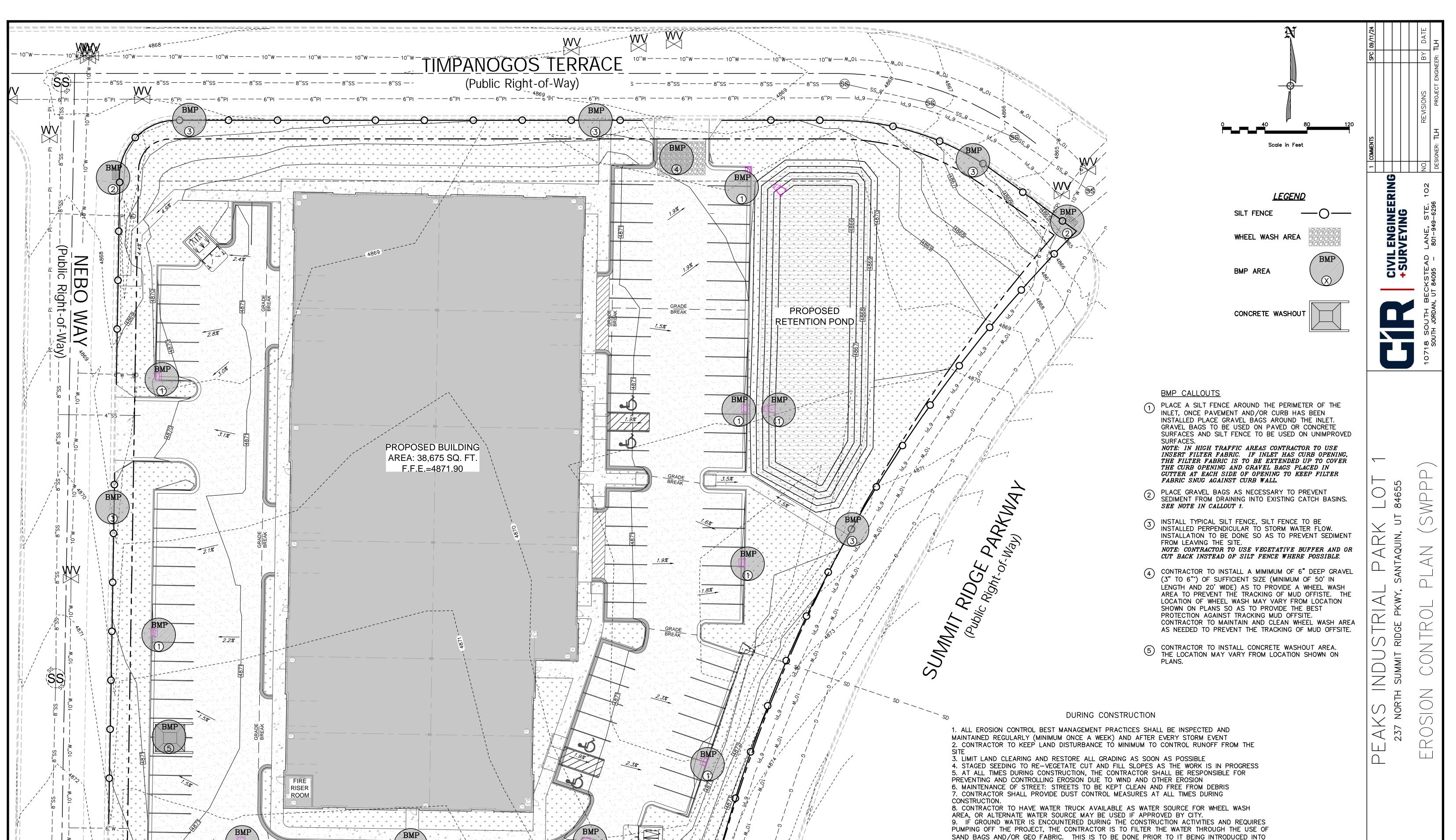
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No. 12072623
TREVOR L
HODGSON

SHEET NO.

PROJECT ID DATE:
E24-096 08/19/24

FILE NAME: SCALE:
PRJ-SPI 1"=20'

THE PUBLIC STORM DRAIN SYSTEM.

DURING ALL CONSTRUCTION ACTIVITY

ENTIRE AREA HAS BEEN ESTABLISHED

WITH CURRENT ENVIRONMENTAL REGULATIONS

4. THE FOLLOWING PRECAUTIONS SHALL BE PERFORMED:

TO PREVENT POLLUTION OF STORM WATER DISCHARGE

PAVEMENT IS COMPLETE

THE STORM DRAIN SYSTEM

10. A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE KEPT ON THE SITE

POST CONSTRUCTION

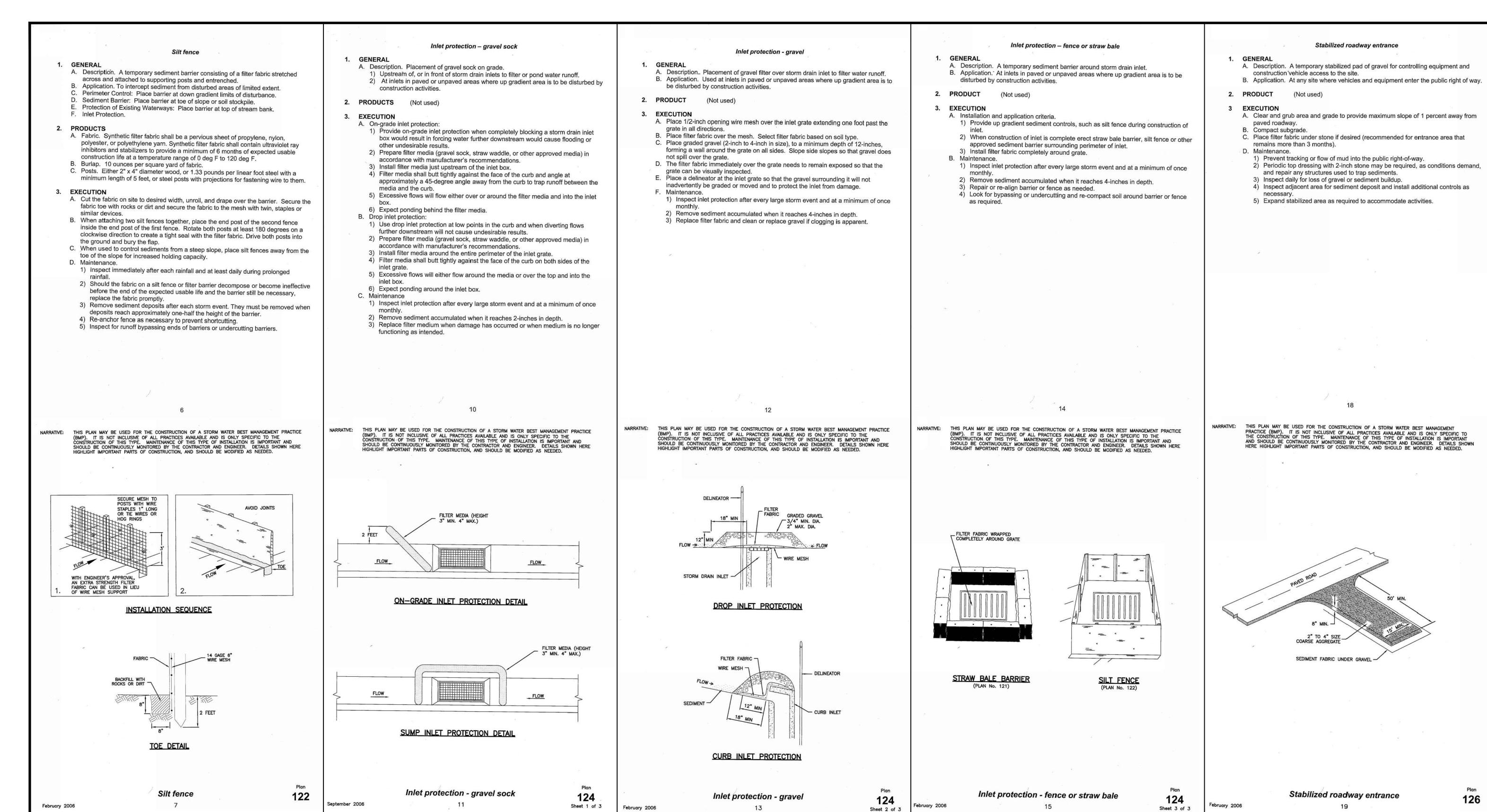
A) PERIODIC INSPECTION OF CATCH BASIN SEDIMENT TRAPS AND CLEANING WHEN THE BASIN IS MORE THAN 1/4 FULL. INSPECTION SHALL BE DONE AFTER EVERY MAJOR RAINFALL AND EVERY 6 MONTHS AS A MINIMUM. DISPOSAL OF ANY GREASE OR OIL MUST BE DONE IN ACCORDANCE

B) LITTER, DEBRIS AND CHEMICALS MUST BE PICKED UP AND KEPT IN A CONTAINED LOCATION

C) PARKING AREAS SHALL BE KEPT FREE FROM AUTOMOBILE FLUIDS THAT COULD WASH INTO

1. EROSION CONTROL STRUCTURES MAY BE REMOVED ONCE FINAL LANDSCAPING IS IN PLACE 2. EROSION CONTROL STRUCTURES BELOW SEEDED AREAS MUST REMAIN IN PLACE UNTIL THE

3. EROSION CONTROL IN PROPOSED PAVEMENT AREAS SHALL REMAIN IN PLACE UNTIL



EAKS INDUSTRIAL PARK 237 north summit RIDGE PKWY, SANTAQUIN, \Box

CIVIL ENGINEERIN + SURVEYING

No. 12072623 TREVOR L
HODGSON

SHEET NO.

