

- LEGEND**
- EXISTING PRIVATE SURFACE WATER SEWER
  - EXISTING PRIVATE FOUL SEWER
  - EXISTING PUBLIC SURFACE WATER SEWER
  - EXISTING PUBLIC FOUL SEWER
  - EXISTING PUBLIC COMBINED SEWER
  - EXISTING PUBLIC COMBINED SEWER
  - EXISTING PUBLIC RISING MAIN
  - EXISTING SEWER TO BE ABANDONED
  - PROPOSED FOUL WATER SEWER
  - PROPOSED SURFACE WATER SEWER
  - PROPOSED ATTENUATION TANK
  - PROPOSED CONVEYANCE CHANNEL
  - APPLICATION A BOUNDARY
  - APPLICATION B (SCHOOL) BOUNDARY
  - SURFACE WATER DRAINAGE CATCHMENT

- NOTES**
- 1) EXISTING DRAINAGE LAYOUT BASED ON THAMES WATER SEWER RECORDS AND PENBORN TECHNICAL SERVICES DRAWING (REF: P97970731).
  - 2) THE PART OF THE DEVELOPMENT WEST OF SHIP LANE IS SUBMITTED AS AN OUTLINE APPLICATION. THE BASEMENT PLAN PROVIDED (REF: 16019\_C645\_Z2\_P\_B1\_001 - RECEIVED FROM SQUIRE & PARTNERS 29.01.2018) IS INDICATIVE ONLY AND SUBJECT TO THE PARAMETER PLANS SUBMITTED.
  - 3) DRAINAGE SUBJECT TO DETAILED DESIGN.

Rev	Date	Description	By
A02	13.02.18	UPDATED APPLICATION BOUNDARY	NB
A01	30.01.18	PLANNING ISSUE	NB

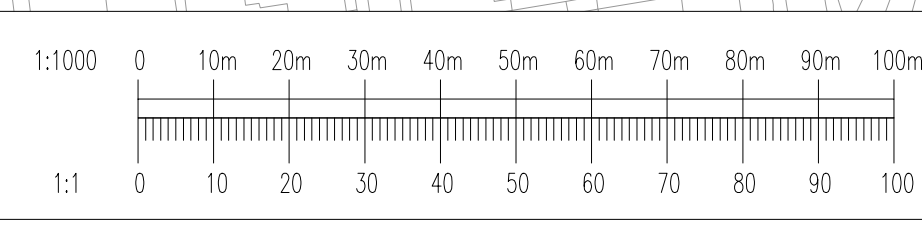
Project: **STAG BREWERY**

Title: **SURFACE WATER DRAINAGE CATCHMENT PLAN**

Client: **RESELTON PROPERTIES LIMITED**



Drawing Status: <b>PRELIMINARY</b>				
Designed by	NB	Checked by	DO	Project No
Drawn by	NB	Date	JANUARY 2018	WIE10667
Scales @ A1		1:1000		
work to figured dimensions only				
Publisher	Zone	Category	Number	Revision
WIE	SA	92	0008	A02





## **J. Foul Water Drainage Estimate Calculations**

### **Appendices**

Stag Brewery, Mortlake

Project Number: WIE10667

Document Reference: WIE10667-101-R-9-5-1-DS



Project Title: **Stag Brewery**  
 Calculations Title: **Existing Foul Flow Estimate**

Sheet No: 1 of 2 Project No: WIE10667  
 By: N Balboni Date: 23/10/2017  
 Checked: D O'Donovan Date: 23/10/2017

	Dry Weather Flow Rate (per day)	Source	Number of .....	Factor	Profile (hours)	Peak Flow Rate (litres/second)
<b>Residential</b>				2.12	24	
Existing property = 160 litres/person/day	368.0 litres per unit	Thames Water Guidelines (2016)	0 existing units			0.0
New property = 125 litres/person/day	287.5 litres per unit	Thames Water Guidelines (2016)	0 proposed units			0.0
Occupancy = 2.3 persons						
<b>Hotel</b>	500.0 litres per room	British Water (2013)	15 rooms	3	24	0.3
<b>Student Accommodation</b>	200.0 litres per bed	Thames Water Guidelines (2016)	0 beds	3	24	0.0
<b>Offices</b>	750.0 litres per 100m <sup>2</sup>	Jones (1992)	2318 m <sup>2</sup>	3	10	1.4
<b>Retail</b>	400.0 litres per 100m <sup>2</sup>	Jones (1992)	0 m <sup>2</sup>	3	12	0.0
<b>Cinema</b>	10.0 litres per seat	Jones (1992)	0 seats*	3	8	0.0
<b>Health Club/Sports Centre</b>	50.0 litres per customer	British Water (2013)	168 customers**	3	16	0.4
<b>Day School</b>	90.0 litres per pupil	British Water (2013)	0 pupils	3	10	0.0
<b>Boarding School</b>	175.0 litres per pupil	British Water (2013)	0 pupils	3	24	0.0
<b>Hospital</b>	625.0 litres per bed	Jones (1992)	0 beds	3	24	0.0
<b>Nursing Home</b>	350.0 litres per bed	British Water (2013)	0 beds	3	24	0.0
<b>Restaurant</b>	30.0 litres per cover	British Water (2013)	0 covers	3	8	0.0
<b>Pub/Club</b>	15.0 litres per customer	Butler and Davies (2004)	0 customers***	3	12	0.0
<b>Warehouse</b>	150.0 litres per 100m <sup>2</sup>	Jones (1992)	0 m <sup>2</sup>	3	12	0.0
<b>Manufacturing</b>	550.0 litres per 100m <sup>2</sup>	Jones (1992)	28671 m <sup>2</sup>	3	12	11.0
<b>Commercial</b>	300.0 litres per 100m <sup>2</sup>	Jones (1992)	0 m <sup>2</sup>	3	12	0.0
<b>SUB TOTAL</b>						<b>13.1</b>
<b>Infiltration percentage</b> 10%						<b>1.3</b>
<b>TOTAL</b>						<b>14.4</b>

