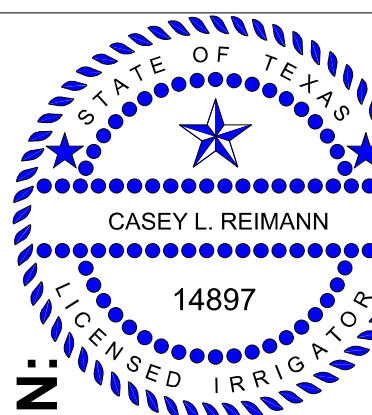




281 341-0499



SHEET DESCRIPTION:

IRRIGATION DESIGN

Casey Reimann

01/12/2017

PROJECT:
GABRISCH RESIDENCE
11330 GREENBAY
HOUSTON, TX

REVISIONS:
None

DATE:
01/12/2017

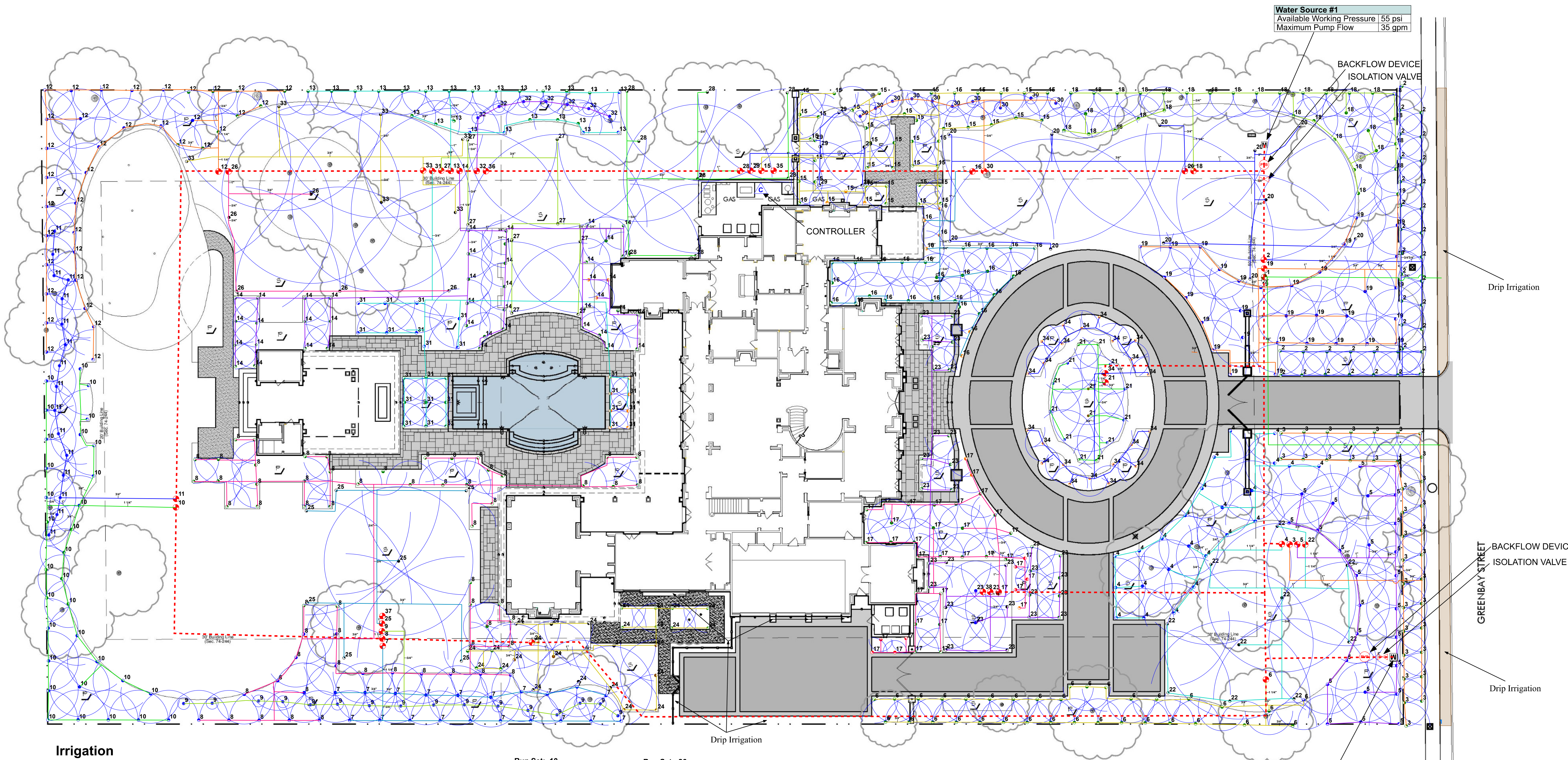
JOB NUMBER:
D1-01122017

DRAWN BY:
CASEY REIMANN

CHECKED BY:
CLR

SCALE:
1" = 30'

SHEET:
LI.01



Irrigation

Quantity	Symbol	Description	Part Number	Pressure	Flow	Radius
Sprinklers						
2	●	Rain Bird 10F - 1804	10F	30 psi	1.58 gpm	10 ft
24	●	Rain Bird 10F - 1806	10F	30 psi	1.58 gpm	10 ft
128	●	Rain Bird 10H - 1804	10H	30 psi	0.79 gpm	10 ft
34	●	Rain Bird 10Q - 1804	10Q	30 psi	0.39 gpm	10 ft
1	●	Rain Bird 10-VAN 180 - 1804	10-VAN	30 psi	1.45 gpm	10 ft
8	●	Rain Bird 10-VAN 180 - 1806	10-VAN	30 psi	1.45 gpm	10 ft
1	●	Rain Bird 12F - 1804	12F	30 psi	2.6 gpm	12 ft
2	●	Rain Bird 12H - 1804	12H	30 psi	1.3 gpm	12 ft
3	●	Rain Bird 12Q - 1804	12Q	30 psi	0.69 gpm	12 ft
2	●	Rain Bird 12-VAN 360 - 1804	12-VAN	30 psi	2.6 gpm	12 ft
49	●	Rain Bird 1401	1401	30 psi	0.25 gpm	0 ft
8	●	Rain Bird 15H - 1804	15H	30 psi	1.85 gpm	15 ft