PROJECT ID DATE:
E24-096 08/19/24
FILE NAME: SCALE:



SANTAQUIN PEAKS INDUSTRIAL PARK AMENDED LOTS 1-3 TOPOGRAPHIC SURVEY

LOCATED IN THE NORTHEAST QUARTER OF SECTION 3,
TOWNSHIP 10 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN
SANTAQUIN CITY, UTAH COUNTY, UTAH

CURVE TABLE						
CURVE#	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH	
C1	23.32	15.00	89°04'05"	S45° 28' 36"W	21.04	
C2	72.45	119.00	34°53'06"	N72° 33' 24"W	71.34	
C3	486.03	765.22	36°23'28"	N22° 45' 30"E	477.90	
C4	23.35	15.00	89°10'31"	S43° 38' 35"E	21.06	
C5	350.30	765.49	26°13'09"	S27° 50' 26"W	347.25	
C6	134.90	765.49	10°05'50"	S9° 40' 57"W	134.73	

LINE TABLE						
LINE#	LENGTH	BEARING				
L1	42.09	N55° 07' 24"V				

AKS BOUNDAR

SHEET NO. 1 OF 1

PROJECT ID: DATE: 08/07/202 S24-250 FILE NAME:

N2°41'40"E 305.51' 121,479 SQ FT 2.79 ACRES 58,140 SQ FT 54,389 SQ FT SANTAQUIN PEAKS INDUSTRIAL PARK AMENDED

Benchmark Info

Legend of Symbols

& Abbreviations

= = = = = = Curb and Gutter (C&G) ———— SS —— Existing Sanitary Sewer

—— — — W — Existing Water Line

Fire Hydrant

The Benchmark for the project is the North Quarter Corner of Section 3, T.10S. R.1E., Salt Lake Base & Meridian Elevation= 4851.23 Datum is NAVD 88 Geiod 12B derived from UTAH TURN GPS System

Found North Quarter Section 3, T.10S., R.1E. 3" Utah County Brass Cap Site Benchmark Found Northeast Corner Section 3, T.10S., R.1E. 3" Utah County Brass Cap

Survey Narrative

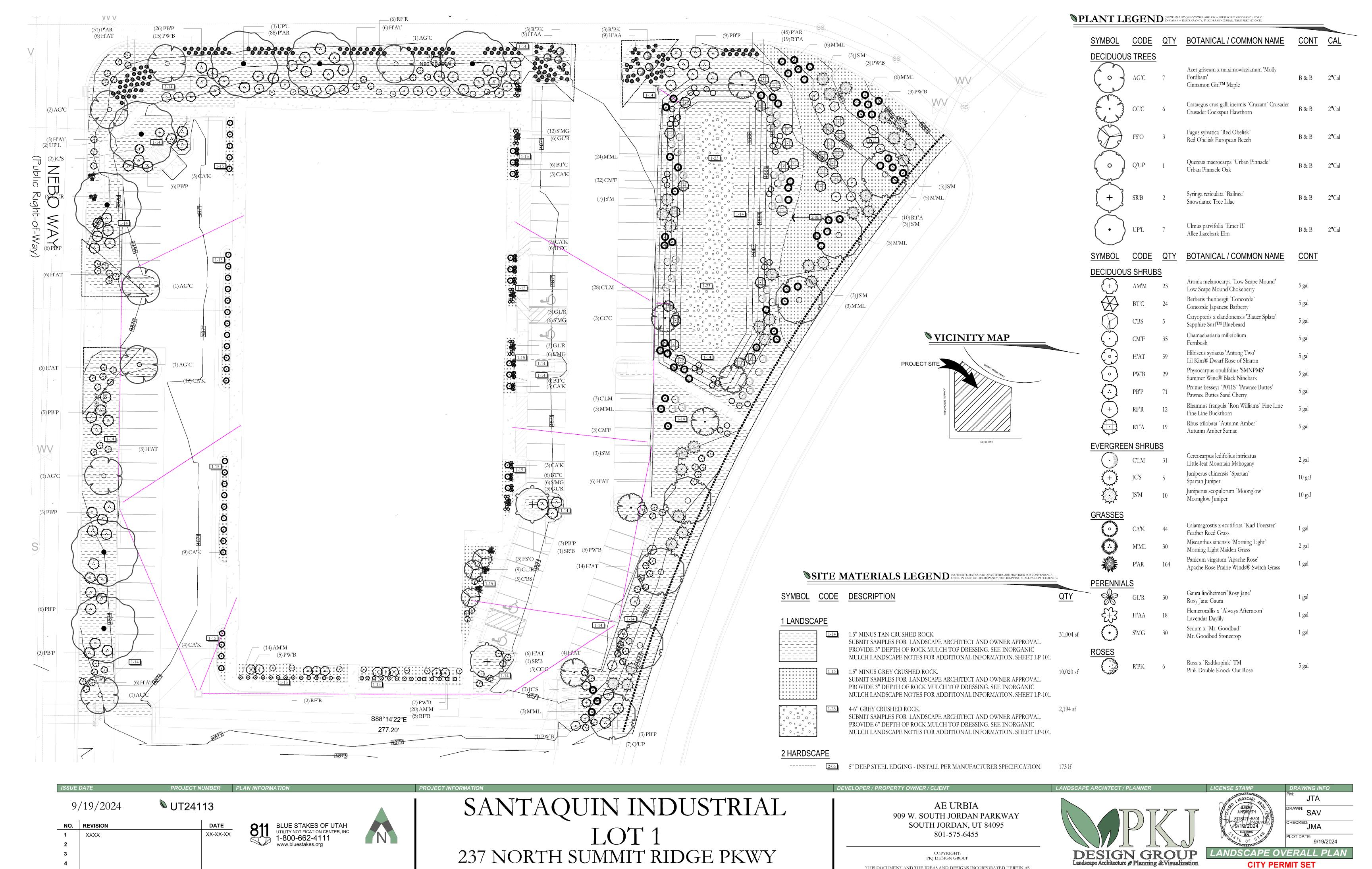
Legal Description

Lots 1-3 Santaquin Peaks Industrial Park Amended

This survey was requested by Colby Anderson Project Manager with CIR Civil Engineering for the purpose of providing a Topographic and Boundary Survey to aid in further development of Lots 1-3 of the Santaquin Peaks Industrial Park Amended. Record property lines were held per said plat.

The Basis of Bearing is N. 89°30'24" E. between the Northwest Corner and the North Quarter Corner of Section 3, Township 10 South, Range 1 East, Salt Lake Base & Meridian as shown on said plat.





SANTAQUIN, UTAH

GRAPHIC SCALE: 1" = 20'

3450 N. TRIUMPH BLVD. SUITE 102

LEHI, UTAH 84043 (801) 753-5644

www.pkjdesigngroup.com

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PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

- 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:
- 2. GUARANTEES

1. SITE CONDITIONS

- 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
- 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
- C. IRRIGATION SYSTEM: DO NOT BEGIN PLANTING UNTIL THE IRRIGATION SYSTEM IS COMPLETELY INSTALLED, IS ADJUSTED FOR FULL COVERAGE AND IS COMPLETELY OPERATIONAL.
- A.BLUE STAKE/ DIG LINE: WHEN DIGGING IS REOUIRED, "BLUE STAKE" OR "DIG LINE" THE WORK SITE AND IDENTIFY THE APPROXIMATE LOCATION OF ALL KNOWN UNDERGROUND UTILITIES
- 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 REOUESTS 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

OR STRUCTURES

- 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.
- 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 3.3 PLANTING OPERATIONS 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 REPLACE 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

GENERAL LANDSCAPE NOTES

- GRADING AND DRAINAGE REQUIREMENTS
- 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"
- AS PER CODE, FINISHED GRADE WILL NOT DRAIN ON NEIGHBORING PROPERTIES
- A MINIMUM OF 6" OF FOUNDATION WILL BE LEFT EXPOSED AT ALL CONDITIONS LANDSCAPE CONTRACTOR TO MAINTAIN OR IMPROVE FINAL GRADE AND PROPER DRAINAGE
- EXAGGERATION OF SLOPES, BERMS, AND SWALES. LANDSCAPE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY DAMAGED OR IMPROPER WATERFLOW OF
- ALL SWALES, BERMS, OR GRADE

ESTABLISHED BY EXCAVATOR, INCLUDING BUT NOT LIMITED TO ANY MAINTENANCE, PRESERVATION, OR

• 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

GENERAL LANDSCAPE NOTES

- 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
- DURING THE BIDDING AND INSTALLATION PROCESS, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE
- OUANTITIES TO BE USED. ALL PLANT MATERIAL SHALL BE PLANTED ACCORDING TO ANSI STANDARDS WITH CONSIDERATION TO INDIVIDUAL SOIL AND SITE CONDITIONS. AND NURSERY CARE AND INSTALLATION INSTRUCTIONS.
- 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
- IF A MATCHING SOIL IS NOT LOCATABLE. A 6" DEPTH OF SANDY LOAM TOPSOIL (MIXED PRIOR TO SPREADING WITH 1% 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

SHOULD THE SITE REQUIRE ADDITIONAL TOPSOIL, REFER TO SOIL TEST WHEN MATCHING EXISTING SOIL

- EDGING, AS INDICATED ON PLAN. IS TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS, ANY TREES LOCATED IN LAWN MUST HAVE A 4-6' TREE RING OF THE SAME EDGING.
- LAWN/GRASS AREA
- O ALL LAWN AREAS TO RECEIVE MIN. 6" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL OUALITY FOR PROPOSED HYDROSEEDING. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD ALL. LAWN AREAS SHALL BE IRRIGATED WITH 100% COVERAGE BY POP-UP SPRAY HEADS AND GEAR-DRIVEN ROTORS. ALL DECIDUOUS AND CONIFER TREES PLANTED WITHIN SOD AREAS SHALL HAVE A FOUR FOOT(4') DIAMETER TREE RING COVERED WITH CHOCOLATE BROWN BARK MULCH, NO SHREDDED FINES. SUBMIT SAMPLES TO BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE INSTALLATION.
- O **SOIL:** TEST SOIL FOR ADEQUATE FERTILITY. ANY WEEDS CURRENTLY ON THE SITE SHALL BE REMOVED BY EITHER MECHANICAL MEANS SUCH AS HAND PULLING OR SPRAYING WITH AN HERBICIDE SUCH AS GLYPHOSATE MIXED WITH A SURFACTANT. HERBICIDES SHOULD BE APPLIED BY A CERTIFIED PESTICIDE APPLICATOR . COMPACTED SOIL SHALL BE SCARIFIED TO A DEPTH OF 18

- 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.
- DEWITTCOMPANY.COM OR APPROVED EQUAL. E. TREE, SHRUB, AND GRASS BACKFILL MIXTURE; BACKFILL MIXTURE TO BE 75% NATIVE SOIL AND

D.WEED BARRIER: DEWITT 5 OZ. WEED BARRIER FABRIC. MANUFACTURED BY DEWITT COMPANY,

- 25% TOPSOIL, THOROUGHLY MIXED TOGETHER PRIOR TO PLACEMENT. F. TOPSOIL: REQUIRED FOR TURF AREAS, PLANTER BEDS AND BACKFILL MIXTURE. ACCEPTABLE

TOPSOIL SHALL MEET THE FOLLOWING STANDARDS:

- b. EC (ELECTRICAL CONDUCTIVITY): < 2.0 MMHOS PER CENTIMETER
- c. SAR (SODIUM ABSORPTION RATION): < 3.0

d. ONLY POTABLE WATER FOR MIXING.

2.1 LANDSCAPE MATERIALS

- 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
- 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
- I.LANDSCAPE METAL EDGING: 5.5" STEEL EDGING WITH 15" DOWELS INTO THE GROUND FOR STABILIZATION

PART III - EXECUTION

- 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.
- 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

SOIL TEST RESULTS AND HYDROSEEDING CONTRACTOR FOR APPLICATION RATES.

