

Sizewell C Project

Appendix G: Surface Water Microdrainage Reports

SNC Lavalin				Page 1	
455, Boul. RenT-LTvesque Ouest		Zone 1			
Montreal		Surface Water Network			
H2Z 1Z3 Canada		Source Control Design			
Date 24/03/2025 16:34		Designed by [REDACTED]			
File Zone 1.SRCX		Checked by [REDACTED]			
Innovyze		Source Control 2020.1.3			
Summary of Results for 30 year Return Period (+20%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
15 min Summer	0.660	0.660	200.0	4288.5	O K
30 min Summer	0.846	0.846	200.0	5496.5	O K
60 min Summer	1.028	1.028	200.0	6682.7	O K
120 min Summer	1.267	1.267	200.0	8232.6	O K
180 min Summer	1.382	1.382	200.0	8980.4	O K
240 min Summer	1.442	1.442	200.0	9375.4	O K
360 min Summer	1.481	1.481	200.0	9624.5	O K
480 min Summer	1.485	1.485	200.0	9653.1	O K
600 min Summer	1.474	1.474	200.0	9579.2	O K
720 min Summer	1.456	1.456	200.0	9461.3	O K
960 min Summer	1.403	1.403	200.0	9116.5	O K
1440 min Summer	1.269	1.269	200.0	8246.6	O K
15 min Winter	0.739	0.739	200.0	4804.2	O K
30 min Winter	0.951	0.951	200.0	6183.4	O K
60 min Winter	1.157	1.157	200.0	7517.8	O K
120 min Winter	1.429	1.429	200.0	9286.1	O K
180 min Winter	1.564	1.564	200.0	10163.4	O K
240 min Winter	1.638	1.638	200.0	10646.1	O K
360 min Winter	1.689	1.689	200.0	10979.7	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	
15 min Summer	93.408	0.0	4375.3	23	
30 min Summer	60.696	0.0	5687.0	37	
60 min Summer	37.728	0.0	7070.8	66	
120 min Summer	24.066	0.0	9024.7	126	
180 min Summer	18.136	0.0	10201.5	186	
240 min Summer	14.700	0.0	11025.0	244	
360 min Summer	10.770	0.0	12116.2	340	
480 min Summer	8.559	0.0	12838.5	392	
600 min Summer	7.133	0.0	13374.0	454	
720 min Summer	6.132	0.0	13797.0	518	
960 min Summer	4.814	0.0	14442.7	650	
1440 min Summer	3.406	0.0	15327.0	914	
15 min Winter	93.408	0.0	4900.6	22	
30 min Winter	60.696	0.0	6369.9	37	
60 min Winter	37.728	0.0	7922.9	66	
120 min Winter	24.066	0.0	10107.7	124	
180 min Winter	18.136	0.0	11425.7	182	
240 min Winter	14.700	0.0	12348.0	238	
360 min Winter	10.770	0.0	13570.2	350	
©1982-2020 Innovyze					

SNC Lavalin			Page 2																																																																			
455, Boul. RenT-LTvesque Ouest Montreal H2Z 1Z3 Canada		Zone 1 Surface Water Network Source Control Design																																																																				
Date 24/03/2025 16:34 File Zone 1.SRCX		Designed by [REDACTED] Checked by [REDACTED]																																																																				
Innovyze		Source Control 2020.1.3																																																																				
<u>Summary of Results for 30 year Return Period (+20%)</u> <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Control (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>480 min Winter</td><td>1.677</td><td>1.677</td><td>200.0</td><td>10898.9</td><td>O K</td></tr><tr><td>600 min Winter</td><td>1.650</td><td>1.650</td><td>200.0</td><td>10723.3</td><td>O K</td></tr><tr><td>720 min Winter</td><td>1.617</td><td>1.617</td><td>200.0</td><td>10511.7</td><td>O K</td></tr><tr><td>960 min Winter</td><td>1.533</td><td>1.533</td><td>200.0</td><td>9965.3</td><td>O K</td></tr><tr><td>1440 min Winter</td><td>1.329</td><td>1.329</td><td>200.0</td><td>8639.5</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Discharge Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>480 min Winter</td><td>8.559</td><td>0.0</td><td>14379.1</td><td>452</td></tr><tr><td>600 min Winter</td><td>7.133</td><td>0.0</td><td>14978.9</td><td>486</td></tr><tr><td>720 min Winter</td><td>6.132</td><td>0.0</td><td>15452.6</td><td>560</td></tr><tr><td>960 min Winter</td><td>4.814</td><td>0.0</td><td>16175.9</td><td>708</td></tr><tr><td>1440 min Winter</td><td>3.406</td><td>0.0</td><td>17166.2</td><td>998</td></tr></table>					Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status	480 min Winter	1.677	1.677	200.0	10898.9	O K	600 min Winter	1.650	1.650	200.0	10723.3	O K	720 min Winter	1.617	1.617	200.0	10511.7	O K	960 min Winter	1.533	1.533	200.0	9965.3	O K	1440 min Winter	1.329	1.329	200.0	8639.5	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	480 min Winter	8.559	0.0	14379.1	452	600 min Winter	7.133	0.0	14978.9	486	720 min Winter	6.132	0.0	15452.6	560	960 min Winter	4.814	0.0	16175.9	708	1440 min Winter	3.406	0.0	17166.2	998
Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status																																																																	
480 min Winter	1.677	1.677	200.0	10898.9	O K																																																																	
600 min Winter	1.650	1.650	200.0	10723.3	O K																																																																	
720 min Winter	1.617	1.617	200.0	10511.7	O K																																																																	
960 min Winter	1.533	1.533	200.0	9965.3	O K																																																																	
1440 min Winter	1.329	1.329	200.0	8639.5	O K																																																																	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																		
480 min Winter	8.559	0.0	14379.1	452																																																																		
600 min Winter	7.133	0.0	14978.9	486																																																																		
720 min Winter	6.132	0.0	15452.6	560																																																																		
960 min Winter	4.814	0.0	16175.9	708																																																																		
1440 min Winter	3.406	0.0	17166.2	998																																																																		
©1982-2020 Innovyze																																																																						

