Studio Ogrodu DEMO

12 Example Street
Example Town (demonstration details)
kontakt@studio-ogrodu.example
+48 000 000 000
studio-ogrodu.example
Tax / company ID: DEMO

SAMPLE - fictional company and client. Garden background is an AI illustration.

IRRIFORGE

Irrigation design

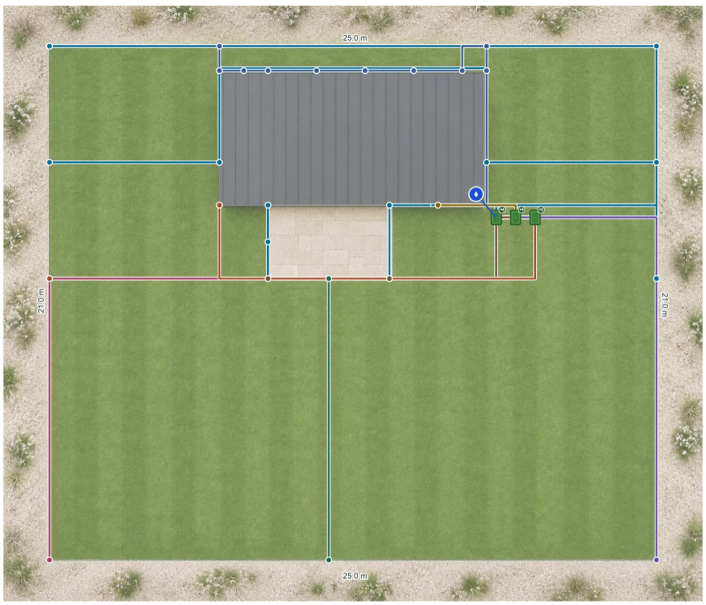
Installer quote — 450 m² plot

Generated: 18 September 2026

Project / quote reference: DEMO/2026/09

Prepared for: Demonstration client
Sample garden, 1 Garden Street
Example Town (fictional address)

525 m² Garden area	**29** Sprinklers	**10** Zones (valves)
130.8 l/min Total flow	**56.8 h** Estimated install	



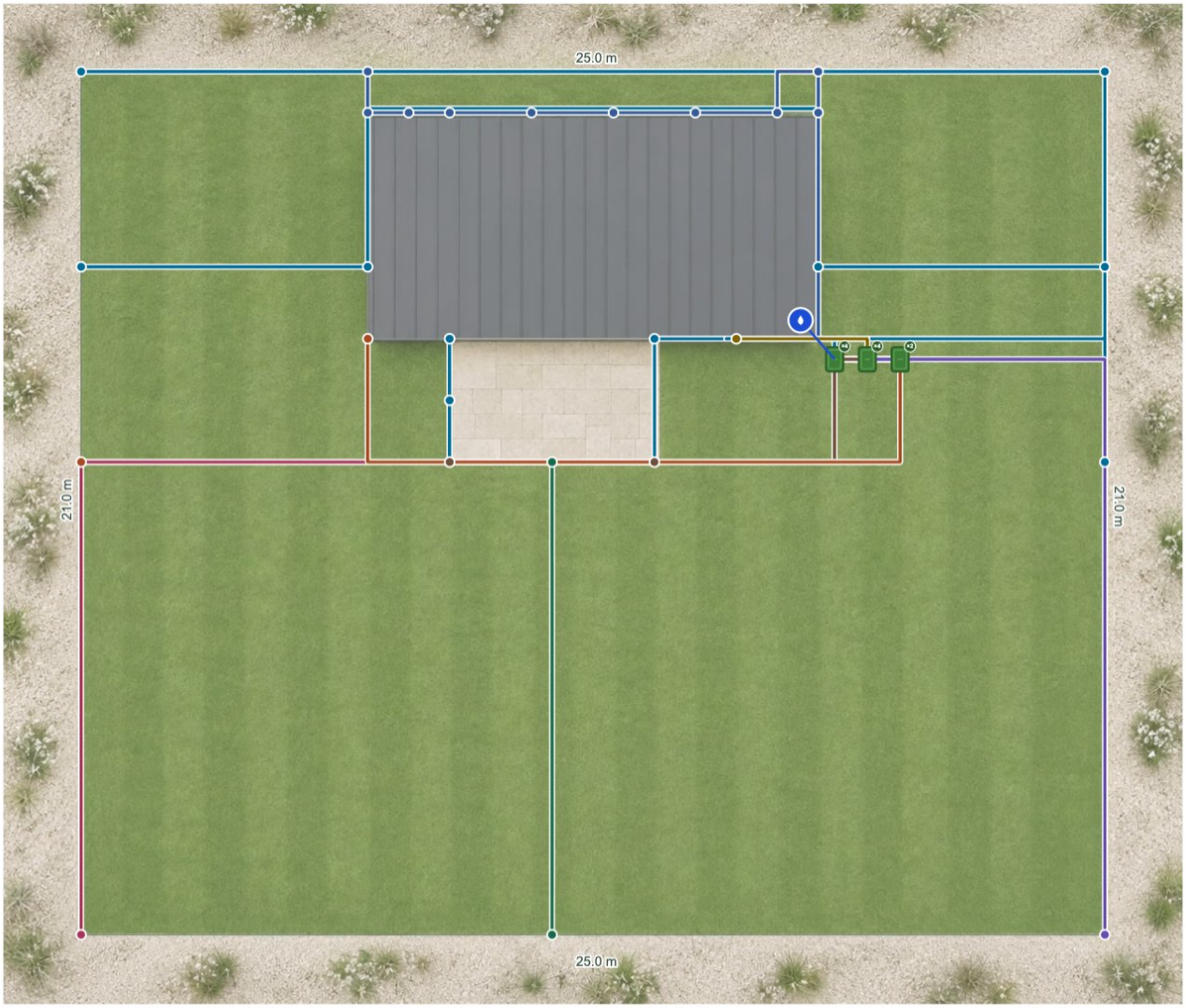
10 m

Disclaimer

This report is a design aid generated automatically from user-entered data. Before buying materials or installing, verify the site dimensions, the real pressure and flow of your water supply, and local regulations.

Final component selection, pipe burial depth (frost line), backflow prevention and winterization remain the installer's responsibility. Sprinkler performance comes from manufacturer catalogs and assumes correct operating pressure.

