

Drawing: S:\Projects\LD0028\DWG\LD0028-HS.dwg Saved By: Audrey Save Time: 5/16/2013 8:34 AM  
Plotted by: Audrey Plot Date: 5/16/2013 8:34 AM

GENERAL CONSTRUCTION NOTES

1. IT IS NOT THE INTENT OF THESE CONSTRUCTION NOTES TO COVER ALL DETAILS AND/OR SPECIFICATION REQUIREMENTS OF THE CITY OF ROCKWALL. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF ROCKWALL'S STANDARD SPECIFICATIONS, GENERAL DESIGN STANDARDS, ORDINANCES, RULES, POLICIES, REQUIREMENTS AND REGULATIONS, AS WELL AS ANY OTHER APPLICABLE STATE AND/OR FEDERAL RULES, REGULATIONS AND/OR REQUIREMENTS, AS THEY EXIST OR MAY BE AMENDED. ENGINEERING DRAWINGS SHALL GOVERN FOR CONSTRUCTION OF ALL CIVIL IMPROVEMENTS.
2. THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN (MAIN LINES, NO LATERAL OR SERVICES SHOWN) ON THE DRAWINGS WERE OBTAINED FROM AVAILABLE RECORDS AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL DETERMINE THE DEPTH AND LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO TRENCHING AND SHALL BE REQUIRED TO TAKE ANY PRECAUTIONARY MEASURES TO PROTECT ALL LINES SHOWN AND / OR ANY OTHER UNDERGROUND UTILITIES NOT OF RECORD OR NOT SHOWN ON THE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL FRANCHISE AND CITY OF ROCKWALL UTILITIES PRIOR TO CONSTRUCTION.
3. ANY CONTRACTOR / SUBCONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS. SAID EXISTING IMPROVEMENTS SHALL INCLUDE BUT NOT BE LIMITED TO BERMS, DITCHES, FENCES, AND PLANTS. ANY REMOVAL OR DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE AND SHALL BE APPROVED BY THE CITY OF ROCKWALL.
4. ALL CONSTRUCTION, TESTING, AND MATERIALS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE CITY OF ROCKWALL. ALL SUBMITTALS MUST BE ORIGINALS WITH SIGNATURES WHERE APPLICABLE; FACSIMILES OR EMAILS SHALL BE FOLLOWED UP WITH ORIGINALS.
5. ALL TESTING SHALL BE DONE BY AN APPROVED LABORATORY AT THE EXPENSE OF THE CONTRACTOR. THE CITY OF ROCKWALL WILL ONLY ACCEPT SIGNED ORIGINAL COPIES OF ALL TESTING REPORTS FOR REVIEW.
6. THE DEVELOPER OR HIS/HER DESIGNEE SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE LATEST REVISION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL HANDBOOK. ALL REFERENCE FOR USING TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) STANDARDS AND CONSTRUCTION DETAILS SHALL BE THE LATEST REVISIONS AND/OR AMENDMENTS THEREOF. THE CITY OF ROCKWALL USES RAISED PAVEMENT MARKINGS (BUTTONS) FOR STRIPING AND THERMOPLASTIC MARKINGS IN LIEU OF PAINT. THE MINIMUM SIGN SIZE SHALL BE THE STANDARD SIZE IN THE MANUAL. DETAILS ARE AVAILABLE UPON REQUEST FOR THE TYPE OF BUTTON PATTERNS AND POSTS AND CONNECTIONS REQUIRED FOR THE SIGNS.
7. THE CONTRACTOR SHALL MAKE EVERY EFFORT NOT TO IMPEDE TRAFFIC ON EXISTING STREETS, ALLEYS, OR FIRELANES OPEN TO THE PUBLIC. IN THE EVENT THE CONSTRUCTION WORK REQUIRES THE CLOSURE OF AN EXISTING STREET, ALLEY, OR FIRELANE, THE CONTRACTOR SHALL REQUEST THE ROAD CLOSURE THROUGH THE CITY OF ROCKWALL. IF THE CLOSURE ELIMINATES THE SECOND POINT OF ACCESS TO EXISTING BUILDINGS WITH A CERTIFICATE OF OCCUPANCY, THEN THE ACCESS MAY NOT BE CLOSED FOR MORE THAN FORTY-EIGHT (48) HOURS AND WILL REQUIRE FIRE MARSHAL APPROVAL IN EITHER CASE. UNLESS OTHERWISE SPECIFIED BY THE CITY OF ROCKWALL, ALL OTHER STREETS OR ALLEYS MAY NOT BE CLOSED FOR MORE THAN SEVENTY-TWO (72) HOURS.

OWNER /  
DEVELOPER:

CADG ROCKWALL 41, LLC  
1221 N. I-35 E, SUITE 200  
CARROLLTON, TEXAS 75006  
PH. 469-892-7200  
CONTACT: STEVE LENART

CIVIL ENGINEER:

PELTON LAND SOLUTIONS, LLP  
5751 KROGER DRIVE, SUITE 185  
KELLER, TEXAS 76244  
PH. (817) 562-3350  
CONTACT: MARK HOLLIDAY, P.E.

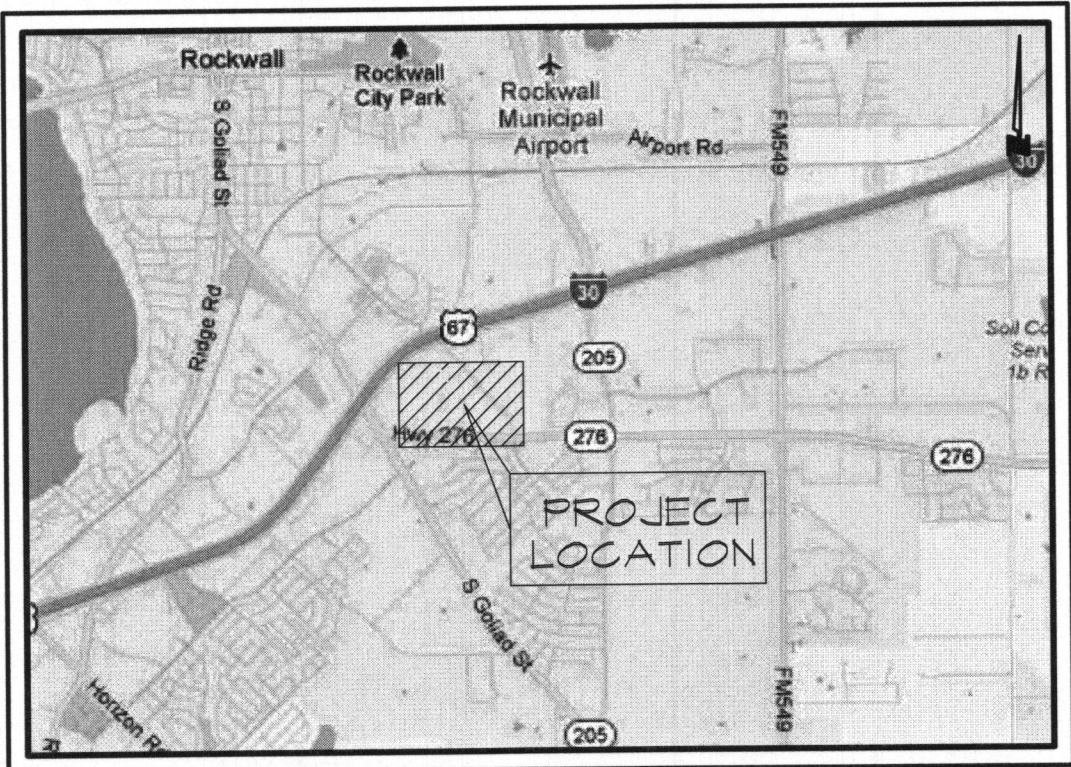
LANDSCAPE  
ARCHITECT:

STUDIO 13 DESIGN GROUP, PLLC.  
519 BENNETT LANE  
SUITE 203  
LEWISVILLE, TEXAS 75057  
PH. (469) 635-1900  
CONTACT: CODY JOHNSON, ASLA, LI

