

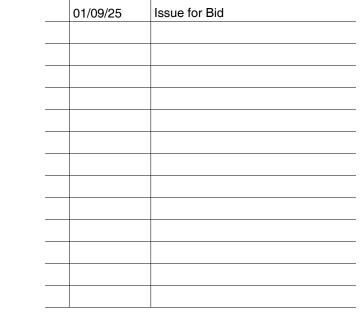


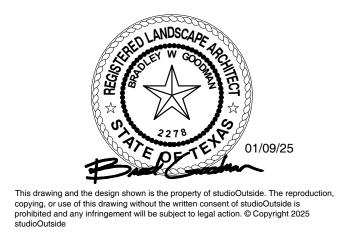
824 Exposition Avenue, Ste. 5 Dallas, Texas 75226 o214.954.7160 f214.954.7162

FORT WORTH BOTANIC GARDEN

ROSE GARDEN DROP-OFF RENOVATION

Issue / Addenda / Revisions





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	GENERAL NOTES	PLANTING NOTES	MATE	RIALS LE	GEND																St
	1. Warning!!!!!!! Call before you dig!!!!! Toll free 811	All plants shall be grown and harvested in accordance with The American Standard for Nursery Stock (ANSI Z60.1-2004)																			ı
	 Written dimensions prevail over scaled dimensions. Notify landscape architect of any discrepancies. 	2. All plant material shall conform to the specifications and sizes given in the	PAVING	TYPE	SUPPLIER / MANUFACTURER	MODEL / STYLE	COLOR	FINISH	SIZE	THICKNESS	PATTERN	DETAIL REFERENCE	INSTALLATIO	N CONTAC	MOCK- UP	- SHOP DRAWIN	SAMPLE	.ES	 NOTES		ı
	3. The contractor bears all responsibility for verifying all underground utilities, pipes, structures, and line runs in the field prior to construction. Any damage to utilities that are to remain shall be repaired immediately	plant list and shall be nursery grown in accordance with the American standard for nursery stock. Latest edition American association of nurserymen standards. any plant substitution shall be approved by landscape architect prior to purchase.	P-1	Asphalt Paving Stone Cobble Paving (Vehicular)	N/A g CHESSHIR STONE & ROC SUPPLY	N/A CK Sawn Oklahom Flagstone	Match Existing Pecan Tan	N/A Natural	Varies, Ref Plans 6"x6"	Match Existing 2-1/2"	Match Existing Refer to Plans	and Specs	Refer to Specs Refer to Details an Specs			N/A Yes	N/A Yes				Pr
	at no expense to the owner. landscape architect assumes no responsibility for any not shown on plans.	Landscape contractor shall be responsible for fine grading and removal of debris prior to planting in all areas.	P-3	Salvaged Stone Pavir (Pedestrian) Stone Paving Band	IV/A	N/A CK Sawn Oklahom	N/A	N/A	N/A	N/A	N/A	N/A	N/A Refer to Details an	N/A	N/A N/A	N/A Yes	N/A Yes		 		ı
	 The locations of existing utilities as shown on these plans are approximate. There may be other underground utilities within the project area that are not shown. 	Final finish grading shall be reviewed by the landscape architect. landscape contractor shall be responsible for any additional topsoil	P-5	(Pedestrian) Decorative Colored Concrete (Vehicular) Concrete Paving	SUPPLY Local	Flagstone Integral Color Concrete	Pecan Tan MESA Beige	Natural N/A	6"x6" Varies, Ref Plans Varies, Ref	2-1/2"	Match Existing Refer to Plans	s L401	Specs Refer to Details an Specs Refer to Details an	214.350.67	Yes	Yes	Yes		 		E
	5. All proposed and finished grades are based on information provided by the owner's survey and/or civil engineer. Any discrepancies in actual field measurements are to be reported to the landscape architect immediately.	required to create a smooth condition prior to planting. 5. All plant quantities listed are for information only. it is the contractors responsibility to provide full coverage in all planting areas as specified in	P-6	(Pedestrian) Concrete Paving (Vehicular)	Local Local CHESSHIR STONE & ROC	N/A N/A CK Sawn Oklahom	Match Existing Match Existing	N/A N/A	Plans Varies, Ref Plans	6"	Refer to Plans Refer to Plans	s L401	Specs Refer to Details an Specs Refer to Details an	nd N/A	Yes	Yes	Yes		 		
5 —	 Contractor is responsible for all quantities per drawings and specifications. Any quantities provided by landscape architect are provided for convenience only contractors are to bid their own verified 	the plant schedule and verify all quantities. 6. Landscape contractor to provide steel edging (refer to materials page) between all planting beds and lawn areas.	DRAINS CALLOUT	Lantern Stone Venee	SUPPLIER /	Flagstone MODEL /	Pecan Tan COLOR	Natural FINISH	6"x6"	2-1/2" THICKNESS	Refer to Plans		Specs	214.350.67	81 Yes	- SHOP	Yes O NGS SAMPLE		 NOTES		-5
	quantities. Notify landscape architect of any discrepancies.7. Easements setbacks, building, curb and gutter, underground utilities have	7. All plant material shall conform to the specifications and sizes given in the plant list and shall be nursery grown in accordance with the American	D-1	Area Drain	MANUFACTURER	Z556 8 [203] ADJUSTABLE	Silver	HDPE	8-3/8"	N/A	N/A		r Per. Manufacture			DRAWIN	NGS SAMPLE		 		ı
	been supplied to landscape architect by the project civil engineer. Refer to civil engineers drawings for additional information.	standard for nursery stock. Latest edition American association of nurserymen standards. Any plant substitution shall be approved by landscape architect prior to purchase.	D-2	Landscape Drain	Zurn	HEAVY-DUTY DRAIN Z125 8-3/8 [213 DIAMETER ROC DRAIN LOW		HDPE	8-3/8"	N/A	N/A		r Per. Manufacture			Yes	No		 		ı
	 Studio Outside assumes no responsibility for damages, liabilities, or cost resulting from changes or alterations made to the plan without the express written consent of Studio Outside. 	8. Landscape contractor is responsible for any coordination with other contractor's on site as required to accomplish all planting operations.	SYMB	OLS LEG	:FND	SILHOUETTE DOME													 		ı
	9. Prior to commencement of any hardscape construction, all elements are to be surveyed, laid out, and staked in field for review by landscape	9. All new planting areas to be amended per specifications.				ADDI	DEVIATIONS														
	architect. contractor shall assume responsibility for any demolition, adjustments, or reconstruction resulting from unauthorized construction activities.	10. Native site topsoil is to be protected from erosion or stockpiled.11. Any plant material that does not survive shall be replaced with an	GEI	NERAL &	CENTER LINE		REVIATIONS REA DRAIN														
	activities.	equivalent size and species within thirty (30) days.			LIMIT OF WORK	BW = B	OTTOM OF STEEL OTTOM OF WALL ATCH BASIN														Is
		12. All plant material shall be maintained in a healthy and growing condition and must be replaced with plant material of same variety and size if damaged, destroyed, or removed.	_	EJ	MATCHLINE EXPANSION JOIN	CJ = C0 CL = CF NT EJ = EX	ONTROL JOINT ENTER LINE PANSION JOINT														
4	TREE PROTECTION NOTES:	13. It is the responsibility of the contractor to advise the landscape architect of any condition found on the site which prohibits installation as shown on		#	CONTROL JOINT STEEL EDGING	LP = LC	GH POINT W POINT .ANTING AREA														
	 Prior to commencement of hardscape construction, contractor must have an licensed arborist review all conditions where existing trees are subject to damage during construction. 	these drawings. 14. Landscape contractor shall be responsible for fine grading and removal of debris prior to planting in all areas.		•	POINT OF BEGINNING	TC = TC	POINT OF BEGINNING DP OF CURB DP OF FOOTING REE (EXISTING)														
	 Protect existing trees and plants at site that are designated to remain where indicated on drawings and at other locations where trees are subject to damage during construction. 	15. Planting beds shall be staked for review by landscape architect prior to excavation and bed prep.		XXXX	ELEVATION REFERENCE		OP OF STEEL														
	 Provide chain-link fence barriers to height of 4 feet around individual and/or groups of trees and plants as shown on plans. Refer to detail A/L500 & specifications 	16. Plant material shall be pruned as necessary to control size but not to disrupt the natural growth pattern or characteristic form of the plant except as necessary to achieve height clearance for visibility and pedestrian passage or to achieve a continuous opaque hedge if required.	I	X X XXXX	SECTION REFERENCE DETAIL REFERENCE																Ke
	4. Post "keep out" signs on critical root zone fencing. 5. Supervise parthwork operations to provent demand to critical root zones.	17. Landscaped areas shall be kept free of trash, weeds, debris, and dead plant material.		(X.XX)	≠																ı
	5. Supervise earthwork operations to prevent damage to critical root zones.6. Assign a monitor to maintain tpz fencing and to keep in good condition	18. Contractor is required to perform a percolation test for each tree pit prior	MAT	TERIAL (X-I)	MATERIAL REFERENCE																ı
	for duration of construction. 7. Hire a professional arborist to complete regular tree maintenance task, including watering, fortilization, and mulching to protect tree roots.	to installation. If drainage does not occur within 24 hours the contractor will be required to provide a gravel sump, filter fabric, and stand pipe. All sumps should be included in the base bid and provided as a deduct alternate if not required after the percolation test is performed.	X X.XX		ENLARGEMENT REFEREN	NCE															ı
3 —	including watering, fertilization, and mulching to protect tree roots.Protect root system from damage caused by runoff or spillage of noxious material while mixing, placing, or storing construction materials.	19. Landscape contractor shall be responsible for verifying the location of all underground utilities, pipes, structure, and line runs in the field prior to the installation of any plant material.																		_	-3
	 Minimize all trenching for new underground utilities in areas with existing trees. 	installation of any plant material. 20. It is the responsibility of the contractor to advise the landscape architect																			ı
	 Protect root system from ponding, eroding, or excessive wetting caused by watering operations. 	of any condition found on the site which prohibits installation as shown on these drawings.																			ı
	11. Do not store construction materials, debris, or excavated material inside critical root zone.	 Tree planting shall comply with details herein and the International Society of Arboriculture (ISA) standards. 																			ı
	12. Do not permit vehicles or foot traffic within tree critical root zones; prevent soil compaction over root system.	22. Tree pits hall be tested for water percolation. If water does not drain out of tree pit within 24-hours, the tree shall be moved or drainage shall be provided.																			ı
	13. Maintain critical root zone free of weeds and trash.14. Mulch areas inside critical root zone with 4" thick layer of organic mulch.	23. Tree staking materials, if used, shall be removed after (1) growing season and not more than (1) year after installation. Steel tree stakes, wires, and hoses are prohibited.																			Se
	Do not place mulch within 6" of trunk of tree. 15. Do not excavate within critical root zone, unless otherwise indicated or	24. All plant material shall be maintained in a healthy and growing condition and must be replaced with plant material of same variety and size if damaged, destroyed, or removed.																			ı
2 —	 approved. Tree shall be root pruned 1' outside limit of required excavation. 16. Where excavation for new construction is required within the tpz and is approved, hand prune or utilize approved root pruning techniques prior to use of excavation equipment. 	25. Contractor shall stake out all tree locations in field for review by the landscape architect prior to planting landscape architect reserves the right to adjust plants to exact location in field.																			−2 This
	17. Do not allow exposed roots to dry out before placing permanent backfill. provide temporary earth cover or pack organic material and wrap with	IRRIGATION NOTES:	_																		Di
	burlap. water and maintain in moist condition. Temporary support and protect roots from damage until they are permanently covered with soil.	 An automatic irrigation system shall be provided for all planting areas. over spray on streets and walks is prohibited. 																			M
	18. Root pruning shall be done by hand with sharp tools or if done mechanically shall be done with root pruning machinery, vibratory plow, or with a narrow trencher with sharp blades. Once a trench is opened up, all exposed roots will be hand pruned to provide a clean-cut ends.	 Irrigation systems shall be maintained and replaced as necessary. All planting areas to be fully irrigated. 																			Issı
	19. Do not break or pull roots with a backhoe or similar equipment.	4. Irrigation system to have a fully automated control system.																			Pro Rev
		Any existing planting damaged during construction is to be replaced at no cost the owner.																			Dra Sł
		 If the existing irrigation system is damaged or turned off during construction activities, it will be the responsibility of the contractor to hand water all plant material as needed. 																			Ĺ
1_		7. Refer to L600 for additional irrigation notes.																			

