

WESTERN SPRINKLERS INC.

SEPTEMBER 23, 2025

WISH-119613

CUSTOMER : DON SMITH

VALLEY 7000 - 30
7 TOWER - 1308.29 FT
SYSTEM 265 GPM @ 15 PSI

LEGAL : SW 1/4 26-16-35
P.O. NO. : C2473B

SENNINGER UP3 LDN SPRAYS & NELSON D3000 SPRAYS
SENNINGER & NELSON 10 PSI REGULATORS
NO ENDGUN
ELEVATION 5 FT UP, 5 FT DOWN

1100 SOUTH RANGE
COLBY, KANSAS 67701
(785)462-6755

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.

DEALER
WESTERN SPRINKLERS INC.
1100 SOUTH RANGE
COLBY, KANSAS 67701

IRRIGATOR
DON SMITH
SW 1/4 26-16-35
C2473B

				SPAN #	LENGTH	PIPE I.D.	# OF HEADS
TOTAL TARGET GPM	265.00	FRICTION FACTOR USED	140				
TOP OF PIVOT PRESSURE	15.00	TOTAL LENGTH	1308.29	1	180.92	5.79	21
NO ENDGUN		NUMBER OF TOWERS	7	2	180.18	5.79	24
NUMBER OF OUTLETS	509	NUMBER OF SPRINKLERS	235	3	180.18	5.79	36
				4	180.18	5.79	36
SENNINGER UP3 LDN SPRAY NOZZLES - CONCAVE GROOVED PADS FIRST TWO SPANS				5	180.18	5.79	36
NELSON D3000 SPRAY NOZZLES - MULTI-TRAJECTORY ORANGE 21 COARSE GROOVE PLATES BALANCE				6	180.18	5.79	36
SENNINGER FPSR2 & NELSON BLUE TOP 10 PSI SERIES REGULATORS				7	179.91	5.79	36
POLYDROPS® AVERAGE 13 FT				OH	18.28	5.79	4
ELEVATION IS 5 FT UP AND 5 FT DOWN					18.28	3.79	4
					10.00	0.824	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.	DROP LENGTH
1		5.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
2		14.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
3	23.40	23.40	0.12	0.21	14.58	11.40	LD	NOZ	UP3	3	ICE						1	FPSR210		144
4	9.00	32.40	0.09	0.21	14.37	11.40	LD	NOZ	UP3	3	ICE						2	FPSR210		150
5	9.00	41.40	0.08	0.21	14.19	11.40	LD	NOZ	UP3	3	ICE						3	FPSR210		156
6	4.52	45.92	0.09	0.21	14.11	11.40	LD	NOZ	UP3	3	ICE						4	FPSR210		156
7		48.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
8		50.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
9	7.50	53.42	0.12	0.21	13.98	11.40	LD	NOZ	UP3	3	ICE						5	FPSR210		162
10		55.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
11		58.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
12	7.50	60.92	0.14	0.21	13.88	11.40	LD	NOZ	UP3	3	ICE						6	FPSR210		162
13		63.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	
14		65.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	
15	7.50	68.42	0.16	0.21	13.80	11.40	LD	NOZ	UP3	3	ICE						7	FPSR210		162
16		70.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	
17		73.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
18	7.50	75.92	0.18	0.21	13.73	11.40	LD	NOZ	UP3	3	ICE						8	FPSR210		168
19		78.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	
20		80.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	
21	7.50	83.42	0.19	0.21	13.69	11.40	LD	NOZ	UP3	3	ICE						9	FPSR210		168
22		85.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	
23		88.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	
24	7.50	90.92	0.21	0.21	13.66	11.40	LD	NOZ	UP3	3	ICE						10	FPSR210		168
25		93.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	
26		95.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	
27	7.50	98.42	0.23	0.21	13.65	11.40	LD	NOZ	UP3	3	ICE						11	FPSR210		168
28		100.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	
29		103.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	
30	7.50	105.92	0.24	0.21	13.66	11.40	LD	NOZ	UP3	3	ICE						12	FPSR210		162
31		108.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	
32		110.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	
33	7.50	113.42	0.26	0.29	13.69	11.40	LD	NOZ	UP3	3.5	ICE						13	FPSR210		162
34		115.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	
35		118.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	
36	7.50	120.92	0.28	0.29	13.73	11.40	LD	NOZ	UP3	3.5	ICE						14	FPSR210		162
37		123.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	
38		125.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	
39	7.50	128.42	0.30	0.29	13.80	11.40	LD	NOZ	UP3	3.5	ICE						15	FPSR210		162
40		130.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	
41		133.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	
42	7.50	135.92	0.31	0.29	13.88	11.40	LD	NOZ	UP3	3.5	ICE						16	FPSR210		156
43		138.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	
44		140.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	
45	7.50	143.42	0.33	0.29	13.98	11.40	LD	NOZ	UP3	3.5	ICE						17	FPSR210		150
46		145.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	
47		148.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	
48	7.50	150.92	0.35	0.37	14.10	11.40	LD	NOZ	UP3	4	LT BLUE						18	FPSR210		150

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.
49		153.42	-	-	-	-	-	-	-	-	-	-	-	-	-	31
50		155.92	-	-	-	-	-	-	-	-	-	-	-	-	-	32
51	7.50	158.42	0.37	0.37	14.24	11.40	LD	NOZ	UP3	4	LT	BLUE		19	FPSR210	
52		160.92	-	-	-	-	-	-	-	-	-	-	-	-	-	33
53		163.42	-	-	-	-	-	-	-	-	-	-	-	-	-	34
54	7.50	165.92	0.38	0.37	14.40	11.40	LD	NOZ	UP3	4	LT	BLUE		20	FPSR210	
55		168.42	-	-	-	-	-	-	-	-	-	-	-	-	-	35
56		170.92	-	-	-	-	-	-	-	-	-	-	-	-	-	36
57	7.50	173.42	0.41	0.37	14.51	11.40	LD	NOZ	UP3	4	LT	BLUE		21	FPSR210	
58		175.92	-	-	-	-	-	-	-	-	-	-	-	-	-	37
59		178.42	-	-	-	-	-	-	-	-	-	-	-	-	-	38
TOWER 1	180.92	180.92														
60	7.70	181.12	0.42	0.37	14.49	11.40	LD	NOZ	UP3	4	LT	BLUE		22	FPSR210	
61		183.62	-	-	-	-	-	-	-	-	-	-	-	-	-	39
62		186.12	-	-	-	-	-	-	-	-	-	-	-	-	-	40
63	7.50	188.62	0.44	0.48	14.47	11.40	LD	NOZ	UP3	4.5	LT	BLUE		23	FPSR210	
64		191.12	-	-	-	-	-	-	-	-	-	-	-	-	-	41
65		193.62	-	-	-	-	-	-	-	-	-	-	-	-	-	42
66	7.50	196.12	0.45	0.48	14.27	11.40	LD	NOZ	UP3	4.5	LT	BLUE		24	FPSR210	
67		198.62	-	-	-	-	-	-	-	-	-	-	-	-	-	43
68		201.12	-	-	-	-	-	-	-	-	-	-	-	-	-	44
69	7.50	203.62	0.47	0.48	14.07	11.40	LD	NOZ	UP3	4.5	LT	BLUE		25	FPSR210	
70		206.12	-	-	-	-	-	-	-	-	-	-	-	-	-	45
71		208.62	-	-	-	-	-	-	-	-	-	-	-	-	-	46
72	7.50	211.12	0.49	0.48	13.90	11.40	LD	NOZ	UP3	4.5	LT	BLUE		26	FPSR210	
73		213.62	-	-	-	-	-	-	-	-	-	-	-	-	-	47
74		216.12	-	-	-	-	-	-	-	-	-	-	-	-	-	48
75	7.50	218.62	0.50	0.48	13.74	11.40	LD	NOZ	UP3	4.5	LT	BLUE		27	FPSR210	
76		221.12	-	-	-	-	-	-	-	-	-	-	-	-	-	49
77		223.62	-	-	-	-	-	-	-	-	-	-	-	-	-	50
78	7.50	226.12	0.52	0.48	13.60	11.40	LD	NOZ	UP3	4.5	LT	BLUE		28	FPSR210	
79		228.62	-	-	-	-	-	-	-	-	-	-	-	-	-	51
80		231.12	-	-	-	-	-	-	-	-	-	-	-	-	-	52
81	7.50	233.62	0.54	0.59	13.48	11.40	LD	NOZ	UP3	5	BEIGE			29	FPSR210	
82		236.12	-	-	-	-	-	-	-	-	-	-	-	-	-	53
83		238.62	-	-	-	-	-	-	-	-	-	-	-	-	-	54
84	7.50	241.12	0.56	0.59	13.38	11.40	LD	NOZ	UP3	5	BEIGE			30	FPSR210	
85		243.62	-	-	-	-	-	-	-	-	-	-	-	-	-	55
86		246.12	-	-	-	-	-	-	-	-	-	-	-	-	-	56
87	7.50	248.62	0.57	0.59	13.30	11.40	LD	NOZ	UP3	5	BEIGE			31	FPSR210	
88		251.12	-	-	-	-	-	-	-	-	-	-	-	-	-	57
89		253.62	-	-	-	-	-	-	-	-	-	-	-	-	-	58
90	7.50	256.12	0.59	0.59	13.24	11.40	LD	NOZ	UP3	5	BEIGE			32	FPSR210	
91		258.62	-	-	-	-	-	-	-	-	-	-	-	-	-	59
92		261.12	-	-	-	-	-	-	-	-	-	-	-	-	-	60
93	7.50	263.62	0.61	0.59	13.19	11.40	LD	NOZ	UP3	5	BEIGE			33	FPSR210	
94		266.12	-	-	-	-	-	-	-	-	-	-	-	-	-	61
95		268.62	-	-	-	-	-	-	-	-	-	-	-	-	-	62