CONSTRUCTION PLANS  
LANDSCAPE & SCREENING

~TOWNSEND VILLAGE~

CITY OF ROCKWALL  
ROCWALL COUNTY, TEXAS



LOCATION MAP  
NOT TO SCALE

SHEET INDEX

HS1	OVERALL LAYOUT PLAN
HS2-HS4	HARDSCAPE PLANS
HS5-HS7	HARDSCAPE DETAILS
L1-L3	LANDSCAPE PLANS
L4	LANDSCAPE DETAILS
IR1-IR3	IRRIGATION PLANS
IR4-IR5	IRRIGATION DETAILS

LANDSCAPE PROVIDED

**REQUIRED - STATE HIGHWAY NO. 276**  
-20' WIDE LANDSCAPE BUFFER WITH BERM  
PER SEC. 6.6.E.3, ART. V.  
REQUIRED PER SEC. 6.6.E.3, ART. V.  
-3 CANOPY TREE -4" CAL. PER 100 LINEAR FEET.  
-4 ACCENT TREE -2" CAL. PER 100 LINEAR FEET.  
242 LINEAR FEET = 242/100=9  
4 - 4" CANOPY TREES, 12 - 2" ACCENT TREES

**PROVIDED**  
-4 - 4" CAL. CANOPY TREES  
-12 - 2" ACCENT TREES

**REQUIRED - T.L. TOWNSEND DRIVE**  
REQUIRED PER SEC. 6.6.E.2, ART. V.  
-3 CANOPY TREE -4" CAL. PER 100 LINEAR FEET.  
-4 ACCENT TREE -2" CAL. PER 100 LINEAR FEET.  
1024 LINEAR FEET = 1024/100=10.24 = 11  
88 - 3" CANOPY TREES, 44 - 2" ACCENT TREES

**PROVIDED**  
-88 - 4" CANOPY TREES  
-44 - 2" ACCENT TREES

LANDSCAPE NOTES.

1. A TREE PERMIT IS REQUIRED FOR ALL REMOVAL OF ALL TREES, PROTECTED AND UNPROTECTED.
2. PLANT MATERIAL SHALL BE MEASURED AND SIZED ACCORDING TO THE LATEST EDITION OF THE TEXAS NURSERY & LANDSCAPE ASSOCIATION (TNLA) SPECIFICATIONS, GRADES AND STANDARDS.
3. ALL PLANT SUBSTITUTIONS ARE SUBJECT TO CITY OF ROCKWALL APPROVAL AND MUST BE SPECIFIED ON THE APPROVED LANDSCAPE PLAN.
4. GROUND COVERS USED IN LIEU OF TURF GRASS MUST PROVIDE COMPLETE COVERAGE WITHIN ONE (1) YEAR OF PLANTING AND MAINTAIN ADEQUATE COVERAGE AS APPROVED BY THE CITY OF ROCKWALL.
5. TREES MUST BE PLANTED FOUR FEET (4') OR GREATER FROM CURBS, SIDEWALKS, UTILITY LINES, SCREENING WALLS AND/OR OTHER STRUCTURES. THE CITY OF ROCKWALL HAS FINAL APPROVAL FOR ALL TREE PLACEMENTS.
6. TREE PITS SHALL HAVE ROUGHENED SIDES AND BE TWO TO THREE TIMES WIDER THAN THE ROOT BALL OF THE TREE IN ORDER TO FACILITATE HEALTHY ROOT GROWTH.
7. TREE PITS SHALL BE TESTED FOR WATER PERCOLATION. IF WATER DOES NOT DRAIN OUT OF TREE PIT WITH IN A 24-HOUR PERIOD, THE CONTRACTOR SHALL PROVIDE BERMING, OR DEVISE DRAINAGE PRACTICES, AND CONTACT THE CITY OF ROCKWALL LANDSCAPE ARCHITECT PRIOR TO PLANTING.
8. TREES SHALL NOT BE PLANTED DEEPER THAN THE BASE OF THE "TRUNK FLARE".
9. THE TREE PIT SHALL BE BACKFILLED WITH NATIVE TOPSOIL FREE OF ROCK AND OTHER DEBRIS.
10. BURLAP, TWINE AND WIRE BASKETS SHALL BE LOOSENEED AND PULLED BACK FROM THE TRUNK OF TREE AS MUCH AS POSSIBLE.
11. TREES SHALL NOT BE WATERED TO EXCESS THAT RESULTS IN SOIL SATURATION. IF SOIL BECOMES SATURATED, THE WATERING SCHEDULE SHALL BE ADJUSTED TO ALLOW FOR DRAINAGE AND ABSORPTION OF THE EXCESS WATER.
12. A 3"-4" LAYER OF MULCH SHALL BE PROVIDED AROUND THE BASE OF THE PLANTED TREE. THE MULCH SHALL BE PULLED BACK 1-2" FROM THE TRUNK OF THE TREE.
13. NO PERSON(S) OR ENTITY MAY USE IMPROPER OR MALICIOUS MAINTENANCE OR PRUNING TECHNIQUES WHICH WOULD LIKELY LEAD TO THE DEATH OF THE TREE. IMPROPER OR MALICIOUS TECHNIQUES INCLUDE, BUT ARE NOT LIMITED TO, TOPPING OR OTHER UNSYMMETRICAL TRIMMING OF TREES, TRIMMING TREES WITH A BACKHOE, OR USE OF FIRE OR POISON TO CAUSE THE DEATH OF A TREE.
14. TOPSOIL SHALL BE A MINIMUM OF 6 INCHES IN DEPTH IN PLANTING AREAS. SOIL SHALL BE FREE OF STONES, ROOTS, AND CLODS AND ANY OTHER FOREIGN MATERIAL THAT IS NOT BENEFICIAL FOR PLANT GROWTH.
15. ALL PLANT BEDS SHALL BE TOP-DRESSED WITH A MINIMUM OF 3 INCHES OF HARDWOOD OR OTHER MULCH.
16. TREES OVERHANGING WALKS AND PARKING SHALL HAVE A MINIMUM CLEAR TRUNK HEIGHT OF 7 FEET. TREES OVERHANGING PUBLIC STREET PAVEMENT DRIVE AISLES AND FIRE LANES SHALL HAVE A MINIMUM CLEAR TRUNK HEIGHT OF 14 FEET.
17. A VISIBILITY TRIANGLE MUST BE PROVIDED AT ALL INTERSECTIONS. SHRUBS ARE NOT TO EXCEED 30 INCHES IN HEIGHT. TREES SHALL HAVE A MINIMUM CLEAR TRUNK HEIGHT OF 8 FEET.
18. TREES PLANTED ON A SLOPE SHALL HAVE THE SOIL STAIN AT THE AVERAGE GRADE OF SLOPE.
19. NO SHRUBS SHALL BE PERMITTED WITHIN AREAS LESS THAN 3 FEET IN WIDTH. ALL BEDS LESS THAN 3 FEET IN WIDTH SHALL BE GRASS, GROUNDCOVER OR SOME TYPE OF FIXED PAVING.
20. THE OWNER, TENANT, AND/OR THEIR AGENTS, IF ANY, SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE MAINTENANCE, ESTABLISHMENT, AND PERMANENCE OF PLANT MATERIAL. ALL LANDSCAPING SHALL BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES. THIS SHALL INCLUDE, BUT NOT LIMITED TO, MOYING, EDGING, PRUNING, FERTILIZING, WATERING, AND OTHER ACTIVITIES NECESSARY FOR THE MAINTENANCE OF LANDSCAPED AREAS.
21. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AS IS APPROPRIATE FOR THE SEASON OF THE YEAR. PLANT MATERIAL THAT IS DAMAGED, DESTROYED, OR REMOVED SHALL BE REPLACED WITH PLANT MATERIAL OF SIMILAR SIZE AND VARIETY WITHIN 30 DAYS UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY OF ROCKWALL.
22. LANDSCAPE AND OPEN AREAS SHALL BE KEPT FREE OFF TRASH, LITTER AND WEEDS.
23. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE PROVIDED TO IRRIGATE ALL LANDSCAPE AREAS. OVERSPRAY ON STREETS AND WALKS IS PROHIBITED. A PERMIT FROM THE BUILDING INSPECTION DEPARTMENT IS REQUIRED FOR EACH IRRIGATION SYSTEM.
24. NO PLANT MATERIAL SHALL BE ALLOWED TO ENCRGOACH ON RIGHT-OF-WAY, SIDEWALKS OR EASEMENTS TO THE EXTENT THAT THE VISION OR ROUTE OF TRAVEL FOR VEHICULAR, PEDESTRIAN, OR BICYCLE TRAFFIC IS IMPEDED.
25. NO PLANTING AREAS SHALL EXCEED 3:1 SLOPE. 3' HORIZONTAL TO 1' VERTICAL.
26. EARTHEN BERMS SHALL NOT INCLUDE CONSTRUCTION DEBRIS. CONTRACTOR MUST CORRECT SLIPPAGE OR DAMAGE TO THE SMOOTH FINISH GRADE OF THE BERM PRIOR TO ACCEPTANCE.
27. ALL WALKWAYS SHALL MEET A.D.A. AND T.A.S. REQUIREMENTS.
28. CONTACT CITY OF ROCKWALL'S PLANNING DEPARTMENT AT FOR LANDSCAPE INSPECTION. NOTE LANDSCAPE INSTALLATION MUST COMPLY WITH APPROVED LANDSCAPE PLANS PRIOR FINAL ACCEPTANCE BY THE CITY OF ROCKWALL AND/OR OBTAINING A CERTIFICATE OF OCCUPANCY.
29. FINAL INSPECTION AND APPROVAL OF SCREENING WALLS, IRRIGATION AND LANDSCAPE IS SUBJECT TO ALL PUBLIC UTILITIES, INCLUDING BUT NOT LIMITED TO MANHOLES, VALVES, WATER METERS, CLEANOUTS AND OTHER APPURTENANCES, TO BE ACCESSIBLE, ADJUSTED TO GRADE AND TO THE CITY OF ROCKWALL'S PUBLIC WORKS DEPARTMENT STANDARDS.
30. PRIOR TO CALLING FOR A LANDSCAPE INSPECTION, CONTRACTOR IS RESPONSIBLE FOR MARKING ALL MANHOLES, VALVES, WATER METERS, CLEANOUTS AND OTHER UTILITY APPURTENANCES WITH FLAGGINS FOR FIELD VERIFICATION BY THE PUBLIC WORKS DEPARTMENT.