studioOutside

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Project Name

FORT WORTH BOTANIC GARDEN

ROSE GARDEN DROP-OFF RENOVATION

Issue Title

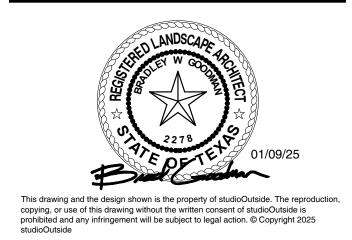
ISSUE FOR BID

Issue / Addenda / Revisions

Date Description
01/09/25 Issue for Bid

Key Map

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rawing Title

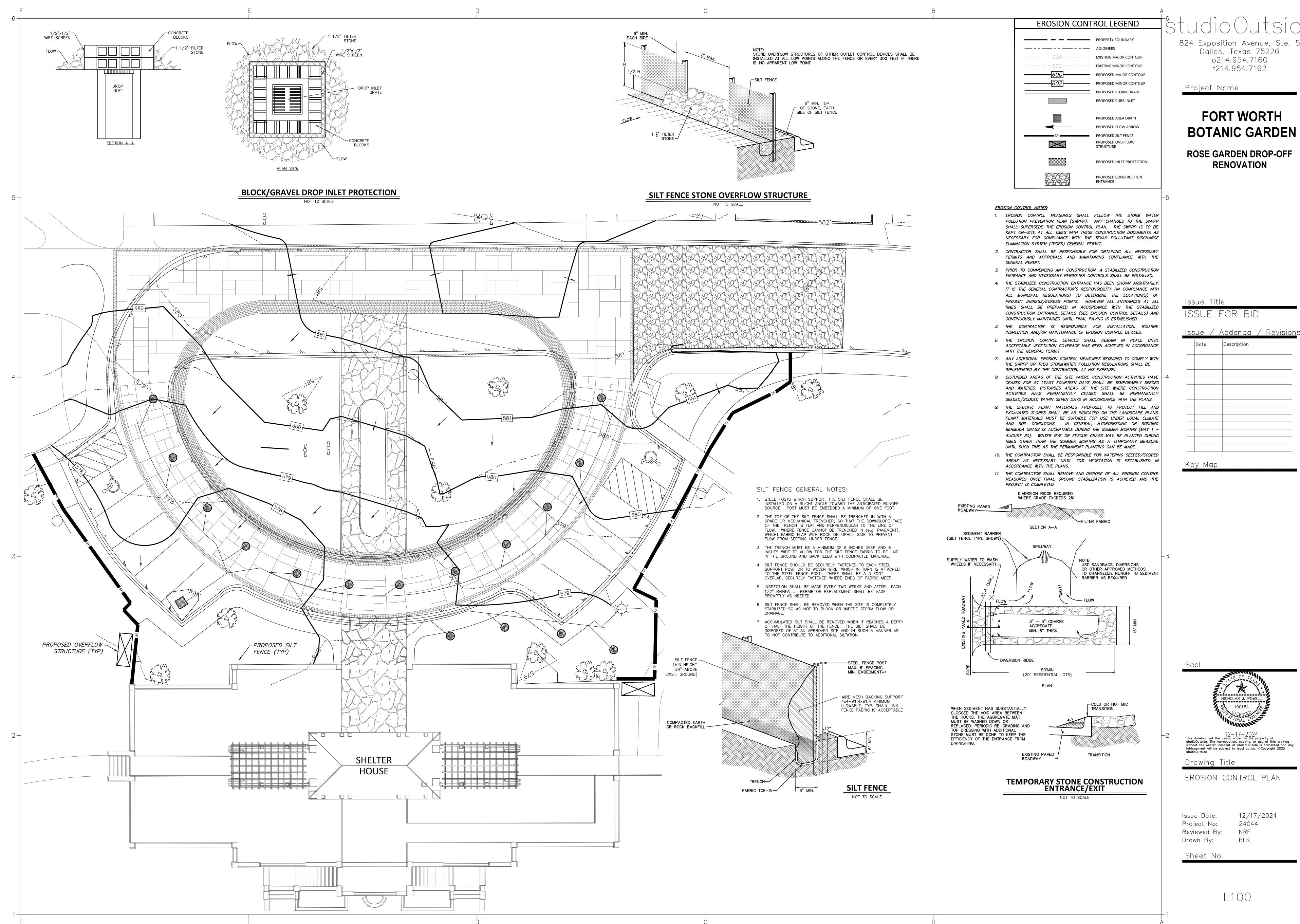
MATERIAL LEGENDS & NOTES

Issue Date: Project No: Reviewed By: Drawn By:

