

DAVIS BOULEVARD
(VARIABLE WIDTH PUBLIC RIGHT-OF-WAY)
ASPHALT PAVING

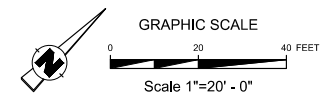
LANDSCAPE TABULATIONS for North Richland Hills, Texas	
GENERAL LANDSCAPE	
1. A minimum of 15% of the total area to be permeable landscape.	
REQUIRED	PROVIDED
5,197 s.f. (15%)	11,512 s.f. (33%)
STREET LANDSCAPE/LANDSCAPE SETBACK	
1. A minimum of 15' landscape setback from public streets	
2. Within the 15' landscape setback, there shall be 1 large tree every 50 l.f. of frontage. 2 ornamental trees may be substituted for 1 large tree.	
3. 10 small shrubs shall be planted every 50 l.f. of street frontage.	
Davis Boulevard - 158 l.f.	
REQUIRED	PROVIDED
15' landscape buffer	15' landscape buffer
3 trees	3 ornamental trees
32 shrubs	40 shrubs
PARKING LOT LANDSCAPE	
1. Parking lot screening shall be provided and shall be in the form of shrubs or walls with a maximum height of 30" above grade of the parking lot and adjacent its entire length.	
2. 1 parking lot tree is required for every 20 parking spaces.	
3. Each drive approach shall be constructed with parking entrance islands. The landscape entrance island shall be planted with small shrubs placed 3' o.c.	
4. All parking lots shall be 5% landscaped.	
Parking Spaces - 28	
REQUIRED	PROVIDED
parking screening	parking screening
1 trees	2 trees
537 s.f. (5%)	1715 s.f. (15.9%)

- GENERAL LAWN NOTES**
- CONTRACTOR SHALL COORDINATE OPERATIONS AND AVAILABILITY OF EXISTING TOPSOIL WITH ON-SITE CONSTRUCTION MANAGER
 - LAWN AREAS SHALL BE LEFT 1" BELOW FINAL FINISHED GRADE PRIOR TO TOPSOIL INSTALLATION
 - CONTRACTOR TO FIND GRADE AREAS TO ACHIEVE FINAL CONTOURS AS SHOWN ON CIVIL DRAWINGS. POSITIVE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL BUILDINGS, ROOFING AT TOP AND BOTTOM OF SLOPES SHALL BE PROVIDED AND IN OTHER BREAKS IN GRADE. CORRECT AREAS WHERE STANDING WATER MAY OCCUR.
 - ALL LAWN AREAS SHALL BE FINE GRADED. IRRIGATION TRENCHES COMPLETELY SETTLED AND FINISH GRADE APPROVED BY THE OWNER'S CONSTRUCTION MANAGER OR LANDSCAPE ARCHITECT PRIOR TO LAWN INSTALLATION.
 - CONTRACTOR SHALL REMOVE ALL ROCKS 3/4" IN DIAMETER AND LARGER, REMOVE ALL DIRT CLOUDS, STICKS, CONCRETE SPOILS, TRASH ETC PRIOR TO PLACING TOPSOIL AND GRASS INSTALLATION.
 - CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS UNTIL FINAL ACCEPTANCE.
 - CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT IF NECESSARY.
- SOLID SOD:**
- SOLID SOD SHALL BE PLACED ALONG ALL IMPERVIOUS EDGES, AT A MINIMUM. THIS SHALL INCLUDE CURBS, WALKS, INLETS, MANHOLES AND PLANTING BED AREAS. SOD SHALL COVER OTHER AREAS COMPLETELY AS INDICATED BY PLAN.
 - SOD SHALL BE STRONGLY ROOTED DROUGHT RESISTANT SOD, NOT LESS THAN 2 YEARS OLD, FREE OF WEEDS AND UNDESIRABLE NATIVE GRASS AND MACHINE CUT TO PAD THICKNESS OF 3/4" (1-1/4"). EXCLUDING TOP GROWTH AND THATCH.
 - LAY SOD BY HAND TO COVER INDICATED AREAS COMPLETELY. ENSURING EDGES ARE TOUCHING WITH TIGHTLY FITTING JOINTS. NO OVERLAPS WITH STAGGERED STRIPS TO OFFSET JOINTS.
 - TOP DRESS JOINTS IN SOD BY HAND WITH TOPSOIL TO FILL VOIDS IF NECESSARY.
 - SOD SHALL BE ROLLED TO CREATE A SMOOTH EVEN SURFACE. SOD SHOULD BE WATERED THOROUGHLY DURING INSTALLATION PROCESS.
 - SHOULD INSTALL BERMUDA GRASS SOD WITH WINTER RYEGRASS AT A RATE OF 4 POUNDS PER 1000 S.F.
- HYDROMULCH:**
- SCARIFY AND LOOSEN ALL AREAS TO BE HYDROMULCHED TO A MINIMUM DEPTH OF 4" PRIOR TO TOPSOIL AND HYDROMULCH INSTALLATION.
 - BERMUDA GRASS SEED SHALL BE EXTRA MULLED, TREATED LAWN TYPE. SEED SHALL BE DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER AND SHALL MEET ALL STATE/LOCAL LAW REQUIREMENTS.
 - FIBER SHALL BE 100% WOOD CELLULOSE FIBER, DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER AS MANUFACTURED BY "CONWEB" OR EQUAL.
 - FIBER TACK SHALL BE DELIVERED TO THE SITE IN ITS UNOPENED CONTAINER AND SHALL BE "TERRO-TACK ONE", AS MANUFACTURED BY GROUNTERS, INC. OR APPROVED EQUAL.
 - HYDROMULCH WITH BERMUDA GRASS SEET AT A RATE OF 2 POUNDS PER 1000 S.F.
 - USE A BATTER BOARD AGAINST ALL BED AREAS TO PREVENT OVER SPRAY.
 - IF INADEQUATE MOISTURE IS PRESENT IN SOIL, APPLY WATER AS NECESSARY FOR OPTIMUM MOISTURE FOR SEED APPLICATION.
 - IF INSTALLATION OCCURS BETWEEN SEPTEMBERS 1ST AND MAY 1ST, ALL HYDROMULCH AREAS SHALL BE OVER-SEEDDED WITH WINTER RYE GRASS AT A RATE OF FOUR POUNDS PER ONE THOUSAND SQUARE FEET. CONTRACTOR SHALL BE REQUIRED TO RE-HYDROMULCH WITH BERMUDA GRASS THE FOLLOWING GROWING SEASON AS PART OF THIS CONTRACT.
 - AFTER APPLICATION, NO EQUIPMENT SHALL OPERATE OVER APPLIED AREAS. WATER SEEDED AREAS IMMEDIATELY AFTER INSTALLATION TO SATURATION.
 - ALL LAWN AREAS TO BE HYDROMULCHED SHALL ACHIEVE 100% COVERAGE PRIOR TO FINAL ACCEPTANCE.