Submittal 05-16-2013

STUDIO 13  
DESIGN GROUP

Studio 13 Design Group, PLLC.  
519 Bennett Lane, Suite 203  
Lewisville, Texas 75057  
469-635-1900



Drawing: S:\Projects\LDC028\DWG\LDC028-HS.dwg Saved By: Audrey Save Time: 5/16/2013 8:34 AM

TRACT ONE  
EXISTING  
COMMERCIAL  
(10.066 AC.)

TRACT TWO  
RESIDENTIAL  
(27.530 AC.)

FOR HARDSCAPING OF THIS  
AREA REFER TO SHEET HS2  
FOR LANDSCAPING OF THIS  
AREA REFER TO SHEET LI.  
FOR IRRIGATION OF THIS  
AREA REFER TO SHEET IRI.

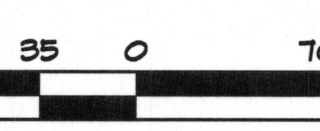
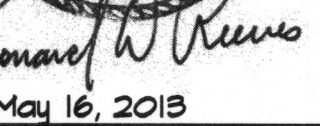
FOR HARDSCAPING OF THIS  
AREA REFER TO SHEET H53.  
FOR LANDSCAPING OF THIS  
AREA REFER TO SHEET L2.  
FOR IRRIGATION OF THIS  
AREA REFER TO SHEET IR2.

FOR HARDSCAPING OF THIS  
AREA REFER TO SHEET HS3.  
FOR LANDSCAPING OF THIS  
AREA REFER TO SHEET L2.  
FOR IRRIGATION OF THIS  
AREA REFER TO SHEET IR2.

FOR HARDSCAPING OF THIS  
AREA REFER TO SHEET HS4.  
FOR LANDSCAPING OF THIS  
AREA REFER TO SHEET L3.  
FOR IRRIGATION OF THIS  
AREA REFER TO SHEET IR3.

TRACT THREE  
(3.95 AC.)  
FUTURE COMMERCIAL

STATE HIGHWAY NO. 276



is one inch on original  
drawing. If not one inch on this  
drawing, adjust scale as necessary.

ne Inch

## LANDSCAPE AND SCREENING

Townsend Village

City of Rockwall, Rockwall County, Texas

[illegible]

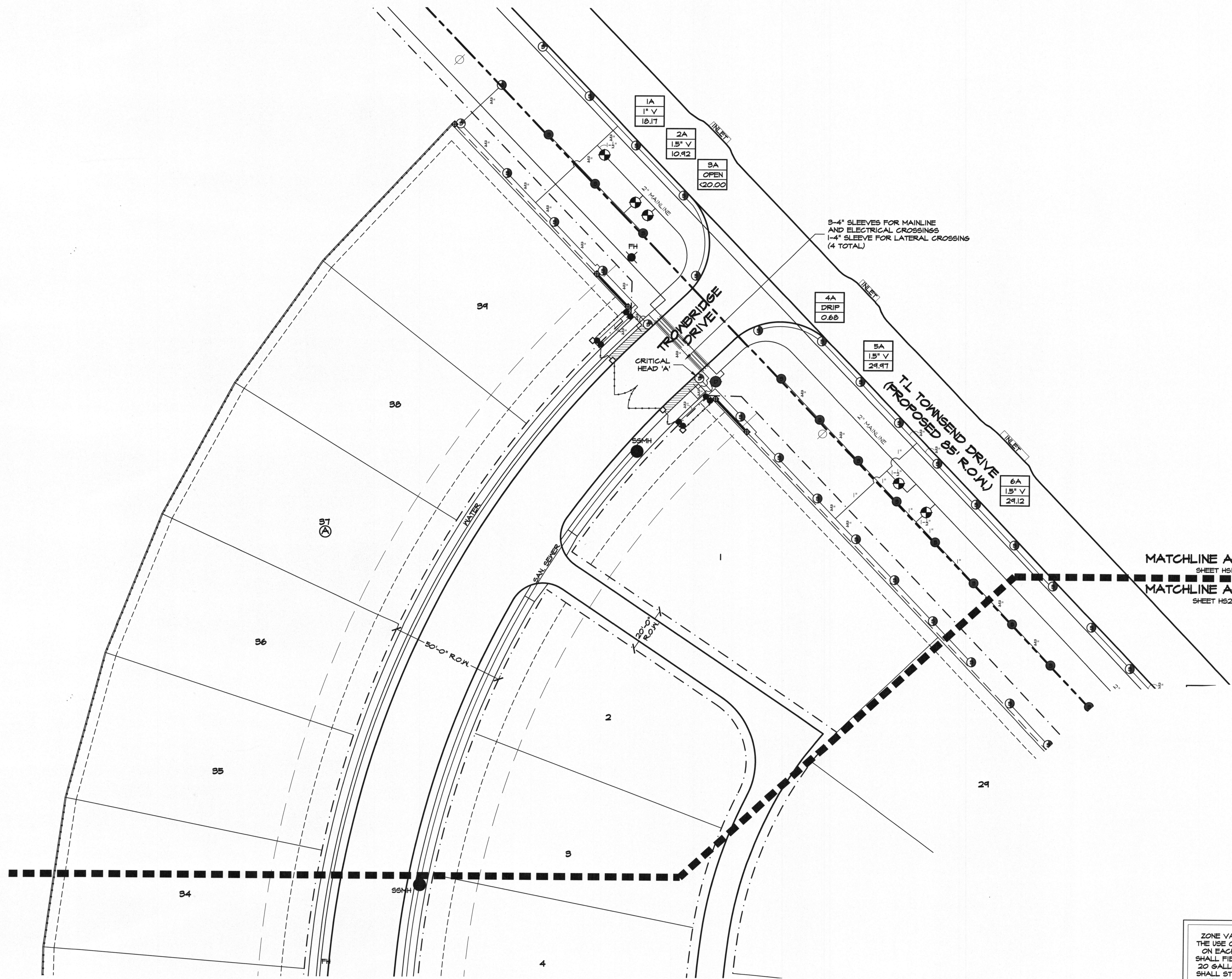
PROJECT  
LDC028

HS1 of 7



Plotted by: Audrey Plot Date: 5/16/2013 8:47 AM

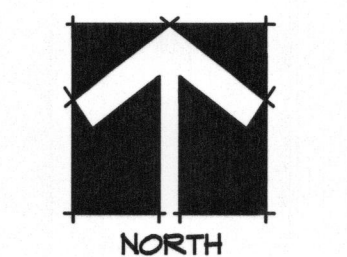
Drawing: S:\Projects\LDC028-IR.dwg Saved By: Audrey Save Time: 5/10/2013 9:06 AM



