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WATER INGRESS REPORT

163 Sumatra Road, West Hampstead, NW6 1PN

March 2022

Report to summarise Various findings in relation to any potential water ingress

Application: 2020/3552/P

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1.0 Introduction

1.1 Drawing and Planning Ltd. have been instructed to assess all the specialist reports, findings, recommendations in relation to any potential water ingress at the site known as 163 Sumatra Road, NW6 1PN.

1.2 This report takes into consideration and makes reference to the Basement Impact Assessment prepared by Soils Limited, Flood Risk Report prepared by Soils limited, Assessment of Basement Impact Statement by Campbell Reith on behalf of Camden Planning Department, Structural Basement Design together with waterproofing detail as to the type of Pumps and safety systems proposed.

1.3 Water can ingress into a basement for many reasons, failed basement waterproofing lining system, leaking water main or rising water table risk of flooding as a result of bad weather. This reports aims to go through the potential risk that could lead to water ingress risk by risk.

2.0 Summary from BIA V1.02, Campbell Reith & Flood Risk Assessment

2.1 Flood risk assessment by Soils Limited, Reference - 18224/FRA prepared February 2020.

2.1.1 *Camden is not at risk of flooding from the Thames or any other open rivers. The main risk of flooding within the borough is from surface water after significant rainfall events, and incapacity in the combined sewer to remove rainwater. Groundwater flooding is also a growing issue in Camden. There have been two significant surface area flooding events in Camden in the past 40 years. The first occurred on 14th August 1975 and the second on 7th August 2002. Both events were caused by sudden extreme downpours. (***paragraph 2.5, page 3, Extract 1***)*

2.1.2 *The EA/NRW surface water 1000-year return depth map sourced from the Envirocheck Flood Screening Report, indicated that the site to be at risk from surface water in the southern half of the site. A review of the EA/NRW Surface Water 1000 Year Return Velocity and Flow Direction Map indicates that the should a 1 in 1000 year surface water flooding event occur the Flow of water would pass from the west down to the south behind the property along the railway line.* (**paragraph 4.3, page 8, Extract 2)**

2.1.3 *There were no artificial sources of water (e.g. reservoirs impounding water above ground level) in vicinity to the site*. **(paragraph 4.6, page 10, Extract 3)**

2.1.4 *The EA/NRW Historic Flood Event Data does not record any Historic Flood Events or Historical Flood Liabilities within 250m of the site. The London Borough of Camden SFRA Strategic Flood Risk Assessment dated July 2014 produced by URS indicated that Sumatra Road flooded during 2002. The reportdoes not record any historic surface water flooding on the site or its immediate surroundings. The addendum to the London Borough of Camden Preliminary Flood Risk Assessment Report (2011) produced in 2017 indicated no historical flooding events since 2002.* ***(paragraph 4.7, page 10, Extract 4).***

2.1.5 The site is not a risk from fluvial flooding as it is not situated within a recorded Flood Zone. The EA/NRW maps indicate that the site is at risk of surface water flooding from 1 in 1000-year events. The supplied EA/NRW Historic Flood Map does not record any historic surface water flooding events within 500m of the site. **(6 Conclusion, page 14, Extract 5).**

2.2 *Basement Impact Assessment Rev 1.02 by Soils Limited,* 18511/BIA/Rev1.02 July 2020 (Rev. February 2022)

2.2.1 *The basement construction is unlikely to act as a barrier to the groundwater flow, due to extending through the shallow groundwater into the very low permeability London Clay Formation. The composition of the Made Ground supporting the shallow groundwater was variable. Determining a permeability for further analysis would be based on rough assumptions. Therefore, calculating accurately the local groundwater*

level increase around the basement would be difficult, but it can be anticipated that groundwater level rise to the upstream of the basement would be negligible due to the very slow groundwater flow allowed by the very low permeability soils encountered. In addition, no full basements were present underneath the neighbouring buildings, but semi-basements were recorded within public documents from the Council. The proposed development, therefore, would represent a localised deepening and extension of a block of existing semi-basements, therefore cumulative effects on the rise of groundwater levels because of "damming effects" are considered as negligible ***(Paragraph 2, page 52, Extract 6).***