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.	DROP LENGTH
96	7.49	271.11	0.62	0.59	13.16	11.40	LD NOZ UP3 5 BEIGE					34	FPSR210		168
97		273.60	-	-	-	-	-	-	-	-	-	-	-	63	
98		276.10	-	-	-	-	-	-	-	-	-	-	-	64	
99	7.49	278.60	0.64	0.59	13.16	11.40	LD NOZ UP3 5 BEIGE					35	FPSR210		168
100		281.10	-	-	-	-	-	-	-	-	-	-	-	65	
101		283.60	-	-	-	-	-	-	-	-	-	-	-	66	
102	7.50	286.10	0.66	0.72	13.17	11.40	LD NOZ UP3 5.5 BEIGE					36	FPSR210		162
103		288.60	-	-	-	-	-	-	-	-	-	-	-	67	
104		291.10	-	-	-	-	-	-	-	-	-	-	-	68	
105	7.50	293.60	0.68	0.72	13.20	11.40	LD NOZ UP3 5.5 BEIGE					37	FPSR210		162
106		296.10	-	-	-	-	-	-	-	-	-	-	-	69	
107		298.60	-	-	-	-	-	-	-	-	-	-	-	70	
108	7.50	301.10	0.69	0.72	13.24	11.40	LD NOZ UP3 5.5 BEIGE					38	FPSR210		162
109		303.60	-	-	-	-	-	-	-	-	-	-	-	71	
110		306.10	-	-	-	-	-	-	-	-	-	-	-	72	
111	7.50	308.60	0.71	0.72	13.31	11.40	LD NOZ UP3 5.5 BEIGE					39	FPSR210		162
112		311.10	-	-	-	-	-	-	-	-	-	-	-	73	
113		313.60	-	-	-	-	-	-	-	-	-	-	-	74	
114	7.50	316.10	0.73	0.72	13.40	11.40	LD NOZ UP3 5.5 BEIGE					40	FPSR210		156
115		318.60	-	-	-	-	-	-	-	-	-	-	-	75	
116		321.10	-	-	-	-	-	-	-	-	-	-	-	76	
117	7.50	323.60	0.75	0.72	13.50	11.40	LD NOZ UP3 5.5 BEIGE					41	FPSR210		150
118		326.10	-	-	-	-	-	-	-	-	-	-	-	77	
119		328.60	-	-	-	-	-	-	-	-	-	-	-	78	
120	7.50	331.10	0.76	0.72	13.62	11.40	LD NOZ UP3 5.5 BEIGE					42	FPSR210		150
121		333.60	-	-	-	-	-	-	-	-	-	-	-	79	
122		336.10	-	-	-	-	-	-	-	-	-	-	-	80	
123	7.50	338.60	0.78	0.72	13.76	11.40	LD NOZ UP3 5.5 BEIGE					43	FPSR210		144
124		341.10	-	-	-	-	-	-	-	-	-	-	-	81	
125		343.60	-	-	-	-	-	-	-	-	-	-	-	82	
126	7.50	346.10	0.80	0.85	13.92	11.40	LD NOZ UP3 6 GOLD					44	FPSR210		138
127		348.60	-	-	-	-	-	-	-	-	-	-	-	83	
128		351.10	-	-	-	-	-	-	-	-	-	-	-	84	
129	7.50	353.60	0.83	0.85	14.04	11.40	LD NOZ UP3 6 GOLD					45	FPSR210		132
130		356.10	-	-	-	-	-	-	-	-	-	-	-	85	
131		358.60	-	-	-	-	-	-	-	-	-	-	-	86	
TOWER 2	180.18	361.10													
132	7.70	361.30	0.70	0.69	14.02	11.28	D3000 11 BEIGE/GOLD					46	NNB10LF		132
133		363.80	-	-	-	-	-	-	-	-	-	-	-	87	
134	5.00	366.30	0.56	0.57	14.00	11.30	D3000 10 BEIGE					47	NNB10LF		132
135		368.80	-	-	-	-	-	-	-	-	-	-	-	88	
136	5.00	371.30	0.57	0.57	13.94	11.30	D3000 10 BEIGE					48	NNB10LF		138
137		373.80	-	-	-	-	-	-	-	-	-	-	-	89	
138	5.00	376.30	0.58	0.57	13.80	11.30	D3000 10 BEIGE					49	NNB10LF		144
139		378.80	-	-	-	-	-	-	-	-	-	-	-	90	
140	5.00	381.30	0.59	0.57	13.67	11.30	D3000 10 BEIGE					50	NNB10LF		144
141		383.80	-	-	-	-	-	-	-	-	-	-	-	91	
142	5.00	386.30	0.59	0.57	13.55	11.30	D3000 10 BEIGE					51	NNB10LF		150