ZONE VALVES LABELED AS 'OPEN' ARE INTENDED FOR THE USE OF SUPPLYING HUNTER AFB-ADJ TREE BUBBLERS ON EACH PROPOSED TREE. IRRIGATION CONTRACTOR SHALL FIELD VERIFY THAT THESE ZONES DO NOT EXCEED 20 GALLONS PER MINUTE. THE IRRIGATION CONTRACTOR SHALL STAKE EACH TREE BUBBLER HEAD LOCATION AND RECEIVE APPROVAL FROM THE OWNER AND/OR THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

PLAN REVIEW REVISIONS	BY	DATE
#	0	
PROJECT	LDC028	
SHEET	IR1 of 5	





1" = 20' - 0"

Bar is one inch on original drawing. If not one inch on this sheet, adjust scale as necessary.

One Inch

**LANDSCAPE AND SCREENING**

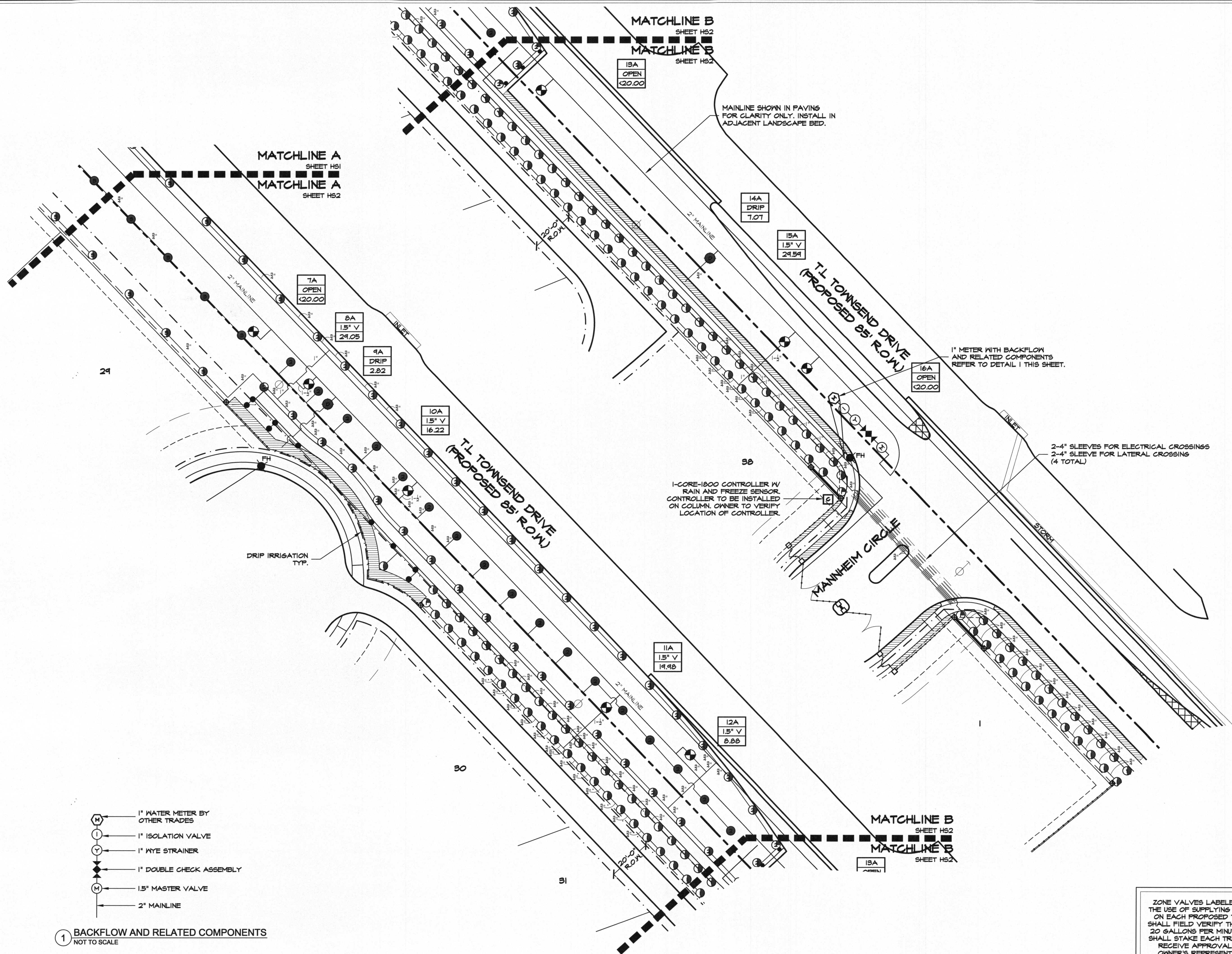
**Irrigation Plan**

**Townsend Village**

**City of Rockwall    Rockwall County    Texas**

[illegible]PROJECT  
LDC028

IR2 of 5

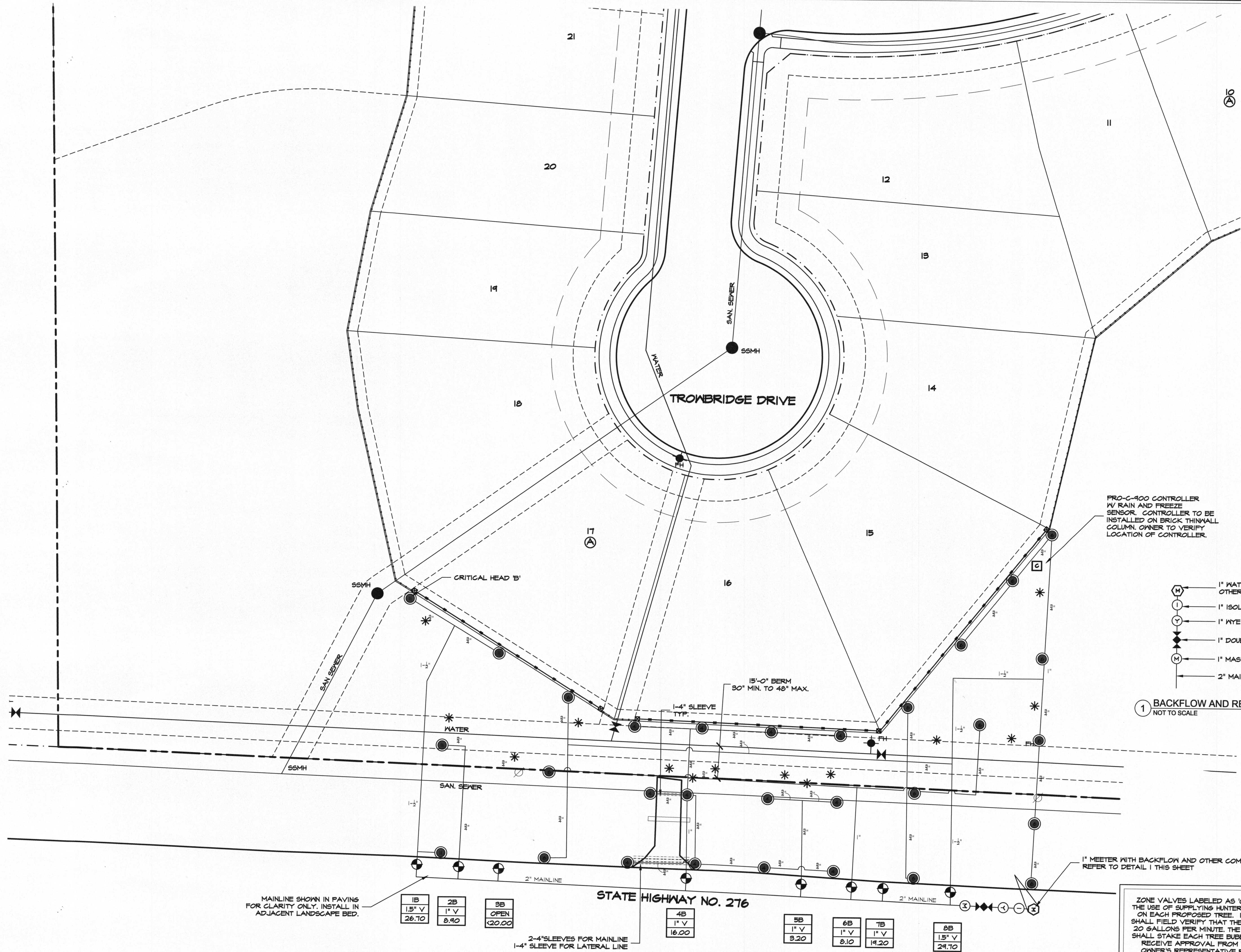


ZONE VALVES LABELED AS "OPEN" ARE INTENDED FOR THE USE OF SUPPLYING HUNTER AFB-ADJ TREE BUBBLERS ON EACH PROPOSED TREE. IRRIGATION CONTRACTOR SHALL FIELD VERIFY THAT THESE ZONES DO NOT EXCEED 20 GALLONS PER MINUTE. THE IRRIGATION CONTRACTOR SHALL STAKE EACH TREE BUBBLER HEAD LOCATION AND RECEIVE APPROVAL FROM THE OWNER AND/OR THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.



Plotted by: Audrey Plot Date: 5/16/2013 8:47 AM

Drawing: S:\Projects\LDC028\DWG\LDC028-IR.dwg Saved By: Audrey Save Time: 5/10/2013 9:06 AM



PRO-C-900 CONTROLLER  
W/ RAIN AND FREEZE  
SENSOR. CONTROLLER TO BE  
INSTALLED ON BRICK THINWALL  
COLUMN. OWNER TO VERIFY  
LOCATION OF CONTROLLER.

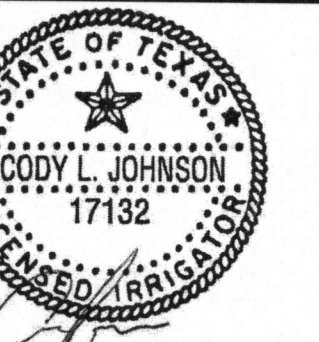
- 1" WATER METER BY  
OTHER TRADES
- 1" ISOLATION VALVE
- 1" WYE STRAINER
- 1" DOUBLE CHECK ASSEMBLY
- 1" MASTER VALVE
- 2" MAINLINE

1 BACKFLOW AND RELATED COMPONENTS  
NOT TO SCALE

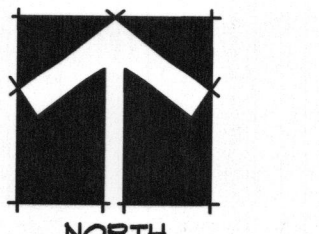
ZONE VALVES LABELED AS 'OPEN' ARE INTENDED FOR  
THE USE OF SUPPLYING HUNTER AFB-ADJ TREE BUBBLERS  
ON EACH PROPOSED TREE. IRRIGATION CONTRACTOR  
SHALL FIELD VERIFY THAT THESE ZONES DO NOT EXCEED  
20 GALLONS PER MINUTE. THE IRRIGATION CONTRACTOR  
SHALL STAKE EACH TREE BUBBLER HEAD LOCATION AND  
RECEIVE APPROVAL FROM THE OWNER AND/OR THE  
OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

