

Area: Main Median		
Fill Material	Area	Units
St. Augustine	18987.027	Sq/Ft

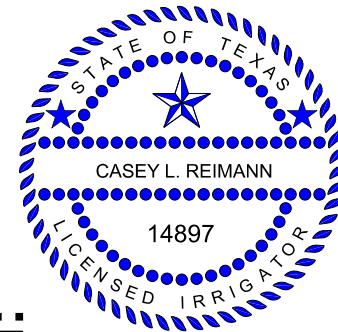
Area: North of Median		
Fill Material	Area	Units
St. Augustine	7968.86	Sq/Ft

Area: South of Median		
Fill Material	Area	Units
St. Augustine	7180.379	Sq/Ft



TEXAS
IRRIGATION
DESIGN

281 341-0499



SHEET DESCRIPTION:
IRRIGATION DESIGN

Casey Reimann
05/12/2014

PROJECT:
LAKES OF EDGEWATER
SUGAR LAND, TX 77479

REVISIONS:
None

DATE:
05/12/2014

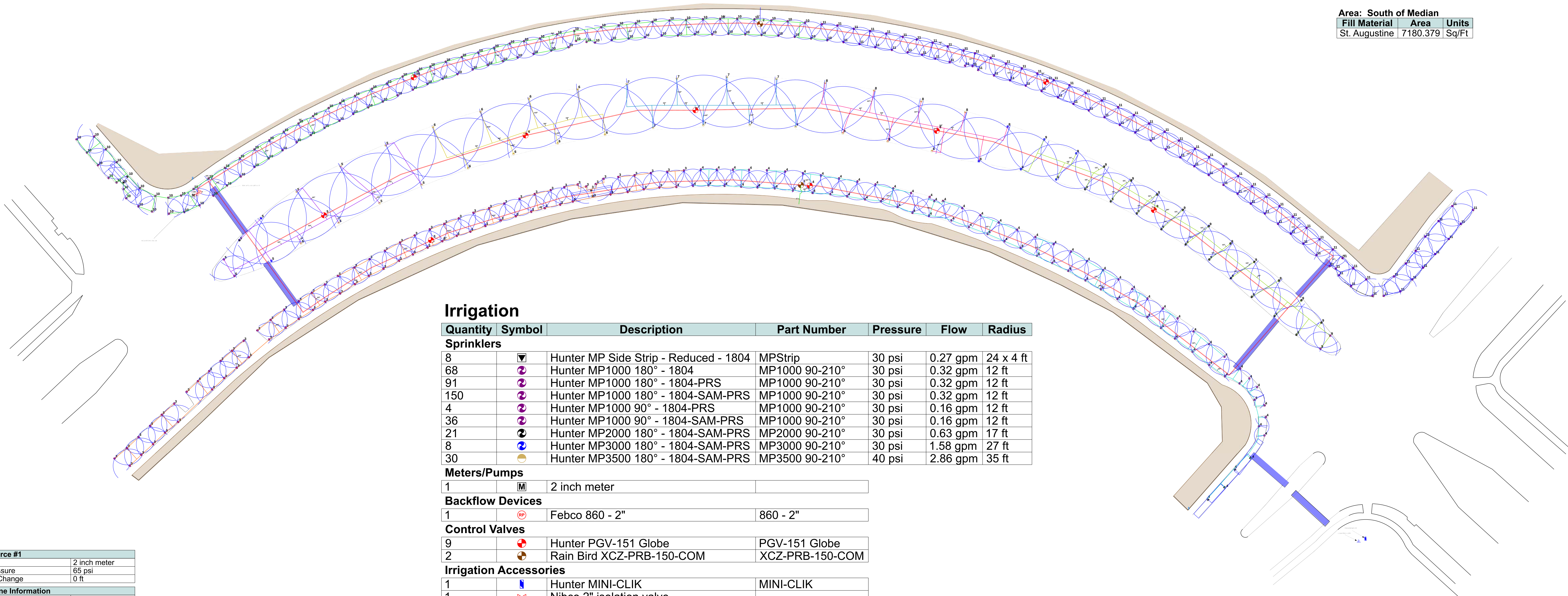
JOB NUMBER:
.

