

MCKINNEY LANDSCAPE ORDINANCE		
AREA	15% OF STREET YARD SHALL BE LANDSCAPED	
STREET YARD	REQUIRED	PROVIDED
	15% X 69,554 = 10,433 SF	27,482 SF
AREA	10% OF SITE SHALL BE LANDSCAPE	
SITE AREA	REQUIRED	PROVIDED
	94,856 SF X 10% = 9,485	32,340 SF
LANDSCAPE BUFFER	20' LANDSCAPE BUFFER AT STREET FRONTAGE	
LANDSCAPE BUFFER	REQUIRED	PROVIDED
	20'	20'
STREET FRONTAGE TREES	1 TREE PER 40' OF STREET FRONTAGE	
RIDGELINE DR RIDGE RD MCKINNEY RANCH CANNON	REQUIRED	PROVIDED
	249 / 40 = 7 TREES	7 TREES
	356 / 40 = 9 TREES	9 TREES
	217 / 40 = 7 TREES	7 TREES
PARKING LOT TREES	REQUIRED	PROVIDED
	84 SPACES/10 = 9 TREES	9 TREES
PARKING LOT SCREEN	MINIMUM 75% OF PARKING LOT IS SCREENED	
	PARKING LOT BUFFER 5' PERIMETER PARKING LOT BUFFER	

- AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM SHALL BE PROVIDED TO ALL REQUIRES LANDSCAPE AREAS.
- IRRIGATION SHALL HAVE AN ET BASED CONTROLLER.
- IDENTIFIED ON GRADING AND EROSION CONTROL PLANS. HYDROMUCH BERMUDA IN ALL DISTURBED AREAS AS REQ.

THE CONTRACTOR SHALL VERIFY WATER RESTRICTIONS WITHIN THE CITY OF MCKINNEY AT TIME OF PLANTING. SHOULD WATER RESTRICTIONS NOT ALLOW HYDROMULCH, HYDROSEEDING OR SPRIGGING (STAGE 3 AND STAGE 4 WATER RESTRICTIONS), AN APPROVED ALTERNATIVE FOR GRASSING SHALL BE INSTALLED.

TREE TABLE			
NO.	CALIPER	SPECIES	STATUS
101			
THERE ARE NO EXISTING TREES ON SITE			
TOTAL INCHES TO BE MITIGATED = 0"			
TOTAL INCHES PLANTED = 40"			

- PLANTING NOTES:
1. PLANT SIZE, TYPE, AND CONDITION SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE.
 2. ALL PLANT MATERIAL TO BE NURSERY GROWN STOCK.
 3. CONTRACTOR RESPONSIBLE FOR MAINTENANCE OF ALL PLANT MATERIAL UNTIL PROJECT ACCEPTANCE.
 4. ALL CONTAINER GROWN PLANTS TO HAVE FULL, VIGOROUS ROOT SYSTEM, COMPLETELY ENCOMPASSING CONTAINER.
 5. ALL PLANTS WELL ROUNDED AND FULLY BRANCHED. ALL TREES WITH SPREAD 2/3 OF HEIGHT.
 6. CONTRACTOR TO PROVIDE OWNER WITH PREFERRED MAINTENANCE SCHEDULE OF ALL PLANTS AND LAWNS.
 7. MAINTAIN/PROTECT VISIBILITY TRIANGLE WITH PLANT MATERIAL PER CITY STANDARDS AT ALL ENTRANCES TO SITE.
 8. PREP ENTIRE WIDTH OF ALL DEFINED PLANTING BEDS WITH MIX AS OUTLINED IN SPECS. WHERE SHRUBS ARE LOCATED ALONG CURB, SET SHRUBS BACK FROM CURB 3 FT.
 9. SEE DETAIL SHEET FOLLOWING FOR PLANTING DETAILS.
 10. CONTRACTOR RESPONSIBLE FOR LOCATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO TELEPHONE, TELECABLE, ELECTRIC, GAS, WATER AND SEWER. ANY DAMAGE TO UTILITIES TO BE REPAIRED BY CONTRACTOR AT NO COST TO OWNER.
 11. EXISTING TREES ARE SHOWN TO REMAIN, CONTRACTOR SHALL PRUNE ONLY ON APPROVAL OF CITY ARBORIST. WORK TO INCLUDE REMOVAL OF ALL SUCKER GROWTH; DEAD AND DISEASED BRANCHES AND LIMBS; VINES, BRIARS AND OTHER INVASIVE GROWTH; AND ALL INTERFERING BRANCHES. MAKE ALL CUTS FLUSH TO REMAINING LIMB. RETAIN NATURAL SHAPE OF PLANT. ALL WORK SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE.
 12. QUANTITIES ARE PROVIDED AS A COURTESY AND NOT INTENDED FOR BID PURPOSES. CONTRACTOR TO VERIFY PRIOR TO PRICING.
 13. INSTALL EDGING BETWEEN LAWN AND PLANTING BEDS. REFER TO SPECIFICATIONS. FILE ALL CORNERS SMOOTH.
 14. INSTALL CURLEX BLANKET (OR EQUAL) PER MANUFACTURER'S INSTRUCTIONS ON ALL GROUND COVER/SHRUB BEDS WITH A SLOPE OF 4:1 OR GREATER.
 15. AT TIME OF PLAN PREPARATION, SEASONAL PLANT AVAILABILITY CANNOT BE DETERMINED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE AND RESERVE ALL B&B PLANTS WHEN AVAILABLE IN CASE ACTUAL INSTALLATION OCCURS DURING THE OFF-SEASON. PURCHASE AND HOLD B&B PLANTS FOR LATE SEASON INSTALLATION.
 16. BERM ALL PARKING LOT ISLANDS AS SHOWN ON ENCLOSED DETAIL SHEET. (BERMS MAY NOT BE SHOWN ON GRADING PLAN.)
 17. PRIOR TO PLANTING, CONTRACTOR SHALL STAKE TREE LOCATIONS FOR APPROVAL BY OWNER.

REFERENCE NOTES SCHEDULE			
SYMBOL	DESCRIPTION	QTY	DETAIL
01-01	Composite Edging	953 lf	
SYMBOL	ROCK DESCRIPTION	QTY	DETAIL
K-101	Decomposed Granite	7.4 cy	

PLANT SCHEDULE									
TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	SPACING	REMARKS	
	PIS CHI	13	Pistacia chinensis	Chinese Pistache	4" Cal.	12' Height Min	As Shown		
	QUE SHU	15	Quercus shumardii	Shumard Oak	4" Cal.	12' Height Min	As Shown		
	QUE VIR	10	Quercus virginiana	Southern Live Oak	4" Cal.	12' Height Min	As Shown	Single Straight Trunk	
	ULM CRA	10	Ulmus crassifolia	Cedar Elm	4" Cal.	12' Height Min	As Shown	Single Straight Trunk	
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	SPACING	REMARKS	
	ILE NEL	17	Ilex x 'Nellie R. Stevens'	Nellie R. Stevens Holly	10 gal.	48"	36" O.C.		
	MYR DON	161	Myrica cerifera 'Don's Dwarf'	Don's Dwarf Wax Myrtle	5 gal.	18"-24"	36" O.C.		
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	SPACING	SPACING	REMARKS
	CYN DAC	34,968 sf	Cynodon dactylon	Bermuda Grass	Solid Sod				
	ERA CU2	326	Eragrostis curvula	Weeping Lovegrass	1 gal.		24" O.C.	24" o.c.	
	TRA ASI	2,041	Trachelospermum asiaticum	Asiatic Jasmine	4" pots		12" O.C.	12" o.c.	

NOTE:
NO LANDSCAPE PLANTINGS
WITHIN 3' OF PARKING
LOT CURBS.



CAUTION!!!
UNDERGROUND UTILITIES ARE LOCATED IN THIS AREA. 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, CONTACT LINE LOCATES FOR FRENCHISE UTILITY INFO. CALL BEFORE YOU DIG: TEXAS EXCAVATION SAFETY SYSTEM (TESS) 1-800-344-8377 TEXAS ONE CALL SYSTEMS 1-800-245-4545 LONE STAR NOTIFICATION CENTER 1-800-669-8344 EXT. 5

6.5.4.3.2.1.

DATEREVISIONAPPROV.

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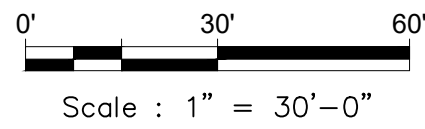
11/29/22

LANDSCAPE / TREE
PRESERVATION PLAN
MCKINNEY RANCH PARKWAY & RIDGE ROAD
MCKINNEY, TX 75070

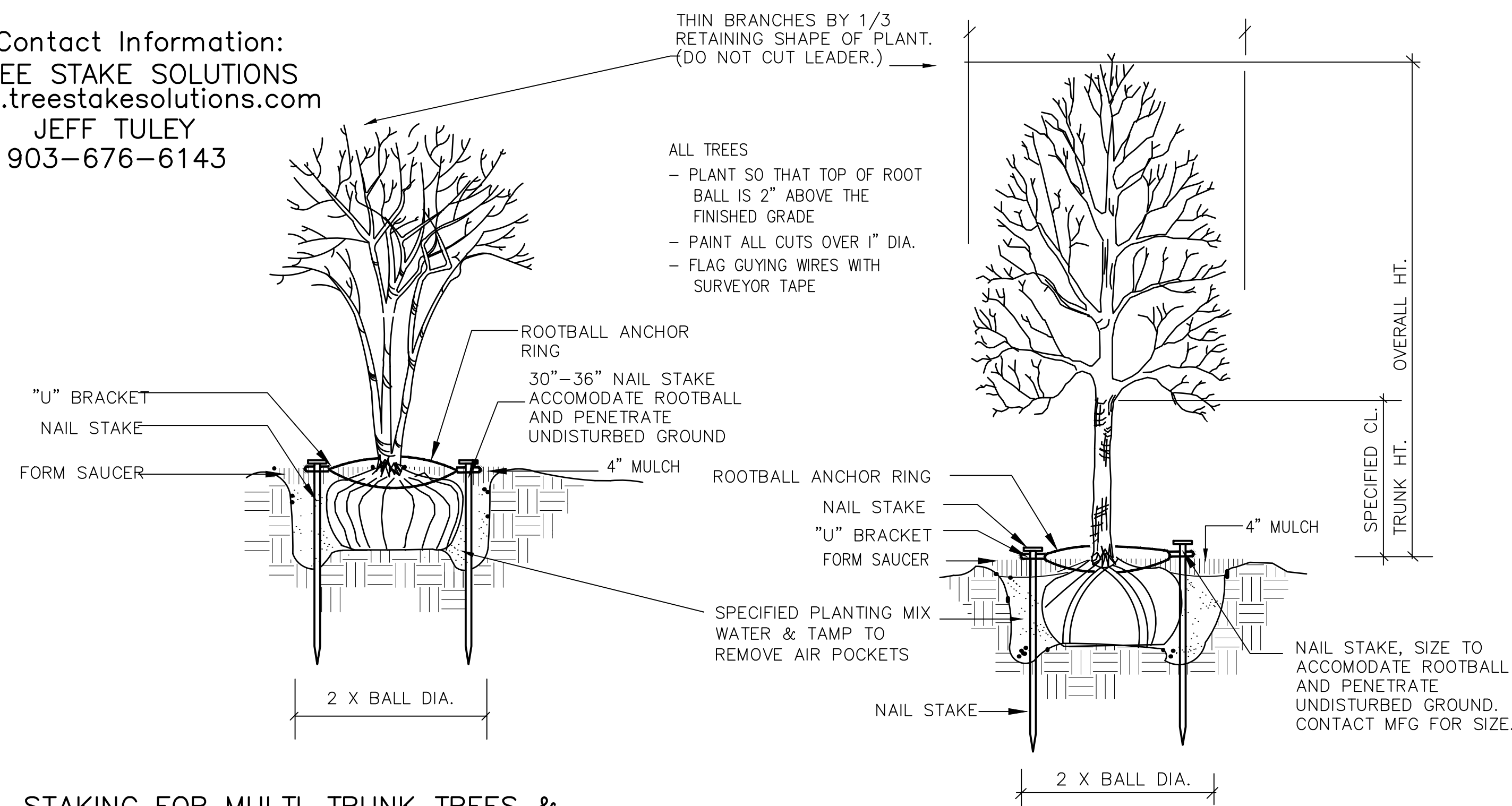
FAIN • CUPPETT
 LANDSCAPE ARCHITECTS, LLC
 1921 MAPLEWOOD DR
 WEATHERFORD, TX 76087 682-215-9151
 PARKS AND OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE • IRRIGATION DESIGN

THIS ELECTRONIC DRAWING FILE IS RELEASED UNDER THE AUTHORITY OF GREG CUPPETT, LANDSCAPE ARCHITECT REGISTRATION NUMBER 2672 ON 11/29/22, WHO MAINTAINS THE ORIGINAL FILE. THIS ELECTRONIC DRAWING FILE MAY BE USED AS A BACKGROUND DRAWING. PURSUANT TO RULE 3.100(I) OF THE RULES AND REGULATIONS OF THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS, THE USER OF THIS ELECTRONIC DRAWING FILE AGREES TO ASSUME ALL RESPONSIBILITY FOR ANY MODIFICATION TO OR USE OF THIS DRAWING FILE THAT IS INCONSISTENT WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS OF THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS. NO PERSON MAY MAKE MODIFICATIONS TO THIS ELECTRONIC DRAWING FILE WITHOUT THE LANDSCAPE ARCHITECT'S EXPRESS WRITTEN PERMISSION.

