

General results

Property	Value	Unit
Software version:	MagiCAD for Revit 2016.11	
Calculation date:	31.08.2018 10:29	
Project:	Stovner Senter 14-16	
Project number:	17690	
Location:	Enter address in Project Information	
Client name:	Boligbygg Oslo KF	
Author:	Navn (endres i Project Information)	
Design area:	Plan 02 - kontor	
Hazard class:	OH1, Ordinary Hazard Group 1	
Hydraulic model:	Hazen-Williams	
Calculation is based on:	EN 12845	
Fluid characteristics:		
Density:	1000	[kg/m³]
Dynamic viscosity:	1560.20	[kg/ms x 10e-6]
Calculation input values:		
Area of design area:	69.7	[m²]
Feed point:	1	H = 192.4 [m]
Weakest sprinkler:	17	H = 194.9 [m]
Pressure at the weakest sprinkler:	500	[mbar]
Max number of iterations:	100	
Max inaccuracy of the pressure:	1.0	[mbar]
Max inaccuracy of the flow:	0.1	[l/min]
C-factors of the pipes and K-factors of the sprinklers:		
KR003T	120	
SW-OH-15-K80-68DGR-QR	80	
SW-Dry-15-K80-68DGR-QR	80	
Calculation results:		
Pressure level at the feed point:	2852	[mbar]
Flow at the feed point:	749.3	[l/min]
Flow at the weakest sprinkler:	56.6	[l/min]
Number of iterations:	2	
Inaccuracy of the pressure:	0.06	[mbar]
Inaccuracy of the flow:	0.08	[l/min]
Total area of coverage:	73.8	[m²]
Average area of coverage:	6.7	[m²]
Flow density at the weakest sprinkler:	6.29	[mm/min]
Average density of 4 weakest sprinklers:	6.59	[mm/min]

Property	Value	Unit
Four weakest sprinklers:	17, 15, 13, 11	
Average flow density:	11.52	[mm/min]
Number of sprinklers:	11	
Average sprinkler height:	194.9	[m]

Sprinkler results

Level	Node	Product	Size	k-factor	Height [m]	qv dim [l/min]	pt (req) [mbar]	pt (act) [mbar]	dpt [mbar]	Area [m²]	fd (req) [mm/min]	fd (act) [mm/min]	dfd [mm/min]
Plan 02	3	SW-OH-15-K80-68DGR-Q	15	80	194.9	82.8	500	1072	+572	4.0	5.00	20.71	+15.71
Plan 02	7	SW-OH-15-K80-68DGR-Q	15	80	194.9	82.0	500	1051	+551	6.3	5.00	13.12	+8.12
Plan 02	9	SW-OH-15-K80-68DGR-Q	15	80	194.9	64.4	500	648	+148	6.0	5.00	10.73	+5.73
Plan 02	11	SW-OH-15-K80-68DGR-Q	15	80	194.9	61.3	500	587	+87	9.0	5.00	6.81	+1.81
Plan 02	13	SW-OH-15-K80-68DGR-Q	15	80	194.9	59.4	500	551	+51	9.0	5.00	6.60	+1.60
Plan 02	15	SW-OH-15-K80-68DGR-Q	15	80	194.9	56.7	500	502	+2	8.5	5.00	6.67	+1.67
Plan 02	17	SW-OH-15-K80-68DGR-Q	15	80	194.9	56.6	500	500	0	9.0	5.00	6.29	+1.29
Plan 02	21	SW-Dry-15-K80-68DGR-Q	25	80	194.9	68.8	500	739	+239	4.0	5.00	17.19	+12.19
Plan 02	23	SW-Dry-15-K80-68DGR-Q	25	80	194.9	71.0	500	787	+287	4.0	5.00	17.75	+12.75
Plan 02	25	SW-OH-15-K80-68DGR-Q	15	80	194.9	72.5	500	821	+321	7.0	5.00	10.36	+5.36
Plan 02	26	SW-OH-15-K80-68DGR-Q	15	80	194.9	73.8	500	851	+351	7.0	5.00	10.54	+5.54