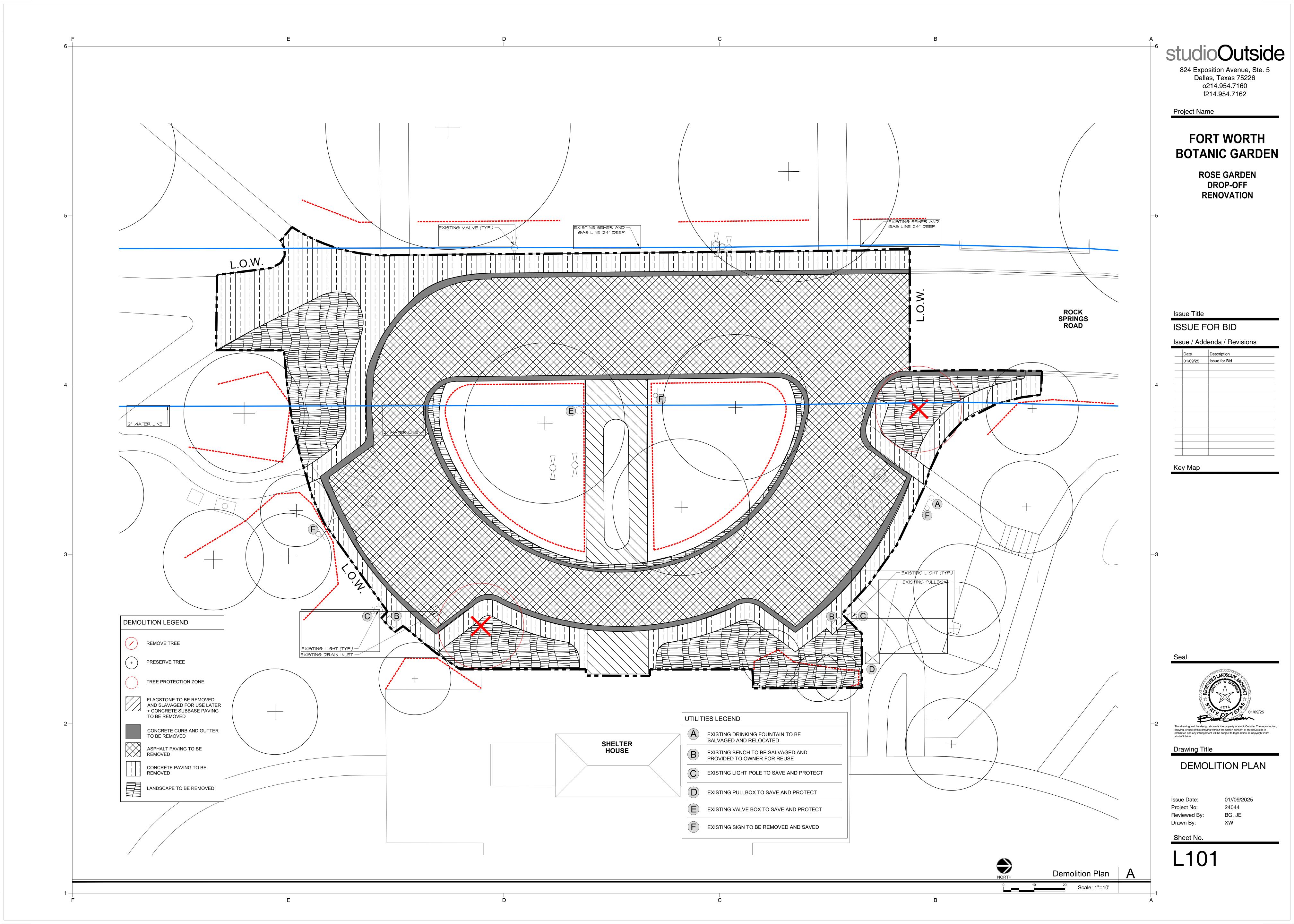
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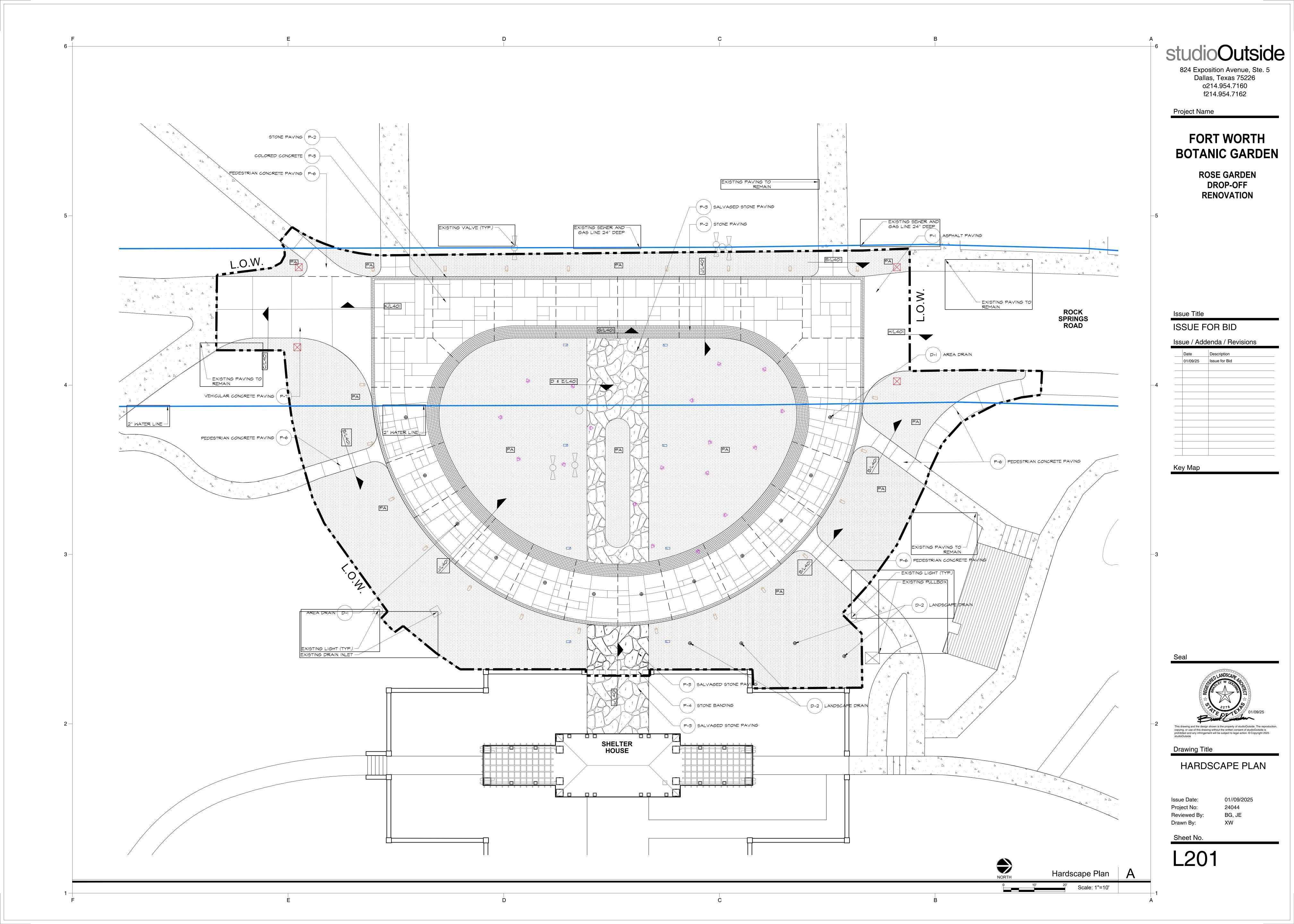
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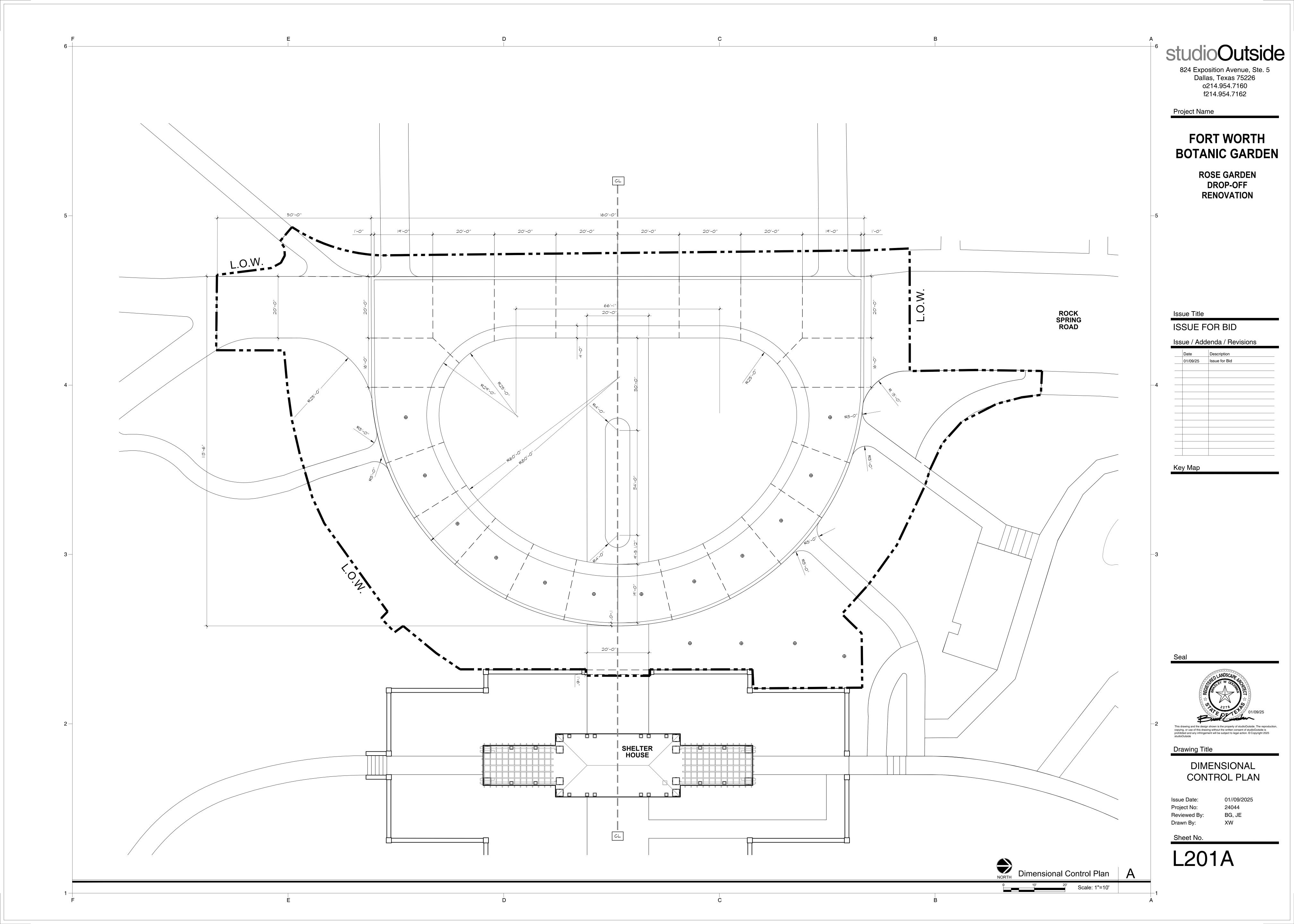
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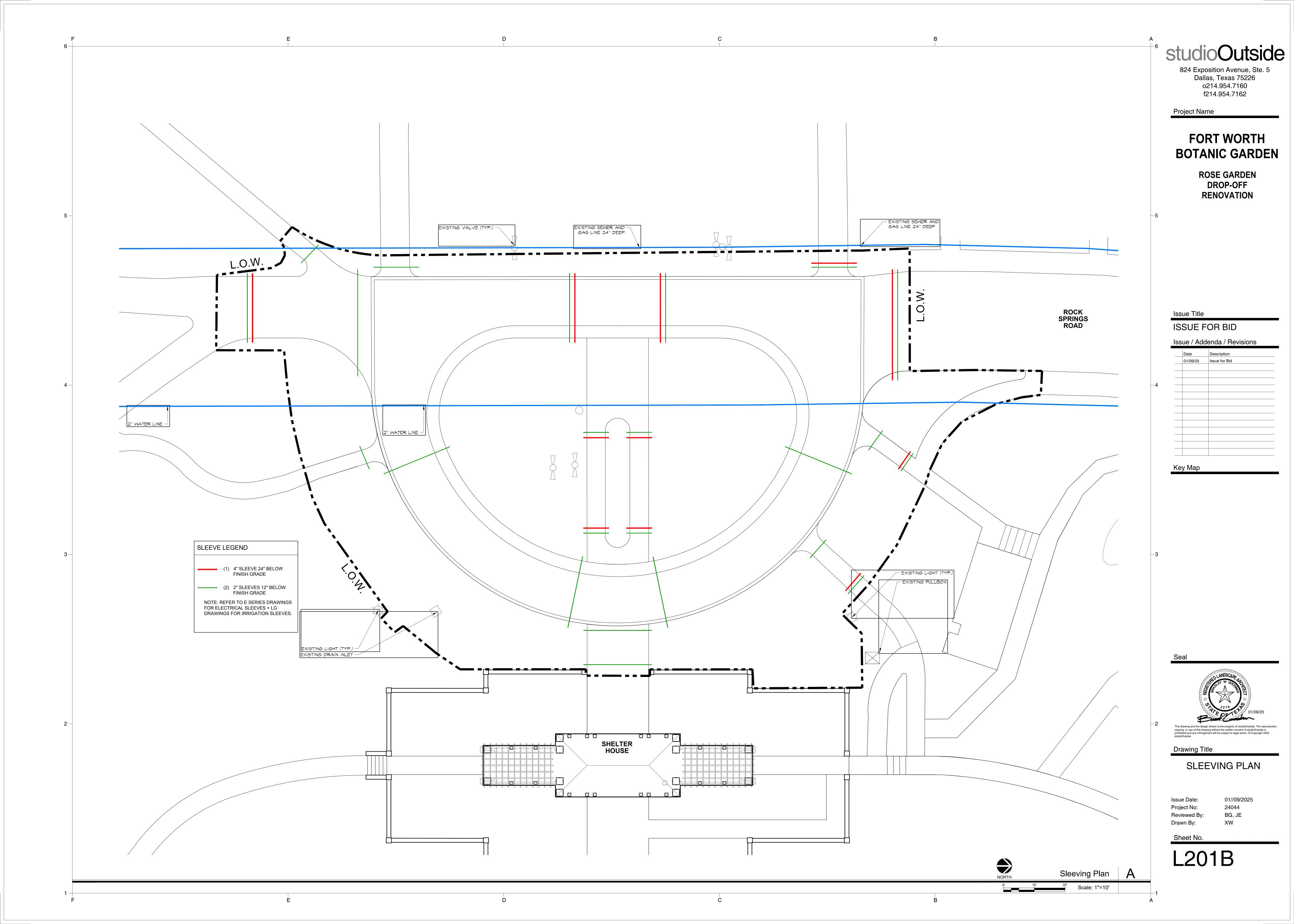


