

Engineering Note

14875-TUL-XX-XX-EN-S-90001

Issue no: 01

27 October 2025

64 Folder Lane, Burgess Hill

Re: DM/25/1679 64 Folders Lane, Burgess Hill, West Sussex / Surface Water Pumped Solution

This Technical Note has been developed in response to comments from the WSCC Flood Risk Team regarding the change of the surface water drainage design to accommodate a surface water pumped outfall.

1. Detailed justification required why the application cannot be drained via gravity and a pump is required.

The original planning approved drainage details indicated that the surface water from the new development would discharge into the ditch directly adjacent to the site boundary. However, when surveys were undertaken it was found that the ditch was not deep enough to allow for a gravity connection.

The approved drawings for the discharge of Planning Condition No.3 relating to drainage, indicated that the surface water would discharge into a watercourse via a new ditch just beyond the site boundary, which was thought to have been located within unregistered land. However, it now transpires that the ditch is located within the ownership of the adjacent landowner. A number of discussions have taken place but unfortunately the landowner would not permit Riverdale to cross their land to make a connection to the ditch.

Alternative outfall locations were considered however the new drainage system had already been installed at this point however there were limited options, all of which required pumping or crossing third party land. As the crossing of third party land could not be agreed, the only viable option was to provide a pump station on site to lift the surface water into the onsite ditch at the higher level, and thereby avoid the need to cross third party land.

This option was discussed with the drainage team at MSDC, who did not raise any objection.

The installed drainage system will remain as previously agreed, with a maximum restricted flow rate of 2.0 l/s and attenuation provided to accommodate a 100+CC event. The new pump chamber is located downstream of the flow control device, so there would be no impact on the installed surface water attenuation system, and the pump rate has been set at 2.0 l/s to match the maximum outflow from the hydrobrake.

The onsite outfall ditch has been extended slightly to accommodate the new drainage arrangement however the final outfall location remains as existing.

2. Full impact assessment of failure of a pumped system and emergency procedures to store 24 hours of water is required.

The pump station has been fitted with a duty and standby pump set. It will be managed for the lifetime of the development by a management company who will be responsible for the maintenance of the pump. Telemetry systems will be provided which will have a direct connection to the maintenance company.

Surface water attenuation has been provided on site to accommodate a 1 in 100+45% climate change event, which equates to a stored volume of 350m³. Whilst Building Regulations required 24-hour emergency storage for foul pump stations, we are not aware of any requirement to provide additional 24 hour emergency storage in the event of a failure of a surface water pump station.

Address

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However, in the event of both pumps failing during a storm event and the onsite attenuation system is overwhelmed, the pump chamber and the outfall ditch are located at the lowest part of the site and ground levels have been adjusted so that overland flows would naturally fall into the outfall ditch along the rear boundary, which follows the natural overland flood routes on the site.