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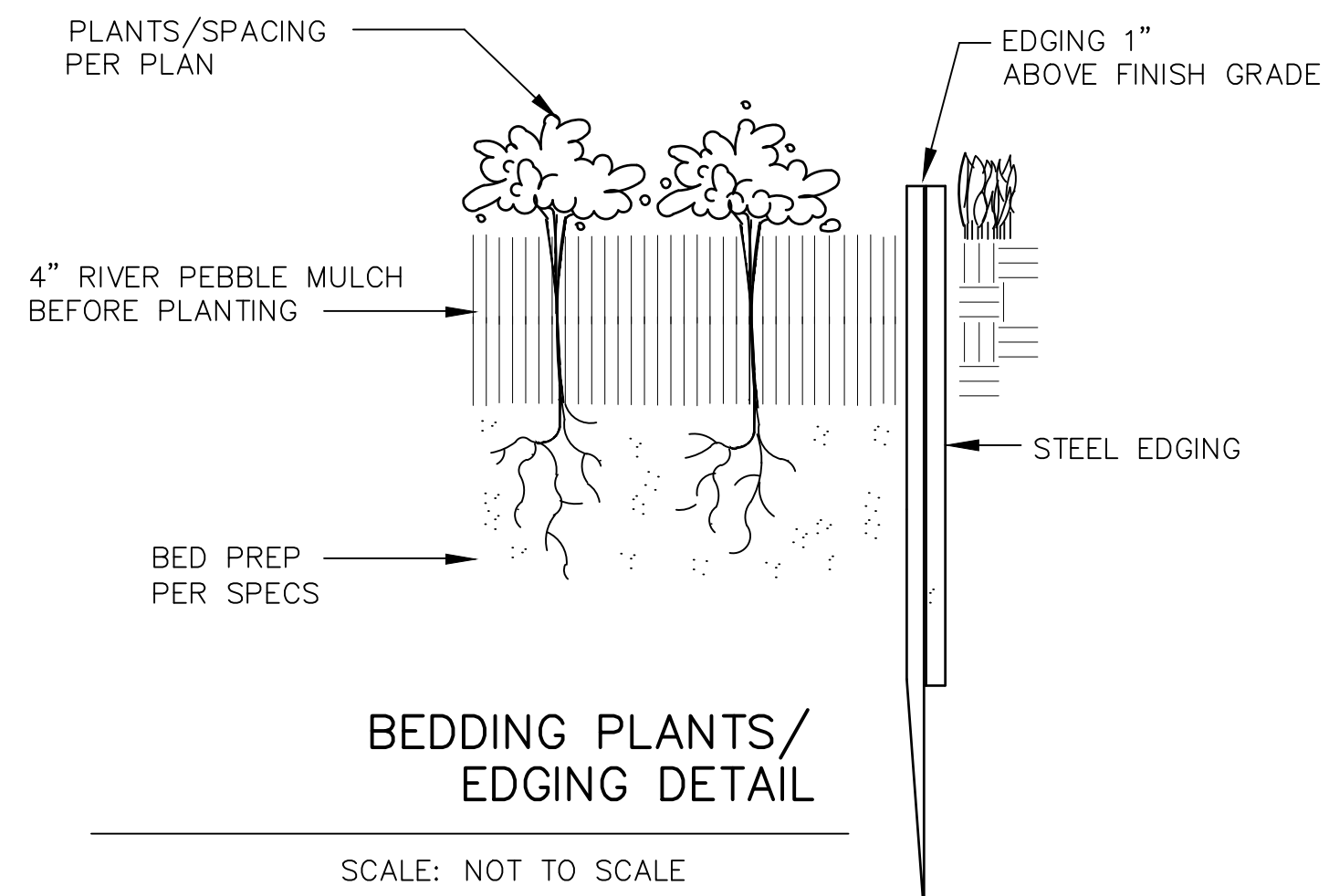


STAKING FOR MULTI-TRUNK TREES & TREES 2" CAL. & UNDER

SCALE: NOT TO SCALE

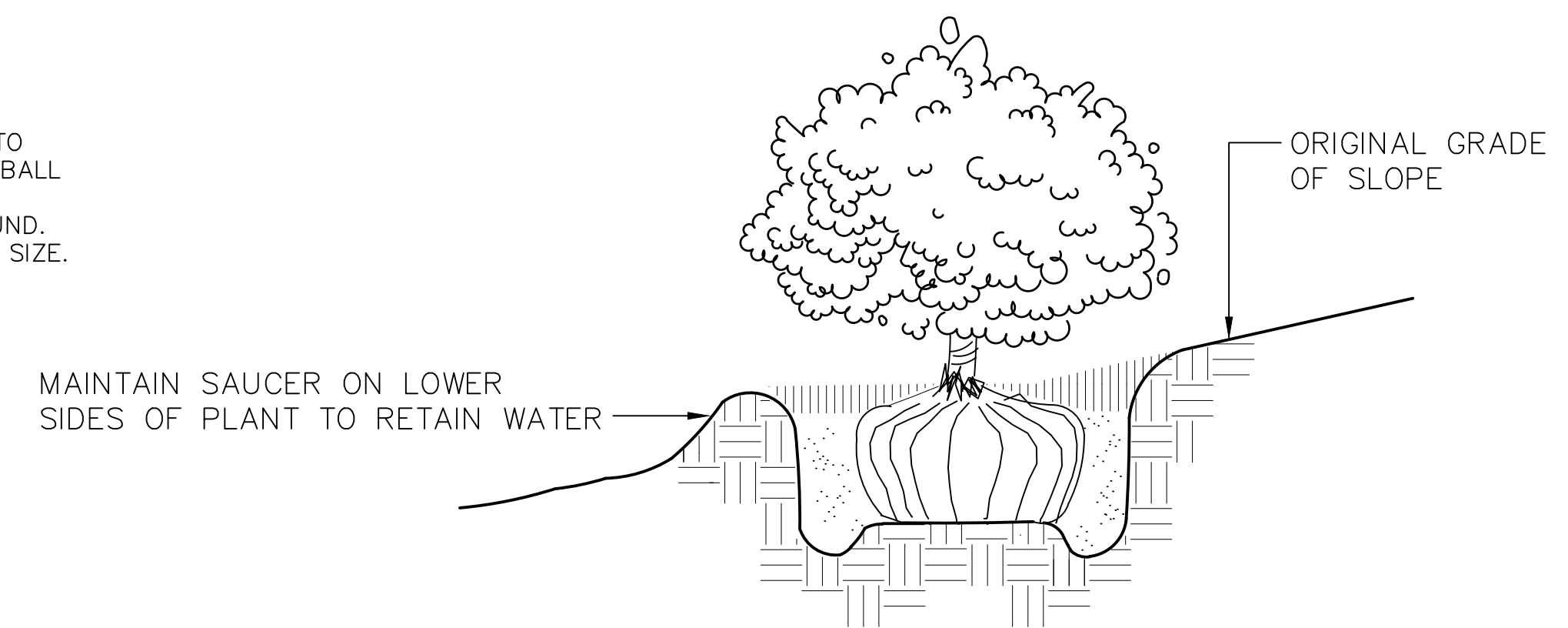
SAFETY STAKE BY TREE STAKE SOLUTIONS

SCALE: NOT TO SCALE



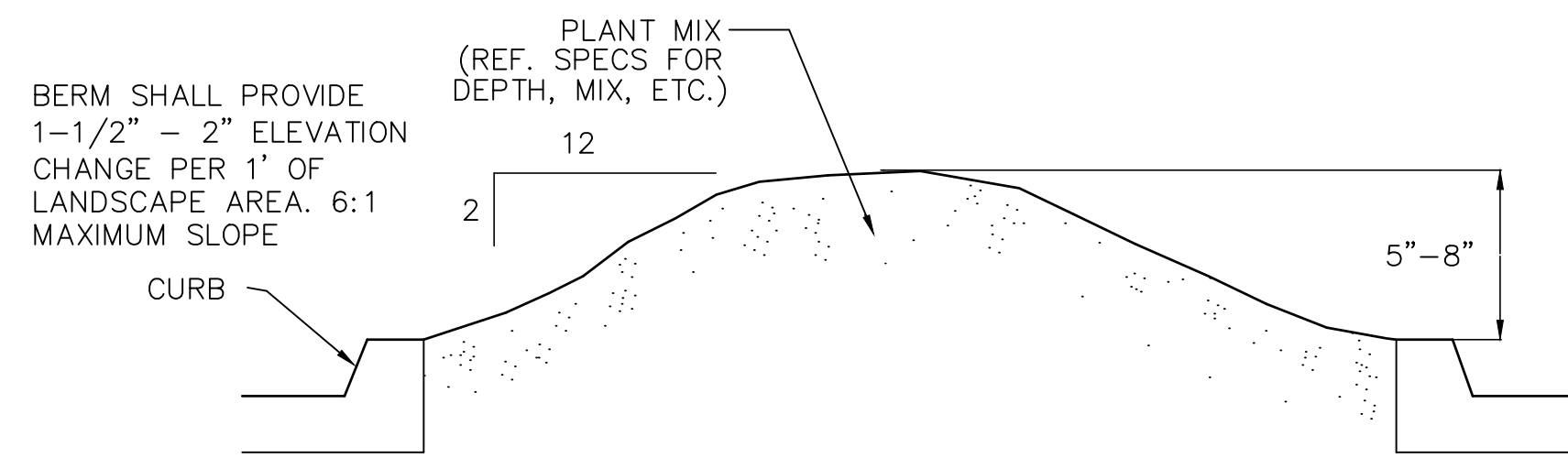
BEDDING PLANTS/ EDGING DETAIL

SCALE: NOT TO SCALE



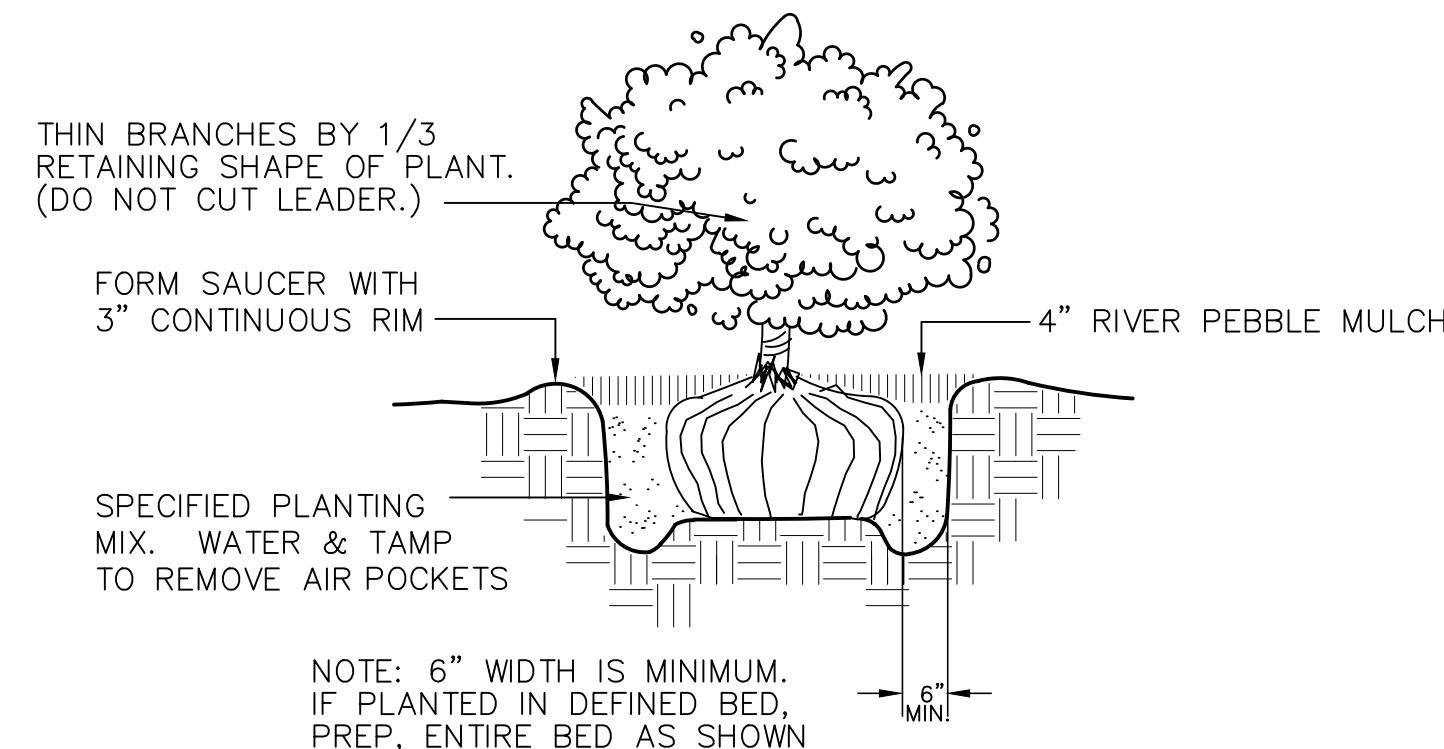
TREE/SHRUB PLANTING ON SLOPES

SCALE: NOT TO SCALE



TYPICAL PARKING LOT ISLAND MOUNDING

SCALE: NOT TO SCALE



SHRUB PLANTING

SCALE: NOT TO SCALE

No.	DATE	REVISION	APPROV.
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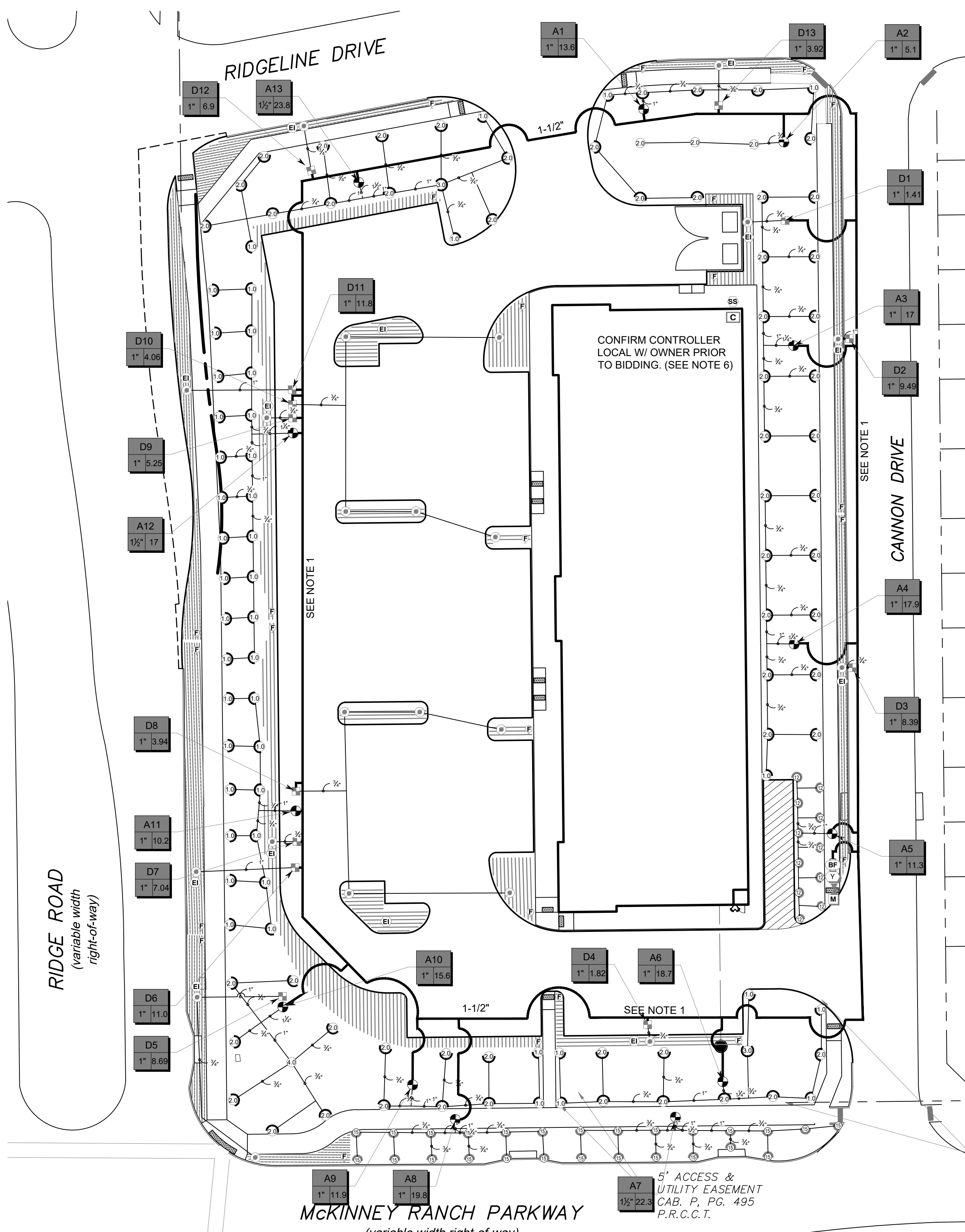
Winkelman & Associates, Inc.
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G. Cuppett
 LANDSCAPE ARCHITECT
 2072
 01 TEXAS
 11/29/22