2.2.2 *The ground movement assessment showed that both the theoretical damage to date (Stage 1) and the foreseeable damage at the end of construction (Stage 2) would not exceed Category 1 (very slight damage) of the Burland Scale and would therefore be acceptable according to the Camden Planning Document: Basements, January 2021 (**Paragraph 7, page 55, Extract 7).***

2.2.3 *Overall it was considered the proposed development could have a limited impact on Neighbouring properties provided a suitable basement construction was selected and effective monitoring of ground movements put in place, to inform of eventual excessive movements that could require the undertaking of remedial measures. The statement is strictly related to the geotechnical results of this Basement Impact Assessment and refers to building structures considered suitable for undergoing the proposed development from the point of view of an experienced structural engineer* (**Paragraph 1, page 56, Extract 8).**

2.3 Campbell Reith's Report dated January 2021 raises no concerns relating to flood risk and confirms that the mitigation measures within the Flood Risk Assessment are acceptable.

2.3.1 "The site is confirmed to have a medium risk from surface water flooding. A Flood Risk Assessment (FRA) has been presented and indicates various mitigation measures to deal with surface water flooding which should be adopted during construction." (**Paragraph 1.9, Extract 9).**

2.3.2 "A Flood Risk Assessment (FRA) has been presented in the BIA. The site is at very low risk from flooding from rivers, seas and reservoirs, and from groundwater, while it is at medium risk from surface water flooding. The FRA indicates various mitigation measures to deal with surface water flooding which should be adopted during construction." (**Paragraph 4.9, Extract 10).**

2.3.3 "The site is within a Critical Drainage Area. The BIA and the FRA confirmed that impermeable areas of the site will be increased as a result of the proposed development. The FRA recommends the development to utilise sustainable drainage system (SuDS) to reduce the pressure on the combined sewer network. The SuDS should aim to achieve greenfield run-off rates. The mitigation measures reported in the FRA should also be reported in Section 8 of the BIA."(**Paragraph 4.10, Extract 11).**

2.3.4 "It is noted that the final drainage scheme will require approval by the local flood authority and the owner of the public sewer system present in the area (Thames

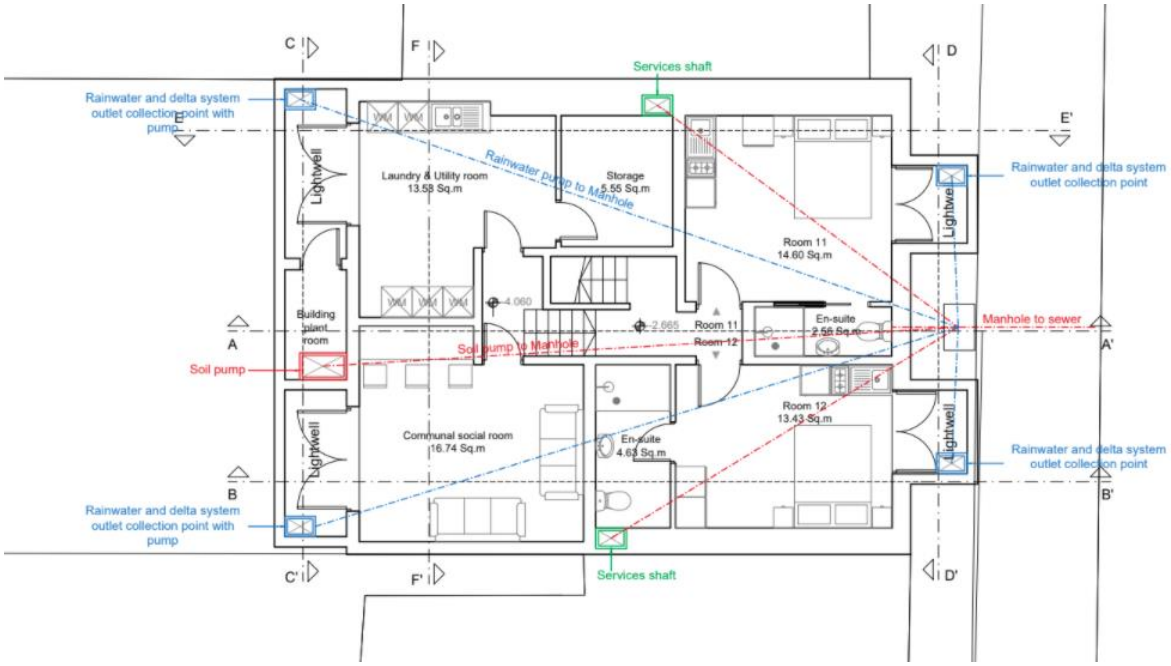
Water). A comment on the development has been submitted by Thames Water. (**Paragraph 4.11, Extract 12).**

3. Water ingress protection system

3.1 Section 1 and 2 show the existing waste water depth showing the Front Basement/Lower ground floor where the proposed habitable rooms are higher than the sewer level. The rear basement will contain pumps located in the rear lightwells.

