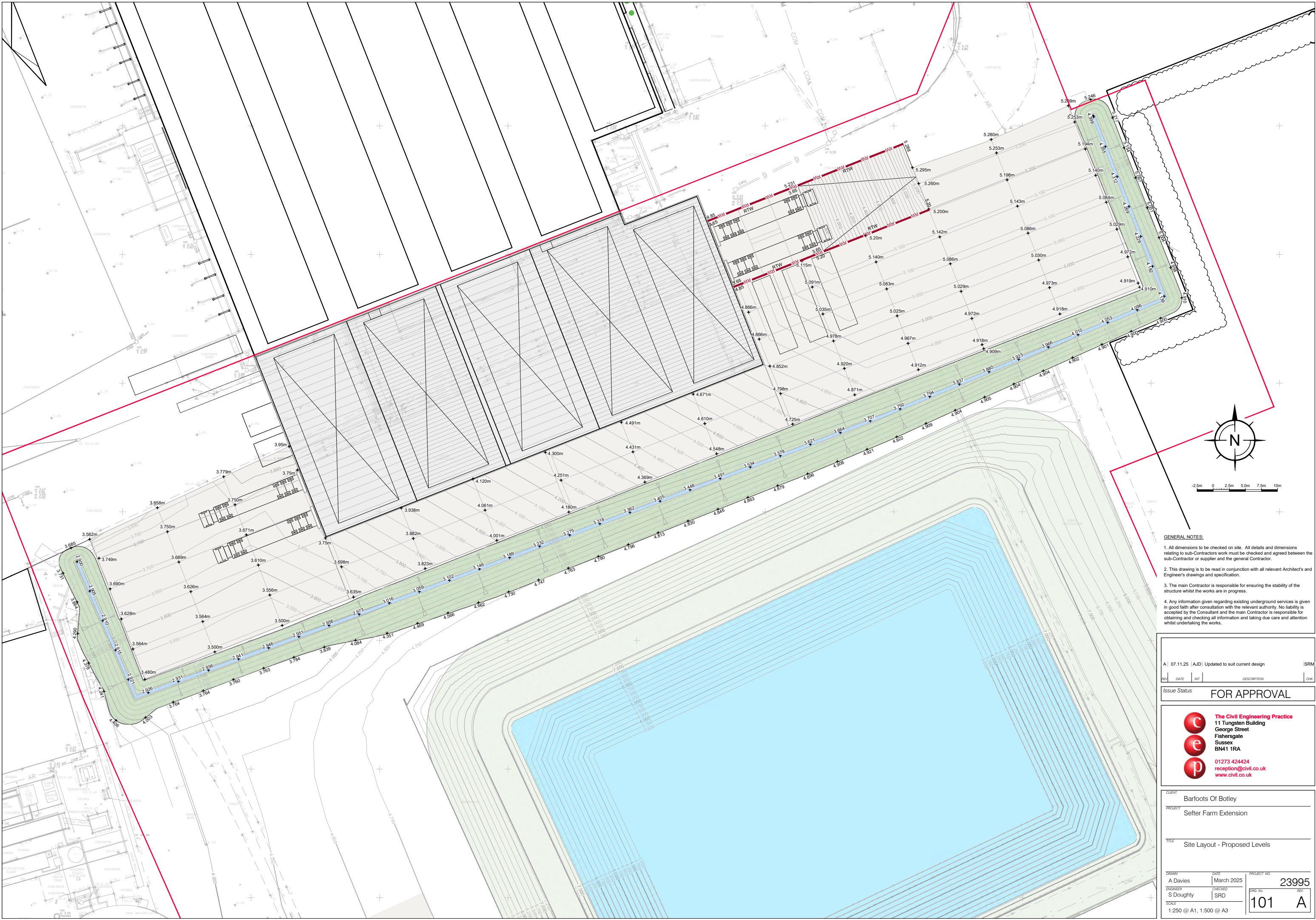


Appendix 7

**Detailed Design Drawings
and Construction Details**



- GENERAL NOTES:**
1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
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A | 07.11.25 | A/D | Updated to suit current design | SRM