- LANDSCAPE NOTES**
- CONTRACTOR TO VERIFY AND LOCATE ALL PROPOSED AND EXISTING ELEMENTS. NOTIFY LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE FOR ANY LAYOUT DISCREPANCIES OR ANY CONDITION THAT WOULD PROHIBIT THE INSTALLATION AS SHOWN. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS
 - CONTRACTOR SHALL CALL 811 TO VERIFY AND LOCATE ANY AND ALL UTILITIES ON SITE PRIOR TO COMMENCING WORK. LANDSCAPE ARCHITECT SHOULD BE NOTIFIED OF ANY CONFLICTS. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING NEAR UNDERGROUND UTILITIES
 - A MINIMUM OF 2% SLOPE SHALL BE PROVIDED AWAY FROM ALL STRUCTURES.
 - CONTRACTOR SHALL FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS AS INDICATED. LEAVE AREAS TO RECEIVE TOPSOIL 3" BELOW FINAL FINISHED GRADE IN PLANTING AREAS AND 1" BELOW FINAL FINISHED GRADE IN LAWN AREAS.
 - LANDSCAPE ISLANDS SHALL BE CROWNED, AND UNIFORM THROUGHOUT THE SITE.
 - PLANTING AREAS AND SOD TO BE SEPARATED BY STEEL EDGING. NO STEEL EDGING SHALL BE INSTALLED ADJACENT TO BUILDINGS, WALKS OR CURBS, EDGING NOT TO BE MORE THAN 1/2" ABOVE FINISHED GRADE.
 - EDGING SHALL BE CUT AT 45 DEGREE ANGLE WHERE IT INTERSECTS WALKS AND/OR CURBS.
 - MULCH SHALL BE INSTALLED AT 1/2" BELOW THE TOPS OF SIDEWALKS AND CURBS.
 - QUANTITIES ON THESE PLANS ARE FOR REFERENCE ONLY. THE SPACING OF PLANTS SHOULD BE AS INDICATED ON PLANS OR OTHERWISE NOTED. ALL TREES AND SHRUBS SHALL BE PLANTED PER DETAILS.
 - CONTAINER GROWN PLANT MATERIAL IS PREFERRED HOWEVER BALL AND BURLAP PLANT MATERIAL CAN BE SUBSTITUTED IF NEED BE AND IS APPROPRIATE TO THE SIZE AND QUALITY INDICATED ON THE PLANT MATERIAL LIST.
 - TREES SHALL BE PLANTED AT A MINIMUM OF 5' FROM ANY UTILITY LINE, SIDEWALK OR CURB. TREES SHALL ALSO BE 1' CLEAR FROM FIRE HYDRANTS.
 - 4" OF SHREDDED HARDWOOD MULCH (2" THICKNESS) SHALL BE PLACED OVER WEED BARRIER FABRIC. MULCH SHALL BE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL. FINE STRAW MULCH IS PROHIBITED.
 - WEED BARRIER FABRIC SHALL BE USED IN PLANT BEDS AND AROUND ALL TREES AND SHALL BE MINIMUM 140S WEED BARRIER OR APPROVED EQUAL. CONTRACTOR TO PROVIDE UNIT PRICING OF LANDSCAPE MATERIALS AND BE RESPONSIBLE FOR OBTAINING ALL LANDSCAPE AND IRRIGATION PERMITS.
- IRRIGATION:**
- ALL REQUIRED LANDSCAPE AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM WITH A FREEZE/RAIN SENSOR. SYSTEM SHALL ALSO HAVE AN ET WEATHER BASED CONTROLLER AND BE DESIGNED AND INSTALLED BY A LICENSED IRRIGATOR.
- MAINTENANCE REQUIREMENTS:**
- VEGETATION SHOULD BE INSPECTED REGULARLY TO ENSURE THAT PLANT MATERIAL IS ESTABLISHING PROPERLY AND REMAINS IN A HEALTHY GROWING CONDITION APPROPRIATE FOR THE SEASON. IF DAMAGED OR REMOVED, PLANTS MUST BE REPLACED BY A SIMILAR VARIETY AND SIZE.
 - MOWING, TRIMMING, EDGING AND SUPERVISION OF WATER APPLICATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE OWNER OR OWNER'S REPRESENTATIVE ACCEPTS AND ASSUMES REGULAR MAINTENANCE.
 - ALL LANDSCAPE AREAS SHOULD BE CLEANED AND KEPT FREE OF TRASH, DEBRIS, WEEDS AND OTHER MATERIAL.
- MISCELLANEOUS MATERIALS:**
- STEEL EDGING SHALL BE 3/16" X 4 X 16" DARK GREEN DURAEDGE STEEL LANDSCAPE EDGING UNLESS NOTED OTHERWISE ON PLANDetails.

PLANT SCHEDULE					
QTY	LABEL	COMMON NAME	SCIENTIFIC NAME	SIZE	NOTES
TREES					
6	CM	Crepe Myrtle 'Dynamite'	<i>Lagerstroemia indica 'Dynamite'</i>	30 gal	8' ht., 4' spread, multi trunk, 3 cane min.
8	CS	Carolina Sapphire Cypress	<i>Cyprusus arizonca</i>	6' ht.	3' spread min., full to base
2	LE	Lacebark Elm	<i>Ulmus parvifolia 'Sempervirens'</i>	3" cal	12' ht., 4' spread
3	SO	Shumard Oak	<i>Quercus shumardi</i>	3" cal	12' ht., 5' spread
SHRUBS					
40	DBH	Dwarf Burford Holly	<i>Ilex cornuta 'Burford Nana'</i>	5 gal	full, 22" spread, 35" o.c.
17	GV	Gulf Muhly	<i>Muhlenbergia capillaris</i>	3 gal	full, 30" o.c.
22	NRS	Nellie R. Stevens Holly	<i>Ilex x 'Nellie R. Stevens'</i>	7 gal	full, 40" o.c.
21	SG	Switchgrass	<i>Panicum virgatum</i>	5 gal	full, 24" spread, 35" o.c.
67	WM	Wax Myrtle	<i>Nyssa posida</i>	7 gal	full, 30" sprd, 40" o.c.
GROUND COVER/VINES/GRASS					
100	GL	Giant Liriope	<i>Liriope gigantea</i>	1 gal	full, 15" o.c.
50	SC	Seasonal Color		4" pots	full, 12" o.c.
		Bermuda Solid Sod	<i>Cynodon dactylon</i>		

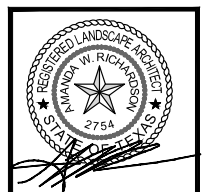
Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. Trees shall have a strong central leader and be of matching specimens. All plant material shall meet or exceed remarks as indicated. All trees to be container grown.



DEVELOPMENT SERVICES, INC.
TEXAS REGISTRATION #F-002239
900 Turn & County Lane Suite 220 Houston, Texas 77024 (713) 642-0211

WILD FORK FOODS #9063
8609 DAVIS BLVD
NORTH RICHLAND HILLS, TX
FIRST HARTFORD REALTY CORPORATION
MANCHESTER, CT 06042
149 COLONIAL RD

NO.	ISSUE:	DATE:
1	REV. CITY COMMENTS	05/05/22



DRAWN	SWG
CHECKED	SWG
DATE	05/10/22
SHEET TITLE	LANDSCAPE PLAN

ALL DRAWN AND WRITTEN INFORMATION APPEARING HEREIN SHALL NOT BE DUPLICATED, DISCLOSED, OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF DEVELOPMENT SERVICES, INC.

SHEET
L101

AWR
AWR Designs, LLC
P.O. Box 1746
Aledo, Texas 76008
amanda@awr-designs.com
c. 512.517.5589

NO:	1	ISSUE:		DATE:	05/05/22
REV:		CITY COMMENTS:			



DRAWN	SWG
CHECKED	SWG
DATE	05/10/22
SHEET TITLE	IRRIGATION PLAN

ALL DRAWN AND WRITTEN INFORMATION APPEARING HEREIN SHALL NOT BE DUPLICATED, DISCLOSED, OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF DEVELOPMENT SERVICES, INC.