Section 1

Section 2



Plan 1 – Demonstrating the proposed locations of pumps in each lightwell front and rear to be linked to ground level drainage and Delta Basement System.

3.2 The proposed pumps are fitted with a 100db alarm in the event the pumps fail an occupant of the lower ground floor basement rooms would be alerted in the event of raising water with such alert system as shown in image 1 and a pump failure alarm of 100db.

Image 1 - TOPVICO HH-LS618 Water Leak Alarm Sensor Detector

4.0 Pumps System and Specification

REF	Pump Station A
PRODUCT DESCRIPTION	DELTA DUAL V3 SUMP - with high level alarm
Product Code	DMS-164 - DMS-298
Application	To collect groundwater from a 115m2 basement Delta cavity membrane system and minimal Surface Water from closed lightwells
Pump Model (Qty)	V3 (2)
Pump Type	Submersible Vortex
Solids Handling Capacity	10
Pump Discharge	1¼"
Venting	Pump station must be vented, see installation instructions
Pump Operating Duty	1.75 l/s @ 4.3m head
High Level Alarm	AlertMaxx 2 ground water high level alarm - with broken finger float
Electrical Supply	230v-50Hz-1 phase
Motor Rating P1/P2	430W / 180W
Full Load Current	1.9A
Cable Length	10m
Chamber Material	High Density Polyethylene - ICO 1314 tank grade
Chamber Dimensions	660mm diameter (overall 902mm across inlet spigots), 655mm deep
Storage Capacity - Total	217 litres
Storage - Below Invert	87 litres
Manhole Cover	Not supplied (Site cover supplied)
Clear Opening to Chamber	310mm x 310mm
Inlets	3x 110mm spigots
Cable Duct / Vent	2" standard waste pipe (external to chamber)
Discharge Connection	1¼" BSP female external to sump – supplied with 1¼" male iron suitable for standard waste pipe
Internal Pipe Work Manifold	1¼" Class C, c/w 2x non return valves & 2x unions for pump removal
Pump Mounting Method	Free Standing
Quote Validity	All prices quoted are valid for 180 days
Availability	Ex stock

REF	Pump Station B
PRODUCT DESCRIPTION	Bespoke - Foul Water
Product Code	2-1000x1750-2601SMM-GRS

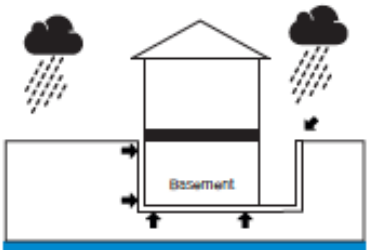
Application	To collect foul waste from basement facilities only.
Pump Model (Qty)	2601SM(2)
Pump Type	Submersible Vortex
Solids Handling Capacity	60mm
Pump Discharge	2.5"
Venting	Pump station must be vented, see installation instructions
Pump Operating Duty	3.9 l/s @ 5.2m head
Control Panel Specification Internal / External	Internal Duty/Standby - 230V (single phase) SSR relay. Volt free relay for HLA 3 float controlled 8A max. running current. 2 x 10A slow internal fuses. Single and dual applications. **External** W: 310mm x D: 170mm x H: 78mm IP2X - 2 Displays: 2 x 7 Segments - Green and blue LED's Hand-Off-Auto buttons per pump High level error code + 100db sounder + reset button
Electrical Supply	230v-50Hz-1 phase
Motor Rating P1/P2	1.25kW / 0.75kW
Full Load Current	6A
Cable Length	10m
Pump Weight	26kg
Chamber Material	High Density Polyethylene – ICO 1314 tank grade
Chamber Dimensions	1000 diameter x 1750mm deep
Storage Capacity - Total	905 Litres
Manhole Cover	Not Supplied
Clear Opening to Chamber	750 x 600mm
Inlets	Inlet Kit provided (5x 110mm rubber grommets, 1x Hole Saw + Arbor) - to be fitted on site
Cable Duct / Vent	110mm Drainage Pipe - (To be fitted by others using inlet kit provided)
Discharge Connection	2.5" Female BSP Thread
Internal Pipe Work Manifold	2.5" Class C pipework inc. 2x non-return valves & 1x gate valve
Pump Mounting Method	Guide Rail System

GROUND & SURFACE WATER

GROUND & SURFACE WATER

A range of pump stations designed to collect ground and/or surface water from the smallest domestic basement through to large commercial projects.