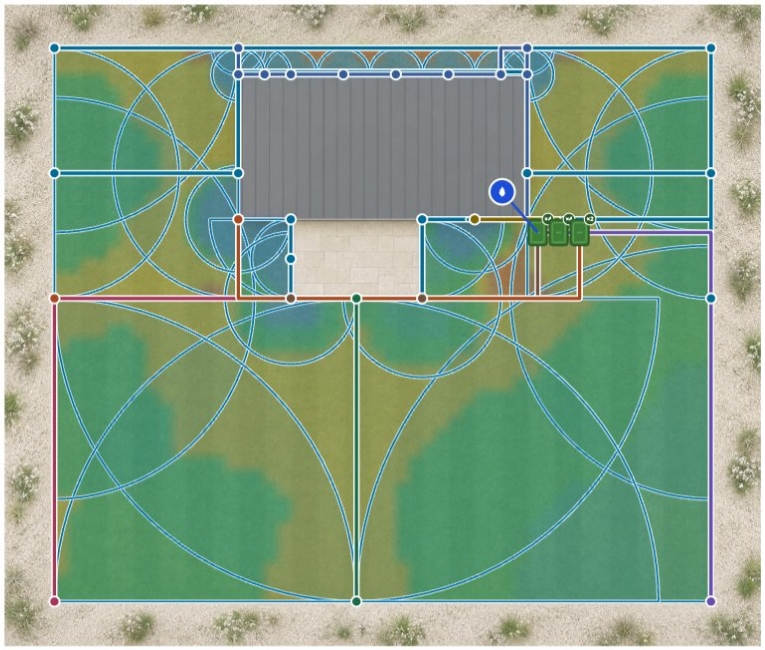
Overall plan



Lawn · Building / hardscape · Sprinkler · Mainline · Zone lateral · Valve box · Water source

5 m

Coverage & uniformity



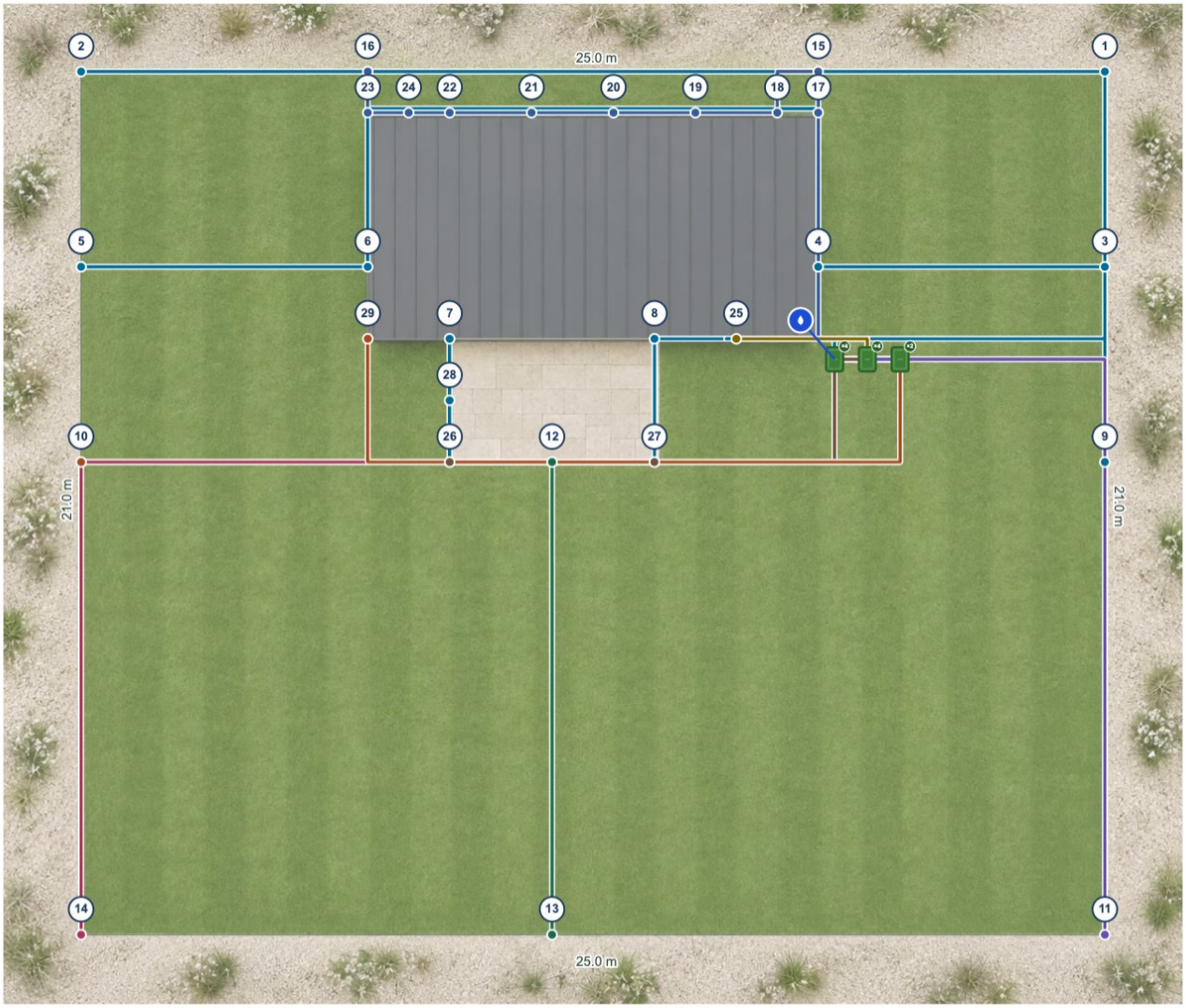
dry under on target heavy overlap over-watered

10 m

The heatmap grades each lawn point's simulated application rate against the mean.