- INCHES BEFORE ADDING 6" OF WEED FREE TOPSOIL WITH HIGH ORGANIC MATTER. FINE LEVEL ALL 👚 MULCH AREAS PRIOR TO HYDROSEEDING AND SET THE GRADE FOR POSITIVE DRAINAGE. TOPSOIL SHOULD • ORGANIC BE SOFT AT TIME OF APPLICATION FERTILIZER IS TO BE ADDED WHEN HYDROSEEDING REFER TO
- O **SEED**: USE SEED MIXES AS SPECIFIED BY LANDSCAPE ARCHITECT OF PURE LIVE SEED (PLS) ON A BASIS/ACRE. THE OPTIMUM TIME TO PAN'T IS IN NOVEMBER BEFORE THE FIRST SNOW. DO NOT SOW OVER HEAVY SNOWPACK, SEED WILL LAY DORMANT AND BE READY TO GERMINATE ONCE THE GROUND THAWS AND WARMS IN LATE WINTER. IF SEEDING IN LATE FALL IS NOT POSSIBLE, SEED BEFORE APRIL 1. CONTACT SUMMIT SEED. DARRELL@SUMMITSEEDING.COM 435-709-8003.
- APPLICATION: HYDROSEEDING SHALL CONSIST OF SEED, TACKIFIER, WOOD FIBER MULCH AND FERTILIZER IN A WATER BASED SLURRY. TANK MOUNTED TRUCK SHALL HAVE CONTINUOUS GITATION. THE PUMP ON THE TRUCK WILL FORCE THE SLURRY THROUGH A TOP-MOUNTED DISCHARGE NOZZLE (TOWER). USE 2000 POUNDS WOOD FIBER MULCH AND 50-100 POUNDS OF
- O **IRRIGATION**: ALL AREAS MUST BE KEPT MOIST WITHOUT PUDDLES OR RUNOFF USING FREQUENT DAYTIME WATER CYCLES. ADJUST AND MONITOR SPRINKLERS AND CLOCK TO ACHIEVE PROPER
- IF PERMANENT IRRIGATION IS NOT PLANNED, TEMPORARY IRRIGATION IS REQUIRED AT THE FOLLOWING SCHEDULE: FOR 8 WEEKS SOIL SHALL REMAIN DAMP DURING ESTABLISHMENT PERIOD WITHOUT PUDDLING ON SOIL SURFACE. APPLY WATER APPROXIMATELY THREE TIMES A DAY FOR 5-7 MINUTES FOR EACH IRRIGATION EVENT DEPENDING ON TEMPERATURE AND TIME OF YEAR. A SPARSE DENSITY IS EXPECTED. CONTINUE TEMPORARY IRRIGATION FOR ONE YEAR EVENTUALLY REDUCING WATER APPLICATION TO ONCE A WEEK, THEN ONCE EVERY TWO WEEKS TO FINALLY ONCE A MONTH. MONITOR PROGRESS OF ESTABLISHMENT AND ADJUST SPRINKLERS ACCORDINGLY. THE GOAL IS TO CREATE A HEALTHY STAND OF GRASSES WITH LITTLE TO NO IRRIGATION.
- O WEED CONTROL AND MAINTENANCE: MANDATORY WEED CONTROL IS REQUIRED TO REDUCE COMPETITION AND WEED SEED PRODUCTION. WEEDS MUST BE KEPT UNDER CONTROL BY MECHANICALLY PULLING OR CHEMICALLY SPRAYING AS DIRECTED BY THE APPLICATOR. APPLY A BROADLEAF HERBICIDE BIANNUALLY AND ESTABLISH A CONSISTENT REGIMEN OF MOWING AND FERTILIZING TO PREVENT WEEDS FROM PRODUCING SEED. MOW ONCE IN THE SPRING AND ONCE IN THE FALL BEFORE FERTILIZATION. FERTILIZER OPTION IS SUSTAIN 4-6-4 DEPENDING ON SOIL FERTILITY. DO NOT MOW SHORTER THAN 4 INCHES. BAG ALL CUTTINGS TO REMOVE WEED SEED FROM PROPERTY, KEEP WEEDS CUT DOWN AND DO NOT LET THEM GO TO SEED. WEED SEED PRODUCTION IS THE GAUGE FOR WHEN TO MOW, WHICH GENERALLY OCCURS IN APRIL OR MAY AS WELL AS EARLY FALL DEPENDING ON TEMPERATURE AND MOISTURE. THIS PROCEDURE WILL BE REQUIRED UNTIL A HEALTHY STAND OF GRASSES IS EVIDENT AND COMPETING WELL WITH WEEDS.
- O **PROGANICS BIOTIC SOIL MEDIA**: WHERE CONDITIONS MAY PROHIBIT ADDING TOPSOIL, PROGANICS BIOTIC SOIL MEDIA SHOULD BE APPLIED BY HYDROSEEDER AT 3500LBS/ACRE WITH SEED AND FERTILIZER PRIOR TO THE APPLICATION OF WOOD MULCH(2000LBS/ACRE) COMBINED WITH TACKIFIER (50-100 LBS/ACRE.)
- O **ADDING FORBS**: SHRUBS AND PERENNIALS. BY SEED OR CONTAINER, CAN BE ADDED ONCE WEEDS ARE UNDER CONTROL AND HERBICIDE IS NO LONGER NEEDED. USUALLY 1-2 YEARS AFTER HYDROSEEDING

- BEGINNING AND BACKFILLING OPERATIONS. DO NOT USE PLANTING STOCK IF THE BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATION.
- I. APPLY VITAMIN B-1 ROOT STIMULATOR AT THE RATE OF ONE (1) TABLESPOON PER GALLON. J. UPON COMPLETION OF BACKFILLING OPERATION, THOROUGHLY WATER TREE TO COMPLETELY SETTLE THE SOIL AND FILL ANY VOIDS THAT MAY HAVE OCCURRED. USE A WATERING HOSE, NOT THE AREA IRRIGATION SYSTEM. IF ADDITIONAL PREPARED TOPSOIL MIXTURE NEEDS TO BE ADDED. IT SHOULD BE A COURSER MIX AS REQUIRED TO ESTABLISH FINISH GRADE AS INDICATED ON THE DRAWINGS.
- K.THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES. ALL CUTS, SCARS, AND BRUISES SHALL BE PROPERLY TREATED ACCORDING TO THE DIRECTION OF THE PROJECT REPRESENTATIVE. PROPER PRUNING TECHNIQUES SHALL BE USED. DO NOT LEAVE STUBS AND DO NOT CUT THE LEADER BRANCH. IMPROPER PRUNING SHALL BE CAUSE FOR REJECTION OF THE PLANT MATERIAL
- L. PREPARE A WATERING CIRCLE OF 2' DIAMETER AROUND THE TRUNK. FOR CONIFERS, EXTEND THE WATERING WELL TO THE DRIP LINE OF THE TREE CANOPY. PLACE MULCH AROUND THE
- 4. TURE 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 $\frac{1}{2}$ POUND OF NITROGEN PER 1000 SQUARE FEET. USE FERTILIZER SPECIFIED ABOVE. ADJUST FERTILIZATION MIXTURE AND RATES TO MEET RECOMMENDATIONS GIVEN BY TOPSOIL
- 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 HIMSELF 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 AMOUNT TO BE USED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPORT SUCH TO THE PROJECT REPRESENTATIVE PRIOR TO COMMENCING THE WORK
- D.SOD LAYING: THE SURFACE UPON WHICH THE NEW SOD TO BE LAID WILL BE PREPARED AS SPECIFIED 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 THI 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 INCLUDI 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.
- 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 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

- O PLANTING AREAS TO BE FREE OF WEEDS AND RECEIVE MIN. 12" DEPTH OF QUALITY TOPSOIL, IF TOPSOIL IS PRESENT ON SITE. PROVIDE SOIL TEST TO DETERMINE SOIL OUALITY FOR PROPOSED PLANTINGS. PROVIDE 3" DEPTH OF ORGANIC MULCH TOP DRESSING. KEEP MULCH AWAY FROM TOP OF ROOT BALL OF ALL PLANT MATERIAL.
- O IF REQUIRED BY CITY INSTALL DEWITT 5OZ WEED BARRIER LANDSCAPE FABRIC UNDER ALL MULCH AREAS. KEEP WEED BARRIER 1 FOOT AWAY FROM EDGE OF ROOT BALL OF ALL PLANT MATERIAL II WEED BARRIER IS NOT REQUIRED OR INSTALLED. AT OWNER'S APPROVAL, USE TREFLAN 10 AS A PRE-EMERGENT. APPLY ACCORDING TO LABEL DIRECTIONS BY CERTIFIED PESTICIDE APPLICATOR AFTER PLANTING AND AFTER APPLYING MULCH.
- O IF USING TREFLAN 10 WITHOUT WEED BARRIER, THIS AREA WILL ALSO NEED AN YEARLY MANAGEMENT PROGRAM. SUBMIT PROGRAM TO OWNER.
- O ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL (ORGANIC MULCH). NO MULCH SHALL BE PLACED WITHIN 12" OF TREE TRUNK AND 6" WITHIN BASE OF SHRUBS AND PERENNIALS DO NOT COVER LOW BRANCHES OF SHRUBS WITH ROCK
- O ROCK MULCH PLANTING AREAS TO BE FREE OF WEEDS AND RECEIVE MIN. 12" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS. WHERE PLANTING IS SPARSE (GREATER THAN 4' DISTANCE BETWEEN PLANTS OR 20' BETWEEN GROUPINGS), ADDITIONAL TOPSOIL IS NOT NECESSARY EXCEPT FOR BACKFILLING PLANTING HOLE. PREPARE A HOLE TWICE THE WIDTH OF THE CONTAINER, WATER IN PLANT, BACKFILL WITH A 4:1 RATIO OF SOIL TO COMPOST. TAMP LIGHTLY AND WATER AGAIN, KEEP ROCK 12' AWAY FROM TRUNK OF TREES AND 6" AWAY FROM BASE OF SHRUBS AND PERENNIALS, DO NOT COVER LOW BRANCHES OF SHRUBS WITH ROCK.
- O IF REQUIRED BY CITY, INSTALL DEWITT 50Z WEED BARRIER LANDSCAPE FABRIC UNDER ALL ROCK AREAS. KEEP WEED BARRIER 1 FOOT AWAY FROM EDGE OF ROOT BALL OF ALL PLANT MATERIAL. II WEED BARRIER IS NOT REQUIRED OR INSTALLED AT OWNER'S APPROVAL USE TREFLAN 10 AS A PRE-EMERGENT. APPLY ACCORDING TO LABEL DIRECTIONS BY CERTIFIED PESTICIDE APPLICATOR AFTER PLANTING AND AFTER APPLYING MULCH.
- O IF USING TREFLAN 10 WITHOUT WEED BARRIER, THIS AREA WILL ALSO NEED AN YEARLY MANAGEMENT PROGRAM, SUBMIT PROGRAM TO OWNER. UPON REQUEST, A PLANT GUIDE IS AVAILABLE WITH OUR RECOMMENDATIONS REGARDING WEED BARRIER, PLANT CARE AND MAINTENANCE.