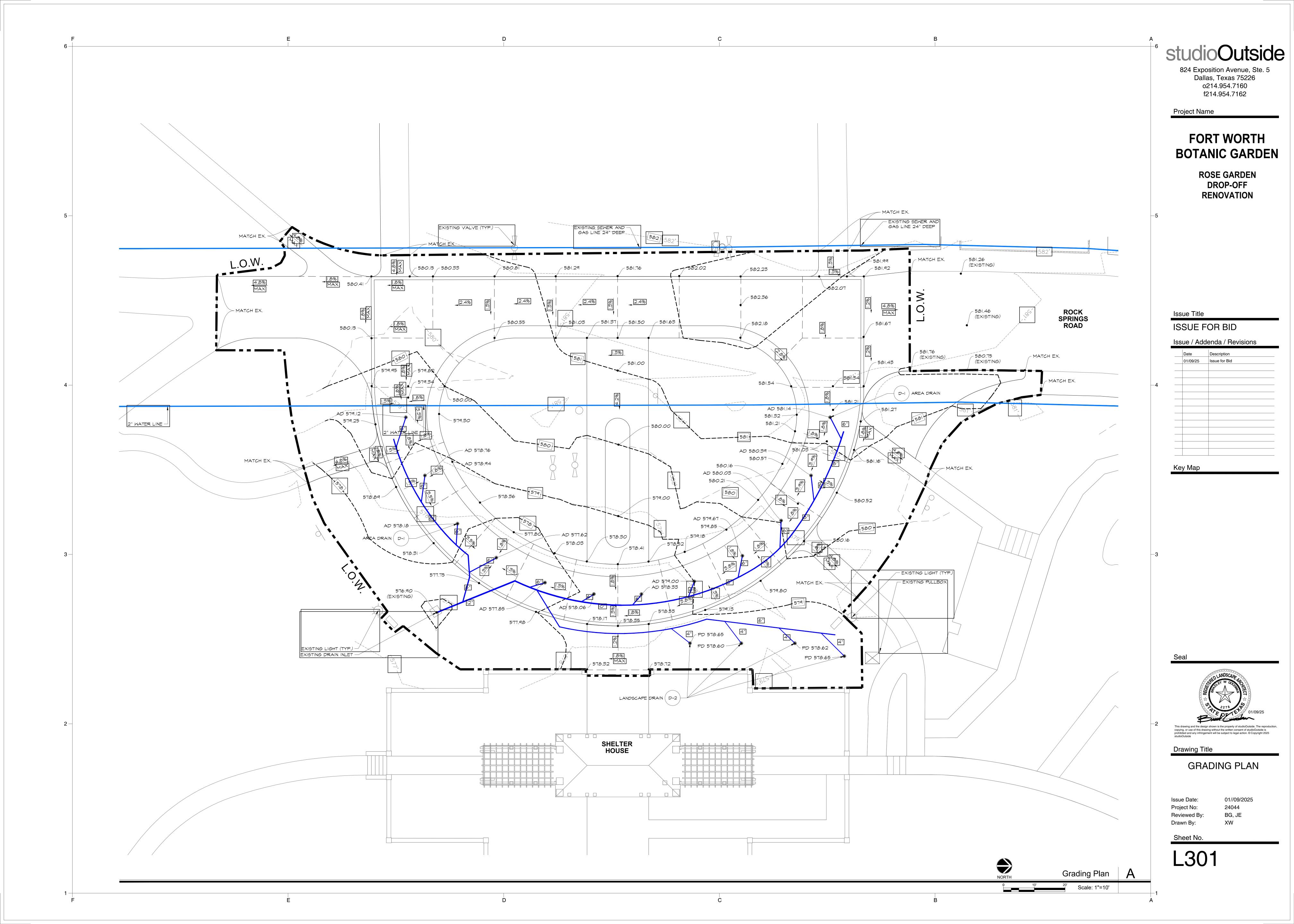
824 Exposition Avenue, Ste. 5

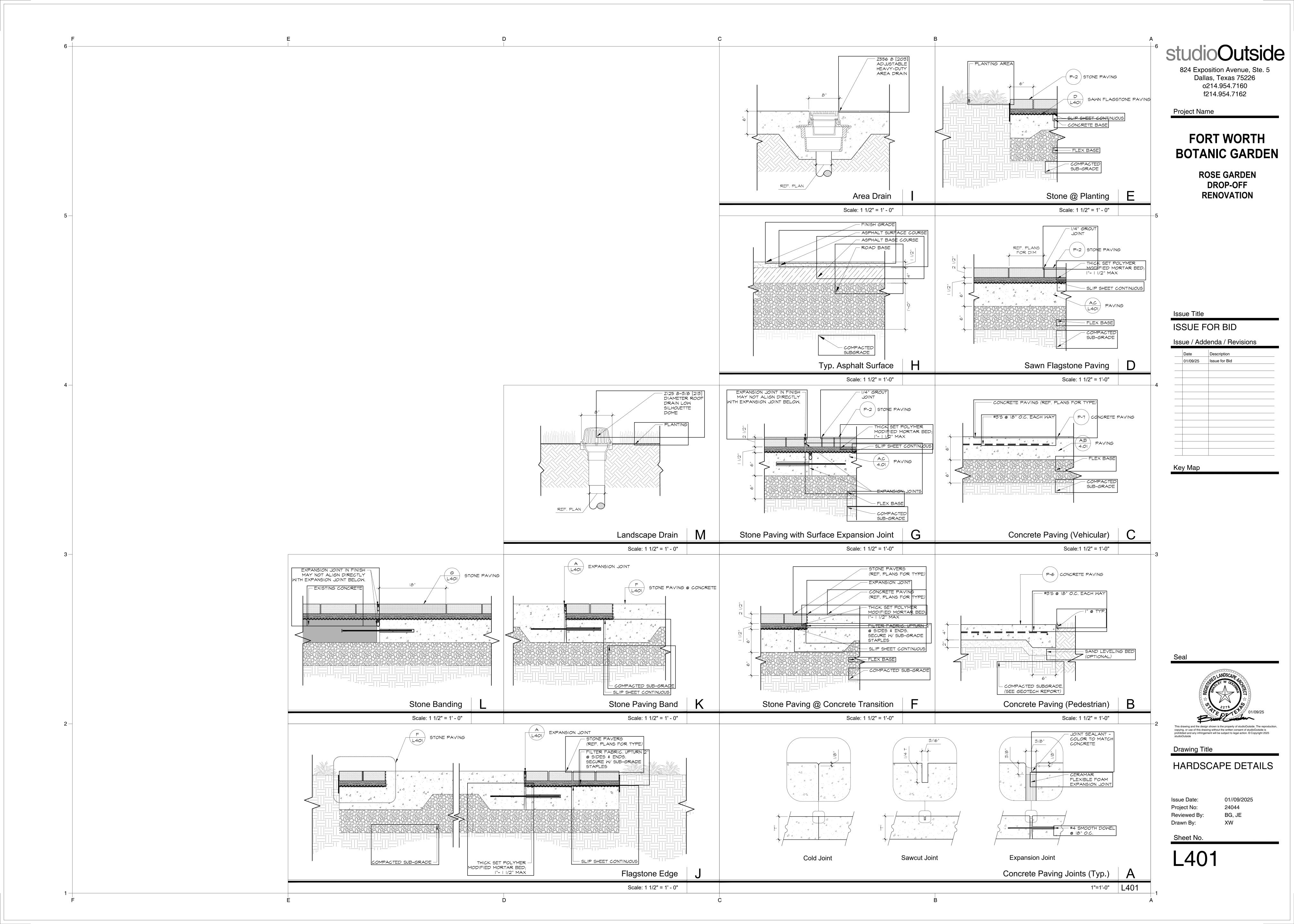


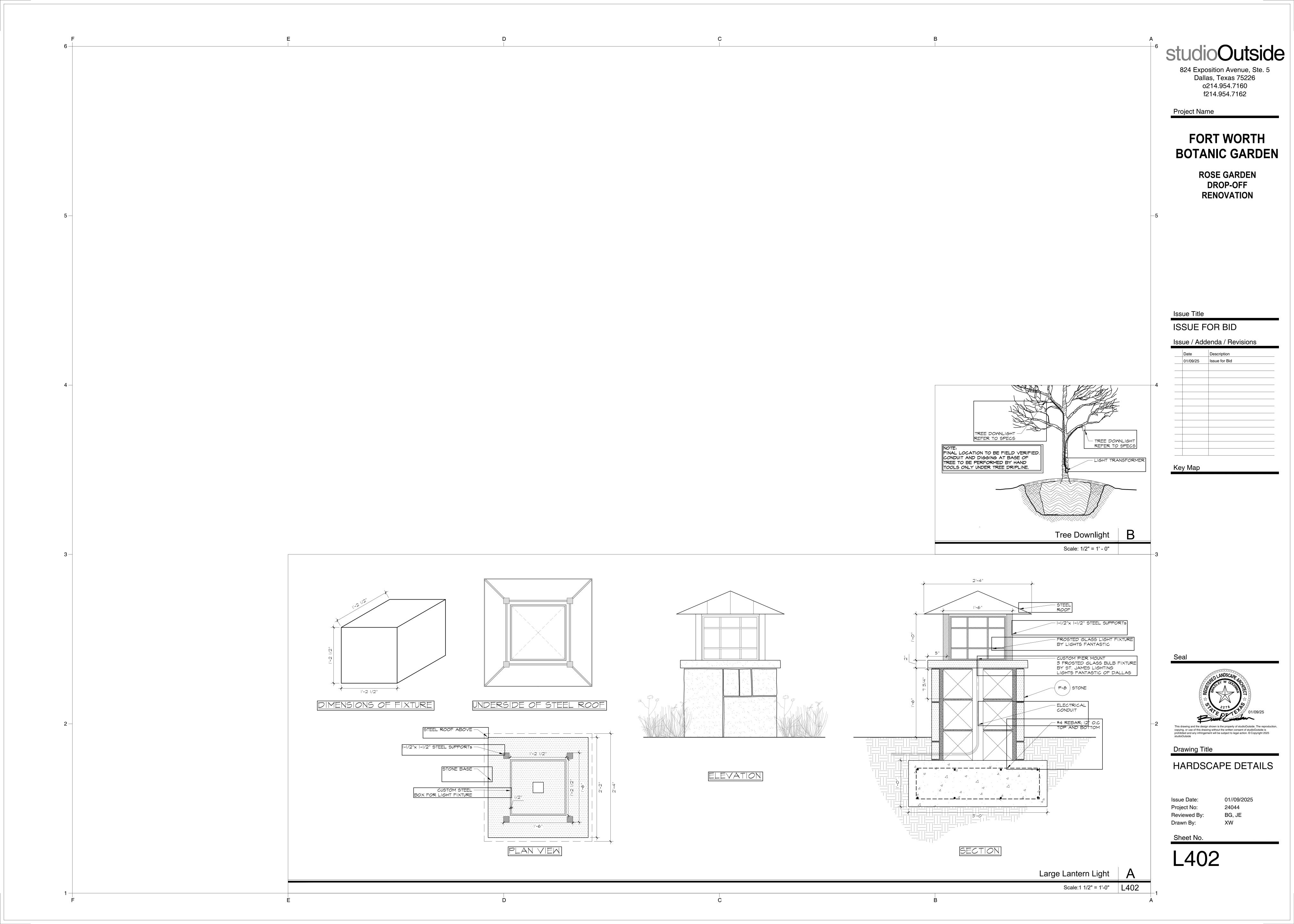


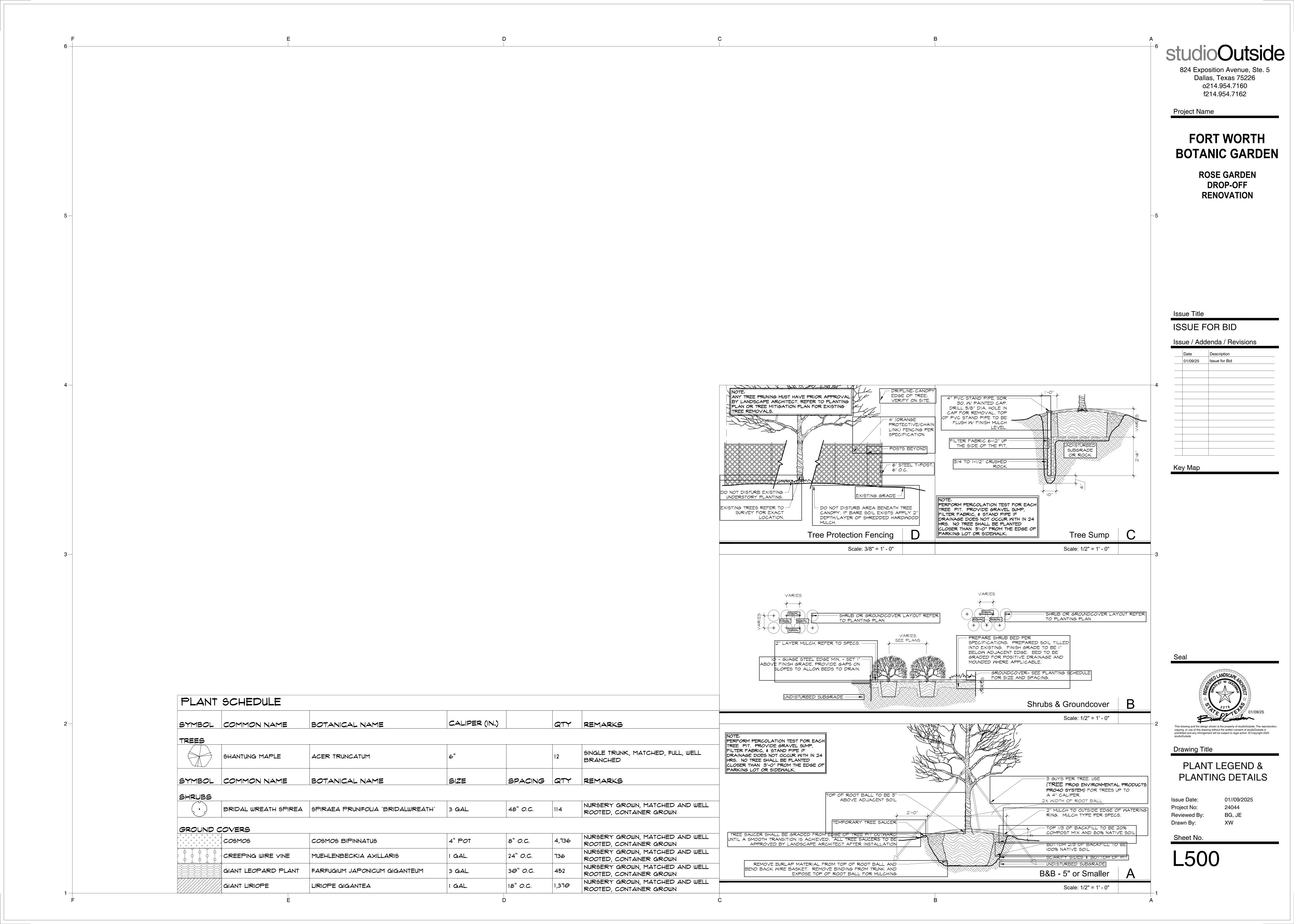


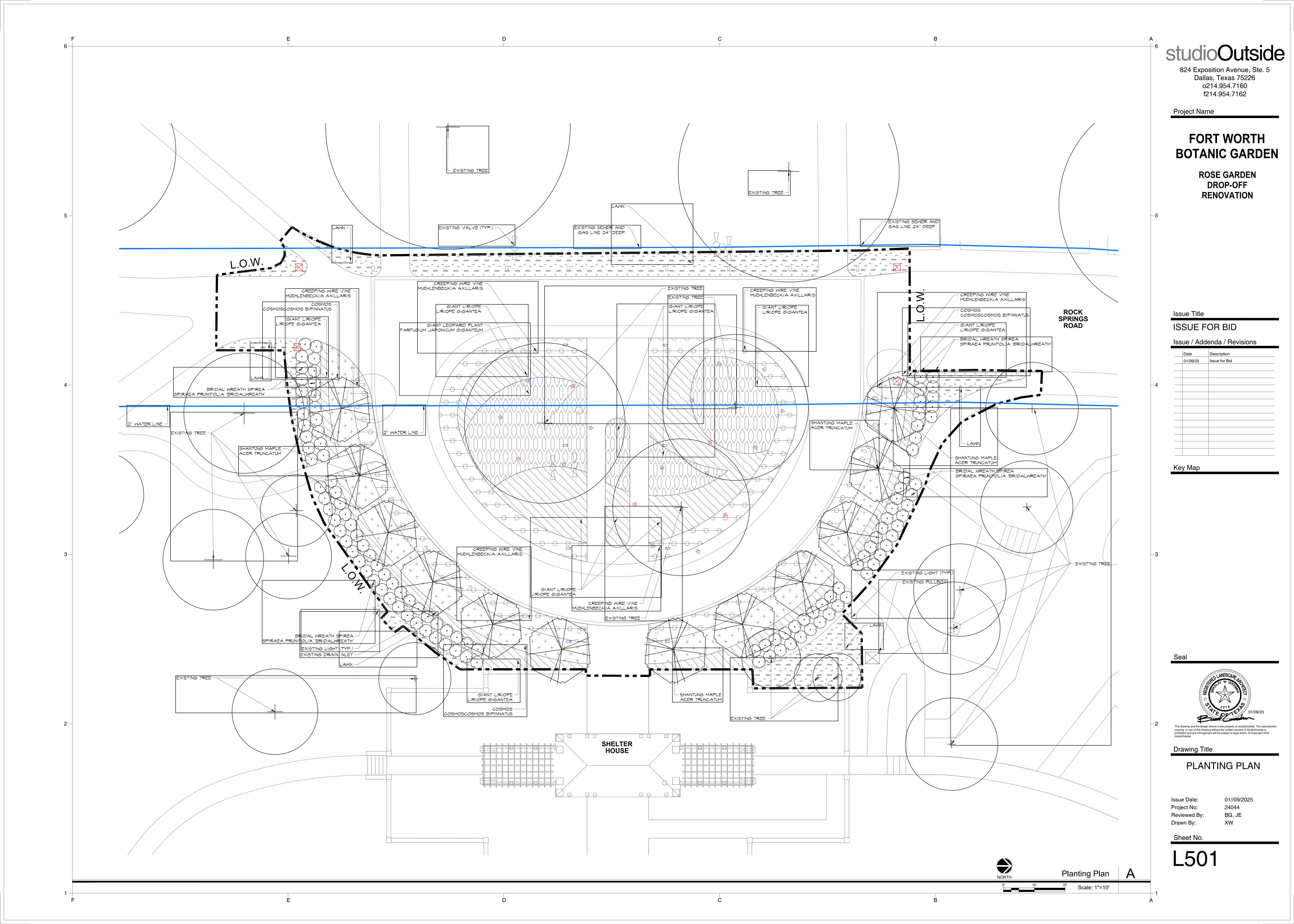


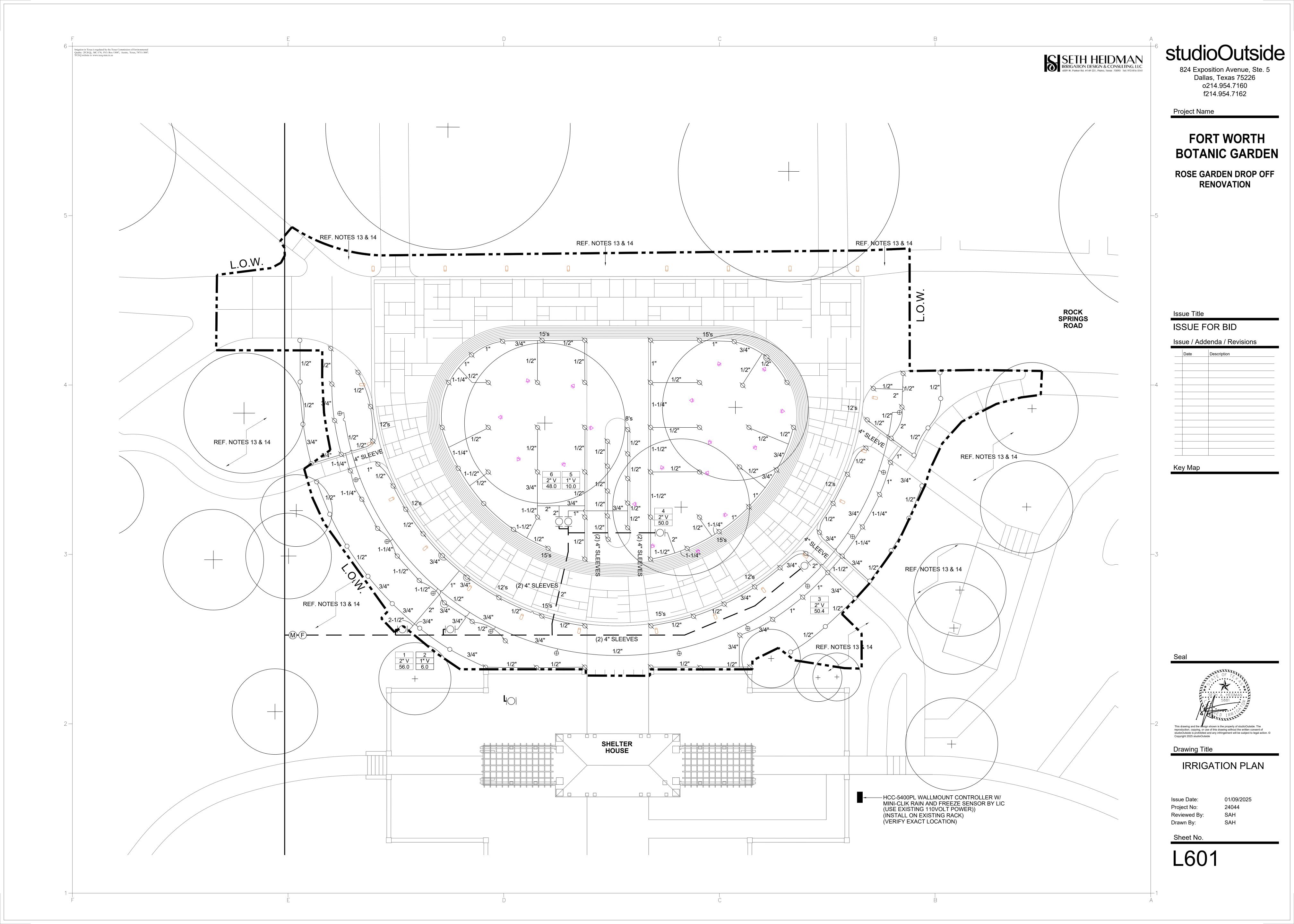














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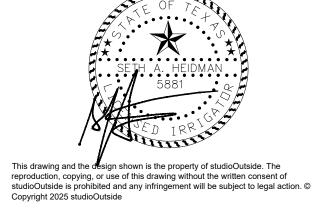
FORT WORTH **BOTANIC GARDEN**

ROSE GARDEN DROP OFF RENOVATION

Issue Title

ISSUE FOR BID

Issue / Addenda / Revisions



Drawing Title

IRRIGATION DETAILS AND LEGEND

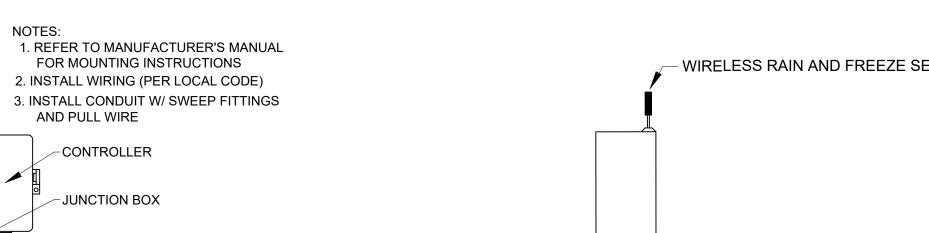
Issue Date: Project No: Reviewed By: Drawn By:

Sheet No.

01/09/2025

L602

SETH HEIDMAN
IRRIGATION DESIGN & CONSULTING, LLC