DRAWN BY:
CASEY REIMANN

CHECKED BY:
CLR

SCALE:
1" = 30'

SHEET:
1 of 1



Irrigation

Quantity	Symbol	Description	Part Number	Pressure	Flow	Radius
Sprinklers						
8	▼	Hunter MP Side Strip - Reduced - 1804	MPStrip	30 psi	0.27 gpm	24 x 4 ft
68	⌚	Hunter MP1000 180° - 1804	MP1000 90-210°	30 psi	0.32 gpm	12 ft
91	⌚	Hunter MP1000 180° - 1804-PRS	MP1000 90-210°	30 psi	0.32 gpm	12 ft
150	⌚	Hunter MP1000 180° - 1804-SAM-PRS	MP1000 90-210°	30 psi	0.32 gpm	12 ft
4	⌚	Hunter MP1000 90° - 1804-PRS	MP1000 90-210°	30 psi	0.16 gpm	12 ft
36	⌚	Hunter MP1000 90° - 1804-SAM-PRS	MP1000 90-210°	30 psi	0.16 gpm	12 ft
21	⌚	Hunter MP2000 180° - 1804-SAM-PRS	MP2000 90-210°	30 psi	0.63 gpm	17 ft
8	⌚	Hunter MP3000 180° - 1804-SAM-PRS	MP3000 90-210°	30 psi	1.58 gpm	27 ft
30	●	Hunter MP3500 180° - 1804-SAM-PRS	MP3500 90-210°	40 psi	2.86 gpm	35 ft

Meters/Pumps		
1	M	2 inch meter

Backflow Devices		
1	Ⓜ	Febco 860 - 2"

Control Valves		
9	Ⓜ	Hunter PGV-151 Globe
2	Ⓜ	Rain Bird XCZ-PRB-150-COM

Irrigation Accessories		
1	Ⓜ	Hunter MINI-CLIK
1	Ⓜ	Nibco 2" isolation valve
1	Ⓜ	Rain Bird ESPLXMI-28

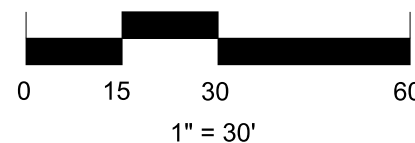
Lateral Line Pipe		
3446 ft	—	Class 315 1/2"
694 ft	—	Class 200 3/4"
710 ft	—	Class 200 1"

Mainline Pipe		
2186 ft	—	Class 200 1 1/2"

Sleeving		
56 ft	—	Class 200 4"
131 ft	—	Class 200 6"

Drip Tubing		
6329 ft	—	Rain Bird XFS-06-18

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 13083, Austin, Texas 78711-3083.
TCEQ's website is:
www.tceq.state.tx.us.
Backflow preventer will need to be tested yearly.



Water Source #1	
Meter Size	2 inch meter
Static Pressure	65 psi
Elevation Change	0 ft
Service Line Information	
Pipe Category	Type K Copper
Pipe Size	Type K Copper 2"
Length	0 ft
Velocity	5 fps
Recommendations	
Maximum Recommended Flow	46.97 gpm
Available Working Pressure	58.5 psi

Drip Zone Data			
Zone #	Total Area	Total Flow	Precip Rate
1	4833.88 Sq/Ft	1288.8 gph	0.43 in/hr
2	4658.35 Sq/Ft	1242 gph	0.43 in/hr

Sprinkler Zone Data			
Zone #	Total Area	Total Flow	Precip Rate
3	3856.64 Sq/Ft	24.06 gpm	0.6 in/hr
4	4496.1 Sq/Ft	23.32 gpm	0.5 in/hr
5	7082.19 Sq/Ft	38.75 gpm	0.53 in/hr
6	6936.35 Sq/Ft	37.18 gpm	0.52 in/hr
7	7311.6 Sq/Ft	37.02 gpm	0.49 in/hr
8	4743.07 Sq/Ft	29.34 gpm	0.6 in/hr
9	5028.87 Sq/Ft	29.44 gpm	0.56 in/hr

Run Set: 1 Water Source #1	
Type	Meter
Static Pressure	60 psi
Service Line	0 psi
Meter Loss	0.529 psi

Mainline Components	
Backflow Loss	11.318 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 1 @ 21.48 gpm	
Mainline Loss	1.7 psi
Valve Loss	0 psi
Lateral Loss	0 psi
Fittings Loss	0.17 psi
Elevation	0 psi
Sprinkler Requirement	8 psi
Total Design Pressure	21.544 psi
Residual Pressure	38.456 psi

Run Set: 2 Water Source #1	
Type	Meter
Static Pressure	60 psi
Service Line	0 psi
Meter Loss	0.504 psi

Mainline Components	
Backflow Loss	11.256 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 2 @ 20.7 gpm	
Mainline Loss	1.46 psi
Valve Loss	0 psi
Lateral Loss	0 psi
Fittings Loss	0.146 psi
Elevation	0 psi
Sprinkler Requirement	8 psi
Total Design Pressure	21.225 psi
Residual Pressure	38.775 psi