IRRIGATION PROJECT NOTES

- THE LOCATION OF MAINLINE AND VALVES ON THIS PLAN MAY BE SHOWN IN PAVED AREAS FOR DESIGN CLARITY ONLY. IRRIGATION ELEMENTS HAVE BEEN SHOWN ON THIS PLAN AS ACCURATELY AS POSSIBLE WITHOUT THE FOREGOING OF DESIGN CLARITY AND INTENT. ALL PIPES AND VALVES SHALL BE INSTALLED WITHIN PERVIOUS AREAS. ALL PIPE AND WIRES THAT CROSS UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES AS SPECIFIED.
- ALL SPRINKLER EQUIPMENT NUMBERS REFERENCE THE HUNTER EQUIPMENT CATALOG UNLESS OTHERWISE INDICATED.
- TEN DAYS PRIOR TO START OF CONSTRUCTION, IRRIGATION CONTRACTOR SHALL VERIFY STATIC WATER PRESSURE. THE IRRIGATION SYSTEM FOR THIS SITE IS DESIGNED TO OPERATE WITH A PRESSURE OF SIXTY FIVE (65 PSI) POUNDS PER SQUARE INCH. SHOULD THE DESIGN PRESSURE FOR THE SYSTEM BE HIGHER THAN THE EXISTING PRESSURE, THE IRRIGATION CONTRACTOR SHALL NOTIFY THE IRRIGATION DESIGNER IMMEDIATELY.
- IRRIGATION CONTRACTOR SHALL COORDINATE THE LOCATION OF THE CONTROLLER AND SENSORS WITH THE GENERAL CONTRACTOR AND OWNER. A 110 VOLT ELECTRICAL SERVICE TO POWER THE IRRIGATION CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AT THE LOCATION SHOWN ON THIS PLAN.
- WATER SERVICE TAP, METER AND LEAD FOR THE IRRIGATION SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR. SERVICE LINE AND METER SHALL BE SIZED AS NOTED ON THIS PLAN.
- TYPE AND INSTALLATION OF THE WATER METER AND BACK FLOW PREVENTION DEVICE SHALL BE DETERMINED BY THE GOVERNING AUTHORITY. AN ISOLATION VALVE SHALL BE PROVIDED BETWEEN THE WATER METER AND BACK FLOW DEVICE.
- ALL CALCULATIONS FOR THIS IRRIGATION SYSTEM ARE BASED ON PRODUCTS AND EQUIPMENT INFORMATION PROVIDED BY HUNTER. INSTALLATION OF THESE PRODUCTS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.
- REFERENCE HUNTER GUIDELINES AND SPECIFICATIONS PRIOR TO INSTALLATION. CONFIRM REQUIREMENTS FOR CONTROLLER, WATERPROOF CONNECTIONS, GROUNDING, SURGE PROTECTORS, DECOCKERS, VALVES, AND WIRING PRIOR TO INSTALLATION. HUNTER TECHNICAL SERVICES (760) 591-7383. WWW.HUNTERINDUSTRIES.COM
- SPRAY HEADS LOCATED IN TURF AREAS SHALL BE HUNTER PROS-04-PRS30 SPRAY BODIES WITH PRO ADJUSTABLE NOZZLES, FIXED ARC NOZZLES, AND STRIP PATTERN NOZZLES. RATE AND AS INDICATED ON THE PLAN.
- IRRIGATION REMOTE CONTROL VALVES SHALL BE 1" AND/OR 1.5" HUNTER ICV AS INDICATED. PRIOR TO ALL REMOTE CONTROL VALVES, INSTALL A NOMINALLY SIZED BALL VALVE WITHIN THE SAME BOX.
- SIZE OF VALVES ARE AS SHOWN ON PLAN. VALVES SHALL BE INSTALLED IN APPROVED BOXES WITH COVERS LARGE ENOUGH TO PERMIT MANUAL OPERATION. REMOVAL OF SOLENOID AND / OR VALVE COVER WITHOUT ANY EARTH EXCAVATION. OWNERS MAY ELECT LOCKING BOXES ON A PROJECT BY PROJECT BASIS.
- QUICK COUPLING VALVES SHALL BE HUNTER INSTALLED PER DETAIL SHOWN. SWING JOINTS SHALL BE CONSTRUCTED USING 1/2" SCHEDULE 80 ELBOWS. CONTRACTOR SHALL SUPPLY OWNER WITH THREE (3) CHTS COUPLERS AND THREE (3) #10HSL SWIVEL HOSE ELLS AS PART OF THIS CONTRACT.
- IRRIGATION SYSTEM AUTOMATIC CONTROLLER SHALL BE HUNTER PRO-C-12 STATION - PC-1200 WITH RAIN AND FREEZE SENSORS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. CONFIRM WIRING, GROUNDING AND SURGE PROTECTION REQUIREMENTS BEFORE INSTALLING.
- DRIP IRRIGATION REMOTE CONTROL VALVES SHALL BE HUNTER ICZ-101-LF-40 AS INDICATED. DRIP TUBING SHALL BE HUNTER HDL-06-12-CV.
- INSTALL DRIP TUBING LINES PER MANUFACTURERS RECOMMENDATIONS. USE PLD-LOC FITTINGS PLD-LOC 075, PLD-LOC 060, PLD-LOC ELL, PLD-LOC CPL, PLD-LOC CAP, PLD-LOC TEE, PLD-LOC OR USE FHS BARR FITTINGS PLD-075, PLD-050, PLD-ELS, PLD-CPL, PLD-CAP, PLD-TEE, PLD-075-BTTEE, PLD-BV. USE ECO-INDICATOR ECO-ID. USE LINE FLUSHING VALVE HUNTER AFV-B.
- DRIP TUBING SHALL BE SPACED 18" APART IN SHRUB AREAS, REFER TO MANUFACTURERS RECOMMENDATIONS.
- ROOT BUBBLERS SHALL BE HUNTER RZWS-18-25.
- ALL VALVE CONTROL WIRE SHALL BE SIZED PER MANUFACTURER GUIDELINES BY THE CONTRACTOR ACCORDING TO THE ACTUAL FIELD DISTANCE. ALL CONNECTIONS SHALL BE WATER-PROOF, KEPT TO A MINIMUM, AND LOCATED IN AN APPROVED BOX.

SLEEVING NOTES

- PIPING AND CONTROL WIRES SHALL BE INSTALLED IN SEPARATE SLEEVES UNDER PAVING. REFERENCE DRAWINGS FOR SLEEVE SIZE AND LOCATION.
- SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
- INSTALLATION OF SLEEVES SHALL BE TWENTY - FOUR (24") BELOW TOP OF PAVEMENT OR FINISHED GRADE.
- SLEEVES SHALL EXTEND ONE (1) FOOT BEYOND EDGE OF ALL PAVEMENT AND STAKED FOR LOCATION.
- ALL SLEEVES SHALL BE SCHEDULE 40 PVC PIPE, CAPPED ON BOTH ENDS AND SIZED AT LEAST TWO TIMES LARGER THAN THE DIAMETER OF THE PIPE INSIDE THE SLEEVE.
- SLEEVE LOCATIONS SHALL BE MARKED ONTO THE CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE TWO (2") INCHES LONG AND ONE (1") APART.
- CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND SHALL ALSO BE RESPONSIBLE FOR LOCATING ANY SLEEVE THAT CANNOT BE FOUND DURING THE INSTALLATION OF THE SYSTEM.
- CONTRACTOR SHALL FURNISH OWNER AND IRRIGATION CONTRACTOR WITH AN "AS-BUILT" DRAWING SHOWING ALL SLEEVE LOCATIONS.

