

LIBERAL IRRIGATION LLC

SEPTEMBER 29, 2025

CUSTOMER : BRENT WOODS

LEGAL : NE 1/4 1-31-31

WISH-119630

VALLEY 8000 - 30
8 TOWER - 1309.64 FT
SYSTEM 400 GPM @ 11 PSI

SENNINGER UP3 LDN SPRAY NOZZLES
SENNINGER 10 & 6 PSI REGULATORS
NO ENDGUN
ELEVATION 2 FT UP, 2 FT DOWN

524 EAST PANCAKE BLVD

LIBERAL, KANSAS 67901

(620)482-6090

WARRANTY

WATER APPLICATION UNIFORMITY OBTAINED WITH THIS SYSTEM CAN BE ADVERSELY AFFECTED BY MANY VARIABLES INCLUDING THE IMPROPER MAKEUP OR INSTALLATION OF THE SPRINKLER OR SPRAY NOZZLE PACKAGE, OBSTRUCTED NOZZLES, MAINTAINING INCORRECT PIVOT PRESSURE, UNFAVORABLE CLIMATIC CONDITIONS, TIGHT AND/OR SLOPING SOILS, IMPROPER END GUN ARC SETTINGS, ERRATIC AND IMPROPER OPERATING SPEED OF THE SYSTEM, POOR QUALITY OF WATER WITH ABRASIVES, CORROSIVES, AND/OR SOLIDS WHICH CAN CAUSE PLUGGING AND JAMMING, AS WELL AS INHERENT VARIABLES IN THE MANY COMPONENTS COMPRISING THE SYSTEM. THEREFORE WESTERN IRRIGATION SUPPLY HOUSE, INC., MAKES NO WARRANTY AS TO THE UNIFORMITY OF COVERAGE OBTAINED FROM THIS WATER APPLICATION PRINTOUT OTHER THAN ITS MATHEMATICAL ACCURACY.

IT IS THE RESPONSIBILITY OF THE END USER TO DETERMINE IF ANY INCOMPATIBILITY EXISTS BETWEEN THE WATER DISTRIBUTION DEVICES AND THE CROP, THE SOIL, AND THE PHYSICAL STRUCTURE OF THE MECHANICAL MOVE SYSTEM. WESTERN IRRIGATION SUPPLY HOUSE, INC., THEREFORE, DISCLAIMS ANY LIABILITY FOR DAMAGES DUE TO FAILURE OF THE SYSTEM TO PERFORM AS CONTEMPLATED.

FIGURES PRESENTED ON THIS COMPUTER PRINTOUT ARE BASED ON THE FOLLOWING:

1. DATA FURNISHED TO WESTERN IRRIGATION SUPPLY HOUSE, INC., ON PIPE LENGTH, DIAMETER, SURFACE FINISH, OUTLET SPACINGS, WATER FLOW, PIVOT PRESSURE AND ALL OTHER APPLICABLE INFORMATION.
2. THERE IS 100% WATER APPLICATION EFFICIENCY (ZERO WIND VELOCITY AND NO EVAPORATION).
3. PIVOT PRESSURE IS MEASURED ON THE MAIN HORIZONTAL DISTRIBUTION PIPE JUST AFTER THE LAST ELBOW.
4. MAIN PIPE PRESSURE IS CALCULATED AS IF THE PIVOT IS ALWAYS ON LEVEL GROUND.
5. SPRINKLER OR SPRAY NOZZLE BASE PRESSURE MAY BE LESS THAN MAIN LINE PIPE PRESSURE DUE TO THE USE OF PRESSURE REGULATORS. WHERE DROP PIPES ARE USED THE STATIC HEAD IS ADDED TO AND FRICTION LOSS IS SUBTRACTED FROM THE MAIN LINE PIPE PRESSURE TO DETERMINE INLET PSI. REGULATORS ARE CONSIDERED MOUNTED AT THE SAME HEIGHT AS THE SPRINKLING DEVICE UNLESS NOTED.

VALLEY 8000 - 30

SEPTEMBER 29, 2025

WISH-119630

DEALER

LIBERAL IRRIGATION LLC
 524 EAST PANCAKE BLVD
 LIBERAL, KANSAS 67901

IRRIGATOR

BRENT WOODS
 NE 1/4 1-31-31

TOTAL TARGET GPM	400.00	FRICTION FACTOR USED	140	SPAN #	LENGTH	PIPE I.D.	# OF HEADS
TOP OF PIVOT PRESSURE	11.00	TOTAL LENGTH	1309.64	1	160.85	6.415	26
NO ENDGUN		NUMBER OF TOWERS	8	2	160.11	6.415	32
NUMBER OF OUTLETS	509	NUMBER OF SPRINKLERS	256	3	160.11	6.415	32
				4	160.11	6.415	32
SENNINGER UP3 LDN SPRAY NOZZLES - CONCAVE GROOVED PADS				5	160.11	6.415	32
SENNINGER PSR-2 10 & 6 PSI SERIES REGULATORS				6	160.11	6.415	32
DROPS AVERAGE 12.5 FT OF .75 I.D. FLEXIBLE HOSE WITH 24 INCH SLIP POLYWEIGHT®				7	160.11	6.415	32
ELEVATION IS 2 FT UP AND 2 FT DOWN				8	159.85	6.415	32
				OH	18.28	6.415	4
					10.00	2.06	2

CAUTIONS AND WARNINGS

1. Over watering at beginning of system due to practical limitations on smallest nozzle sizes available and/or allowable for proper operation.
2. When using spray nozzles with five foot ground clearance or less, nozzle should travel between crop rows and spacing should not exceed 80 inches.
3. This system designed for minimum pressure. Failure to deliver indicated pressure at the top of pivot point will adversely affect regulator and/or sprinkler/spray performance. Elevations, pipe sizes and type of drop pipe must be as shown.

