

Evolugen

Evolugen Trail Road BESS

Ottawa, ON

Revisions

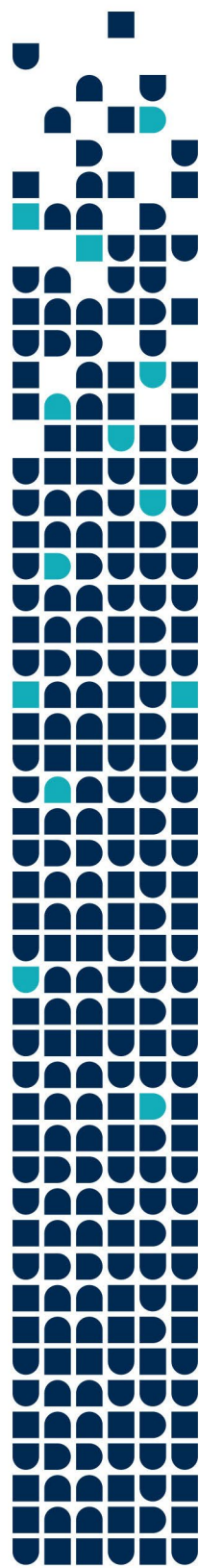
BESS Civil Package

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TABLE OF CONTENTS

1. Objective.....	2
2. Diversion swale and outflow ditch results.....	2
3. Culverts results.....	5

LIST OF TABLES

Table 1. Pad ditch.....	3
Table 2. Diversion swale.....	3
Table 3. Access road ditch	4
Table 4. Culverts	6

LIST OF FIGURES

Figure 1. Layout with section ID for diversion swale and pad ditch	2
Figure 2. Layout with section ID for access road ditch	4
Figure 3. Layout with culvert ID.....	5



1. Objective

The objective of this addendum is to answer RVCA and City of Ottawa questions regarding the stormwater management modelling. This document needs to be read in relation to the stormwater management report (7154024-100000-41-ERA-0001_R03).

The following figures and tables show the results in the form of a table that was extracted from the PCSWMM result included in the stormwater management report. It is intended to facilitate the review of the result at key locations of the site. It shows result from the 100-year storm event and the 2-year storm event. The 2 years is considered a frequent rain event.