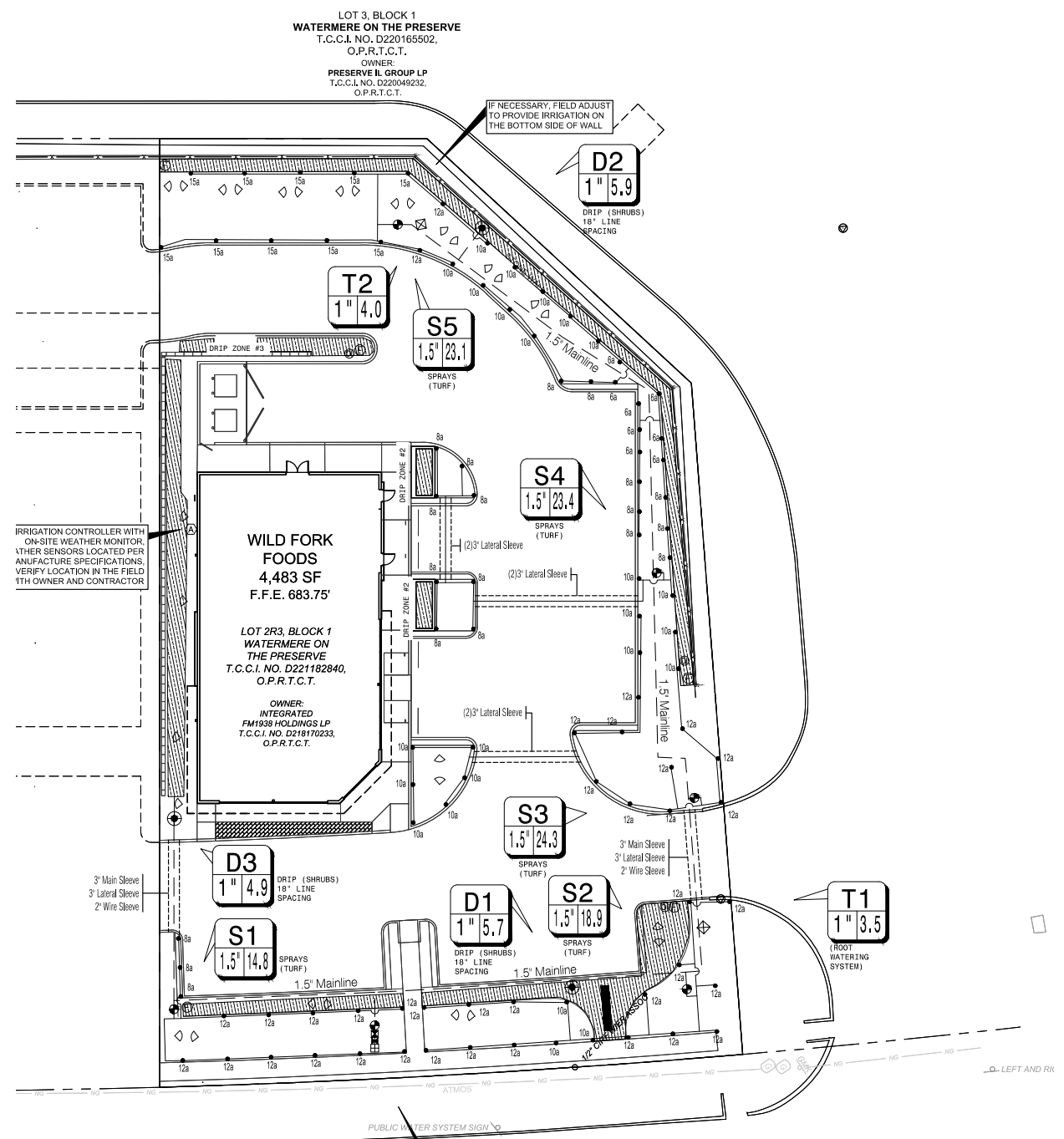
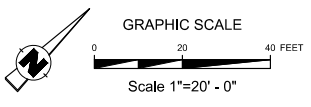
IRRIGATION GENERAL NOTES

- THE IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE LANDSCAPE CONTRACTOR SO THAT ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE IRRIGATION DESIGNER OF SITE CONDITIONS OR ASSUME FULL RESPONSIBILITY FOR ANY AND ALL ON SITE REVISIONS NECESSARY.
- CONTRACTOR TO VERIFY DESIGN AND ITS INTENT TO PROVIDE FULL COVERAGE TO ALL NEW PLANTING MATERIAL.
- NOTIFY IRRIGATION DESIGNER OF ANY LAYOUT DISCREPANCIES PRIOR TO BIDDING.
- LOCATE ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE IRRIGATION INSTALLATION BEGINS.
- IRRIGATION CONTRACTOR TO PROCURE ALL PERMITS, LICENSES AND GIVE ALL NECESSARY NOTICES THROUGHOUT THE DURATION OF THE PROJECT.
- THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN GOOD STANDING WITH THE STATE OF TEXAS BOARDS AND REGULATORS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PLANT MATERIAL UPON ACCEPTANCE AND THROUGH THE WARRANTY PERIOD FOR DAMAGE DUE TO IRRIGATION SYSTEM FAILURE.
- ALL ASPECTS OF THE IRRIGATION INSTALLATION SHALL CONFORM WITH THE PROPER GOVERNING AUTHORITIES, CODES AND ORDINANCES.
- SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR. SLEEVE MATERIAL SHALL BE SCHEDULE 40, SIZE AS INDICATED ON PLAN. REFER TO SLEEVING NOTES.
- ALL MAIN LINE AND LATERAL LINE PIPING IN PLANTING AND LAWN AREAS SHALL HAVE A MINIMUM OF 12 INCHES OF COVER. ALL PIPING UNDER PAVING SHALL HAVE A MINIMUM OF 18 INCHES OF COVER. CONTRACTOR TO VERIFY LOCAL FREEZE DEPTHS AND ADJUST DEPTH OF COVER ACCORDINGLY.
- ZONE VALVES SHALL NOT BE LOCATED WITHIN THREE (3) FEET OF ANY DRIVEWAY, TRAFFIC AISLE, ISLAND ETC. WHERE THEY WILL BE DAMAGED BY VEHICLES DRIVING OVER CURBS.
- ALL NOZZLES IN PARKING LOT ISLANDS AND PLANTING BEDS SHALL BE LOW ANGLE NOZZLES TO MINIMIZE OVER SPRAY ON PAVEMENT SURFACES.
- AUTOMATIC CONTROLLER SHALL BE INSTALLED AT LOCATION SHOWN. POWER (120V) SHALL BE LOCATED IN A JUNCTION BOX WITHIN FIVE (5) FEET OF CONTROLLER. LOCATION BY OTHER TRADES. RAIN AND FREEZE SENSORS SHALL BE INSTALLED WITH EACH CONTROLLER.
- ELECTRICAL SPICES SHOULD BE LOCATED AT EACH VALVE AND CONTROLLER ONLY.
- PROVIDE A 3/4" BLOW DOWN DRAIN TEE TO ALLOW WATER TO BE BLOWN FROM THE IRRIGATION LINES SYSTEM.
- DISTURBED AREAS IN NEED OF TURF ESTABLISHMENT MAY EXIST BEYOND COVERAGE LIMITS OF THE PERMANENT IRRIGATION SYSTEM. IN THESE AREAS, CONTRACTOR TO DETERMINE A TEMPORARY MEANS TO ESTABLISH NECESSARY TURF. CONTRACTOR IS ENCOURAGED TO BEGIN TURF ESTABLISHMENT IMMEDIATELY UPON FINAL GRADE IN ACCORDANCE WITH AND TO SATISFY SWPPP.
- PROVIDE WITH OWNER A COPY OF ALL INSTALLED EQUIPMENT AND LINES (AS BUILT PLANS).
- PLACE COPY OF ZONE MAP WITH ALL ZONE VALVE LOCATIONS SHOWN AND APPROVED IRRIGATION PLAN IN PROTECTIVE JACKET IN MAIN CONTROL PANEL.
- IRRIGATION IN TEXAS IS REGULATED BY:
 THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)
 MC-178 / PO BOX 13087
 AUSTIN, TEXAS 78711-3087
 WWW.TCEQ.STATE.TX.US

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
1/2"	SPRAYS WITH PRO ADJ. NOZZLES	HUNTER	PROS-04-PRS30
R2	NOT SHOWN		
ZS	NOT SHOWN		
⊙	TREE ROOT BUBBLER SYSTEM	HUNTER	RZWS-18-25
⊕	REMOTE CONTROL VALVE	HUNTER	ICV
⊕	1" DOUBLE CHECK ASSEMBLY	FEBCO	850 SERIES
⊕	1" TREE CONTROL ZONE KIT	HUNTER	
⊕	HDL DRIPLINE	HUNTER	HDL-06-12-CV
⊕	LINE FLUSHING VALVE	HUNTER	AFV-B
⊕	PRESSURE OPERATOR INDICATOR	HUNTER	ECO-ID
⊕	DRIP CONTROL VALVE	HUNTER	ICZ-101-LF-40