SNC Lavalin		Page 3
455, Boul. RenT-LTvesque Ouest	Zone 1	
Montreal	Surface Water Network	
H2Z 1Z3 Canada	Source Control Design	
Date 24/03/2025 16:34	Designed by [REDACTED]	
File Zone 1.SRCX	Checked by [REDACTED]	
Innovyze	Source Control 2020.1.3	

Rainfall Details

Rainfall Model	FEH
Return Period (years)	30
FEH Rainfall Version	2013
Site Location	GB 644474 264482 TM 44474 64482
Data Type	Point
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Shortest Storm (mins)	15
Longest Storm (mins)	1440
Climate Change %	+20

Time Area Diagram

Total Area (ha) 25.000

Time (mins)	Area		Time (mins)	Area
From:	To: (ha)	From:	To:	(ha)
0	4 0.000	4	8	25.000

©1982-2020 Innovyze

SNC Lavalin		Page 4
455, Boul. RenT-LTvesque Ouest Montreal H2Z 1Z3 Canada	Zone 1 Surface Water Network Source Control Design	
Date 24/03/2025 16:34 File Zone 1.SRCX	Designed by [REDACTED] Checked by [REDACTED]	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 2.000

Tank or Pond Structure

Invert Level (m) 0.000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	6500.0	2.000	6500.0

Level Controlled Pump Outflow Control

Invert Level (m) 0.000 Cut In Height (m) 0.500 Cut Out Height (m) 0.000

Depth (m)	Outflow (l/s)	Depth (m)	Outflow (l/s)	Depth (m)	Outflow (l/s)
0.100	200.0000	1.100	200.0000	2.100	200.0000
0.200	200.0000	1.200	200.0000	2.200	200.0000
0.300	200.0000	1.300	200.0000	2.300	200.0000
0.400	200.0000	1.400	200.0000	2.400	200.0000
0.500	200.0000	1.500	200.0000	2.500	200.0000
0.600	200.0000	1.600	200.0000	2.600	200.0000
0.700	200.0000	1.700	200.0000	2.700	200.0000
0.800	200.0000	1.800	200.0000	2.800	200.0000
0.900	200.0000	1.900	200.0000	2.900	200.0000
1.000	200.0000	2.000	200.0000	3.000	200.0000