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.
1		5.40	-	-	-	-	-	-	-	1
2		14.40	-	-	-	-	-	-	-	2
3	23.40	23.40	0.18	0.37	10.60	11.40	LD NOZ UP3 4 LT BLUE	1	SPSR2-10	
4	9.00	32.40	0.14	0.37	10.42	11.40	LD NOZ UP3 4 LT BLUE	2	SPSR2-10	
5	9.00	41.40	0.13	0.37	10.27	11.40	LD NOZ UP3 4 LT BLUE	3	SPSR2-10	
6	4.54	45.94	0.10	0.37	10.20	11.40	LD NOZ UP3 4 LT BLUE	4	SPSR2-10	
7		48.44	-	-	-	-	-	-	-	3
8	5.00	50.94	0.12	0.37	10.13	11.40	LD NOZ UP3 4 LT BLUE	5	SPSR2-10	
9		53.44	-	-	-	-	-	-	-	4
10	5.00	55.94	0.13	0.37	10.07	11.40	LD NOZ UP3 4 LT BLUE	6	SPSR2-10	
11		58.44	-	-	-	-	-	-	-	5
12	5.00	60.94	0.14	0.37	10.02	11.40	LD NOZ UP3 4 LT BLUE	7	SPSR2-10	
13		63.44	-	-	-	-	-	-	-	6
14	5.00	65.94	0.15	0.37	9.97	11.40	LD NOZ UP3 4 LT BLUE	8	SPSR2-10	
15		68.44	-	-	-	-	-	-	-	7
16	5.00	70.94	0.16	0.37	9.94	11.40	LD NOZ UP3 4 LT BLUE	9	SPSR2-10	
17		73.44	-	-	-	-	-	-	-	8
18	5.00	75.94	0.17	0.37	9.91	11.40	LD NOZ UP3 4 LT BLUE	10	SPSR2-10	
19		78.44	-	-	-	-	-	-	-	9
20	4.95	80.89	0.18	0.37	9.89	11.40	LD NOZ UP3 4 LT BLUE	11	SPSR2-10	
21		83.34	-	-	-	-	-	-	-	10
22	4.95	85.84	0.20	0.37	9.88	11.40	LD NOZ UP3 4 LT BLUE	12	SPSR2-10	
23		88.34	-	-	-	-	-	-	-	11
24	5.00	90.84	0.21	0.37	9.87	11.40	LD NOZ UP3 4 LT BLUE	13	SPSR2-10	
25		93.34	-	-	-	-	-	-	-	12
26	5.00	95.84	0.22	0.37	9.87	11.40	LD NOZ UP3 4 LT BLUE	14	SPSR2-10	
27		98.34	-	-	-	-	-	-	-	13
28	5.00	100.84	0.23	0.37	9.88	11.40	LD NOZ UP3 4 LT BLUE	15	SPSR2-10	
29		103.34	-	-	-	-	-	-	-	14
30	5.00	105.84	0.24	0.37	9.90	11.40	LD NOZ UP3 4 LT BLUE	16	SPSR2-10	
31		108.34	-	-	-	-	-	-	-	15
32	5.00	110.84	0.26	0.37	9.93	11.40	LD NOZ UP3 4 LT BLUE	17	SPSR2-10	
33		113.34	-	-	-	-	-	-	-	16
34	5.00	115.84	0.27	0.37	9.96	11.40	LD NOZ UP3 4 LT BLUE	18	SPSR2-10	
35		118.34	-	-	-	-	-	-	-	17
36	5.00	120.84	0.28	0.37	10.00	11.40	LD NOZ UP3 4 LT BLUE	19	SPSR2-10	
37		123.34	-	-	-	-	-	-	-	18
38	5.00	125.84	0.29	0.37	10.05	11.40	LD NOZ UP3 4 LT BLUE	20	SPSR2-10	
39		128.34	-	-	-	-	-	-	-	19
40	5.00	130.84	0.30	0.37	10.11	11.40	LD NOZ UP3 4 LT BLUE	21	SPSR2-10	
41		133.34	-	-	-	-	-	-	-	20
42	5.00	135.84	0.31	0.37	10.18	11.40	LD NOZ UP3 4 LT BLUE	22	SPSR2-10	
43		138.34	-	-	-	-	-	-	-	21
44	5.00	140.84	0.32	0.37	10.25	11.40	LD NOZ UP3 4 LT BLUE	23	SPSR2-10	
45		143.34	-	-	-	-	-	-	-	22
46	5.00	145.84	0.34	0.37	10.33	11.40	LD NOZ UP3 4 LT BLUE	24	SPSR2-10	
47		148.34	-	-	-	-	-	-	-	23
48	5.00	150.84	0.35	0.37	10.42	11.40	LD NOZ UP3 4 LT BLUE	25	SPSR2-10	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.
96	5.00	270.95	0.62	0.57	9.37	7.27	LD NOZ UP3 5.5 BEIGE	49	SPSR2-06	
97		273.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	48
98	5.00	275.95	0.64	0.68	9.40	7.27	LD NOZ UP3 6 GOLD	50	SPSR2-06	
99		278.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	49
100	5.00	280.95	0.65	0.68	9.45	7.27	LD NOZ UP3 6 GOLD	51	SPSR2-06	
101		283.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	50
102	5.00	285.95	0.66	0.68	9.50	7.27	LD NOZ UP3 6 GOLD	52	SPSR2-06	
103		288.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	51
104	5.00	290.95	0.67	0.68	9.56	7.27	LD NOZ UP3 6 GOLD	53	SPSR2-06	
105		293.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	52
106	5.00	295.95	0.68	0.68	9.62	7.27	LD NOZ UP3 6 GOLD	54	SPSR2-06	
107		298.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	53
108	5.00	300.95	0.69	0.68	9.70	7.27	LD NOZ UP3 6 GOLD	55	SPSR2-06	
109		303.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	54
110	5.00	305.95	0.70	0.68	9.78	7.27	LD NOZ UP3 6 GOLD	56	SPSR2-06	
111		308.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	55
112	5.00	310.95	0.72	0.68	9.87	7.27	LD NOZ UP3 6 GOLD	57	SPSR2-06	
113		313.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	56
114	5.00	315.95	0.74	0.68	9.88	7.27	LD NOZ UP3 6 GOLD	58	SPSR2-06	
115		318.45	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	57
TOWER 2	160.11	320.96								
116	5.21	321.16	0.75	0.80	9.86	7.26	LD NOZ UP3 6.5 GOLD	59	SPSR2-06	
117		323.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	58
118	5.00	326.16	0.75	0.80	9.85	7.26	LD NOZ UP3 6.5 GOLD	60	SPSR2-06	
119		328.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	59
120	5.00	331.16	0.76	0.80	9.76	7.26	LD NOZ UP3 6.5 GOLD	61	SPSR2-06	
121		333.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	60
122	5.00	336.16	0.77	0.80	9.64	7.26	LD NOZ UP3 6.5 GOLD	62	SPSR2-06	
123		338.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	61
124	5.00	341.16	0.78	0.80	9.53	7.26	LD NOZ UP3 6.5 GOLD	63	SPSR2-06	
125		343.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	62
126	5.00	346.16	0.80	0.80	9.43	7.26	LD NOZ UP3 6.5 GOLD	64	SPSR2-06	
127		348.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	63
128	5.00	351.16	0.81	0.80	9.33	7.26	LD NOZ UP3 6.5 GOLD	65	SPSR2-06	
129		353.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	64
130	5.00	356.16	0.82	0.80	9.24	7.26	LD NOZ UP3 6.5 GOLD	66	SPSR2-06	
131		358.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	65
132	5.00	361.16	0.83	0.80	9.16	7.26	LD NOZ UP3 6.5 GOLD	67	SPSR2-06	
133		363.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	66
134	5.00	366.16	0.84	0.80	9.09	7.26	LD NOZ UP3 6.5 GOLD	68	SPSR2-06	
135		368.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	67
136	5.00	371.16	0.85	0.80	9.02	7.26	LD NOZ UP3 6.5 GOLD	69	SPSR2-06	
137		373.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	68