\* Foul flow rate needs to be calculated based on number of seats. An allowance of 4m<sup>2</sup> has been made for each seat.

Floor area = 0 m<sup>2</sup> 4 m<sup>2</sup> per person

\*\* Foul flow rate needs to be calculated based on number of customers. An allowance of 4m<sup>2</sup> has been made for each customer.

Floor area = 672 m<sup>2</sup> 4 m<sup>2</sup> per person

\*\*\* Foul flow rate needs to be calculated based on number of customers. An allowance of 4m<sup>2</sup> has been made for each customer.

Floor area = 0 m<sup>2</sup> 4 m<sup>2</sup> per person



Project Title: **Stag Brewery**  
 Calculations Title: **Proposed Foul Flow Estimate**

Sheet No: 2 of 2      Project No: WIE10667  
 By: N Balboni      Date: 25/01/2018  
 Checked: D O'Donovan      Date: 25/01/2018

	Dry Weather Flow Rate (per day)	Source	Number of .....	Factor	Profile (hours)	Peak Flow Rate (litres/second)
<b>Residential</b>				2.12	24	
Existing property = 160 litres/person/day	400.0 litres per unit	Thames Water Guidelines (2016)	0 existing units			0.0
New property = 125 litres/person/day	312.5 litres per unit	Thames Water Guidelines (2016)	667 proposed units			5.1
Occupancy = 2.5 persons						
<b>Hotel</b>	500.0 litres per room	British Water (2013)	16 rooms	3	24	0.3
<b>Student Accommodation</b>	200.0 litres per bed	Thames Water Guidelines (2016)	0 beds	3	24	0.0
<b>Offices</b>	750.0 litres per 100m <sup>2</sup>	Jones (1992)	7121 m <sup>2</sup>	3	10	4.5
<b>Retail</b>	400.0 litres per 100m <sup>2</sup>	Jones (1992)	0 m <sup>2</sup>	3	12	0.0
<b>Cinema</b>	10.0 litres per seat	Jones (1992)	530 seats*	3	8	0.6
<b>Health Club/Sports Centre</b>	50.0 litres per customer	British Water (2013)	185 customers**	3	16	0.5
<b>Day School</b>	90.0 litres per pupil	British Water (2013)	1200 pupils	3	10	9.0
<b>Boarding School</b>	175.0 litres per pupil	British Water (2013)	0 pupils	3	24	0.0
<b>Hospital</b>	625.0 litres per bed	Jones (1992)	4 beds	3	24	0.1
<b>Nursing Home</b>	350.0 litres per bed	British Water (2013)	230 beds	3	24	2.8
<b>Restaurant</b>	30.0 litres per cover	British Water (2013)	0 covers	3	8	0.0
<b>Pub/Club</b>	15.0 litres per customer	Butler and Davies (2004)	0 customers***	3	12	0.0
<b>Warehouse</b>	150.0 litres per 100m <sup>2</sup>	Jones (1992)	4493 m <sup>2</sup>	3	12	0.5
<b>Manufacturing</b>	550.0 litres per 100m <sup>2</sup>	Jones (1992)	0 m <sup>2</sup>	3	12	0.0
<b>Commercial</b>	300.0 litres per 100m <sup>2</sup>	Jones (1992)	0 m <sup>2</sup>	3	12	0.0
<b>SUB TOTAL</b>						23.2
<b>Infiltration percentage</b> 10%						2.3
<b>TOTAL</b>						<b>25.5</b>

\* Foul flow rate needs to be calculated based on number of seats. An allowance of 4m<sup>2</sup> has been made for each seat.

Floor area = 2120 m<sup>2</sup>      4 m<sup>2</sup> per person

\*\* Foul flow rate needs to be calculated based on number of customers. An allowance of 4m<sup>2</sup> has been made for each customer.

Floor area = 740 m<sup>2</sup>      4 m<sup>2</sup> per person

\*\*\* Foul flow rate needs to be calculated based on number of customers. An allowance of 4m<sup>2</sup> has been made for each customer.

Floor area = 0 m<sup>2</sup>      4 m<sup>2</sup> per person

# UK and Ireland Office Locations