SYMBOL	DESCRIPTION
⊕	1" IRRIGATION METER
⊕	HUNTER - PRO-C-12 STATION - PC-1200 WITH RAIN AND FREEZE SENSORS
⊕	ISOLATION VALVE
—	LATERAL PIPING REFER TO PLAN CLASS 200 PVC
—	MAINLINE PIPING REFER TO PLAN SCH. 40 PVC, SIZED AS SHOWN (INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM)
=====	IRRIGATION SLEEVE, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED, ONE SLEEVE PER PIPE CONTROL WIRING SLEEVE, 2" SCH. 40 PVC
D1	VALVE STATION # (WHERE D = DRIP TUBING, S = SPRAY, R = ROTOR, T = TREE DRIP)
1"	VALVE SIZE
8.8	GPM

- NOTE:**
- ENTIRE SYSTEM SHALL BE INSTALLED PER TCEQ STANDARDS, MANUFACTURER'S SPECIFICATIONS AND ALL CITY CODES.
 - THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY. AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE GROUND IRRIGATION EQUIPMENT WITH THE OWNERS AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.
 - VARIOUS AREAS ON PLAN ARE REQUIRED TO SHOW SINGLE HEAD COVERAGE. IF OWNER SHOULD ELECT FOR FULL COVERAGE, CONTRACTOR TO PROCURE THE PROPER PERMITS AND BID ALTERNATE FOR THESE ADDITIONAL SPRAY HEADS, ZONES, AND CONTROLLER EXPANSION FOR THE SYSTEM.
 - IRRIGATION CONTRACTOR IS TO COORDINATE LOCATION AND PLACEMENT OF ALL IRRIGATION ITEMS WITH THE GENERAL CONTRACTOR. CONTRACTOR IS TO USE EXTREME CAUTION IN TRENCHING TO AVOID EXISTING AND PROPOSED UTILITIES. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO IRRIGATION INSTALLATION.
 - IRRIGATION SPRAY NOZZLES TO BE ADJUSTED TO AVOID PAVEMENT, BUILDING, WALLS, FENCES, UTILITIES, EQUIPMENT, SIGNAGE, AND CALL BOX.
 - REFERENCE LANDSCAPE PLAN FOR LOCATION OF GRAVEL, STEEL EDGING AND ALL PROPOSED PLANT MATERIAL.
 - IN TURF AREAS (BOTH SOD AND HYDROMULCH AREAS) OUTSIDE OF IRRIGATION PERMANENT COVERAGE, CONTRACTOR TO PROVIDE TEMPORARY IRRIGATION UNTIL ESTABLISHED, TYP.
 - CONTRACTOR TO TAKE ALL NECESSARY MEASURES TO PREVENT WATER HAMMER AND SYSTEM COLLAPSE BY DISCHARGING AIR DURING STARTUP AND ALLOWING AIR TO ENTER DURING SHUTDOWN. INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



DAVIS BOULEVARD
 (VARIABLE WIDTH PUBLIC RIGHT-OF-WAY)
 ASPHALT PAVING

1" IRRIGATION METER, ISOLATION VALVE, WYE STRAINER, 1" DCAV AND MASTER VALVE (REFERENCE CIVIL FOR LOCATION)



SECTION 32 8423 - UNDERGROUND IRRIGATION SLEEVES AND UTILITY CONDUITS

PART 1 - GENERAL

- 1.1 DESCRIPTION
 - A. PROVIDE UNDERGROUND IRRIGATION SLEEVES AS INDICATED ON THE DRAWINGS.
- 1.2 RELATED WORK
 - A. SECTION 32 8424 - IRRIGATION SYSTEM.
- 1.3 REFERENCE STANDARDS
 - A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST EDITION.

PART 2 - MATERIALS

- 2.1 GENERAL
 - A. POLYVINYL CHLORIDE PIPE (PVC) - SCHEDULE 40 SHALL BE USED FOR ALL SLEEVING PURPOSES.
 - B. PVC PIPES SHALL BE MARKED WITH SDR NUMBER, ASTM STANDARD NUMBER, AND THE NSF SEAL.
 - C. SOLVENT SHALL BE USED AS RECOMMENDED BY MANUFACTURER TO MAKE SOLVENT WELDED JOINTS. PIPE AND FITTINGS SHOULD BE CLEANED BEFORE APPLYING SOLVENT.

PART 3 - EXECUTION

- 3.1 INSTALLATION
 - A. A MINIMUM OF TWENTY FOUR (24) INCHES COVER SHALL BE PROVIDED OVER THE TOP OF SLEEVE FROM FINISH GRADE.
 - B. SLEEVES SHALL BE EXTENDED ONE (1) FOOT PAST THE EDGE OF PAVEMENT OF WALLS. INSTALL A NINETY DEGREE ELBOW ON EACH SLEEVE AND ADD ADDITIONAL LENGTH TO EXTEND ABOVE FINISH GRADE BY TWELVE (12) INCHES. CAP PIPE ENDS.
- 3.2 BACKFILL
 - A. BACKFILL SHALL BE PLACED OVER SLEEVES IN SIX (6) INCH LIFTS. SOIL SHALL BE TAMPED INTO PLACE, TAKING CARE TO NOT DAMAGE SLEEVE.
 - B. REPAIR ANY DAMAGE FROM IMPROPER COMPACTION.

END OF SECTION

SECTION 32 8424 - IRRIGATION SYSTEM

PART 1 - GENERAL

- 1.1 DESCRIPTION
 - A. PROVIDE A COMPLETE IRRIGATION SYSTEM INSTALLATION AS DETAILED AND SPECIFIED. THIS SHALL INCLUDE FURNISHING ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES NECESSARY TO PROVIDE COMPLETE INSTALLATION. WORK INCLUDES:
 - a. TRENCHING
 - b. BACKFILL
 - c. AUTOMATIC CONTROLLED SYSTEM
 - d. AS BUILT DRAWINGS
 - B. SLEEVING AS SHOWN SHALL BE FURNISHED BY THE GENERAL CONTRACTOR.
 - C. METER AND POWER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
- 1.2 RELATED WORK
 - C. REFERENCE IRRIGATION PLANS FOR CONTROLLER, HEAD AND ALL VALVE LOCATIONS.
 - D. REFERENCE LANDSCAPE PLANS, NOTES, DETAILS FOR ADDITIONAL REQUIREMENTS.

E. SECTION 32 9300 - LANDSCAPE

- F. SECTION 32-8423 - UNDERGROUND IRRIGATION SLEEVE AND UTILITY CONDUITS
- 1.3 REFERENCE STANDARDS
 - A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST EDITION.
- 1.4 QUALITY ASSURANCE AND REQUIREMENTS
 - A. PERMITS AND FEES: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS NECESSARY AND ALL OBSERVATIONS AS REQUIRED.
 - B. MANUFACTURER'S DIRECTIONS: MANUFACTURER'S DIRECTIONS AND DETAILED DRAWINGS SHALL BE FOLLOWED IN ALL CASES WHERE THE MANUFACTURERS OF ARTICLES USED IN THIS CONTRACT FURNISH DIRECTIONS COVERING POINTS NOT SHOWN IN THE DRAWINGS AND SPECIFICATIONS.
 - C. ORDINANCES, CODES, AND REGULATIONS: ALL LOCAL, MUNICIPAL AND STATE LAWS, AND RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY OF THE ABOVE RULES AND REGULATIONS AND REQUIREMENTS OF THE SAME.
 - D. HOWEVER, WHEN THESE SPECIFICATIONS AND DRAWINGS CALL FOR OR DESCRIBE MATERIALS, WORKMANSHIP, OR CONSTRUCTION OF A BETTER QUALITY, HIGHER STANDARD OR LARGER SIZE THAN IS REQUIRED BY THE ABOVE RULES AND REGULATIONS, THESE SPECIFICATIONS AND DRAWINGS SHALL TAKE PRECEDENCE.