Our range of products have been designed specifically for the application and brings the technology of waterproofing and discharging water from properties under one responsibility, fully integrated and co-ordinated.



GROUND WATER

- Ground water collects or flows beneath the Earth's surface, filling the porous spaces in soil, sediment and rocks, originating from rain, melting snow and ice and is the source of water for aquifers, springs and wells.
- The basement structure should offer the primary resistance to passage of water.

PLEASE NOTE

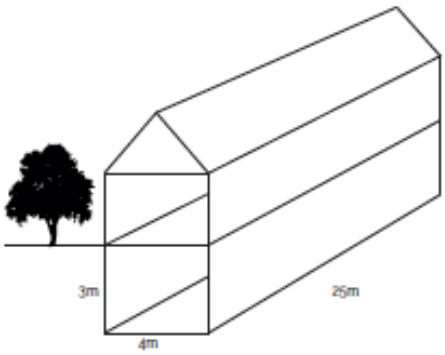
For any calculation, detailed reference should be made to the relevant British/European Standard.

CALCULATING FLOW RATES (GROUND WATER)

- It is virtually impossible to calculate water ingress through a structure, however, we need to make some assumptions and based on our experience we allow 0.001l/s/m2 of basement slab and walls and then allow a safety factor of 5. However, if the basement pumps are monitored by AlertMaxx2 & SideWinder we can build up a dataset for water ingress and make recommendations if and when necessary.

CALCULATING GROUND WATER INGRESS

- It is very difficult to obtain data for water ingress, we need to assume...
- For basements above the water table, assume 0.1l/s per 100m3 basement wall and floor area (or 0.001l/s/m2). Multiply by a factor of safety of 5.
- For basements below the water table assume 0.2l/s per 100m3 basement wall and floor area (or 0.002l/s/m2). Multiply by a factor of safety of 5.



Slab = 25m x 4m = 100m2
Wall 1 = 25m x 3m x 2no = 150m2
Wall 2 = 3m x 4m x 2no = 24m2
Total area = 274m2
Multiply total area by flow rate and factor of safety
=274m2 x 0.001L/s/m2 x 5 = 1.37l/s

CALCULATING FLOW RATES (SURFACE WATER)

- When selecting a pump station for collecting & discharging surface water we take into account a 5 minute storm event and the storage required for 24 hours, we always use a 500 year return period for basement applications and 24 hour storage as they are considered critical. *Battery backups can be used instead of physical storage.*

Example : 25m2 surface water application i.e. patio or small rear roof elevation
Flow rate: Area x l/s/m2 = 1.6l/s
5 minute storage: Area x l/s/m2 x 5 minutes
24 hour storage: Area x 0.11

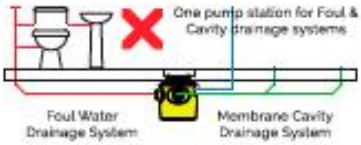
CALCULATING SURFACE WATER FLOW RATES & STORAGE

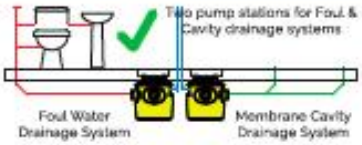
Design Intensity for London based on BS EN 752 (2008)

Return period	l/s/m2	mm/hour
1 year	0.016	57.6
5 years	0.024	86.4
50 years	0.040	144.0
500 years	0.064	230.4

WHY FOUL & GROUND WATER SHOULD NEVER BE MIXED

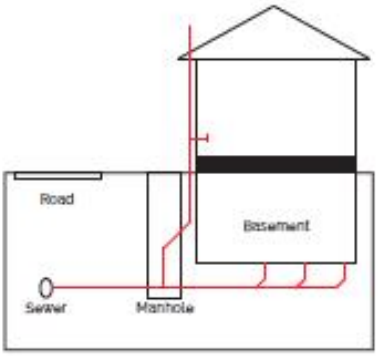
1. Foul gas will be able to migrate into the cavity spaces behind the membrane and will be able to escape into the building at the top edges of the membrane sheet, which must be left unsealed.
2. In the event of a pump station becoming inoperative, continual use of the sanitary appliances may result in the foul level rising above the normal operating level to the extent that effluent would back-fill the cavity drainage system and eventually escape into the cavities, resulting in contamination of floor construction.