10	●	Rain Bird 15Q - 1804	15Q	30 psi	0.92 gpm	15 ft
2	●	Rain Bird 3500 Series 1.0 - 3504-PC	1.0	45 psi	1.06 gpm	21 ft
6	●	Rain Bird 3500 Series 1.5 - 3504-PC	1.5	45 psi	1.48 gpm	24 ft
7	●	Rain Bird 3500 Series 2.0 - 3504-PC	2.0	45 psi	1.93 gpm	27 ft
1	●	Rain Bird 3500 Series 3.0 - 3504-PC	3.0	45 psi	3 gpm	31 ft
2	●	Rain Bird 3500 Series 4.0 - 3504-PC	4.0	45 psi	4.13 gpm	35 ft
20	●	Rain Bird 5000 Series 1.5 - 5004-PL-PC	1.5	45 psi	1.54 gpm	35 ft
3	●	Rain Bird 5000 Series 2.0 - 5004-PL-PC	2.0	45 psi	2.07 gpm	37 ft
5	●	Rain Bird 5000 Series 2.5 - 5004-PL-PC	2.5	45 psi	2.51 gpm	37 ft
4	●	Rain Bird 5000 Series 3.0 - 5004-PL-FC	3.0	45 psi	3.09 gpm	40 ft
5	●	Rain Bird 5000 Series 3.0 - 5004-PL-PC	3.0	45 psi	3.09 gpm	40 ft
6	●	Rain Bird 5H - 1804	5H	20 psi	0.16 gpm	4 ft
2	●	Rain Bird 5Q - 1804	5Q	30 psi	0.1 gpm	5 ft
36	●	Rain Bird 6-VAN 180 - 1804	6-VAN	30 psi	0.6 gpm	6 ft
9	●	Rain Bird 6-VAN 90 - 1804	6-VAN	30 psi	0.37 gpm	6 ft
13	●	Rain Bird 8F - 1804	8F	30 psi	1.05 gpm	8 ft
254	●	Rain Bird 8H - 1804	8H	30 psi	0.52 gpm	8 ft
123	●	Rain Bird 8Q - 1804	8Q	30 psi	0.26 gpm	8 ft