1.5 SCHEDULE OF MATERIALS

- A. MATERIALS LIST:
 - a. ALL EQUIPMENT MANUFACTURERS AND MODEL NUMBERS SHALL BE AS NOTED ON THE PLANS.
 - b. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS, OR PROCESSES SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
 - c. A COMPLETE MATERIAL LIST OF EQUIPMENT SHALL BE SUBMITTED BEFORE PERFORMING ANY WORK. SUBMITTAL SHOULD INCLUDE ALL MANUFACTURER'S SPECIFICATIONS AND LITERATURE FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 - d. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED.
 - e. APPROVAL OF ANY ITEM, ALTERNATE OR SUBSTITUTE INDICATES ONLY THAT THE PRODUCT OR PRODUCTS APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE INFORMATION OR SAMPLES SUBMITTED.
 - f. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.

1.4 RECORD AND AS BUILT DRAWINGS/SUBMITTALS

- A. CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE AND COMPLETE "AS-BUILT" RECORD SET OF PRINTS.
- B. CONTRACTOR SHOULD USE ALL SYMBOLS AND NOTATIONS CONSISTENT WITH THE ORIGINAL DRAWINGS.
- C. IN "AS-BUILT" DRAWINGS, CONTRACTOR SHALL LOCATE:
 - a. CONNECTION TO EXISTING WATER LINES
 - b. CONNECTION TO ELECTRICAL POWER
 - c. GATE VALVES
 - d. ROUTING OF SPRINKLER PRESSURE LINES

e. SPRINKLER CONTROL VALVES

- f. QUICK COUPLING VALVES
- g. OTHER RELATED EQUIPMENT
- D. SUBMIT COMPLETED TRACINGS PRIOR TO FINAL ACCEPTANCE. DATE AND SIGN ALL DRAWINGS.
- E. EQUIPMENT TO BE FURNISHED:
 - a. SUPPLY AS PART OF THIS CONTRACT THE FOLLOWING TOOLS:
 - i. QUICK COUPLING KEYS, THREE (3) WITH BOILER DRAINS ATTACHED USING BRASS REDUCER.
 - ii. THREE (3) KEYS FOR EACH AUTOMATIC CONTROLLER
 - b. THE ABOVE MENTIONED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER AT THE CONCLUSION OF THE PROJECT.
- F. THE IRRIGATION CONTRACTOR SHOULD DEMONSTRATE THAT THE FINAL INSTALLED SYSTEM WILL OPERATE ACCORDING TO THE INTENT OF THE DESIGNED AND SPECIFIED SYSTEM. IRRIGATION CONTRACTOR SHALL GUARANTEE 100% COVERAGE TO ALL AREAS TO BE IRRIGATED.

1.5 MAINTENANCE AND GUARANTEE

- A. MAINTENANCE AND WORKMANSHIP SHALL BE GUARANTEED FULLY FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE.
- B. PROVIDE MAINTENANCE OF SYSTEM, CLEANING AND ADJUSTMENT OF THE HEADS, FOR ONE (1) YEAR AFTER COMPLETION OF INSTALLATION.
- C. GUARANTEE IS LIMITED TO REPAIR AND REPLACEMENT OF DEFECTIVE MATERIALS AND WORKMANSHIP, INCLUDING THE REPAIR OF BACKFILL SETTLEMENT.

1.6 TESTING

- A. PERFORM TESTING REQUIRED WITH OTHER TRADES INCLUDING EARTHWORK, PAVING, PLUMBING, ETC. TO AVOID CUTTING, PATCHING OR BORING.
- B. WATER PRESSURE SHOULD BE FOUND PRIOR TO STARTING CONSTRUCTION. DETERMINE/CONFIRM THAT STATIC WATER PRESSURE IS MORE THAN THE WATER PRESSURE NEEDED FOR THE SYSTEM TO FUNCTION PROPERLY. IF STATIC PRESSURE IS LESS THAN THE DESIGN PRESSURE NEEDED, DO NOT START WORK UNTIL THE LANDSCAPE ARCHITECT IS NOTIFIED.
- 1.7 COORDINATION
 - A. COORDINATE INSTALLATION OF ALL PRODUCTS, INCLUDING EARTHWORK, PAVING AND PLUMBING.
 - B. COORDINATE TO ENSURE THAT ELECTRICAL POWER SOURCE IS IN PLACE.
 - C. COORDINATE INSTALLATION WITH WORK SPECIFIED IN OTHER SECTIONS.
 - D. COORDINATE WITH THE LANDSCAPE CONTRACTOR TO ENSURE PLANT MATERIAL IS UNIFORMLY WATERED IN ACCORDANCE WITH INTENT SHOWN ON DRAWINGS.

PART 2 - PRODUCTS

- 2.1 MATERIALS
 - B. REFER TO CONSTRUCTION DRAWINGS AND NOTES.
 - C. SPRINKLER HEADS IN LAWN AREAS AS SPECIFIED ON PLAN.
 - D. PVC PIPE: CLASS 200 SPR 21
 - E. COPPER TUBING (FOR CITY CONNECTIONS): TYPE "M"
 - F. 24V WIRE - SIZE 14, TYPE UF
 - G. ELECTRIC VALVES TO BE ALL PLASTIC CONSTRUCTION AS INDICATED ON PLANS.
 - H. REFER TO DRAWING FOR BACKFLOW PREVENTION LOCATION - COORDINATE EXACT LOCATION WITH THE GENERAL CONTRACTOR.

PART 3 - EXECUTION

3.1 INSPECTION:

- A. SITE CONDITIONS:
 - a. ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SIZE DIMENSIONS.
 - b. EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY ANY OF HIS OPERATIONS OR NEGLIGENCE.
 - c. COORDINATE INSTALLATION OF IRRIGATION MATERIALS, INCLUDING PIPE, SO THERE SHALL BE NO INTERFERENCE WITH UTILITIES OR OTHER CONSTRUCTION DIFFICULTY IN PLANTING TREES, SHRUBS, AND GROUNDCOVERS. COORDINATE WORK WITH OTHER SITE CONTRACTORS.

3.2 PREPARATION

- A. PHYSICAL LAYOUT:
 - a. PIPING AND HEAD LAYOUT AS SHOWN ON PLANS IS SCHEMATIC ONLY. ALL PIPES TO BE INSTALLED DIRECTLY BEHIND CURBS, WALKS AND WALLS WHEREVER POSSIBLE.
 - b. PRIOR TO INSTALLATION CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS.
 - c. ALL LAYOUTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- B. WATER SUPPLY:
 - a. IRRIGATION SYSTEM SHALL BE CONNECTED TO WATER SUPPLY POINTS OF CONNECTION AS INDICATED ON THE DRAWINGS.
 - b. CONNECTIONS SHOULD BE MADE AT APPROXIMATE LOCATIONS AS SHOWN ON DRAWINGS. CONTRACTOR SHALL VERIFY IN FIELD AND BE RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS.