138	5.00	376.16	0.87	0.80	8.97	7.26	LD NOZ UP3 6.5 GOLD	70	SPSR2-06	
139		378.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	69
140	5.00	381.16	0.88	0.93	8.92	7.25	LD NOZ UP3 7 LIME	71	SPSR2-06	
141		383.66	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	70
142	5.00	386.16	0.89	0.93	8.88	7.25	LD NOZ UP3 7 LIME	72	SPSR2-06	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.
238	5.00	626.17	1.44	1.37	8.87	7.23	LD NOZ UP3 8.5 LAVENDER	120	SPSR2-06	
239		628.67	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	119
240	5.00	631.17	1.45	1.37	8.97	7.23	LD NOZ UP3 8.5 LAVENDER	121	SPSR2-06	
241		633.67	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	120
242	5.00	636.17	1.50	1.54	8.98	7.22	LD NOZ UP3 9 GREY	122	SPSR2-06	
243		638.67	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	121
TOWER 4	160.11	641.18								
244	5.21	641.38	1.51	1.54	8.97	7.22	LD NOZ UP3 9 GREY	123	SPSR2-06	
245		643.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	122
246	5.00	646.38	1.49	1.54	8.96	7.22	LD NOZ UP3 9 GREY	124	SPSR2-06	
247		648.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	123
248	5.00	651.38	1.50	1.54	8.88	7.22	LD NOZ UP3 9 GREY	125	SPSR2-06	
249		653.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	124
250	5.00	656.38	1.51	1.54	8.77	7.22	LD NOZ UP3 9 GREY	126	SPSR2-06	
251		658.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	125
252	5.00	661.38	1.52	1.54	8.66	7.22	LD NOZ UP3 9 GREY	127	SPSR2-06	
253		663.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	126
254	5.00	666.38	1.53	1.54	8.56	7.22	LD NOZ UP3 9 GREY	128	SPSR2-06	
255		668.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	127
256	5.00	671.38	1.55	1.54	8.47	7.22	LD NOZ UP3 9 GREY	129	SPSR2-06	
257		673.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	128
258	5.00	676.38	1.56	1.54	8.39	7.22	LD NOZ UP3 9 GREY	130	SPSR2-06	
259		678.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	129
260	5.00	681.38	1.57	1.54	8.31	7.22	LD NOZ UP3 9 GREY	131	SPSR2-06	
261		683.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	130
262	5.00	686.38	1.58	1.54	8.25	7.22	LD NOZ UP3 9 GREY	132	SPSR2-06	
263		688.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	131
264	5.00	691.38	1.59	1.54	8.19	7.22	LD NOZ UP3 9 GREY	133	SPSR2-06	
265		693.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	132
266	5.00	696.38	1.60	1.54	8.14	7.22	LD NOZ UP3 9 GREY	134	SPSR2-06	
267		698.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	133
268	5.00	701.38	1.62	1.54	8.09	7.22	LD NOZ UP3 9 GREY	135	SPSR2-06	
269		703.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	134
270	5.00	706.38	1.63	1.54	8.06	7.22	LD NOZ UP3 9 GREY	136	SPSR2-06	
271		708.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	135
272	5.00	711.38	1.64	1.72	8.03	7.21	LD NOZ UP3 9.5 GREY	137	SPSR2-06	
273		713.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	136
274	5.00	716.38	1.64	1.72	8.01	7.21	LD NOZ UP3 9.5 GREY	138	SPSR2-06	
275		718.88	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	137
276	4.95	721.33	1.65	1.72	8.00	7.21	LD NOZ UP3 9.5 GREY	139	SPSR2-06	
277		723.78	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	138
278	4.95	726.28	1.66	1.72	7.99	7.21	LD NOZ UP3 9.5 GREY	140	SPSR2-06	
279		728.78	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	139
280	5.00	731.28	1.68	1.72	8.00	7.21	LD NOZ UP3 9.5 GREY	141	SPSR2-06	
281		733.78	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	140
282	5.00	736.28	1.70	1.72	8.01	7.21	LD NOZ UP3 9.5 GREY	142	SPSR2-06	
283		738.78	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	141
284	5.00	741.28	1.71	1.72	8.03	7.21	LD NOZ UP3 9.5 GREY	143	SPSR2-06	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.
332		5.00 861.49	1.99	1.91	7.83	7.20	LD NOZ UP3 10 TURQUOISE	167	SPSR2-06	
333		863.99	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	166
334		5.00 866.49	2.00	1.91	7.80	7.20	LD NOZ UP3 10 TURQUOISE	168	SPSR2-06	
335		868.99	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	167
336		5.00 871.49	2.01	2.10	7.77	7.19	LD NOZ UP3 10.5 TURQUOISE	169	SPSR2-06	
337		873.99	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	168
338		5.00 876.49	2.01	2.10	7.76	7.19	LD NOZ UP3 10.5 TURQUOISE	170	SPSR2-06	
339		878.99	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	169
340		4.95 881.44	2.01	2.10	7.75	7.19	LD NOZ UP3 10.5 TURQUOISE	171	SPSR2-06	
341		883.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	170
342		4.95 886.39	2.03	2.10	7.75	7.19	LD NOZ UP3 10.5 TURQUOISE	172	SPSR2-06	
343		888.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	171
344		5.00 891.39	2.05	2.10	7.76	7.19	LD NOZ UP3 10.5 TURQUOISE	173	SPSR2-06	
345		893.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	172
346		5.00 896.39	2.06	2.10	7.77	7.19	LD NOZ UP3 10.5 TURQUOISE	174	SPSR2-06	
347		898.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	173
348		5.00 901.39	2.08	2.10	7.79	7.19	LD NOZ UP3 10.5 TURQUOISE	175	SPSR2-06	
349		903.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	174
350		5.00 906.39	2.09	2.10	7.83	7.19	LD NOZ UP3 10.5 TURQUOISE	176	SPSR2-06	
351		908.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	175
352		5.00 911.39	2.10	2.10	7.86	7.19	LD NOZ UP3 10.5 TURQUOISE	177	SPSR2-06	
