

Engineering Note

14875-TUL-XX-XX-RP-S-90001

Issue no: 01

12 February 2026

64 Folders Lane - Burgess Hill

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

Introduction

This Technical Note has been developed in response to updated comments from the WSCC Flood Risk Team dated 2 November 2025, regarding the change of the surface water drainage design to accommodate a surface water pumped outfall. The following additional information has been requested:

1. A full impact assessment of a pumped system failure.
2. Details of emergency procedures to accommodate 24 hours of water storage in such an event.
3. A clear proposal for connecting to the ditch through appropriate ground contouring and reinstating a functional ditch profile.

In response to each of these items:

Point 1

The surface water pumpstation has a duty and standby pump set so that in the event of one of the pumps failing the second pump will come into operation. Each pump has been sized to deal with the design pump rate of 2.0 l/s. As an additional measure, to protect the pump set from a sudden influx of surface water, a hydrobrake chamber is provided upstream of the pumpstation to limit the flow to 2.0 l/s, to match the final pump rate.

In the event of pump failure, there is a beacon and sounder warning system. In addition, a telemetry notification is automatically sent to the pumpstation service company and to the management company who looks after the site.

In the event of both pumps failing, the pump chamber and outfall ditch are located at the low end of the site, and the ground levels are such that any overground flooding would initially travel down the access road to the southern end of the site before naturally flowing to the new outfall ditch in the south western corner. Beyond the new ditch, ground levels naturally continue to fall to the southwest, away from the development and along the alignment of the existing ditch. As a result, there is a fail-safe system in place in the event of a total pump failure.

Plots 15 & 16 are closest to the pumpstation and have the lowest ground floor level on the site which is set at 50.375m AOD. The ground levels adjacent to the surface water outfall in the southwestern corner of the site are typically at 49.9m AOD, with the new ditch levels approximately 500mm lower. Consequently, the ground floor of the adjacent unit is some 475mm above the top of ditch level which will provide protection from overland flows.

A mark-up of the Engineering Layout drawing is attached which indicates the overland flow routes in the event of a total failure of the pumpstation. Details of the installed pumpstation are also attached.

Point 2

Surface water attenuation has been provided within 3 below ground attenuation tanks which provides storage to accommodate a 1 in 100+45% CC event. Whilst 24 hours emergency foul storage is required to comply with Building Regulations we are not aware of any specific requirement to accommodate 24 hours of emergency surface water storage.

The amount of storage that would be available within the installed attenuation system during a failure of both pumps would depend on what stage of the rainfall event the failure occurs. If both pumps failed at the start of a rainfall event there would

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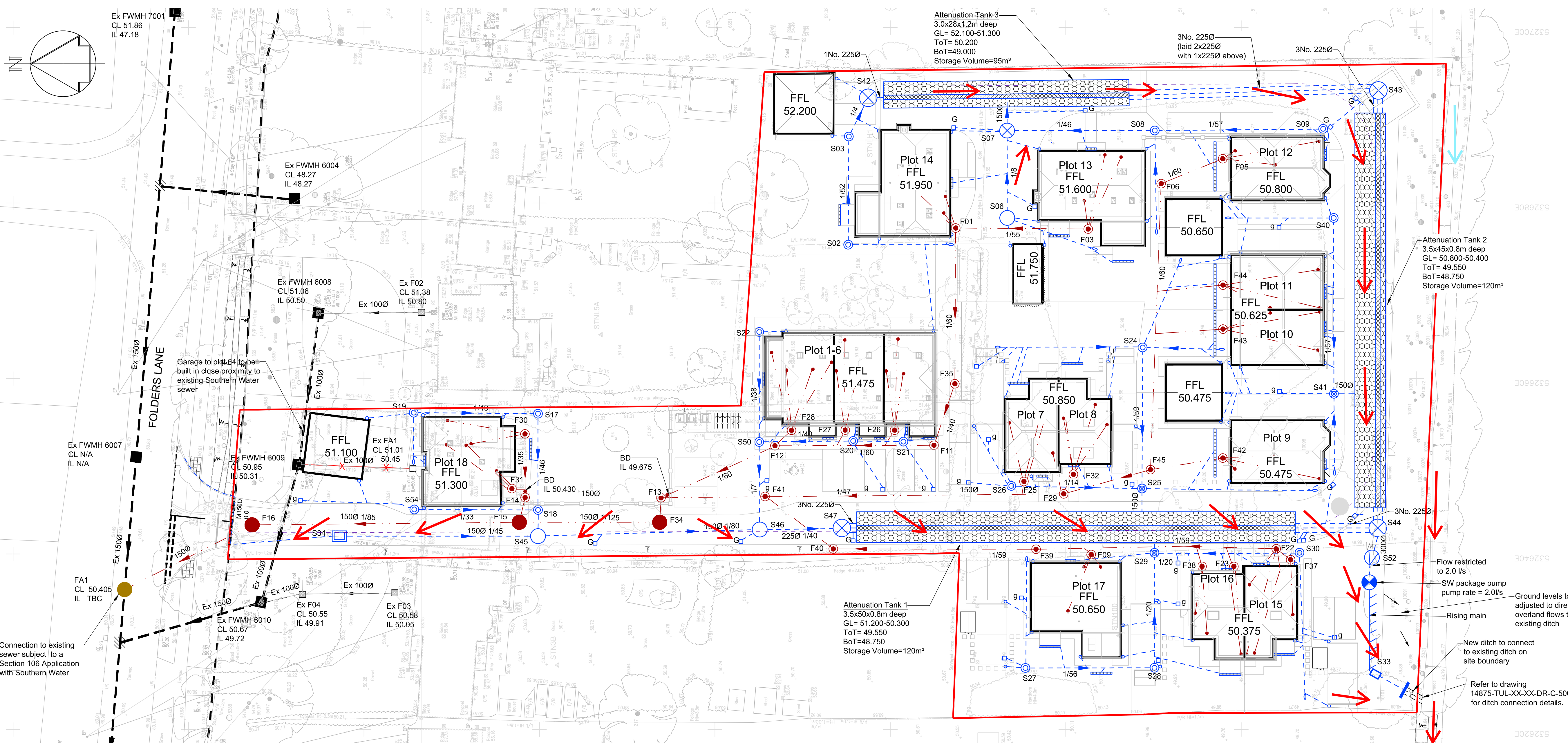
info@tullys.uk