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.	DROP LENGTH
143		388.80	-	-	-	-	-	-	-	-	-	-	-	-	92	
144	5.00	391.30	0.60	0.57	13.43	11.30	D3000	10	BEIGE				52	NNB10LF		150
145		393.80	-	-	-	-	-	-	-	-	-	-	-	-	93	
146	5.00	396.30	0.61	0.57	13.33	11.30	D3000	10	BEIGE				53	NNB10LF		150
147		398.80	-	-	-	-	-	-	-	-	-	-	-	-	94	
148	5.00	401.30	0.62	0.57	13.23	11.30	D3000	10	BEIGE				54	NNB10LF		156
149		403.80	-	-	-	-	-	-	-	-	-	-	-	-	95	
150	5.00	406.30	0.63	0.57	13.14	11.30	D3000	10	BEIGE				55	NNB10LF		156
151		408.80	-	-	-	-	-	-	-	-	-	-	-	-	96	
152	5.00	411.30	0.63	0.69	13.06	11.28	D3000	11	BEIGE/GOLD				56	NNB10LF		162
153		413.80	-	-	-	-	-	-	-	-	-	-	-	-	97	
154	5.00	416.30	0.64	0.69	12.99	11.28	D3000	11	BEIGE/GOLD				57	NNB10LF		162
155		418.80	-	-	-	-	-	-	-	-	-	-	-	-	98	
156	5.00	421.30	0.65	0.69	12.93	11.28	D3000	11	BEIGE/GOLD				58	NNB10LF		162
157		423.80	-	-	-	-	-	-	-	-	-	-	-	-	99	
158	5.00	426.30	0.66	0.69	12.87	11.28	D3000	11	BEIGE/GOLD				59	NNB10LF		162
159		428.80	-	-	-	-	-	-	-	-	-	-	-	-	100	
160	5.00	431.30	0.66	0.69	12.83	11.28	D3000	11	BEIGE/GOLD				60	NNB10LF		162
161		433.80	-	-	-	-	-	-	-	-	-	-	-	-	101	
162	5.00	436.30	0.67	0.69	12.79	11.28	D3000	11	BEIGE/GOLD				61	NNB10LF		168
163		438.80	-	-	-	-	-	-	-	-	-	-	-	-	102	
164	5.00	441.30	0.68	0.69	12.76	11.28	D3000	11	BEIGE/GOLD				62	NNB10LF		168
165		443.80	-	-	-	-	-	-	-	-	-	-	-	-	103	
166	5.00	446.30	0.69	0.69	12.74	11.28	D3000	11	BEIGE/GOLD				63	NNB10LF		168
167		448.80	-	-	-	-	-	-	-	-	-	-	-	-	104	
168	4.99	451.29	0.69	0.69	12.72	11.28	D3000	11	BEIGE/GOLD				64	NNB10LF		168
169		453.78	-	-	-	-	-	-	-	-	-	-	-	-	105	
170	4.99	456.28	0.70	0.69	12.72	11.28	D3000	11	BEIGE/GOLD				65	NNB10LF		168
171		458.78	-	-	-	-	-	-	-	-	-	-	-	-	106	
172	5.00	461.28	0.71	0.69	12.72	11.28	D3000	11	BEIGE/GOLD				66	NNB10LF		168
173		463.78	-	-	-	-	-	-	-	-	-	-	-	-	107	
174	5.00	466.28	0.72	0.69	12.73	11.29	D3000	11	BEIGE/GOLD				67	NNB10LF		162
175		468.78	-	-	-	-	-	-	-	-	-	-	-	-	108	
176	5.00	471.28	0.73	0.69	12.75	11.29	D3000	11	BEIGE/GOLD				68	NNB10LF		162
177		473.78	-	-	-	-	-	-	-	-	-	-	-	-	109	
178	5.00	476.28	0.73	0.69	12.78	11.29	D3000	11	BEIGE/GOLD				69	NNB10LF		162
179		478.78	-	-	-	-	-	-	-	-	-	-	-	-	110	
180	5.00	481.28	0.74	0.69	12.81	11.29	D3000	11	BEIGE/GOLD				70	NNB10LF		162
181		483.78	-	-	-	-	-	-	-	-	-	-	-	-	111	
182	5.00	486.28	0.75	0.69	12.86	11.28	D3000	11	BEIGE/GOLD				71	NNB10LF		162
183		488.78	-	-	-	-	-	-	-	-	-	-	-	-	112	
184	5.00	491.28	0.76	0.69	12.91	11.29	D3000	11	BEIGE/GOLD				72	NNB10LF		156
185		493.78	-	-	-	-	-	-	-	-	-	-	-	-	113	
186	5.00	496.28	0.76	0.69	12.97	11.29	D3000	11	BEIGE/GOLD				73	NNB10LF		156
187		498.78	-	-	-	-	-	-	-	-	-	-	-	-	114	
188	5.00	501.28	0.77	0.84	13.04	11.26	D3000	12	GOLD				74	NNB10LF		156
189		503.78	-	-	-	-	-	-	-	-	-	-	-	-	115	
190	5.00	506.28	0.78	0.84	13.12	11.26	D3000	12	GOLD				75	NNB10LF		150

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.	DROP LENGTH
191	5.00	508.78	-	-	-	-	-	-	-	-	-	-	-	116	150
192		511.28	0.79	0.84	13.20	11.26	D3000	12	GOLD	-	-	-	76	NNB10LF	
193		513.78	-	-	-	-	-	-	-	-	-	-	-	117	
194		516.28	0.79	0.84	13.30	11.26	D3000	12	GOLD	-	-	-	77	NNB10LF	
195	5.00	518.78	-	-	-	-	-	-	-	-	-	-	-	118	144
196		521.28	0.80	0.84	13.40	11.26	D3000	12	GOLD	-	-	-	78	NNB10LF	
197		523.78	-	-	-	-	-	-	-	-	-	-	-	119	
198		526.28	0.81	0.84	13.51	11.26	D3000	12	GOLD	-	-	-	79	NNB10LF	
199	5.00	528.78	-	-	-	-	-	-	-	-	-	-	-	120	138
200		531.28	0.61	0.57	13.63	11.30	D3000	10	BEIGE	-	-	-	80	NNB10LF	
201		533.78	0.84	0.84	13.63	11.26	D3000	12	GOLD	-	-	-	81	NNB10LF	
202		536.28	-	-	-	-	-	-	-	-	-	-	-	121	
203	TOWER 3 180.18 7.70	538.78	-	-	-	-	-	-	-	-	-	-	-	122	132
204		541.28	1.06	1.12	13.61	11.22	D3000	14	LIME	-	-	-	82	NNB10LF	
205		543.98	-	-	-	-	-	-	-	-	-	-	-	123	
206		546.48	0.84	0.84	13.60	11.26	D3000	12	GOLD	-	-	-	83	NNB10LF	
207	5.00	548.98	-	-	-	-	-	-	-	-	-	-	-	124	138
208		551.48	0.85	0.84	13.54	11.26	D3000	12	GOLD	-	-	-	84	NNB10LF	
209		553.98	-	-	-	-	-	-	-	-	-	-	-	125	
210		556.48	0.86	0.84	13.40	11.26	D3000	12	GOLD	-	-	-	85	NNB10LF	
211	5.00	558.98	-	-	-	-	-	-	-	-	-	-	-	126	144
212		561.48	0.86	0.84	13.27	11.26	D3000	12	GOLD	-	-	-	86	NNB10LF	
213		563.98	-	-	-	-	-	-	-	-	-	-	-	127	
214		566.48	0.87	0.84	13.15	11.26	D3000	12	GOLD	-	-	-	87	NNB10LF	
215	5.00	568.98	-	-	-	-	-	-	-	-	-	-	-	128	150
216		571.48	0.88	0.84	13.04	11.26	D3000	12	GOLD	-	-	-	88	NNB10LF	
217		573.98	-	-	-	-	-	-	-	-	-	-	-	129	
218		576.48	0.89	0.84	12.94	11.26	D3000	12	GOLD	-	-	-	89	NNB10LF	
219	5.00	578.98	-	-	-	-	-	-	-	-	-	-	-	130	156
220		581.48	0.90	0.84	12.85	11.26	D3000	12	GOLD	-	-	-	90	NNB10LF	
221		583.98	-	-	-	-	-	-	-	-	-	-	-	131	
222		586.48	0.90	0.84	12.76	11.26	D3000	12	GOLD	-	-	-	91	NNB10LF	
223	5.00	588.98	-	-	-	-	-	-	-	-	-	-	-	132	162
224		591.48	0.91	0.98	12.68	11.24	D3000	13	GOLD/LIME	-	-	-	92	NNB10LF	
225		593.98	-	-	-	-	-	-	-	-	-	-	-	133	
226		596.48	0.92	0.98	12.61	11.24	D3000	13	GOLD/LIME	-	-	-	93	NNB10LF	
227	5.00	598.98	-	-	-	-	-	-	-	-	-	-	-	134	162
228		601.48	0.93	0.98	12.55	11.24	D3000	13	GOLD/LIME	-	-	-	94	NNB10LF	
229		603.98	-	-	-	-	-	-	-	-	-	-	-	135	
230		606.48	0.93	0.98	12.50	11.24	D3000	13	GOLD/LIME	-	-	-	95	NNB10LF	
231	5.00	608.98	-	-	-	-	-	-	-	-	-	-	-	136	162
232		611.48	0.94	0.98	12.45	11.24	D3000	13	GOLD/LIME	-	-	-	96	NNB10LF	
233		613.98	-	-	-	-	-	-	-	-	-	-	-	137	
234		616.48	0.95	0.98	12.42	11.24	D3000	13	GOLD/LIME	-	-	-	97	NNB10LF	
235	5.00	618.98	-	-	-	-	-	-	-	-	-	-	-	138	168
236		621.48	0.96	0.98	12.39	11.24	D3000	13	GOLD/LIME	-	-	-	98	NNB10LF	
237		623.98	-	-	-	-	-	-	-	-	-	-	-	139	