STUDIO 13  
DESIGN GROUP

Studio 13 Design Group, PLLC.  
519 Bennett Lane, Suite 203  
Lewisville, Texas 75057  
469-635-1900



May 16, 2013



20 10 0 20  
1" = 20' - 0"

Bar is one inch on original  
drawing. If not one inch on this  
sheet, adjust scale as necessary.

One Inch

## LANDSCAPE AND SCREENING

Irrigation Plan

Townsend Village

City of Rockwall, Rockwall County, Texas

BY DATE

PLAN REVIEW REVISIONS

#

0

PROJECT

LDC028

SHEET

IR3 of 5



SCHEDULE

PRER	MODEL	SIZE / NOZZLE	NOTES
	Refer to Plan for Sizes	N/A	INSTALL PER MANUFACTURER'S STANDARDS. IN ADDITION, INSTALL SOLAR-SYNC SYSTEM BY HUNTER.
	ICZ-101	1"	INSTALL PER DETAIL IN 10" ROUND BOX W/ BOLT DOWN LID. ROUT AND PAINT VALVE NUMBER ON LID.
	PLD-06-18	N/A	INSTALL PER DETAIL W/ 40 PSI AT OUTFLOW OF DRIP ZONE VALVE.
	AFB-ADJ BUBBLER	1/2"	INSTALL PER DETAIL W/ 40 PSI AT BASE OF HEAD. INSTALL ON ALL PROPOSED TREES, SEE LANDSCAPE PLANS.
	ICV-1016 ICV-1516	Refer to Plan for Size	INSTALL PER DETAIL IN 10" ROUND PENTEK VALVE BOX WITH BOLT DOWN LID. ROUT AND PAINT VALVE NUMBER ON LID.
	MP ROTATOR	MP1000, MP2000, MP3000	INSTALL PER DETAIL W/ 40 PSI AT BASE OF HEAD. INSTALL LASCO F-120T SWING JOINTS ON ALL SPRAY BODIES. INSTALL NOZZLES ON 4" FRS40 OR 12" FROS-12 SPRAY BODIES.
	PER SERIES	#4, #6, #11 NOZZLE	INSTALL PER DETAIL W/ 40 PSI AT BASE OF HEAD. INSTALL LASCO F-120T SWING JOINTS ON ALL ROTORS.
	PER CITY	Refer to Plan for Size	INSTALLED BY GENERAL CONTRACTOR
	850-BV Series	Refer to Plan for Size	FURNISH AND INSTALL PER LOCAL CODE BY LICENSED IRRIGATION CONTRACTOR.
	*T-118	Line Size	INSTALL PER DETAIL IN 12"x11" PENTEK VALVE BOX WITH BOLT DOWN LID.
	*850	Refer to Plan for Size	INSTALL PER DETAIL IN 12"x11" PENTEK VALVE BOX WITH BOLT DOWN LID.
	ICV-1016 ICV-1516	Refer to Plan for Size	INSTALL PER DETAIL IN 12"x11" PENTEK VALVE BOX WITH BOLT DOWN LID.
	SCH. 40 W/ 12 GA. PULL WIRE IN SLEEVE	Refer to Plan for Size	DRIVEWAY SLEEVES INSTALLED BY GENERAL CONTRACTOR. SIDEWALK SLEEVES INSTALLED BY IRRIGATION CONTRACTOR.
	SCH. 40	Refer to Plan for Size	18" INSTALLATION DEPTH.
	CLASS 200	Refer to Plan for Size	12" INSTALLATION DEPTH STANDARD. 18" INSTALLATION DEPTH UNDER PAVING.