be in the order of 335m³ of storage available. Depending on what intensity of storm is used this volume is capable of holding a significant number of rainfall events, such as a 100 year, 360 minute storm, with a zero discharge. Alternatively in the worst-case situation, it would be full for the 7 year event.

However, if the tanks were full, the pump chamber and outfall ditch are located at the low end of the site so that any overground flooding would naturally flowing to where the new outfall ditch is located. As a result, there is a fail-safe system in place.

Point 3

The details of the new ditch and the connection to the existing ditch is provided in the attached drawing 14875-TULXX-XX-DR-C-50002.



Legend

Private Drainage

Existing Chamber to be Retained

Existing Sewer to be abandoned

PC Ring

Polypropylene inspection chamber

Polypropylene inspection chamber with backdrop

Shallow access chamber

PC Rectangular Manhole

Channel Drain

Soil & Vent Pipe

RWP

Road Gully

Yard Gully

Rodding eye

Flow control chamber

Catchpit Chamber

SW Package Pump

Attenuation Tank

Retaining Wall

Foul

Existing Chamber to be Retained

Existing Sewer to be abandoned

PC Ring

Polypropylene inspection chamber

Polypropylene inspection chamber with backdrop

Shallow access chamber

PC Rectangular Manhole

Channel Drain

Soil & Vent Pipe

RWP

Road Gully

Yard Gully

Rodding eye

Flow control chamber

Catchpit Chamber

SW Package Pump

Attenuation Tank

Retaining Wall

S.W.

Existing Chamber to be Retained

Existing Sewer to be abandoned

PC Ring

Polypropylene inspection chamber

Polypropylene inspection chamber with backdrop

Shallow access chamber

PC Rectangular Manhole

Channel Drain

Soil & Vent Pipe

RWP

Road Gully

Yard Gully

Rodding eye

Flow control chamber

Catchpit Chamber

SW Package Pump

Attenuation Tank

Retaining Wall

Adoptable Drainage

Existing Chamber to be Retained

Existing Manhole (Side Entry Manhole, Demarcation Chamber, Dummy Manhole as per Southern Water Records)

PC Ring Subject to S106 Agreement

Other

Site boundary

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.)

Foul

Existing Chamber to be Retained

Existing Sewer to be abandoned

PC Ring

Polypropylene inspection chamber

Polypropylene inspection chamber with backdrop

Shallow access chamber

PC Rectangular Manhole

Channel Drain

Soil & Vent Pipe

RWP

Road Gully

Yard Gully

Rodding eye

Flow control chamber

Catchpit Chamber

SW Package Pump

Attenuation Tank

Retaining Wall

S.W.