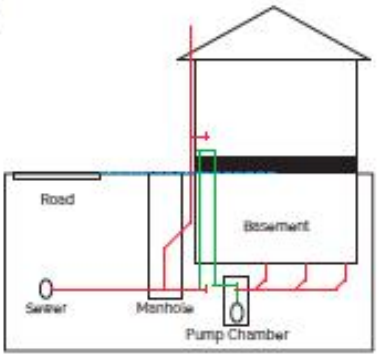
BASEMENT WITHOUT FLOOD PROTECTION

- If the sewer becomes surcharged and if the road surface floods, water will back-up in the house drain and flood the basement.
- If the sewer causes the surface of the road to flood, then the level of the flood water in the basement will reach the same level.



FLOOD PROTECTION MEASURES

- A pump station with an anti-flooding loop in the discharge pipe is the best method in accordance with BS12056-4.
- If the sewer becomes surcharged and if the road surface floods, the basement will remain safe.
- Flood water cannot pass over the top of the anti-flooding loop.
- Benefits:
- Flood protection is not reliant on valves which may leak and won't prevent odours travelling back into the property.
- The pumped drainage system will remain operational during flooding.



DUAL V3

A packaged pump station designed to collect ground water via perimeter channel or 110mm pipes (129 detail) and/or clear opening to the top of the chamber. This chamber cannot collect grey water from showers and wash hand basins, or foul from a WC (See 'Delta Foul V3 Sump'). A typical application would be collecting ground water from a basement up to 150m² and surface water from a 12m² lightwell.

The Dual V3 pump station has been specifically designed for below ground applications. The chamber is manufactured from HDPE and able to withstand hydrostatic forces encountered in applications with high water tables.

The pump station is delivered as a complete package including, chamber, all internal pipework and two powerful V3 pumps. It is designed to be installed by contractors with competent building, plumbing and electrical skills.

RECOMMENDATIONS

- AlertMaxx2 (DMS-298)
- PowerMaxx2 (DMS-280-1)

SPECIFICATION

- NBS specification R18 (clause 310) Pumping Stations & Pressure Pipelines.

PUMP STATION TECHNICAL DATA

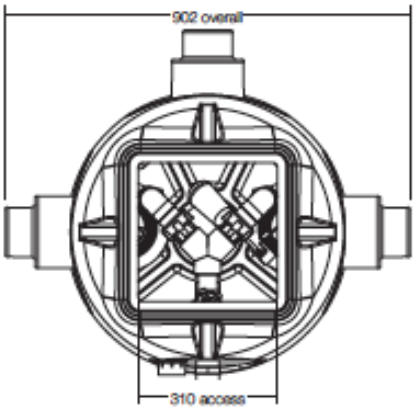
DMS Code	DMS-164
Chamber Material	High Density Polyethylene
Volume Below Inlets	87L
Total Volume	217L
Fixed Inlets	3 x 110 / 160mm
Cable Duct Size	50mm
Discharge Connection	1.25" / 32mm BSP Class C
Discharge Pipework	1.25" / 32mm BSP Class C
Internal Pipework	1.25" / 32mm BSP Class C
Cable Duct Pipework	2" / 50mm White Waste Pipe

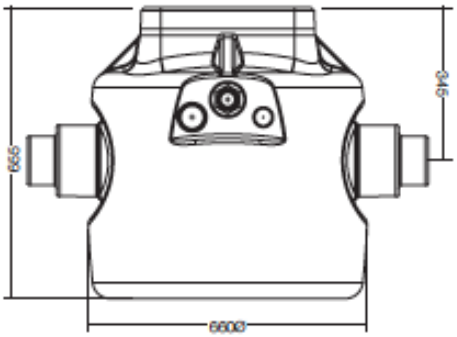
The Dual V3 is simple to install, the chamber sits on a concrete base, inlets in the form of perimeter channel or modular 110mm system are connected into the chamber, a 32mm discharge pipe connects to the gravity drain and a 50mm cable duct to bring electrics and control cabling from the chamber into a dry environment. The chamber is filled with water to prevent buoyancy and is surrounded with concrete. A simple rule of thumb is the top of the chamber should be level with the structural slab or no deeper than 500mm from the final finishes.