3.3 INSTALLATION

- A. TRENCHING
 - a. DIG TRENCHES STRAIGHT 6" WIDE WITH NEAR VERTICAL SIDE AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE LUMBER, RUBBISH, LARGE ROCKS ETC. FROM TRENCHES. LAY PIPE TO AN EVEN GRADE - WITH A FIRM, UNIFORM BEARING FOR ENTIRE LENGTH OF PIPE.
 - b. REMOVE FOREIGN MATTER OR DIRT FROM INSIDE OF PIPE BEFORE WELDING AND KEEP PIPING CLEAN BY ANY MEANS POSSIBLE DURING AND AFTER LAYING OF PIPE.
 - c. PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF COVER FOR ALL PRESSURE SUPPLY LINES.
 - d. PROVIDE A MINIMUM OF TWELVE (12) INCHES OF COVER FOR ALL NON-PRESSURE LINES.
 - e. PROVIDE A MINIMUM COVER OF EIGHTEEN (18) INCHES FOR ALL CONTROL WIRING.
 - f. NO MACHINE TRENCHING, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT, SHALL BE DONE WITHIN DRIP LINE OF EXISTING TREES. TRENCHING SHOULD BE DONE BY HAND, TUNNELING OR BORING OR OTHER METHODS APPROVED BY THE LANDSCAPE ARCHITECT. IT SHOULD BE UNDERSTOOD THAT PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND TREES AND SHRUBS IN SUCH A MANNER TO AVOID DAMAGE TO PLANTS.
- B. BACKFILL
 - a. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE PERFORMED. TRENCHES SHALL BE CAREFULLY BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS, FREE FROM LARGE CLODS, STONES OR STICKS.
 - b. IF SETTLEMENT OCCURS AND SUBSEQUENT ADJUSTMENTS IN PIPE, VALVES, SPRINKLER HEADS, LAWN OR PLANTING OR OTHER

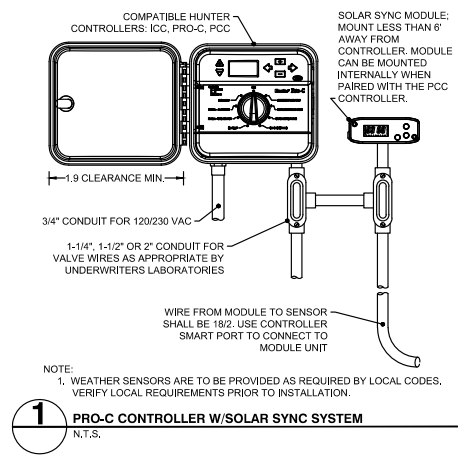
CONSTRUCTION ARE NECESSARY. THE CONTRACTOR SHALL MAKE ALL REQUIRED ADJUSTMENTS WITHOUT THE COST TO THE OWNER.

- C. TRENCHING AND BACKFILL UNDER PAVING:
 - a. ALL IRRIGATION MAIN LINE AND LATERAL LINES OR WIRING LOCATED UNDER AREAS WHERE PAVING, ASPHALTIC PAVING, OR CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES OF ADEQUATE SIZE. SEE SECTION 32 8423.
- D. ASSEMBLIES
 - a. INSTALL ALL ASSEMBLIES SPECIFIED HEREIN IN ACCORDANCE WITH RESPECTIVE DETAILS. IN ABSENCE OF DETAIL DRAWINGS OR SPECIFICATIONS, PERFORM SUCH WORK IN ACCORDANCE WITH BEST STANDARD PRACTICES OR MANUFACTURER'S RECOMMENDATIONS AS APPROVED BY THE LANDSCAPE ARCHITECT.
 - b. MAKE SOLVENT WELDED JOINTS USING ONLY THE SOLVENT RECOMMENDED BY THE MANUFACTURER. PIPES AND FITTINGS SHOULD BE CLEANED OF ALL DIRT AND DUST AND MOISTENED BEFORE APPLYING SOLVENT.
 - c. ON PVC TO METAL CONNECTIONS, THE CONTRACTOR SHALL WORK METAL CONNECTIONS FIRST. USE NON HARDENING PIPE DOPE OR TEFLOON TAPE ON THREADED PVC ADAPTERS INTO WHICH PIPE MAY BE WELDED. LIGHT WRENCH PRESSURE IS ALL THAT IS REQUIRED. USE THREADED PVC ADAPTERS INTO WHICH THE PIPE MAY BE WELDED.
 - E. LINE CLEARANCE: ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF SIX (6) INCHES FROM EACH OTHER AND FROM OTHER TRADES. PARALLEL LINES SHALL NOT BE DIRECTLY INSTALLED ONE OVER THE OTHER.
 - F. WIRING: SUPPLY WIRE FROM THE AUTOMATIC CONTROLLER TO ALL THE VALVES. A SEPARATE WIRE IS REQUIRED TO EACH ELECTRIC VALVE. A COMMON NEUTRAL WIRE IS ALSO REQUIRED FROM EACH CONTROL TO EACH OF THE VALVES. BUNDLE MULTIPLE WIRES AND TAP THEM TOGETHER AT TEN FOOT INTERVALS. EXPANSION COILS OF TEN INCHES SHALL BE INSTALLED APPROXIMATELY EVERY 100 FEET. MAKE ALL SPLICES WATERPROOF.
 - G. AUTOMATIC CONTROLLER: INSTALL AS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. REMOVE CONTROL VALVES SHALL BE CONNECTED TO CONTROLLER IN NUMERICAL SEQUENCE AS SHOWN ON THE DRAWINGS. EACH REMOTE CONTROL VALVE SHALL BE WIRED TO ONE STATION OF THE CONTROLLER.
 - H. REMOTE CONTROL VALVES:
 - a. INSTALL WHERE SHOWN ON DRAWINGS AND DETAILS. VALVES SHALL BE SIZED ACCORDING TO THE DRAWINGS.
 - b. INSTALL IN A LEVEL POSITION IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
 - c. WHEN GROUPED TOGETHER, ALLOW AT LEAST TWELVE (12) INCHES BETWEEN VALVES. INSTALL EACH REMOTE CONTROL VALVE IN A SEPARATE VALVE BOX. EACH VALVE NUMBER AND ITS CONTROLLER LETTER SHALL BE STENCILED INSIDE VALVE BOX TOP WITH EXTERIOR PAINT.
 - I. FLUSHING OF SYSTEM:
 - a. AFTER ALL NEW SPRINKLER PIPE LINES AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY WORK HAS BEEN COMPLETED, AND PRIOR TO INSTALLATION OF SPRINKLER HEADS, THE CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.
 - b. SPRINKLER HEADS SHALL BE INSTALLED ONLY AFTER FLUSHING OF THE SYSTEM HAS BEEN ACCOMPLISHED.
 - J. SPRINKLER HEADS:
 - a. INSTALL HEADS AS DESIGNED ON THE DRAWINGS. MAKE APPROPRIATE ADJUSTMENTS TO HEAD LAYOUT TO ACCOMMODATE FOR ACTUAL FIELD CONDITIONS.
 - b. SPACING OF HEADS SHALL NOT EXCEED THE MAXIMUM INDICATED ON THE DRAWINGS. IN NO CASE SHALL THE SPACING EXCEED THE MAXIMUM

RECOMMENDED BY THE MANUFACTURER.

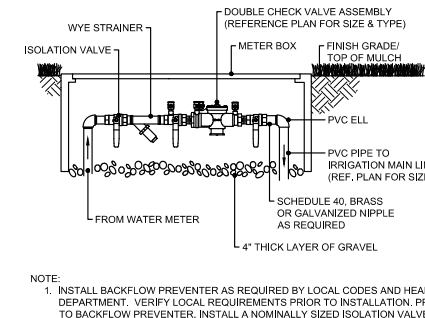
- c. ALL SPRINKLERS TO ATTACH TO LATERAL LINES WITH FLEXIBLE CONNECTORS. REFERENCE DETAILS ON DRAWINGS.
- 3.4 TESTING
 - A. THE CONTRACTOR SHALL TEST SPRINKLER MAIN FOR TWELVE TO FOURTEEN HOURS UNDER NORMAL PRESSURE. IF LEAKS ARE PRESENT, REPLACE JOINT OR JOINS AND REPEAT TEST.
 - B. A COMPLETE TEST SHALL BE MADE PRIOR TO BACKFILLING. BACKFILLING MATERIALS MAY BE PLACED IN TRENCHES IN LIFTS TO ENSURE STABILITY OF THE LINE UNDER THE PRESSURE OF BACKFILL. IN EACH CASE, LEAVE FITTINGS AND COUPLINGS OPEN TO VISUALLY INSPECT FOR FULL PERIOD OF TEST.
 - C. WHEN SYSTEM IS COMPLETE, A COVERAGE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. IT SHALL BE DETERMINED IF THE WATER COVERAGE FOR ALL PLANTING AREAS IS COMPLETE AND ADEQUATE. FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE.
 - D. UPON COMPLETION OF EACH PHASE OF WORK, THE ENTIRE SYSTEM SHOULD BE TESTED AND ADJUSTED TO MEET SITE REQUIREMENTS.