353		913.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	176
354		5.00 916.39	2.11	2.10	7.91	7.19	LD NOZ UP3 10.5 TURQUOISE	178	SPSR2-06	
355		918.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	177
356		5.00 921.39	2.12	2.10	7.97	7.19	LD NOZ UP3 10.5 TURQUOISE	179	SPSR2-06	
357		923.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	178
358		5.00 926.39	2.13	2.10	8.03	7.19	LD NOZ UP3 10.5 TURQUOISE	180	SPSR2-06	
359		928.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	179
360		5.00 931.39	2.14	2.10	8.10	7.19	LD NOZ UP3 10.5 TURQUOISE	181	SPSR2-06	
361		933.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	180
362		5.00 936.39	2.16	2.10	8.18	7.19	LD NOZ UP3 10.5 TURQUOISE	182	SPSR2-06	
363		938.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	181
364		5.00 941.39	2.17	2.10	8.26	7.19	LD NOZ UP3 10.5 TURQUOISE	183	SPSR2-06	
365		943.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	182
366		5.00 946.39	2.18	2.10	8.36	7.19	LD NOZ UP3 10.5 TURQUOISE	184	SPSR2-06	
367		948.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	183
368		5.00 951.39	2.19	2.10	8.46	7.19	LD NOZ UP3 10.5 TURQUOISE	185	SPSR2-06	
369		953.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	184
370		5.00 956.39	2.25	2.30	8.48	7.18	LD NOZ UP3 11 YELLOW	186	SPSR2-06	
371		958.89	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	185
TOWER 6	160.11	961.40								
372	5.21	961.60	2.26	2.30	8.48	7.18	LD NOZ UP3 11 YELLOW	187	SPSR2-06	
373		964.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	186
374	5.00	966.60	2.23	2.30	8.47	7.18	LD NOZ UP3 11 YELLOW	188	SPSR2-06	
375		969.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	187
376	5.00	971.60	2.24	2.30	8.40	7.18	LD NOZ UP3 11 YELLOW	189	SPSR2-06	
377		974.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	188
378	5.00	976.60	2.25	2.30	8.29	7.18	LD NOZ UP3 11 YELLOW	190	SPSR2-06	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.
379		979.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	189
380	5.00	981.60	2.26	2.30	8.19	7.18	LD NOZ UP3 11 YELLOW	191	SPSR2-06	
381		984.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	190
382	5.00	986.60	2.27	2.30	8.10	7.18	LD NOZ UP3 11 YELLOW	192	SPSR2-06	
383		989.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	191
384	5.00	991.60	2.28	2.30	8.02	7.18	LD NOZ UP3 11 YELLOW	193	SPSR2-06	
385		994.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	192
386	5.00	996.60	2.29	2.30	7.94	7.18	LD NOZ UP3 11 YELLOW	194	SPSR2-06	
387		999.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	193
388	5.00	1001.60	2.31	2.30	7.87	7.18	LD NOZ UP3 11 YELLOW	195	SPSR2-06	
389		1004.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	194
390	5.00	1006.60	2.32	2.30	7.81	7.18	LD NOZ UP3 11 YELLOW	196	SPSR2-06	
391		1009.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	195
392	5.00	1011.60	2.33	2.30	7.76	7.18	LD NOZ UP3 11 YELLOW	197	SPSR2-06	
393		1014.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	196
394	5.00	1016.60	2.34	2.30	7.71	7.18	LD NOZ UP3 11 YELLOW	198	SPSR2-06	
395		1019.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	197
396	5.00	1021.60	2.35	2.30	7.68	7.18	LD NOZ UP3 11 YELLOW	199	SPSR2-06	
397		1024.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	198
398	5.00	1026.60	2.37	2.30	7.65	7.18	LD NOZ UP3 11 YELLOW	200	SPSR2-06	
399		1029.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	199
400	5.00	1031.60	2.38	2.30	7.63	7.18	LD NOZ UP3 11 YELLOW	201	SPSR2-06	
401		1034.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	200
402	5.00	1036.60	2.38	2.30	7.61	7.18	LD NOZ UP3 11 YELLOW	202	SPSR2-06	
403		1039.10	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	201
404	4.95	1041.55	2.38	2.30	7.61	7.18	LD NOZ UP3 11 YELLOW	203	SPSR2-06	
405		1044.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	202
406	4.95	1046.50	2.40	2.30	7.61	7.18	LD NOZ UP3 11 YELLOW	204	SPSR2-06	
407		1049.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	203
408	5.00	1051.50	2.43	2.51	7.62	7.17	LD NOZ UP3 11.5 YELLOW	205	SPSR2-06	
409		1054.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	204
410	5.00	1056.50	2.44	2.51	7.64	7.17	LD NOZ UP3 11.5 YELLOW	206	SPSR2-06	
411		1059.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	205
412	5.00	1061.50	2.45	2.51	7.67	7.17	LD NOZ UP3 11.5 YELLOW	207	SPSR2-06	
413		1064.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	206
414	5.00	1066.50	2.46	2.51	7.70	7.17	LD NOZ UP3 11.5 YELLOW	208	SPSR2-06	
415		1069.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	207
416	5.00	1071.50	2.47	2.51	7.74	7.17	LD NOZ UP3 11.5 YELLOW	209	SPSR2-06	
417		1074.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	208
418	5.00	1076.50	2.48	2.51	7.79	7.17	LD NOZ UP3 11.5 YELLOW	210	SPSR2-06	
419		1079.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	209
420	5.00	1081.50	2.49	2.51	7.85	7.17	LD NOZ UP3 11.5 YELLOW	211	SPSR2-06	
421		1084.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	210
422	5.00	1086.50	2.50	2.51	7.91	7.17	LD NOZ UP3 11.5 YELLOW	212	SPSR2-06	
423		1089.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	211
424	5.00	1091.50	2.52	2.51	7.99	7.17	LD NOZ UP3 11.5 YELLOW	213	SPSR2-06	
425		1094.00	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	212
426	5.00	1096.50	2.53	2.51	8.07	7.17	LD NOZ UP3 11.5 YELLOW	214	SPSR2-06	

