

Irrigation Requirements

- All irrigation permit applications must include an irrigation plan.
 - The irrigation plan must include complete coverage of the area to be irrigated. If a system does not provide complete coverage of the area to be irrigated, it must be noted on the irrigation plan.
 - All irrigation plans used for construction must be drawn to scale. The plan must include, at a minimum the following information:
 - The irrigator's seal, signature, and date of signing
 - All major physical features and the boundaries of the areas to be watered
 - A North arrow
 - A legend
 - The zone flow measurement for each zone
 - Location and type of each
 - Controller
 - Sensor (for example, but not limited to rain, moisture, wind, flow, or freeze)
 - Location, type, and size of each:
 - Water source, such as, but not limited to a water meter and point (s) of connection
 - Backflow prevention device
 - Water emission device, including, but not limited to, spray heads, rotary sprinkler heads, quick-couplers, bubblers, drip, or micro-sprays
 - Valve, including, but not limited to, zone valves, master valves, and isolation valves
 - Pressure regulation component
 - Main line and lateral piping
 - The scale used
 - The design pressure
 - Signed Hold Harmless Agreement for all irrigation located in the right-of-way. The agreement is below.
- *Final inspections will be automatically scheduled for 2 business days after the backflow report is uploaded to the project*

Please visit https://www.tceq.texas.gov/drinkingwater/irrigation/irr_helpres.html for more information.

Apply

Customer Portal

Irrigation Final Inspection Checklist

Contractor Information		Site/Property Information	
Company Name:		Customer Name:	
Licensed Individual:		Address:	
LI# or LP#:		Permit Number:	

Backflow Prevention Method			
Is there an on-site sewage facility where the irrigation is installed?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a private well connected to the public water supply?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a chemical injection system on the irrigation system?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a water meter connected to a private water line with a lawn irrigation connection?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Type of Method: <input type="checkbox"/> RP <input type="checkbox"/> PVB <input type="checkbox"/> SVB <input type="checkbox"/> AVB <input type="checkbox"/> DC <input type="checkbox"/> AG			
Reduced Pressure Principal (RP) Pressure Vacuum Breaker (PVB) Spill Resistant Vacuum Breaker (SVB) Atmospheric Vacuum Breaker (AVB) Double Check Valve (DC) Air Gap (AG)			
Installed per state and local codes?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain:	
T&M Report filed with the water purveyor?	<input type="checkbox"/> Yes <input type="checkbox"/> No		

Irrigation System Controls			
Is the controller(s) properly installed?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Is the rain sensor(s) properly installed?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Documentation			
Irrigation Controller Manual?	<input type="checkbox"/> Yes <input type="checkbox"/> No	As-Built Drawing?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Signed Maintenance Checklist?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Warranty Sticker Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Seasonal Watering Schedule?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Sensor(s) Operational Manual?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Irrigation Statement per RG 344.63 (2)(D)?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Signed Walk Through?	<input type="checkbox"/> Yes <input type="checkbox"/> No
T&M Report to System Owner?	<input type="checkbox"/> Yes <input type="checkbox"/> No	List of Components Requiring Maintenance?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do components match the plan?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Explain:			

System Operation			
Do all zones turn on?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Are there any leaks?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do the heads have the required pressure to operate efficiently?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Are heads out of vertical alignment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Are heads in areas less than 48" wide?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are heads adjusted to prevent overspray onto unintended areas?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Are heads a minimum of 4" from hardscape?	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Are ditches properly compacted?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is there 100% coverage of intended area?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Do quick coupler valve boxes have purple lids?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other Issues:			

Valves			
Are valves installed correctly?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Are valves accessible for repair?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are wires in valve boxes connected correctly?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Are valves in appropriate valve boxes?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Reclaimed Water Systems	
Is there a minimum of an 8" by 8" sign, in English and Spanish, posted in the irrigated area that reads, "RECLAIMED WATER - DO NOT DRINK" and "AGUA DE RECUPERACIÓN - NO BEBER"?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the irrigation system installed using purple components including pipe, valve box lids and heads?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Pass Fail