PLANTING DETAILS
 MCKINNEY RANCH PARKWAY & RIDGE ROAD
 MCKINNEY, TX 75070

FAIN • CUPPETT
LANDSCAPE ARCHITECTS, LLC
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HYDRAULIC CALCULATIONS SPRAY A13
 AVAILABLE PRESSURE 65 PSI (ESTIMATED)
 23.8 GALLONS PER MINUTE
 • 1" METER - 3.4 PSI
 • 1-1/2" DCVA - 6.1 PSI
 • 1-1/2" WYE - 0.2 PSI
 • 1-1/2" MAIN LINE LOSS (1220') - 2.0 PSI
 • IN-LINE BALL VALVE - 0.5 PSI
 • ELEVATION CHANGE - 0.0 PSI
 • FITTING ESTIMATE - 1.2 PSI
 OPERATING PRESSURE AT VALVE - 51.6 PSI

HYDRAULIC CALCULATIONS DRIP ZONE D11
 AVAILABLE PRESSURE 65 PSI (ESTIMATED)
 11.8 GALLONS PER MINUTE
 • 1" METER - 0.9 PSI
 • 1-1/2" DCVA - 5.5 PSI
 • 1-1/2" WYE - 0.1 PSI
 • 1-1/2" MAIN LINE LOSS (1220') - 0.2 PSI
 • IN-LINE BALL VALVE - 0.5 PSI
 • ELEVATION CHANGE - 0.0 PSI
 • FITTING ESTIMATE - 0.7 PSI
 OPERATING PRESSURE - 57.1 PSI

- IRRIGATION NOTES:**
- IRRIGATION LINES ARE SOMETIMES SHOWN OUTSIDE PLANTING BEDS FOR GRAPHIC CLARITY ONLY. ADJUST INSIDE BEDS ON SITE.
 - AVOID TRENCHING WITHIN DRIP LINE OF EXISTING TREES. WHERE NECESSARY, TRENCH RADIALLY, RATHER THAN ACROSS THE ROOT SYSTEM.
 - MAIN LINE TO BE 1-1/2" (CONTRACTOR TO CONFIRM).
 - ALL SLEEVES UNDER PAVING TO EXTEND 12" PAST EDGE OF PAVING. COORDINATE WORK WITH GENERAL AND PAVING SUBCONTRACTOR.
 - ALL HEADS TO BE 4" POPS IN LAWNS. ALL HEADS WITH CHECK VALVES. COORDINATE SLEEVE SIZE AND LOCATION FOR FREEZE SENSOR, RAIN GAUGE AND CONTROLLER WITH GENERAL CONTRACTOR. SEAL ALL BUILDING PENETRATIONS WATER TIGHT.
 - SEE FOLLOWING DETAIL SHEET FOR IRRIGATION DETAILS.
 - PRESSURE ESTIMATED AT 65 PSI. MINIMUM 50 GPM AS PROVIDED BY CITY. VERIFY ON SITE AND REPORT TO LANDSCAPE ARCHITECT PRIOR TO BEGINNING ANY WORK.
 - CONTRACTOR RESPONSIBLE FOR LOCATION OF ALL UTILITIES INCLUDING BUT NOT LIMITED TO TELEPHONE, TELECABLE, ELECTRIC, GAS, WATER, AND SEWER. ANY DAMAGE TO UTILITIES TO BE REPAIRED BY CONTRACTOR AT NO COST TO OWNER. REFER TO SITE/UTILITY PLANS.
 - VERIFY 100% COVERAGE OF SYSTEM OVER ALL PLANTING & LAWN AREAS AS SHOWN ON DRAWINGS.
 - IF PEDESTAL MOUNTED CONTROLLER IS SPECIFIED, MOUNT ON 4"x3"x3" CONCRETE SLAB WITH (4) #4'S EACH WAY. SLEEVE THROUGH SLAB FOR CONTROLLER WIRING AS REQUIRED.
 - UNLESS NOTED OTHERWISE, THERE ARE NO EXISTING SLEEVES. IRRIGATION CONTRACTOR TO SIZE AND COORDINATE SLEEVE INSTALLATION AS NEEDED IN ALL LOCATIONS UNDER PAVEMENT.
 - QUANTITIES ARE PROVIDED AS A COURTESY AND ARE NOT INTENDED FOR BID PURPOSES. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO BIDDING.
 - IF DOUBLE CHECK IS PROHIBITED BY LOCAL CODE/ORDINANCE, SUBSTITUTE WITH APPROVED BACKFLOW PREVENTION DEVICE.
 - ALL WORK IN ACCORDANCE WITH LOCAL, STATE, & NATIONAL CODES & ORDINANCES.
 - CONTRACTOR TO SIZE CONTROL SIZE WIRE AS NECESSARY. HOWEVER, MINIMUM SIZE TO BE 14 GAUGE PER NATIONAL ELECTRICAL CODE. ALL SPLICES WITH APPROVED MANUFACTURED CONNECTOR IN VALVE BOX.
 - DO NOT LOCATE VALVE BOXES IN SWALES, LOW AREAS, OR ANY OTHER LOCATIONS THAT MAY COLLECT WATER.
 - CONTROLLER TO BE WIRED ON DEDICATED 110 VOLT CIRCUIT AND GROUNDED W/ GROUNDING SPIKE PER MANUFACTURER'S INSTRUCTIONS.
 - ADJUST HEADS TO AVOID OVERSPRAY ONTO STREETS, ROADWAYS, BUILDINGS AND ELECTRICAL EQUIPMENT.
 - INCLUDE ONE SPARE WIRE FROM CONTROLLER TO EACH CONTROL VALVE. EACH WIRE TO BE VARYING COLOR.
 - CONTRACTOR IS RESPONSIBLE FOR ADJUSTING FLOW CONTROL AND/OR PRESSURE REGULATOR AT EACH CONTROL VALVE AS NECESSARY TO MAKE SYSTEM OPERATE AS INTENDED.
 - DRIP IRRIGATION IS INTENDED TO MAINTAIN ESTABLISHED PLANT MATERIAL. CONTRACTOR SHALL HAND WATER AND MAINTAIN NEW PLANTINGS AS REQUIRED UNTIL ESTABLISHMENT AND ACCEPTANCE.
 - IRRIGATION CONTROLS SHALL BE SET TO RUN AT OPTIMAL TIMES OF THE DAY TO MINIMIZE EVAPORATION LOSS AND BUSINESS DISRUPTION. BROADCAST SYSTEMS SHOULD NOT BE RUN DURING TENANT'S NORMAL BUSINESS HOURS.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
A1	Hunter ICV-G	1"	Turf Rotor	13.6		34.0		0.73 in/h
A2	Hunter ICV-G	1"	Turf Rotor	5.1		32.9		0.3 in/h
A3	Hunter ICV-G	1"	Turf Rotor	17		34.1		0.56 in/h
A4	Hunter ICV-G	1"	Turf Rotor	17.85		34.1		0.63 in/h
A5	Hunter ICV-G	1"	Turf Spray	11.27		33.5		1.18 in/h
A6	Hunter ICV-G	1"	Turf Rotor	18.65		33.8		0.73 in/h
A7	Hunter ICV-G	1-1/2"	Turf Spray	22.3		32.2		1.15 in/h
A8	Hunter ICV-G	1"	Turf Spray	19.8		33.7		1.23 in/h
A9	Hunter ICV-G	1"	Turf Rotor	11.9		33.6		0.72 in/h
A10	Hunter ICV-G	1"	Turf Rotor	15.6		33.6		0.68 in/h
A11	Hunter ICV-G	1"	Turf Rotor	10.2		33.5		0.5 in/h
A12	Hunter ICV-G	1-1/2"	Turf Rotor	17		32.7		0.53 in/h
A13	Hunter ICV-G	1-1/2"	Turf Rotor	23.75		32.8		0.69 in/h
D1	Hunter ICZ-101-25	1"	Area for Dripline	1.41		35.0		0.51 in/h
D2	Hunter ICZ-101-25	1"	Area for Dripline	9.49		44.5		1.53 in/h
D3	Hunter ICZ-101-25	1"	Area for Dripline	8.39		43.5		1.51 in/h
D4	Hunter ICZ-101-25	1"	Area for Dripline	1.82		35.0		0.54 in/h
D5	Hunter ICZ-101-25	1"	Area for Dripline	8.69		44.5		1.39 in/h
D6	Hunter ICZ-101-25	1"	Area for Dripline	10.95		47.2		1.24 in/h
D7	Hunter ICZ-101-25	1"	Area for Dripline	7.04		37.3		0.42 in/h
D8	Hunter ICZ-101-25	1"	Area for Dripline	3.94		35.4		0.45 in/h
D9	Hunter ICZ-101-25	1"	Area for Dripline	5.25		35.4		0.48 in/h
D10	Hunter ICZ-101-25	1"	Area for Dripline	4.06		35.4		0.45 in/h
D11	Hunter ICZ-101-25	1"	Area for Dripline	11.83		48.8		1.42 in/h
D12	Hunter ICZ-101-25	1"	Area for Dripline	6.9		42.3		1.49 in/h
D13	Hunter ICZ-101-25	1"	Area for Dripline	3.92		40.1		1.61 in/h

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	GPM
Q	Toro 570Z-4P-COM 12 Series Turf Spray, 4" Pop-Up, with a Zero Flush Seal. With Check-O-Matic Check Valve. 1/2" Female-Threaded Inlet. Ideal for small to medium landscape areas.	11	
Q	Toro 570Z-4P-COM 15 Series Turf Spray, 4" Pop-Up, with a Zero Flush Seal. With Check-O-Matic Check Valve. 1/2" Female-Threaded Inlet. Ideal for small to medium landscape areas.	26	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	GPM
1.0	Hunter PGJ-04-V 1.0 Turf Rotor, 4" Pop-Up, Adjustable and Full Circle. With Drain Check Valve.	45	0.85
2.0	Hunter PGJ-04-V 2.0 Turf Rotor, 4" Pop-Up, Adjustable and Full Circle. With Drain Check Valve.	61	1.7
3.0	Hunter PGJ-04-V 3.0 Turf Rotor, 4" Pop-Up, Adjustable and Full Circle. With Drain Check Valve.	2	2.5
4.0	Hunter PGJ-04-V 4.0 Turf Rotor, 4" Pop-Up, Adjustable and Full Circle. With Drain Check Valve.	1	3.7
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
ICZ	Hunter ICZ-101-25 Drip Control Zone Kit, 1" ICV Globe Valve with 1" HY100 filter system. Pressure Regulation: 25psi. Flow Range: 2 GPM to 20 GPM. 150 mesh stainless steel screen.	13	
	Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation.	22	
F	Netafim TLSOV Netafim TLSOV- 1/2" manual flush valve, barbed insert. Install in 10" box, with adequate blank or "cobra" tubing to extend valve out of valve box. 2/3 in fits Technic HCVXR, HCVXR-RW/RWP, CV, DL, RW and RWP driplines, and PE irrigation hoses, and PE irrigation hoses.	24	
EI	Hunter ECO-ID ECO-ID: 1/2" FPT connection with 12-60 PSI operating pressure. Specify with Hunter SJ swing joint.	13	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
	Hunter ICV-G 1", 1-1/2", 2" and 3" Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	13	
	Landscape Products Inc. BBV 1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2", 3" Full Port Brass Ball Valve. Suitable for a full range of liquids and gases in residential and commercial applications.	1	
BF	Febco 850 1-1/2" Double Check Backflow prevention, 1/2" to 2"	1	
C	Hunter I2C-2400-M 24 Station Outdoor Modular Controller. With two ICM-800 Module. Commercial Use. Metal Cabinet.	1	
SS	Hunter WSS Wireless Solar, rain freeze sensor with outdoor interface, connects to Hunter POC, Pro-C, and i-Care Controllers. Install as noted. Includes 10 year lithium battery and rubber module cover, and gutter mount bracket.	1	
Y	Wye Wye Strainer	1	
M	Water Meter 1"	1	
	Irrigation Lateral Line: PVC Class 200 SDR 21	3,428 L.F.	

NOTE: INCLUDE (2) HUNTER MSBN-50Q STREAM BUBBLERS TO EACH NEW TREE. ATTACH EACH BUBBLER TO HUNTER PRO-SPRAY-6" POPUP. LOCATE BUBBLERS INSIDE TREE WELL OF EACH TREE ON OPPOSITE SIDES OF THE ROOT BALL. ALL BUBBLERS TO BE ZONED SEPARATELY FROM OTHER HEADS. CONTRACTOR RESPONSIBLE FOR PIPE SIZING, SLEEVING, ETC. AND ALL OTHER REQUIREMENTS TO MAKE CIRCUIT(S) OPERABLE. TOTAL COUNT FOR BUBBLERS AND VALVE(S) NOT SHOWN IN IRRIGATION KEY. IF TREE IS LOCATED IN DRIP ZONE, IN LIEU OF BUBBLER USE (2) RAIN BIRD SXB-180-025 XERI-BUBBLERS W/SXB-180-SPYK SPIKE TIED INTO EMITTER TUBING.