REV	DATE	INT	DESCRIPTION	CHK
-----	------	-----	-------------	-----

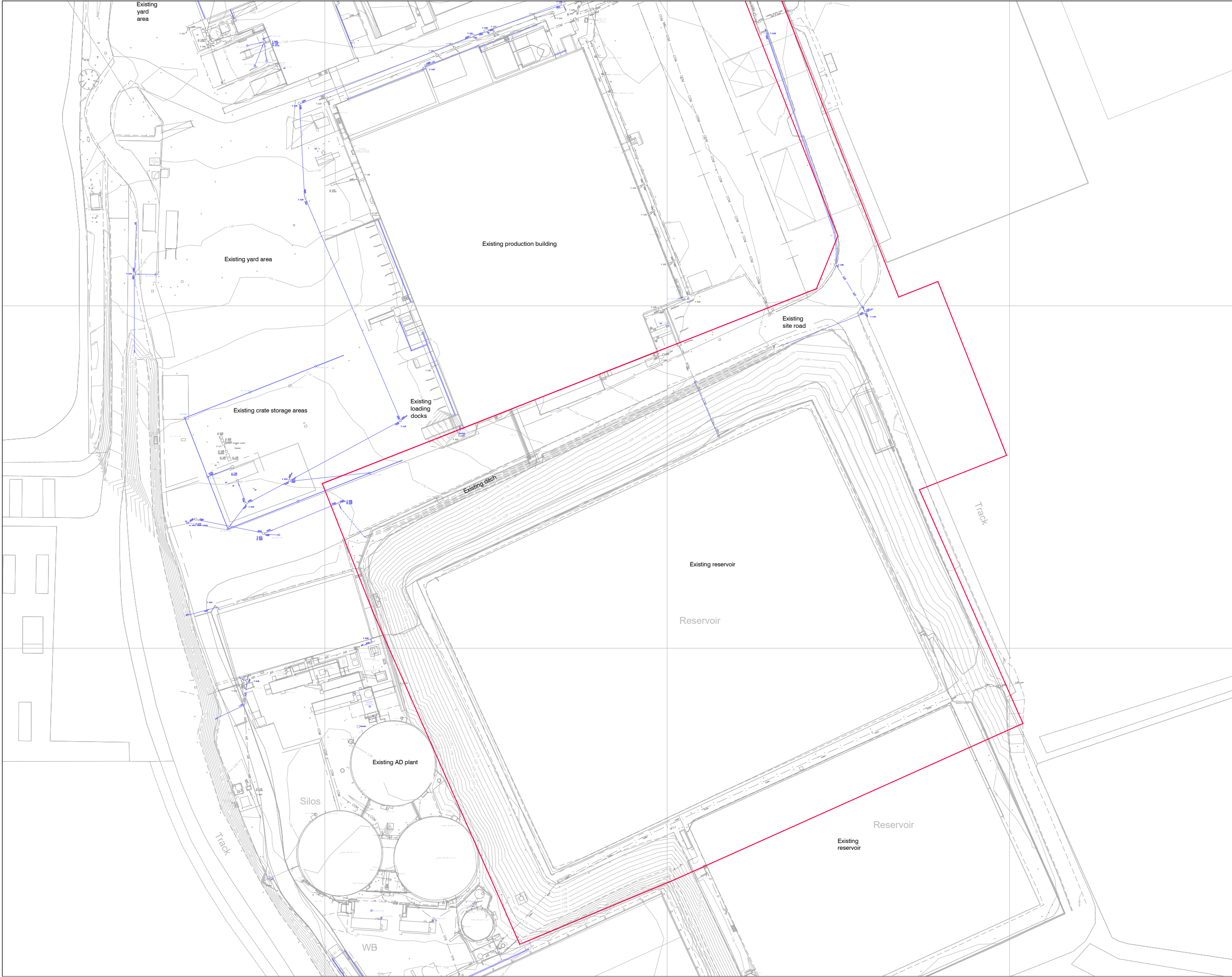
Issue Status **FOR APPROVAL**



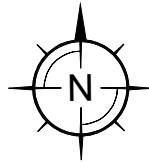
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CLIENT Barfoots Of Botley
PROJECT Setter Farm Extension
TITLE Site Layout - Proposed Levels

DRAWN A Davies	DATE March 2025	PROJECT NO. 23995
ENGINEER S Doughty	CHECKED SRD	DWG NO. 101
SCALE 1:250 @ A1, 1:500 @ A3		REV A



- GENERAL NOTES:
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-5m 0 5 10 15 20m

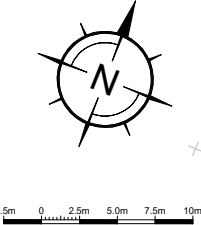
A 07.11.25 A/JD Red line boundary updated SRM				
REV	DATE	INT	DESCRIPTION	CHK

Issue Status FOR APPROVAL

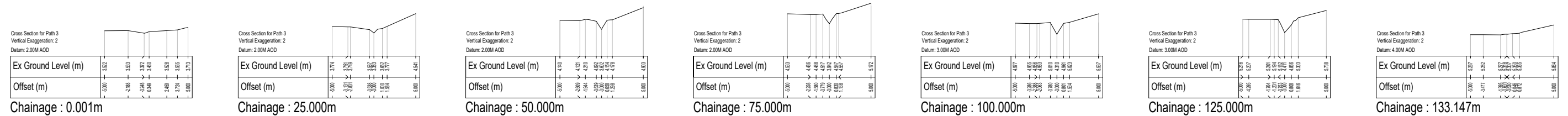
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CLIENT Barfoots Of Botley	
PROJECT Seffer Farm Extension	
TITLE Existing Site Layout	
DRAWN A Davies	DATE March 2025
ENGINEER S Doughty	CHECKED SRD
SCALE 1:500 @ A1, 1:1000 @ A3	PROJECT NO. 23995
	DWG NO. 102
	REV A

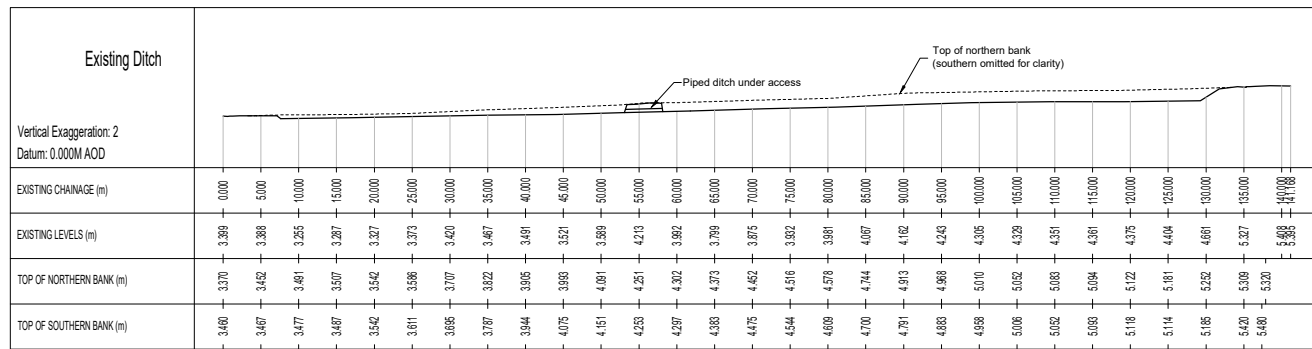
1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
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PLAN
(Scale 1:250)



CROSS SECTIONS



LONGITUDINAL SECTION
(Scale 1:500 H, 1:250 V)