Comments: _____

Inspected by: _____ Inspector #: _____ Date: _____

Landscape Irrigation Plan Check

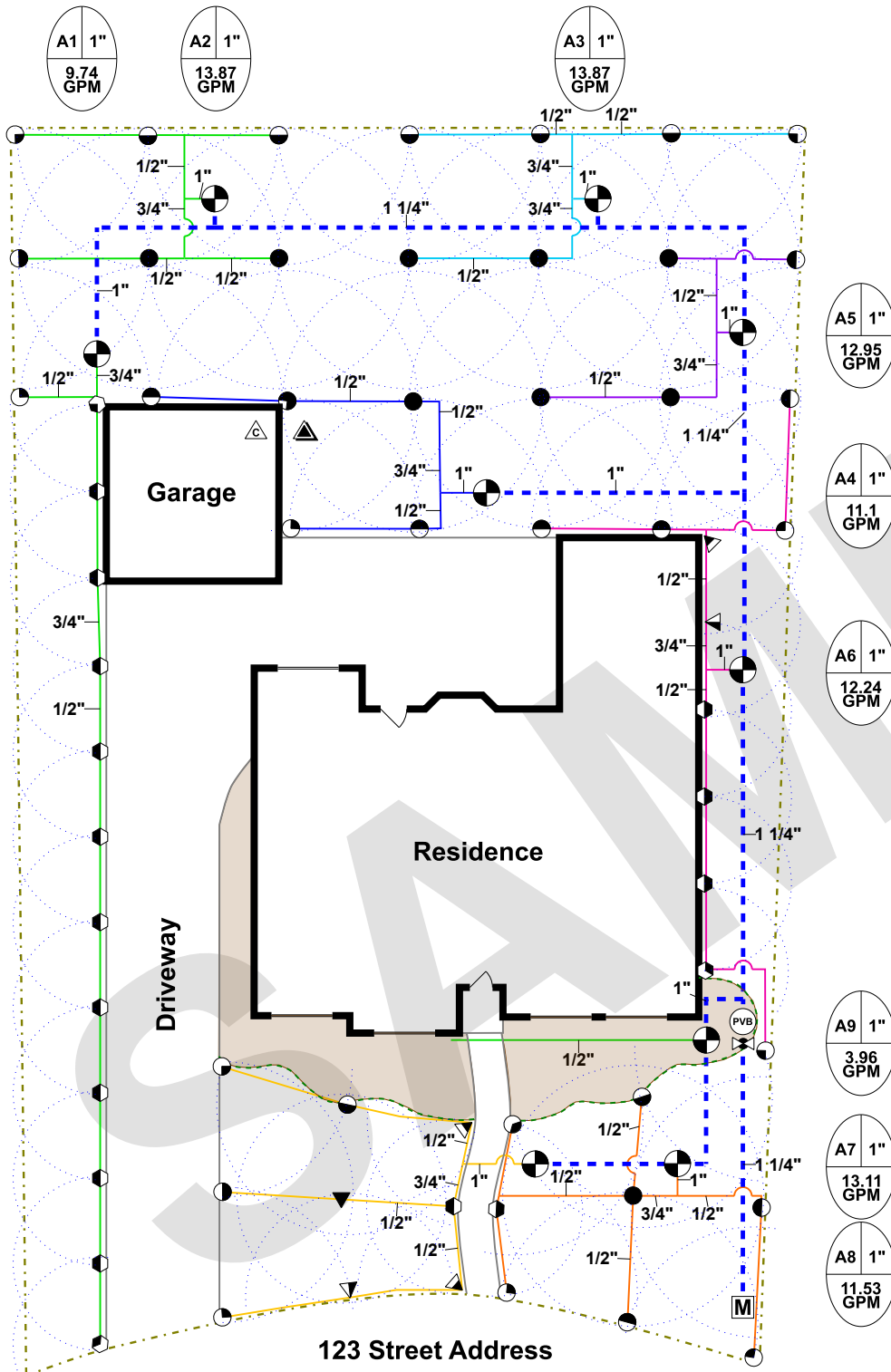
Minimum Design Requirements - Texas Administrative Code Title 30 Ch. 344.61

Type of Installation

- Residential Commercial Golf Course Athletic Field Park Other _____
- New Design Redlined Revisions Other _____
- Irrigation plan's legible and drawn to scale; scale used _____

Minimum Requirements

- Legible and valid irrigators seal, signature, date signed and license number.
- Physical features: trees, slopes, and impervious surfaces, sidewalks, driveways, fences, wells, on-site sewage facilities, buildings, flower beds.
- North Arrow Legend
- Boundaries of area to be irrigated and areas not to be irrigated clearly identified.
- Zone flow measurements for each zone.
- Location of controller(s).
- Location and type of sensors used (e.g., rain and freeze system).
- Location, type, and size of water source(s).
- Location, type, and size of the backflow prevention assembly.
- Location, type, and size of water emission devices.
- Location, type, and size of all valves (e.g., isolation valve, master valve, or zone valve).
- Location, type, and size of pressure regulation components.
- Location, type, and size of main line and lateral pipe material.
- Design pressure calculation indicating operating pressure with total pressure losses to the water source. Provide hydraulic calculations indicating pressure at largest and furthest zones from the water source.