Uniformity (CU): 77% · Dry spots: 2%

Sprinkler numbering

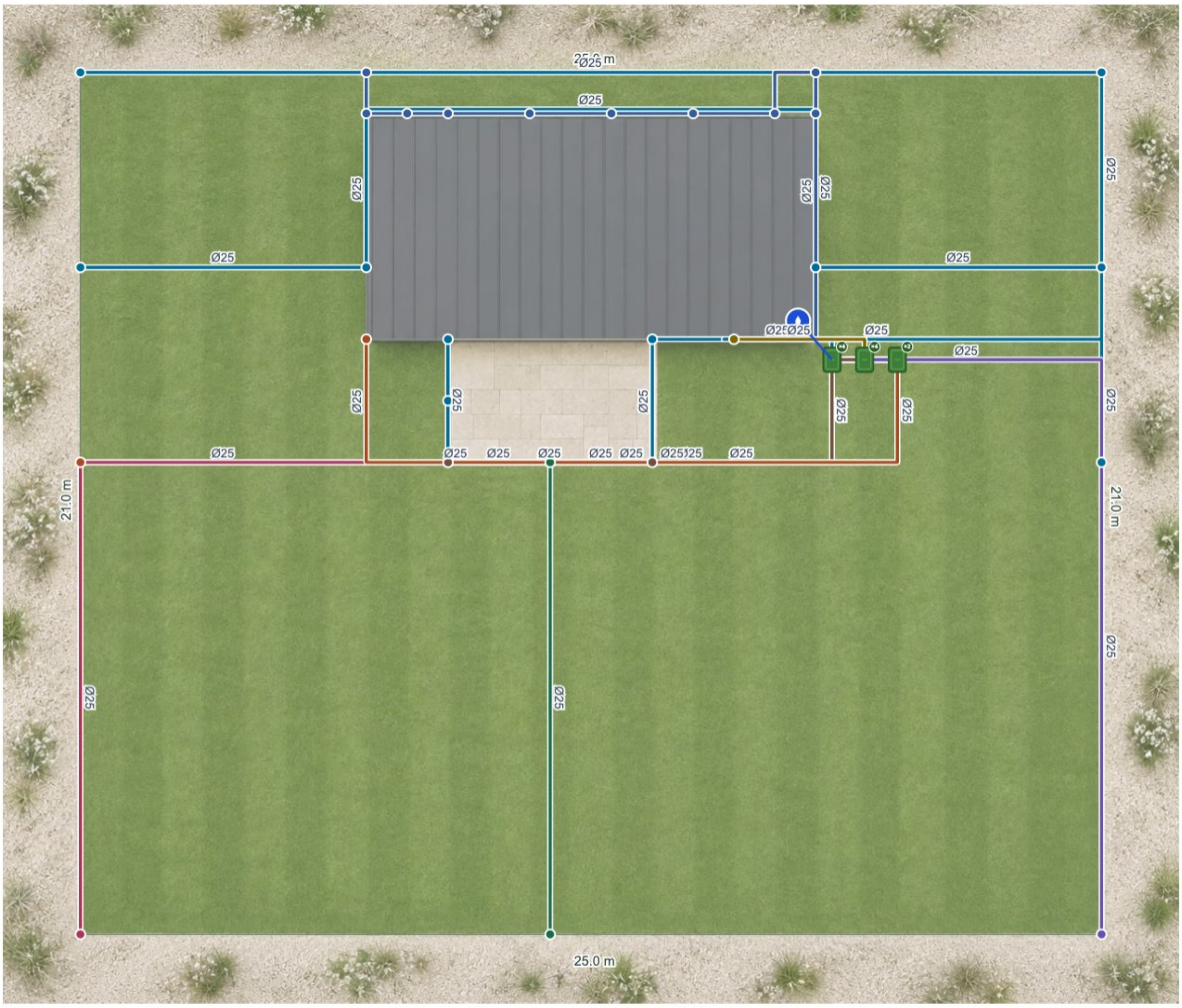


5 m

Sprinkler legend

No	Model	Nozzle	Arcs	Avg radius	Zone
1	Hunter MP Rotator	MP3000	90°	7.0 m	Valve 1
2	Hunter MP Rotator	MP3000	90°	7.0 m	Valve 1
3	Hunter MP Rotator	MP2000	180°	4.8 m	Valve 1
4	Hunter MP Rotator	MP2000	180°	4.8 m	Valve 1
5	Hunter MP Rotator	MP2000	180°	4.8 m	Valve 1
6	Hunter MP Rotator	MP2000	180°	4.8 m	Valve 1
7	Hunter MP Rotator	MP1000	90°	3.1 m	Valve 1
8	Hunter MP Rotator	MP1000	90°	3.1 m	Valve 1
9	Hunter MP Rotator	MP3000	180°	7.6 m	Valve 1
10	Hunter MP Rotator	MP3000	180°	7.6 m	Valve 2
11	Hunter PGP-ADJ	PGPADJ-11	90°	13.5 m	Valve 3
12	Rain Bird 5000	5000-3.0	180°	11.5 m	Valve 4
13	Rain Bird 5000	5000-3.0	180°	11.5 m	Valve 4
14	Rain Bird 5000	5000-3.0	90°	11.5 m	Valve 5
15	Hunter Pro-Spray	PRO-4A	180°	1.0 m	Valve 6
16	Hunter Pro-Spray	PRO-4A	180°	1.0 m	Valve 6
17	Hunter Pro-Spray	PRO-4A	270°	1.0 m	Valve 6
18	Hunter Pro-Spray	PRO-4A	180°	1.0 m	Valve 6
19	Hunter Pro-Spray	PRO-4A	180°	1.0 m	Valve 6
20	Hunter Pro-Spray	PRO-4A	180°	1.0 m	Valve 6
21	Hunter Pro-Spray	PRO-4A	180°	1.0 m	Valve 6
22	Hunter Pro-Spray	PRO-4A	180°	1.0 m	Valve 6
23	Hunter Pro-Spray	PRO-4A	270°	1.0 m	Valve 6
24	Hunter Pro-Spray	PRO-4A	180°	1.0 m	Valve 6
25	Hunter Pro-Spray	8H	180°	2.0 m	Valve 7
26	Rain Bird R-VAN	RVAN14	270°	2.5 m	Valve 8
27	Rain Bird R-VAN	RVAN14	270°	3.0 m	Valve 8
28	Hunter Pro-Spray	5H	180°	1.5 m	Valve 9
29	Rain Bird 1800 Series	8-VAN	270°	2.0 m	Valve 10

Pipes & infrastructure



Mainline · Zone lateral · Dripline · Valve box · Water source

5 m

Zone: Valve 1

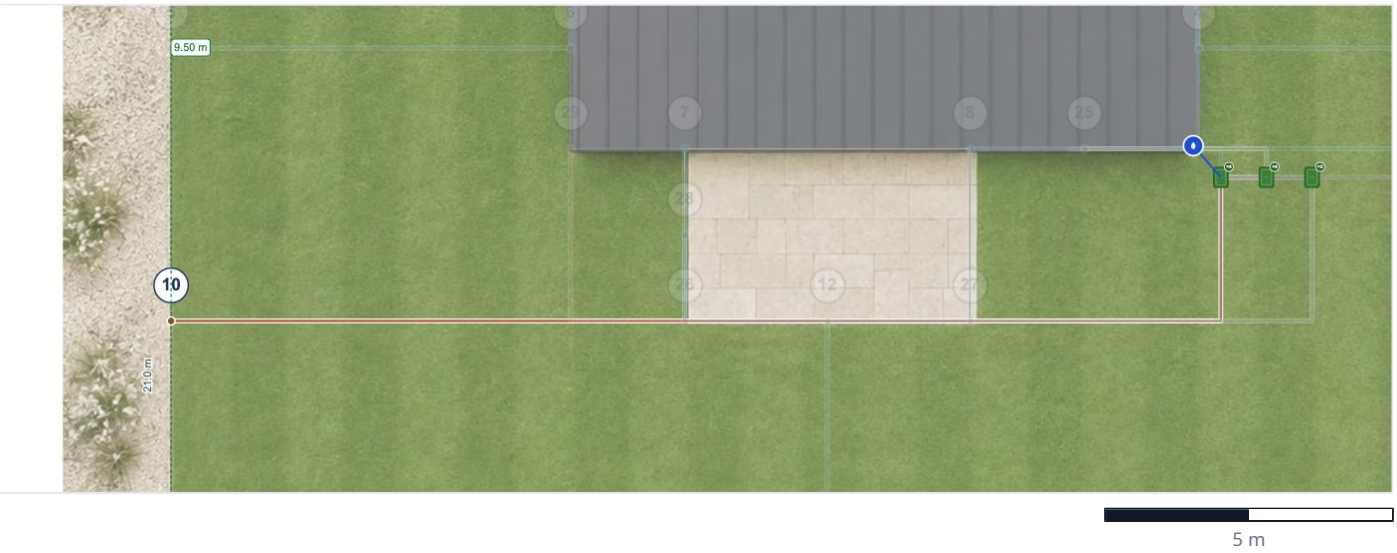
Heads: 9 · Flow: 26.7 l/min · Pipe: 103 m · Ø25 mm

Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
1	garden corner	0.00 m
1	garden corner	21.00 m
1	3	4.75 m
3	9	4.75 m
3	4	7.00 m
4	8	4.37 m
8	7	5.00 m
7	6	2.66 m
6	5	7.00 m
5	2	4.75 m