Issue Status FOR APPROVAL

Issue Status **FOR APPROVAL**



CLIENT Barfoots Of Botley

PROJECT Sefter Farm Extension

TITLE	Existing Ditch Details
-------	------------------------

DRAWN _____ DATE _____

A Davies | March 2025

ENGINEER
S. Doughty

SCALE

As Shown @ A1

PROJECT NO. _____

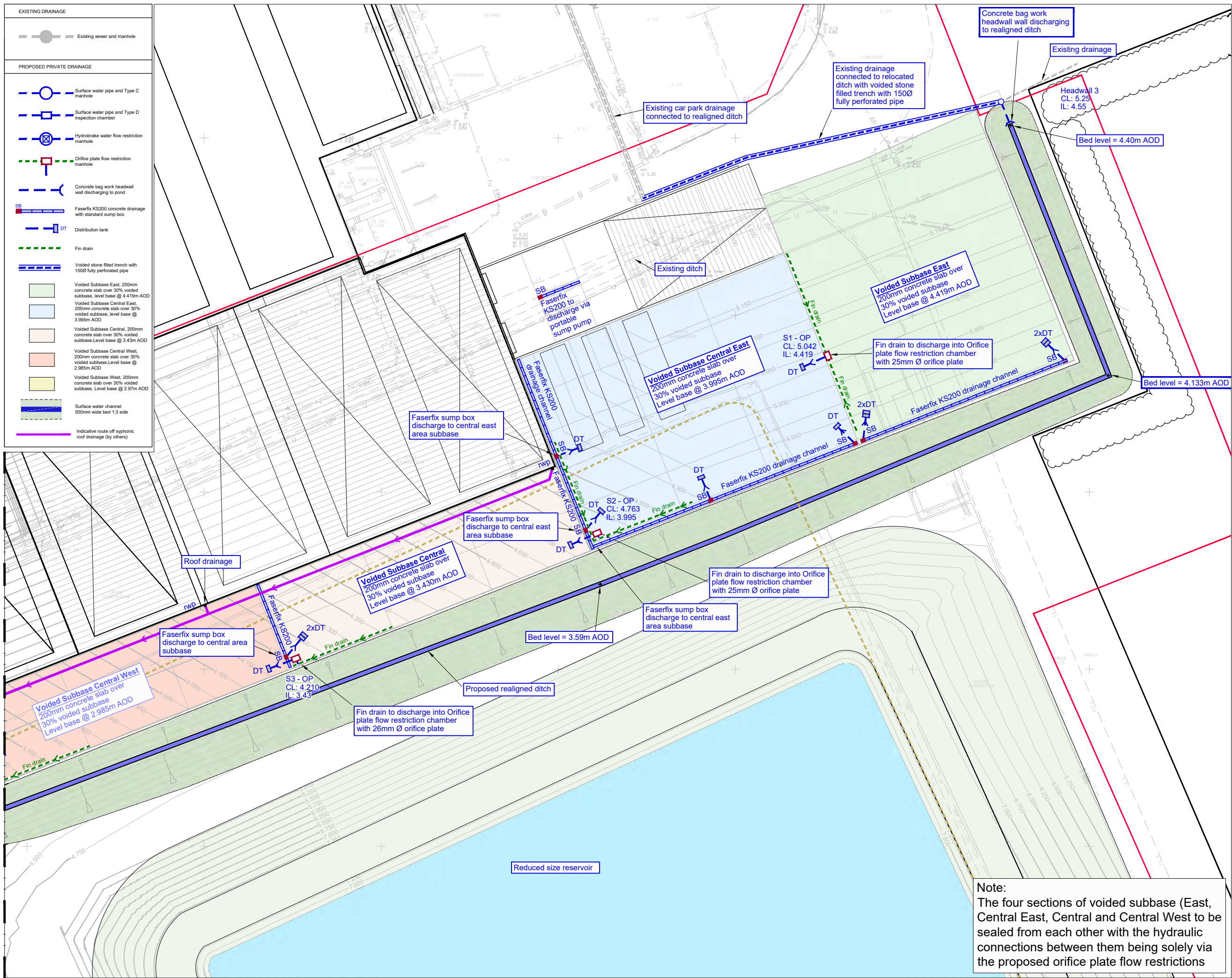
23995

DRG. No.	REV.
----------	------

103 -

100

FOR CONTINUATION SEE DRAWING NUMBER 23995/202 FOR CONTINUATION

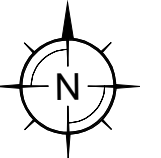


GENERAL NOTES:

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- The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

DRAINAGE NOTES:

- All adoptable pipes, bends and junctions shall be vitrified clay in accordance with the current version of BS EN 295-1, with flexible joints and kitemark certified.
- All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.9m elsewhere the pipe shall be laid with a class Z bedding.
- All private building drainage shall be constructed in strict accordance with the current version of BS EN 752:2017. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.
- Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.
- Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.
- In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreglass or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.
- All syps shall have rodding access plates fitted at their bases (ground floor level).
- Impermeable membranes to be sealed around any incoming pipes
- Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.
- Any discrepancy between the drawing and site should be reported immediately to the Engineer.
- All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance



0 2m 4m 6m 8m

A | 07.11.25 | AID | Updated to suit current drainage design | SRM

REV DATE INT DESCRIPTION CHK

Issue Status **FOR APPROVAL**

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CLIENT Barfoots Of Botley

PROJECT Setter Farm Extension

TITLE Site Layout - Proposed Drainage - Sheet 1

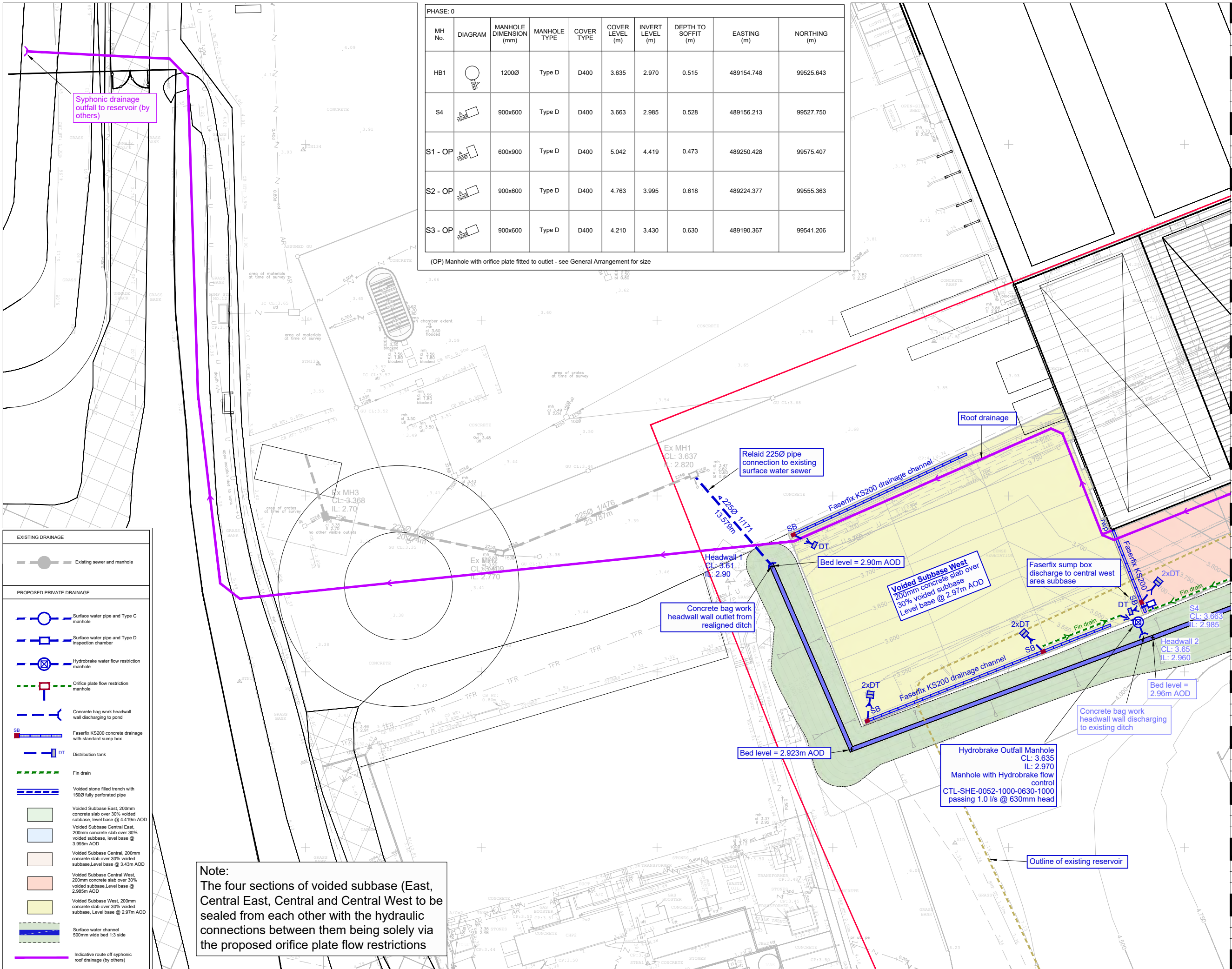
DRAWN A Davies DATE March 2025 PROJECT NO. 23995

ENGINEER S Doughty CHECKED SRD

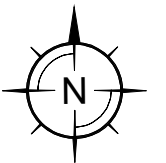
SCALE 1:200 @ A1, 1:400 @ A3

201 A

Note:
The four sections of voided subbase (East, Central East, Central and Central West) to be sealed from each other with the hydraulic connections between them being solely via the proposed orifice plate flow restrictions