TEMPORARY IRRIGATION WILL BE REQUIRED TO ESTABLISH TURF IN ALL DISTURBED AREAS WITHOUT A PERMANENT IRRIGATION SYSTEM. INSTALL SOD TO ESTABLISH TURF IN ALL DISTURBED AREAS AS IDENTIFIED ON GRADING AND EROSION CONTROL PLANS.

NOTE:
NO LANDSCAPE PLANTINGS WITHIN 3' OF PARKING LOT CURBS.

CAUTION!!!
 UNDERGROUND UTILITIES ARE LOCATED IN THIS AREA. 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, CONTACT LINE LOCATES FOR FRANCHISE UTILITY INFO. CALL BEFORE YOU DIG.
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 TEXAS ONE CALL SYSTEMS 1-800-245-4545
 LONE STAR NOTIFICATION CENTER 1-800-669-8344 EXT. 5

FAIN • CUPPET LANDSCAPE ARCHITECTS, LLC
 1921 MAPLEWOOD DR WEATHERFORD, TX 76087 682-215-9151
 PARSIS AND OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE • IRRIGATION DESIGN

THIS ELECTRONIC DRAWING FILE IS RELEASED UNDER THE AUTHORITY OF GREGORY CUPPETT, LICENSED IRRIGATOR & LANDSCAPE ARCHITECT, LICENSED IRRIGATOR NUMBER 0023539, LANDSCAPE ARCHITECT REGISTRATION NUMBER 26720 ON 11/29/22 WHO MAINTAINS THE ORIGINAL FILE. THIS ELECTRONIC DRAWING FILE MAY BE USED AS A BACKGROUND DRAWING PURSUANT TO RULE 5 (B) OF THE RULES AND REGULATIONS OF THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS AND THE RULES AND REGULATIONS OF THE TEXAS DEPARTMENT OF LICENSING AND REGULATION. THE USER OF THIS ELECTRONIC DRAWING FILE AGREES TO ASSUME ALL RESPONSIBILITY FOR ANY MODIFICATION TO OR USE OF THIS DRAWING FILE THAT IS INCONSISTENT WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS OF THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS AND THE TEXAS DEPARTMENT OF LICENSING AND REGULATION. NO PERSON MAY MAKE MODIFICATIONS TO THIS ELECTRONIC DRAWING FILE WITHOUT THE IRRIGATOR/LANDSCAPE ARCHITECT'S EXPRESS WRITTEN PERMISSION.

IRRIGATION PLAN
 MCKINNEY RANCH PARKWAY & RIDGE ROAD
 MCKINNEY, TX 75070

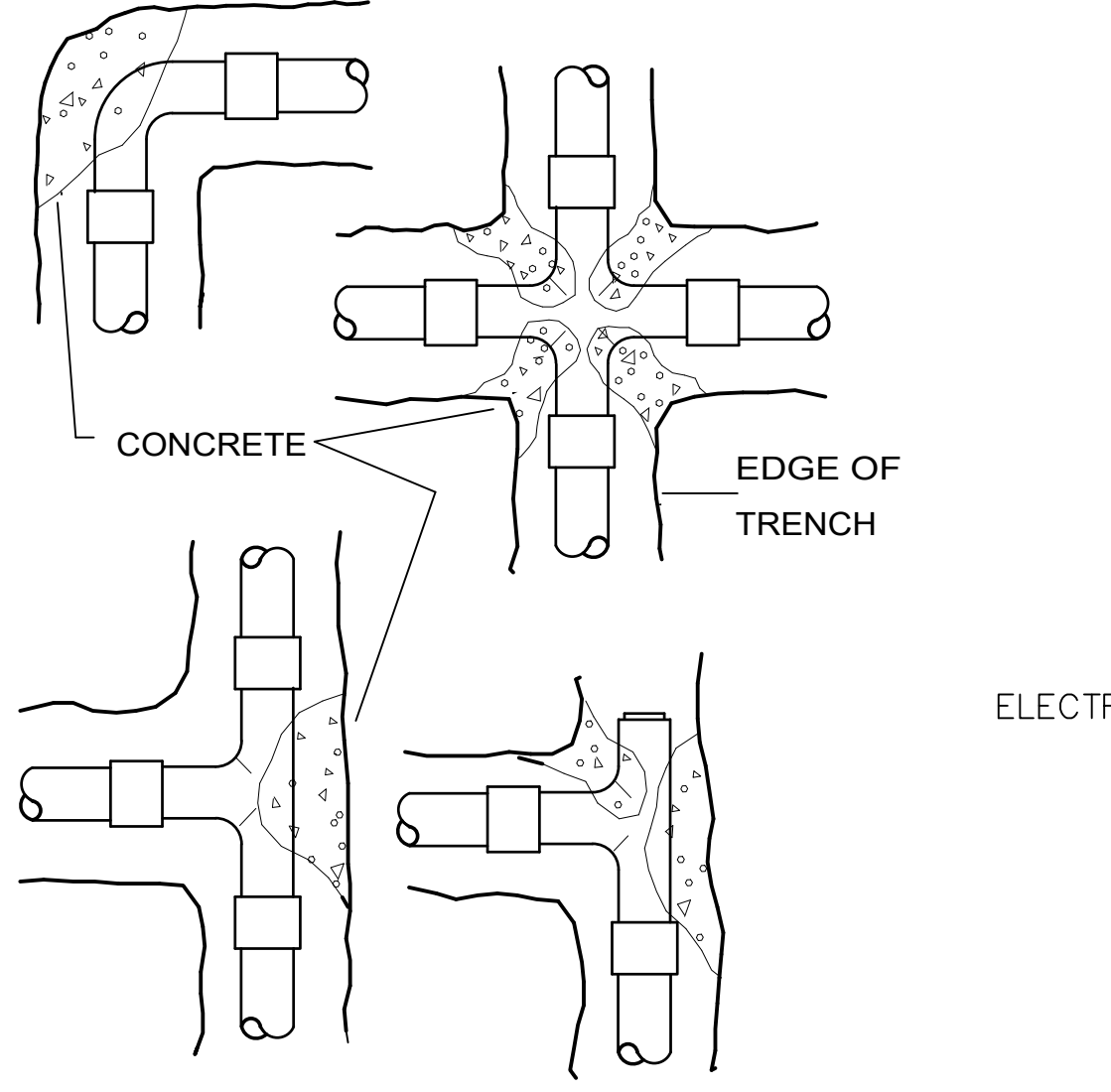
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Winkelmann & Associates, Inc.
 CONSULTING CIVIL ENGINEERS ■ SURVEYORS
 8720 HILDCREST PLAZA DRIVE, SUITE 215 (972) 492-7000
 TEXAS ENGINEERS REGISTRATION NO. 89 (972) 492-7000 FAX
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REGISTRY CUPPETT
 0023539
 11/29/22

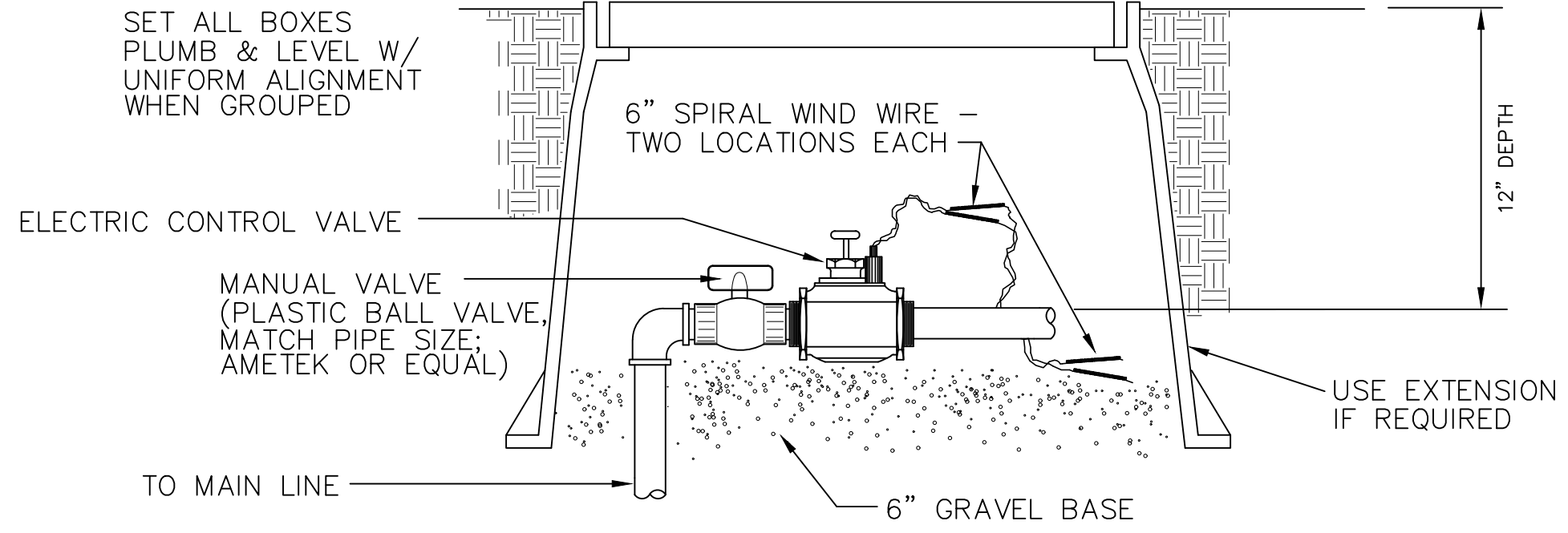
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NOTE: - THRUST BLOCKS ON MAIN LINE - ALL SIZES;
AND LATERALS 2" & LARGER
- MINIMUM BLOCK SIZE 8"X8"X8"