Existing Chamber to be Retained

Existing Sewer to be abandoned

PC Ring

Polypropylene inspection chamber

Polypropylene inspection chamber with backdrop

Shallow access chamber

PC Rectangular Manhole

Channel Drain

Soil & Vent Pipe

RWP

Road Gully

Yard Gully

Rodding eye

Flow control chamber

Catchpit Chamber

SW Package Pump

Attenuation Tank

Retaining Wall

Indicates overland flood route in the event of a total failure of the pumpstation.

Overland Flow Routes
Tullys - 12.02.26

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	RWPs 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. SVPS 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. SVPS 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, SVPS 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

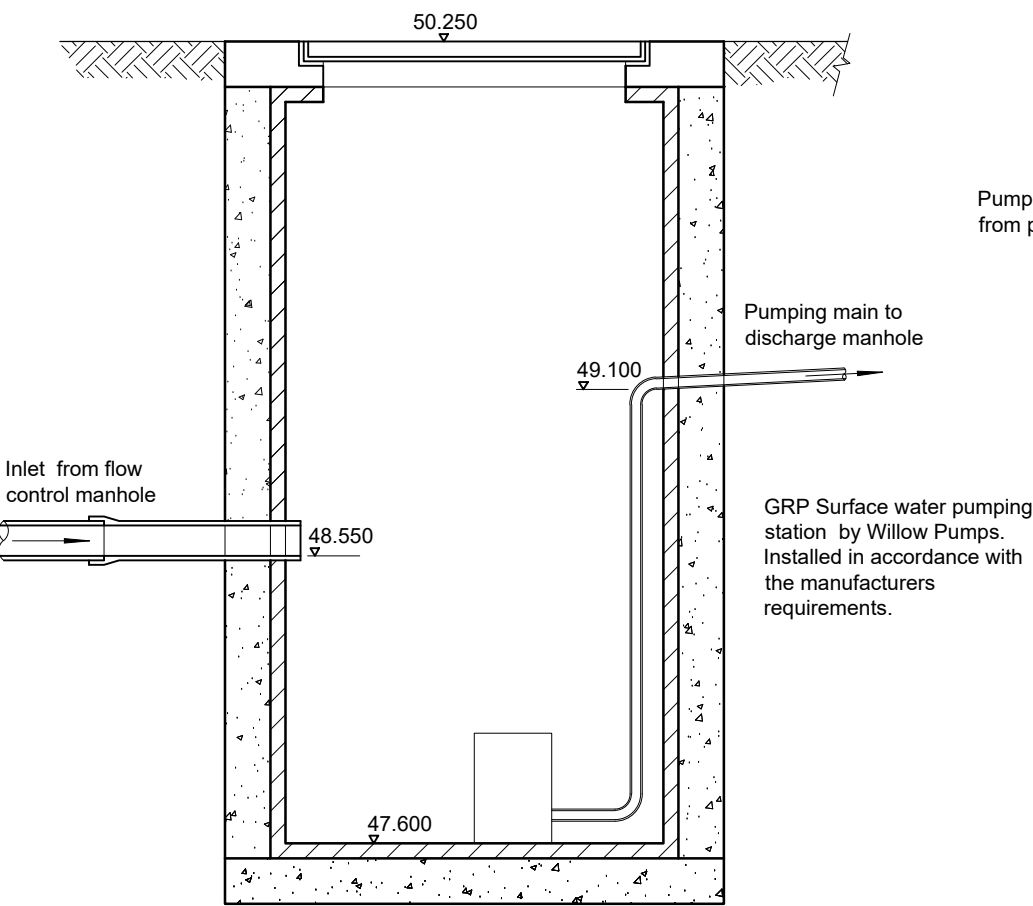
Tullys

www.tullys.uk info@tullys.uk 01342 828000
PROJECT
BURGESS HILL
64 FOLDERS LANE

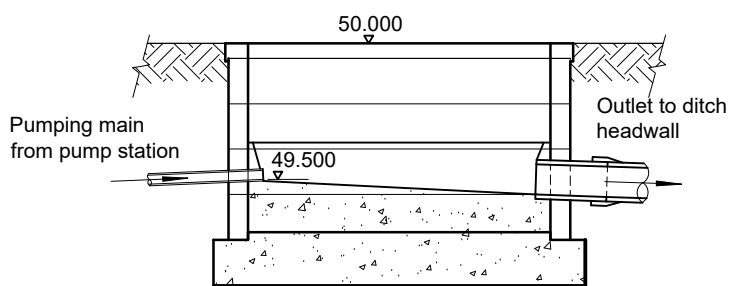
DRAWING TITLE

Engineering Layout

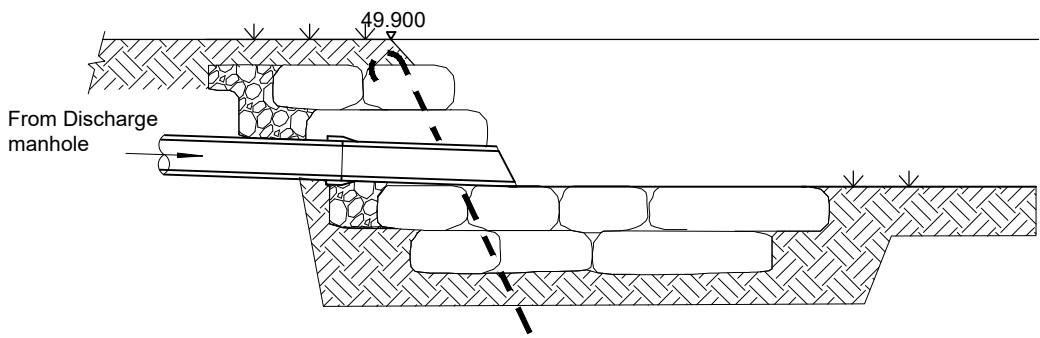
Originator No.	Scale	Revision
14875	1:250@A1	M
PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - NUMBER		
14875-TUL-XX-XX-DR-C-50001		



Surface Water Pump Station

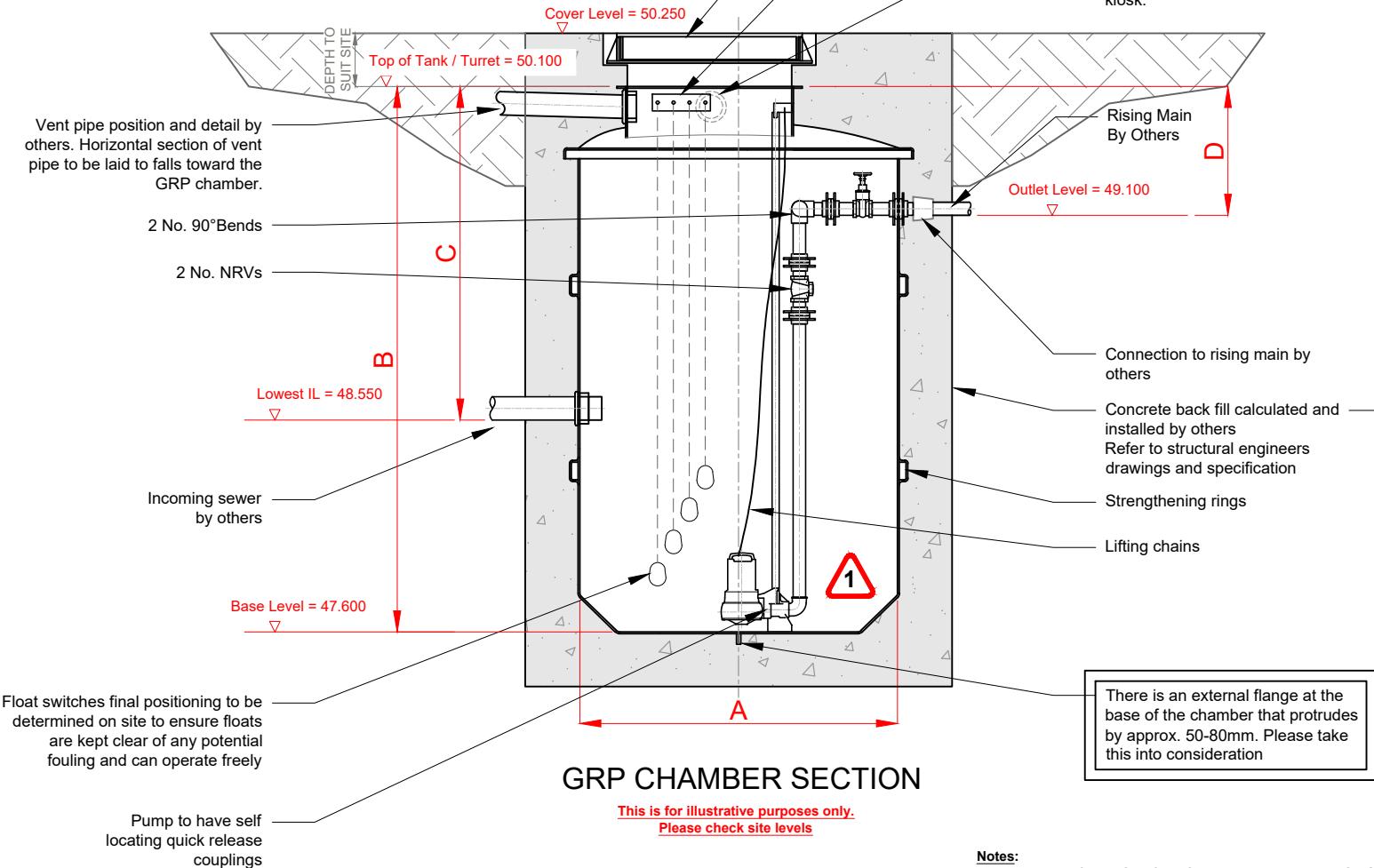
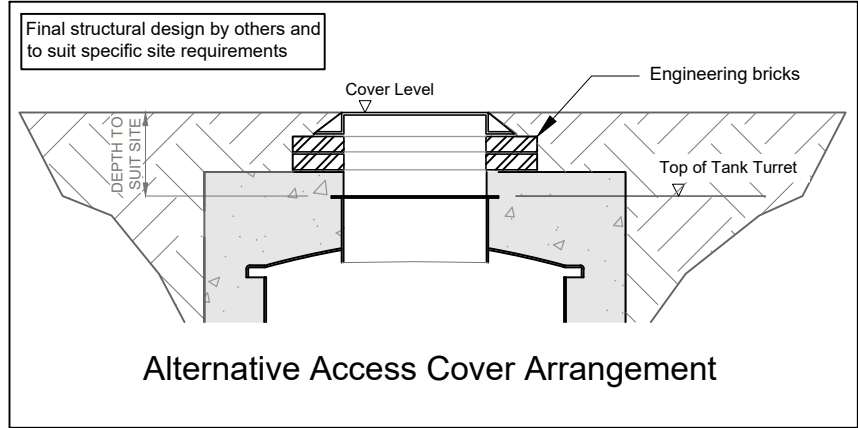