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE	SPRK NO.	REG SIZE	PLUG NO.	
474		5.00	1216.61	2.79	2.74	7.59	7.15 LD NOZ UP3 12 RED	238	SPSR2-06		
475			1219.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	237	
476		5.00	1221.61	2.80	2.74	7.62	7.15 LD NOZ UP3 12 RED	239	SPSR2-06		
477			1224.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	238	
478		5.00	1226.61	2.82	2.74	7.66	7.15 LD NOZ UP3 12 RED	240	SPSR2-06		
479			1229.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	239	
480		5.00	1231.61	2.83	2.74	7.70	7.15 LD NOZ UP3 12 RED	241	SPSR2-06		
481			1234.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	240	
482		5.00	1236.61	2.85	2.74	7.75	7.15 LD NOZ UP3 12 RED	242	SPSR2-06		
483			1239.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	241	
484		5.00	1241.61	2.87	2.97	7.81	7.14 LD NOZ UP3 12.5 RED	243	SPSR2-06		
485			1244.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	242	
486		5.00	1246.61	2.88	2.97	7.88	7.14 LD NOZ UP3 12.5 RED	244	SPSR2-06		
487			1249.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	243	
488		5.00	1251.61	2.88	2.97	7.96	7.14 LD NOZ UP3 12.5 RED	245	SPSR2-06		
489			1254.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	244	
490		5.00	1256.61	2.88	2.97	8.04	7.14 LD NOZ UP3 12.5 RED	246	SPSR2-06		
491			1259.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	245	
492		5.00	1261.61	2.89	2.97	8.13	7.14 LD NOZ UP3 12.5 RED	247	SPSR2-06		
493			1264.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	246	
494		5.00	1266.61	2.89	2.97	8.23	7.14 LD NOZ UP3 12.5 RED	248	SPSR2-06		
495			1269.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	247	
496		5.00	1271.61	2.89	2.97	8.34	7.14 LD NOZ UP3 12.5 RED	249	SPSR2-06		
497			1274.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	248	
498		5.00	1276.61	2.88	2.97	8.36	7.14 LD NOZ UP3 12.5 RED	250	SPSR2-06		
499			1279.11	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	249	
TOWER 8		159.85	1281.36								
500		4.95	1281.56	2.88	2.97	8.36	7.14 LD NOZ UP3 12.5 RED	251	SPSR2-06		
501			1284.06	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	250	
502		5.00	1286.56	2.89	2.97	8.36	7.14 LD NOZ UP3 12.5 RED	252	SPSR2-06		
503			1289.06	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	251	
504		5.00	1291.56	2.89	2.97	8.36	7.14 LD NOZ UP3 12.5 RED	253	SPSR2-06		
505			1294.06	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	252	
506		5.00	1296.56	3.76	3.72	8.36	7.09 LD NOZ UP3 14 BLUE	254	SPSR2-06		
507			1299.64	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	253	
				PIPE ID CHANGES FROM 6.415 TO 2.060							
508		8.08	1304.64	3.81	3.72	8.36	7.09 LD NOZ UP3 14 BLUE	255	SPSR2-06		
509		5.00	1309.64	3.72	3.72	8.36	7.09 LD NOZ UP3 14 BLUE	256	SPSR2-06		
OVERHANG		28.28	1309.64								