Zone: Valve 2

Heads: 1 · Flow: 6.9 l/min · Pipe: 21 m · Ø25 mm



Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
10	garden corner	9.50 m
10	garden corner	11.50 m

Zone: Valve 3

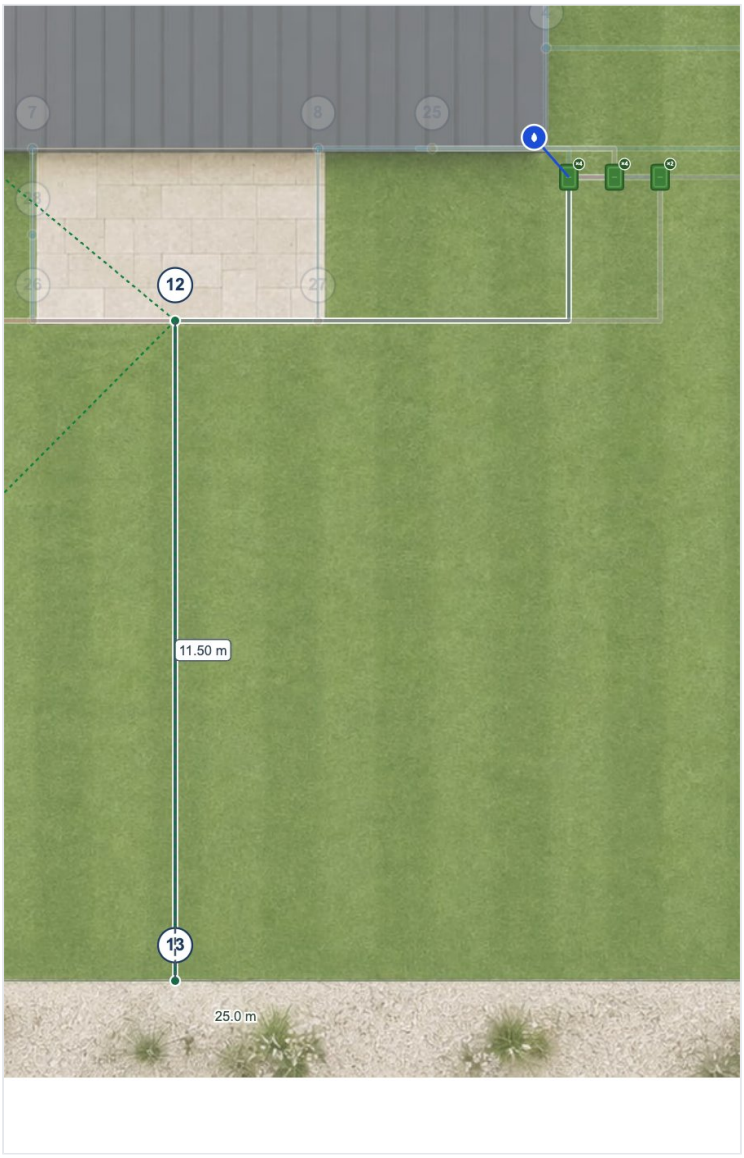
Heads: 1 · Flow: 30.5 l/min · Pipe: 21 m · Ø25 mm

Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
11	garden corner	0.00 m
11	garden corner	21.00 m

Zone: Valve 4

Heads: 2 · Flow: 21.8 l/min · Pipe: 21 m · Ø25 mm



Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
12	garden corner	14.92 m
12	garden corner	16.26 m
12	13	11.50 m

Zone: Valve 5

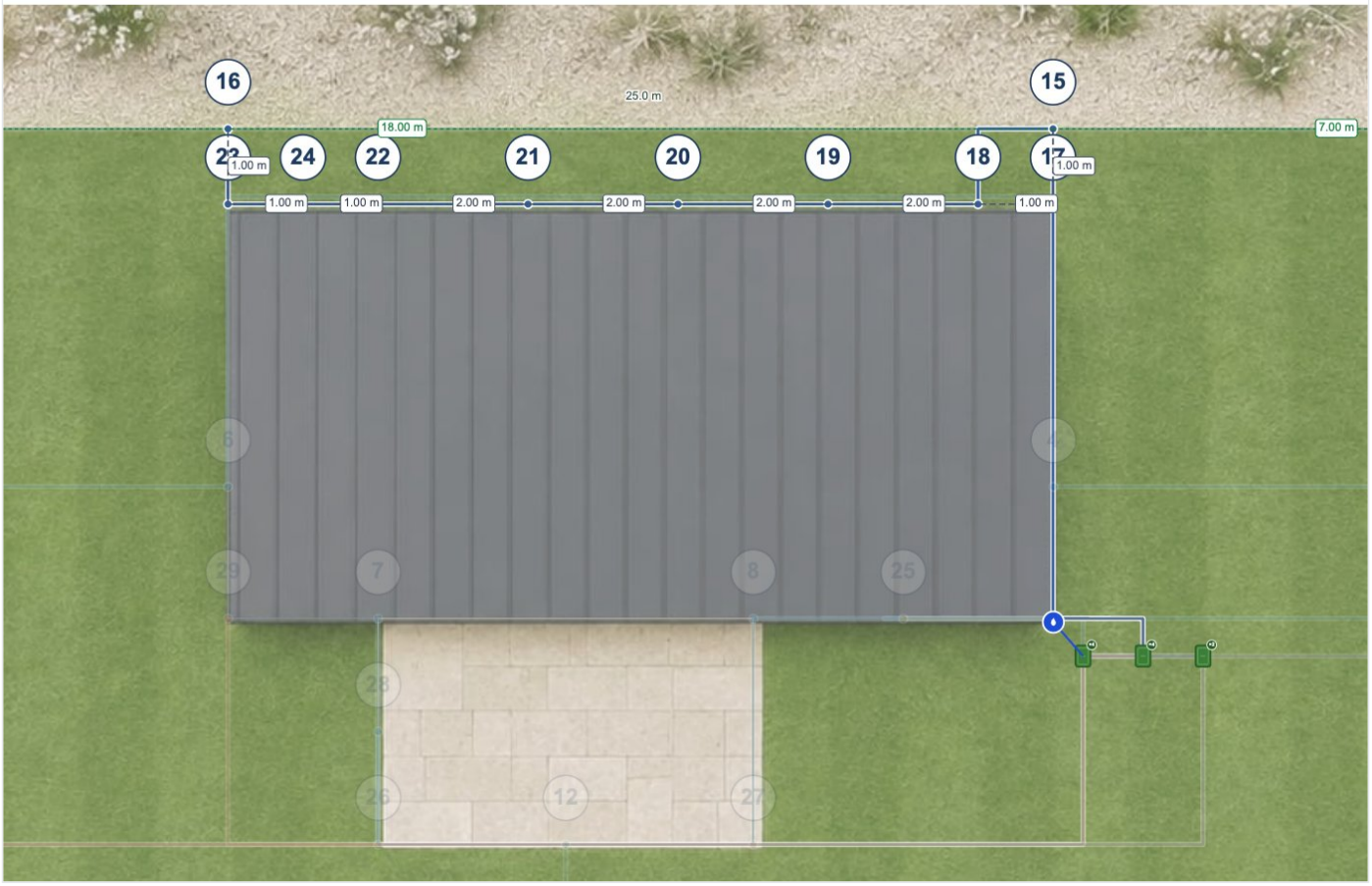
Heads: 1 · Flow: 10.9 l/min · Pipe: 33 m · Ø25 mm

Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
14	garden corner	0.00 m
14	garden corner	21.00 m

Zone: Valve 6

Heads: 10 · Flow: 18.1 l/min · Pipe: 21 m · Ø25 mm

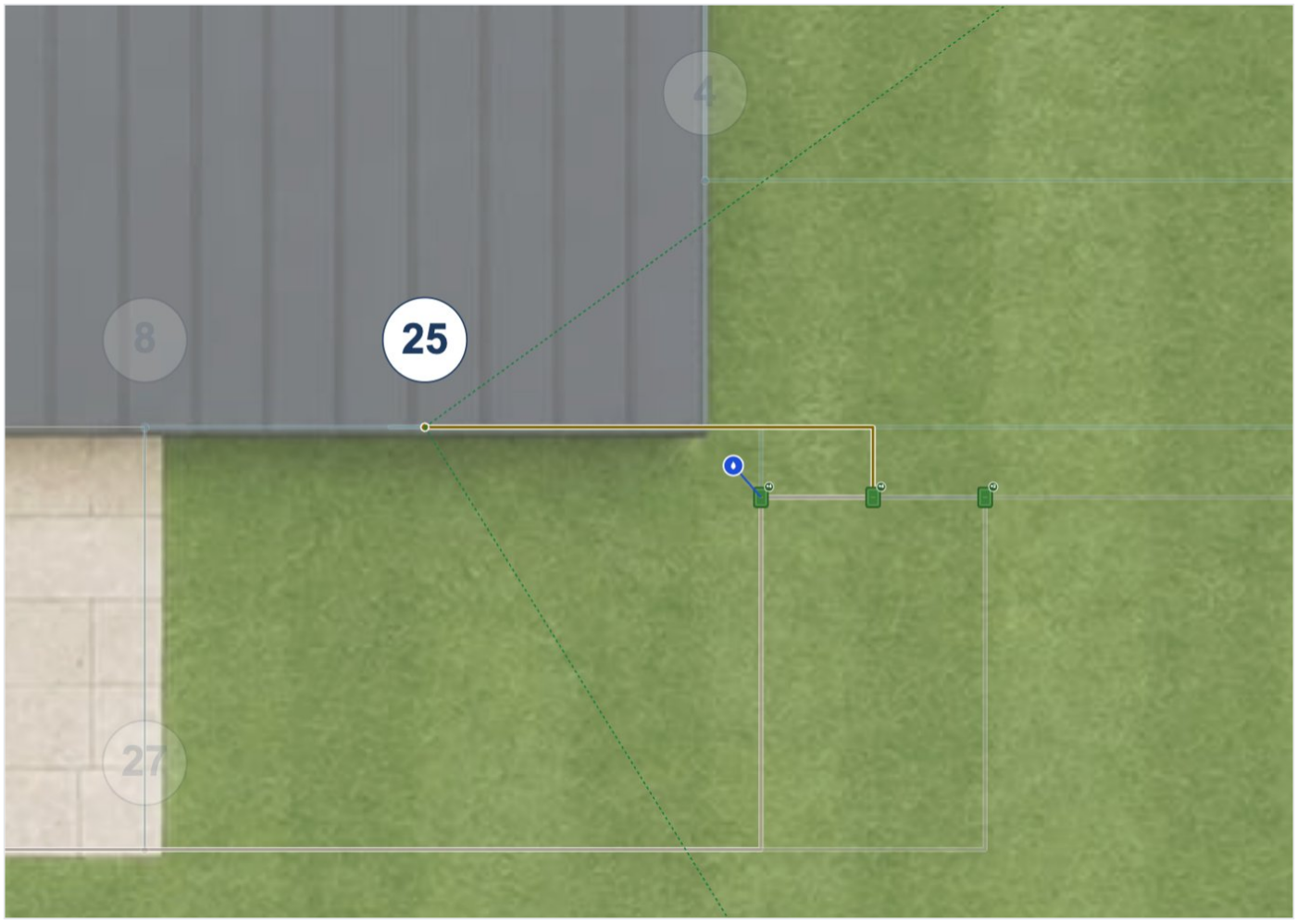


Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
15	garden corner	7.00 m
15	garden corner	18.00 m
15	17	1.00 m
17	18	1.00 m
18	19	2.00 m
19	20	2.00 m
20	21	2.00 m
21	22	2.00 m
22	24	1.00 m
24	23	1.00 m
23	16	1.00 m

Zone: Valve 7

Heads: 1 · Flow: 2.1 l/min · Pipe: 4 m · Ø25 mm

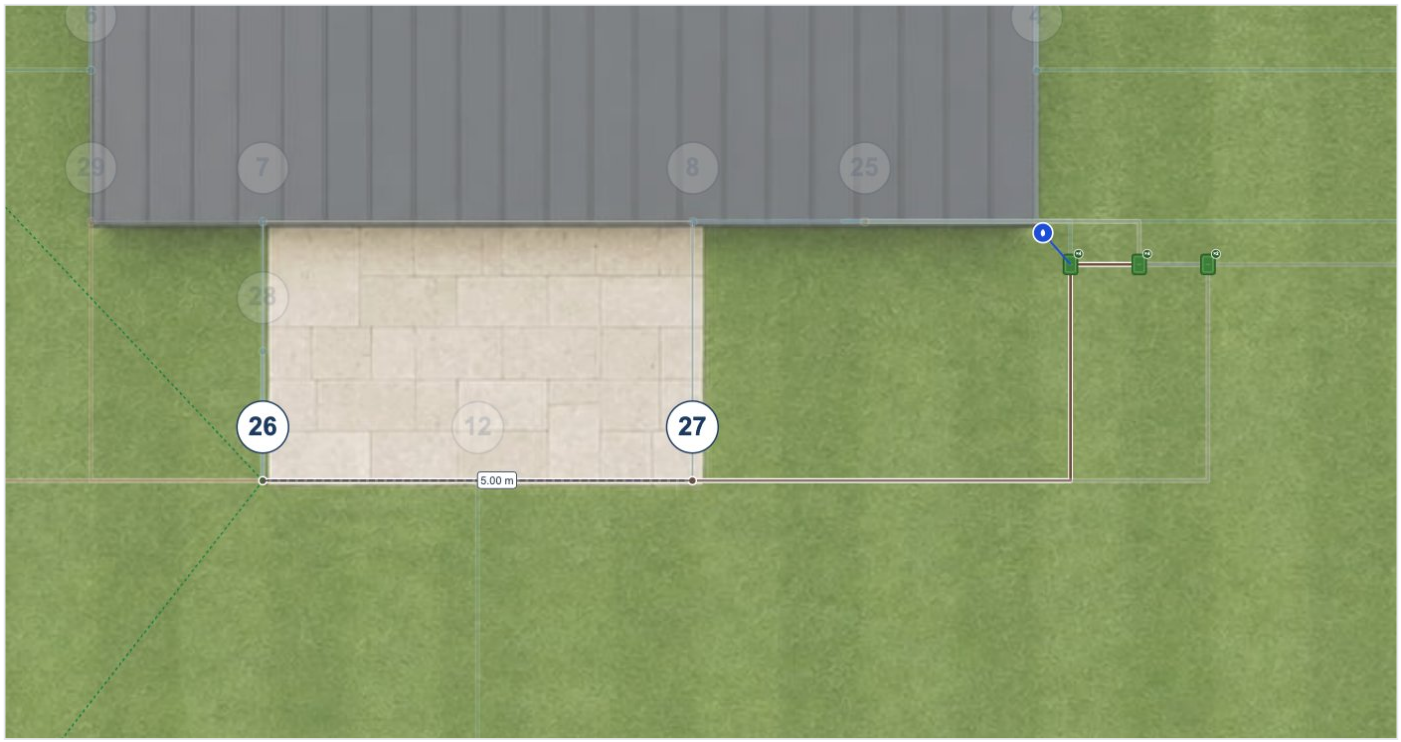


Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
25	garden corner	11.10 m
25	garden corner	17.06 m