- GENERAL NOTES:
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 - All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance



0 2m 4m 6m 8m

A | 07.11.25 | AID | Updated to suit current drainage design | SRM

Issue Status

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CLIENT Barfoot's Of Botley

PROJECT Setter Farm Extension

TITLE Site Layout - Proposed Drainage - Sheet 2x

DRAWN A Davies DATE March 2025 PROJECT NO. 23995

ENGINEER S Doughty CHECKED SRD

SCALE 1:200 @ A1, 1:400 @ A3

202 A



GENERAL NOTES:

1. All dimensions to be checked on site. All details and dimensions relating to Sub-Contractors work must be checked and agreed between the Sub-Contractor or supplier and the General Contractor.
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A	07.11.25	AJD	Updated to suit current design		SRM	
REV	DATE	INT	DESCRIPTION		CHK	

Issue Status

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CLIENT

Barfoot's Of Botley

PROJECT

Sefton Farm Extension

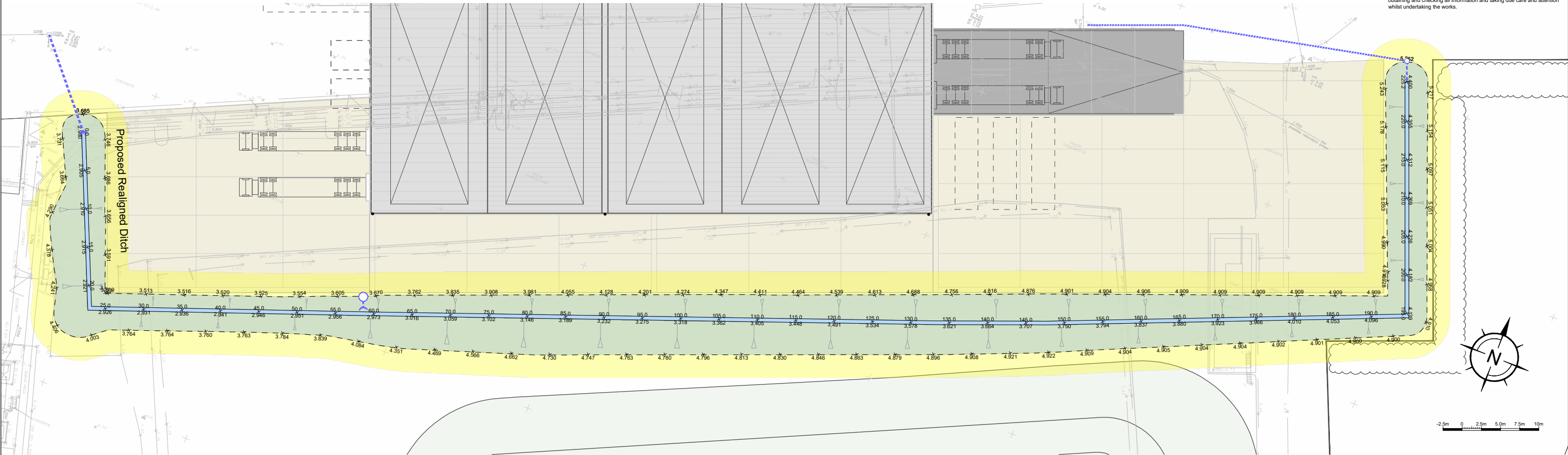
TITLE

Reduced Size Reservoir - Plan And Sections

<i>DRAWN</i>	<i>DATE</i>
A Davies	March 2025
<i>ENGINEER</i>	<i>CHECKED</i>
S Doughty	SRD

<i>PROJECT NO.</i>	
23995	
<i>DWG No.</i>	<i>REV.</i>
251	A

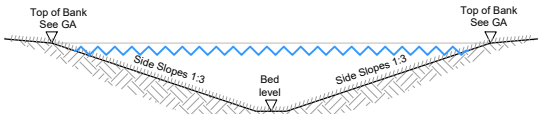
- GENERAL NOTES:
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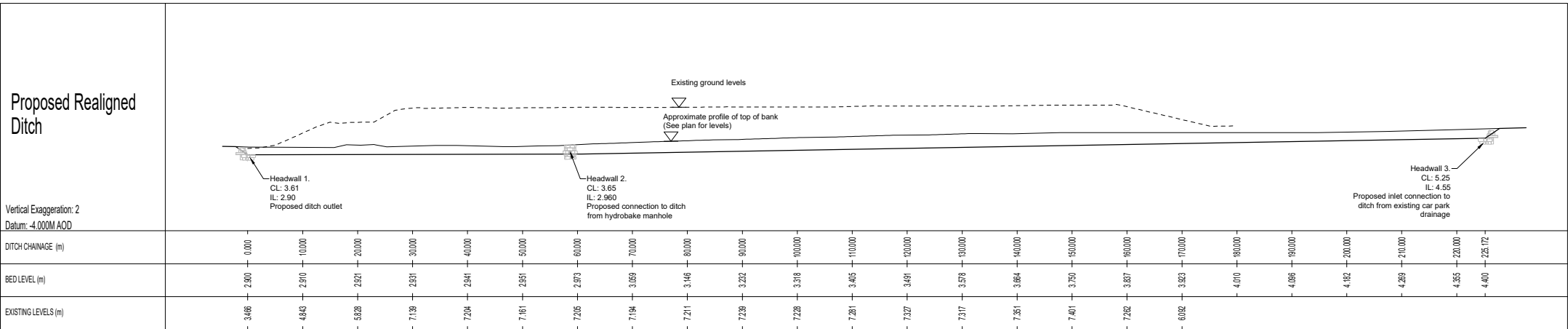
KEY:

3m wide easement

PLAN
(Scale 1:250)



DITCH DETAIL
(Scale 1:50)