GENERAL IRRIGATION NOTES

• 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 CENTER OF ROOT BALL, NOT AGAINST TRUNK. SEE IRRIGATION PLAN. INSTALLER RESPONSIBILITIES AND LIABILITIES

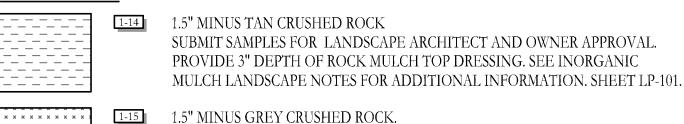
IRRIGATION SYSTEMS INCLUDING CODE REQUIREMENTS, TIME EXECUTIONS, INSTALLED PRODUCTS AND

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. LANDSCAPE CONTRACTOR IS RESPONSIBLE AND LIABLE FOR INSTALLATION OF ALL LANDSCAPING AND

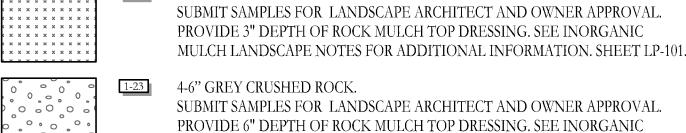
• THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. LANDSCAPE CONTRACTOR IS

DESCRIPTION

1 LANDSCAPE



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



2 HARDSCAPE

USE WEED BARRIER

5" DEEP STEEL EDGING - INSTALL PER MANUFACTURER SPECIFICATION.

MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101

SITE REQUIREMENT CALCULATIONS

STREET FRONTAGE		
1 TREE / 30 FT	REQUIRED:	PROVIDED:
TIMPANOGOS TERRACE (192 LN FT)	6	6
NEBO WAY (221 LN FT)	7	7
LANDSCAPE:	REQUIRED:	PROVIDED:
50% PLANT COVERAGE INCLUDING TREES	50%	50%
CITY APPROVED TREE LIST		YES
1 TREE & 4 SHRUBS PER 40 LN FT OF SIDE & RE	AR YARD N/A	N/A
1 TREE PER 40 LN FT OF FRONT YARD	N/A	N/Λ
5' PLANTING AROUND TRASH W 4 SHRUBS EAG	CH SIDE	YES
TURF: LESS THAN 20% AND NOT IN PARK STRI	PS <7,886SF	6,351 SF

10,020 sf

SR'B

UP'L

DECIDUOUS SHRUBS

CM'F

PB'P

EVERGREEN SHRUBS Cercocarpus leditolius intricatus Little-leaf Mountain Mahogany JC'S Spartan Juniper

PLANT LEGEND (NOTE: 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 MAIENTENACE SCHEDULE, CONTACT PKJ@PKJDESIGNGROUP.COM)

Fordham'

Cinnamon GirlTM Maple

Crusader Cockspur Hawthorn

Red Obelisk European Beech

Urban Pinnacle Oak

Syringa reticulata 'Bailnce'

Ulmus parvifolia `Emer II`

BOTANICAL / COMMON NAME

Aronia melanocarpa `Low Scape Mound'

Caryopteris x clandonensis 'Blauer Splatz'

Low Scape Mound Chokeberry

Berberis thunbergii `Concorde`

Concorde Japanese Barberry

apphire SurfTM Bluebeard

Chamaebatiaria millefolium

Hibiscus syriacus 'Antong Two'

Lil Kim® Dwarf Rose of Sharon

Physocarpus opulifolius 'SMNPMS'

Prunus besseyi 'P011S' 'Pawnee Buttes'

Rhamnus frangula `Ron Williams` Fine Line

Summer Wine® Black Ninebark

Rhus trilobata `Autumn Amber`

niperus scopulorum `Moonglov

Apache Rose Prairie Winds® Switch Grass

Pawnee Buttes Sand Cherry

Fine Line Buckthorn

Autumn Amber Sumac

Allee Lacebark Elm

Snowdance Tree Lilac

Quercus macrocarpa 'Urban Pinnacle'

BOTANICAL / COMMON NAME

Acer griseum x maximowiczianum 'Mollv

Crataegus crus-galli inermis `Cruzam` Crusader

B & B

B & B

B & B

B & B

10 gal

2"Cal

Calamagrostis x acutiflora 'Karl Foerster' Feather Reed Grass Aiscanthus sinensis `Morning Light` Morning Light Maiden Grass Panicum virgatum 'Apache Rose'

Gaura lindheimeri 'Rosy Jane' Rosy Jane Gaura Hemerocallis x `Always Afternoor Lavendar Daylily Sedum x `Mr. Goodbud

Mr. Goodbud Stonecrop

Rosa x `Radtkopink` TM Pink Double Knock Out Rose

PLAN INFORMATION

UT24113

XX-XX-XX XXXX



EXPECT FROM 1 TO 3 YEARS

SANTAQUIN INDUSTRIAL 237 NORTH SUMMIT RIDGE PKWY SANTAQUIN, UTAH

AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095

DEVELOPER / PROPERTY OWNER / CLIENT

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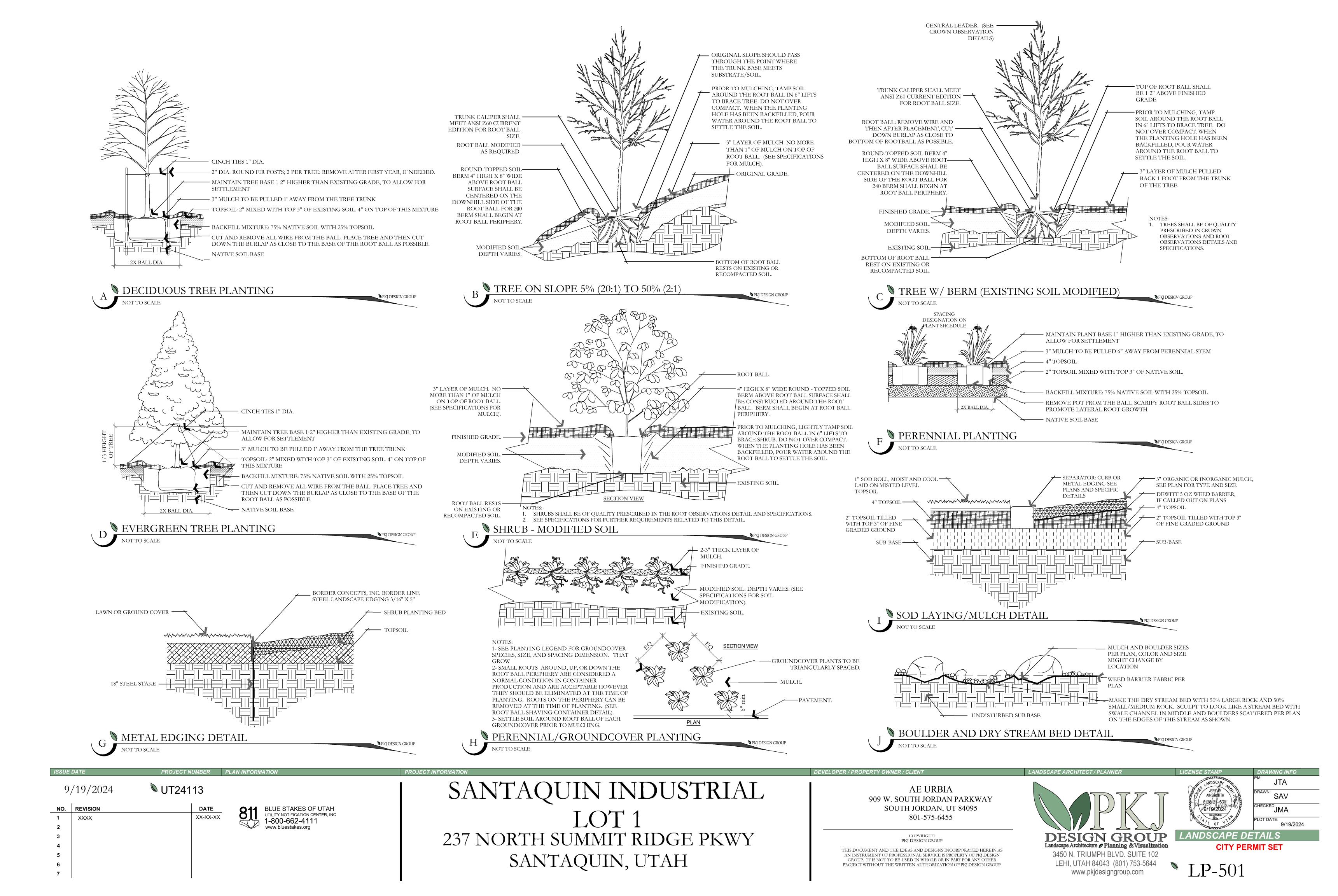
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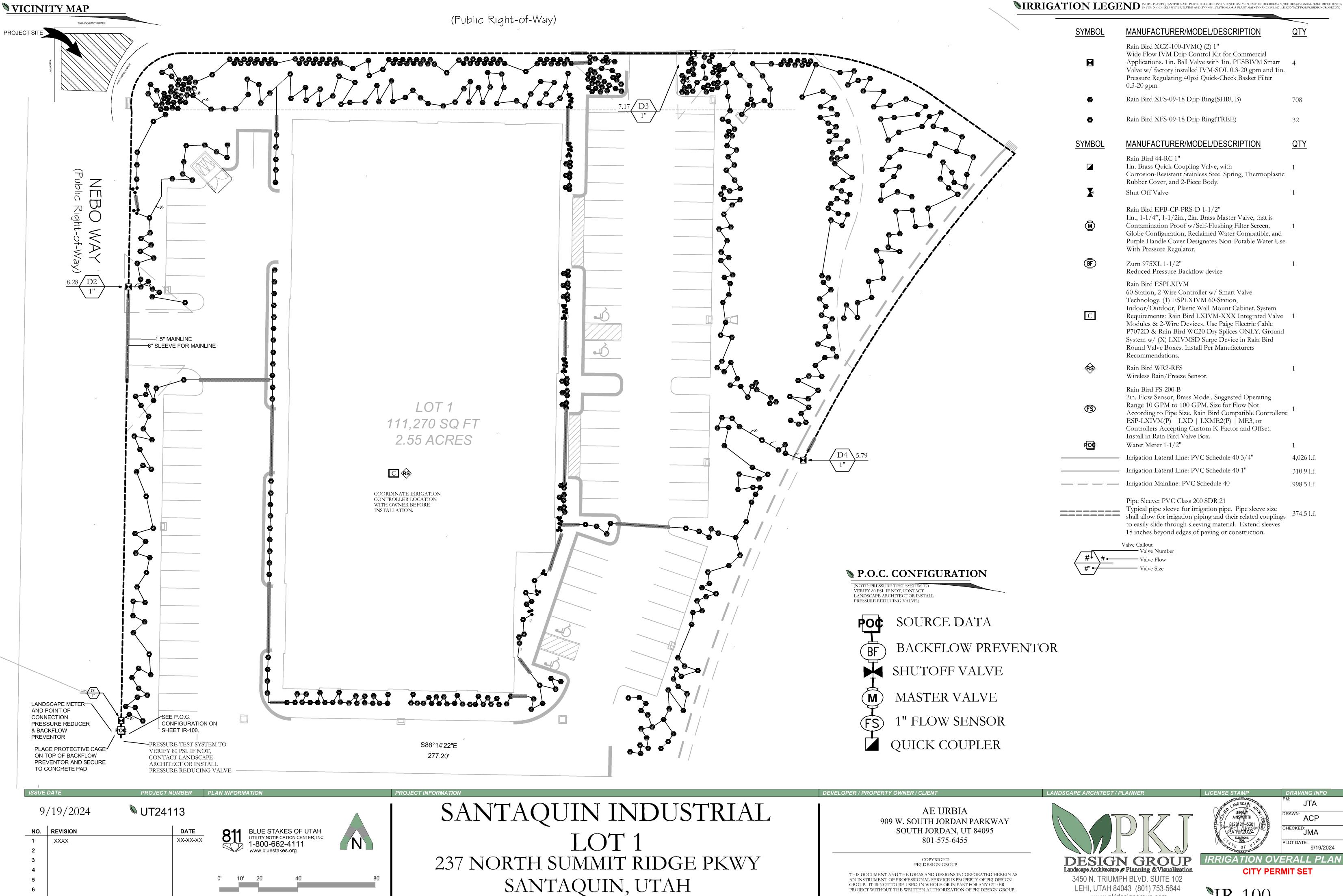