6009 W. Parker Rd. #149-221, Plano, Texas 75093 Tel: 972-816-5141

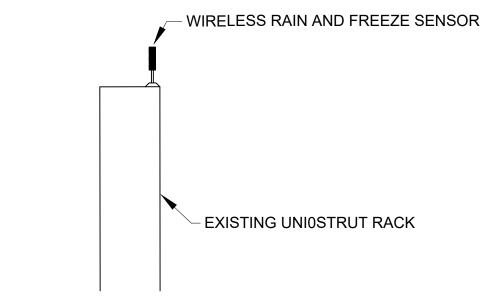


WALLMOUNT CONTROLLER

LOCAL CODE

-2" PVC CONDUIT FOR VALVE WIRING

-120 VOLT WIRE CONDUIT PER

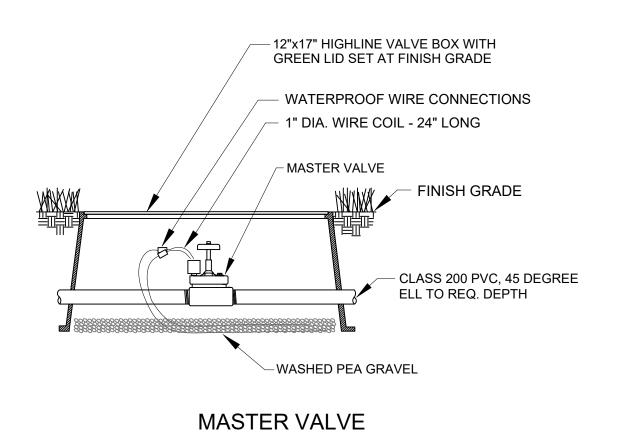


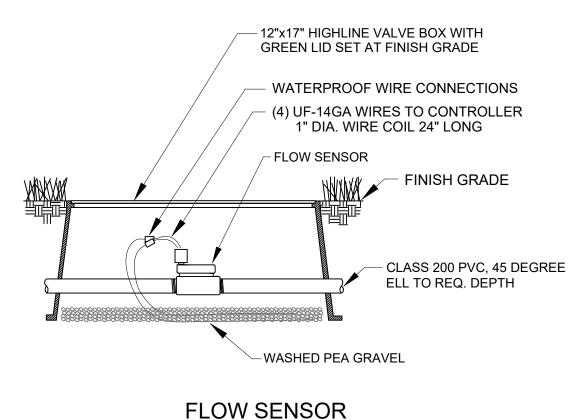
WALLMOUNT SENSOR

MAINLINE, LATERAL, AND WIRING SPEC. **PVC LATERAL** - PVC MAINLINE

1. TAPE & BUNDLE WIRING AT 10'-0" INTERVALS

TRENCHING DETAIL

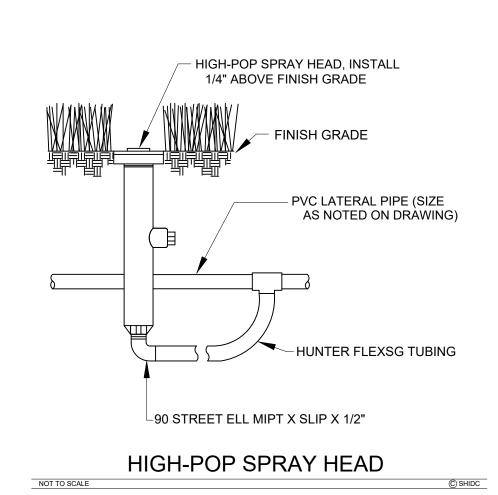


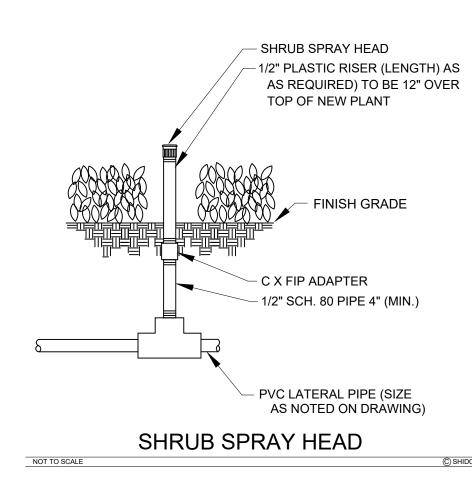


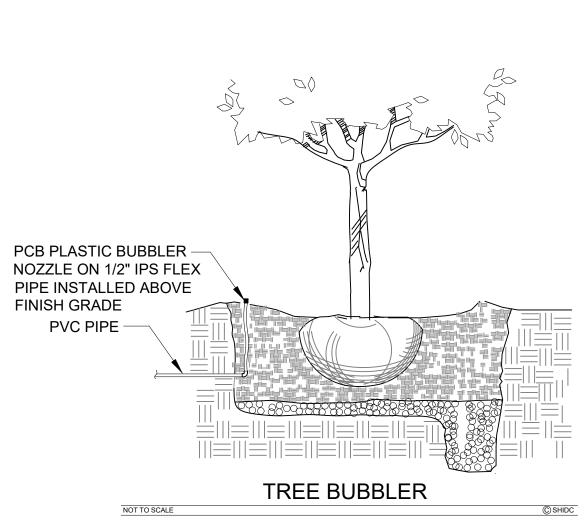
FLOW/GPM:	PIPE SIZE:
0 - 4.0	1/2"
4.1 - 9.5	3/4"
9.6 - 14.5	1"
14.6 - 27.0	1-1/4"
27.1 - 35.0	1-1/2"
35.1 - 55.0	2"
55.1 - 70.0	2-1/2"