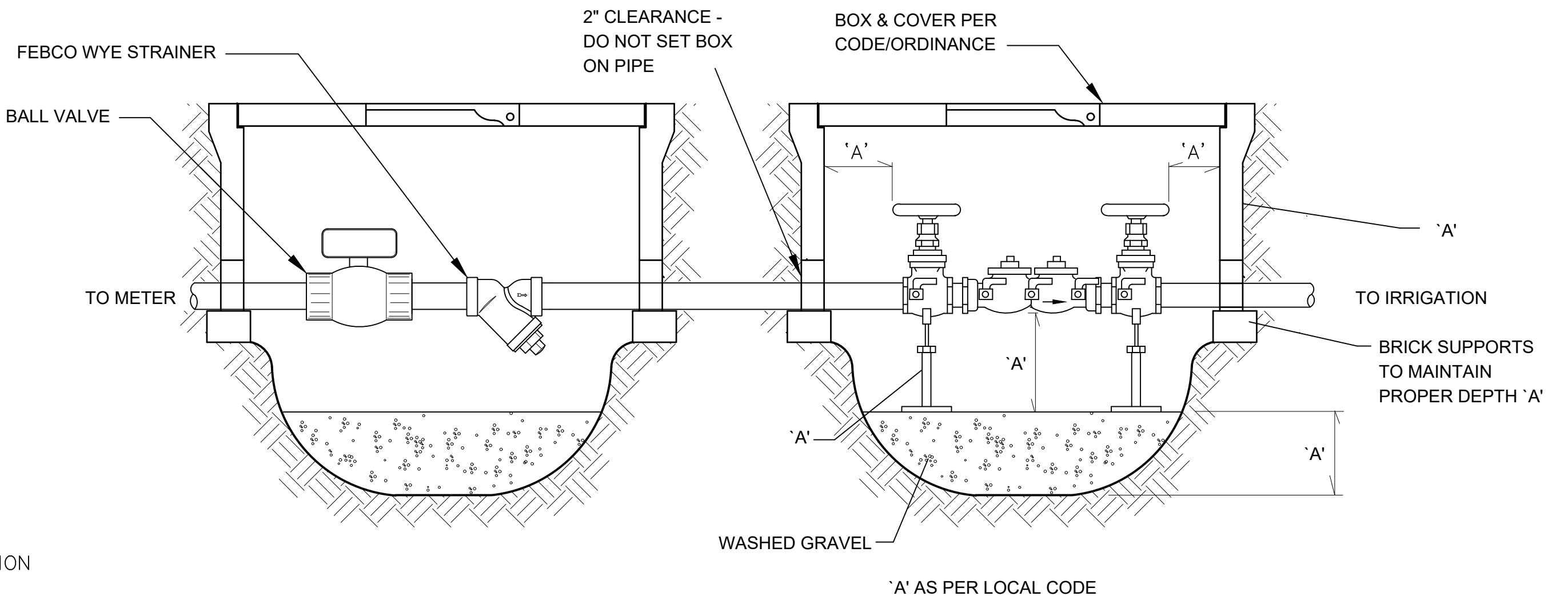
THRUST BLOCKS - PLAN VIEW

SCALE: NOT TO SCALE



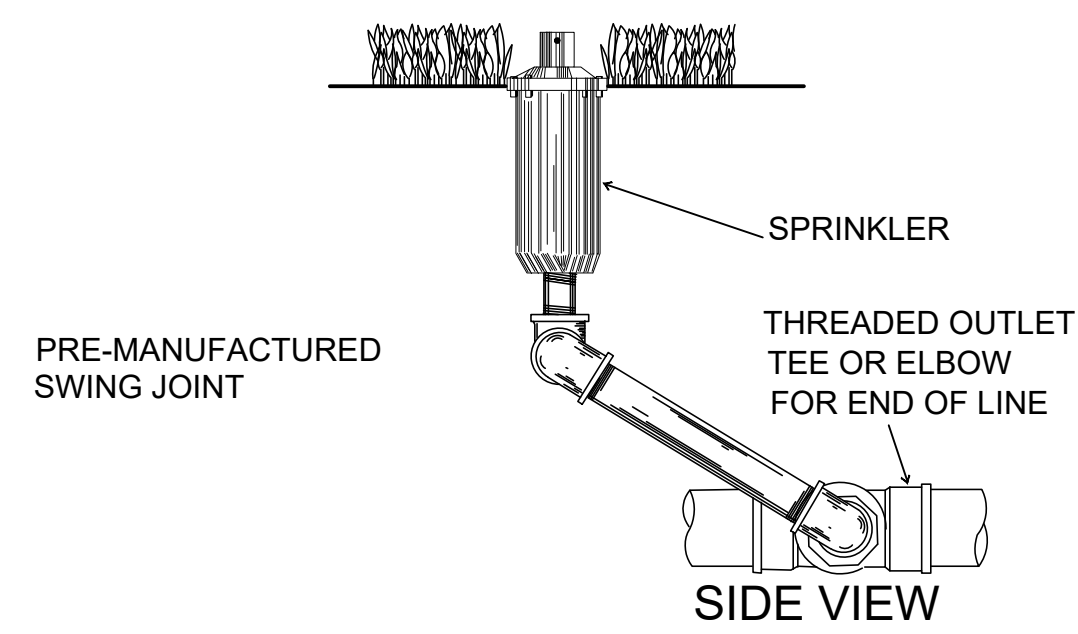
ELECTRIC CONTROL VALVE

SCALE: NOT TO SCALE



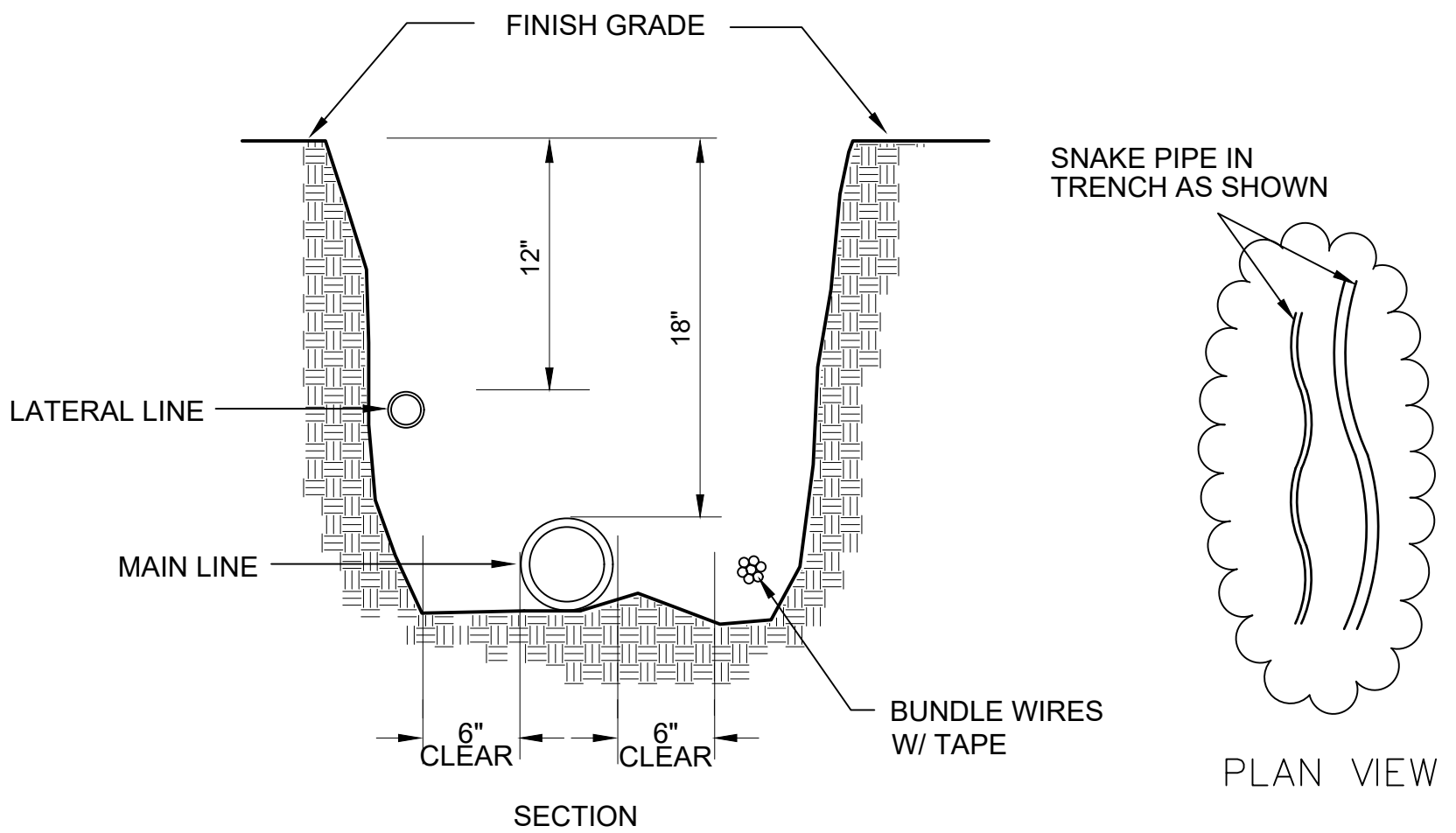
TYPICAL INSTALLATION
DOUBLE CHECK/WYE VALVE ASSEMBLY

SCALE: NOT TO SCALE



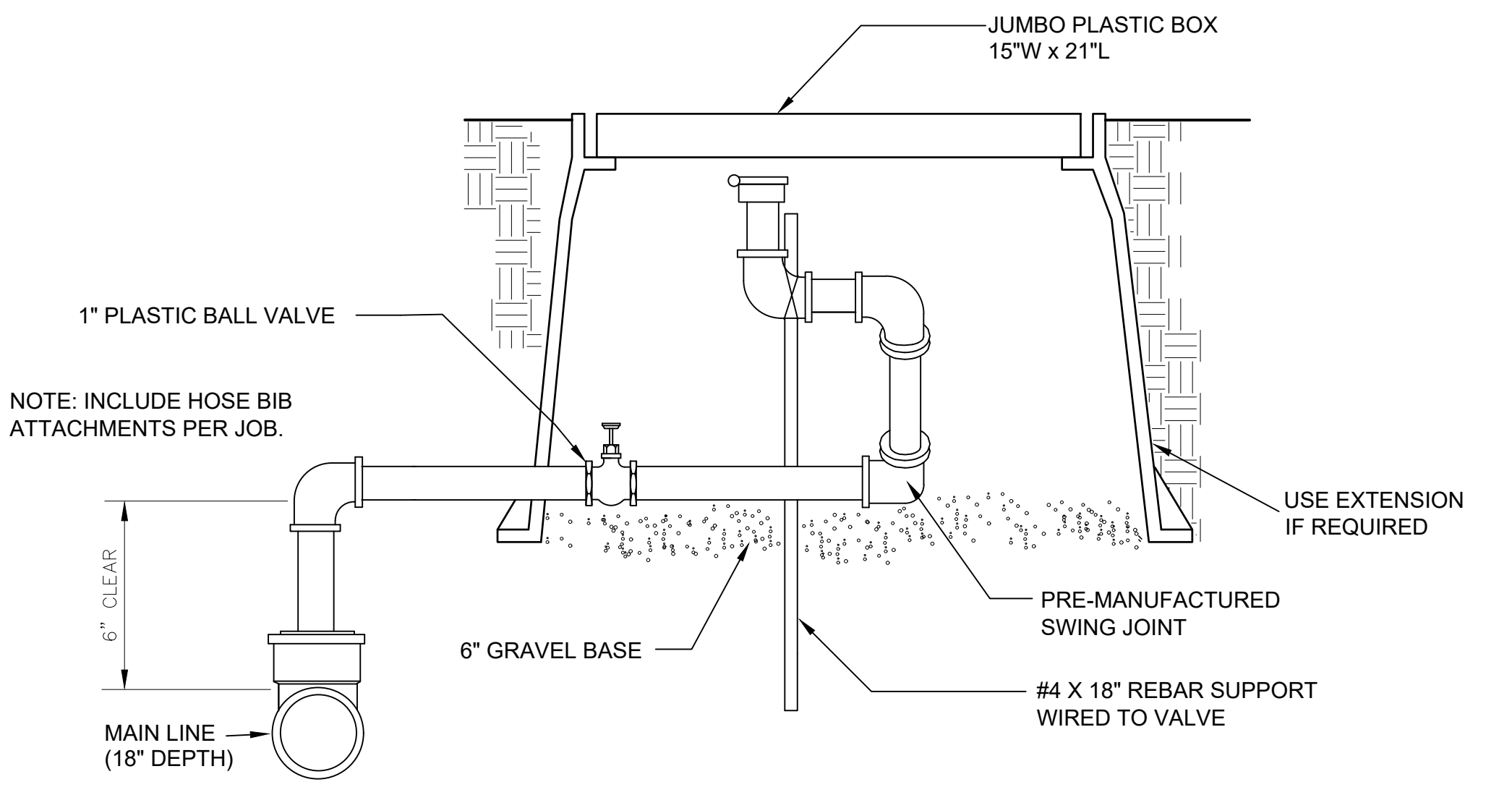
TYPICAL INSTALLATION OF
ROTARY SPRINKLER ON
SWING-JOINT RISER

SCALE: NOT TO SCALE



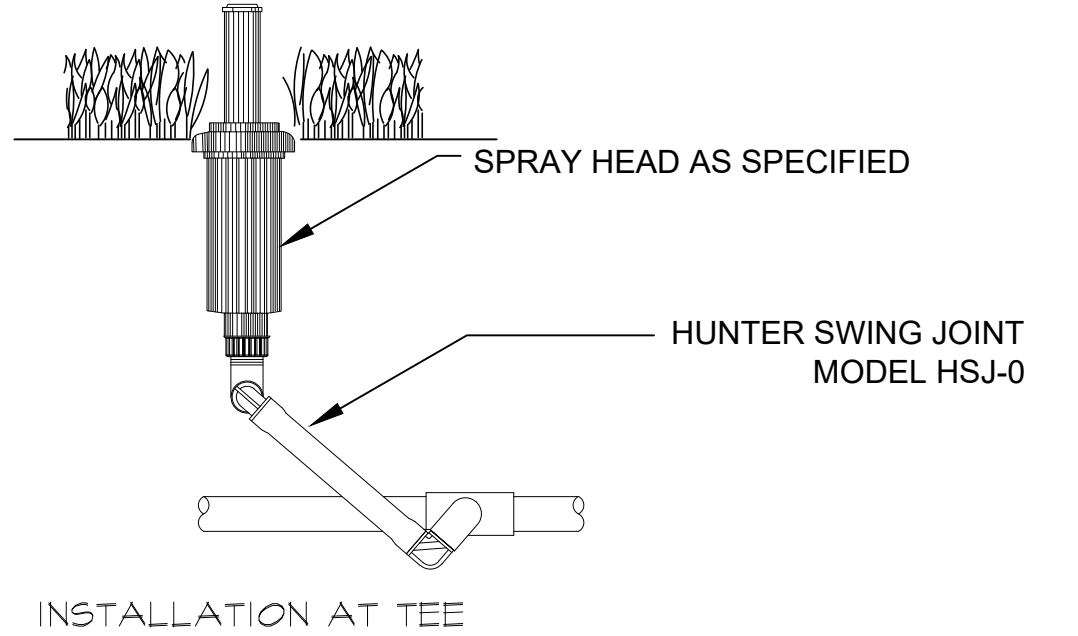
TRENCH DETAIL

SCALE: NOT TO SCALE



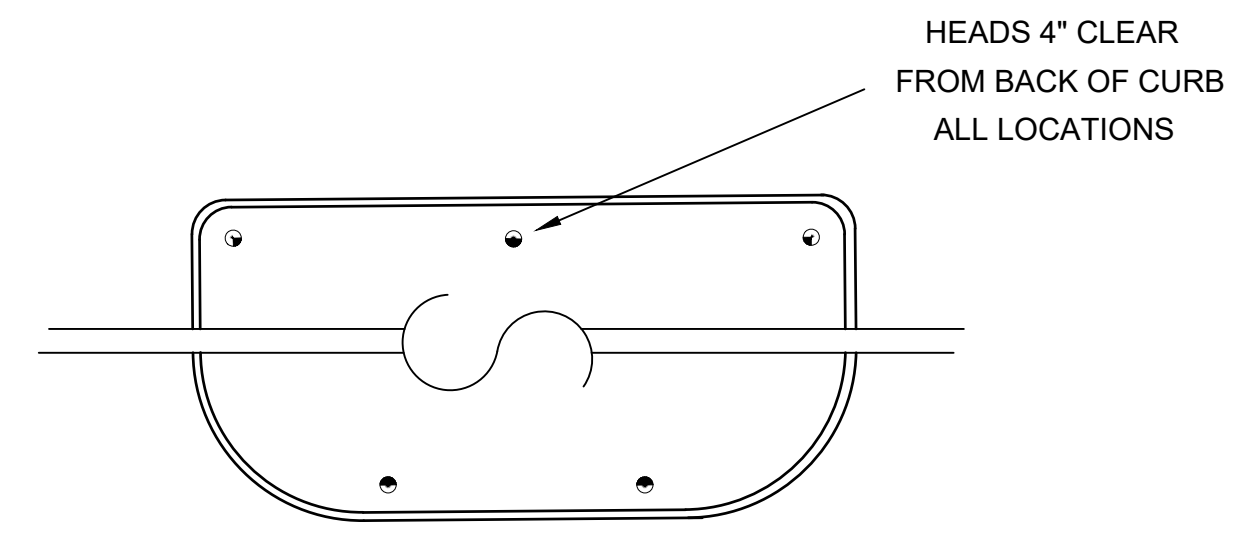
QUICK COUPLER VALVE

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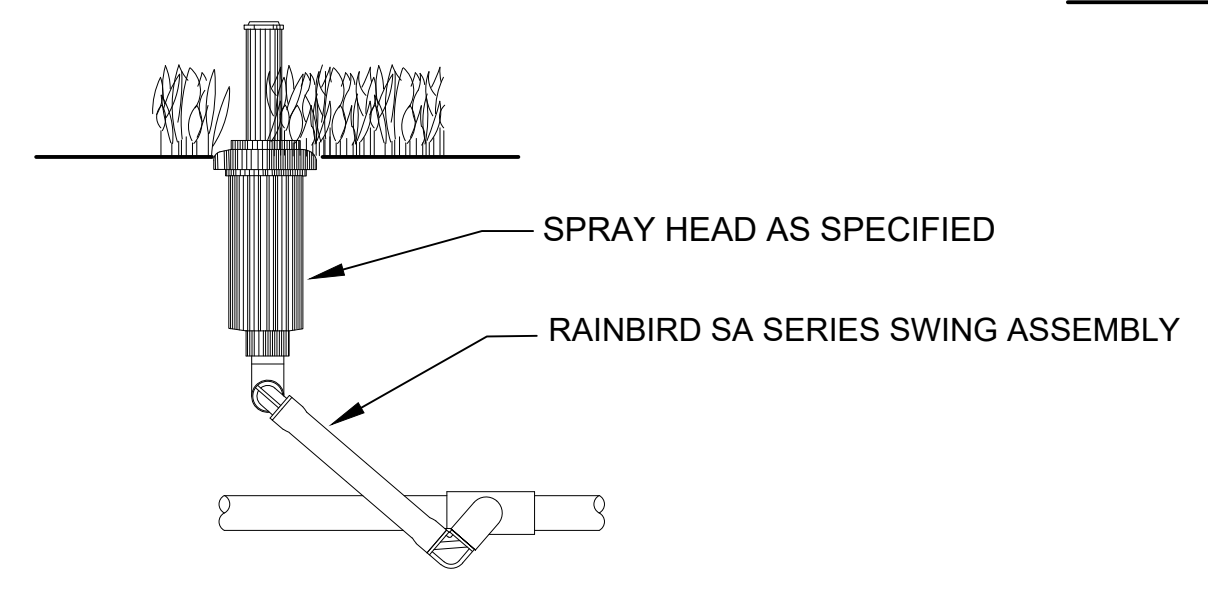
TYPICAL INSTALLATION OF
SPRAY HEAD