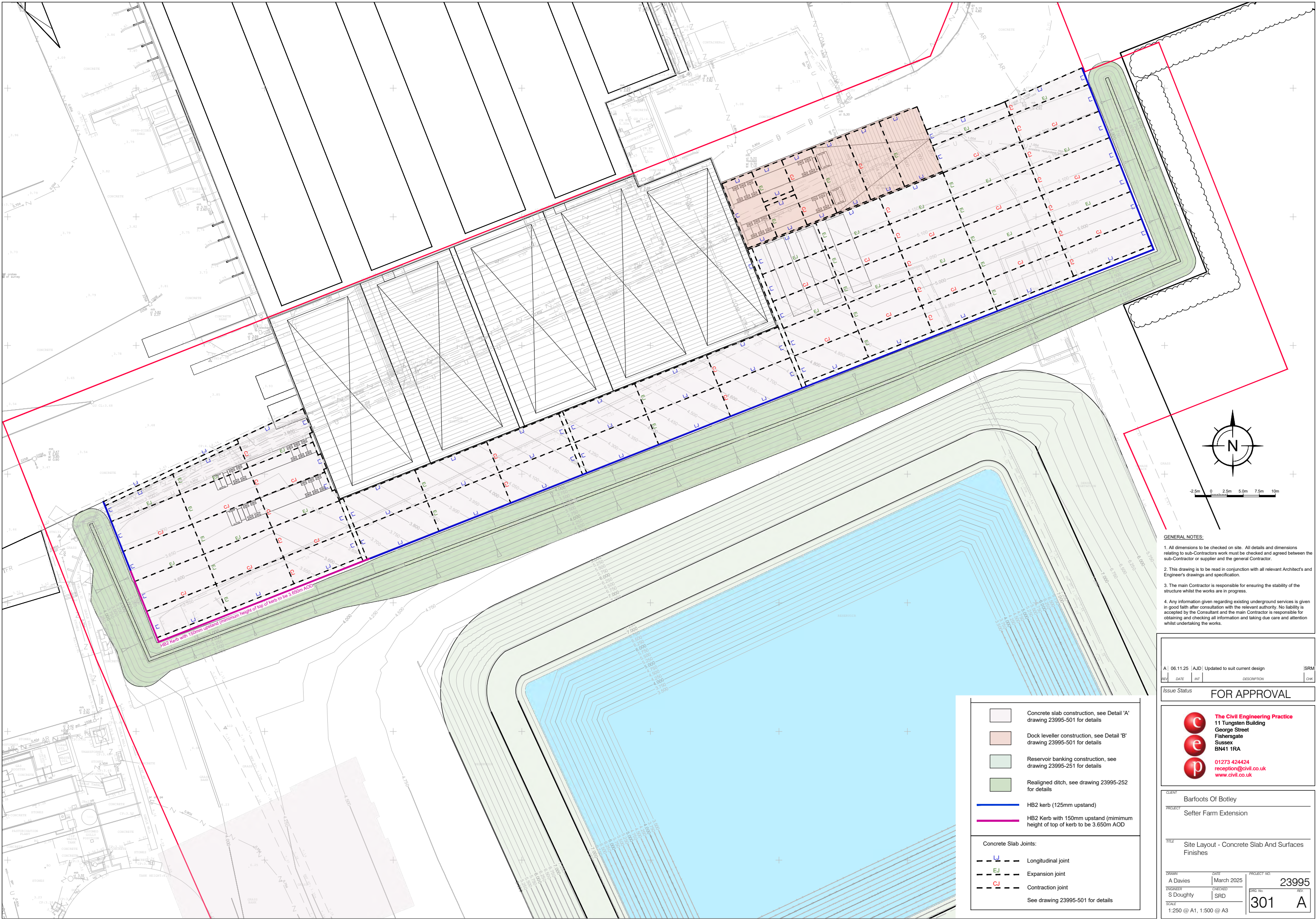


A	07.11.25	AJD	Updated to current design	SRM
REV	DATE	INT	DESCRIPTION	CHK

Issue Status
FOR APPROVAL

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CLIENT		Barfoot's Of Botley	
PROJECT		Seffer Farm Extension	
TITLE			
Proposed Realigned Ditch			
DRAWN		DATE	
A Davies		March 2025	
ENGINEER		CHECKED	
S Doughty		SRD	
SCALE		PROJECT NO.	
As Shown @ A1		23995	
		DWG. No.	
		REV.	
		252	
		A	



- GENERAL NOTES:**
1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
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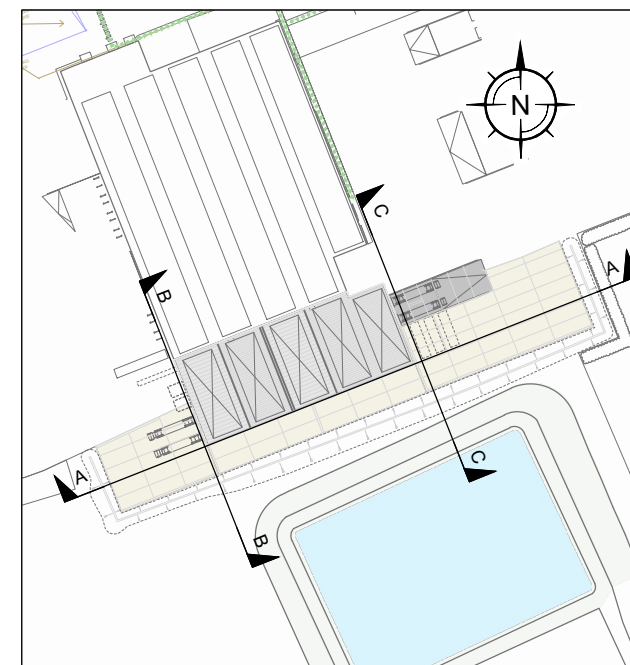
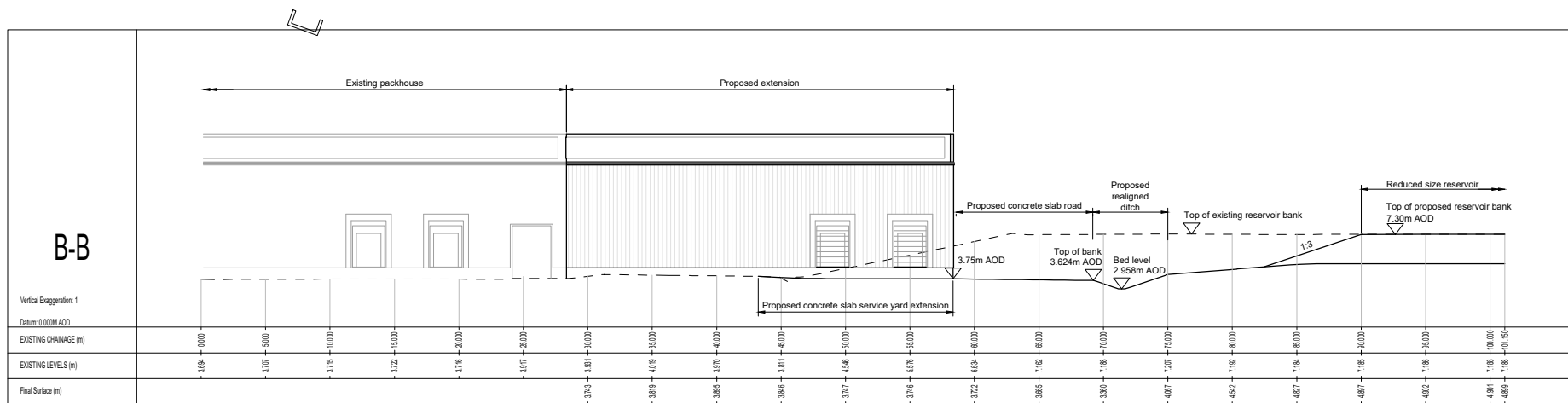
A 06.11.25 AJD Updated to suit current design SRM				
REV	DATE	INT	DESCRIPTION	CHK

Issue Status **FOR APPROVAL**



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CLIENT Barfoots Of Botley	
PROJECT Setter Farm Extension	
TITLE Site Layout - Concrete Slab And Surfaces Finishes	
DRAWN A Davies	DATE March 2025
ENGINEER S Doughty	CHECKED SRD
PROJECT NO. 23995	
SCALE 1:250 @ A1, 1:500 @ A3	
301 A	



C-C

Vertical Exaggeration: 1

Datum: 0.000m AOD

EXISTING CHINAGE (m)