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.	DROP LENGTH
238	5.00	626.48	0.96	0.98	12.37	11.24	D3000	13	GOLD/LIME		99	NNB10LF		168
239		628.98	-	-	-	-	-	-	-	-	-	-	140	
240	4.99	631.47	0.97	0.98	12.36	11.24	D3000	13	GOLD/LIME		100	NNB10LF		168
241		633.96	-	-	-	-	-	-	-	-	-	-	141	
242	4.99	636.46	0.98	0.98	12.36	11.24	D3000	13	GOLD/LIME		101	NNB10LF		168
243		638.96	-	-	-	-	-	-	-	-	-	-	142	
244	5.00	641.46	0.99	0.98	12.36	11.24	D3000	13	GOLD/LIME		102	NNB10LF		168
245		643.96	-	-	-	-	-	-	-	-	-	-	143	
246	5.00	646.46	0.99	0.98	12.38	11.24	D3000	13	GOLD/LIME		103	NNB10LF		162
247		648.96	-	-	-	-	-	-	-	-	-	-	144	
248	5.00	651.46	1.00	0.98	12.40	11.24	D3000	13	GOLD/LIME		104	NNB10LF		162
249		653.96	-	-	-	-	-	-	-	-	-	-	145	
250	5.00	656.46	1.01	0.98	12.43	11.24	D3000	13	GOLD/LIME		105	NNB10LF		162
251		658.96	-	-	-	-	-	-	-	-	-	-	146	
252	5.00	661.46	1.02	0.98	12.47	11.24	D3000	13	GOLD/LIME		106	NNB10LF		162
253		663.96	-	-	-	-	-	-	-	-	-	-	147	
254	5.00	666.46	1.03	0.98	12.51	11.24	D3000	13	GOLD/LIME		107	NNB10LF		162
255		668.96	-	-	-	-	-	-	-	-	-	-	148	
256	5.00	671.46	1.03	0.98	12.57	11.24	D3000	13	GOLD/LIME		108	NNB10LF		156
257		673.96	-	-	-	-	-	-	-	-	-	-	149	
258	5.00	676.46	1.04	0.98	12.63	11.24	D3000	13	GOLD/LIME		109	NNB10LF		156
259		678.96	-	-	-	-	-	-	-	-	-	-	150	
260	5.00	681.46	1.05	1.12	12.70	11.22	D3000	14	LIME		110	NNB10LF		156
261		683.96	-	-	-	-	-	-	-	-	-	-	151	
262	5.00	686.46	1.06	1.12	12.78	11.22	D3000	14	LIME		111	NNB10LF		150
263		688.96	-	-	-	-	-	-	-	-	-	-	152	
264	5.00	691.46	1.06	1.12	12.87	11.22	D3000	14	LIME		112	NNB10LF		150
265		693.96	-	-	-	-	-	-	-	-	-	-	153	
266	5.00	696.46	1.07	1.12	12.97	11.22	D3000	14	LIME		113	NNB10LF		144
267		698.96	-	-	-	-	-	-	-	-	-	-	154	
268	5.00	701.46	1.08	1.12	13.07	11.22	D3000	14	LIME		114	NNB10LF		144
269		703.96	-	-	-	-	-	-	-	-	-	-	155	
270	5.00	706.46	1.09	1.12	13.19	11.22	D3000	14	LIME		115	NNB10LF		138
271		708.96	-	-	-	-	-	-	-	-	-	-	156	
272	5.00	711.46	0.82	0.84	13.31	11.27	D3000	12	GOLD		116	NNB10LF		138
273	2.50	713.96	1.12	1.12	13.31	11.22	D3000	14	LIME		117	NNB10LF		132
274		716.46	-	-	-	-	-	-	-	-	-	-	157	
275		718.96	-	-	-	-	-	-	-	-	-	-	158	
TOWER 4	180.18	721.46												
276	7.70	721.66	1.41	1.48	13.30	11.17	D3000	16	LAVENDER		118	NNB10LF		132
277		724.16	-	-	-	-	-	-	-	-	-	-	159	
278	5.00	726.66	1.12	1.12	13.29	11.22	D3000	14	LIME		119	NNB10LF		132
279		729.16	-	-	-	-	-	-	-	-	-	-	160	
280	5.00	731.66	1.13	1.12	13.23	11.22	D3000	14	LIME		120	NNB10LF		138
281		734.16	-	-	-	-	-	-	-	-	-	-	161	
282	5.00	736.66	1.13	1.12	13.09	11.22	D3000	14	LIME		121	NNB10LF		144
283		739.16	-	-	-	-	-	-	-	-	-	-	162	
284	5.00	741.66	1.14	1.12	12.97	11.22	D3000	14	LIME		122	NNB10LF		144

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.	DROP LENGTH
285		744.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	163	
286	5.00	746.66	1.15	1.12	12.85	11.22	D3000	14	LIME				123	NNB10LF		150
287		749.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	164	
288	5.00	751.66	1.16	1.12	12.74	11.22	D3000	14	LIME				124	NNB10LF		150
289		754.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	165	
290	5.00	756.66	1.16	1.12	12.64	11.22	D3000	14	LIME				125	NNB10LF		150
291		759.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	166	
292	5.00	761.66	1.17	1.12	12.55	11.22	D3000	14	LIME				126	NNB10LF		156
293		764.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	167	
294	5.00	766.66	1.18	1.12	12.47	11.22	D3000	14	LIME				127	NNB10LF		156
295		769.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	168	
296	5.00	771.66	1.19	1.12	12.40	11.22	D3000	14	LIME				128	NNB10LF		162
297		774.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	169	
298	5.00	776.66	1.20	1.12	12.33	11.22	D3000	14	LIME				129	NNB10LF		162
299		779.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	170	
300	5.00	781.66	1.20	1.12	12.27	11.22	D3000	14	LIME				130	NNB10LF		162
301		784.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	171	
302	5.00	786.66	1.21	1.30	12.22	11.19	D3000	15	LIME/LAV				131	NNB10LF		162
303		789.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	172	
304	5.00	791.66	1.22	1.30	12.18	11.19	D3000	15	LIME/LAV				132	NNB10LF		162
305		794.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	173	
306	5.00	796.66	1.23	1.30	12.15	11.19	D3000	15	LIME/LAV				133	NNB10LF		168
307		799.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	174	
308	5.00	801.66	1.23	1.30	12.12	11.19	D3000	15	LIME/LAV				134	NNB10LF		168
309		804.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	175	
310	5.00	806.66	1.24	1.30	12.10	11.19	D3000	15	LIME/LAV				135	NNB10LF		168
311		809.16	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	176	
312	4.99	811.65	1.25	1.30	12.10	11.19	D3000	15	LIME/LAV				136	NNB10LF		168
313		814.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	177	
314	4.99	816.64	1.25	1.30	12.10	11.19	D3000	15	LIME/LAV				137	NNB10LF		168
315		819.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	178	
316	5.00	821.64	1.26	1.30	12.10	11.19	D3000	15	LIME/LAV				138	NNB10LF		168
317		824.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	179	
318	5.00	826.64	1.27	1.30	12.12	11.19	D3000	15	LIME/LAV				139	NNB10LF		162
319		829.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	180	
320	5.00	831.64	1.28	1.30	12.15	11.19	D3000	15	LIME/LAV				140	NNB10LF		162
321		834.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	181	
322	5.00	836.64	1.29	1.30	12.18	11.19	D3000	15	LIME/LAV				141	NNB10LF		162
323		839.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	182	
324	5.00	841.64	1.29	1.30	12.22	11.19	D3000	15	LIME/LAV				142	NNB10LF		162
325		844.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	183	
326	5.00	846.64	1.30	1.30	12.27	11.19	D3000	15	LIME/LAV				143	NNB10LF		162
327		849.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	184	
328	5.00	851.64	1.31	1.30	12.33	11.19	D3000	15	LIME/LAV				144	NNB10LF		156
329		854.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	185	
330	5.00	856.64	1.32	1.30	12.39	11.19	D3000	15	LIME/LAV				145	NNB10LF		156
331		859.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	186	
332	5.00	861.64	1.32	1.30	12.47	11.19	D3000	15	LIME/LAV				146	NNB10LF		156

