

Surface Water Drainage Model: Residential Development Schwabe St Middleton		Date: 21/08/2024	
		Designed by: SJ	Checked by: SH
		Approved By: ADS	
Report Details: Type: Inflows Summary Storm Phase: Phase		ADS Consult: 107 Mere Grange Business Park St Helens WA9 5GG	



Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
NEW DWELLING ROOF AREA	FSR: 100 years: +45 %: 15 mins: Winter	0.01	3.9	1.782
REPLACEMENT DWELLING ROOF AREA	FSR: 100 years: +45 %: 15 mins: Winter	0.01	6.3	2.910
GARAGE ROOF AREA	FSR: 100 years: +45 %: 15 mins: Winter	0.01	2.2	1.017
PARKING AREA 1	FSR: 100 years: +45 %: 15 mins: Winter	0.01	2.6	1.197
PARKING AREA 2	FSR: 100 years: +45 %: 15 mins: Winter	0.01	3.4	1.548

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Report Details: Type: Junctions Summary Storm Phase: Phase	ADS Consult: 107 Mere Grange Business Park St Helens WA9 5GG		



Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SW-01	FSR: 100 years: +45 %: 15 mins: Winter	54.53 5	53.78 5	53.873	0.088	6.3	0.025	0.000	6.0	2.908	OK
SW-02	FSR: 100 years: +45 %: 15 mins: Winter	54.53 5	51.87 5	51.962	0.087	8.5	0.025	0.000	8.3	4.103	OK
SW-03	FSR: 100 years: +45 %: 15 mins: Winter	52.54 0	51.79 0	51.845	0.055	12.2	0.015	0.000	12.1	5.880	OK
SW-04	FSR: 100 years: +45 %: 30 mins: Winter	52.10 0	50.90 0	51.508	0.608	12.7	0.172	0.000	12.2	11.682	Surcharged
OUTFALL	FSR: 100 years: +45 %: 60 mins: Winter	51.50 0	50.42 5	50.473	0.048	4.0	0.000	0.000	4.0	15.483	OK
SW-05	FSR: 100 years: +45 %: 60 mins: Winter	51.50 0	50.48 0	51.500	1.020	5.0	1.418	0.265	4.0	15.487	Flood

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Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		ADS Consult: 107 Mere Grange Business Park St Helens WA9 5GG			



Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FSR: 100 years: +45 %: 30 mins: Winter	51.503	51.503	1.003	1.003	12.2	4.398	0.000	0.000	8.5	11.238	3.556	OK

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Report Details: Type: Connections Summary Storm Phase: Phase		ADS Consult: 107 Mere Grange Business Park St Helens WA9 5GG	



Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
S-1.000	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	SW-01	SW-02	54.535	53.873	0.083	2.908	0.9	0.98	6.0	OK
S-1.001	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	SW-02	SW-03	54.535	51.962	0.071	4.103	1.4	0.93	8.3	OK
S-1.002	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	SW-03	SW-04	52.540	51.845	0.150	5.880	1.9	0.27	12.1	OK
S-1.003	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	SW-04	Cellular Storage	52.100	51.244	0.150	8.432	1.1	0.35	17.5	Surcharged
S-1.004	FSR: 100 years: +45 %: 30 mins: Winter	Pipe	Cellular Storage	SW-05	51.650	51.503	0.150	11.237	0.5	0.49	8.5	Surcharged
S-1.005	FSR: 100 years: +45 %: 60 mins: Winter	Pipe	SW-05	OUTFALL	51.500	51.500	0.050	15.483	0.8	0.23	4.0	Flood

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Report Details: Type: Phase Management Storm Phase: Phase	ADS Consult: 107 Mere Grange Business Park St Helens WA9 5GG		



Phase
FSR: 100 years: Increase Rainfall (%): +45: 60 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
OUTFALL			4.0	15.483
TOTAL	10.0	15.498	4.0	15.483

Graphs