2. Diversion swale and outflow ditch results

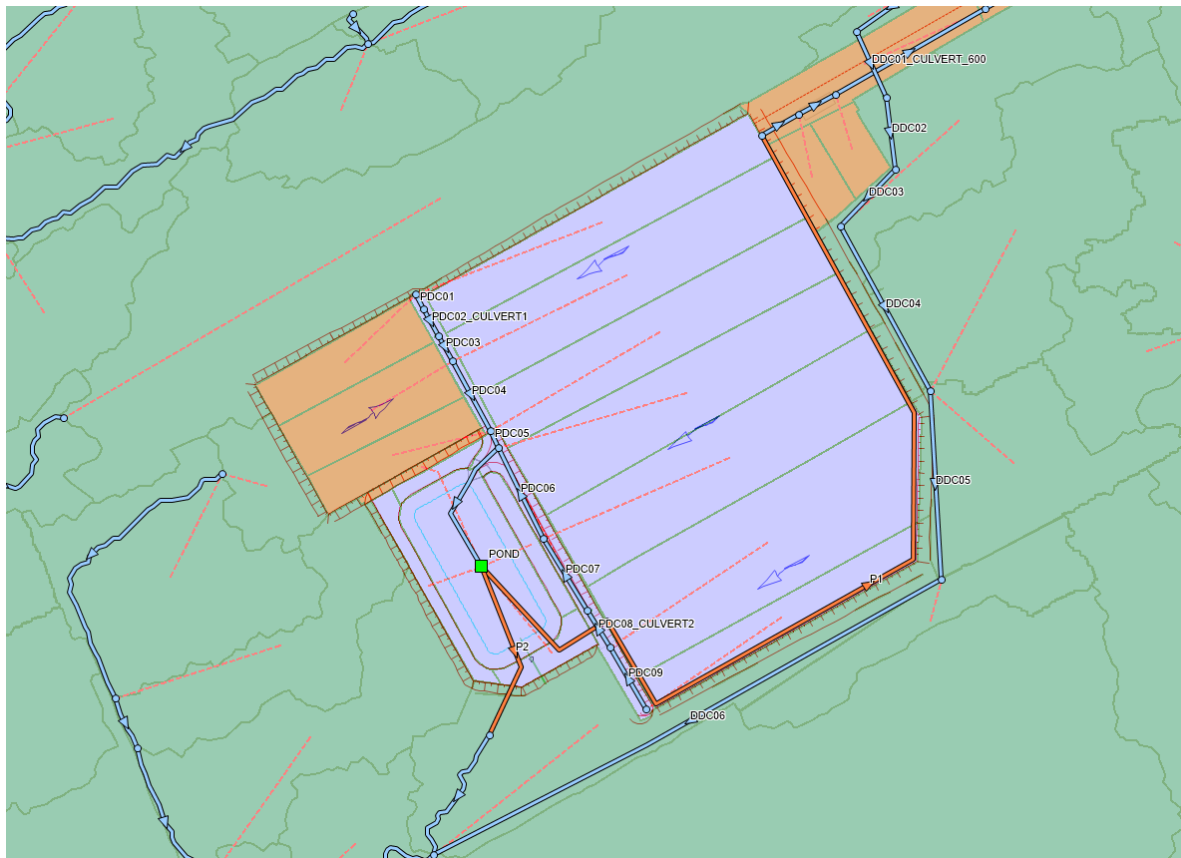


Figure 1. Layout with section ID for diversion swale and pad ditch



Table 1. Pad ditch

Section name	Length (m)	Slope (m/m)	100-year storm		2-year storm	
			Qmax (m³/s)	Vmax (m/s)	Qmax (m³/s)	Vmax (m/s)
Name	Length (m)	Slope (m/m)	Max. Flow (m³/s)	Max. Velocity (m/s)	Max. Flow (m³/s)	Max. Velocity (m/s)
PDC01	6.5	0.006	0.139	0.22	0.06	0.2
PDC02_CULVERT1	12.3	0.001	0.138	0.9	0.059	0.76
PDC03	11.4	0.004	0.138	0.18	0.059	0.16
PDC04	31.5	0.004	0.328	0.34	0.14	0.27
PDC05	7.7	0.006	0.499	0.44	0.212	0.32
PDC06	40.4	0.001	0.41	0.35	0.176	0.25
PDC07	33.5	0.003	0.251	0.24	0.108	0.18
PDC08_CULVERT2	17.3	0.003	0.248	1.56	0.109	0.96
PDC09	28.5	0.004	0.063	0.09	0.026	0.08

Table 2. Diversion swale

Section name	Length (m)	Slope (m/m)	100-year storm		2-year storm (frequent)	
			Qmax (m³/s)	Vmax (m/s)	Qmax (m³/s)	Vmax (m/s)
DDC01_CULVERT_600	28.8	0.001	0.187	1.50	0.032	0.83
DDC02	28.8	0.002	0.185	0.31	0.032	0.19
DDC03	31.6	0.002	0.180	0.26	0.031	0.17
DDC04	74.7	0.001	0.215	0.27	0.032	0.16
DDC05	75.1	0.001	0.244	0.27	0.032	0.16
DDC06	230.2	0.001	0.307	0.30	0.034	0.1