OMATIC CONTROLLER

IRRIGATION NOTES

1. PROVIDE A COMPLETE, FUNCTIONING AUTOMATIC IRRIGATION SYSTEM INCLUDING LABOR, MATERIALS, FEES, TAXES, EQUIPMENT, AND OTHER COSTS INCIDENTAL TO ACCOMPLISHING WORK.
2. ACQUIRE WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT OR LICENSED IRRIGATOR FOR MATERIAL SUBSTITUTES PRIOR TO BEGINNING INSTALLATION.
3. FORTY EIGHT (48) HOURS BEFORE IRRIGATION CONSTRUCTION BEGINS, IRRIGATION CONTRACTOR MUST CALL (800) DES-TESS AND IS RESPONSIBLE FOR LOCATING EXISTING UNDERGROUND UTILITIES AND/OR OBSTACLES PRIOR TO BEGINNING WORK. ANY DAMAGE TO UTILITIES AND/OR FINISHES FROM INFERIOR WORKMANSHIP BY THE IRRIGATION CONTRACTOR SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
4. PIPING IS DIAGRAMMATIC AND SHOWN FOR CLARITY ONLY. ADJUST AS REQUIRED FOR EXISTING UTILITIES, OBSTRUCTIONS, TREE ROOT BALLS, ETC. PIPING AND VALVES SHOWN IN PAVING FOR CLARITY ONLY AND SHALL BE INSTALLED IN ADJACENT LANDSCAPE AREA.
5. COORDINATE SLEEVE AND CONDUIT REQUIREMENTS WITH GENERAL CONTRACTOR. IRRIGATION SLEEVES SHALL BE AS FOLLOWS:
  - 5.1. SLEEVES INTENDED FOR LATERAL LINES ARE TO BE ONE-FOUR INCH SLEEVE AND ARE TO BE NO MORE THAN A DEPTH OF TWO FEET BELOW TOP OF CURB. SLEEVES SHOULD EXTEND A MINIMUM OF 2'-0" BEYOND BACK OF CURB.
  - 5.2. SLEEVES INTENDED FOR THE 2" MAINLINE ARE TO BE TWO-FOUR INCH SLEEVES SIDE BY SIDE AND ARE TO BE NO MORE THAN A DEPTH OF TWO FEET BELOW TOP OF CURB. SLEEVES SHOULD EXTEND A MINIMUM OF 2'-0" BEYOND BACK OF CURB.
6. LOCATE EACH END OF IRRIGATION SLEEVES DIMENSIONALLY ON THE RECORD "AS BUILT" DRAWINGS.
7. THE IRRIGATION CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE LANDSCAPE CONTRACTOR TO ENSURE ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
8. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO PLANT MATERIAL DUE TO SYSTEM FAILURE FROM INFERIOR WORKMANSHIP FOR THE DURATION OF THE INSTALLATION OF PLANT MATERIAL AND MAINTENANCE PERIOD FOLLOWING INSTALLATION.
9. THE IRRIGATION CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL NECESSARY TO HAND DIG WITHIN ALL EXISTING TREE DRIPLINE ZONES AT NO ADDITIONAL COST TO THE OWNER. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO STAKE AND RECEIVE APPROVAL FROM ALL DISCIPLINES PRIOR TO AN TRENCHING AND HAND DIGGING IN AREAS OF EXISTING TREE COVERAGE OR ANY ADDITIONAL AREAS THAT MIGHT BE QUESTIONABLE.
10. EXTEND ONE EXTRA CONTROL WIRE TO FARTHEST VALVE, ROUTED PARALLEL TO COMMON GROUND WIRE WITH INSTALLATION OF LEAD AND COMMON WIRES.
  - II. CONTROL WIRE SHALL BE DIRECT BURIAL, 24 VOLT, SINGLE CONDUCTOR, SOLID COPPER, PLASTIC INSULATED CABLE, RATED FOR DIRECT BURIAL APPLICATIONS, UF, UL, APPROVED, 14 GAUGE MINIMUM LEAD AND COMMON GROUND RETURN WIRE UNLESS NOTED OTHERWISE ON PLANS. COLOR OF INSULATION AS FOLLOWS:
    - III.1. LEAD WIRE: ANY COLOR (SAME COLOR), EXCEPT WHITE OR ORANGE
    - III.2. COMMON GROUND WIRE: WHITE (COLOR)
    - III.3. EXTRA CONTROL WIRE: ORANGE (COLOR)
12. WIRE SPLICES SHALL BE KING ONE-STEP #7 (TAN) OR 3M-DBY PERMANENT AND WATERPROOF. INSTALL ALL WIRE SPLICES IN 10" ROUND PENTEK VALVE BOXES.
13. THE OWNER AND/OR LANDSCAPE ARCHITECT SHALL DETERMINE THE FINAL CONTROLLER LOCATION. THE IRRIGATION CONTRACTOR SHALL MAKE FINAL ELECTRICAL CONNECTION OF CONTROLLER PER LOCAL ELECTRICAL CODE. PROVIDE ALL NECESSARY FUSE BOXES, CONDUIT, FITTINGS, CONNECTORS OR OTHER ELECTRICAL DEVICES TO MAKE CONNECTION. OWNER SHALL PROVIDE ELECTRICAL SERVICE WITHIN 10 LINEAR FEET OF CONTROLLER LOCATION UNLESS NOTED OTHERWISE ON DRAWINGS.
14. CONNECT REMOTE SENSORS TO CONTROLLER WITH GROUND WIRE IN SERIES PRIOR TO CONNECTING TO REMOTE CONTROL VALVES.
15. ALL P.V.C. MAINLINES AND LATERAL LINES SHALL RECEIVE AS FOLLOWS:
  - 15.1. 18" MINIMUM COVER FOR MAIN LINES
  - 15.2. 18" MINIMUM COVER FOR PIPING LOCATED UNDER PAVING
  - 15.3. 12" MINIMUM COVER FOR LATERAL LINES
16. THE MINIMUM DISTANCE BETWEEN THE MAINLINE AND LATERAL LINE FITTINGS (EXCEPT FOR REDUCER BUSHINGS) SHALL BE 18".
17. THE MINIMUM HORIZONTAL DISTANCE OF 36" SHALL BE MAINTAINED BETWEEN ANY VALVES THAT ARE INSTALLED SIDE BY SIDE.
18. WHERE SERVICE TREES ARE INSTALLED ON THE MAINLINE FOR INSTALLATION OF THE ELECTRIC VALVES AND/OR QUICK COUPLING VALVES, THE CONTRACTOR SHALL LIMIT THE NUMBER OF THESE PER SERVICE TEE. DO NOT INSTALL MORE THAN A TOTAL OF EITHER THREE ELECTRIC VALVES OR A COMBINATION OF TWO ELECTRIC VALVES AND ONE QUICK COUPLER VALVE AT EACH TEE. THE MINIMUM DISTANCE BETWEEN FITTINGS SHALL BE 18" AS REFERENCED IN THE ABOVE NOTES.
19. ALL PVC PIPE AND FITTINGS ARE TO BE PRIMED WITH PURPLE PVC PRIMER SOLVENT BEFORE APPLYING PVC CEMENT IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.
20. INSTALL QUICK COUPLING VALVES IN 12"x11" PENTEK VALVE BOXES PER DETAIL SHOWN. CONNECT QUICK COUPLING VALVES TO MAINLINE PIPE WITH LASCO UNITIZED, O-RING SWING JOINTS PER DETAIL SHOWN, #T722-22, SUPPLY OWNER WITH THREE COUPLER KEYS WITH SWIVEL HOSE BIBB EACH, #B3DK-10 AND #SH-O RESPECTIVELY. VALVES TO BE INSTALLED SO THAT THE TOP OF THE QUICK COUPLER IS 2" BELOW BOTTOM OF VALVE BOX LID. PURPLE LID SHALL READ "NON-POTABLE, NOT SAFE FOR DRINKING" IN ENGLISH AND SPANISH.
21. ALL LATERAL LINES SHALL BE 3/4" CLASS 200 PVC UNLESS OTHERWISE NOTED ON PLANS.
22. ZONE VALVES LABELED AS 'OPEN' ARE INTENDED FOR THE USE OF SUPPLYING HUNTER AFB-ADJ TREE BUBBLERS ON EACH PROPOSED TREE. IRRIGATION CONTRACTOR SHALL FIELD VERIFY THAT THESE ZONES DO NOT EXCEED 20 GALLONS PER MINUTE. THE IRRIGATION CONTRACTOR SHALL STAKE EACH TREE BUBBLER HEAD LOCATION AND RECEIVE APPROVAL FROM THE OWNER AND/OR THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
23. ALL STATE OF TEXAS LAWS/RULES AND ALL LOCAL CODES/ORDINANCES AREA MADE PART OF THESE PLANS AND SPECIFICATIONS WHETHER SHOWN OR NOT. THESE LAWS AND ORDINANCES WILL SUPERCEDE THE PLANS, DETAILS, AND/OR SPECIFICATIONS FOR THIS PROJECT. THE IRRIGATION CONTRACTOR IS CAUTIONED THAT HE/SHE IS TO INCLUDE ANY AND ALL COST NECESSARY TO MEET OR EXCEED THE LAWS OF THE STATE OF TEXAS AND LOCAL CODES CONCERNING LANDSCAPE IRRIGATION.