SCALE: NOT TO SCALE



HEAD LAYOUT
Plan View

SCALE: NOT TO SCALE



TYPICAL INSTALLATION OF
BUBBLER HEAD

SCALE: NOT TO SCALE



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IRRIGATION DETAILS
 MCKINNEY RANCH PARKWAY & RIDGE ROAD
 MCKINNEY, TX 75070

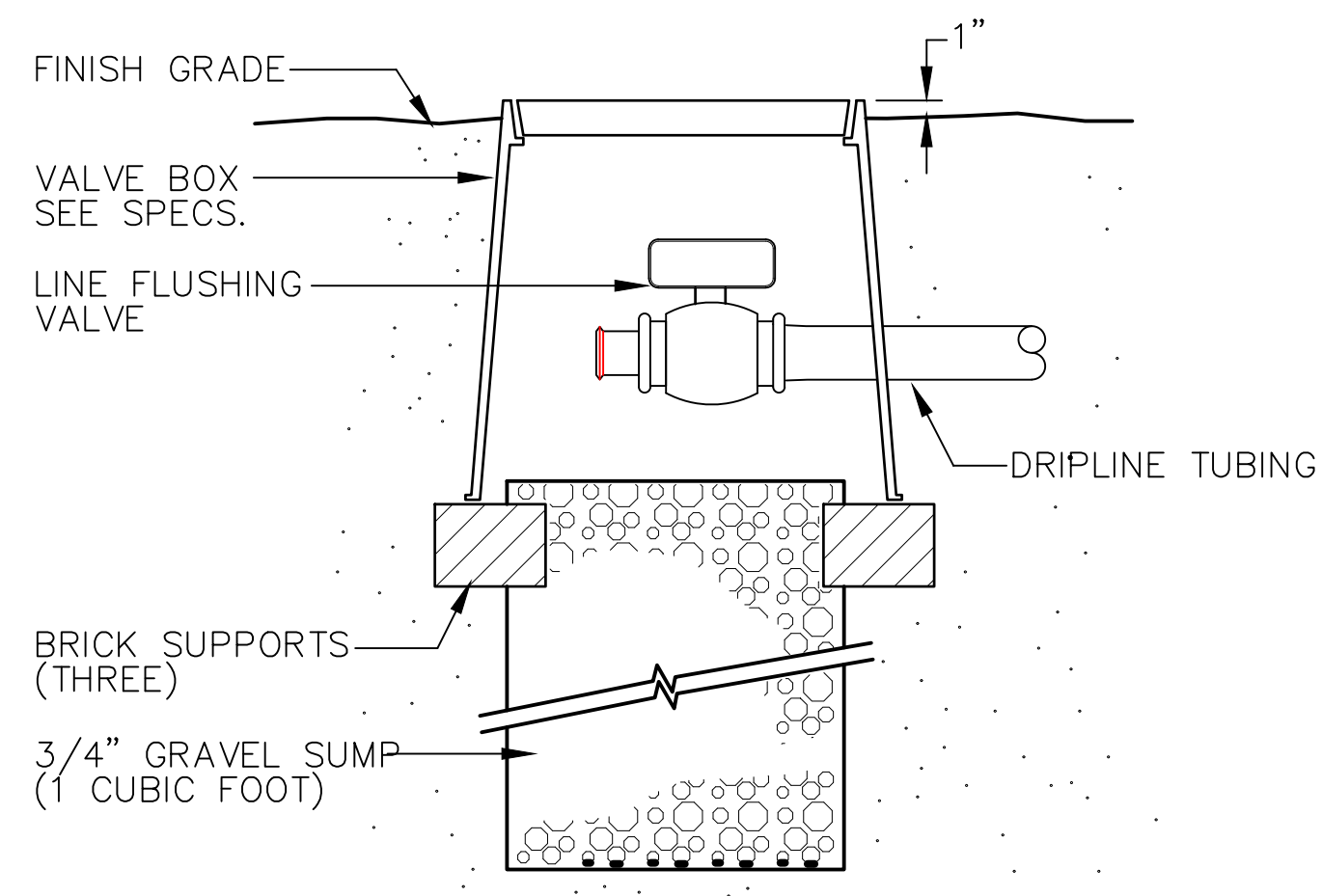
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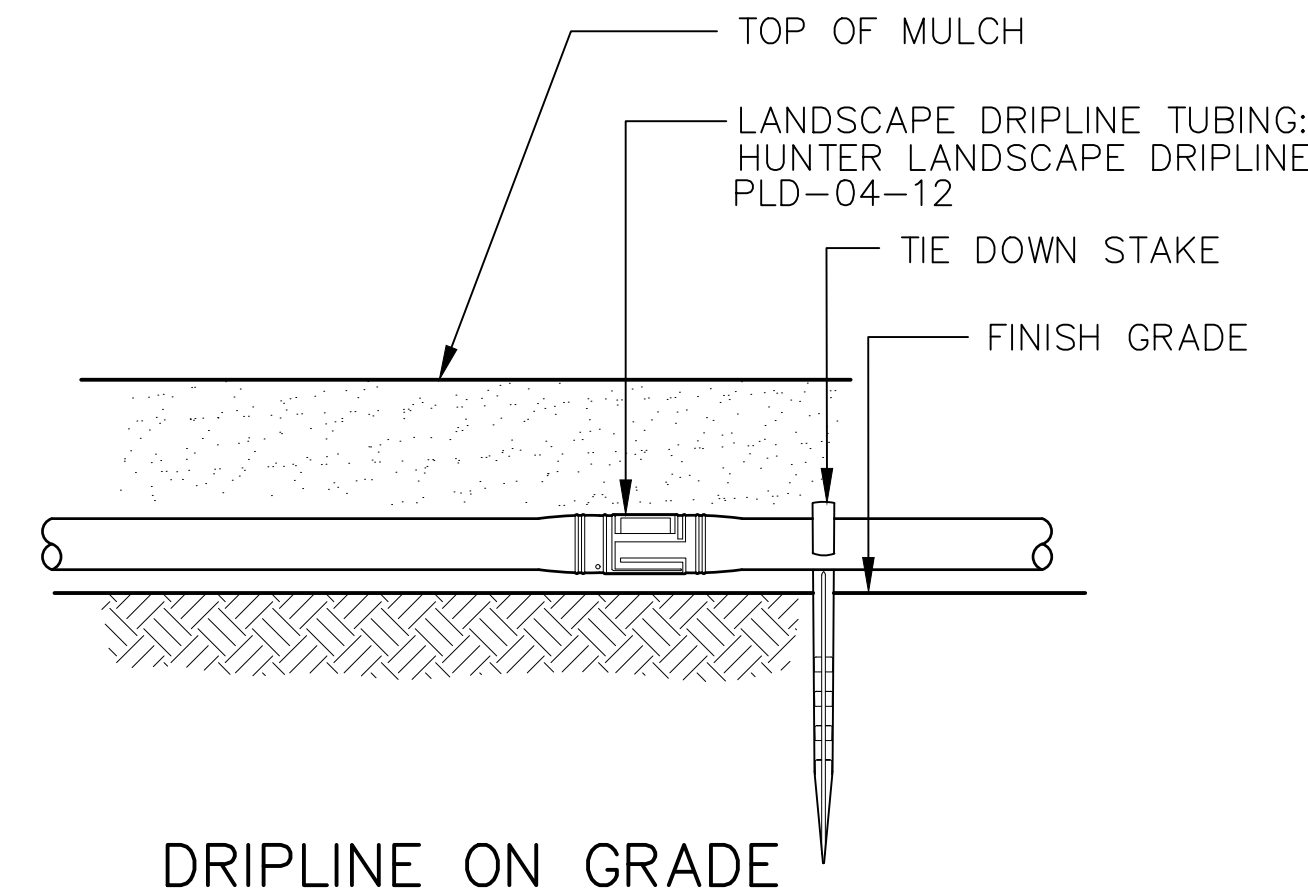
6750 HILDEBERT PLAZA DRIVE, SUITE 215 (972) 492-7996
12707 WINTERGARDEN DRIVE (972) 496-7098 FAX