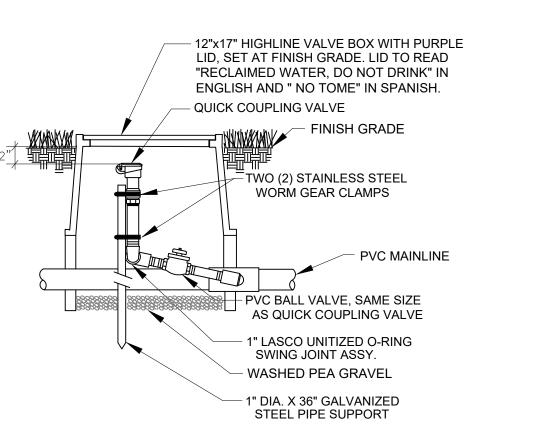
PVC PIPE SIZE CHART

© SHIDC











- 1" DIA. WIRE COIL - 24" LONG WATERPROOF WIRE CONNECTORS 10" ROUND HIGHLINE VALVE BOX WITH GREEN LID SET AT FINISH GRADE REMOTE CONTROL VALVE FINISH GRADE - WASHED PEA GRAVEL - PVC MAINLINE - PVC LATERAL LINE, 45 DEGREE ELL TO REQUIRED DEPTH

REMOTE CONTROL VALVE

NOT TO SCALE

NOTES:

- 1. 24 VOLT LEAD AND COMMON VALVE WIRING SHALL BE A MINIMUM OF UF-14 GA. SINGLE CONDUCTOR. WIRE SPLICES SHALL BE 3M-DBY PERMANENT AND WATERPROOF PER THE SPECIFICATIONS.
- 2. COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LANDSCAPE CONTRACTOR TO ENSURE ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
- LATERAL PIPING SHALL HAVE A MINIMUM OF 12" OF COVER. MAINLINE AND PIPING UNDER PAVING SHALL HAVE A MINIMUM OF 18" OF COVER. ALL FITTINGS TO BE SCHEDULE 40 PVC. USE SOLVENT WELD PVC GLUE AND PURPLE PRIMER FOR PVC CONNECTIONS. PIPING AND VALVES IN PAVING SHOWN FOR CLARITY, INSTALL IN ADJACENT PLANTING BED OR LAWN AREA. SIZE ALL LATERAL PIPING PER MANUFACTURER'S RECOMMENDATIONS OF NOT EXCEEDING 5 FPS. REFERENCE PIPE SIZE CHART.
- 4. CONNECT HIGH-POP SPRAY HEADS AND TREE BUBBLERS TO LATERAL PIPING WITH HUNTER 1/2" SJ SWING JOINT
- 5. INSTALL QUICK COUPLING VALVES IN TWELVE BY SEVENTEEN (12"x17") INCH HIGHLINE VALVE BOX. CONNECT QUICK COUPLING VALVES TO MAINLINE PIPE WITH HUNTER HSJ SWING JOINT. SUPPLY OWNER WITH ONE (1) COUPLER KEY WITH SWIVEL HOSE BIBB EACH. VALVES TO BE INSTALLED SO THAT TOP OF QUICK COUPLER IS 2" BELOW BOTTOM OF VALVE BOX TOP.
- 6. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH LOCAL BUILDING CODE. POWER (120V) SHALL BE LOCATED IN A JUNCTION BOX AND HARDWIRED WITHIN FIVE (5') FEET OF CONTROLLER LOCATION BY GENERAL CONTRACTOR.
- 7. INSTALL REMOTE CONTROL VALVES AND WIRE SPLICES IN TEN (10") INCH ROUND HIGHLINE VALVE BOXES.
- 8. INSTALL SLEEVES UNDER ALL HARDSCAPE SURFACES SUCH AS ROADS, DRIVES, WALKS, ETC. WHETHER SHOWN OR NOT. SLEEVES SHALL BE CLASS 200 PVC, SIZED AS NOTED ON PLANS AND INSTALLED BY IRRIGATION CONTRACTOR.
- 9. ADJUST NOZZLES FOR SITUATIONS THAT REQUIRE LESS THAN 90 DEGREE RADIUS SPRAY. THIS MAY REQUIRE ADJUSTABLE NOZZLES. NO OVERSPRAY ALLOWED ON ANY HARDSCAPE SURFACES.
- 10. DESIGN PRESSURE IS 61.0 PSI. STATIC PRESSURE IS 70 PSI. TEN DAYS PRIOR TO START OF CONSTRUCTION, VERIFY STATIC PRESSURE. IF STATIC PRESSURE IS LESS THAN STATED DO NOT START WORK UNTIL NOTIFIED TO PROCEED.
- 11. MINIMUM DISTANCE BETWEEN MAIN LINE AND LATERAL LINE FITTINGS (EXCEPT FOR REDUCER BUSHINGS) TO BE EIGHTEEN INCHES AND MINIMUM HORIZONTAL DISTANCE OF TWENTY-FOUR INCHES BETWEEN ANY VALVES THAT ARE INSTALLED SIDE BY SIDE.
- 12. PROVIDE ALL LABOR AND MATERIAL NECESSARY TO HAND DIG WITHIN ALL EXISTING TREE ROOT ZONES. CONTRACTOR MUST STAKE DITCHES AND RECEIVE APPROVAL FROM LANDSCAPE ARCHITECT PRIOR TO ANY TRENCHING OR DIGGING.
- 13. PROVIDE ALL LABOR AND MATERIALS NECESSARY TO REPAIR AND MODIFY THE EXISTING IRRIGATION SYSTEM WITHIN THE SCOPE OF THIS PROJECT SO THAT IT IS 100% AUTOMATED AND OPERABLE UPON COMPLETION OF THIS PROJECT. THIS WORK TO INCLUDE ANY CUTTING AND CAPPING OF THE EXISTING SYSTEM. VERIFY THE LOCATION AND CONDITION OF THE EXISTING SYSTEM PRIOR TO BIDDING. CONTRACTOR MUST COORDINATE THIS WORK WITH ALL DISCIPLINES PRIOR TO BEGINNING OF CONSTRUCTION.
- 14. PROVIDE ALL LABOR AND MATERIALS NECESSARY TO CONNECT THE PROPOSED IRRIGATION MAINLINE, MASTER VALVE, AND FLOW SENSOR TO THE EXISTING 6-INCH MAINLINE AT THIS APPROXIMATE LOCATION. VERIFY THE LOCATION AND SIZE OF THE EXISTING MAINLINE PRIOR TO BIDDING. CONTRACTOR MUST COORDINATE THIS WORK WITH ALL DISCIPLINES PRIOR TO BEGINNING OF CONSTRUCTION.
- 15. PROVIDE ALL LABOR AND MATERIALS NECESSARY TO INSTALL TWO NEW UF-14 GA WIRES FROM THE PROPOSED MASTER VALVE AND FOUR WIRES NEW UF-14GA WIRES FROM THE PROPOSED FLOW SENSOR TO THE PROPOSED NEW CONTROLLER. THIS WOK TO ALSO INCLUDE REMOVING TO EXISTING CONTROLLERS AND RE-CONNECTING THE CONTROL WIRES TO THE PROPOSED NEW CONTROLLER. VERIFY THE LOCATION AND SIZE OF THE EXISTING MAINLINE PRIOR TO BIDDING. CONTRACTOR MUST COORDINATE THIS WORK WITH ALL DISCIPLINES PRIOR TO BEGINNING
- 16. THIS IRRIGATION SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL LAWS, ORDINANCES, RULES, REGULATIONS OR ORDERS WHETHER SHOWN OR NOT. CONTRACTOR IS CAUTIONED THAT THEY ARE TO INCLUDE ANY AND ALL COST NECESSARY TO MEET OR EXCEED THE LAWS OF THE STATE OF TEXAS OR LOCAL CODES CONCERNING LANDSCAPE IRRIGATION. A LICENSED IRRIGATOR OR LICENSED IRRIGATION TECHNICIAN SHALL BE ON-SITE AT ALL TIMES WHILE THE LANDSCAPE IRRIGATION SYSTEM IS BEING INSTALLED PER CITY OF FORT WORTH REQUIREMENTS.
- 17. IT IS THE INTENT OF THESE PLANS TO PROVIDE THE OWNER WITH A FULLY AUTOMATED AND OPERATIONAL IRRIGATION SYSTEM UPON THE COMPLETION OF THIS PROJECT. CONTRACTOR MUST COORDINATE THE INSTALLATION AND EQUIPMENT WITH CITY OF FORT WORTH PRIOR TO BEGINNING OF THE PROJECT.

IRRIGATION LEGEND:

OF CONSTRUCTION.

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
Ø	HIGH-POP SPRAY HEAD	HUNTER (30 PSI)	PROS-12-CV WITH MPR PLASTIC NOZZL ON HUNTER SJ SWING JOINT
\bigcirc	SHRUB SPRAY HEAD	HUNTER (30 PSI)	PLASTIC ADAPTER WITH MPR PLASTIC NOZZLE UNLESS NOTED OTHERWISE
\oplus	BUBBLER HEAD	HUNTER (30 PSI)	PCB-50 PLASTIC BUBBLER NOZZLE ON HUNTER SJ SWING JOINT
•	BUBBLER HEAD	HUNTER (30 PSI)	PCB-10 PLASTIC BUBBLER NOZZLE ON HUNTER SJ SWING JOINT
	QUICK COUPLING VALVE	HUNTER	HQ-DNP WITH LASCO BALL VALVE
	REMOTE CONTROL VALVE	HUNTER	ICV WITH ACCU-SYNC PRESSURE REGULATOR, REFER TO PLANS FOR SIZ
	CONTROLLER	HUNTER	HCC-5400 WALLMOUNT WITH MINI-CLIK WIRELESS RAIN AND FREEZE SENSOR
	EXISTING 6" MAINLINE	REFER TO SPEC.	VERIFY THE EXACT SIZE AND LOCATIO
- —	PROPOSED MAINLINE	REFER TO SPEC.	2-1/2" SCHEDULE 40 PVC
	LATERAL PIPING	REFER TO SPEC.	3/4" & LARGER - CLASS 200 PVC 1/2" - CLASS 315 PVC
M	MASTER VALVE	HUNTER	ICV, REFER TO PLAN FOR SIZE
F	FLOW SYNC	HUNTER	FCT-200, REFER TO PLAN FOR LOCATION
	STATION NUMBER VALVE SIZE GPM (APPROX.)		