Meters/Pumps

1	M		
1	M	2 inch meter	

Backflow Devices

2	FB	Febco 765 - 1 1/2"	765 - 1 1/2"
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Control Valves

4	RV	Rain Bird 100-DVF-SS	100-DVF-SS
33	RV	Rain Bird 100-PGA Angle	100-PGA
1	RV	Rain Bird XCZ-100-PRF	XCZ-100-PRF

Irrigation Accessories

1	IV	Nibco 1 1/2" isolation valve	
2	IV	Rain Bird ESPLXMI-32	ESPLXMI-32

Lateral Line Pipe

569 ft	—	Schedule 40 3/4"	
7039 ft	—	Class 200 3/4"	
221 ft	—	Schedule 40 1"	
501 ft	—	Class 200 1"	
59 ft	—	Schedule 40 1 1/4"	
219 ft	—	Class 200 1 1/4"	

Mainline Pipe

1263 ft	—	Class 200 1 1/4"	0
43 ft	—	Class 200 2"	0

Drip Tubing

661 ft	—	Rain Bird XFS-09-12	XFS-09-12
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Wire

1106 ft	—	Maxi Cable 14 AWG BLUE	180116
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Run Set: 10

Water Source #1	
Type	Meter
Static Pressure	32.5 psi
Service Line	0 psi
Meter Loss	0.105 psi

Water Source #2	
Type	Meter
Static Pressure	32.5 psi
Service Line	0 psi
Meter Loss	0.105 psi

Mainline Components

Backflow Loss	2.5 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 10 @ 22.18 gpm

Mainline Loss	2.34 psi
Valve Loss	5.578 psi
Lateral Loss	1.909 psi
Fittings Loss	0.425 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	42.429 psi

Run Set: 26

Water Source #1	
Type	Meter
Static Pressure	32.5 psi
Service Line	0 psi
Meter Loss	0.056 psi

Water Source #2	
Type	Meter
Static Pressure	32.5 psi
Service Line	0 psi
Meter Loss	0.056 psi

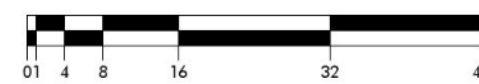
Mainline Components

Backflow Loss	2.5 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 26 @ 12.35 gpm

Mainline Loss	0.77 psi
Valve Loss	5.523 psi
Lateral Loss	1.293 psi
Fittings Loss	0.206 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	55.141 psi

Water Source #2	
Meter Size	2 inch meter
Static Pressure	65 psi
Elevation Change	0 ft
Service Line Information	
Pipe Category	Poly 160
Pipe Size	Poly 160 2"
Length	0 ft
Velocity	5 f/s
Recommendations	
Maximum Recommended Flow	52.29 gpm
Available Working Pressure	58.5 psi



SCALE: 1/16"=1'-0"

The maximum velocity of the PVC water piping will not exceed 5 linear feet per second.
Plans and instruction manuals will be kept on site during the installation of the system.
Proposed watering schedule will be programmed into controller.
There will be a permanent sticker on controller.
Wiring used to connect controller is U.L. approved.
Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ) (MC-178),
PO Box 13087, Austin, Texas 78711-3087.
TCEQ's website is:
www.tceq.state.tx.us.
Backflow preventer will need to be tested yearly.