Zone: Valve 8

Heads: 2 · Flow: 7.0 l/min · Pipe: 13 m · Ø25 mm

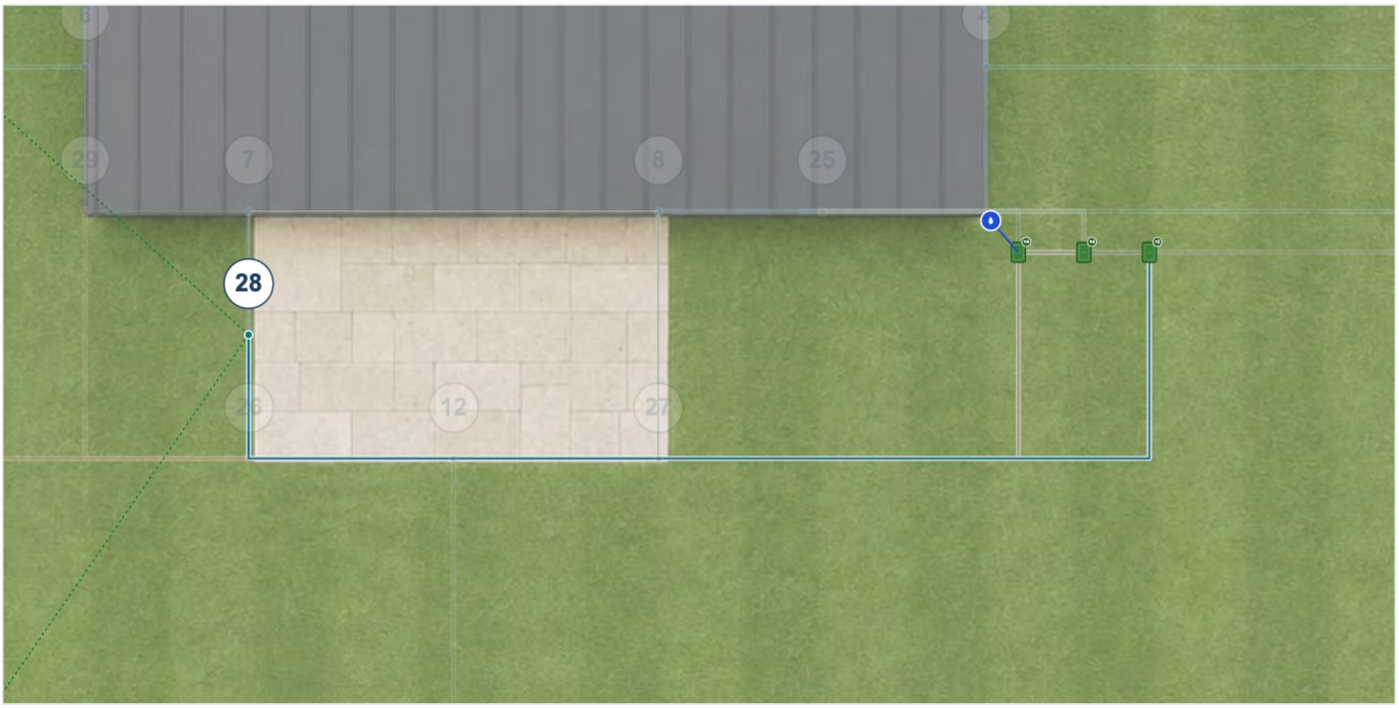


Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
26	garden corner	13.09 m
26	garden corner	14.60 m
26	27	5.00 m

Zone: Valve 9

Heads: 1 · Flow: 0.9 l/min · Pipe: 15 m · Ø25 mm

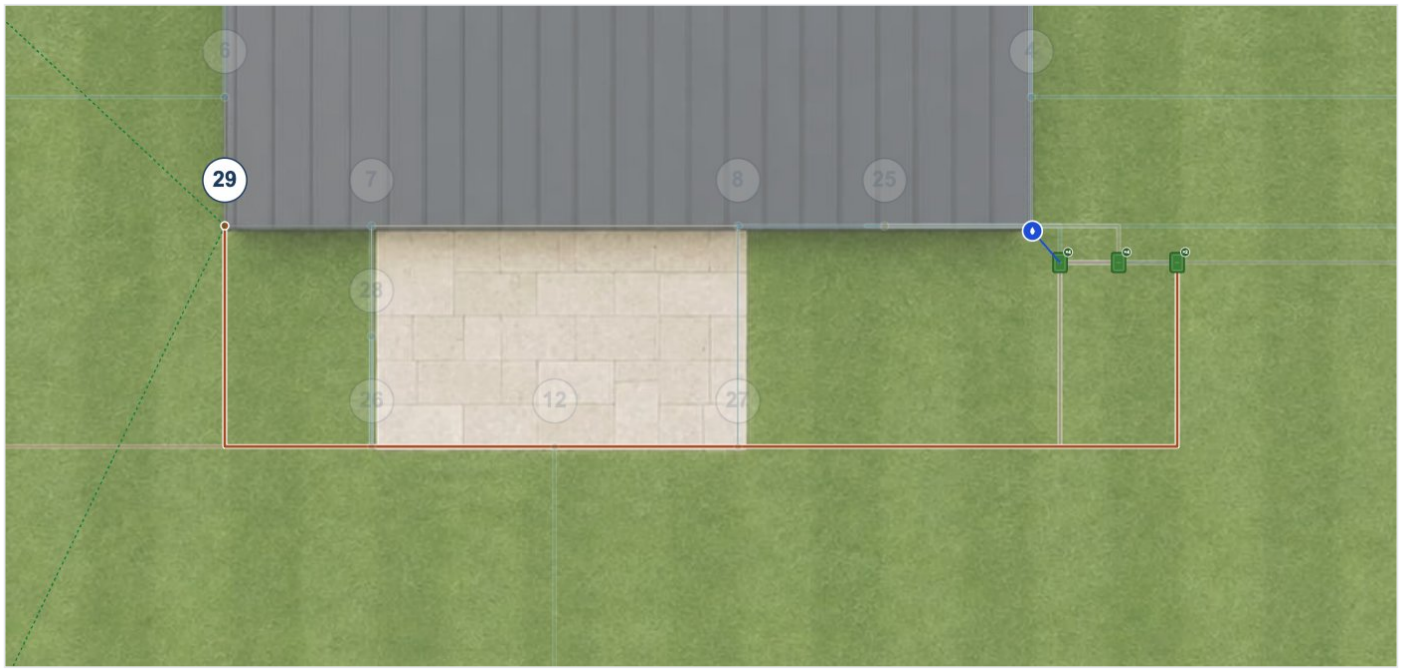


Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
28	garden corner	12.04 m
28	garden corner	15.81 m

Zone: Valve 10

Heads: 1 · Flow: 5.9 l/min · Pipe: 19 m · Ø25 mm



Setting-out dimensions: chain-measure each sprinkler from an already-placed one, and the first sprinkler from the garden corners.