Figure 2. Layout with section ID for access road ditch

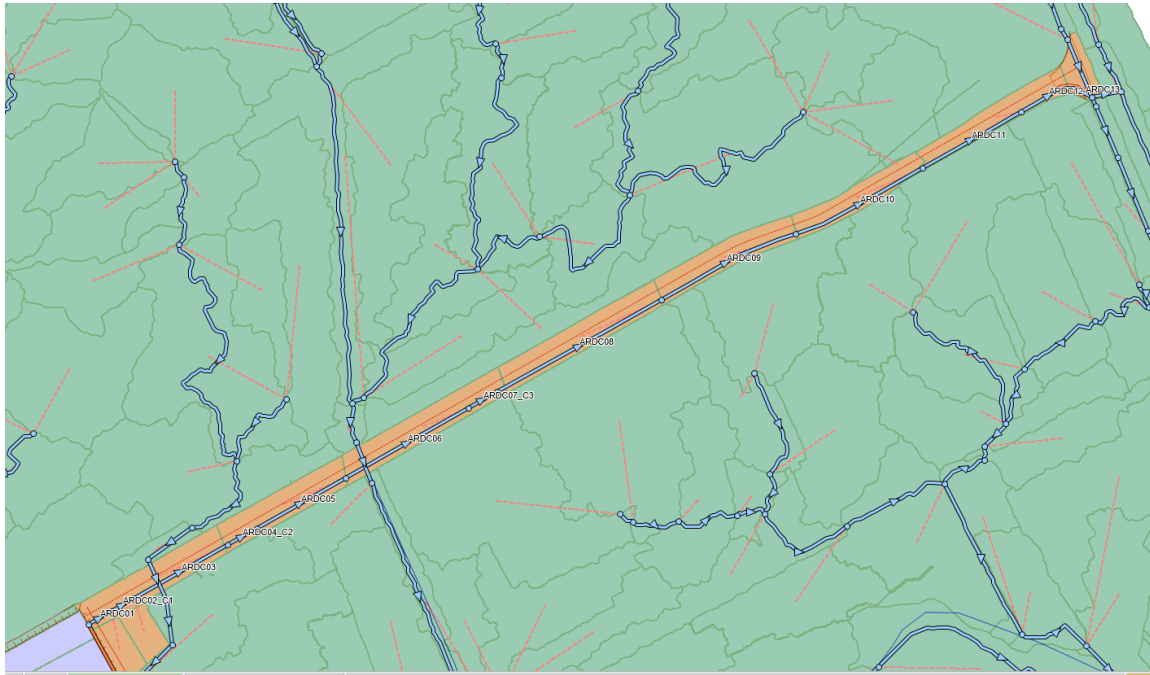


Table 3. Access road ditch

Section name	Length (m)	Slope (m/m)	100-year storm		2-year storm	
			Qmax (m ³ /s)	Vmax (m/s)	Qmax (m ³ /s)	Vmax (m/s)
ARDC01	16.7	0.003	0.025	0.26	0.026	0.27
ARDC02_C1	16.8	0.003	0.025	1.39	0.025	1.47
ARDC03	68.5	0.003	0.044	0.24	0.027	0.24
ARDC04_C2	21.1	0.004	0.110	1.28	0.047	1.03
ARDC05	65.1	0.003	0.109	0.3	0.047	0.25
ARDC06	90.2	0.003	0.159	0.32	0.066	0.27
ARDC07_C3	20.8	0.003	0.217	1.63	0.090	1.24
ARDC08	112.0	0.00325	0.211	0.41	0.086	0.33
ARDC09	95.4	0.00281	0.248	0.42	0.097	0.33



Section name	Length (m)	Slope (m/m)	100-year storm		2-year storm	
			Qmax (m³/s)	Vmax (m/s)	Qmax (m³/s)	Vmax (m/s)
ARDC10	91.1	0.00269	0.273	0.44	0.104	0.34
ARDC11	72.4	0.00319	0.286	0.52	0.105	0.38
ARDC12	40.1	0.00868	0.312	0.75	0.111	0.56
ARDC13	10.0	0.01372	0.311	0.60	0.110	0.50
ARDC14_C4	19.1	0.01388	0.400	2.23	0.126	1.65