	COMMON ABBREVIATIONS
NUMBER	NOTE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
АНЈ	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CU	COPPER
DEG, °	DEGREES
DEMO	DEMOLITION
EMT	ELECTRICAL METALLIC TUBING
FT	FFFT
G, GND	GROUND
GA GND	GAUGE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
HZ TC	HERTZ
IG	ISOLATED GROUND
IN	INCHES
IT	INFORMATION TECHNOLOGY, DATA
L	LENGTH
LBS	POUNDS
LCD	LIQUID CRYSTAL DISPLAY
LED	LIGHT-EMITTING DIODE
LTG	LIGHTING
MAX	MAXIMUM
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
N/A	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NO.	NUMBER
OD	OUTSIDE DIAMETER
PA	PUBLIC ADDRESS
PVC	POLYVINYL CHLORIDE
RE:	REFERENCE, REFER
RFI	REQUEST FOR INFORMATION
SE	SERVICE ENTRANCE
TYP	TYPICAL
U/F	UNDER FLOOR
U/G	UNDER GROUND
U/S	UNDER SLAB
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS, VOLTAGE
<u>v</u> W	WATTS
W/	WITH
W/0 WP	WEATHER RESISTANT WEATHER PROOF

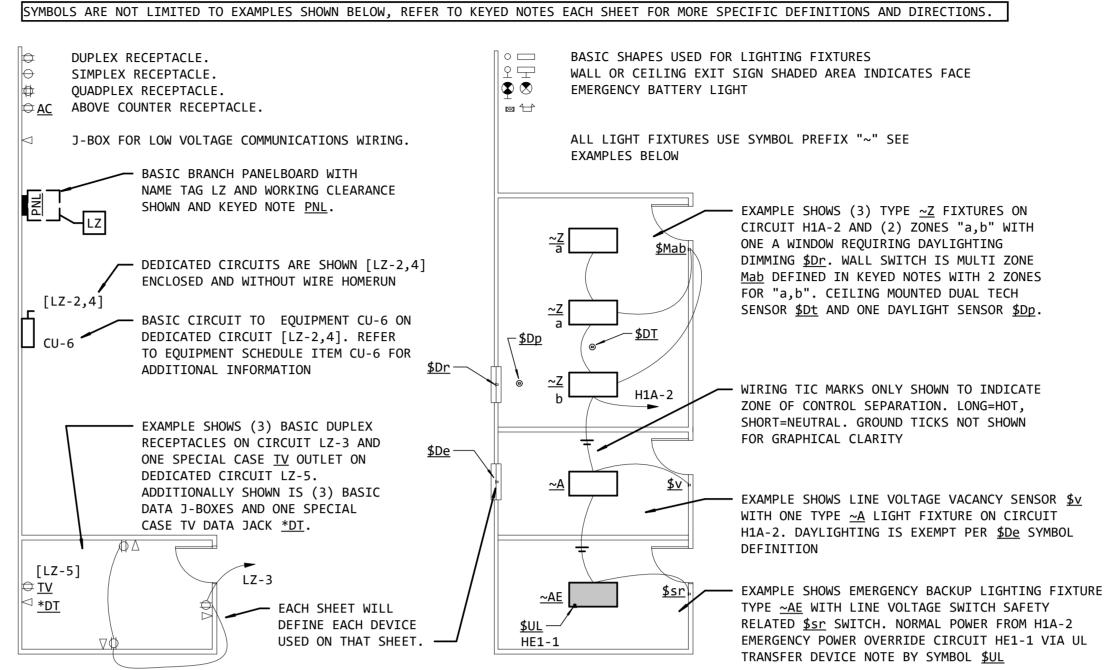
WEATHER RESISTANT, WEATHER PROOF

	PROJECT GENERAL NOTES							
NUMBER	NOTE							
1	REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS OF ELECTRICAL CONSTRUCTION.							
2	REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED DEVICES.							
3	REFER TO ARCHITECTURAL INTERIOR ELEVATION DRAWINGS, WHERE THE ARCHITECT HAS DRAWN SUCH ELEVATIONS, FOR THE LOCATIONS OF ALL WALL MOUNTED DEVICES.							
4	COORDINATE THE EXACT LOCATION OF ALL THERMOSTATS, STARTERS, DISCONNECTS, ETC. AND COORDINATE ALL REQUIREMENTS FOR CONTROL AND POWER WIRING WITH THE MECHANICAL CONTRACTOR OR THE TRADE PROVIDING THE EQUIPMENT.							
5	ALL RECEPTACLE OUTLETS LOCATED WITHIN 6'-0"" OF A WET BAR OR SINK SHALL BE GFI TYPE. ALL RECEPTACLE OUTLETS LOCATED OUTDOORS SHALL BE WP/GFI. ALL RECEPTACLES SERVING VENDING MACHINES AND ELECTRIC WATER COOLERS SHALL BE GFI TYPE.							
6	ALL CONDUIT PENETRATIONS THROUGH THE ROOF TO SERVE MECHANICAL EQUIPMENT SHALL BE WITHIN THE ASSOCIATED EQUIPMENT ROOF CURB. COORDINATE LOCATIONS OF PENETRATIONS WITH THE MECHANICAL CONTRACTOR.							
7	PROVIDE ACCESS DOORS IN WALLS AND CEILINGS WHERE ACCESS TO CONCEALED ELECTRICAL BOXES AND DEVICES IS REQUIRED. ALL ACCESS LOCATIONS ARE							
8	EACH BRANCH AND FEEDER CIRCUIT SHALL BE PROVIDED WITH A GROUND CONDUCTOR SIZED PER ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE (NFPA 70). WHERE A CONDUIT CONTAINS MULTIPLE BRANCH CIRCUITS, PROVIDE A SINGLE GROUND CONDUCTOR UNLESS OTHERWISE NOTED.							
9	INTEGRATED EQUIPMENT RATINGS (AIC) SHOWN ARE MINIMUMS. CONTRACTOR SHALL PROVIDE MANUFACTURER'S EQUAL OR NEXT HIGHER STANDARD RATINGS.							
10	ALL PULL CORD/WIRE PROVIDED FOR EMPTY RACEWAY/CONDUIT SYSTEMS SHALL HAVE A MINIMUM STRENGTH OF 200 LBS TENSILE STRENGTH. ALL EMPTY CONDUITS SHALL HAVE A PULL CORD.							
11	PROVIDE LUGS AS REQUIRED FOR ALL ELECTRICAL EQUIPMENT TO ACCEPT THE SIZE AND NUMBER OF CONDUCTORS SHOWN IN THESE DOCUMENTS.							
12	ALL CONDUCTORS SHALL BE THWN/THHN UNLESS OTHERWISE INDICATED. CONDUCTORS SHALL BE RATED FOR 75 DEGREES C. TERMINATIONS SHALL BE RATED FOR 75 DEGREES C. DEVIATIONS SHALL COMPLY WITH NEC ARTICLE 110 FOR EXACT EQUIPMENT BEING PROVIDED.							
13	OUTLET BOXES SHALL NOT BE INSTALLED BACK TO BACK IN WALLS. A MINIMUM OF 6" SEPARATION BETWEEN BOXES SHALL BE MAINTAINED TO REDUCE SOUND TRANSMISSION.							
14	THERE SHALL BE NO SPLICES OF WIRING INSIDE PANELBOARDS OR DISCONNECT SWITCHES. ONLY ONE WIRE SHALL BE TERMINATED TO ANY SINGLE LUG ON A CIRCUIT BREAKER.							
15	EXPOSED CONDUIT INSTALLED IN OPEN CEILING AREAS SHALL BE MOUNTED TIGHT TO STRUCTURE AND ROUTE IN PARALLEL WITH ADJACENT WALL.							
16	COORDINATE THE REQUIREMENTS FOR OVERCURRENT PROTECTIVE DEVICE SIZE, DISCONNECT SWITCH SIZE, AND CONDUCTOR AND CONDUIT SIZES WITH THE REQUIREMENTS OF THE MECHANICAL EQUIPMENT THAT IS ACTUALLY TO BE INSTALLED, AND PROVIDE AND INSTALL ALL ELECTRICAL COMPONENTS AS REQUIRED. THE ELECTRICAL COMPONENT SIZING SHOWN ON THESE DRAWINGS IS BASED UPON THE REQUIREMENTS FOR THE SPECIFIED MECHANICAL EQUIPMENT AVAILABLE AT THE TIME OF DESIGN. VARIATIONS IN REQUIREMENTS MAY OCCUR AS A RESULT OF THE PROVISION OF OTHER MANUFACTURER'S EQUIPMENT OR IN CHANGES TO THE SPECIFIED EQUIPMENT. SUCH REVISED REQUIREMENTS ARE A PART OF THIS CONTRACT AND SHALL BE ACCOMMODATED WITHOUT ADDITIONAL CHARGE.							
17	FOR COORDINATION PURPOSES, DEVICES MAY BE MOVED A MAXIMUM DISTANCE OF FIVE FEET, PRIOR TO INSTALLATION, AT NO COST TO THE OWNER, UPON INSTRUCTION BY THE ARCHITECT OR ENGINEER							
18	ALL DEVICE PLATE COLORS TO BE AS SPECIFIED BY ARCHITECT.							
19	CIRCUITS SHOWN TO SPECIFIC EQUIPMENT ARE SHOWN TO DISCONNECT. CONTRACTOR SHALL EXTEND CIRCUIT FROM DISCONNECT TO FINAL TERMINATION OF DEVICE PROVIDED BY OTHERS AND MAKE UNIT OPERATIONAL. COORDINATE EXACT TERMINATION POINTS WITH SUPPLIER OF EQUIPMENT.							
20	ALL CONDUIT SHALL BE CONCEALED IN NEW BUILDING CONSTRUCTION WHERE POSSIBLE.							
21	ALL CIRCUITS TO CONTAIN GROUND WIRE, TIC MARKS FOR WIRING DO NOT SHOW GROUND WIRE FOR GRAPHICAL CLARITY.							
22	ALL RECEPTACLES SHALL BE TAMPER RESISTANT PER NEC 406.12							

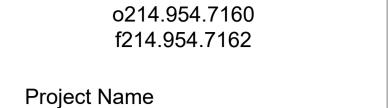
	PROJECT KEYED NOTES
KEY	Description
РВ	WEATHER RESISTANT DUPLEX RECEPTACLE ON POWER BOLLARD. USE LEVITON 1BH42-1E. INSTALL AS PER MANUFACTURER INSTALLATION MANUAL INSTRUCTIONS.
UG	UNDERGROUND POWER CONDUIT. EXACT ROUTE TO BE FIELD VERIFIED. CONTRACTOR SHALL AVOID DAMAGING ANY TREES ROOTS. REROUTE CONDUIT TO AVOID TREES ROOTS IF NECESSARY.
~LBL	TORRES PATH LIGHT BOLLARD 7W 120V 2700K. INSTALL AS PER MANUFACTURER INSTALLATION MANUAL REQUIREMENTS.
~LN	CUSTOM MADE LANTERN. REFER TO LANDSCAPE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS AND INSTALLATION/FOOTING DETAILS.
~TDL	TREES DOWNLIGHT. REFER TO LANDSCAPE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS. INSTALL AS PER MANUFACTURER INSTALLATION MANUAL.

LIGHTING FIXTURE SCHEDULE											
Keynote	Description	Manufacturer	Model	VOLT	VA	COMMENTS					
~LBL	TORRES PATH LIGHT BOLLARD 7W 120V 2700K. INSTALL AS PER MANUFACTURER INSTALLATION MANUAL REQUIREMENTS.	LANDSCAPE FORMS	AH-I1-050F-27K-UV1-SM	120 V	7 VA						
~LN	CUSTOM MADE LANTERN. REFER TO LANDSCAPE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS AND INSTALLATION/FOOTING DETAILS.	ТВС	ТВС	120 V	50 VA	LIGHT FIXTURE TO BE SPECIFIED BY AOR					
~TDL	TREES DOWNLIGHT. REFER TO LANDSCAPE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS. INSTALL AS PER MANUFACTURER INSTALLATION MANUAL.	ТВС	TBC	120 V	5 VA	LIGHT FIXTURE TO BE SPECIFIED BY AOR					

GENERAL NOTES (APPLY TO ALL FIXTURES): A. PROVIDE ALL REQUIRED MOUNTING HARDWARE AND ACCESSORIES REQUIRED FOR MOUNTING NECESSARY.