TOTAL GPM = 400.70

GPA = 3.23

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 15.00 PSI
 WITH GRADUATED ELEVATION OF 2.00 FT THE INLET PRESSURE IS 15.08 PSI FOR SPRINKLER 25
 THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

TOWER NUMBER	ACRES UNDER SPAN	GPM NEED	ACTUAL GPM	PERCENT DEVIATION	GPM PER ACRE	AVERAGE IN. PER HR DELIVERED UNDER SPAN	AVERAGE IN. DELIVERED FOR REVOLUTION TIME		
							36 HR	48 HR	60 HR
1	1.87	6.03	9.89	64%	5.30	0.012	0.42	0.56	0.70
2	5.56	17.99	17.59	-2%	3.16	0.007	0.25	0.34	0.42
3	9.26	29.95	29.63	-1%	3.20	0.007	0.25	0.34	0.42
4	12.96	41.90	41.08	-2%	3.17	0.007	0.25	0.34	0.42
5	16.66	53.86	53.03	-2%	3.18	0.007	0.25	0.34	0.42
6	20.35	65.82	64.91	-1%	3.19	0.007	0.25	0.34	0.42
7	24.05	77.78	76.97	-1%	3.20	0.007	0.25	0.34	0.42
8	27.70	89.58	88.91	-1%	3.21	0.007	0.26	0.34	0.43
OVERHANG	5.28	17.09	18.68	9%	3.54	0.008	0.28	0.38	0.47
TOTAL	123.70	400.00	400.70		3.24				

SUMMARY OF SPRINKLERS

26 LD NOZ UP3 4 LT BLUE
6 LD NOZ UP3 4.5 LT BLUE
8 LD NOZ UP3 5 BEIGE
9 LD NOZ UP3 5.5 BEIGE
9 LD NOZ UP3 6 GOLD
12 LD NOZ UP3 6.5 GOLD
11 LD NOZ UP3 7 LIME
13 LD NOZ UP3 7.5 LIME
13 LD NOZ UP3 8 LAVENDER
14 LD NOZ UP3 8.5 LAVENDER
15 LD NOZ UP3 9 GREY
16 LD NOZ UP3 9.5 GREY
16 LD NOZ UP3 10 TURQUOISE
17 LD NOZ UP3 10.5 TURQUOISE
19 LD NOZ UP3 11 YELLOW
16 LD NOZ UP3 11.5 YELLOW
22 LD NOZ UP3 12 RED
11 LD NOZ UP3 12.5 RED
3 LD NOZ UP3 14 BLUE

253 PLUGS**SUMMARY OF REGULATORS**

26 Senn PSR2 10 psi
230 Senn PSR2 6 psi

TOTAL OF 256 REGULATORS

NOZZLE POSITION CHART

LD NOZ UP3 4 LT BLUE	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26
LD NOZ UP3 4.5 LT BLUE	27, 28, 29, 30, 31, 32
LD NOZ UP3 5 BEIGE	33, 34, 35, 36, 37, 38, 39, 40
LD NOZ UP3 5.5 BEIGE	41, 42, 43, 44, 45, 46, 47, 48, 49
LD NOZ UP3 6 GOLD	50, 51, 52, 53, 54, 55, 56, 57, 58
LD NOZ UP3 6.5 GOLD	59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70
LD NOZ UP3 7 LIME	71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81
LD NOZ UP3 7.5 LIME	82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94
LD NOZ UP3 8 LAVENDER	95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107
LD NOZ UP3 8.5 LAVENDER	108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121
LD NOZ UP3 9 GREY	122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136
LD NOZ UP3 9.5 GREY	137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152
LD NOZ UP3 10 TURQUOISE	153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168
LD NOZ UP3 10.5 TURQUOISE	169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185
LD NOZ UP3 11 YELLOW	186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204
LD NOZ UP3 11.5 YELLOW	205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 220, 221, 222
LD NOZ UP3 12 RED	218, 219, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242
LD NOZ UP3 12.5 RED	243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253
LD NOZ UP3 14 BLUE	254, 255, 256