ANDSCAPE COVER

CITY PERMIT SET





GRAPHIC SCALE: 1" = 20'

IR-100

LEHI, UTAH 84043 (801) 753-5644

www.pkjdesigngroup.com

PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PKJ DESIGN GROUP.

PART I - GENERAL 1.1 SUMMARY

Work to be done includes all labor, materials, equipment and services required to complete the Project irrigation system as indicated on the Construction Drawings, and as specified herein. Includes but is not limited to: Furnishing and installing underground and above ground sprinkler system complete with any accessories necessary for proper function and operation of the system. All plant material on the Project shall be irrigated. 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 Manual. changes where revisions may be advisable. Small or minor adjustments to system layout are permissible to avoid existing 1.11 MAINTENANCE 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 A.Furnish the following items to Owner's Representative: and protected by manifold isolation valves. Quick coupler valves are shown on Construction Documents in approximate

1.3 DEFINITIONS

A. Water Supply: Culinary water piping and components, furnished and installed by others to provide irrigation water to this

B. Provide the following services: Project, including but not limited to backflow preventor, saddles, nipples, spools, shut off valves, corporation stop valves, water meters, pressure regulation valves, and piping upstream of (or prior to) the Point of Connection. B. Point of Connection: Location where the Contractor shall tie into the water supply. May require backflow preventor,

saddle, nipples, spools, isolation valves or Stop and Waste valve for landscape irrigation needs and use.

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

D. Lateral Line Piping: Circuit piping downstream of remote control valves to provide water to sprinkler heads, drip systems PART 2 - PRODUCTS

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 2.4 CONTROL SYSTEM indicating order in submittal document. No material shall be ordered, delivered or any work preceded in the field until the required submittals have need reviewed in its entirety and stamped approved. Delivered material shall match the approved

B. Operation and Maintenance Manual:

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

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

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

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 including 2 wire path and junction box

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

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

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 at supplied POC. Notify OAR in writing of problems encountered and pressure reading prior to proceeding.

D. Workmanship and Materials:

shall be local.

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

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. 2.9 MANIFOLDS 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.

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.

UT24113

1.7 DELIVERY-STORAGE-HANDLING

A.During delivery, installation and storage of materials for Project, all materials shall be protected from contamination, 2.11 MANUAL CONTROL VALVES 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.

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 2.12 LATERAL LINE PIPE devices shall be installed and operational prior to all downstream components. All main lines shall be thoroughly flushed A.All lateral piping shall be Schedule 40 PVC, solvent weld, and bell end. Lateral pipe shall be buried with 12-18" of cover of all debris prior to installation of any sprinkler heads.

A.Contractor shall provide one year Warranty. Warranty shall cover all materials, workmanship and labor. Warranty shall 2.14 Spray Sprinklers 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.

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

1.10 OWNER'S INSTRUCTION

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.

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 procedure.

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 3.2 TRENCHING AND BACKFILLING shall install new main line as indicated. Connection must meet state guidelines 2.3 CONNECTION ASSEMBLY

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

A.Power supply to the irrigation controller shall be provided for by this Contract. To be installed by owner or electrical

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

a. Installation of wall-mount controllers: Irrigation contractor shall be responsible for this task. Power configuration for 3.4 GRADES AND DRAINAGE wall-mount controllers shall be 120 VAC unless otherwise noted. b. Locate Controller(s) in general location shown on Construction drawings. Coordinate power supply and breaker

allocation with electrical contractor. Contractor shall be responsible for all power connections to Controllers, whether they are wall mount or pedestal mount. Contractor shall coordinate with electrical or other Project trades as needed to facilitate installation of power to controllers. C. Wires connecting the remote control valves to the irrigation controller are single conductors, type PE. Wire construction

shall incorporate a solid copper conductor and polyethylene (PE) insulation with a minimum thickness of 0.045 inches. The wires shall be UL listed for direct burial in irrigation systems and be rated at a minimum of 30 VAC. Paige Electric Co., LP specification number P7079D.

a. A minimum of 36" of additional wire shall be left at each valve, each splice box and at each controller. b. Common wire shall be white in color, 12 gauge. Control wire shall be red in color, 14 gauge. Spare wire shall be looped within each valve box of the grouping it is to service.

D. Wire splice connectors shall use 3M brand DBY wire connectors. 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.

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 SCH40 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

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

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

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

3/4" 8 GPM

53 GPM 2-1/2" 75 GPM

12 GPM

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 A.Isolation valves, remote control valves, and quick coupler valves shall be installed according to manufacturer shall have proper concrete thrust block installed. All main line fittings smaller than 3" in size shall be Schedule 80 PVC.

2.8 ISOLATION VALVES A.Isolation valves 3" and larger shall be Waterous brand model 2500 cast iron gate valve, resilient wedge, push on type, with C. Valve box and lid shall be set to be flush with finished grade. Only one remote control valve may be installed in a Carson 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 3.8 SPRINKLER HEADS valve box. Valves shall be installed with SCH80 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.

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 vii. Evidence that Contractor currently employs workers in sufficient quantities to complete Project within time limits allow access for maintenance and repair. Where practical, group remote control valves in close proximity, and protect each E.Contractor shall be responsible for adjustment if necessary due to grade changes during landscape construction. grouping with a manifold isolation valve as shown in details. Manifold Main Line (or Sub-Main Line) and all manifold components and isolation valves shall be at least as large as the largest diameter lateral served by the respective manifold. 2.10 REMOTE CONTROL VALVES

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

A.Quick coupler valve shall be attached to the manifold sub-main line using a Lasco G17S212 swing joint assembly with snap-lock outlet and brass stabilizer elbow. Quick coupler valve shall be placed within a Carson 10" round valve box. Top D. Schedule testing with OAR 48 hours in advance for approval. of quick coupler valve cover shall allow for complete installation of valve box lid, but also allow for insertion and E. Leaks or defects shall promptly be repaired or rectified at the Contractors expense and retested until able to pass testing. operation of key. Base of quick coupler valve and top of quick coupler swing joint shall be encased in 3/4" gravel. Contractor shall not place quick coupler valves further than 200 feet apart, to allow for spot watering or supplemental F. Grounding resistance at pedestal controller shall also be tested and shall not exceed 5 OHMs. irrigation of new plant material. Quick coupler valve at POC shall not be eliminated or relocated.

2.13 LATERAL LINE FITTINGS

typically. Lateral pipe shall be ³/₄", 1", 1 ¹/₄", 1 ¹/₂" or 2" in size as indicated on Construction Drawings.

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

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

2.15 RAIN BIRD VALVE BOXES A.Carson valve boxes shall be used on this project. Sizes are as directed in these Specifications, detail sheets or plan sheets. Valve boxes shall be centered over the control valve or element they cover. Valve box shall be sized large enough to allow ample room for services access, removal or replacement of valve or element. Valve box shall be set to flush to finish grade D. OAR shall perform periodic as well as a final cleanliness inspection. 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 Landscape Architect or OAR's approval and must be designated as

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.

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

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

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

A.Install pipe to allow for expansion and contraction as recommended by pipe manufacturer. B. Install main line pipes with 18" of cover, lateral line pipes with 12" of cover.

C. Drawings show diagrammatic or conceptual location of piping - Contractor shall install piping to minimize change of direction, avoid placement under large trees or large shrubs, avoid placement under hardscape features. D. Plastic pipe shall be cut squarely. Burrs shall be removed. Spigot ends of pipes 3" and larger shall be beveled.

E.Pipe shall not be glued unless ambient temperature is at least 50 degress F. Pipe shall not be glued in rainy conditions unless properly tented. All solvent weld joints shall be assembled using IPS 711 glue and P70 primer according to 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.

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

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 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.

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.

1419124 box. Place a minimum of 4" of 3/4" washed gravel beneath valve box for drainage. Bottom of remote control

valve shall be a minimum of 2" above gravel.

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.

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.

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

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

WATERING SCHEDULE

90 Day Establishment Period Irrigation Schedule Hi/Low Water Use Zones TYPE IR HEAD AMT. H20 SUNDAY MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY TURF MP ROTATOR 5 INCH 45 MIN. Participate in a water check to determin dium to Low Water Use | SHRUBS | DRIP | 2 GAL/HR. precipitation rate of sprinkler system Xeric Water Use SHRUBS DRIP 2 GAL/HR. 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) Hi/Low Water Use Zones TYPE IR HEAD AMT. H20 SUNDAY MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDA
 Hi Water Use
 TURF
 MP ROTATOR
 .5 INCH

 Medium to Low Water Use
 SHRUBS
 DRIP
 2 GAL/HR.
 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) Hi/Low Water Use Zones TYPE IR HEAD AMT. H20 SUNDAY MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY 60 MIN. precipitation rate of sprinkler system.
 Medium to Low Water Use
 SHRUBS
 DRIP
 2 GAL/HR.