EXISTING LEVELS (m)

Final Surface (m)

Proposed extension

Existing packhouse

Bed level 3.613m AOD

Top of bank 4.754m AOD

4.85m AOD

3.65m AOD

Proposed dock leveller



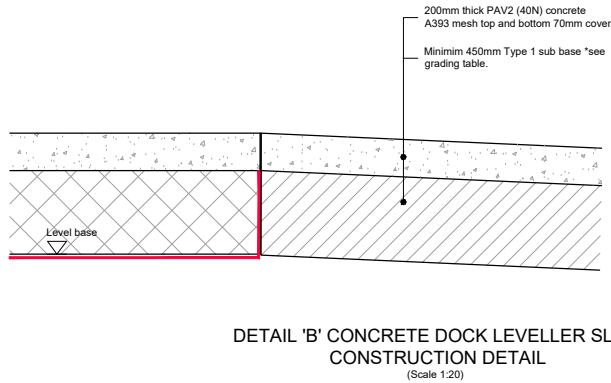
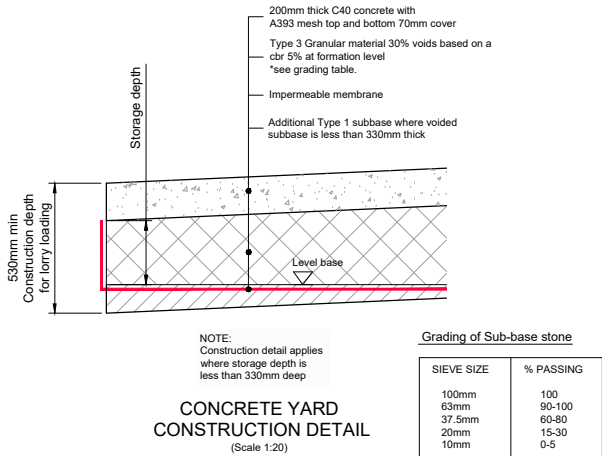
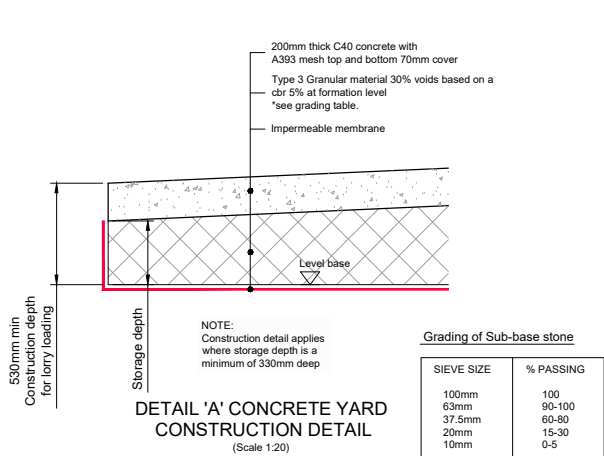
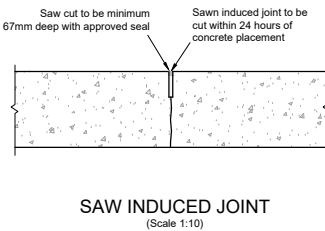
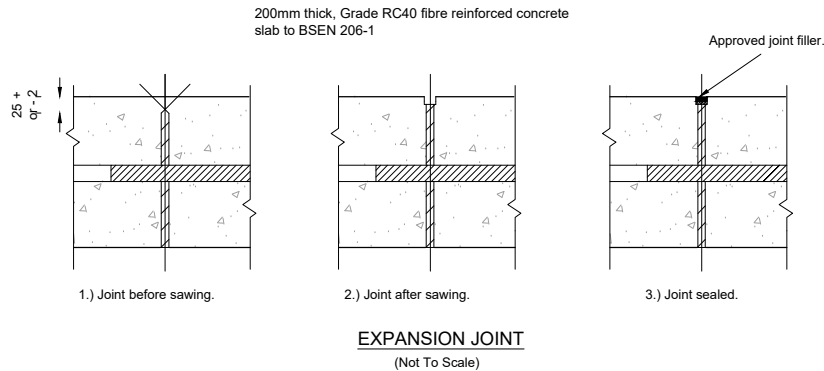
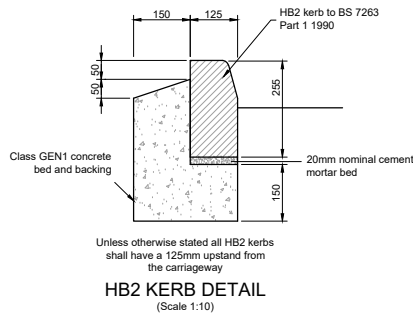
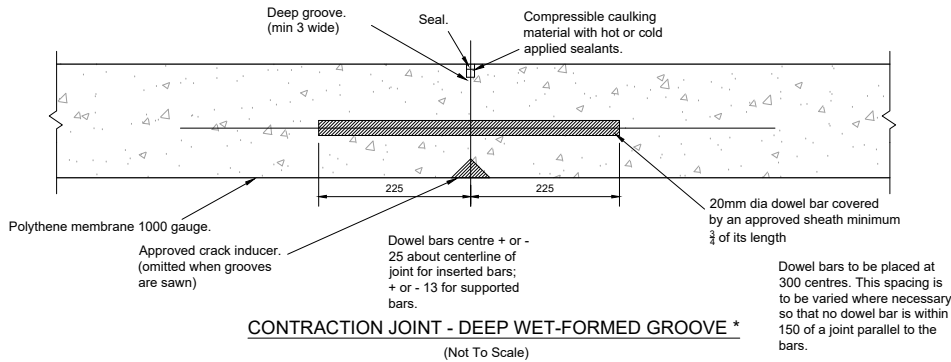
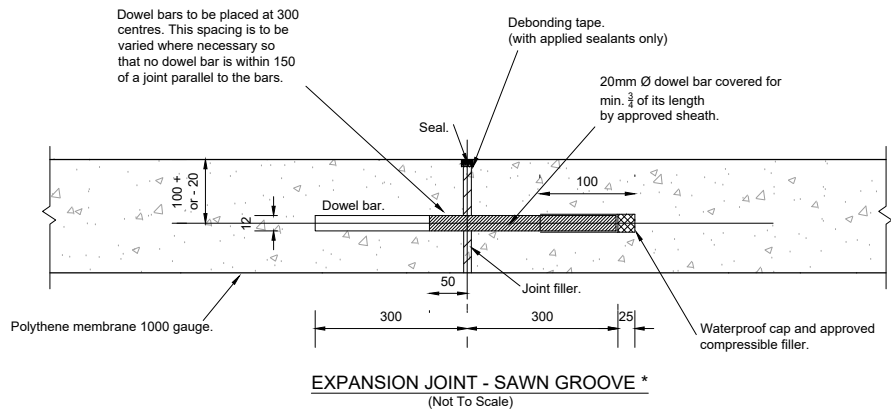
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A	07.11.25	AJD	Updated to current design	SRM
REV	DATE	INT	DESCRIPTION	CHK