The installation is to be topped off with a double sealed cover supplied by the contractor to tie in with the general floor finish. Remember this product need to be accessed for service so care should be taken with its location.

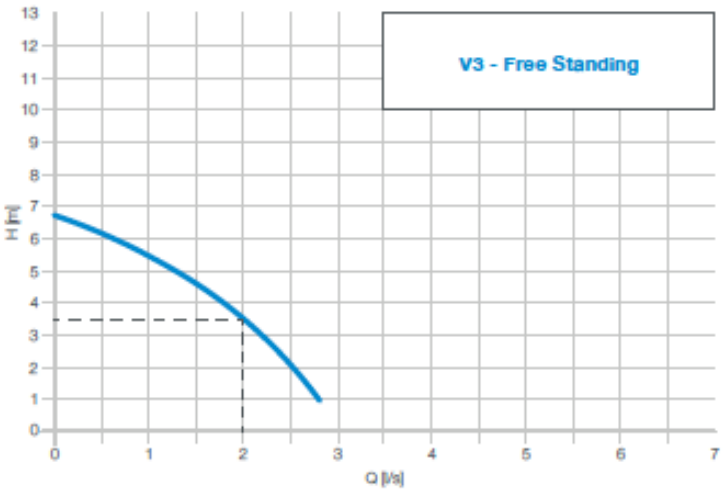
For full installation instructions see 'Delta Dual V3 Installation Instructions' on our website.

DUAL V3 - DMS-164





PUMP DATA	
Pump Model	V3
Voltage	230V
KW Rating P1 / P2	0.43 / 0.18kW
Full Load Current	1.9A
Fuse Spur Rating	13A Non-switched
Typical Duty	2.0l/s @ 3.5m
Power Phase	Single
Weight	5.64kg



DUAL V3.1

A packaged pump station designed to collect ground water via perimeter channel or 110mm pipes (129 detail) and/or clear opening to the top of the chamber. This chamber cannot collect grey water from showers and wash hand basins, or foul from a WC (See 'Delta Foul V3 Sump'). The Dual V3.1 is ideal for jobs where one or less inlet is required and space is limited. A typical application would be collecting ground water from a basement up to 150m² and surface water from a 12m² lightwell.

The Dual V3.1 pump station has been specifically designed for below ground applications. The chamber is manufactured from HDPE and able to withstand hydrostatic forces encountered in applications with high water tables.

The pump station is delivered as a complete package including, chamber, all internal pipework and two powerful V3 pumps. It is designed to be installed by contractors with competent building, plumbing and electrical skills.

RECOMMENDATIONS

- AlertMaxx2 (DMS-298)
- PowerMaxx2 (DMS-280-1)

SPECIFICATION

- NBS specification R18 (clause 310) Pumping Stations & Pressure Pipelines.

PUMP STATION TECHNICAL DATA

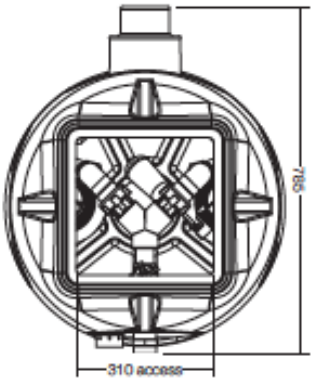
DMS Code	DMS-166
Chamber Material	High Density Polyethylene
Volume Below Inlets	87L
Total Volume	217L
Fixed Inlets	1 x 110 / 160mm
Cable Duct Size	50mm
Discharge Connection	1.25" / 32mm BSP Class C
Discharge Pipework	1.25" / 32mm BSP Class C
Internal Pipework	1.25" / 32mm BSP Class C
Cable Duct Pipework	2" / 50mm White Waste Pipe

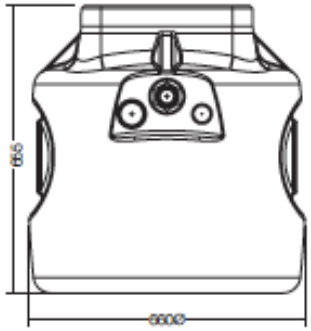
The Dual V3.1 is simple to install, the chamber sits on a concrete base, inlets in the form of perimeter channel or modular 110mm system are connected into the chamber, a 32mm discharge pipe connects to the gravity drain and a 50mm cable duct to bring electrics and control cabling from the chamber into a dry environment. The chamber is filled with water to prevent buoyancy and is surrounded with concrete. A simple rule of thumb is the top of the chamber should be level with the structural slab or no deeper than 500mm from the final finishes.