Surface Water Discharge Manhole



Surface Water Ditch Headwall

Rev	Date	Description	By	Ckd
PRELIMINARY				SUITABILITY CODE
CLIENT				
Riverdale Developments Ltd				
Tullys				
www.tullys.uk info@tullys.uk 01342 828000				
PROJECT				
BURGESS HILL 64 FOLDERS LANE				
DRAWING TITLE				
Surface Water Pump Station & Outfall Section				
Originator No.	Scale	Revision		
14875	1:25 @ A3			
PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - NUMBER				
14875-TUL-XX-XX-DR-C-66003				



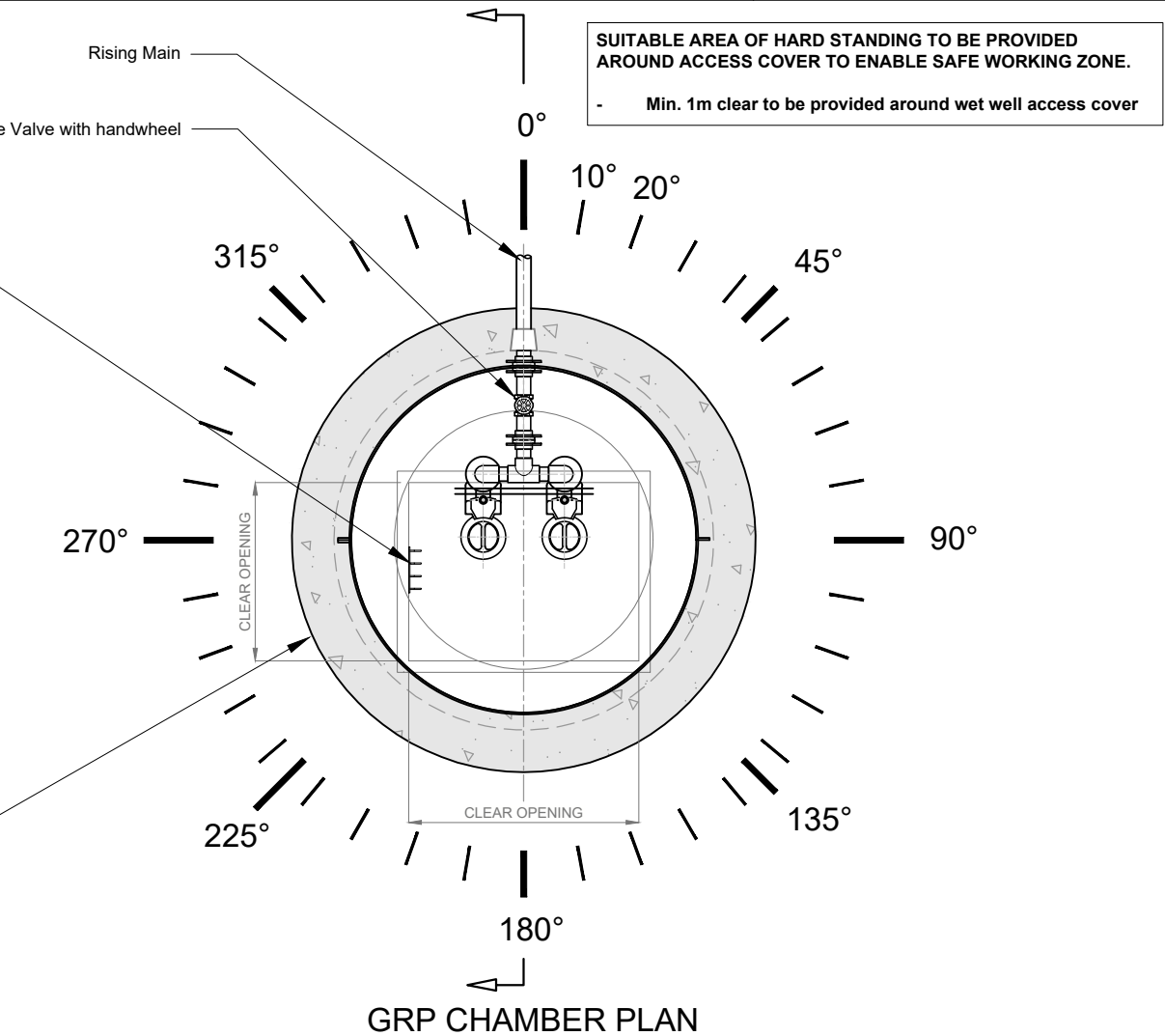
Notes:
Dimension B is from TOP of the CHAMBER to the base NOT GROUND / COVER LEVEL
Dimension C is from TOP of the CHAMBER down to inlet level NOT GROUND / COVER LEVEL
The thickness of the basement slab must be considered when defining dimensions B & C.
It is responsibility of the Contractor to check and sign data sheet prior to manufacture.

IMPORTANT: Manufacture of the chamber will not commence until all details have been completed/confirmed and returned to our offices.

Use the plan to locate inlet positions in relation to the fixed outlet position.
Specify inlet positions using degrees.