HYDRAULIC CALCULATION NOTES:

TEN DAYS PRIOR TO COMMENCING WORK, VERIFY STATIC PRESSURE. IF STATIC PRESSURE IS LESS THAN THE ASSUMED STATIC PRESSURE DO NOT START WORK UNTIL NOTIFIED IN WRITING TO PROCEED BY OWNER. IF CONTRACTOR PROCEEDS WITH WORK WITHOUT AUTHORIZATION FROM OWNER, THE CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE TO CORRECT, MODIFY OR REPAIR ANY ITEMS OR MATERIALS THAT MAY BE REQUIRED TO PROVIDE A FULLY FUNCTIONING AND OPERATIONAL IRRIGATION SYSTEM IN COMPLIANCE WITH THE PLANS AND SPECIFICATIONS. HYDRAULIC CALCULATIONS FOR THIS SYSTEM ARE BASED ON THE STATIC PRESSURE AS STATED ABOVE. THE STATIC PRESSURE SHOWN IS AN ASSUMED PRESSURE, A PRESSURE MEASURED AT THE SITE, OR AN ESTIMATED PRESSURE PROVIDED BY THE COUNTY OR CITY. THE OWNER UNDERSTANDS THIS PROJECT MAY NOT PROVIDE 100% COVERAGE AT ALL TIMES.

HYDRAULIC CALCULATIONS FROM METER A

ITEM	SIZE	PSI	NOTES
MAXIMUM GPM ESTIMATED - 97.5 GPM			FITTING LOSS ACCOUNTED BY ADDING 10% TO FLOW SHOWN IN MANUF. NOZZLE CHART.
SERVICE	1"	5.94	TYPE "K" COPPER 20 LN. FT. (29.97 GPM)
WATER METER	1"	5.50	(29.97 GPM)
BALL VALVE	1"	1.00	(29.97 GPM)
WYE FILTER	1"	0.50	(29.97 GPM)
BACKFLOW PREVENTER	1"	4.00	(29.97 GPM)
MASTER VALVE	1.5"	1.50	(29.97 GPM)
MAIN LINE	2"	5.68	800 LN. FT. (29.97 GPM)
STATION VALVE	1.5"	1.50	(29.97 GPM)
ZONE #8A	1.5"	2.97	(29.97 GPM)
CRITICAL HEAD 'A'		40.00	
TOTAL LOSS		67.04	
ASSUMED STATIC PRESSURE		75.00	
PRESSURE DIFFERENTIAL		-7.96	

HYDRAULIC CALCULATION NOTES:

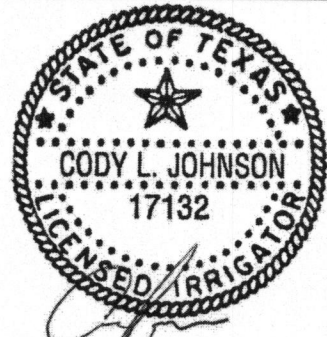
TEN DAYS PRIOR TO COMMENCING WORK, VERIFY STATIC PRESSURE. IF STATIC PRESSURE IS LESS THAN THE ASSUMED STATIC PRESSURE DO NOT START WORK UNTIL NOTIFIED IN WRITING TO PROCEED BY OWNER. IF CONTRACTOR PROCEEDS WITH WORK WITHOUT AUTHORIZATION FROM OWNER, THE CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE TO CORRECT, MODIFY OR REPAIR ANY ITEMS OR MATERIALS THAT MAY BE REQUIRED TO PROVIDE A FULLY FUNCTIONING AND OPERATIONAL IRRIGATION SYSTEM IN COMPLIANCE WITH THE PLANS AND SPECIFICATIONS. HYDRAULIC CALCULATIONS FOR THIS SYSTEM ARE BASED ON THE STATIC PRESSURE AS STATED ABOVE. THE STATIC PRESSURE SHOWN IS AN ASSUMED PRESSURE, A PRESSURE MEASURED AT THE SITE, OR AN ESTIMATED PRESSURE PROVIDED BY THE COUNTY OR CITY. THE OWNER UNDERSTANDS THIS PROJECT MAY NOT PROVIDE 100% COVERAGE AT ALL TIMES.

HYDRAULIC CALCULATIONS FROM METER B

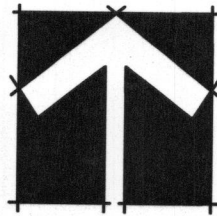
ITEM	SIZE	PSI	NOTES
MAXIMUM GPM ESTIMATED - 97.5 GPM			FITTING LOSS ACCOUNTED BY ADDING 10% TO FLOW SHOWN IN MANUF. NOZZLE CHART.
SERVICE	1"	4.75	TYPE "K" COPPER 20 LN. FT. (26.70 GPM)
WATER METER	1"	4.60	(26.70 GPM)
BALL VALVE	1"	1.00	(26.70 GPM)
WYE FILTER	1"	0.50	(26.70 GPM)
BACKFLOW PREVENTER	1"	4.00	(26.70 GPM)
MASTER VALVE	1"	3.00	(26.70 GPM)
MAIN LINE	2"	1.55	250 LN. FT. (26.70 GPM)
STATION VALVE	1"	3.00	(26.70 GPM)
ZONE #1B	1.5"	1.76	(26.70 GPM)
CRITICAL HEAD 'A'		40.00	
TOTAL LOSS		65.96	
ASSUMED STATIC PRESSURE		75.00	
PRESSURE DIFFERENTIAL		-11.04	

STUDIO 13  
DESIGN GROUP

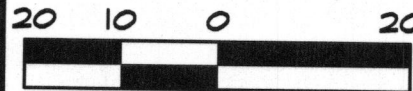
Studio 13 Design Group, PLLC.  
519 Bennett Lane, Suite 203  
Lewisville, Texas 75057  
469-635-1900



May 16, 2013



NORTH



1" = 20' - 0"

Bar is one inch on original drawing. If not one inch on this sheet, adjust scale as necessary.