EXAMPLE ELECTRICAL DRAFTING



824 Exposition Avenue, Ste. 5

Dallas, Texas 75226

BOTANIC GARDEN

ROSE GARDEN DROP OFF RENOVATION

Issue Title

ISSUE FOR BID

Issue / Addenda / Revisions

Description



01/09/2025 24044

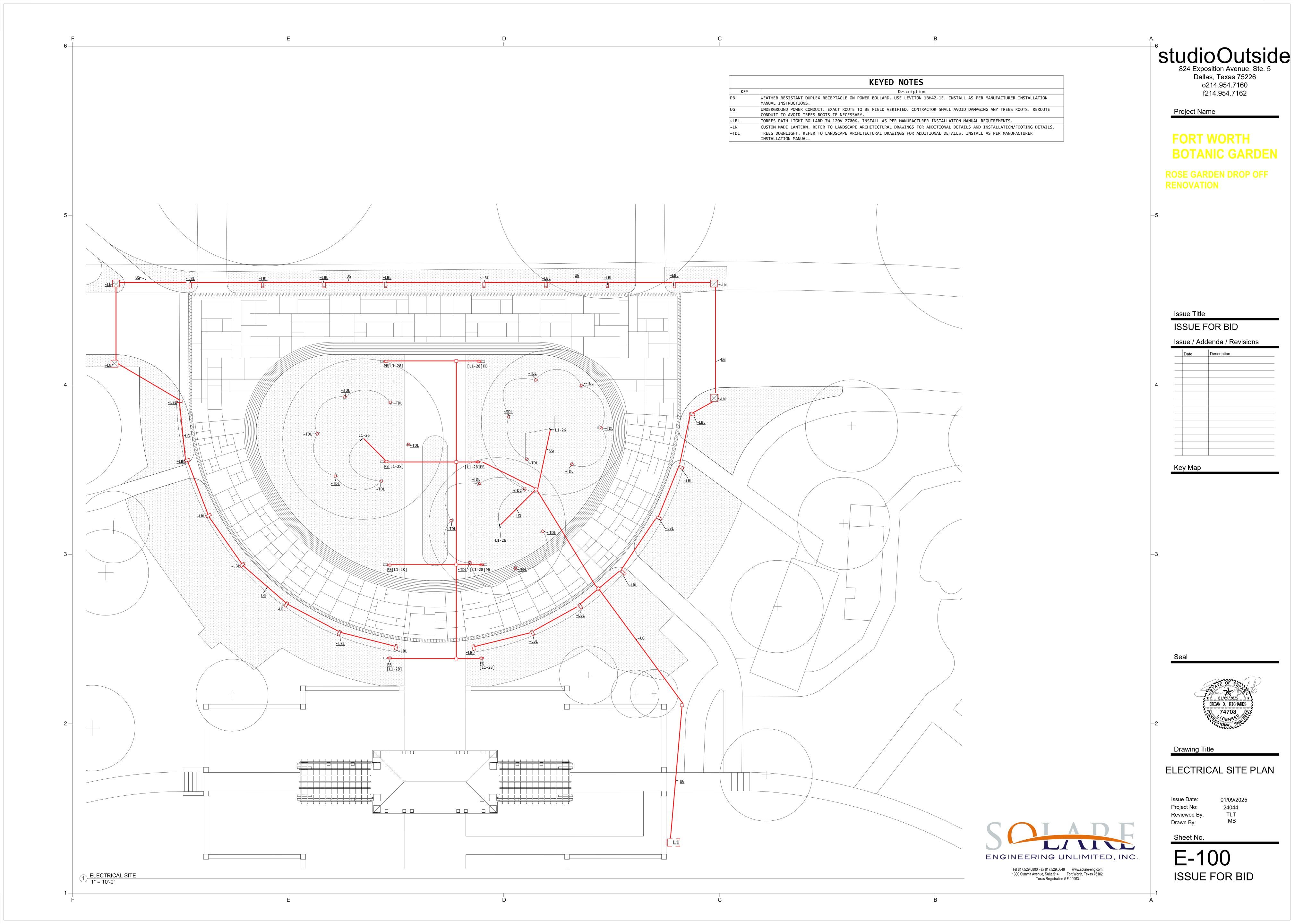
ELECTRICAL ABBREVIATIONS AND SYMBOLS

Issue Date: Project No: Reviewed By: Drawn By:

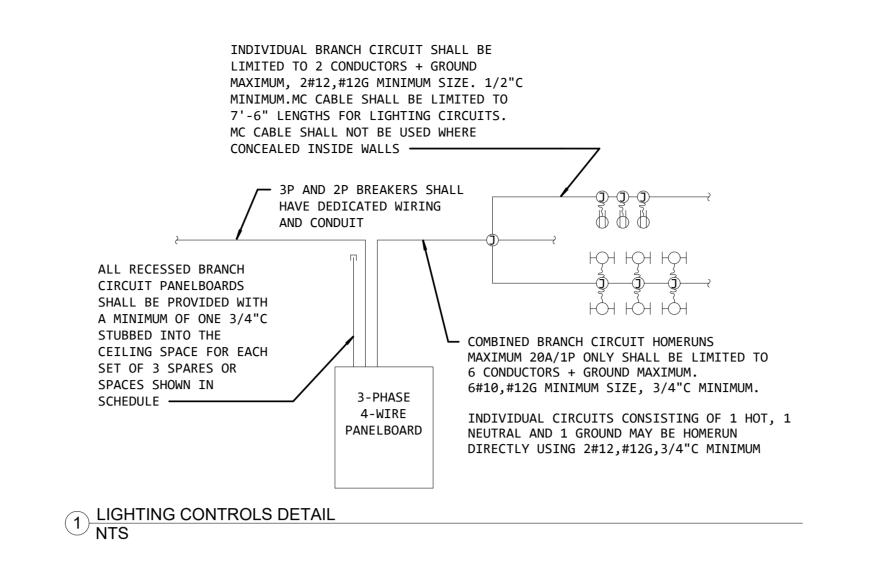
Sheet No.

E-000 ISSUE FOR BID

ENGINEERING UNLIMITED, INC. Tel 817.529.6800 Fax 817.529.0649 www.solare-eng.com 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102 Texas Registration # F-10963



NAME: L1 Fault Current(Amps): Mounting: SURFACE **Volts:** 120/208 Wye AIC-Rating(Amps): Supply From: Feeder: Phases: 3 Mains Type: MCB Mains Rating: 400 Enclosure: NEMA 3R Wires: 4 **WIRE SIZE WIRE SIZE** CIRCUIT 2#12,#12G,1/2"C 2#12,#12G,1/2"C CIRCUIT CKT LEN %VD (A) P A(A) B(A) C(A) P (A) LOAD NAME %VD | LEN | CKT 1 |-- | -- |--20 1 0 0 EXISTING LOAD 3 |-- | -- |--EXISTING LOAD EXISTING LOAD 5 |-- | -- |--EXISTING LOAD 0 0 EXISTING LOAD 7 |-- | -- |--EXISTING LOAD 20 1 0 0 9 |-- | -- |--EXISTING LOAD 0 0 1 20 EXISTING LOAD 11 |-- | -- |--EXISTING LOAD EXISTING LOAD 13 |-- | -- |--EXISTING LOAD EXISTING LOAD 15 |-- | -- |--EXISTING LOAD 0 0 EXISTING LOAD 17 |-- | -- |--EXISTING LOAD EXISTING LOAD EXISTING LOAD 19 |-- | -- |--EXISTING LOAD 20 1 0 0 21 |-- | -- |--EXISTING LOAD EXISTING LOAD 0 0 EXISTING LOAD 2.86% 232' 26 0 4 0 12 1 20 POWER BOLLARD 2#10,#10G,1/2"C | 4.52% | 188' | 28 EXISTING LOAD Total Load kVA: 0 1 0 Total Amps: 4 A 13 A 0 A ALL LENGTHS SHOWN ARE FOR CALCULATION PURPOSES ONLY TO ESTIMATED HOME RUN POINT ADDITIONAL WIRE WILL BE NEEDED FOR CIRCUIT, CONTRACTOR SHALL ESTIMATE BASED ON CONTRACTOR PLANNED INSTALL. IF ANY VALUES ARE SUBSTANTIALLY DIFFERANT CONTRACTOR SHALL NOTIFY A/E OF REVISIONS NEEDED AND AWAIT INSTRUCTIONS BEFORE PROCEEDING. Panel Totals Load Classification Connected Load Demand Factor Estimated Demand 1440 VA Total Conn. Load: 2 kVA Receptacle Total Connt. Amps 5 A Total Demand Load: 2 kVA Total Demand Amps: 6 A Schedule Notes:



EXTERIOR LIGHTING CONTROL DETAIL

EXTERIOR LIGHTING CONTROL GENERAL NOTES:

1. FOR GENERAL EXTERIOR SITE AND BUILDING LIGHTING, PROVIDE 365/7 DAY
ASTRONOMIC TIME CONTROL WITH OVERRIDE ON/OFF AND MINIMUM 2 DAY PERMANENT
SCHEDULE RETENTION. PROVIDE ONE RELAY OR CONTACT PER ZONE REQUIRED.

2. PROVIDE TIME SCHEDULE TO BE ON AT NIGHT AND OFF AT DAWN

3. CIRCUIT AS SHOWN IN PLAN VIEW.

3. CIRCUIT AS SHOWN IN PLAN VIEW. PROVIDE TIME CLOCK WITH NEEDED ZONES OR TIMECLOCK CONTACTOR COMBINATION WITH ZONES NEEDED. SPARE ENERGY CODE SETBACK WILL BE BY INTEGRAL MOTION SENSOR ON FIXTURE TO ACHIEVE MINIMUM 30% REDUCTION IN FACADE AND TOTAL SITE LIGHTING POWER LANDSCAPE LIGHT WHERE SPECIFIED WITH FIXTURES NOT FIXTURE REQUIRED TO HAVE

EXTERIOR LIGHTING ENERGY CODE REQUIREMENTS :

ALL EXTERIOR LIGHTING SHALL BE CONTROLLED AS A FUNCTION OF AVAILABLE LIGHT USING AN ASTRONOMIC TIMECLOCK, PHOTOCELL OR SIMILAR MEANS, UNLESS NOTED OTHERWISE.
 EXTERIOR LIGHTING SHALL BE REDUCED BY MINIMUM OF 30% AFTER MIDNIGHT AT THE LATEST TO 6AM, OR 1-HOUR AFTER CLOSING AND 1 HOUR BEFORE BUSINESS OPENING, OR ANYTIME OF INACTIVITY OF MORE

SETBACK

THAN 15 MINUTES.
3. EXEMPTIONS TO EXTERIOR LIGHTING:

A. EMERGENCY EGRESS LIGHTING
B. COVERED VEHICLE ENTRANCES TO PARKING STRUCTURES

C. BUILDING FACADE AND LANDSCAPE LIGHTING MAY BE PHOTOCELL ONLY; 30% DIMMING IS NOT REQUIRED.

EXTERIOR LIGHTING

NORMAL CIRCUIT ______

OPERATION:

EXTERIOR LIGHTING TO FUNCTION ON PHOTOCELL ON/OFF DUSK TO DAWN. LIGHTING TO BE SET BACK MINIMUM OF 30% WHEN NO MOTION IS DETECTED.

EXTERIOR LIGHTING CONTROL

ING CONTROLS DETAIL

studioOutside

824 Exposition Avenue, Ste. 5 Dallas, Texas 75226 o214.954.7160 f214.954.7162

Project Name

FORT WORTH BOTANIC GARDEN

ROSE GARDEN DROP OFF RENOVATION

Issue Title

ISSUE FOR BID

Issue / Addenda / Revisions



Key Map

Seal



Drawing Title

PANEL SCHEDULE AND ELECTRICAL DETAILS

Issue Date:
Project No:
Reviewed By:
Drawn By:

01/09/2025 24044 TLT MB

Sheet No.

E-200 ISSUE FOR BID

SCARE ENGINEERING UNLIMITED, INC.

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