Note: Typically Vent and Cable ducts will be located in rectangular turret of tank and so will be positioned at 0, 90 180 or 270 degrees.

PUMP STATION INFORMATION	
Pump station reference	WQ36883 Rev B
Internal chamber Diameter (Dim A)	Ø 1250 mm
Internal chamber Depth (Dim B)	2500 mm
Number of Pump(s)	TWO (2)
Pump pedestal size	DN50
Internal pump chamber pipework	40mm UPVC
Rising Main (By others)	40mmOD PE80 SDR11 (Nominal Bore 40.4mm)
Access Cover	By Others
Clear Access Opening	1000mm x 775mm
Mains Power Supply	400v (Three Phase)

	SIZE (Ømm)	DEPTH TO IL (mm)	POSITION (Degrees)
OUTLET	40mm PE Adaptor	1150	0°
INLET 1 (Dimension C)	160mm OD OSMA	1550	180°
INLET 2 (Dimension C)	.	.	°
INLET 3 (Dimension C)	.	.	°
INLET 4 (Dimension C)	.	.	°
INLET 5 (Dimension C)	.	.	°
Cable Duct	110mm OD OSMA	250	TBC°
Vent Duct	110mm OD OSMA	250	TBC°



3D Chamber Cut Away

PLEASE SIGN FOR APPROVAL

SIGNATURE:
NAME:
DATE:

RISK SCHEDULE - CDM

WARNING TRIANGLES DENOTE FORESEEABLE SIGNIFICANT RISKS ASSOCIATED WITH THIS DRAWING

1 DEEP EXCAVATIONS TYPICALLY REQUIRED

NOTES:

- Do not scale from this drawing.
- All Dimensions shown in millimeters and all inverts in meters AOD unless stated otherwise.