GREGORY CUPPETT
LICENSED IRRIGATOR
REGISTRATION NO. 0023539
11/29/22



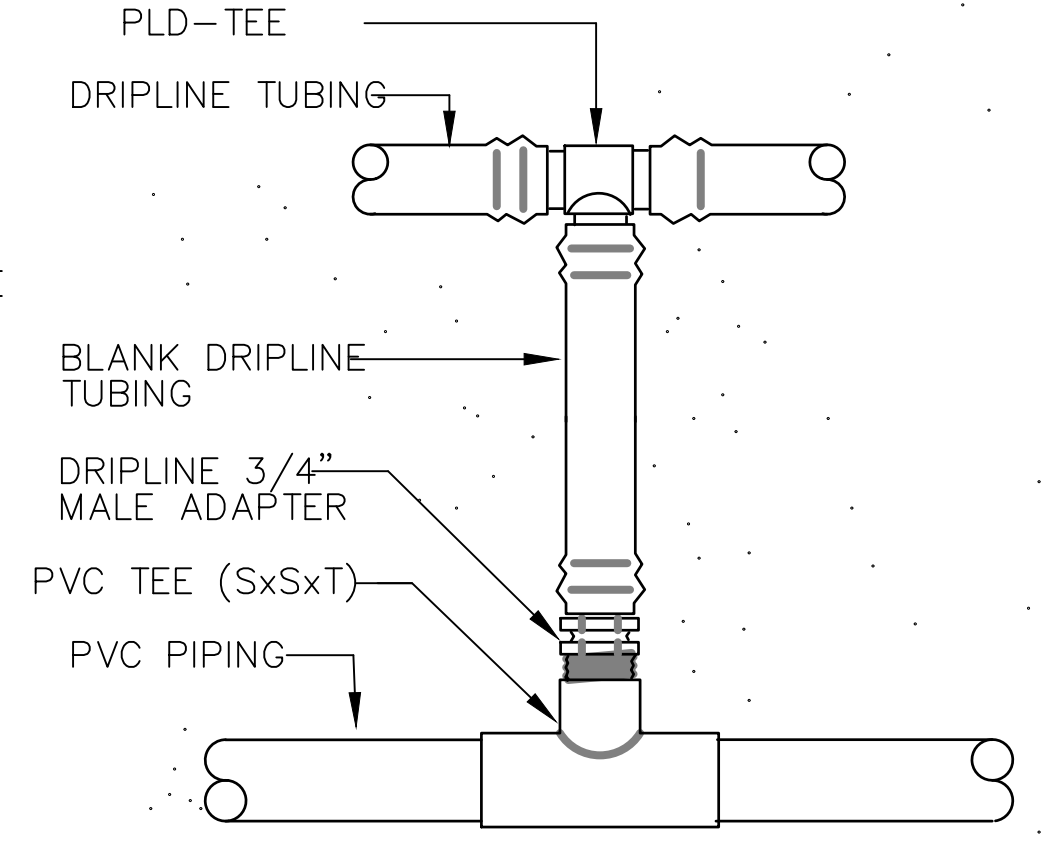
LINE FLUSHING VALVE

SECTION - NO SCALE



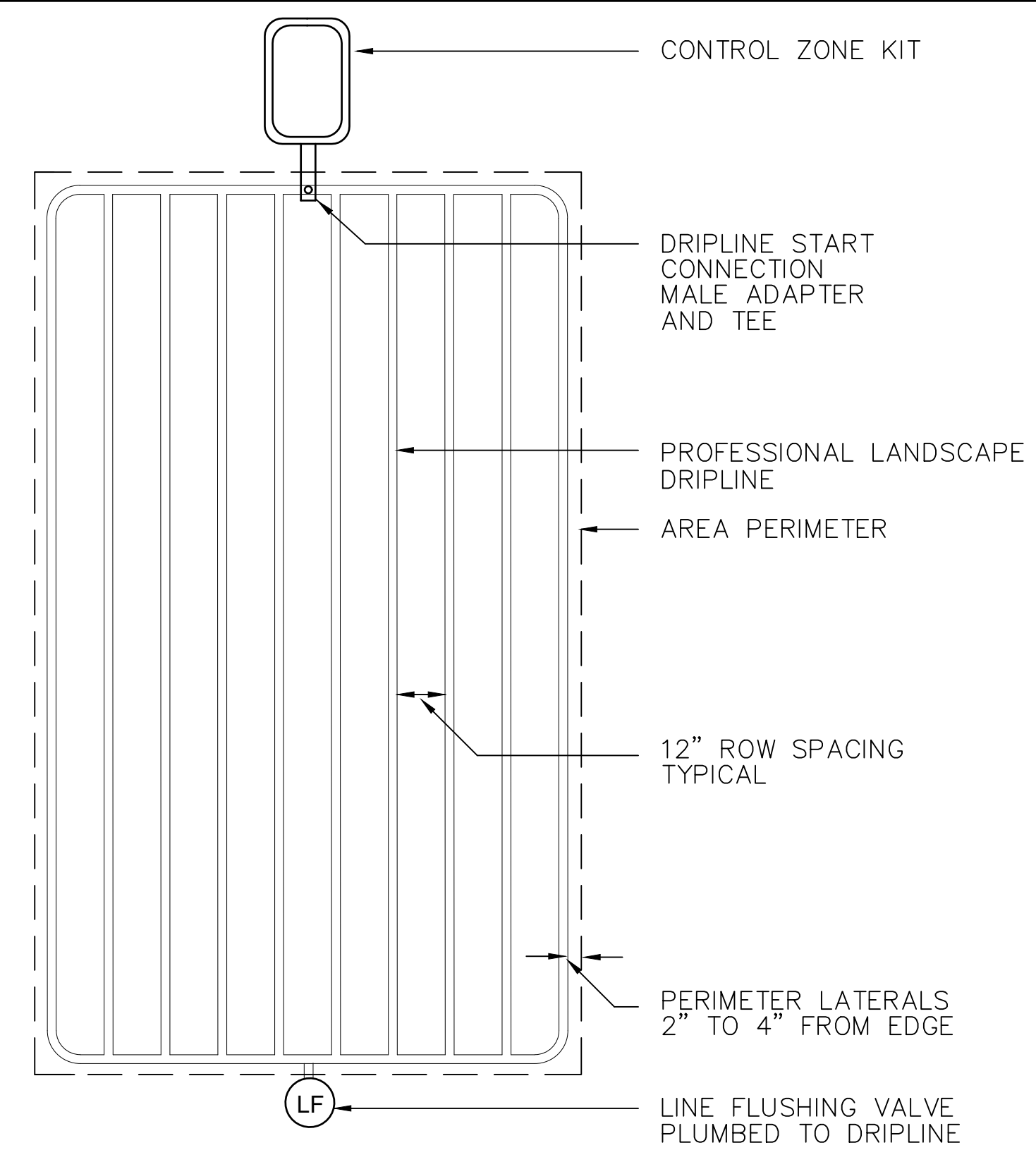
DRIPLINE ON GRADE

SCALE: NOT TO SCALE



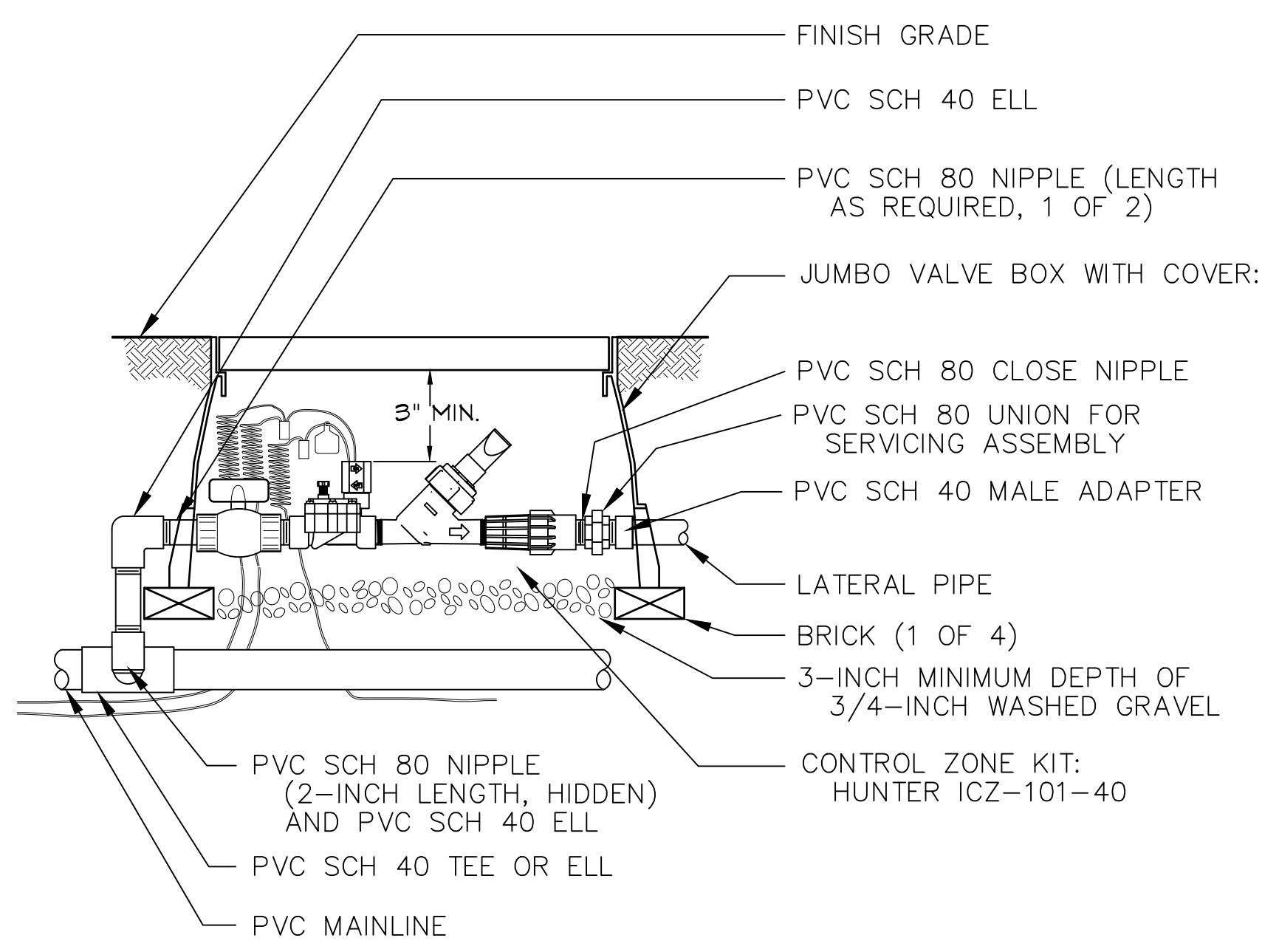
DRIPLINE START CONNECTION

SECTION - NO SCALE



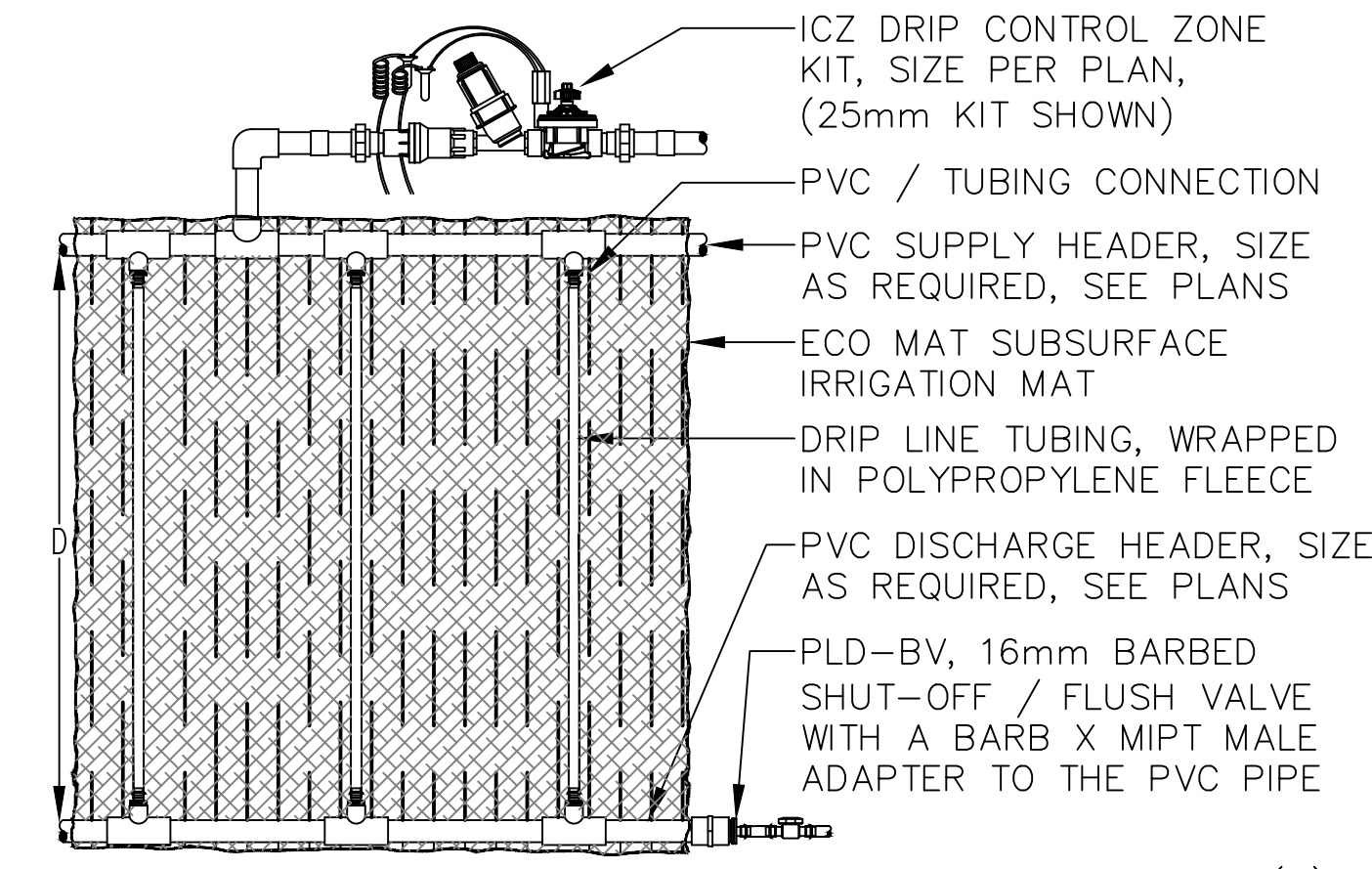
TYPICAL DRIPLINE END FEED LAYOUT

DETAIL - NO SCALE



FLOW CONTROL ZONE KIT

SCALE: NOT TO SCALE

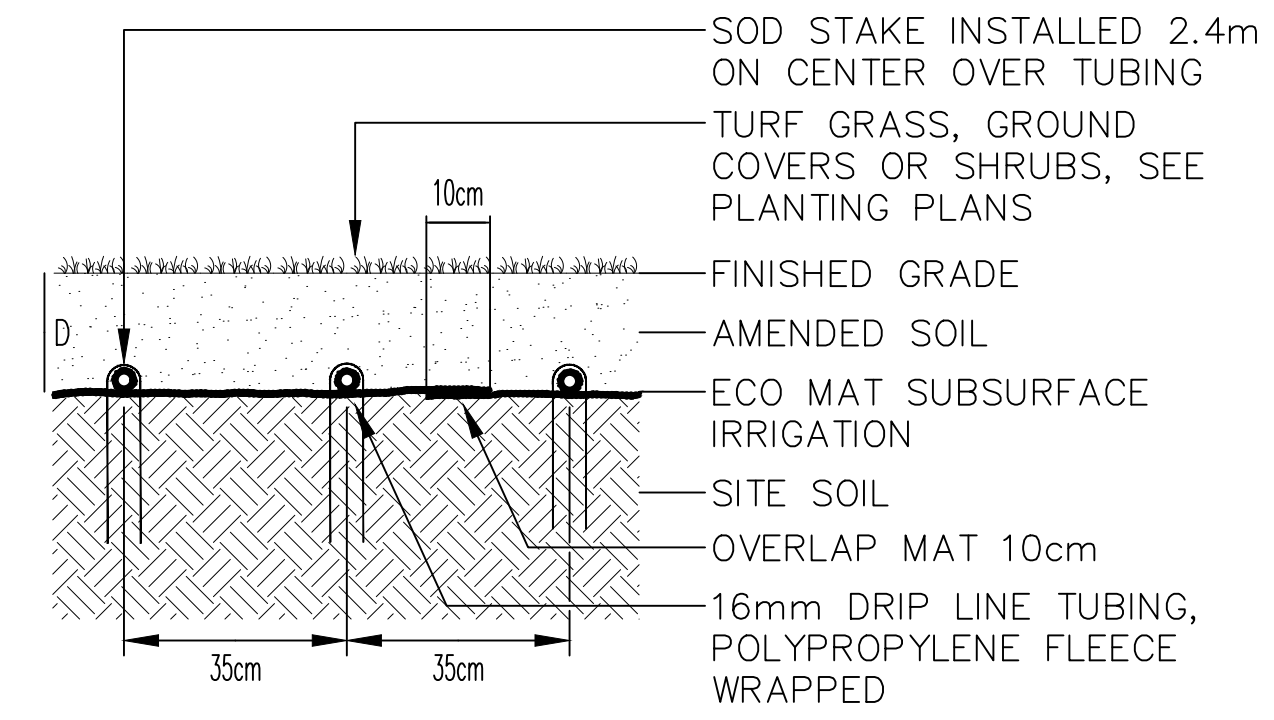


ECO MAT - PLAN

SCALE: N.T.S.

Winkelmänn IRRIGATION DETAIL

PVC SUPPLY HEADER AND PVC DISCHARGE HEADER.



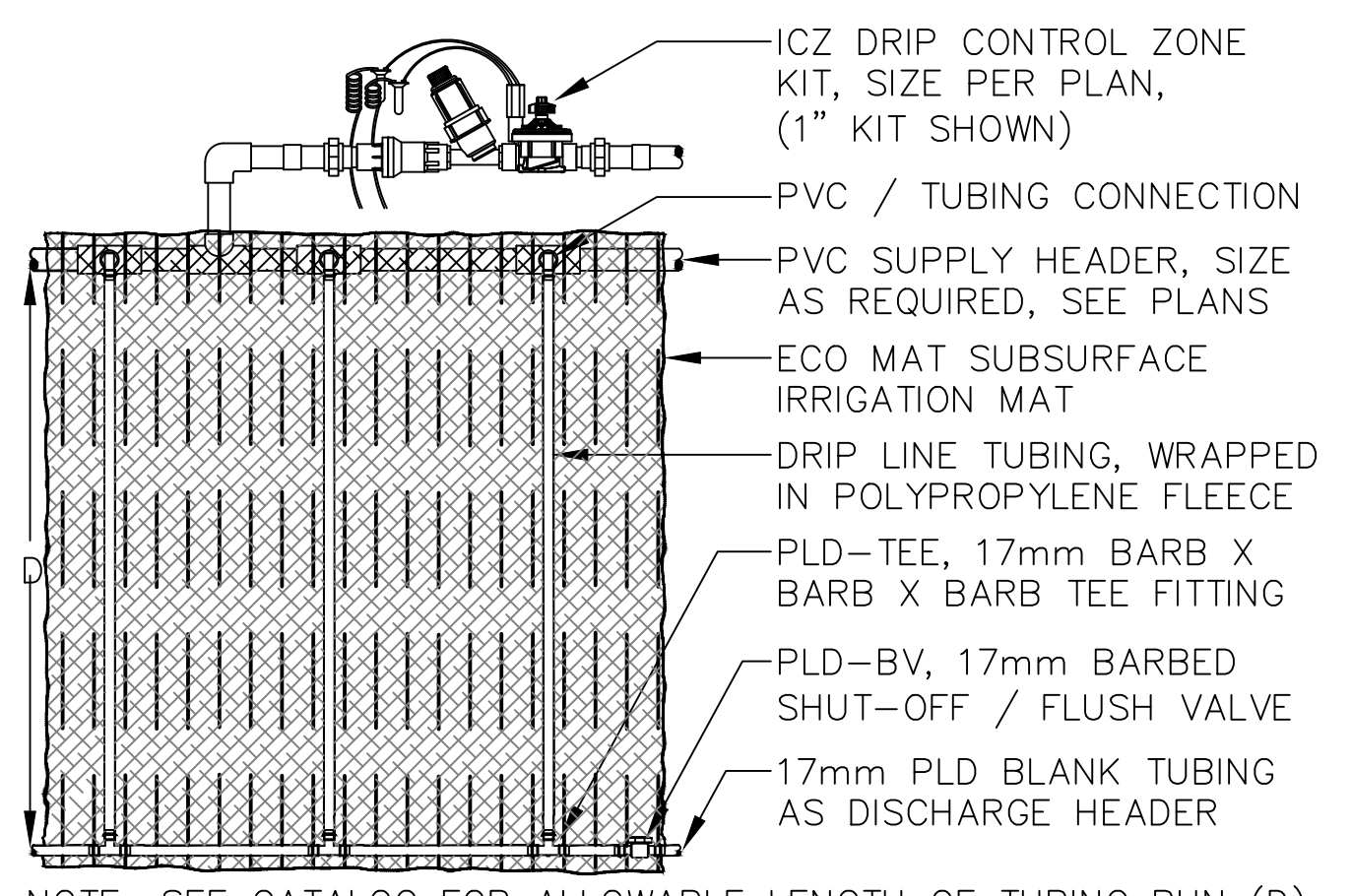
RECOMMENDED ECO MAT INSTALLATION

DEPTH (D):
 TURF AREAS: 10cm - 20cm
 GROUND COVER AREAS: 20cm
 SHRUB AREAS: 30cm

ECO MAT - SECTION

SCALE: N.T.S.