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.	DROP LENGTH
380	5.00	981.84	1.50	1.48	11.96	11.17	D3000	16	LAVENDER		170	NNB10LF		168
381		984.34	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	211	
382	5.00	986.84	1.51	1.48	11.94	11.17	D3000	16	LAVENDER		171	NNB10LF		168
383		989.34	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	212	
384	4.99	991.83	1.52	1.48	11.94	11.17	D3000	16	LAVENDER		172	NNB10LF		168
385		994.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	213	
386	4.99	996.82	1.53	1.48	11.94	11.17	D3000	16	LAVENDER		173	NNB10LF		168
387		999.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	214	
388	5.00	1001.82	1.54	1.48	11.95	11.17	D3000	16	LAVENDER		174	NNB10LF		168
389		1004.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	215	
390	5.00	1006.82	1.55	1.48	11.97	11.16	D3000	16	LAVENDER		175	NNB10LF		162
391		1009.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	216	
392	5.00	1011.82	1.55	1.48	12.00	11.17	D3000	16	LAVENDER		176	NNB10LF		162
393		1014.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	217	
394	5.00	1016.82	1.56	1.48	12.04	11.17	D3000	16	LAVENDER		177	NNB10LF		162
395		1019.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	218	
396	5.00	1021.82	1.57	1.48	12.08	11.17	D3000	16	LAVENDER		178	NNB10LF		162
397		1024.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	219	
398	5.00	1026.82	1.58	1.67	12.13	11.14	D3000	17	LAV/GRAY		179	NNB10LF		162
399		1029.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	220	
400	5.00	1031.82	1.59	1.67	12.19	11.13	D3000	17	LAV/GRAY		180	NNB10LF		156
401		1034.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	221	
402	5.00	1036.82	1.59	1.67	12.26	11.13	D3000	17	LAV/GRAY		181	NNB10LF		156
403		1039.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	222	
404	5.00	1041.82	1.60	1.67	12.34	11.14	D3000	17	LAV/GRAY		182	NNB10LF		156
405		1044.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	223	
406	5.00	1046.82	1.61	1.67	12.43	11.13	D3000	17	LAV/GRAY		183	NNB10LF		150
407		1049.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	224	
408	5.00	1051.82	1.61	1.67	12.52	11.14	D3000	17	LAV/GRAY		184	NNB10LF		150
409		1054.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	225	
410	5.00	1056.82	1.62	1.67	12.62	11.13	D3000	17	LAV/GRAY		185	NNB10LF		144
411		1059.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	226	
412	5.00	1061.82	1.63	1.67	12.73	11.14	D3000	17	LAV/GRAY		186	NNB10LF		144
413		1064.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	227	
414	5.00	1066.82	1.63	1.67	12.85	11.13	D3000	17	LAV/GRAY		187	NNB10LF		138
415		1069.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	228	
416	5.00	1071.82	1.23	1.30	12.98	11.19	D3000	15	LIME/LAV		188	NNB10LF		138
417	2.50	1074.32	1.68	1.67	12.98	11.13	D3000	17	LAV/GRAY		189	NNB10LF		132
418		1076.82	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	229	
419		1079.32	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	230	
TOWER 6	180.18	1081.82												
420	7.70	1082.02	2.10	2.07	12.98	11.07	D3000	19	GRAY/TURQ		190	NNB10LF		132
421		1084.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	231	
422	5.00	1087.02	1.66	1.67	12.98	11.13	D3000	17	LAV/GRAY		191	NNB10LF		132
423		1089.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	232	
424	5.00	1092.02	1.67	1.67	12.92	11.14	D3000	17	LAV/GRAY		192	NNB10LF		138
425		1094.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	233	
426	5.00	1097.02	1.68	1.67	12.79	11.14	D3000	17	LAV/GRAY		193	NNB10LF		144

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.	DROP LENGTH
427		1099.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	234	
428	5.00	1102.02	1.69	1.67	12.67	11.13	D3000	17	LAV/GRAY			194	NNB10LF		144
429		1104.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	235	
430	5.00	1107.02	1.69	1.67	12.56	11.14	D3000	17	LAV/GRAY			195	NNB10LF		150
431		1109.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	236	
432	5.00	1112.02	1.70	1.67	12.46	11.13	D3000	17	LAV/GRAY			196	NNB10LF		150
433		1114.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	237	
434	5.00	1117.02	1.71	1.67	12.37	11.13	D3000	17	LAV/GRAY			197	NNB10LF		150
435		1119.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	238	
436	5.00	1122.02	1.72	1.67	12.28	11.14	D3000	17	LAV/GRAY			198	NNB10LF		156
437		1124.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	239	
438	5.00	1127.02	1.73	1.67	12.20	11.13	D3000	17	LAV/GRAY			199	NNB10LF		156
439		1129.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	240	
440	5.00	1132.02	1.74	1.67	12.13	11.14	D3000	17	LAV/GRAY			200	NNB10LF		162
441		1134.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	241	
442	5.00	1137.02	1.75	1.67	12.07	11.14	D3000	17	LAV/GRAY			201	NNB10LF		162
443		1139.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	242	
444	5.00	1142.02	1.76	1.84	12.02	11.11	D3000	18	GRAY			202	NNB10LF		162
445		1144.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	243	
446	5.00	1147.02	1.76	1.84	11.97	11.11	D3000	18	GRAY			203	NNB10LF		162
447		1149.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	244	
448	5.00	1152.02	1.77	1.84	11.94	11.11	D3000	18	GRAY			204	NNB10LF		162
449		1154.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	245	
450	5.00	1157.02	1.77	1.84	11.91	11.11	D3000	18	GRAY			205	NNB10LF		168
451		1159.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	246	
452	5.00	1162.02	1.78	1.84	11.89	11.11	D3000	18	GRAY			206	NNB10LF		168
453		1164.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	247	
454	5.00	1167.02	1.78	1.84	11.88	11.11	D3000	18	GRAY			207	NNB10LF		168
455		1169.52	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	248	
456	4.99	1172.01	1.79	1.84	11.88	11.11	D3000	18	GRAY			208	NNB10LF		168
457		1174.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	249	
458	4.99	1177.00	1.79	1.84	11.88	11.11	D3000	18	GRAY			209	NNB10LF		168
459		1179.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	250	
460	5.00	1182.00	1.80	1.84	11.89	11.11	D3000	18	GRAY			210	NNB10LF		168
461		1184.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	251	
462	5.00	1187.00	1.81	1.84	11.92	11.11	D3000	18	GRAY			211	NNB10LF		162
463		1189.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	252	
464	5.00	1192.00	1.81	1.84	11.95	11.11	D3000	18	GRAY			212	NNB10LF		162
465		1194.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	253	
466	5.00	1197.00	1.82	1.84	11.99	11.11	D3000	18	GRAY			213	NNB10LF		162
467		1199.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	254	
468	5.00	1202.00	1.83	1.84	12.03	11.11	D3000	18	GRAY			214	NNB10LF		162
469		1204.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	255	
470	5.00	1207.00	1.83	1.84	12.09	11.11	D3000	18	GRAY			215	NNB10LF		162
471		1209.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	256	
472	5.00	1212.00	1.84	1.84	12.15	11.11	D3000	18	GRAY			216	NNB10LF		156
473		1214.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	257	
474	5.00	1217.00	1.85	1.84	12.22	11.11	D3000	18	GRAY			217	NNB10LF		156