 Xeric Water Use
 SHRUBS
 DRIP
 2 GAL/HR.
 1 HOUR

er 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) HI/Low Water Use Zones TYPE IR HEAD AMT. H20 SUNDAY MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY
 Hi Water Use
 TURF
 MP ROTATOR
 .5 INCH

 Medium to Low Water Use
 SHRUBS
 DRIP
 2 GAL/HR.
 60 MIN. 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 **IRRIGATION NOTES**

BEFORE WORK IS TO COMMENCE. BLUE STAKES/DIG LINE IS TO BE CALLED AND NOTIFIED. IF ANY DAMAGE T CONSTRUCTION, THE CONTRACTOR SHALL REPAIR IT AT THEIR EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS IN ACCORDANCE WITH CITY AND/OR COUNTY CODES AND COMPLY WITH SPECIFICATIONS AND

DRAWINGS. 3. INVESTIGATE TO MAKE SURE THAT THE IRRIGATION SYSTEM IS, IN FACT, BEING CONNECTED TO A CULINARY SYSTEM. IF IT IS NOT CONNECTED TO CULINARY,

CONTACT THE OWNER AND LANDSCAPE ARCHITECT TO COORDINATE A SECONDARY SYSTEM AND REQUIRED COMPONENTS. 4. VERIFY THAT THE POINT OF CONNECTION IS IN THE CORRECT LOCATION BEFORE INSTALLATION. ALL CONNECTIONS ON THIS PROJECT ARE TO BE CULINARY WATER AND SHOULD BE NOTED AS SUCH; THEREFORE, ALL PARTS MUST MEET WATER STANDARDS THAT PERTAIN TO CULINARY WĂTER.USE A BACKFLOW

ON OCCASION AND FOR GRAPHIC PURPOSES ONLY, THE IRRIGATION SYSTEM MIGHT BE SHOWN IN HARDSCAPE AREAS. THIS IRRIGATION IS TO BE PLACED IN LANDSCAPED AREAS ON THE PROPERTY SITE.

CONTRACTOR SHALL USE ONLY COMMERCIAL GRADE IRRIGATION PRODUCTS. THIS INCLUDES PIPE TO BE SCHEDULE 40 PVC OR BETTER. NO POLY PIPE IS TO BE USED, UNLESS BLACK POLY IS CALLED OUT FOR WIRE SLEEVING. FITTINGS UP TO 1-1/2" MUST BE SCHEDULE 40 OR BETTER. FITTINGS LARGER THAN 1-1/2" SHALL BE SCHEDULE 80 OR BETTER. CONTRACTOR IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS AND QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND

MAIN LINES SHALL BE A MINIMUM OF 24" DEEP AND LATERAL LINES A MINIMUM OF 12" DEEP. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.

NO IRRIGATION MAIN LINE MAY BE LOCATED WITHIN 5 FEET OF ANY STRUCTURE. TO AVOID PIPE DAMAGE, ADJUST LOCATION OF PIPE TO NOT BE DIRECTLY UNDER PLANT MATERIALS. VALVE BOXES ARE PREFERRED TO BE IN PLANTER BEDS INSTEAD OF THE LAWN. SYSTEM IS TO BE WINTERIZED IN THE LATE FALL

10. PLAN INDICATES 100% OR BETTER HEAD TO HEAD COVERAGE. SHOULD CONTRACTOR FIND DISCREPANCIES DUE TO NECESSARY FIELD ADJUSTMENTS, CONTACT LANDSCAPE ARCHITECT FOR IRRIGATION CORRECTION.

11. DRIP IRRIGATION TO BE INSTALLED PER DETAILS. CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS. TUBING SHOULD REST TOWARD OUTER EDGE OF ROOTBALL AND NOT AGAINST TRUNK OF PLANT. 12. A QUICK COUPLER SHALL BE INSTALLED AT POINT OF CONNECTION TO ALLOW BLOW OUT OF SYSTEM BY AIR COMPRESSOR AT END OF EACH SEASON.

13. INSTALL SLEEVES FOR ALL PIPES AND WIRE CONDUIT THAT ARE PLACED UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE BEING PLACED INTERNALLY. WIRE CONDUIT SHALL BE INSTALLED IN CLASS 200 PIPE. AT ANY DIRECTIONAL CHANGE THAT OCCURS, A JUNCTION BOX IS TO PLACED. 4. CONDUITS CAN NOT BE SHARED BY WATER AND ELECTRICAL LINES. ALL WIRE TO BE PUT IN PVC CONDUIT. ALL WIRE CONNECTIONS TO BE PLACED IN A VALVE

BOX. ALL WIRE CONNECTIONS TO USE WATERPROOF WIRE CONNECTORS WITH AT LEAST 3' OF EXTRA WIRE. PROVIDE PLENTY OF EXTRA WIRE AT EVERY DIRECTIONAL CHANGE. INSULATED 14 GAUGE COPPER TO BE USED FOR ALL CONTROL WIRES AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

15. CONTRACTOR TO INSTALL LIGHTNING ARRESTOR AND GROUNDING RODS ON SITE PER MANUFACTURER'S RECOMMENDATIONS. SEE DETAILS 16. CONTRACTOR TO SEPARATE SYSTEM (CONTROLLER, VALVES, AND DIFFERENT COLORED WIRE) FROM CITY MAINTAINED PROPERTY AND HOA/OWNER MAINTAINED

17. DUCT TAPE ALL SLEEVES TO PREVENT SOIL OR OTHER DEBRIS ENTERING PIPE. IDENTIFY ALL SLEEVES BY WOOD OR PVC STAKES AND SPRAY PAINT WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE

18. TO PREVENT EROSION AND LOW POINT DRAINAGE CONTRACTOR SHALL INSTALL CHECK VALVES

A.Sprinkler heads shall be adjusted to proper height when installed. Changes in grade or adjustment of head height after

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

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

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

installation shall be considered a part of the original contract and at Contractor's expense

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.

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

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

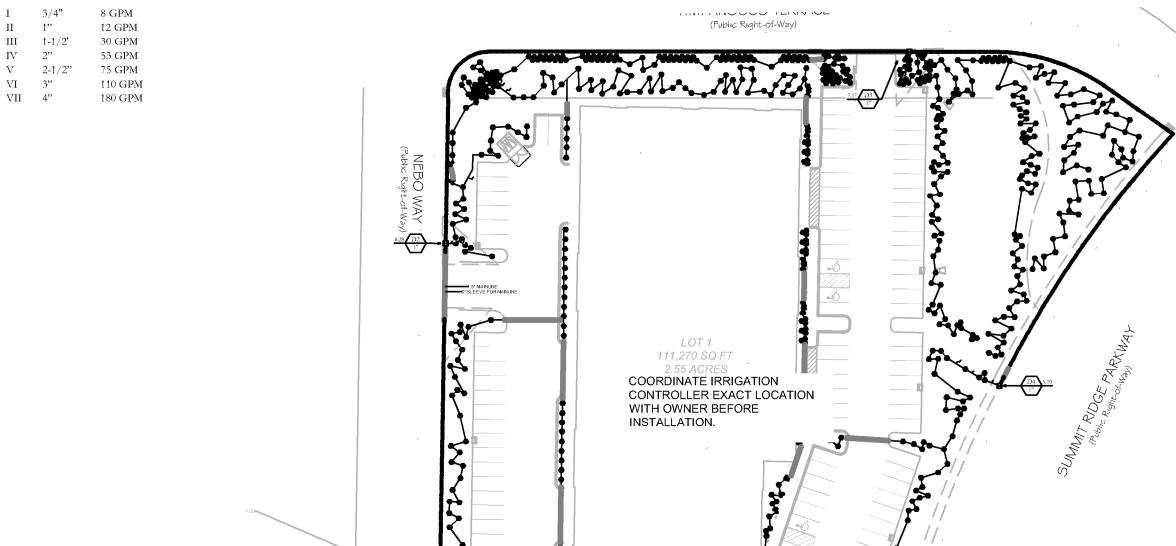
3.11 CLEANING

END OF SECTION

19. LOCATE SPRAY HEADS NO CLOSER THAN 6" FROM WALLS, FENCES OR BUILDINGS AND 2" AWAY FROM WALKS, PATHS OR CURBS.

20. PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING. CONTACT LANDSCAPE ARCHITECT/OWNER AT THIS TIME FOR COMPLIANCE NSULT WITH OWNER ON EXACT LOCATION OF CONTROLLER CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR AND OWNE FOR THE POWER SUPPLY. INSTALL ALL PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH THE CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR LANDSCAPE ARCHITECT

22. LATERAL LINES SHALL BE NO SMALLER THAN 3/4". LANDSCAPE CONTRACTOR TO ENSURE THE FOLLOWING PIPE SIZES DO NOT EXCEED THE SUGGESTED GPM LISTED BELOW:



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

AE URBIA 909 W. SOUTH JORDAN PARKWAY

SOUTH JORDAN, UT 84095

801-575-6455

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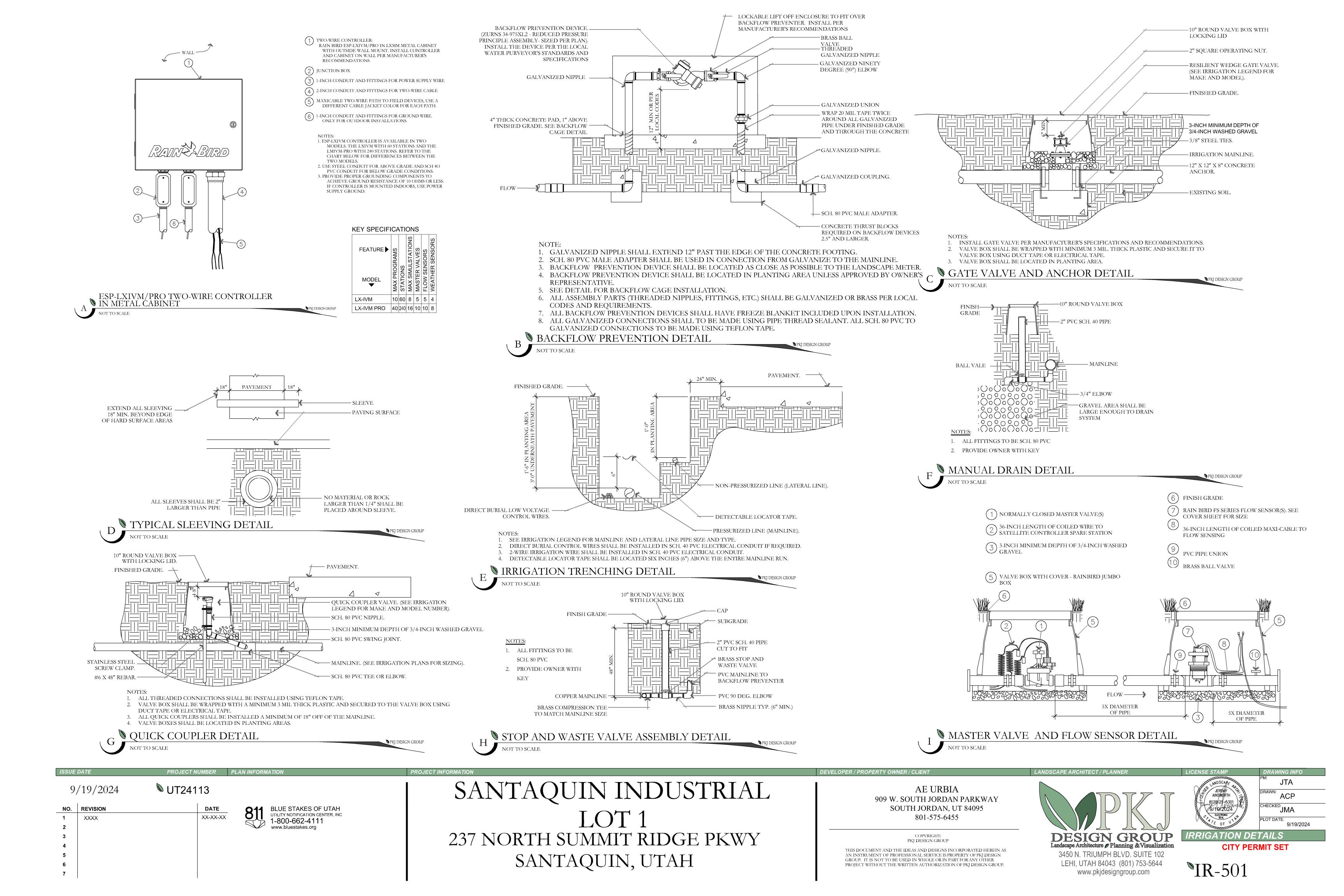