One Inch

LANDSCAPE AND SCREENING

Irrigation Details

Townsend Village

City of Rockwall, Rockwall County, Texas

PLAN REVIEW REVISIONS	BY	DATE							
#	0								

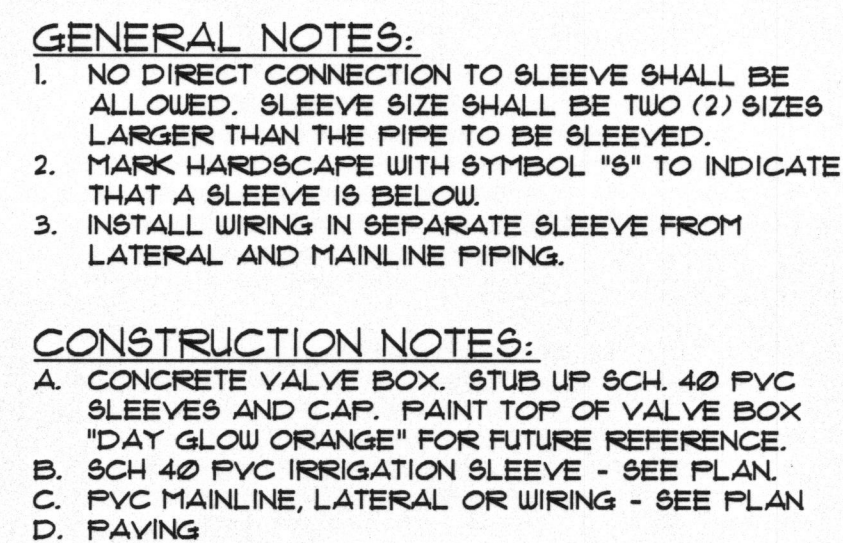
PROJECT

LDC028

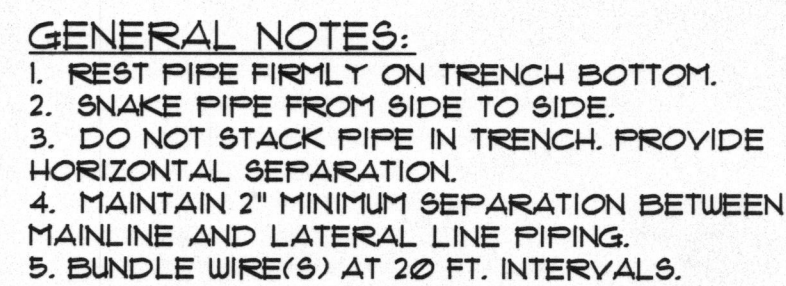
SHEET

IR4 of 5

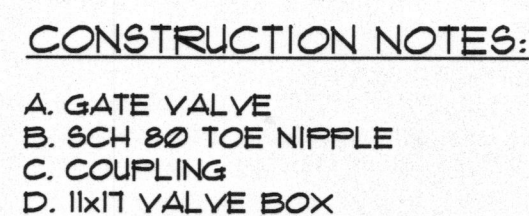




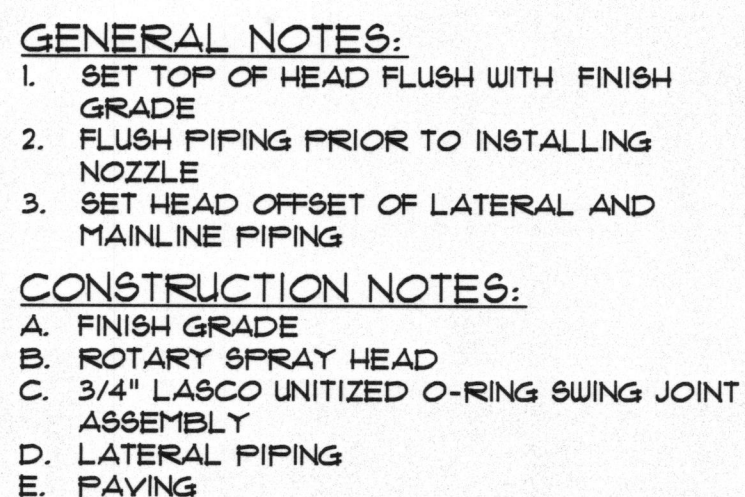
IRRIGATION SLEEVES  
NOT TO SCALE



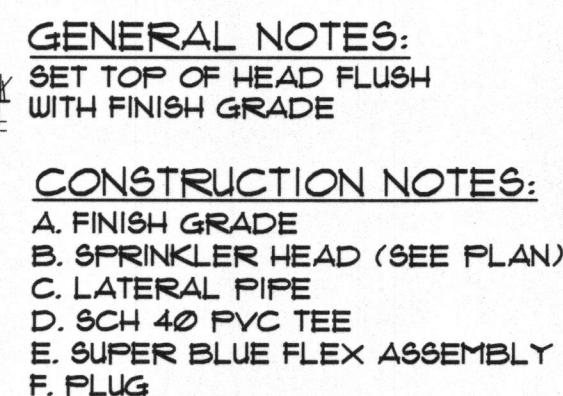
IRRIGATION TRENCH  
NOT TO SCALE



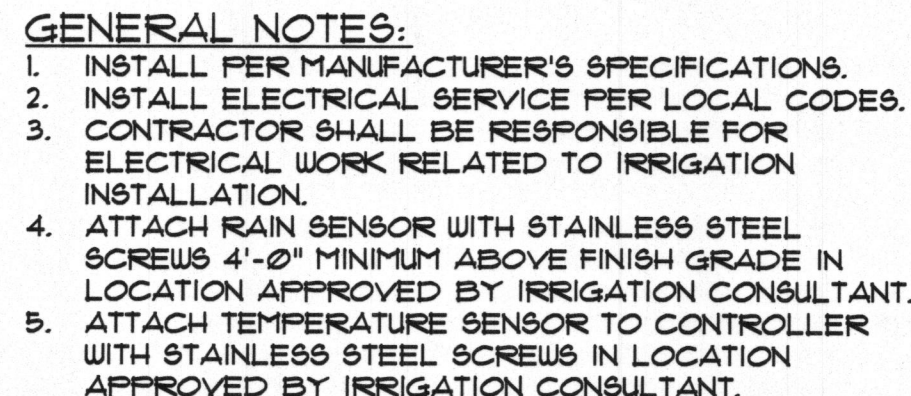
**GATE VALVE**  
**NOT TO SCALE**



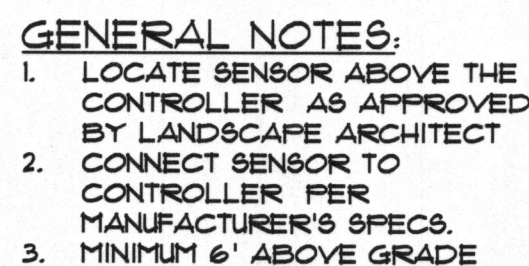
ROTARY SPRAY HEAD  
NOT TO SCALE




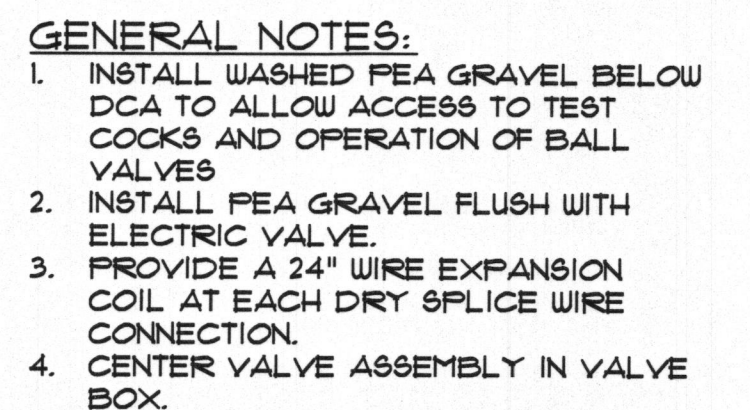
SHRUB SPRAY HEAD  
NOT TO SCALE



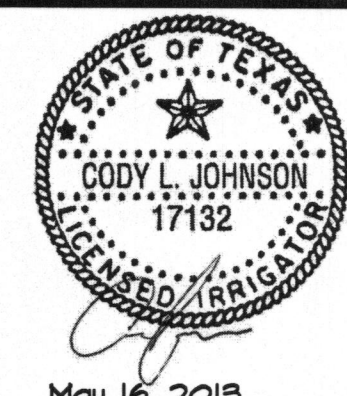
WALL MOUNTED CONTROLLER  
NOT TO SCALE



 RAIN SENSOR  
NOT TO SCALE



BACKFLOW PREVENTER CONNECTION  
NOT TO SCALE



## LANDSCAPE AND SCREENING

### Irrigation Details

Townsend Village

City of Rockwall, Rockwall County, Texas

#	PLAN REVIEW REVISIONS	BY	DATE
0			

PROJECT  
LDC028

SHEET

IR5 of 5