From #	To #	Distance
29	garden corner	9.55 m
29	garden corner	16.10 m

Zone details

Zone	Heads	Flow	Pipe	Ø	Pressure drop	Worst-head bar	CU	Rate	Status
Valve 1	9	26.7 l/min	103 m	25	0.40 bar	3.60 bar	55%	8.5 mm/h	OK
Valve 2	1	6.9 l/min	21 m	25	0.01 bar	3.99 bar	44%	4.5 mm/h	OK
Valve 3	1	30.5 l/min	21 m	25	0.10 bar	3.90 bar	44%	12.8 mm/h	OK
Valve 4	2	21.8 l/min	21 m	25	0.06 bar	3.94 bar	51%	5.2 mm/h	OK
Valve 5	1	10.9 l/min	33 m	25	0.02 bar	3.98 bar	44%	6.3 mm/h	OK
Valve 6	10	18.1 l/min	21 m	25	0.04 bar	3.96 bar	44%	90.1 mm/h	OK
Valve 7	1	2.1 l/min	4 m	25	0.00 bar	4.00 bar	42%	19.3 mm/h	OK
Valve 8	2	7.0 l/min	13 m	25	0.00 bar	4.00 bar	45%	11.8 mm/h	OK
Valve 9	1	0.9 l/min	15 m	25	0.00 bar	4.00 bar	33%	13.8 mm/h	OK
Valve 10	1	5.9 l/min	19 m	25	0.00 bar	4.00 bar	42%	36.9 mm/h	OK

Sprinkler summary

Model	Nozzle	Qty	Arcs	Avg radius	Total flow
Hunter MP Rotator	MP3000	4	90–180°	7.3 m	20.3 l/min
Hunter PGP-ADJ	PGPADJ-11	1	90°	13.5 m	30.5 l/min
Rain Bird 5000	5000-3.0	3	90–180°	11.5 m	32.8 l/min
Hunter MP Rotator	MP2000	4	180°	4.8 m	11.7 l/min
Hunter Pro-Spray	PRO-4A	10	180–270°	1.0 m	18.1 l/min
Hunter Pro-Spray	8H	1	180°	2.0 m	2.1 l/min
Hunter MP Rotator	MP1000	2	90°	3.1 m	1.6 l/min
Rain Bird R-VAN	RVAN14	2	270°	2.8 m	7.0 l/min
Hunter Pro-Spray	5H	1	180°	1.5 m	0.9 l/min
Rain Bird 1800 Series	8-VAN	1	270°	2.0 m	5.9 l/min
Total		**29**			**130.8 l/min**

Pipe layout alternatives

Pipe and trench lengths are whole-design totals. Each zone alternative changes that zone only. Recommendations minimize pipe length + 4 × shared-trench length among options passing pipe checks. These planning weights are not a quotation.

Supply arrangement

Layout	Pipe m	Trench m	bar*	Status
central	282.6	158.8	3.60	Recommended
distributed	271.0	165.2	3.39	Checks pass

Valve 1

Layout	Pipe m	Trench m	bar*	Status
chain	275.6	168.1	3.58	Checks pass
spine	271.6	159.6	2.82	Recommended
ring	306.1	180.1	3.46	Checks pass

Valve 2

Layout	Pipe m	Trench m	bar*	Status
chain	271.6	159.6	3.98	Recommended
spine	271.6	159.6	3.98	Checks pass
ring	271.6	159.6	3.98	1 issues

ring: A closed ring needs sprinklers in at least two distinct rows.

Valve 3

Layout	Pipe m	Trench m	bar*	Status
chain	271.6	159.6	3.89	Recommended
spine	271.6	159.6	3.89	Checks pass
ring	271.6	159.6	3.89	1 issues

ring: A closed ring needs sprinklers in at least two distinct rows.

Valve 4

Layout	Pipe m	Trench m	bar*	Status
chain	271.6	159.6	3.83	Recommended
spine	277.4	159.6	3.79	Checks pass
ring	288.9	159.6	3.70	1 issues

ring: A closed ring needs sprinklers in at least two distinct rows.

Valve 5

Layout	Pipe m	Trench m	bar*	Status
chain	271.6	159.6	3.93	Recommended
spine	271.6	159.6	3.93	Checks pass
ring	271.6	159.6	3.93	1 issues

ring: A closed ring needs sprinklers in at least two distinct rows.

Valve 6

Layout	Pipe m	Trench m	bar*	Status
chain	271.6	159.6	3.88	Recommended
spine	276.8	158.8	3.85	Checks pass
ring	276.8	158.8	3.85	1 issues

ring: A closed ring needs sprinklers in at least two distinct rows.

Valve 7

Layout	Pipe m	Trench m	bar*	Status
chain	271.6	159.6	4.00	Recommended
spine	271.6	159.6	4.00	Checks pass
ring	271.6	159.6	4.00	1 issues

ring: A closed ring needs sprinklers in at least two distinct rows.

Valve 8

Layout	Pipe m	Trench m	bar*	Status
chain	271.6	159.6	3.99	Recommended
spine	271.6	159.6	3.99	Checks pass
ring	271.6	159.6	3.99	1 issues

ring: A closed ring needs sprinklers in at least two distinct rows.

Valve 9

Layout	Pipe m	Trench m	bar*	Status
chain	271.6	159.6	4.00	Recommended
spine	271.6	159.6	4.00	Checks pass
ring	271.6	159.6	4.00	1 issues

ring: A closed ring needs sprinklers in at least two distinct rows.

Valve 10

Layout	Pipe m	Trench m	bar*	Status
chain	271.6	159.6	3.99	Recommended
spine	271.6	159.6	3.99	Checks pass
ring	271.6	159.6	3.99	1 issues

ring: A closed ring needs sprinklers in at least two distinct rows.

* beside a layout = selected. Pressure: conservative full-flow estimate over total circuit length. No ring flow split, component losses or elevation model.

chain: One continuous run through successive sprinkler rows. Simple connections, but the end-fed run carries the greatest friction burden.

spine: A common header feeds sprinkler rows. A middle feed can shorten the loaded flow path; row branches require tees and dead ends need flushing.

ring: Connects both ends of the rows into a closed circuit. Offers two water paths, but uses additional pipe and fittings. Hydraulic benefit requires a network calculation; a ring is not automatically better.