The installation is to be topped off with a double sealed cover supplied by the contractor to tie in with the general floor finish. Remember this product need to be accessed for service so care should be taken with its location.

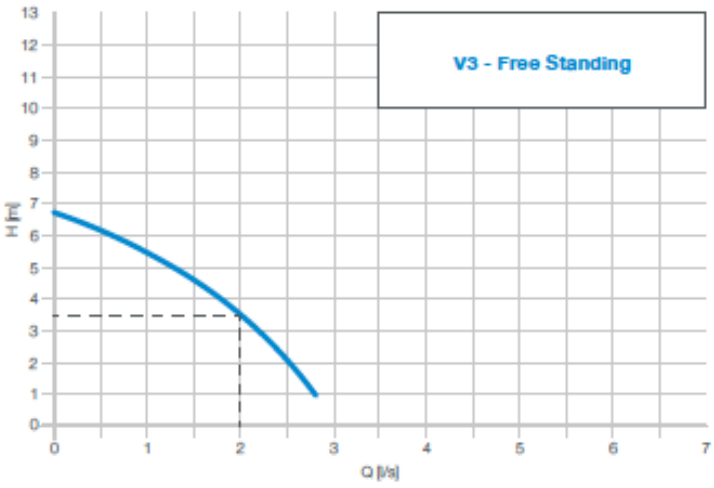
For full installation instructions see 'Delta Dual V3 Installation Instructions' on our website.

DUAL V3.1 - DMS-166





PUMP DATA	
Pump Model	V3
Voltage	230V
KW Rating P1 / P2	0.43 / 0.18kW
Full Load Current	1.9A
Fuse Spur Rating	13A Non-switched
Typical Duty	2.0l/s @ 3.5m
Power Phase	Single
Weight	5.64kg



FOUL V3

A packaged pump station designed to collect foul water from basements and ground floor extensions where other facilities in the property discharge via gravity. A typical application would be the collection and discharge of foul water from a basement fitted with a bathroom and a utility room. This pump station is not designed to collect ground water from a cavity membrane system (see Dual V3 Sump). For kitchen applications, we recommend fitting a grease trap prior to the pump station and do not recommend sinks fitted with macerator type waste disposal units are connected to pump stations.

The Foul V3 pump station has been specifically designed for below ground applications. The chamber is manufactured from virgin tank grade HDPE and is able to withstand hydrostatic forces encountered in applications with high water tables.

The pump station is delivered as a complete package with all internal pipework and a D10SA foul vortex pump. It is designed to be installed by contractors with competent building, plumbing and electrical skills.

RECOMMENDATIONS

- AlertMaxx2 (DMS-299)
- Hi-PowerMaxx-XL (DMS-236)

SPECIFICATION

- NBS specification R18 (clause 310) Pumping Stations & Pressure Pipelines.

PUMP STATION TECHNICAL DATA

DMS Code	DMS-165-1
Chamber Material	High Density Polyethylene
Volume Below Inlets	137L
Total Volume	273L
Fixed Inlets	3 x 110 / 160mm
Cable Duct & Vent Size	50mm
Discharge Connection	2" / 50mm BSP Class C
Discharge Pipework	2" / 50mm BSP Class C
Internal Pipework	2" / 50mm BSP Class C
Cable Duct Pipework	2" / 50mm White Waste Pipe
Vent Pipework	2" / 50mm White Waste Pipe

The Foul V3 is simple to install, the chamber is sited on a concrete base, inlets in the form of 110mm pipework are connected into the chamber, a 50mm discharge pipe connects to the gravity drain and a 50mm cable duct to bring electrics and control cabling from the chamber into a dry environment. The chamber is vented via a 50mm duct to the same standard as a traditional SVP. An air admittance or 'durgo' type valve should not be used. The chamber is filled with water to prevent buoyancy and is surrounded with concrete. A simple rule of thumb is the top of the chamber should be level with the structural slab or no deeper than 500mm from the final finishes.