©1982-2020 Innovyze

SNC Lavalin				Page 1	
455, Boul. RenT-LTvesque Ouest Montreal H2Z 1Z3 Canada		Zone 2 Surface Water Network Source Control Design			
Date 24/03/2025 16:35 File Zone 2.SRCX		Designed by [REDACTED] Checked by [REDACTED]			
Innovyze		Source Control 2020.1.3			
Summary of Results for 30 year Return Period (+20%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
15 min Summer	0.789	0.789	200.0	1578.2	O K
30 min Summer	0.988	0.988	200.0	1976.1	O K
60 min Summer	1.150	1.150	200.0	2300.9	O K
120 min Summer	1.325	1.325	200.0	2651.0	O K
180 min Summer	1.394	1.394	200.0	2789.0	O K
240 min Summer	1.408	1.408	200.0	2816.5	O K
360 min Summer	1.367	1.367	200.0	2733.3	O K
480 min Summer	1.272	1.272	200.0	2543.2	O K
600 min Summer	1.159	1.159	200.0	2317.6	O K
720 min Summer	1.038	1.038	200.0	2076.3	O K
960 min Summer	0.766	0.766	200.0	1532.0	O K
1440 min Summer	0.500	0.500	200.0	994.2	O K
15 min Winter	0.884	0.884	200.0	1768.0	O K
30 min Winter	1.115	1.115	200.0	2229.4	O K
60 min Winter	1.306	1.306	200.0	2612.2	O K
120 min Winter	1.510	1.510	200.0	3020.0	O K
180 min Winter	1.557	1.557	200.0	3114.0	O K
240 min Winter	1.560	1.560	200.0	3120.0	O K
360 min Winter	1.469	1.469	200.0	2937.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	
15 min Summer	93.408	0.0	1671.9	22	
30 min Summer	60.696	0.0	2173.1	36	
60 min Summer	37.728	0.0	2701.8	64	
120 min Summer	24.066	0.0	3448.2	106	
180 min Summer	18.136	0.0	3897.8	138	
240 min Summer	14.700	0.0	4212.4	172	
360 min Summer	10.770	0.0	4629.4	240	
480 min Summer	8.559	0.0	4905.4	308	
600 min Summer	7.133	0.0	5110.0	372	
720 min Summer	6.132	0.0	5271.5	438	
960 min Summer	4.814	0.0	5518.3	556	
1440 min Summer	3.406	0.0	5856.1	512	
15 min Winter	93.408	0.0	1872.7	22	
30 min Winter	60.696	0.0	2435.0	36	
60 min Winter	37.728	0.0	3027.2	64	
120 min Winter	24.066	0.0	3862.0	118	
180 min Winter	18.136	0.0	4365.5	148	
240 min Winter	14.700	0.0	4717.9	186	
360 min Winter	10.770	0.0	5184.9	262	
©1982-2020 Innovyze					

SNC Lavalin				Page 2	
455, Boul. RenT-LTvesque Ouest		Zone 2			
Montreal		Surface Water Network			
H2Z 1Z3 Canada		Source Control Design			
Date 24/03/2025 16:35		Designed by [REDACTED]			
File Zone 2.SRCX		Checked by [REDACTED]			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 30 year Return Period (+20%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
480 min Winter	1.327	1.327	200.0	2654.5	O K
600 min Winter	1.156	1.156	200.0	2311.4	O K
720 min Winter	0.990	0.990	200.0	1979.6	O K
960 min Winter	0.638	0.638	200.0	1276.7	O K
1440 min Winter	0.500	0.500	200.0	997.7	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	
480 min Winter	8.559	0.0	5494.0	334	
600 min Winter	7.133	0.0	5723.2	402	
720 min Winter	6.132	0.0	5904.1	466	
960 min Winter	4.814	0.0	6180.5	580	
1440 min Winter	3.406	0.0	6558.9	456	
©1982-2020 Innovyze					

SNC Lavalin		Page 3
455, Boul. RenT-LTvesque Ouest	Zone 2	
Montreal	Surface Water Network	
H2Z 1Z3 Canada	Source Control Design	
Date 24/03/2025 16:35	Designed by [REDACTED]	
File Zone 2.SRCX	Checked by [REDACTED]	
Innovyze	Source Control 2020.1.3	

Rainfall Details

Rainfall Model	FEH
Return Period (years)	30
FEH Rainfall Version	2013
Site Location	GB 644474 264482 TM 44474 64482
Data Type	Point
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Shortest Storm (mins)	15
Longest Storm (mins)	1440
Climate Change %	+20

Time Area Diagram

Total Area (ha) 9.552

Time (mins)	Area	Time (mins)	Area
From:	To: (ha)	From:	To: (ha)
0	4 0.000	4	8 9.552

©1982-2020 Innovyze

SNC Lavalin		Page 4
455, Boul. RenT-LTvesque Ouest Montreal H2Z 1Z3 Canada	Zone 2 Surface Water Network Source Control Design	
Date 24/03/2025 16:35 File Zone 2.SRCX	Designed by [REDACTED] Checked by [REDACTED]	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 2.000

Tank or Pond Structure

Invert Level (m) 0.000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	2000.0	2.000	2000.0

Level Controlled Pump Outflow Control

Invert Level (m) 0.000 Cut In Height (m) 0.500 Cut Out Height (m) 0.000

Depth (m)	Outflow (l/s)	Depth (m)	Outflow (l/s)	Depth (m)	Outflow (l/s)
0.100	200.0000	1.100	200.0000	2.100	200.0000
0.200	200.0000	1.200	200.0000	2.200	200.0000
0.300	200.0000	1.300	200.0000	2.300	200.0000
0.400	200.0000	1.400	200.0000	2.400	200.0000
0.500	200.0000	1.500	200.0000	2.500	200.0000
0.600	200.0000	1.600	200.0000	2.600	200.0000
0.700	200.0000	1.700	200.0000	2.700	200.0000
0.800	200.0000	1.800	200.0000	2.800	200.0000
0.900	200.0000	1.900	200.0000	2.900	200.0000
1.000	200.0000	2.000	200.0000	3.000	200.0000

©1982-2020 Innovyze