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.	DROP LENGTH
475		1219.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	258	
476	5.00	1222.00	1.86	1.84	12.30	11.11	D3000	18	GRAY		218	NNB10LF		156
477		1224.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	259	
478	5.00	1227.00	1.86	1.84	12.39	11.11	D3000	18	GRAY		219	NNB10LF		150
479		1229.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	260	
480	5.00	1232.00	1.87	1.84	12.49	11.11	D3000	18	GRAY		220	NNB10LF		150
481		1234.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	261	
482	5.00	1237.00	1.88	1.84	12.59	11.11	D3000	18	GRAY		221	NNB10LF		144
483		1239.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	262	
484	5.00	1242.00	1.89	1.84	12.70	11.11	D3000	18	GRAY		222	NNB10LF		144
485		1244.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	263	
486	5.00	1247.00	1.90	1.84	12.83	11.11	D3000	18	GRAY		223	NNB10LF		138
487		1249.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	264	
488	5.00	1252.00	1.44	1.48	12.95	11.17	D3000	16	LAVENDER		224	NNB10LF		138
489	2.50	1254.50	1.93	1.84	12.95	11.11	D3000	18	GRAY		225	NNB10LF		132
490		1257.00	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	265	
491		1259.50	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	266	
TOWER 7	179.91	1261.73												
492	7.57	1262.07	2.35	2.30	12.95	11.03	D3000	20	TURQUOISE		226	NNB10LF		132
493		1264.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	267	
494	4.57	1266.64	1.86	1.84	12.91	11.11	D3000	18	GRAY		227	NNB10LF		132
495		1269.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	268	
496	5.00	1271.64	1.96	1.84	12.87	11.11	D3000	18	GRAY		228	NNB10LF		132
497		1274.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	269	
498	5.00	1276.64	1.98	2.07	12.83	11.07	D3000	19	GRAY/TURQ		229	NNB10LF		138
499		1279.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	270	
PIPE ID CHANGES FROM 5.790 TO 3.790														
500	5.00	1281.64	1.97	2.07	12.79	11.07	D3000	19	GRAY/TURQ		230	NNB10LF		138
501		1284.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	271	
502	5.00	1286.64	1.96	2.07	12.75	11.07	D3000	19	GRAY/TURQ		231	NNB10LF		138
503		1289.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	272	
504	5.00	1291.64	1.94	1.84	12.71	11.11	D3000	18	GRAY		232	NNB10LF		138
505		1294.14	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	273	
506	5.00	1296.64	2.31	2.30	12.67	11.03	D3000	20	TURQUOISE		233	NNB10LF		138
507		1298.29	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	274	
PIPE ID CHANGES FROM 3.790 TO 0.824														
508	6.65	1303.29	2.32	2.30	12.50	11.03	D3000	20	TURQUOISE		234	NNB10LF		144
509	5.00	1308.29	2.36	2.30	12.44	11.03	D3000	20	TURQUOISE		235	NNB10LF		144
OVERHANG	46.56	1308.29												

TOTAL GPM = 265.27

GPA = 2.15

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 15.00 PSI

WITH GRADUATED ELEVATION OF 5.00 FT THE INLET PRESSURE IS 15.37 PSI FOR SPRINKLER 235

THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY

<u>TOWER NUMBER</u>	<u>ACRES UNDER SPAN</u>	<u>GPM NEED</u>	<u>ACTUAL GPM</u>	<u>PERCENT DEVIATION</u>	<u>GPM PER ACRE</u>	<u>AVERAGE IN. PER HR DELIVERED UNDER SPAN</u>	<u>AVERAGE IN. DELIVERED FOR REVOLUTION TIME</u>		
							<u>36 HR</u>	<u>48 HR</u>	<u>60 HR</u>
1	2.36	5.07	5.68	12%	2.40	0.005	0.19	0.26	0.32
2	7.04	15.12	14.95	-1%	2.12	0.005	0.17	0.23	0.28
3	11.73	25.17	24.94	-1%	2.13	0.005	0.17	0.23	0.28
4	16.41	35.23	35.10	0%	2.14	0.005	0.17	0.23	0.28
5	21.09	45.28	44.91	-1%	2.13	0.005	0.17	0.23	0.28
6	25.77	55.33	55.43	0%	2.15	0.005	0.17	0.23	0.29
7	30.41	65.28	64.38	-1%	2.12	0.005	0.17	0.22	0.28
OVERHANG	8.63	18.53	19.89	7%	2.31	0.005	0.18	0.24	0.31
TOTAL	123.44	265.00	265.27		2.15				

SUMMARY OF SPRINKLERS

12 LD NOZ UP3 3 ICE
5 LD NOZ UP3 3.5 ICE
5 LD NOZ UP3 4 LT BLUE
6 LD NOZ UP3 4.5 LT BLUE
7 LD NOZ UP3 5 BEIGE
8 LD NOZ UP3 5.5 BEIGE
2 LD NOZ UP3 6 GOLD
10 D3000 10 BEIGE
19 D3000 11 BEIGE/GOLD
17 D3000 12 GOLD
19 D3000 13 GOLD/LIME
20 D3000 14 LIME
22 D3000 15 LIME/LAV
27 D3000 16 LAVENDER
21 D3000 17 LAV/GRAY
27 D3000 18 GRAY
4 D3000 19 GRAY/TURQ
4 D3000 20 TURQUOISE

274 PLUGS**SUMMARY OF DROPS**

21 132 IN DROP
23 138 IN DROP
27 144 IN DROP
31 150 IN DROP
31 156 IN DROP
64 162 IN DROP
38 168 IN DROP

TOTAL OF 235 DROPS**SUMMARY OF REGULATORS**

45 Senn FPSR2 10 psi
190 Nelson Blue Int Uni Flo 10 psi

TOTAL OF 235 REGULATORS

NOZZLE POSITION CHART

LD NOZ UP3 3 ICE	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
LD NOZ UP3 3.5 ICE	13, 14, 15, 16, 17
LD NOZ UP3 4 LT BLUE	18, 19, 20, 21, 22
LD NOZ UP3 4.5 LT BLUE	23, 24, 25, 26, 27, 28
LD NOZ UP3 5 BEIGE	29, 30, 31, 32, 33, 34, 35
LD NOZ UP3 5.5 BEIGE	36, 37, 38, 39, 40, 41, 42, 43
LD NOZ UP3 6 GOLD	44, 45
D3000 10 BEIGE	47, 48, 49, 50, 51, 52, 53, 54, 55, 80
D3000 11 BEIGE/GOLD	46, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73
D3000 12 GOLD	74, 75, 76, 77, 78, 79, 81, 83, 84, 85, 86, 87, 88, 89, 90, 91, 116
D3000 13 GOLD/LIME	92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 152
D3000 14 LIME	82, 110, 111, 112, 113, 114, 115, 117, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130
D3000 15 LIME/LAV	131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 188
D3000 16 LAVENDER	118, 153, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 224
D3000 17 LAV/GRAY	179, 180, 181, 182, 183, 184, 185, 186, 187, 189, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201
D3000 18 GRAY	154, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 225, 227, 228, 232
D3000 19 GRAY/TURQ	190, 229, 230, 231
D3000 20 TURQUOISE	226, 233, 234, 235

WESTERN SPRINKLERS INC.