The whole lot is topped off with a double sealed cover supplied by the contractor to tie in with the general floor finish. Remember this product need to be accessed for service so care should be taken with its location.

For full installation instructions see 'Delta Foul V3 Installation Instructions' on our website.

LOOKING AFTER PROPERTIES WITH OUR VIRTUAL ENGINEER...

INTELLIGENT LOGGING
Data from the property is uploaded and analysed by SideWinder Tech every 15 minutes.

FLEXIBILITY
Can be connected to almost any single or dual pump system, both existing & new.

ENERGY MONITORING
Provides local real time energy monitoring to show kWh usage per day.

WI-FI ENABLED
Simple connection to the properties Wi-Fi network made by an approved SideWinder Tech installer.

PREDICTIVE CAPABILITIES
Tells you before an event has happened! Predictive intelligence at it's best.

INTERNAL BATTERY BACKUP
Alarms remain operational even when there is a power outage or tripped electrical circuit.

100DB SOUNDER
As loud as a chainsaw, the alarm will easily be heard throughout the entire property.

MAXX BATTERY BACKUPS
Compatible with all Delta's range of battery backups. Battery status info uploaded to SideWinder Tech.

DIGITAL DISPLAY
Shows current status and simple to understand fault codes.

THE JOB OF THE VIRTUAL ENGINEER...

- Gives the property owner complete peace of mind.
- Detects over 70% of failures in advance, so an emergency becomes a scheduled visit.
- Detects pump blockages.
- Detects lime-scale build up.
- Creates triggers to investigate unusual events, i.e. longer or more frequent pump cycles.
- Understand more remotely than an engineer based at the property 24/7/365.

5 In the event of severe surface water flooding

Stages of failure required to cause any harm to occupants of proposed habitable space	Proposed Measures in Place to limit any danger to life in the event of 1 in 40 years surface water flooding
1.	Ground absorbing Surface water
2.	In the event of surface water Natural Drainage to Lowest nearby ground level which is the railway track to the south of the property.
3.	Gradient flow Surface drainage to rainwater / wastewater sewer.
4.	In the event of water entering below natural flow, pumps will be installed to pump into the rainwater / wastewater sewer.
5.	In the event of Sewer overload and pump failure, 100db alarms are sounded to advise pump failure.
6.	In the event of rising water at 500mm above rear basement level the water leak alarm sensors will sound
7.	In the unlikely unpredicted event that water rises to 1.5m above rear basement, then the front basement/ habitable space would still be dry and occupants notified by alarms to vacate their rooms.

5.1 The chart above tries to demonstrate that in the event of 7 failures and events the proposed occupants of the proposed habitable rooms at lower ground floor level would perfectly fine.

6.0 Conclusion

6.1 The aim of this report was to methodically demonstrate that habitable rooms at front basement/lower ground floor level would be perfectly safe for occupants and that there is physically no reason why habitable rooms cannot be in this location. The report looks through various expert's findings and conclusions, then explains the measures which will be installed to ensure the risk of surface water flooding is minimised for any future occupants of the habitable rooms at lower ground floor level.

6.2 The HMO would not be self-contained as there would be a shared access to ground level. We see no reason why the proposed rooms at basement level do not comply with the intentions of policy A5 which is to prevent self-contained accommodation at this level. We fail to see why the residential flats application (reference: 2018/4477/P) with accommodation at this level is regarded as acceptable but not a non-self-contained HMO. The layout for approved application reference 2018/0029/P was granted planning permission on the 4th of October 2019. This plan has habitable rooms at basement level as discussed above Campbell Reith Raise no concerns relating to flood risk

6.3 Habitable rooms have been approved at the site under application reference,2013/8185/P where the Officer Report explicitly stated that it was acceptable. The basement was also deemed acceptable under application 2015/2203/P. There are 20+ properties on the same side of Sumatra Road with habitable rooms and the most recent approval was 2018/0029/P.

6.4 We have tried to demonstrate that the surface water risk of flooding as a result of bad weather is a minimal risk and there are more than enough adequate measures which have been proposed which further minimises any risk to any occupiers.