Design reference: https://www.rainbird.com/professionals/irrigation-design-tip-sizing-pipe

Water source & hydraulics

Static pressure: 4.00 bar · Available flow: 40.0 l/min

Zone	Flow	Margin	%
Valve 1	26.7 l/min	13.3 l/min	33%
Valve 2	6.9 l/min	33.1 l/min	83%
Valve 3	30.5 l/min	9.5 l/min	24%
Valve 4	21.8 l/min	18.2 l/min	45%
Valve 5	10.9 l/min	29.1 l/min	73%
Valve 6	18.1 l/min	21.9 l/min	55%
Valve 7	2.1 l/min	38.0 l/min	95%
Valve 8	7.0 l/min	33.0 l/min	83%
Valve 9	0.9 l/min	39.1 l/min	98%
Valve 10	5.9 l/min	34.1 l/min	85%

No warnings — hydraulics check out.

Irrigation schedule

Runtimes for deep, infrequent watering (recommended for turf). Adjust for weather and soil; values assume no natural rainfall.

Zone	Rate	Early spring	Spring	Summer	Hot summer
Valve 1	8.5 mm/h	55 min × 2/wk	90 min × 2/wk	75 min × 3/wk	95 min × 3/wk
Valve 2	4.5 mm/h	100 min × 2/wk	120 min × 2/wk	120 min × 3/wk	120 min × 3/wk
Valve 3	12.8 mm/h	35 min × 2/wk	60 min × 2/wk	50 min × 3/wk	65 min × 3/wk
Valve 4	5.2 mm/h	85 min × 2/wk	120 min × 2/wk	120 min × 3/wk	120 min × 3/wk
Valve 5	6.3 mm/h	70 min × 2/wk	120 min × 2/wk	100 min × 3/wk	120 min × 3/wk
Valve 6	90.1 mm/h	5 min × 2/wk	10 min × 2/wk	5 min × 3/wk	10 min × 3/wk
Valve 7	19.3 mm/h	25 min × 2/wk	40 min × 2/wk	35 min × 3/wk	40 min × 3/wk
Valve 8	11.8 mm/h	40 min × 2/wk	65 min × 2/wk	55 min × 3/wk	70 min × 3/wk
Valve 9	13.8 mm/h	35 min × 2/wk	55 min × 2/wk	45 min × 3/wk	60 min × 3/wk
Valve 10	36.9 mm/h	10 min × 2/wk	20 min × 2/wk	15 min × 3/wk	20 min × 3/wk

Install time estimate

Task	Qty	Unit	Hours
Trenching	272	m	21.7 h
Pipe laying & fittings	272	m	5.4 h
Sprinkler installation	29	pcs	7.3 h
Solenoid valves	10	pcs	7.5 h
Valve boxes	3	pcs	1.5 h
Source hookup	1	pcs	1.0 h
Flushing, testing, programming	10	pcs	5.0 h
Subtotal			**49.4 h**
Contingency (15%)			7.4 h
Total			**56.8 h**

Estimates assume DIY installation with a helper and favorable ground conditions.

Bill of materials

Sprinklers & nozzles

Item	Qty	Unit
Hunter MP Rotator MP3000 (180°)	2	pcs
Hunter PGP-ADJ PGPADJ-11 (90°)	1	pcs
Rain Bird 5000 5000-3.0 (180°)	2	pcs
Rain Bird 5000 5000-3.0 (90°)	1	pcs
Hunter MP Rotator MP3000 (90°)	2	pcs
Hunter MP Rotator MP2000 (180°)	4	pcs
Hunter Pro-Spray PRO-4A (180°)	8	pcs
Hunter Pro-Spray 8H (180°)	1	pcs
Hunter MP Rotator MP1000 (90°)	2	pcs
Rain Bird R-VAN RVAN14 (270°)	2	pcs
Hunter Pro-Spray PRO-4A (270°)	2	pcs
Hunter Pro-Spray 5H (180°)	1	pcs
Rain Bird 1800 Series 8-VAN (270°)	1	pcs
Hunter Pro-Spray 04" PRS40	10	pcs
Hunter Integrated rotor body	1	pcs
Rain Bird Integrated rotor body	3	pcs
Hunter Pro-Spray 04" PRS30	12	pcs
Rain Bird 1800-04"	2	pcs
Rain Bird 1800-04" SAM-PRS	1	pcs

Pipe

Item	Qty	Unit
PE pipe 25 mm	271.7	m

Valves

Item	Qty	Unit
Solenoid valve (per zone)	10	pcs
Valve box (manifold, up to 4 valves)	3	pcs

Fittings & accessories

Item	Qty	Unit
Swing pipe connection Ø16 mm	29	pcs

Quantities from the plan; buy ~5% spare pipe and fittings. Prices depend on your supplier.

Client offer

Studio Ogrodu DEMO

12 Example Street
Example Town (demonstration details)
kontakt@studio-ogrodu.example · +48 000 000 000 · studio-ogrodu.example
Tax / company ID: DEMO

Project / quote reference: DEMO/2026/09

Prepared for: Demonstration client
Sample garden, 1 Garden Street
Example Town (fictional address)

Sprinklers & nozzles

Item	Qty	Unit price (zł)	Total (zł)
Hunter MP Rotator MP3000 (180°)	2	77.50	**155.00**
Hunter PGP-ADJ PGPADJ-11 (90°)	1	10.00	**10.00**
Rain Bird 5000 5000-3.0 (180°)	2	10.00	**20.00**
Rain Bird 5000 5000-3.0 (90°)	1	10.00	**10.00**
Hunter MP Rotator MP3000 (90°)	2	77.50	**155.00**
Hunter MP Rotator MP2000 (180°)	4	77.50	**310.00**
Hunter Pro-Spray PRO-4A (180°)	8	21.25	**170.00**
Hunter Pro-Spray 8H (180°)	1	21.25	**21.25**
Hunter MP Rotator MP1000 (90°)	2	77.50	**155.00**
Rain Bird R-VAN RVAN14 (270°)	2	65.00	**130.00**
Hunter Pro-Spray PRO-4A (270°)	2	21.25	**42.50**
Hunter Pro-Spray 5H (180°)	1	21.25	**21.25**
Rain Bird 1800 Series 8-VAN (270°)	1	18.75	**18.75**
Hunter Pro-Spray 04" PRS40	10	68.75	**687.50**
Hunter Integrated rotor body	1	118.75	**118.75**
Rain Bird Integrated rotor body	3	106.25	**318.75**
Hunter Pro-Spray 04" PRS30	12	68.75	**825.00**
Rain Bird 1800-04"	2	27.50	**55.00**
Rain Bird 1800-04" SAM-PRS	1	81.25	**81.25**

Pipe

Item	Qty	Unit price (zł)	Total (zł)
PE pipe 25 mm	271.7	4.00	**1,086.60**

Valves

Item	Qty	Unit price (zł)	Total (zł)
Solenoid valve (per zone)	10	187.50	**1,875.00**
Valve box (manifold, up to 4 valves)	3	162.50	**487.50**

Fittings & accessories

Item	Qty	Unit price (zł)	Total (zł)
Swing pipe connection Ø16 mm	29	15.00	**435.00**

Grand total	**7,189.10**

Indicative prices (PLN, incl. VAT) — verify with your supplier. Unpriced lines are not included in the total.