1100 SOUTH RANGE

COLBY, KANSAS 67701

SEPTEMBER 23, 2025

WISH-119613

DON SMITH

SW 1/4 26-16-35

265 GPM @ 15 PSI

VALLEY 7000 - 30
SENNINGER UP3 LDN SPRAY NOZZLES
SENNINGER 10 PSI REGULATORS
POLYDROPS®
HEAD

Rotation time at 100% = 18.51 Hours Or 1110 minutes

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				1	132	22	4	FPSR10	61	150	42	5.5	FPSR10	48	PLUG				35	168	99	13	10LF
2	PLUG				2	PLUG				62	PLUG				49	162	70	11	10LF	36	PLUG			
3	144	1	3	FPSR10	3	PLUG				63	PLUG				50	PLUG				37	168	100	13	10LF
4	150	2	3	FPSR10	4	138	23	4.5	FPSR10	64	144	43	5.5	FPSR10	51	162	71	11	10LF	38	PLUG			
5	156	3	3	FPSR10	5	PLUG				65	PLUG				52	PLUG				39	168	101	13	10LF
6	156	4	3	FPSR10	6	PLUG				66	PLUG				53	156	72	11	10LF	40	PLUG			
7	PLUG				7	144	24	4.5	FPSR10	67	138	44	6	FPSR10	54	PLUG				41	168	102	13	10LF
8	PLUG				8	PLUG				68	PLUG				55	156	73	11	10LF	42	PLUG			
9	162	5	3	FPSR10	9	PLUG				69	PLUG				56	PLUG				43	162	103	13	10LF
10	PLUG				10	144	25	4.5	FPSR10	70	132	45	6	FPSR10	57	156	74	12	10LF	44	PLUG			
11	PLUG				11	PLUG				71	PLUG				58	PLUG				45	162	104	13	10LF
12	162	6	3	FPSR10	12	PLUG				72	PLUG				59	150	75	12	10LF	46	PLUG			
13	PLUG				13	150	26	4.5	FPSR10	TOWER 2					60	PLUG				47	162	105	13	10LF
14	PLUG				14	PLUG				1	132	46	11	10LF	61	150	76	12	10LF	48	PLUG			
15	162	7	3	FPSR10	15	PLUG				2	PLUG				62	PLUG				49	162	106	13	10LF
16	PLUG				16	156	27	4.5	FPSR10	3	132	47	10	10LF	63	144	77	12	10LF	50	PLUG			
17	PLUG				17	PLUG				4	PLUG				64	PLUG				51	162	107	13	10LF
18	168	8	3	FPSR10	18	PLUG				5	138	48	10	10LF	65	144	78	12	10LF	52	PLUG			
19	PLUG				19	156	28	4.5	FPSR10	6	PLUG				66	PLUG				53	156	108	13	10LF
20	PLUG				20	PLUG				7	144	49	10	10LF	67	138	79	12	10LF	54	PLUG			
21	168	9	3	FPSR10	21	PLUG				8	PLUG				68	PLUG				55	156	109	13	10LF
22	PLUG				22	162	29	5	FPSR10	9	144	50	10	10LF	69	138	80	10	10LF	56	PLUG			
23	PLUG				23	PLUG				10	PLUG				70	132	81	12	10LF	57	156	110	14	10LF
24	168	10	3	FPSR10	24	PLUG				11	150	51	10	10LF	71	PLUG				58	PLUG			
25	PLUG				25	162	30	5	FPSR10	12	PLUG				72	PLUG				59	150	111	14	10LF
26	PLUG				26	PLUG				13	150	52	10	10LF	TOWER 3					60	PLUG			
27	168	11	3	FPSR10	27	PLUG				14	PLUG				1	132	82	14	10LF	61	150	112	14	10LF
28	PLUG				28	162	31	5	FPSR10	15	150	53	10	10LF	2	PLUG				62	PLUG			
29	PLUG				29	PLUG				16	PLUG				3	132	83	12	10LF	63	144	113	14	10LF
30	162	12	3	FPSR10	30	PLUG				17	156	54	10	10LF	4	PLUG				64	PLUG			
31	PLUG				31	168	32	5	FPSR10	18	PLUG				5	138	84	12	10LF	65	144	114	14	10LF
32	PLUG				32	PLUG				19	156	55	10	10LF	6	PLUG				66	PLUG			
33	162	13	3.5	FPSR10	33	PLUG				20	PLUG				7	144	85	12	10LF	67	138	115	14	10LF
34	PLUG				34	168	33	5	FPSR10	21	162	56	11	10LF	8	PLUG				68	PLUG			
35	PLUG				35	PLUG				22	PLUG				9	144	86	12	10LF	69	138	116	12	10LF
36	162	14	3.5	FPSR10	36	PLUG				23	162	57	11	10LF	10	PLUG				70	132	117	14	10LF
37	PLUG				37	168	34	5	FPSR10	24	PLUG				11	150	87	12	10LF	71	PLUG			
38	PLUG				38	PLUG				25	162	58	11	10LF	12	PLUG				72	PLUG			
39	162	15	3.5	FPSR10	39	PLUG				26	PLUG				13	150	88	12	10LF	TOWER 4				
40	PLUG				40	168	35	5	FPSR10	27	162	59	11	10LF	14	PLUG				1	132	118	16	10LF
41	PLUG				41	PLUG				28	PLUG				15	150	89	12	10LF	2	PLUG			
42	156	16	3.5	FPSR10	42	PLUG				29	162	60	11	10LF	16	PLUG				3	132	119	14	10LF
43	PLUG				43	162	36	5.5	FPSR10	30	PLUG				17	156	90	12	10LF	4	PLUG			
44	PLUG				44	PLUG				31	168	61	11	10LF	18	PLUG				5	138	120	14	10LF
45	150	17	3.5	FPSR10	45	PLUG				32	PLUG				19	156	91	12	10LF	6	PLUG			
46	PLUG				46	162	37	5.5	FPSR10	33	168	62	11	10LF	20	PLUG				7	144	121	14	10LF
47	PLUG				47	PLUG				34	PLUG				21	162	92	13	10LF	8	PLUG			
48	150	18	4	FPSR10	48	PLUG				35	168	63	11	10LF	22	PLUG				9	144	122	14	10LF
49	PLUG				49	162	38	5.5	FPSR10	36	PLUG				23	162	93	13	10LF	10	PLUG			
50	PLUG				50	PLUG				37	168	64	11	10LF	24	PLUG				11	150	123	14	10LF
51	144	19	4	FPSR10	51	PLUG				38	PLUG				25	162	94	13	10LF	12	PLUG			
52	PLUG				52	162	39	5.5	FPSR10	39	168	65	11	10LF	26	PLUG				13	150	124	14	10LF
53	PLUG				53	PLUG				40	PLUG				27	162	95	13	10LF	14	PLUG			
54	138	20	4	FPSR10	54	PLUG				41	168	66	11	10LF	28	PLUG				15	150	125	14	10LF
55	PLUG				55	156	40	5.5	FPSR10	42	PLUG				29	162	96	13	10LF	16	PLUG			
56	PLUG				56	PLUG				43	162	67	11	10LF	30	PLUG				17	156	126	14	10LF
57	132	21	4	FPSR10	57	PLUG				44	PLUG				31	168	97	13	10LF	18	PLUG			
58	PLUG				58	150	41	5.5	FPSR10	45	162	68	11	10LF	32	PLUG				19	156	127	14	10LF
59	PLUG				59	PLUG				46	PLUG				33	168	98	13	10LF	20	PLUG			
TOWER 1					60	PLUG				47	162	69	11	10LF	34	PLUG				21	162	128	14	10LF