SALES DRAWING

WILLOW PUMPS
PUMP INSTALLATION & SERVICING

Willow Pumps Ltd
Hall Park Farm,
Hall Road,
Aylesford,
Kent
ME20 7QZ

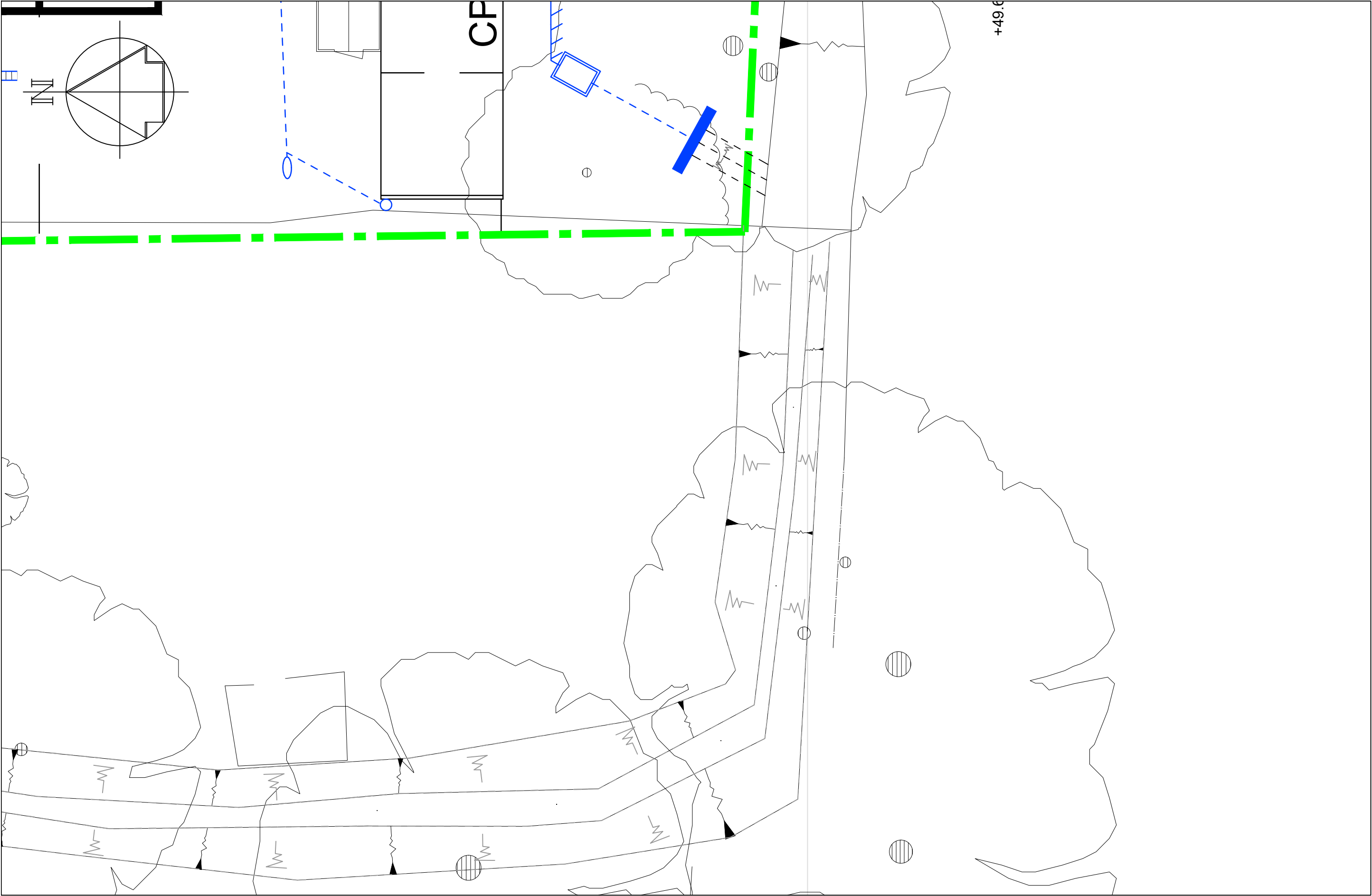
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Title: GRP APPROVAL DRAWING