The constructed drainage drawing is attached for reference – Appendix A

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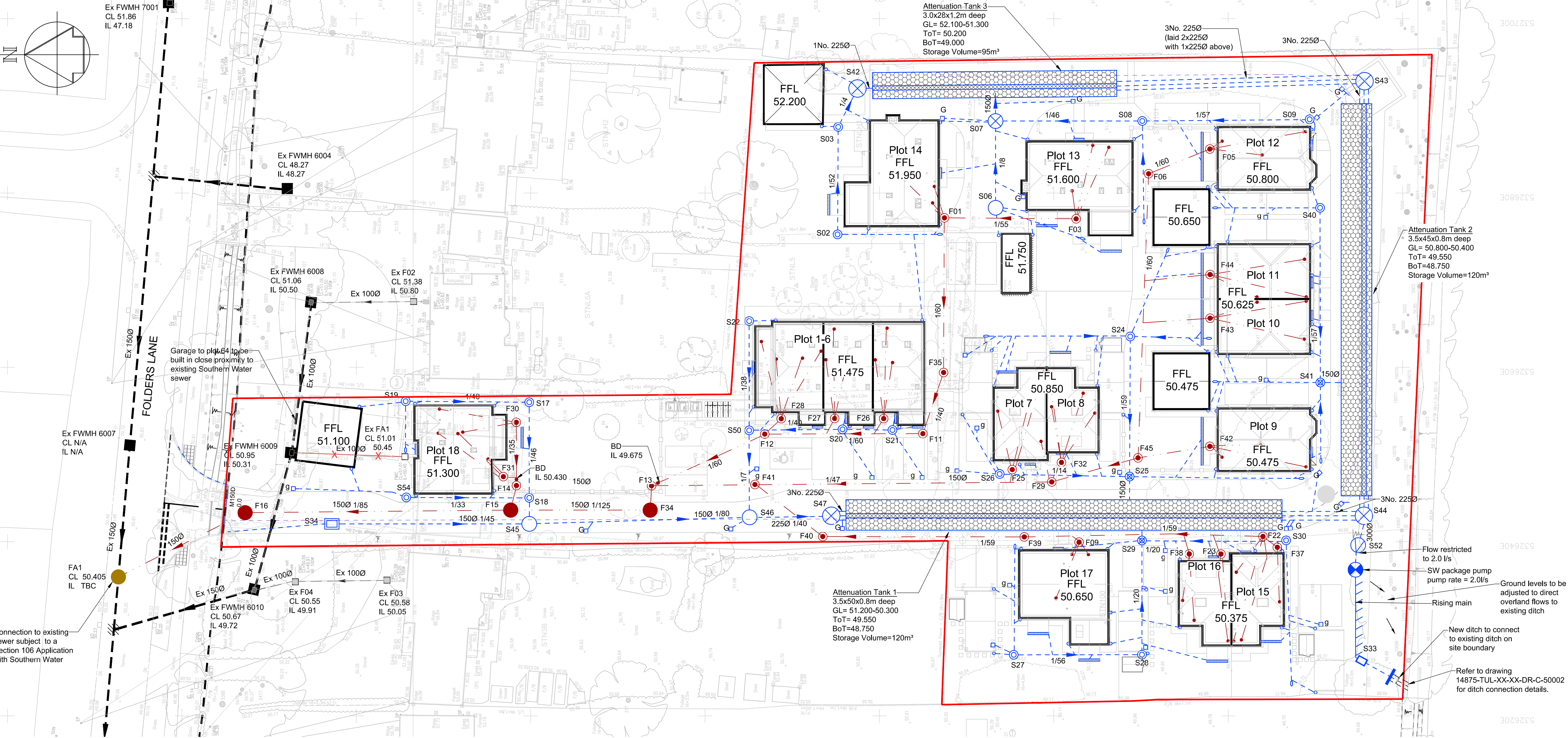
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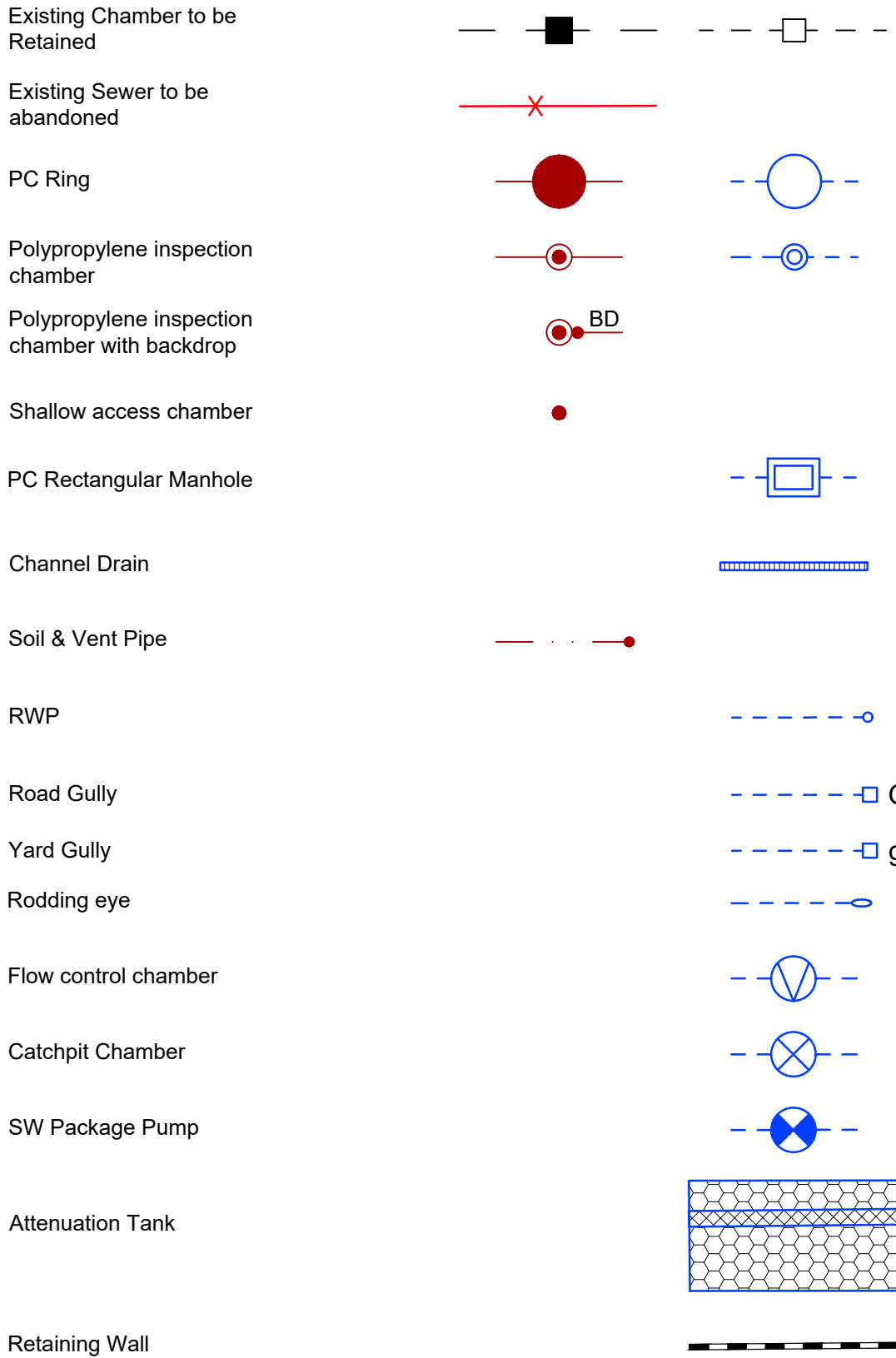
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Appendix A - 14875-TUL-XX-XX-DR-C-50001_M_Engineering Layout