LIBERAL IRRIGATION LLC
524 EAST PANCAKE BLVD
LIBERAL, KANSAS 67901

SEPTEMBER 29, 2025
 WISH-119630
 BRENT WOODS
 NE 1/4 1-31-31

VALLEY 8000 - 30
 SENNINGER UP3 LDN SPRAY NOZZLES
 SENNINGER 10 & 6 PSI REGULATORS
 .75 I.D. FLEXIBLE HOSE
 NO ENDGUN

Rotation time at 100% = 14.29 Hours Or 857 minutes

400 GPM @ 11 PSI

Installation Chart

Page 1

Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg
1	PLUG				9	PLUG	31	4.5	PSR206	4	PLUG	61	6.5	PSR206	64	PLUG				59	PLUG	120	8.5	PSR206
2	PLUG				10	PLUG	11	4.5	PSR206	5	PLUG	62	6.5	PSR206	1	TOWER 3	91	7.5	PSR206	60	PLUG	121	8.5	PSR206
3		1	4	PSR210	11	PLUG	32	4.5	PSR206	6	PLUG	63	6.5	PSR206	2	PLUG	92	7.5	PSR206	62	PLUG	122	9	PSR206
4		2	4	PSR210	12	PLUG	13	5	PSR206	8	PLUG	64	6.5	PSR206	3	PLUG	93	7.5	PSR206	63	PLUG	123	9	PSR206
5		3	4	PSR210	14	PLUG	15	5	PSR206	10	PLUG	65	6.5	PSR206	4	PLUG	94	7.5	PSR206	64	TOWER 4	124	9	PSR206
6		4	4	PSR210	16	PLUG	17	5	PSR206	11	PLUG	66	6.5	PSR206	10	PLUG	95	8	PSR206	5	PLUG	125	9	PSR206
7	PLUG	5	4	PSR210	18	PLUG	19	5	PSR206	12	PLUG	67	6.5	PSR206	11	PLUG	96	8	PSR206	6	PLUG	126	9	PSR206
8		6	4	PSR210	20	PLUG	21	5	PSR206	13	PLUG	68	6.5	PSR206	12	PLUG	97	8	PSR206	7	PLUG	127	9	PSR206
9	PLUG	7	4	PSR210	22	PLUG	23	5	PSR206	14	PLUG	69	6.5	PSR206	13	PLUG	98	8	PSR206	8	PLUG	128	9	PSR206
10		8	4	PSR210	24	PLUG	25	5	PSR206	15	PLUG	70	6.5	PSR206	14	PLUG	99	8	PSR206	9	PLUG	129	9	PSR206
11	PLUG	9	4	PSR210	26	PLUG	27	5	PSR206	16	PLUG	71	7	PSR206	15	PLUG	100	8	PSR206	10	PLUG	130	9	PSR206
12		10	4	PSR210	28	PLUG	29	5	PSR206	17	PLUG	72	7	PSR206	16	PLUG	101	8	PSR206	11	PLUG	131	9	PSR206
13	PLUG	11	4	PSR210	30	PLUG	31	5.5	PSR206	18	PLUG	73	7	PSR206	17	PLUG	102	8	PSR206	12	PLUG	132	9	PSR206
14		12	4	PSR210	32	PLUG	33	5.5	PSR206	19	PLUG	74	7	PSR206	18	PLUG	103	8	PSR206	13	PLUG	133	9	PSR206
15	PLUG	13	4	PSR210	34	PLUG	35	5.5	PSR206	20	PLUG	75	7	PSR206	19	PLUG	104	8	PSR206	14	PLUG	134	9	PSR206
16		14	4	PSR210	36	PLUG	37	5.5	PSR206	21	PLUG	76	7	PSR206	20	PLUG	105	8	PSR206	15	PLUG	135	9	PSR206
17	PLUG	15	4	PSR210	38	PLUG	39	5.5	PSR206	22	PLUG	77	7	PSR206	21	PLUG	106	8	PSR206	16	PLUG	136	9	PSR206
18		16	4	PSR210	40	PLUG	40	5.5	PSR206	23	PLUG	78	7	PSR206	22	PLUG	107	8	PSR206	17	PLUG	137	9.5	PSR206
19	PLUG	17	4	PSR210	42	PLUG	41	5.5	PSR206	24	PLUG	79	7	PSR206	23	PLUG	108	8.5	PSR206	18	PLUG	138	9.5	PSR206
20		18	4	PSR210	44	PLUG	43	5.5	PSR206	25	PLUG	80	7	PSR206	24	PLUG	109	8.5	PSR206	19	PLUG	139	9.5	PSR206
21	PLUG	19	4	PSR210	46	PLUG	44	5.5	PSR206	26	PLUG	81	7	PSR206	25	PLUG	110	8.5	PSR206	20	PLUG	140	9.5	PSR206
22		20	4	PSR210	48	PLUG	45	5.5	PSR206	27	PLUG	82	7.5	PSR206	26	PLUG	111	8.5	PSR206	21	PLUG	141	9.5	PSR206
23	PLUG	21	4	PSR210	50	PLUG	46	5.5	PSR206	28	PLUG	83	7.5	PSR206	27	PLUG	112	8.5	PSR206	22	PLUG	142	9.5	PSR206
24		22	4	PSR210	52	PLUG	47	5.5	PSR206	29	PLUG	84	7.5	PSR206	28	PLUG	113	8.5	PSR206	23	PLUG	143	9.5	PSR206
25	PLUG	23	4	PSR210	54	PLUG	48	5.5	PSR206	30	PLUG	85	7.5	PSR206	29	PLUG	114	8.5	PSR206	24	PLUG	144	9.5	PSR206
26		24	4	PSR210	56	PLUG	49	5.5	PSR206	31	PLUG	86	7.5	PSR206	30	PLUG	115	8.5	PSR206	25	PLUG	145	9.5	PSR206
27	PLUG	25	4	PSR210	58	PLUG	50	5.5	PSR206	32	PLUG	87	7.5	PSR206	31	PLUG	116	8.5	PSR206	26	PLUG	146	9.5	PSR206
28		26	4	PSR210	60	PLUG	51	5.5	PSR206	33	PLUG	88	7.5	PSR206	32	PLUG	117	8.5	PSR206	27	PLUG	147	9.5	PSR206
29	PLUG	27	4.5	PSR206	61	PLUG	52	5.5	PSR206	34	PLUG	89	7.5	PSR206	33	PLUG	118	8.5	PSR206	28	PLUG	148	9.5	PSR206
30		28	4.5	PSR206	62	PLUG	53	5.5	PSR206	35	PLUG	90	7.5	PSR206	34	PLUG	119	8.5	PSR206	29	PLUG	149	9.5	PSR206
31	PLUG	29	4.5	PSR206	63	TOWER 2	54	6.5	PSR206	36	PLUG	91	7.5	PSR206	35	PLUG	120	8.5	PSR206	30	PLUG	150	9.5	PSR206
32		30	4.5	PSR206	64		55	6.5	PSR206	37	PLUG	92	7.5	PSR206	36	PLUG	121	8.5	PSR206	31	PLUG	151	9.5	PSR206
33	PLUG	27	4.5	PSR206	65		56	6.5	PSR206	38	PLUG	93	7.5	PSR206	37	PLUG	122	9	PSR206	32	PLUG	152	9	PSR206
34		28	4.5	PSR206	66		57	6.5	PSR206	39	PLUG	94	7.5	PSR206	38	PLUG	123	9	PSR206	33	PLUG	153	9	PSR206
35	PLUG	29	4.5	PSR206	67		58	6.5	PSR206	40	PLUG	95	7.5	PSR206	39	PLUG	124	9	PSR206	34	PLUG	154	9	PSR206
36		30	4.5	PSR206	68		59	6.5	PSR206	41	PLUG	96	7.5	PSR206	40	PLUG	125	9	PSR206	35	PLUG	155	9	PSR206
37	PLUG	27	4.5	PSR206	69		60	6.5	PSR206	42	PLUG	97	7.5	PSR206	41	PLUG	126	9	PSR206	36	PLUG	156	9	PSR206
38		28	4.5	PSR206	70		61	6.5	PSR206	43	PLUG	98	7.5	PSR206	42	PLUG	127	9	PSR206	37	PLUG	157	9	PSR206
39	PLUG	29	4.5	PSR206	71		62	6.5	PSR206	44	PLUG	99	7.5	PSR206	43	PLUG	128	9	PSR206	38	PLUG	158	9	PSR206
40		30	4.5	PSR206	72		63	6.5	PSR206	45	PLUG	100	7.5	PSR206	44	PLUG	129	9	PSR206	39	PLUG	159	9	PSR206
41	PLUG	27	4.5	PSR206	73		64	6.5	PSR206	46	PLUG	101	7.5	PSR206	45	PLUG	130	9	PSR206	40	PLUG	160	9	PSR206
42		28	4.5	PSR206	74		65	6.5	PSR206	47	PLUG	102	7.5	PSR206	46	PLUG	131	9	PSR206	41	PLUG	161	9	PSR206
43	PLUG	29	4.5	PSR206	75		66	6.5	PSR206	48	PLUG	103	7.5	PSR206	47	PLUG	132	9	PSR206	42	PLUG	162	9	PSR206
44		30	4.5	PSR206	76		67	6.5	PSR206	49	PLUG	104	7.5	PSR206	48	PLUG	133	9	PSR206	43	PLUG	163	9	PSR206
45	PLUG	27	4.5	PSR206	77		68	6.5	PSR206	50	PLUG	105	7.5	PSR206	49	PLUG	134	9	PSR206	44	PLUG	164	9	PSR206
46		28	4.5	PSR206	78		69	6.5	PSR206	51	PLUG	106	7.5	PSR206	50	PLUG	135	9	PSR206	45	PLUG	165	9	PSR206
47	PLUG	29	4.5	PSR206	79		70	6.5	PSR206	52	PLUG	107	7.5	PSR206	51	PLUG	136	9	PSR206	46	PLUG	166	9	PSR206
48		30	4.5	PSR206	80		71	6.5	PSR206	53	PLUG	108	7.5	PSR206	52	PLUG	137	9	PSR206	47	PLUG	167	9	PSR206
49	PLUG	27	4.5	PSR206	81		72	6.5	PSR206	54	PLUG	109	7.5	PSR206	53	PLUG	138	9	PSR206	48	PLUG	168	9	PSR206
50		28	4.5	PSR206	82		73	6.5	PSR206	55	PLUG	110	7.5	PSR206	54	PLUG	139	9	PSR206	49	PLUG	169	9	PSR206
51	PLUG	29	4.5	PSR206	83		74	6.5	PSR206	56	PLUG	111	7.5	PSR206	55	PLUG	140	9	PSR206	50	PLUG	170	9	PSR206
1		27	4.5	PSR206	61		57	6	PSR206	56	PLUG	112	7.5	PSR206	56	PLUG	141	9	PSR206	47	PLUG	171	9	PSR206
2	PLUG	28	4.5	PSR206	62		57	6	PSR206	57	PLUG	113	7.5	PSR206	48	PLUG	142	9	PSR206	48	PLUG	172	9	PSR206
3	PLUG	29	4.5	PSR206	63		58	6	PSR206	58	PLUG	114	7.5	PSR206	49	PLUG	143	9	PSR206	49	PLUG	1		