Winkelmänn IRRIGATION DETAIL

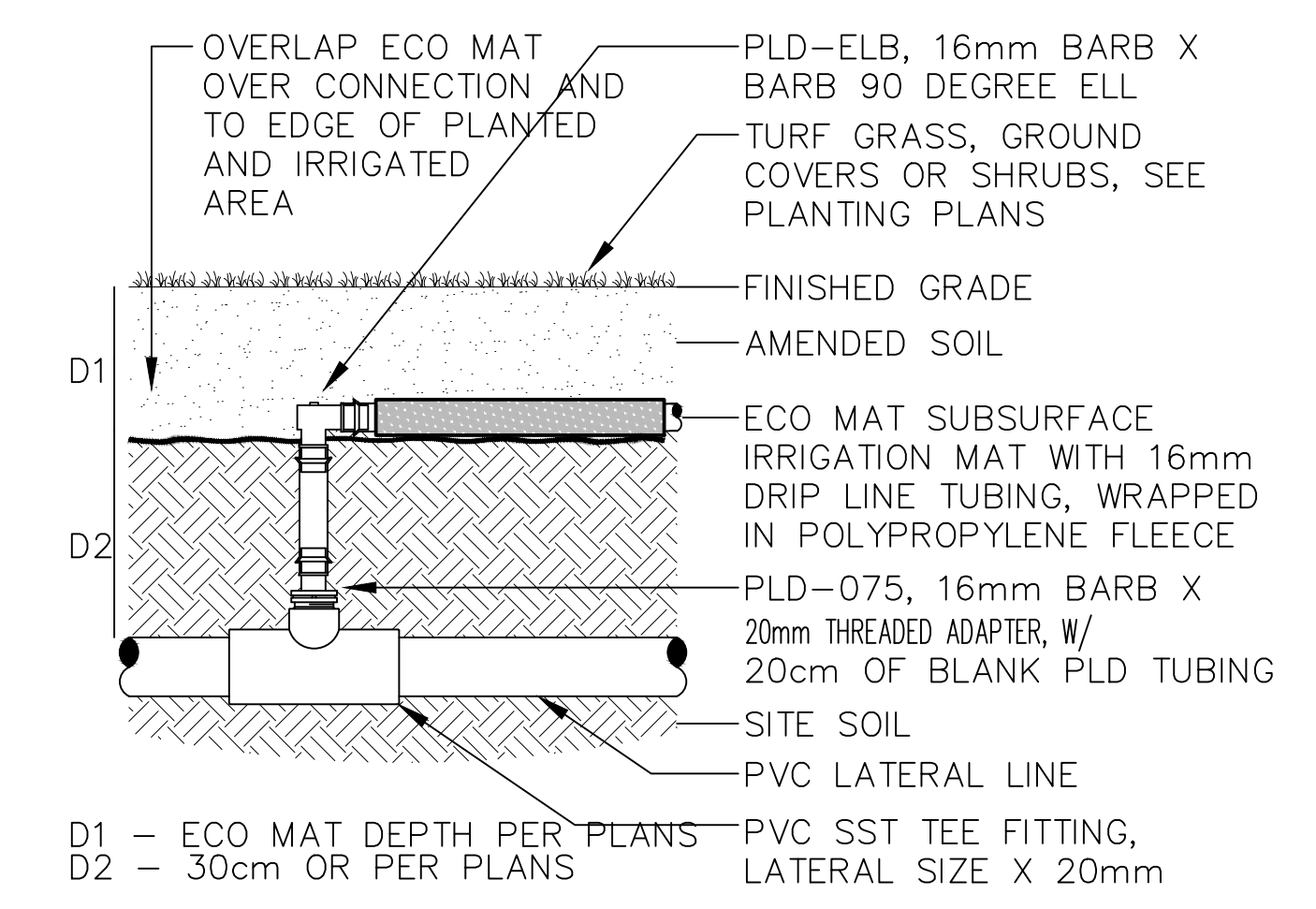


ECO MAT - PLAN

SCALE: N.T.S.

Winkelmänn IRRIGATION DETAIL

PVC SUPPLY HEADER AND POLY DISCHARGE HEADER.



ECO MAT CONNECTION

SCALE: N.T.S.

Winkelmänn IRRIGATION DETAIL

FAIN • CUPPETT
LANDSCAPE ARCHITECTS, LLC
 1921 MAPLEWOOD DR
 WEATHERFORD, TX 76087 682-215-9151
 PARKS AND OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE • IRRIGATION DESIGN

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GREGORY CUPPETT
 LICENSED IRRIGATOR
 0023539
 11/29/22

DRIP DETAILS
 MCKINNEY RANCH PARKWAY & RIDGE ROAD
 MCKINNEY, TX 75070

SECTION 02750

IRRIGATION

PART I - GENERAL

1.01 DESCRIPTION

A. Work Included

1. Piping and fittings.
2. Connection to existing water lines.
3. Valves, bubblers, and spray heads.
4. All miscellaneous fittings and accessories required to complete and operate system.
5. Excavation and backfill.
6. Testing and adjusting.
7. Clean up.

B. Related Work Specified Elsewhere

1.02 QUALITY ASSURANCE

A. Codes and Standards:

1. All applicable local and national Plumbing Ordinances, Electrical Codes, and Building Codes.
2. National Plumbing Code.

B. Licenses:

1. All work shall be performed by or under the direct supervision of an irrigator or plumber licensed to practice under the authority of the State of Texas.

C. Reference Standards:

1. ASTM D-2241-78
2. CS 256-63

1.03 SUBMITTALS

A. Maintenance Materials: At completion of the job, furnish spare parts and all special tools and equipment required to operate and maintain system.

B. Maintenance Data: Furnish two copies of parts list and repair manuals and all special tools and equipment required to operate and maintain system.

C. Manufacturer's Literature: Submit catalogue data indicating, performance, weight, size and function of each item of equipment and material. Also provide manufacturer's operating manual.

D. Project Record Documents: Record on a clean set of plans in colored pencil and also a reproducible mylar:

1. All piping and wiring, including control wires by dimensions.
2. Locate all valves by dimension from two directions.

PART II - PRODUCTS

2.01 GENERAL

A. Equipment and Material Requirements:

1. Standard product of acceptable manufacturer.
2. In-service performance records to verify published capabilities.
3. New and unused.

2.02 MATERIALS

A. PVC Pipe and Fittings:

1. Polyvinyl chloride pipe (PVC) in accordance with ASTM D-2241-78 made to SDR-PR dimensions and approved by National Sanitation Foundation.
2. 2 inch pipe and smaller: Solvent weld PVC Type "Bell-End" pipe may be used.
3. 2 inch pipe fittings and smaller: Solvent weld type as recommended by pipe manufacturer.
4. All pipe downstream of backflow preventer to be Class 200 PVC; all swing joints and risers to be Schedule 80.

B. Joints and Fittings:

1. Nipples and risers: Schedule 80 threaded PVC pipe.
2. Fittings: Schedule 80 PVC.

C. Valves:

1. Double Check Double Gate Valve
 - a. Factory assembled and tested valve train.
 - b. Two spring loaded all brass check valves with soft rubber discs.
 - c. Two all brass shutoff valves.
 - d. Assembled with brass nipples.
 - e. In accordance with AWWA and ASSE specifications.
 - f. Approved Product: FEBCO.

2. Manual Control Valve

- a. Straight type globe valve.
- b. Size to match upstream pipe or as shown on drawings.
- c. Cross handle control wheel.
- d. Brass or bronze body and parts, Class 150.
- e. Full floating valve disc with replaceable seat and washers.
- f. Removable bonnet and stem assembly with packing gland and nut.

3. Electric Control Valve

- a. With flow control.
- b. Globe valve.
- c. Manual bleed.
- d. 24 VAC solenoid.
- e. Electric control, in-line.
- f. Size to match upstream pipe or as shown on drawings.

4. Quick Coupler

- a. 1" female inlet.
- b. Brass or bronze construction.
- c. 150 psi capacity.
- d. Self closing cover.
- e. One piece, single lug, single key construction.
- f. Provide owner with two quick coupler keys & hose bib attachments.
- g. Install in "jumbo" plastic valve box, rectangular, heavy duty.

D. Valve Boxes:

1. Box for Double check double gate valve:

- a. Concrete box with cast iron cover (or per code).
- b. Sufficient size to house entire assembly and permit inspection, maintenance and repair.

2. Box for Electric Valves, Manual Valves, and Double Check Valves

- a. "Jumbo", rectangular
- b. Heavy duty plastic construction.
- c. With locking lid.

E. Sprinkler Heads:

1. Bubbler, Flood Type

- a. Plastic construction.
- b. 1/2" IPS female inlet.
- c. Adjustable flow via screen.

2. Spray Heads

- a. 4" pop/12" pop
- b. Plastic construction.
- c. Stainless steel retraction spring.
- d. Serviceable filter screen and nozzle.
- e. Stationary or gear driven.

3. Rotary Heads

- a. 12" pop/4"pop
- b. Full and part circle heads as drawings indicate.
- c. Stainless steel retraction spring.
- d. Serviceable filter screen and nozzle.

F. Controllers:

1. Solid state.
2. Digital readout.
3. Dust Barrier.
4. Pump/master valve circuit switch.
5. 0-60 minute timing per station or as specified.
6. Up to three start times/day with manual override.
7. UL listed.
8. Battery backup.

G. Accessories:

1. Jointing Material: Teflon tape for threads on PVC pipe.
2. Control Wire: Direct Burial, size for voltage drop, minimum size per National Electric Code.

PART III - EXECUTION

3.01 GENERAL

Install all equipment and products in accordance with manufacturer's recommendations.

3.02 INSTALLATION

A. PVC Pipe and Fittings:

1. Handle and install PVC pipe, couplings, and fittings in accordance with manufacturer's recommendations and industry standards.
2. All PVC fittings shall be molded of the same material as the pipe and shall be suitable for solvent weld, slip joint ring tight seal, or screwed connections.
3. No fittings made of other material shall be used except copper as specified in the plans and details.
4. Space pipe length in jointing and snake to allow for expansion and contraction.
5. Thoroughly clean interior of the pipe of all foreign matter before being lowered into trench. Keep clean during laying operation by means of plugs or other approved method.
6. Do not lay pipe in water or when trench or weather conditions are unsuitable for work. Keep water out of trench until the joints are completed.
7. When work is not in progress, securely close open ends of pipe and fittings so that no trench water, earth or other substances will enter pipes or fittings.
8. Take up and relay any pipe that has the grade or joints disturbed after laying.
9. Fittings at bends in the pipe line and at ends of lines shall be firmly wedged against the vertical face of the trench.
10. Make joints in all screwed fittings by applying teflon tape on male threads.
11. Only schedule 80 pipe may be threaded.

B. Valves:

1. Install all new valves as indicated on the plans or as may be required for the proper control of the piping systems in which they are incorporated.
2. Bury valves deep enough so that valve box lid will not protrude above the ground.
3. Set valves vertically and locate 12 inches from sidewalks where possible.
4. Adjust flow control to give correct pressure at sprinkler head.

3.03 FIELD QUALITY CONTROL

A. Leak Test:

1. When the main line or sections of the main line, e.g. loops with swing joints and valves have been installed, the system (or section) will then be pressurized to the operating pressure indicated on the drawings. The pressure will then be maintained for a twenty four hour leak test period.
2. All leaks will be repaired and retested prior to backfilling lines.
3. Any leaks developed during the first under normal operating pressures due to improper installation shall be repaired by the contractor at no expense to the owner.

B. Cleaning and Flushing System:

1. After pipe, fittings, and valves have been installed and connections made to water source, flush pipe free of all rock, dirt, trash, pipe shavings, and other debris before installing heads.
2. After heads have been installed, use system several times before final inspection.
3. Immediately before final inspection, check all heads for stoppage. Clean if necessary.
4. Remove nozzles of all heads and flush pipes. Clean and replace heads before final inspection.

C. Maintenance Instructions:

1. School at least two of the Owner's employees that will be maintaining the irrigation system in operating and maintenance procedures.
2. Include operation of controllers and valves, balancing of the system, and maintenance of all equipment including removal and replacement of valve and controller components.

3.04 CLEANUP

A. Make final cleanup of all parts of work before final acceptance.

B. Remove all construction materials and equipment.

C. Prepare site in an orderly and finished appearance.

D. Remove from site any rock or extra soil that resulted from this work and restore site to its original condition.

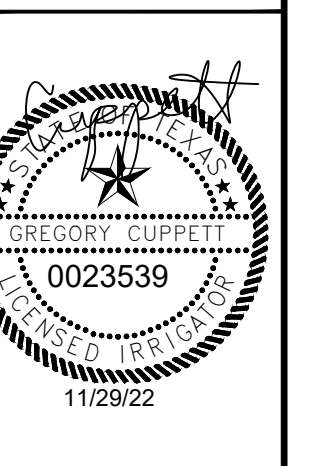
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IRRIGATION SPECIFICATIONS
 MCKINNEY RANCH PARKWAY & RIDGE ROAD
 MCKINNEY, TX 75070

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