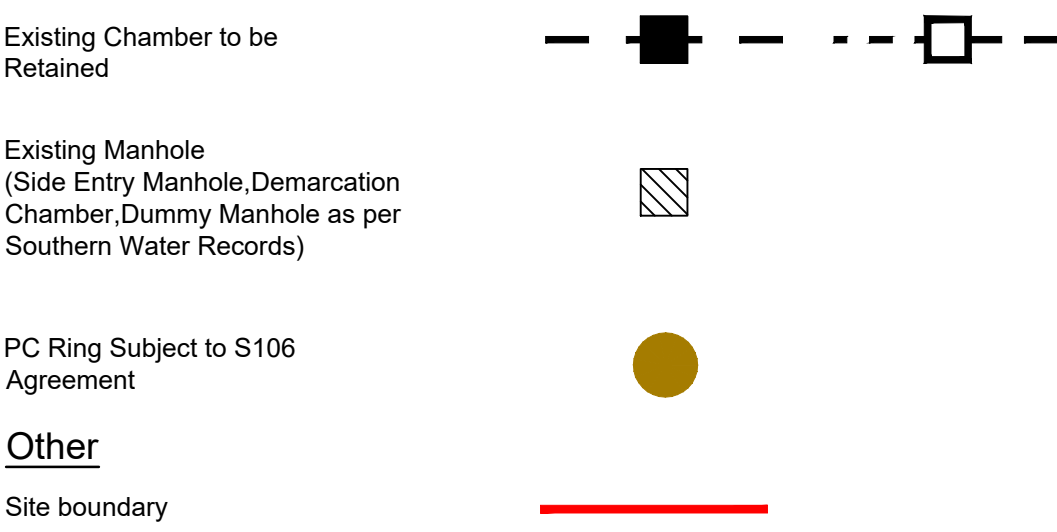


Legend

Private Drainage



Adoptable Drainage



Surface Water Package Pump
by Willow Pumps or equal approved

Twin pumps set at
2.0l/s @ 6.80m head

1250mm diameter x 2500mm deep (internal dimensions) GRP
with 1000mm x 775mm opening

Pump Station Cover Level : 50.250
Pump Station Base Level : 47.600
Rising Main IL at Pump Station : 49.500
Pump Station Lowest Inlet IL : 48.550
IL at Receiving Discharge Manhole : 49.900
Full Horizontal Length of the Rising Main : 10m (Max.)

General Notes

1. For Civil Engineering General Notes see drawing No. 14875-TDA-XX-XX-DR-C-00001

M	11.09.24	Surface water outfall amended. Surface water package pump added.	SDAB	AJP
L	16.05.24	Attenuation tank 3 and associated pipework amended. S42 relocated.	SDAB	AJP
K	29.04.24	Gullies added to carports for Plots 7, 17 & 16. Gully relocated to drive of Plot 16.		AJP
J	25.04.24	RWP's added to car ports plots 7, 8 & 15-17. Plot 7 gully to drive moved. Plot 6 gully to drive added.	SDAB	AJP
H	23.04.24	Foul drainage to Plots 9-12 amended. Surface water drainage to the rear of Plots 10 & 11 adjusted. Connection to ditch note adjusted. SVPPs added to Plots 1-6.		AJP
G	22.04.24	Foul drainage to Plots 15-17 amended. SAC to Plots 9-11 changed to PPIC.		AJP
F	03.04.24	Construction issue.	DA	AJP
E	20.03.24	Levels amended. Kerbs type and retaining walls amended. Foul drainage to plots 15-17 adjusted to suit services layout.	BL	AJP
D	24.10.23	Site Layout updated. FFLs updated to suit latest levels proposals. F35 added. F10 removed. SVPPs to plots 1-8 updated. Gully upstream of S34 changed to channel drain. Retaining structures added. Location of FA1 updated. Channel drains and gullies to patios and driveways updated.	AGSC	CH
C	22.06.23	Site Layout updated. Attenuation in sub-base removed and replaced with attenuation tanks. Foul and surface water runs amended to suit.	AGSC	CH
B	28.04.23	General arrangement plan updated Rainwater pipes, SVPPs and channel drains locations added and connected to system.	CH	MFD

A	15.03.23	First issue.	AGSC	CH
Rev	Date	Description	By	Ckd

CONSTRUCTION

CLIENT

Riverdale
Developments Ltd

Tullys

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PROJECT
BURGESS HILL
64 FOLDERS LANE

DRAWING TITLE

Engineering Layout

Originator No.	Scale	Revision
14875	1:250@A1	M

PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - NUMBER

14875-TUL-XX-XX-DR-C-50001