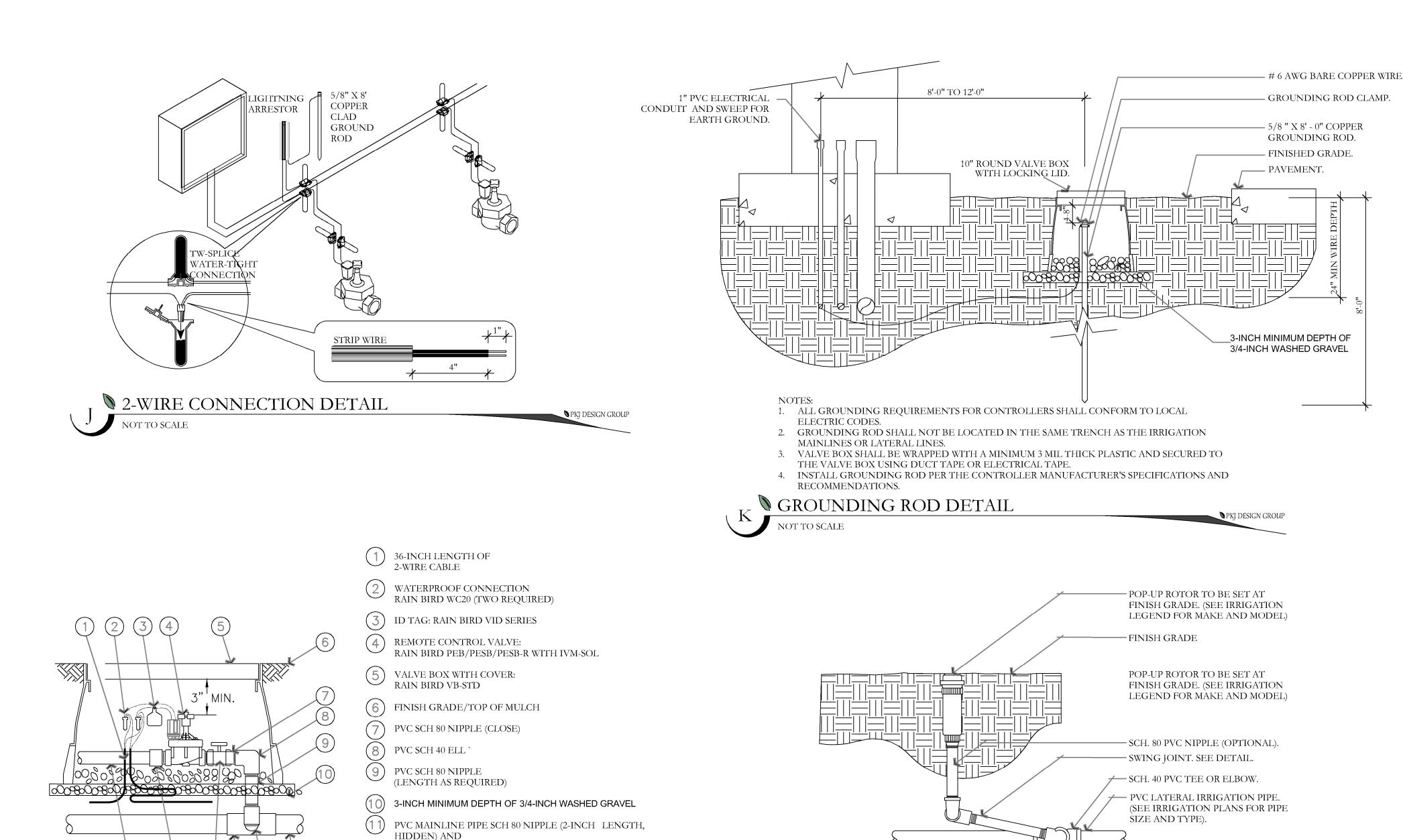
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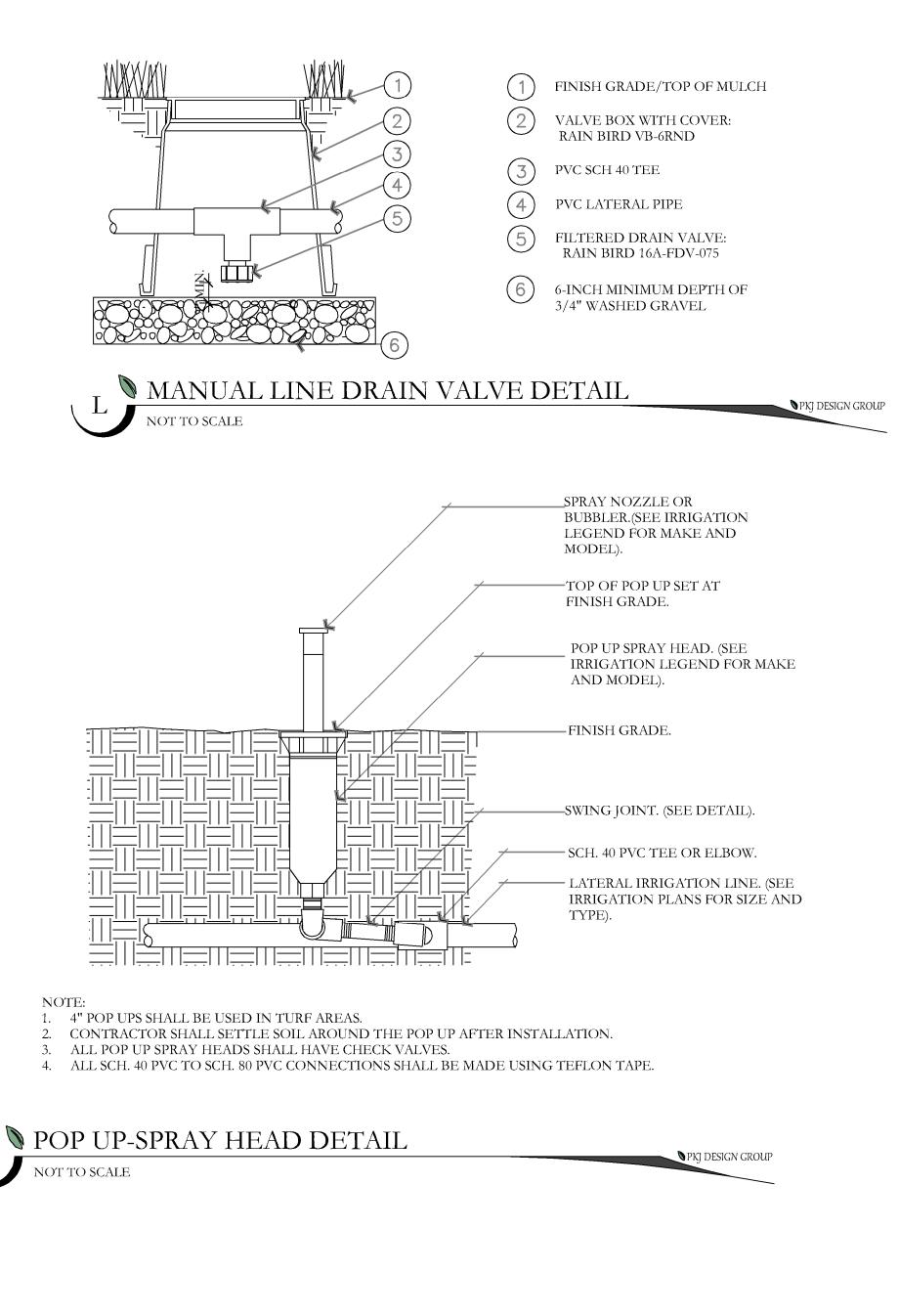
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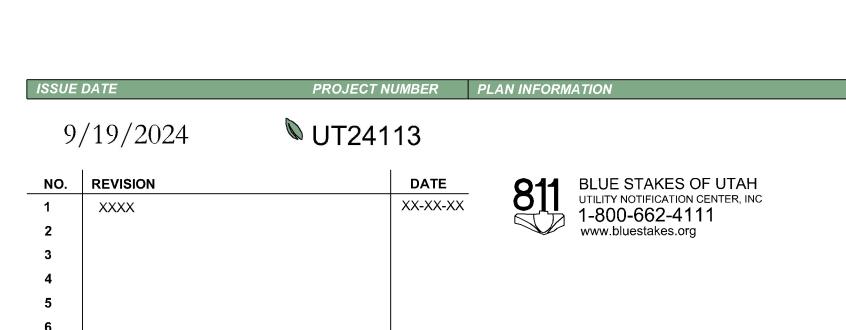
BLUE STAKES OF UTAH OII UTILITY NOTIFICATION CENTER, INC 1-800-662-4111 www.bluestakes.org GRAPHIC SCALE: 1" = 60'

SANTAQUIN INDUSTRIAL 237 NORTH SUMMIT RIDGE PKWY SANTAQUIN, UTAH









ELECTRIC REMOTE-CONTROL VALVE
PEB OR PESB SERIES WITH IVM-SOL

SCH 40 ELL

(12) PVC SCH 40 TEE OR ELL

14) PVC LATERAL PIPE

(16) BRASS BALL VALVE

PVC SCH 40 MALE ADAPTER

3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

> SANTAQUIN INDUSTRIAL LOT 1 237 NORTH SUMMIT RIDGE PKWY SANTAQUIN, UTAH

ROTOR HEAD DETAIL

1. ALL THREADED CONNECTION POINTS BETWEEN SCH. 40 PVC AND

2. CONTRACTOR SHALL COMPACT SOIL AROUND ROTOR AND RISER PRIOR TO PLANTING, PLUGGING, SEEDING, OR LAYING OF SOD.

SCH. 80 PVC FITTING SHALL BE INSTALLED USING TEFLON TAPE.