Run Set: 3 Water Source #1	
Type	Meter
Static Pressure	65 psi
Service Line	0 psi
Meter Loss	0.602 psi

Mainline Components	
Backflow Loss	11.525 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 3 @ 24.06 gpm	
Mainline Loss	1.35 psi
Valve Loss	3 psi
Lateral Loss	4.993 psi
Fittings Loss	0.634 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	51.466 psi
Residual Pressure	13.534 psi

Run Set: 4 Water Source #1	
Type	Meter
Static Pressure	65 psi
Service Line	0 psi
Meter Loss	0.586 psi

Mainline Components	
Backflow Loss	11.466 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 4 @ 23.32 gpm	
Mainline Loss	1.99 psi
Valve Loss	3 psi
Lateral Loss	6.124 psi
Fittings Loss	0.811 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	53.162 psi
Residual Pressure	11.838 psi

Run Set: 5 Water Source #1	
Type	Meter
Static Pressure	65 psi
Service Line	0 psi
Meter Loss	0.613 psi

Mainline Components	
Backflow Loss	11.556 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 5 @ 24.45 gpm	
Mainline Loss	0.89 psi
Valve Loss	3 psi
Lateral Loss	1.407 psi
Fittings Loss	0.23 psi
Elevation	0 psi
Sprinkler Requirement	40 psi
Total Design Pressure	57.471 psi
Residual Pressure	7.529 psi

Run Set: 6 Water Source #1	
Type	Meter
Static Pressure	65 psi
Service Line	0 psi
Meter Loss	0.576 psi

Mainline Components	
Backflow Loss	11.43 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 6 @ 22.88 gpm	
Mainline Loss	1.27 psi
Valve Loss	3 psi
Lateral Loss	2.089 psi
Fittings Loss	0.336 psi
Elevation	0 psi
Sprinkler Requirement	40 psi
Total Design Pressure	58.704 psi
Residual Pressure	6.63 psi

Run Set: 7 Water Source #1	
Type	Meter
Static Pressure	65 psi
Service Line	0 psi
Meter Loss	0.576 psi

Mainline Components	
Backflow Loss	11.43 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 7 @ 22.88 gpm	
Mainline Loss	1.47 psi
Valve Loss	3 psi
Lateral Loss	2.223 psi
Fittings Loss	0.37 psi
Elevation	0 psi
Sprinkler Requirement	40 psi
Total Design Pressure	58.704 psi
Residual Pressure	6.296 psi

Run Set: 8 Water Source #1	
Type	Meter
Static Pressure	65 psi
Service Line	0 psi
Meter Loss	0.584 psi

Mainline Components	
Backflow Loss	11.454 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 8 @ 23.18 gpm	
Mainline Loss	1.6 psi
Valve Loss	3 psi
Lateral Loss	2.256 psi
Fittings Loss	0.385 psi
Elevation	0 psi
Sprinkler Requirement	40 psi
Total Design Pressure	58.891 psi
Residual Pressure	6.109 psi

Run Set: 9 Water Source #1	
Type	Meter
Static Pressure	65 psi
Service Line	0 psi
Meter Loss	0.472 psi

Mainline Components	
Backflow Loss	11.165 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 9 @ 19.56 gpm	
Mainline Loss	1.08 psi
Valve Loss	2.934 psi
Lateral Loss	2.781 psi
Fittings Loss	0.386 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	48.431 psi
Residual Pressure	16.569 psi

Run Set: 10 Water Source #1	
Type	Meter
Static Pressure	65 psi
Service Line	0 psi
Meter Loss	0.815 psi

Mainline Components	
Backflow Loss	12 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 10 @ 30.62 gpm	
Mainline Loss	1.57 psi
Valve Loss	3 psi
Lateral Loss	7.516 psi
Fittings Loss	0.909 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	54.902 psi
Residual Pressure	10.098 psi

Run Set: 11 Water Source #1	
Type	Meter
Static Pressure	65 psi
Service Line	0 psi
Meter Loss	0.726 psi

Mainline Components	
Backflow Loss	11.853 psi
Master Valve Loss	0 psi
Filter Loss	0 psi

Zone 11 @ 28.16 gpm	
Mainline Loss	2.26 psi
Valve Loss	3 psi
Lateral Loss	6.904 psi
Fittings Loss	0.916 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	54.743 psi
Residual Pressure	10.257 psi