



**LEGEND:**

- Existing Foul Manhole & Sewer
- Existing Surface Water Manhole & Sewer
- Proposed Foul Manhole & Sewer
- Proposed Private SW Manhole & Sewer
- Bypass Interceptor
- Drainage Channel
- Gully
- Permeable Paving attenuation (no infiltration)
- Cellular Attenuation Tank (no infiltration)
- 1 in 100yr flood Outline
- 1 in 100yr + 20% flood Outline
- 1 in 100yr + 40% flood outline
- Exceedance Flow-Route

**FLOOD VOLUMES AND DEPTHS**

NE1/2  
1 in 30

Pipe Ref	U/S MH Location	Water level (m)	Flood Volume (m <sup>3</sup> )	Contained	Cumulative Volume (m <sup>3</sup> )	Depth of water (mm)	Depth of Water Yard (mm)	Top width (m)	Note
2.000	Unit 1 Loading Dock	80.928	-	N/A	-	-	-	-	dock invert 80.9
15.000	Unit 3 Dock	78.876	-	N/A	-	-	-	-	dock invert 79.156

NE1/2  
1 in 100

Pipe Ref	U/S MH Location	Water level (m)	Flood Volume (m <sup>3</sup> )	Contained	Cumulative Volume (m <sup>3</sup> )	Depth of water (mm)	Depth of Water Yard (mm)	Top width (m)	Note
2.000	Unit 1 Loading Dock	81.005	28	within dock	28	105	9.4	15	15min
5.000	Unit 1 car park	79.311	0.7	perm pav	0.7	N/A	N/A	13.7	capacity within unit 1 permeable paving
15.000	Unit 3 Dock	79.311	33	Within Dock	33	155	-	-	480min

NE1/2  
1 in 100 + 20%

Pipe Ref	U/S MH Location	Water level (m)	Flood Volume (m <sup>3</sup> )	Contained	Cumulative Volume (m <sup>3</sup> )	Depth of water (mm)	Depth of Water Yard (mm)	Top width (m)	Note
1.000	Unit 1 Yard	-	12	within dock	12	53	12.2	15	15 min
2.000	Unit 1 Dock	81.331	220	within dock	220	431	19.2	19.2	960min
7.000	Unit 2 roof	-	3.2	within unit 1 perm pav	3.2	N/A	N/A	-	15 min storm, capacity in unit 1 permeable paving subbase.
9.000	Unit 4 Roof	-	1	Unit 3 perm paving	1	N/A	N/A	-	permeable paving subbase.
15.000	Unit 3 Dock	79.644	166	in unit 3 dock/yard	166	488	20.3	600min	

NE1/2  
1 in 100 + 40%

Pipe Ref	U/S MH Location	Water level (m)	Flood Volume (m <sup>3</sup> )	Contained	Cumulative Volume (m <sup>3</sup> )	Depth of water (mm)	Depth of Water Yard (mm)	Top width (m)	Note
1.000	Unit 1 Yard	-	27	in yard/dock	27	104	12.6	15	15 min
2.000	Unit 1 Dock	81.615	425+15	in dock	440	699	13	24.8	1440 min storm
4.000	Unit 1 Car Park	-	10	within car park	10	56	14	14	15min 15m long car park
5.000	Unit 1 Car Park	-	12.5	within unit 1 perm pav	12.5	24	5.7	5.7	15 min storm
7.000	Unit 2 roof	-	9.3	within unit 1 perm pav	21.6	39	6.36	6.36	15 min storm
7.000	Unit 2 Yard	-	0.3	within yard	0.3	-	8.7	8.7	15 min storm
6.002	Unit 2 outfall	-	7.8	to access road	-	-	-	-	1440 min storm
1.008	access road	-	7.3	paving	15.1	73	7.7	7.7	1440 min storm. Capacity in perm paving
8.000	Access Road	-	0.3	within highway	0.3	63	11	11	temporary storage within highways
9.000	Unit 4 roof	-	3.5	paving	3.5	0	0	0	15 min storm, capacity with perm paving
10.000	Unit 4 yard	-	0.2	unit 4 yard	0.2	10	0.5	0.5	180 min storm
12.000	Unit 3 roof	-	2.7	to landscape area	2.7	-	-	-	15 min storm
12.000	Unit 3 Yard	-	10.88	unit 3 dock	10.88	81	11	11	240 min
15.000	Unit 3 Dock	79.859	283	in unit 3 dock/yard	283	703	25.6	25.6	720 min
16.000	Unit 3 Yard	-	2.6	unit 3 dock	2.6	40	5.5	5.5	15 min storm,

SE1  
1 in 100 + 20%

Pipe Ref	U/S MH Location	Water level (m)	Flood Volume (m <sup>3</sup> )	Contained	Cumulative Volume (m <sup>3</sup> )	Depth of water (mm)	Depth of Water Yard (mm)	Top width (m)	Note
1.000	behind unit 5	-	1.7	yard	1.7	25	-	-	within foot path, flow to yard
4.000	car park	-	4	within car park kerbs	4	-	-	-	Flow back to perm Paving
5.000	car park	-	1.5	within car park kerbs	5.5	<13	-	-	Flow back to perm Paving
6.000	entrance road	-	-	No due to topography, 6.8 Flow offsite to Icen Way	-	-	-	-	

SE1  
1 in 100 + 40%

Pipe Ref	U/S MH Location	Water level (m)	Flood Volume (m <sup>3</sup> )	Contained	Cumulative Volume (m <sup>3</sup> )	Depth of water (mm)	Depth of Water Yard (mm)	Top width (m)	Note
1.000	behind unit 5	-	5.5	yard	5.5	-	-	-	within foot path, flow to yard
1.000	behind unit 5	-	0.5	yard	6	48	-	-	overflow to car park/yard
3.000	car park	-	1.7	within car park kerbs	1.7	-	-	-	
4.000	car park	-	9.4	within car park kerbs	11.1	-	-	-	
5.000	car park	-	3.9	within car park kerbs	15	<36	-	-	Flow back to perm Paving
6.000	entrance road	-	88	Flow offsite to Icen Way	88	-	-	-	

NOLAN ASSOCIATES  
**PRELIMINARY DRAWING**  
NOT TO BE USED FOR CONSTRUCTION

P2	Site Plan Update to latest layout	...	KP	15.04.20
P1	PRELIMINARY	...	KP	02.03.20
REV	DESCRIPTION	BY	CHKD	DATE

The Ridge  
Haverhill  
Drainage Strategy 100k Scheme  
General Arrangement B2  
Trebtor Developments

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Drawn by	Date	Plot Date	Scale
...	28.02.20	28.02.20	1:500@A0
Checked by	Project No	Dwg No	
KP	2018-294	121	P2