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 .75 I.D. FLEXIBLE HOSE
 NO ENDGUN

Rotation time at 100% = 14.29 Hours Or 857 minutes

400 GPM @ 11 PSI

Installation Chart

Page 2

Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg
54	PLUG	150	9.5	PSR206	49	PLUG	179	10.5	PSR206	44	PLUG	209	11.5	PSR206	39	PLUG	238	12	PSR206
55	PLUG	50			50	PLUG	180	10.5	PSR206	45	PLUG	209	11.5	PSR206	40	PLUG	239	12	PSR206
56	PLUG	151	9.5	PSR206	51	PLUG	181	10.5	PSR206	46	PLUG	210	11.5	PSR206	41	PLUG	240	12	PSR206
57	PLUG	52			52	PLUG	182	10.5	PSR206	47	PLUG	211	11.5	PSR206	42	PLUG	241	12	PSR206
58	PLUG	152	9.5	PSR206	53	PLUG	183	10.5	PSR206	48	PLUG	212	11.5	PSR206	43	PLUG	242	12	PSR206
59	PLUG	54			54	PLUG	184	10.5	PSR206	49	PLUG	213	11.5	PSR206	44	PLUG	243	12.5	PSR206
60	PLUG	55			55	PLUG	185	10.5	PSR206	50	PLUG	214	11.5	PSR206	45	PLUG	244	12.5	PSR206
61	PLUG	56			56	PLUG	186	11	PSR206	51	PLUG	215	11.5	PSR206	46	PLUG	245	12.5	PSR206
62	PLUG	57			57	PLUG	187	11	PSR206	52	PLUG	216	11.5	PSR206	47	PLUG	246	12.5	PSR206
63	PLUG	58			58	PLUG	188	11	PSR206	53	PLUG	217	11.5	PSR206	48	PLUG	247	12.5	PSR206
64	PLUG	59			59	PLUG	189	11	PSR206	54	PLUG	218	12	PSR206	49	PLUG	248	12.5	PSR206
TOWER 5					60	PLUG	190	11	PSR206	60	PLUG	219	12	PSR206	50	PLUG	249	12.5	PSR206
1	PLUG	155	10	PSR206	61	PLUG	191	11	PSR206	61	PLUG	220	11.5	PSR206	51	PLUG	250	12.5	PSR206
2	PLUG	62			62	PLUG	192	11	PSR206	62	PLUG	221	11.5	PSR206	52	PLUG	251	12.5	PSR206
3	PLUG	156	10	PSR206	63	PLUG	193	11	PSR206	63	PLUG	222	11.5	PSR206	53	PLUG	252	12.5	PSR206
4	PLUG	64			64	PLUG	194	11	PSR206	64	PLUG	223	12	PSR206	54	PLUG	253	12.5	PSR206
5	PLUG	157	10	PSR206	1	PLUG	195	11	PSR206	65	PLUG	224	12	PSR206	55	PLUG	254	14	PSR206
6	PLUG	65			65	PLUG	196	11	PSR206	66	PLUG	225	12	PSR206	56	PLUG	255	14	PSR206
7	PLUG	66			66	PLUG	197	11	PSR206	67	PLUG	226	12	PSR206	57	PLUG	256	14	PSR206
8	PLUG	67			67	PLUG	198	11	PSR206	68	PLUG	227	12	PSR206	58	PLUG			
9	PLUG	68			68	PLUG	199	11	PSR206	69	PLUG	228	12	PSR206	59	PLUG			
10	PLUG	69			69	PLUG	200	11	PSR206	70	PLUG	229	12	PSR206	60	PLUG			
11	PLUG	70			70	PLUG	201	11	PSR206	71	PLUG	230	12	PSR206	61	PLUG			
12	PLUG	71			71	PLUG	202	11	PSR206	72	PLUG	231	12	PSR206	62	PLUG			
13	PLUG	72			72	PLUG	203	11	PSR206	73	PLUG	232	12	PSR206	63	PLUG			
14	PLUG	73			73	PLUG	204	11	PSR206	74	PLUG	233	12	PSR206	64	PLUG			
15	PLUG	74			74	PLUG	205	11.5	PSR206	75	PLUG	234	12	PSR206	65	PLUG			
16	PLUG	75			75	PLUG	206	11.5	PSR206	76	PLUG	235	12	PSR206	66	PLUG			
17	PLUG	76			76	PLUG	207	11.5	PSR206	77	PLUG	236	12	PSR206	67	PLUG			
18	PLUG	77			77	PLUG	208	11.5	PSR206	78	PLUG	237	12	PSR206	68	PLUG			
19	PLUG	78			78	PLUG				79	PLUG				69	PLUG			
20	PLUG	79			79	PLUG				80	PLUG				70	PLUG			
21	PLUG	80			80	PLUG				81	PLUG				71	PLUG			
22	PLUG	81			81	PLUG				82	PLUG				72	PLUG			
23	PLUG	82			82	PLUG				83	PLUG				73	PLUG			
24	PLUG	83			83	PLUG				84	PLUG				74	PLUG			
25	PLUG	84			84	PLUG				85	PLUG				75	PLUG			
26	PLUG	85			85	PLUG				86	PLUG				76	PLUG			
27	PLUG	86			86	PLUG				87	PLUG				77	PLUG			
28	PLUG	87			87	PLUG				88	PLUG				78	PLUG			
29	PLUG	88			88	PLUG				89	PLUG				79	PLUG			
30	PLUG	89			89	PLUG				90	PLUG				80	PLUG			
31	PLUG	90			90	PLUG				91	PLUG				81	PLUG			
32	PLUG	91			91	PLUG				92	PLUG				82	PLUG			
33	PLUG	92			92	PLUG				93	PLUG				83	PLUG			
34	PLUG	93			93	PLUG				94	PLUG				84	PLUG			
35	PLUG	94			94	PLUG				95	PLUG				85	PLUG			
36	PLUG	95			95	PLUG				96	PLUG				86	PLUG			
37	PLUG	96			96	PLUG				97	PLUG				87	PLUG			
38	PLUG	97			97	PLUG				98	PLUG				88	PLUG			
39	PLUG	98			98	PLUG				99	PLUG				89	PLUG			
40	PLUG	99			99	PLUG				100	PLUG				90	PLUG			
41	PLUG	100			100	PLUG				101	PLUG				91	PLUG			
42	PLUG	101			101	PLUG				102	PLUG				92	PLUG			
43	PLUG	102			102	PLUG				103	PLUG				93	PLUG			
44	PLUG	103			103	PLUG				104	PLUG				94	PLUG			
45	PLUG	104			104	PLUG				105	PLUG				95	PLUG			
46	PLUG	105			105	PLUG				106	PLUG				96	PLUG			
47	PLUG	106			106	PLUG				107	PLUG				97	PLUG			
48	PLUG	107			107	PLUG				108	PLUG				98	PLUG			

PRECIPITATION CHART FOR FULL CIRCLE

WISH-119630

SEPTEMBER 29, 2025

DEALER - LIBERAL IRRIGATION LLC

IRRIGATOR - BRENT WOODS
FIELD - NE 1/4 1-31-31

TOTAL LENGTH PIPE = 1309.64 SYSTEM PRESSURE = 11 PSI
 GPM UNDER PIPE = 400.70 TOTAL GPM = 400.70
 ACRES UNDER PIPE = 123.70
 RANGE OF ENDGUN = .00 RUN FOR MINIMUM PRESSURE
 GPM OF ENDGUN = .00
 ACRES UNDER ENDGUN = .00

MOTOR SIZE (HP) = .6
 LOADED MOTOR RPM = 1800
 CENTER GEAR BOX RATIO = 53
 WHEEL GEAR BOX RATIO = 52
 TIRE SIZE = 11.2 X 38
 LAST TOWER SPEED (FPM) = 9.39

PRECIPITATION BASED

% TIMER BASED

PRECIPITATION INCHES	% TIMER SETTING	TIME HOURS	% TIMER SETTING	PRECIPITATION INCHES	TIME HOURS
.10	100.00	14.29 - 857(min)	100.00	.10	14.29 - 857(min)
.20	51.14	27.94	90.00	.11	15.88
.25	40.91	34.93	80.00	.13	17.86
.30	34.09	41.91	70.00	.15	20.41
.40	25.57	55.88	60.00	.17	23.82
.50	20.46	69.86	50.00	.20	28.58
.60	17.05	83.83	45.00	.23	31.76
.70	14.61	97.80	40.00	.26	35.73
.75	13.64	104.78	35.00	.29	40.83
.80	12.79	111.77	30.00	.34	47.63
.90	11.36	125.74	25.00	.41	57.16
1.00	10.23	139.71	20.00	.51	71.45
1.25	8.18	174.64	15.00	.68	95.27
1.50	6.82	209.57	10.00	1.02	142.90
1.75	5.84	244.50	5.00	2.05	285.80

CAUTION: The relationship between precipitation rate, timer setting, and hours per revolution provided above are theoretical numbers based on the data list at the top of the page. Actual precipitation rates may vary due to the following field and machine conditions: wind drift; evaporation; tire slippage, tire loaded radius; drive train efficiency; elevation changes; soil type. Due to these varying field and machine conditions the above chart should be used as a guide only.