3. Culvert results

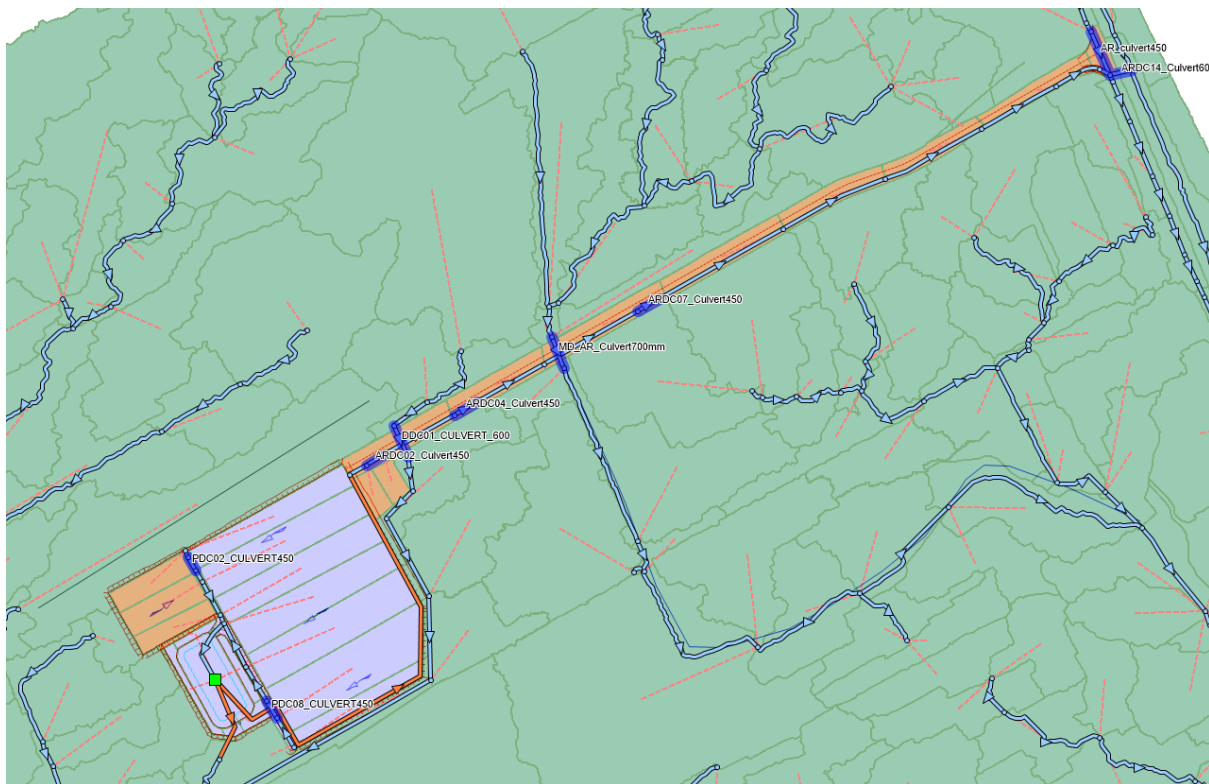


Figure 3. Layout with culvert ID



Table 4. Culverts

Section name	Length (m)	Slope (m/m)	100-year storm			2-year storm		
			Qmax (m ³ /s)	Vmax (m/s)	Dmax ratio	Qmax (m ³ /s)	Vmax (m/s)	Dmax ratio
AR_culvert450	40.0	0.007	0.105	1.20	0.63	0.016	0.60	0.29
ARDC02_Culvert450	16.8	0.003	0.025	1.39	0.30	0.025	1.47	0.26
ARDC04_Culvert450	21.1	0.004	0.11	1.28	0.54	0.047	1.03	0.34
ARDC07_Culvert450	20.8	0.003	0.217	1.63	0.78	0.090	1.24	0.47
ARDC14_Culvert600	19.1	0.014	0.400	2.23	0.84	0.126	1.65	0.35
DDC01_CULVERT_600	28.8	0.001	0.187	1.50	0.46	0.032	0.83	0.19
MD_AR_Culvert700mm	27.7	0.002	0.727	2.15	0.91	0.121	0.74	0.43
PDC02_CULVERT450	12.3	0.001	0.138	0.90	0.92	0.059	0.76	0.54
PDC08_CULVERT450	17.3	0.003	0.248	1.56	1.00	0.109	0.96	0.67