System results

Level	From	To	k-factor	C-factor	Height [m]	qv [l/min]	v [m/s]	Size [mm]	L [m]	Leqv [m]	Parts	User code	ptot start [mbar]	ptot end [mbar]	dpt [mbar]	dp Hst [mbar]	dp (dim) [mbar]	dp/m (flo) [mbar]	Warnings
Plan 01	1	31		120	194.9	749.2	3.2	70.3	62.2	74.2	5xB90, 2xT		2852	1257	1594	249	1345	21.6	
Plan 02	20	39		120	194.7	113.3	3.2	27.3	3.3	4.4	3xB90		778	556	222	-20	242	73.1	
Plan 02	20	21	80	120	194.9	68.8	2.0	27.3	0.3	1.8	1xT		778	739	39		39	141.5	
Plan 02	22	23	80	120	194.9	71.0	2.0	27.3	0.3	1.8	1xT		829	787	41		41	150.1	
Plan 02	22	20		120	194.9	182.0	2.2	41.9	3.1	3.1			829	778	51		51	16.5	
Plan 02	24	25	80	120	194.9	72.5	2.1	27.3	0.1	1.6	1xT		859	821	38		38	500.0	
Plan 02	24	22		120	194.9	253.0	1.9	53.0	2.5	3.2	1xB90		859	829	31		31	12.3	
Plan 02	30	26	80	120	194.9	73.8	2.1	27.3	0.1	1.6	1xT		891	851	39		39	517.0	
Plan 02	30	24		120	194.9	325.5	2.5	53.0	2.0	2.0			891	859	31		31	15.4	
Plan 02	31	32		120	194.7	82.8	1.0	41.9	1.8	5.3	2xB90, 1xT		1257	1256	1	-20	20	11.3	
Plan 02	31	34		120	194.9	666.4	2.9	70.3	1.9	1.9			1257	1229	28		28	14.6	
Plan 02	32	33		120	194.7	82.8	1.4	36.0	0.3	0.3			1256	1254	2		2	8.0	
Plan 02	33	3	80	120	194.9	82.8	2.4	27.3	2.7	5.3	3xB90, 1xT		1254	1072	182	20	163	60.5	
Plan 02	34	35		120	194.7	185.1	5.3	27.3	1.7	3.9	2xB90, 1xT		1229	713	516	-20	536	315.0	
Plan 02	34	37		120	194.7	481.3	2.1	70.3	4.3	7.9	4xB90		1229	1189	40	-23	63	14.5	
Plan 02	35	9	80	120	194.9	64.4	1.8	27.3	0.5	2.3	1xB90, 1xT		713	648	65	20	45	98.6	
Plan 02	35	36		120	194.7	120.7	3.4	27.3	1.1	1.1			713	644	68		68	62.0	
Plan 02	36	13	80	120	194.9	59.4	1.7	27.3	1.8	4.4	3xB90, 1xT		644	551	93	20	74	40.1	
Plan 02	36	11	80	120	194.9	61.3	1.7	27.3	0.3	2.1	1xB90, 1xT		644	587	57	20	37	148.7	
Plan 02	37	7	80	120	194.9	82.0	2.3	27.3	1.2	3.8	3xB90, 1xT		1189	1051	138	23	115	94.8	

Level	From	To	k-factor	C-factor	Height [m]	qv [l/min]	v [m/s]	Size [mm]	L [m]	Leqv [m]	Parts	User code	ptot start [mbar]	ptot end [mbar]	dpt [mbar]	dp Hst [mbar]	dp (dim) [mbar]	dp/m (flo) [mbar]	Warnings
Plan 02	37	40		120	194.7	399.3	1.7	70.3	3.8	4.7	1xB90		1189	1163	27		27	7.0	
Plan 02	39	17	80	120	194.9	56.6	1.6	27.3	0.5	2.4	1xB90, 1xT		556	500	56	20	36	70.5	
Plan 02	39	15	80	120	194.9	56.7	1.6	27.3	0.3	2.2	1xB90, 1xT		556	502	53	20	34	98.1	
Plan 02	40	41		120	194.7	399.3	3.0	53.0	1.0	3.9	1xT		1163	1075	88		88	85.8	
Plan 02	41	42		120	194.9	399.3	4.8	41.9	0.2	1.6	2xB90		1075	938	137	23	114	480.2	
Plan 02	42	30		120	194.9	399.3	3.0	53.0	1.4	2.1	1xB90		938	891	47		47	33.4	

Equivalent length values

Type	User code	Product	Size [mm]	Leqv [m]
Bend 90° welded		MAGI-FE-B1-*	25	0.36
			40	0.56
			50	0.69
			65	0.88
T-Branch threaded		MAGI-FE-T1-*-*	25	1.50
			40	2.40
			50	2.90
			65	3.80