WESTERN SPRINKLERS INC.
1100 SOUTH RANGE
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SEPTEMBER 23, 2025
WISH-119613
DON SMITH
SW 1/4 26-16-35
265 GPM @ 15 PSI

VALLEY 7000 - 30
SENNINGER UP3 LDN SPRAY NOZZLES
SENNINGER 10 PSI REGULATORS
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Rotation time at 100% = 18.51 Hours Or 1110 minutes

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
22	PLUG				9	144	158	16	10LF	69	138	188	15	10LF	56	PLUG			
23	162	129	14	10LF	10	PLUG				70	132	189	17	10LF	57	156	218	18	10LF
24	PLUG				11	150	159	16	10LF	71	PLUG				58	PLUG			
25	162	130	14	10LF	12	PLUG				72	PLUG				59	150	219	18	10LF
26	PLUG				13	150	160	16	10LF	TOWER 6					60	PLUG			
27	162	131	15	10LF	14	PLUG				1	132	190	19	10LF	61	150	220	18	10LF
28	PLUG				15	150	161	16	10LF	2	PLUG				62	PLUG			
29	162	132	15	10LF	16	PLUG				3	132	191	17	10LF	63	144	221	18	10LF
30	PLUG				17	156	162	16	10LF	4	PLUG				64	PLUG			
31	168	133	15	10LF	18	PLUG				5	138	192	17	10LF	65	144	222	18	10LF
32	PLUG				19	156	163	16	10LF	6	PLUG				66	PLUG			
33	168	134	15	10LF	20	PLUG				7	144	193	17	10LF	67	138	223	18	10LF
34	PLUG				21	162	164	16	10LF	8	PLUG				68	PLUG			
35	168	135	15	10LF	22	PLUG				9	144	194	17	10LF	69	138	224	16	10LF
36	PLUG				23	162	165	16	10LF	10	PLUG				70	132	225	18	10LF
37	168	136	15	10LF	24	PLUG				11	150	195	17	10LF	71	PLUG			
38	PLUG				25	162	166	16	10LF	12	PLUG				72	PLUG			
39	168	137	15	10LF	26	PLUG				13	150	196	17	10LF	TOWER 7				
40	PLUG				27	162	167	16	10LF	14	PLUG				1	132	226	20	10LF
41	168	138	15	10LF	28	PLUG				15	150	197	17	10LF	2	PLUG			
42	PLUG				29	162	168	16	10LF	16	PLUG				3	132	227	18	10LF
43	162	139	15	10LF	30	PLUG				17	156	198	17	10LF	4	PLUG			
44	PLUG				31	168	169	16	10LF	18	PLUG				5	132	228	18	10LF
45	162	140	15	10LF	32	PLUG				19	156	199	17	10LF	6	PLUG			
46	PLUG				33	168	170	16	10LF	20	PLUG				7	138	229	19	10LF
47	162	141	15	10LF	34	PLUG				21	162	200	17	10LF	8	PLUG			
48	PLUG				35	168	171	16	10LF	22	PLUG				9	138	230	19	10LF
49	162	142	15	10LF	36	PLUG				23	162	201	17	10LF	10	PLUG			
50	PLUG				37	168	172	16	10LF	24	PLUG				11	138	231	19	10LF
51	162	143	15	10LF	38	PLUG				25	162	202	18	10LF	12	PLUG			
52	PLUG				39	168	173	16	10LF	26	PLUG				13	138	232	18	10LF
53	156	144	15	10LF	40	PLUG				27	162	203	18	10LF	14	PLUG			
54	PLUG				41	168	174	16	10LF	28	PLUG				15	138	233	20	10LF
55	156	145	15	10LF	42	PLUG				29	162	204	18	10LF	16	PLUG			
56	PLUG				43	162	175	16	10LF	30	PLUG				17	144	234	20	10LF
57	156	146	15	10LF	44	PLUG				31	168	205	18	10LF	18	144	235	20	10LF
58	PLUG				45	162	176	16	10LF	32	PLUG								
59	150	147	15	10LF	46	PLUG				33	168	206	18	10LF					
60	PLUG				47	162	177	16	10LF	34	PLUG								
61	150	148	15	10LF	48	PLUG				35	168	207	18	10LF					
62	PLUG				49	162	178	16	10LF	36	PLUG								
63	144	149	15	10LF	50	PLUG				37	168	208	18	10LF					
64	PLUG				51	162	179	17	10LF	38	PLUG								
65	144	150	15	10LF	52	PLUG				39	168	209	18	10LF					
66	PLUG				53	156	180	17	10LF	40	PLUG								
67	138	151	15	10LF	54	PLUG				41	168	210	18	10LF					
68	PLUG				55	156	181	17	10LF	42	PLUG								
69	138	152	13	10LF	56	PLUG				43	162	211	18	10LF					
70	132	153	16	10LF	57	156	182	17	10LF	44	PLUG								
71	PLUG				58	PLUG				45	162	212	18	10LF					
72	PLUG				59	150	183	17	10LF	46	PLUG								
TOWER 5					60	PLUG				47	162	213	18	10LF					
1	132	154	18	10LF	61	150	184	17	10LF	48	PLUG								
2	PLUG				62	PLUG				49	162	214	18	10LF					
3	132	155	16	10LF	63	144	185	17	10LF	50	PLUG								
4	PLUG				64	PLUG				51	162	215	18	10LF					
5	138	156	16	10LF	65	144	186	17	10LF	52	PLUG								
6	PLUG				66	PLUG				53	156	216	18	10LF					
7	144	157	16	10LF	67	138	187	17	10LF	54	PLUG								
8	PLUG				68	PLUG				55	156	217	18	10LF					

PRECIPITATION CHART FOR FULL CIRCLE

WISH-119613

SEPTEMBER 23, 2025

DEALER - WESTERN SPRINKLERS INC.

IRRIGATOR - DON SMITH

FIELD - SW 1/4 26-16-35

TOTAL LENGTH PIPE = 1308.29 SYSTEM PRESSURE = 15 PSI
 GPM UNDER PIPE = 265.27 TOTAL GPM = 265.27
 ACRES UNDER PIPE = 123.44
 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 X 22.5
 LAST TOWER SPEED (FPM) = 7.14

PRECIPITATION BASED

% TIMER BASED

PRECIPITATION INCHES	% TIMER SETTING	TIME HOURS	% TIMER SETTING	PRECIPITATION INCHES	TIME HOURS
.09	100.00	18.51 - 1110(min)	100.00	.09	18.51 - 1110(min)
.10	87.87	21.06	90.00	.10	20.56
.20	43.93	42.12	80.00	.11	23.13
.25	35.15	52.65	70.00	.13	26.44
.30	29.29	63.18	60.00	.15	30.84
.40	21.97	84.24	50.00	.18	37.01
.50	17.57	105.30	45.00	.20	41.12
.60	14.64	126.36	40.00	.22	46.26
.70	12.55	147.42	35.00	.25	52.87
.75	11.72	157.96	30.00	.29	61.68
.80	10.98	168.49	25.00	.35	74.02
.90	9.76	189.55	20.00	.44	92.53
1.00	8.79	210.61	15.00	.59	123.37
1.25	7.03	263.26	10.00	.88	185.05
1.50	5.86	315.91	5.00	1.76	370.11

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.

DEALER - WESTERN SPRINKLERS INC.
P.O. - C2473B

IRRIGATOR - DON SMITH
FIELD - SW 1/4 26-16-35

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

SUMMARY OF DROPS

21 - 132 IN DROP

23 - 138 IN DROP

27 - 144 IN DROP

31 - 150 IN DROP

31 - 156 IN DROP

64 - 162 IN DROP

38 - 168 IN DROP

TOTAL OF 235 DROPS

POLY STEEL MALE X PLASTIC MALE