END OF SECTION

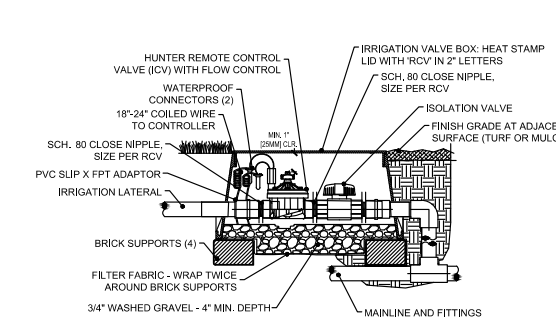


1. WEATHER SENSORS ARE TO BE PROVIDED AS REQUIRED BY LOCAL CODES. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.

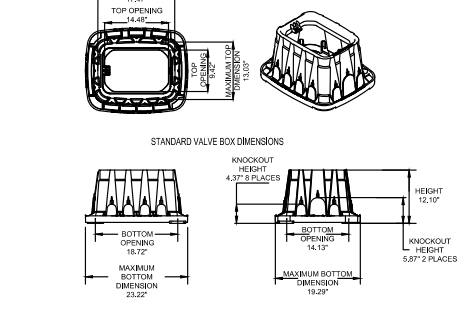
1 PRO-C CONTROLLER W/SOLAR SYNC SYSTEM N.T.S.



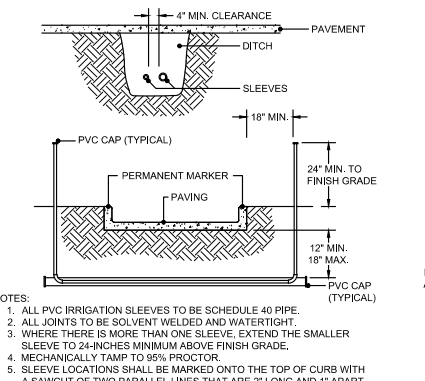
2 DOUBLE CHECK ASSEMBLY N.T.S.



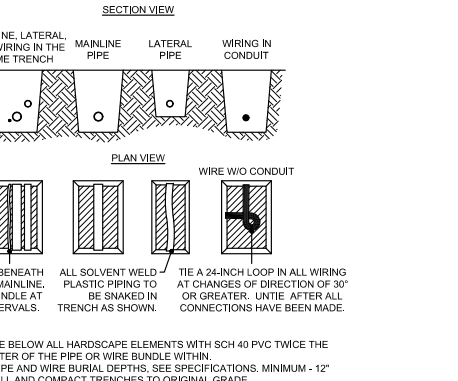
3 IN-LINE VALVE (ICV) WITH ISOLATION VALVE N.T.S.



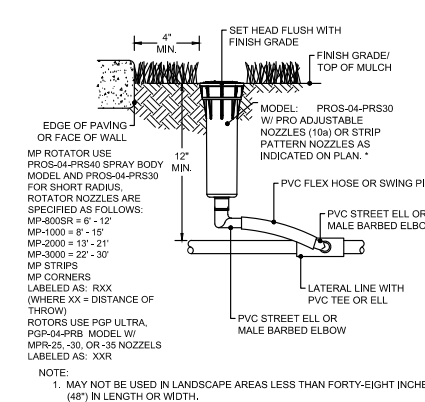
4 STANDARD VALVE BOXES N.T.S.



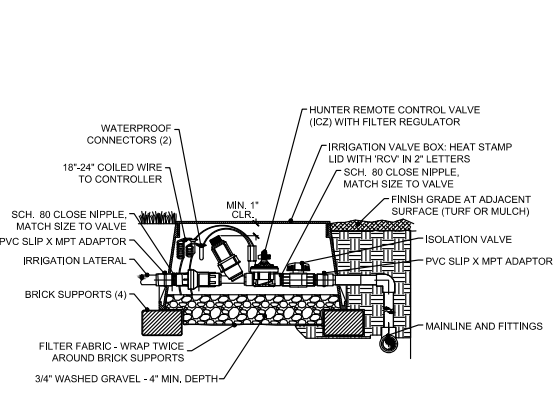
5 IRRIGATION PVC SLEEVES N.T.S.



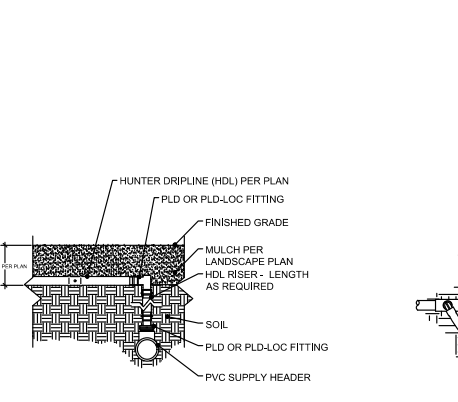
6 PIPE AND WIRING TRENCHING N.T.S.



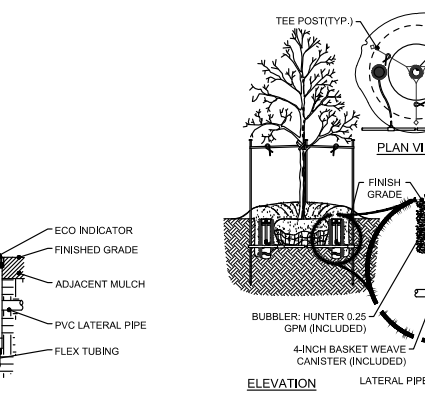
7 POP-UP SPRAY BODY OR POP-UP ROTOR N.T.S.



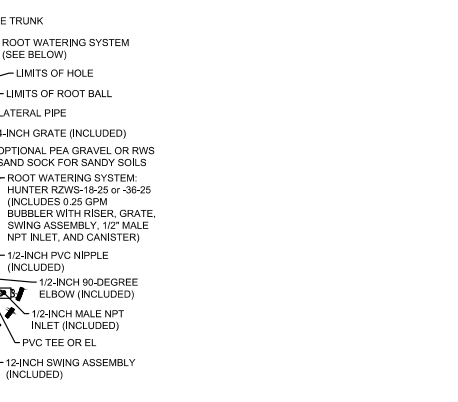
8 DRIP CONTROL ZONE KIT W/ ISOLATION VALVE N.T.S.



9 HUNTER DRIPLINE CONNECTION W/DRIPLINE AND ELBOW N.T.S.



10 ECO INDICATOR - FLEX TUBING N.T.S.



11 TREE ROOT WATERING SYSTEM N.T.S.

DEVELOPMENT SERVICES, INC.
 TEXAS REGISTRATION #F-002239
 900 Term & Country Lane Suite 220 Houston, Texas 77024 (713) 642-0811

WILD FORK FOODS #9063
 8609 DAVIS BLVD
 NORTH RICHLAND HILLS, TX
 FIRST HARTFORD REALTY CORPORATION
 MANCHESTER, CT 06042
 149 COLONIAL RD

NO:	1	ISSUE:	CITY COMMENTS	DATE:	05/05/22
-----	---	--------	---------------	-------	----------

STATE OF TEXAS
 AMANDA RICHARDSON
 14033
 DRAWN: SWG
 CHECKED: SWG
 DATE: 05/10/22
 SHEET TITLE: IRRIGATION SPECS/DETAILS
 ALL DRAWN AND WRITTEN INFORMATION APPEARING HEREIN SHALL NOT BE DUPLICATED, DISCLOSED, OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF DEVELOPMENT SERVICES, INC.

SHEET
L202

AWR
 AWR Designs, LLC
 P.O. Box 1746
 Aledo, Texas 76008
 amanda@awr-designs.com
 c. 512.517.5589