Irrigation

Symbol	Description	Pressure	Flow	Radius
Sprinklers				
☉	10H on 4" pop-up	30 psi	0.79 gpm	10 ft
☉	10Q on 4" pop-up	30 psi	0.39 gpm	10 ft
☉	10T on 4" pop-up	30 psi	0.53 gpm	10 ft
☉	12F on 4" pop-up	30 psi	2.6 gpm	12 ft
☉	12H on 4" pop-up	30 psi	1.3 gpm	12 ft
☉	12Q on 4" pop-up	30 psi	0.65 gpm	12 ft
☉	15F on 4" pop-up	30 psi	3.7 gpm	15 ft
☉	15H on 4" pop-up	30 psi	1.85 gpm	15 ft
☉	15Q on 4" pop-up	30 psi	0.92 gpm	15 ft
☉	15T on 4" pop-up	30 psi	1.23 gpm	15 ft
☉	15TQ on 4" pop-up	30 psi	2.78 gpm	15 ft

Water Source

☑ 3/4 inch meter

Backflow Assemblies

☑ 1" Pressure Vacuum Breaker

Control Valves

☑ Control Valve

Irrigation Accessories

- ☑ Rain/Freeze Sensor
- ☑ Controller
- ☑ 1" Isolation Valve

Lateral Line Pipe

- Class 315 1/2"
- Class 200 3/4"
- Class 200 1"

Mainline Pipe

— Schedule 40 PVC

Drip Tubing

— Drip Tubing

Station / Zone: 2

Water Source	
Type	Meter
Static Pressure	60 psi
Service Line	0.999 psi
Meter Loss	3.048 psi

Mainline Components	
Backflow Loss	3.693 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 2 @ 13.87 gpm

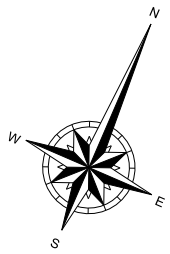
Mainline Loss	2.18 psi
Valve Loss	1.342 psi
Lateral Loss	0.446 psi
Fittings Loss	0.262 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	41.705 psi
Residual Pressure	18.295 psi

NOTE: Pressure regulation is controlled at the nozzle. 4" pop-up's are pressure regulated to 30 psi.



John B. Doe

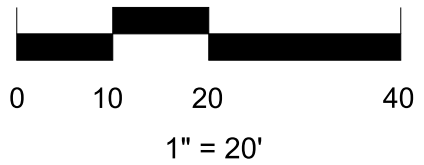
January 1, 2009



Water Source #1	
Meter Size	3/4 inch meter
Static Pressure	60 psi
Elevation Change	0 ft

Service Line Information	
Pipe Category	Poly 100
Pipe Size	Poly 100 1"
Length	20 ft
Velocity	5 fps

Recommendations	
Maximum Recommended Flow	13.47 gpm
Available Working Pressure	52.21 psi



NOTE: Sample design only - designs should reflect local codes and specifications.

**HOLD HARMLESS AND INDEMNIFICATION AGREEMENT
AND ACKNOWLEDGEMENT OF RESPONSIBILITY**

TO: City of Leander, TX

DATE: _____

RE: PRIVATE IRRIGATION SYSTEM PLACED IN THE PUBLIC RIGHT-OF-WAY

This Agreement is in addition to and considered an integral part of Permit # _____ and serves as acknowledgement that a portion of the proposed private irrigation system is located within the public Right(s)-of-Way.

Because a portion of the undersigned corporation's (hereinafter Owner) private irrigation system is located within

the Right-of-Way, I _____, Owner of:

Address: _____

and said private irrigation system accepts full responsibility for the perpetual maintenance of the private irrigation system and full responsibility for any damage created by the use of the Right-of-Way by the Owner and others. It is also agreed and acknowledge that it is the Owner's responsibility to maintain its private irrigation system and, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, that the Owner on the Owner's behalf and on behalf of Owner's heirs, successors, personal representatives and assigns, does hereby confirm, covenant and agree to indemnify, save, hold harmless and defend the City of Leander, Texas, including, but not limited to, its officers, employees, officials, agents and representatives, as well as their sureties, employees, insurers, officers, successors, assigns and legal representatives (hereinafter the "City") from any and all liability against any and all loss, liability, costs, damage, expense, claim, action, suit, demand or injury of any type or nature whatsoever, including interest, suit costs and reasonable attorney's fees for any purposes whatsoever including trials and appeals and otherwise, that may occur as a result of the action or inaction on the Owner's part which the City, or any other person/s or business entity/entities who may hereafter sustain, incur or be required to pay any sums of money, arising wholly or in part due to any of its conduct, act or omission pertaining to the private irrigation system within any portion of the above-mentioned Right-of-Way or any property in the vicinity of its private irrigation system within any portion of the above-mentioned Right-of-Way or any adverse impact caused by the placement of the private irrigation system within the public Right-of-Way. It is further agreed that this Hold Harmless and Indemnification and Acknowledgment of Responsibility shall be binding upon the Owner's heirs, successors, personal representatives, tenants and assigns shall be considered a covenant running with the land and shall be recorded in the public records of Williamson or Travis County. The undersigned covenants and warrants that he is authorized to sign it and to bind the Owner to its provisions.

X _____

OWNER'S SIGNATURE

X _____

INSTALLER