8128121-5301 9/19/2024

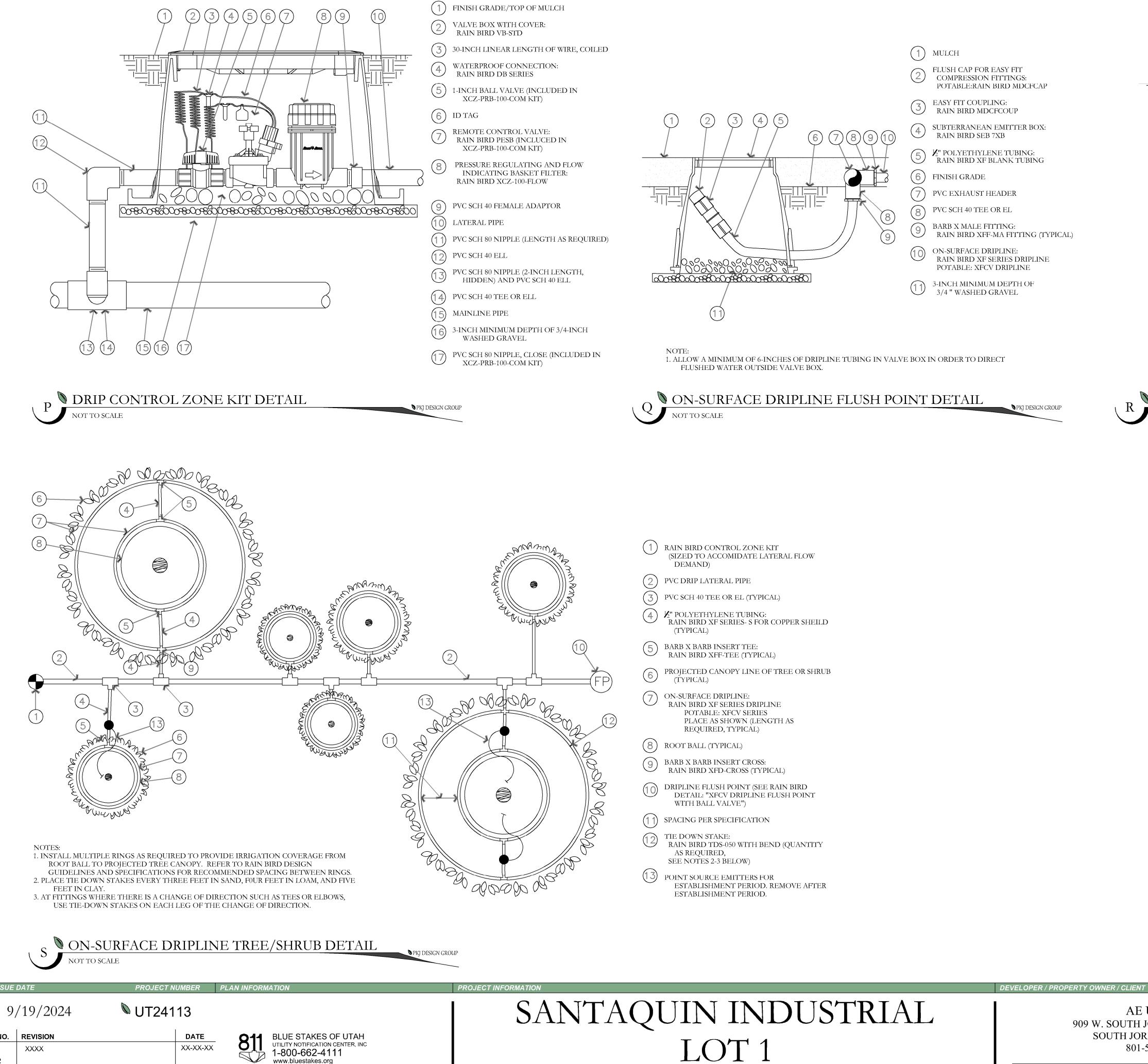
IRRIGATION DETAILS

CITY PERMIT SET

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DEVELOPER / PROPERTY OWNER / CLIENT

●PKJ DESIGN GROUP



237 NORTH SUMMIT RIDGE PKWY

SANTAQUIN, UTAH

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www.pkjdesigngroup.com

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AIR RELIEF VALVE DETAIL

IRRIGATION DETAILS

FINISH GRADE

RAIN BIRD SEB 7XB

(3) Z" AIR RELIEF VALVE:

(5) PVC SCH 80 RISER

(6) PVC HEADER PIPE

(7) PVC SCH 40 TEE

8) 3" MINIMUM DEPTH OF

PKJ DESIGN GROUP

3/4" WASHED GRAVEL

RAIN BIRD ARV050

(4) PVC SCH 40 FEMALE ADAPTER

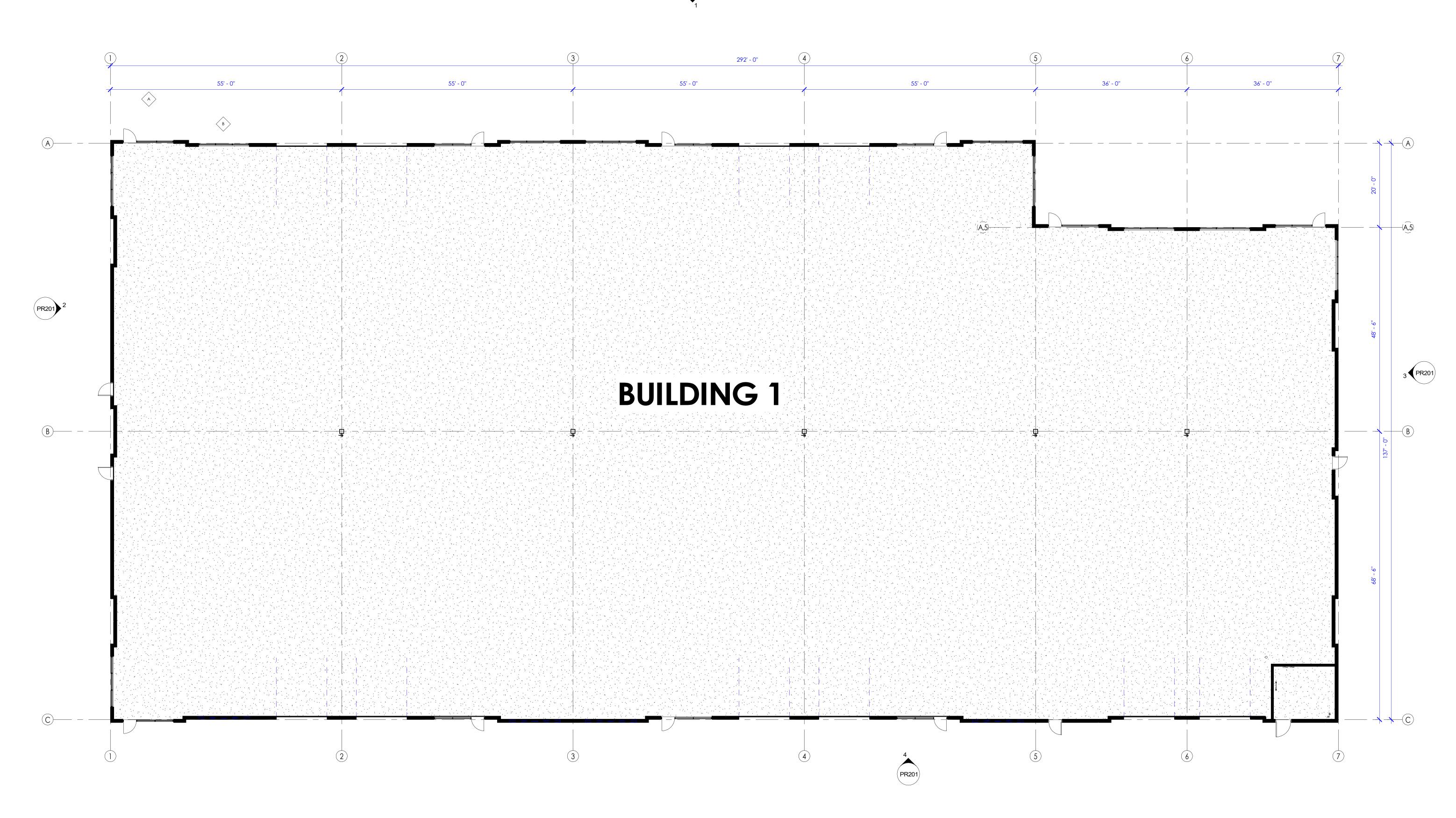
SUBTERRANEAN EMITTER BOX:

TO BE INSTALLED AT HIGH POINTS IN DRIP

CITY PERMIT SET

IR-503

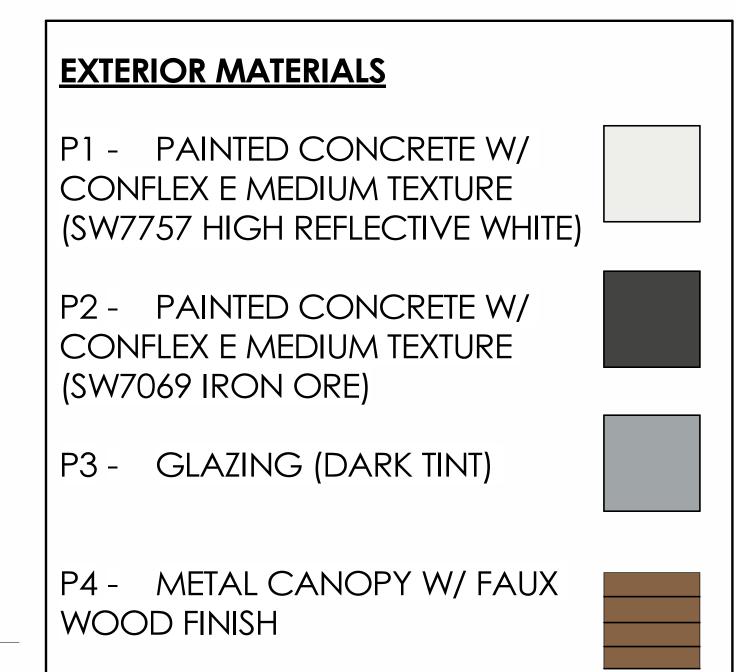




1 **LEVEL 1 - PRESENTATION** 9/32" = 1'-0"













REAR ELEVATION - PRESENTATION

1" = 10'-0"