Site Ref: 64 Folders Lane

Reference No: WQ36883 Rev B

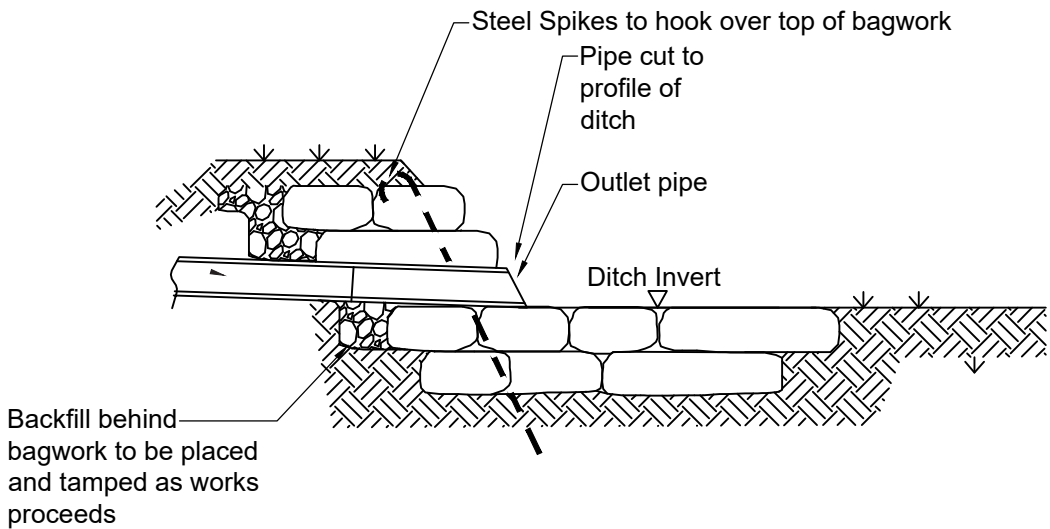
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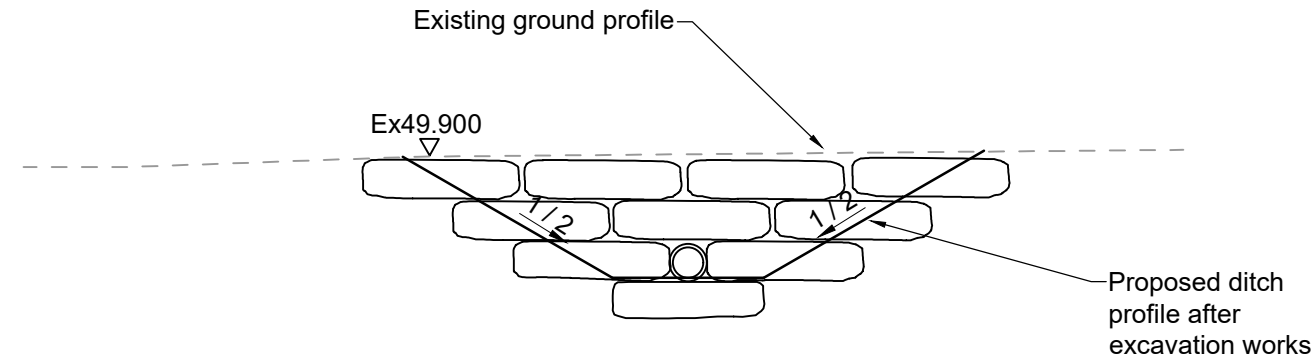
Surface Water Discharge to Ditch
Scale 1:100



Location Plan
Scale 1:500



Section Through Headwall
Scale 1:25



Section Though Ditch
Scale 1:25

- Bagwork Notes:
- Bags shall be Hessian or Canvas and shall be of a size to provide a wall thickness of 500mm.
 - Concrete bagwork shall be to Clause 519 and be three quarter filled with 25mm slump ST4 concrete
 - The bags shall be placed in a modified Flemish bond so as to 'break joint' with the mouths away from the surface and be tamped into position to form a rectuagylar block

General Notes

Legend

Private Drainage

PC Rectangular Manhole

PC Rectangular Manhole

Other

Site boundary

Headwall

S.W.

PC Rectangular Manhole

PC Rectangular Manhole

Other

Site boundary

Headwall

D	11.09.24	SW outfall to ditch amended.	SB	AJP
C	22.08.24	Ditch profile adjusted to suit site constraints.	AJP	
B	03.04.24	Construction issue	DA	AJP
A	05.02.24	First Issue	AGSC	CH

Rev	Date	Description	By	Ckd
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CONSTRUCTION

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PROJECT
BURGESS HILL
64 FOLDERS LANE

DRAWING TITLE

Works to Ditch for
Surface Water Outfall

Originator No.	Scale	Revision
14875	As Noted @A1	D

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

14875-TUL-XX-XX-DR-C-50002