Issue Status **FOR APPROVAL**



CLIENT	Barfoots Of Botley		
PROJECT	Selter Farm Extension		
TITLE	Proposed Site Sections		
DRAWN	DATE	PROJECT NO.	
A Davies	March 2025		23995
ENGINEER	CHECKED	SRG No.	REV.
S Doughty	SRD	401	A
SCALE			
1:250 @ A1, 1:500 @ A3			



- GENERAL NOTES:
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A	07.11.25	AJD	Updated to suit current design	SRM
REV	DATE	INT	DESCRIPTION	CHK

Issue Status **FOR APPROVAL**

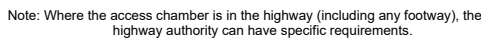
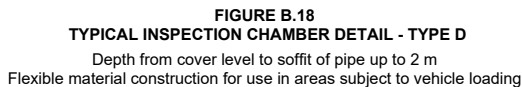
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CLIENT		Barfoots Of Botley	
PROJECT		Sefter Farm Extension	
TITLE			
Construction Details - Surface Finishes			
DRAWN		DATE	
A Davies		March 2025	
ENGINEER		CHECKED	
S Doughty		SRD	
SCALE		PROJECT NO.	
As Shown @ A1		23995	
		DWG. No. REV.	
		501 A	

-10 0 10 20 30 40mm

Technical drawing of a precast concrete chamber, showing internal and external details. The drawing includes the following callouts and specifications:

- Top Cover:** Cover complying with Clause E2.32, 675 mm x 675 mm clear opening.
- Sealing:** Mortar bedding and haunching to cover and frame to Clause E6.7.
- Internal Structure:**
 - Minimum 1 course of Class B engineering bricks or precast concrete cover frame sealing rings.
 - Precast concrete slab complying with E2.30.
 - Minimum clear access 675 mm.
 - Precast concrete chamber sections complying with Clause E2.29, jointed with mortar, elastomeric or plasticmeric seals.
 - Chamber wall to be minimum 125 mm.
 - Chamber height (not less than 900 mm).
 - Benching slope to be 1:10 to 1:30.
 - Precast concrete base unit.
 - 150 mm to underside of channel.
- Access and Lifting:**
 - Lifting eyes in concrete rings to be pointed.
 - DN/DI to Clause B5.2.12.
- Channel Details:**
 - Surface of benching and channel formed monolithically with high-strength concrete base or a proprietary liner.
 - Self-cleaning toe holes to be provided where channel exceeds 600 mm wide.



The image contains two technical drawings of manhole construction details. The left drawing is a plan view of a manhole cover, showing a rectangular cover with a central circular opening. It is labeled with dimensions and materials: '1220 mm x 685 mm multiple ductile iron cover', 'Cover complying with Clause E2.32', and '1200 mm'. The right drawing is a cross-section of a manhole, showing the internal structure and materials. It is labeled with dimensions and materials: 'Brickwork or concrete blocks to be corbelled (maximum 30 mm per course) to suit cover', 'Minimum 20 mm high-strength concrete topping complying with Clause E4.3 and E5.5 neatly shaped and finished to all branch connections', '900 mm minimum', 'Mortar bedding and haunching to cover and frame to Clause E5.7', 'Class B engineering bricks complying with E2.39 and E5.8 not less than 200 mm thick or precast concrete chamber sections with 150 mm concrete surround complying with Clause E2.29', 'Arch over pipe if constructed from brick', 'Benching slope to be 1:10 to 1:30', '225mm to barrel of pipe', and 'Inverts to be formed using channel pieces'.

The diagram is a cross-sectional view of a manhole structure. At the top, there is a 'Cover complying with Clause E2.32'. Below the cover is a 'Mortar bedding and haunching cover and frame to Clause E6.7'. The main structure consists of 'Class B engineering bricks complying with E2.39 and E6.1 not less than 200 mm thick'. The bricks are laid in a pattern with 'Minimum 20 mm thick high-strength concrete topping complying with Clauses E4.3 and E6.5 neatly shaped and finished to all branch connections'. The structure is supported by an 'Arch over pipe'. The 'Minimum internal dimensions' are specified as '450 mm x 600 mm'. The 'Benching slope' is 'to be 1:10 to 1:30'. The 'Inverts to be formed using channel pieces' are shown at the bottom. The 'Arch over pipe' has a '225 mm to underside of pipe' dimension. The 'In-situ GEN3 concrete' is shown at the base, complying with 'E4.3 and BRE Special Digest 107'. The 'See Figure B.13 and Clause E6.2 for rocker pipe details' is indicated. The '150 mm minimum' dimension is shown for the base layer.

Mortar bedding and haunching cover and frame to Clause E6.7

Cover complying with Clause E2.32

Class B engineering bricks complying with E2.39 and E6.1 not less than 200 mm thick

Minimum 20 mm thick high-strength concrete topping complying with Clauses E4.3 and E6.5 neatly shaped and finished to all branch connections

Arch over pipe

225 mm to underside of pipe

Inverts to be formed using channel pieces

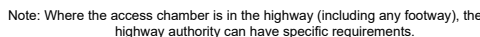
Minimum internal dimensions 450 mm x 600 mm

Benching slope to be 1:10 to 1:30

See Figure B.13 and Clause E6.2 for rocker pipe details

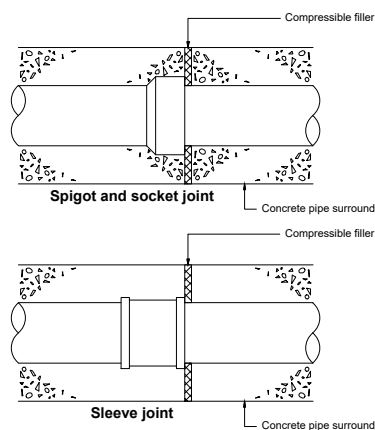
150 mm minimum

In-situ GEN3 concrete complying with E4.3 and BRE Special Digest 107



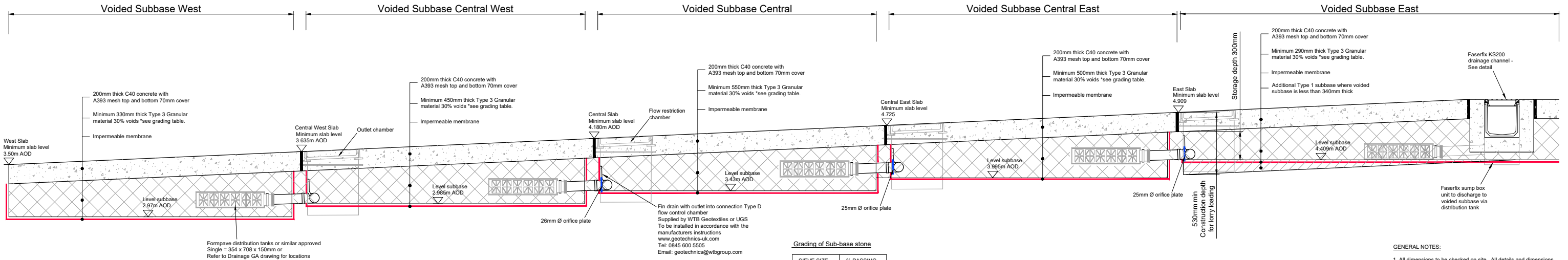
Technical drawing of a manhole assembly showing various components and dimensions:

- 1220 mm x 885 mm multiple ductile iron cover
- Cover complying with Clause E2.32
- Mortar bedding and haunching to cover and frame to Clause E6.7
- Brickwork or concrete blocks to be corbelled (maximum 30 mm per course) to suit cover
- Precast concrete chamber sections complying with Clause E2.29 jointed with mortar, elastic or plastic seals. Chamber wall to be minimum 125 mm
- Benching slope to be 1:10 to 1:30
- 150 mm minimum
- Inverts to be formed using channel pipes
- 225 mm to barrel of pipe
- Minimum 20 mm high-strength concrete topping complying with Clause E4.3 and E6.5 neatly shaped and finished to all branch connections
- 1350 mm minimum
- In-situ GEN3 concrete complying with



-10 0 10 20 30 40mm

DRAWN A Davies		DATE March 2025		PROJECT NO. 23995	
ENGINEER S Doughty		CHECKED SRD		DRG. No. 511 REV. -	
SCALE As Shown @ A1					



CONCRETE YARD VOIDED SUBBASE
CONSTRUCTION DETAIL
(Scale 1:20)

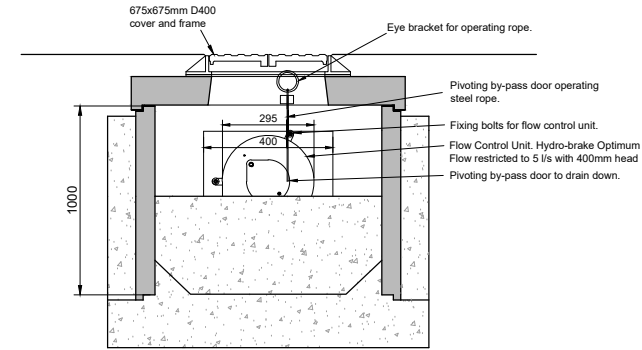
SIEVE SIZE	% PASSING
100mm	100
63mm	90-100
37.5mm	60-80
20mm	15-30
10mm	0-5

GENERAL NOTES:

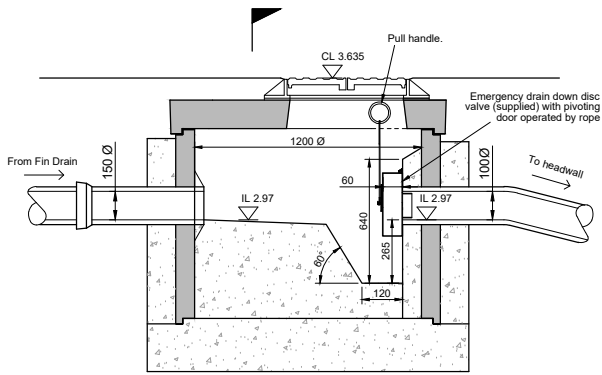
- All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
- This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.
- The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

DRAINAGE NOTES:

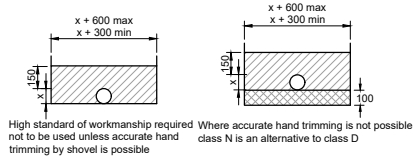
- All adoptable pipes, bends and junctions shall be vitrified clay in accordance with the current version of BS EN 295-1, with flexible joints and kitemark certified.
- All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.9m elsewhere the pipe shall be laid with a class Z bedding.
- All private building drainage shall be constructed in strict in accordance with the current version of BS EN 752:2017. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.
- Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.
- Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.
- In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreglass or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.
- All spps shall have rodding access plates fitted at their bases (ground floor level).
- Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.
- Any discrepancy between the drawing and site should be reported immediately to the Engineer.
- All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance



SECTION
(Scale 1:20)

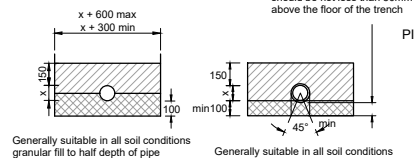


CTL-SHE-0052-1000-0630-1000
MANHOLE HB1- FLOW CONTROL VORTEX
(Scale 1:20)



CLASS D PIPE BEDDING

CLASS N PIPE BEDDING



CLASS B PIPE BEDDING

CLASS F PIPE BEDDING

PIPE BEDDING FOR RIGID APPLIES (NON ADOPTIVE DRAINS)

LEGEND:

 Selected fill: free from stones larger than 40mm, lumps of clay over 100mm, timber frozen material and vegetable matter

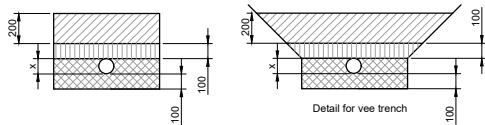
 Granular material: should conform to BS 882:1983 table 4 or BS8301:1985 Appendix D. Compaction fraction > 0.3 for class N > 0.2 for class F and B.

 Selected fill or granular fill free from stones larger than 40mm

'X' - Denotes external pipe diameter.

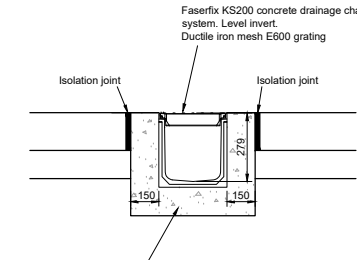
LEGEND:

- Selected fill: free from stones larger than 40mm, lumps of clay over 100mm, timber frozen material and vegetable matter
- Granular material: should conform to BS 882:1983 table 4 or BS8301:1985 Appendix D. Compaction fraction > 0.3 for class N > 0.2 for class F and B.
- Selected fill or granular fill free from stones larger than 40mm
- 'x' - Denotes external pipe diameter.



PIPE BEDDING FOR FLEXIBLE PIPES

PIPE BEDDING DETAILS
(NON ADOPTABLE DRAINS)
(Not To Scale)



FASERFIX KS200 DRAINAGE CHANNEL
DRAIN DETAIL
(Scale 1:20)

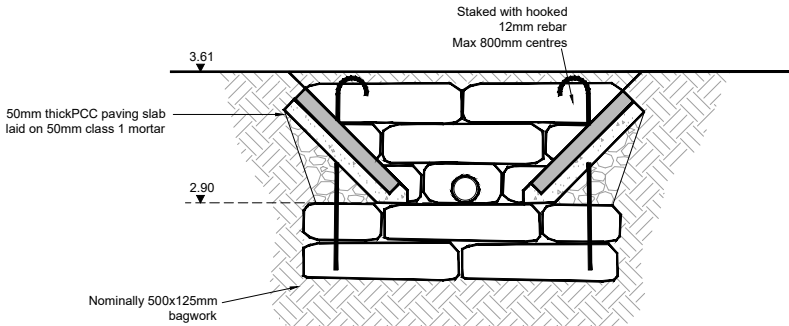
-10 0 10 20 30 40mm

A	07.11.25	AJD	Updated to suit current design	SRM
REV	DATE	INT	DESCRIPTION	CHK

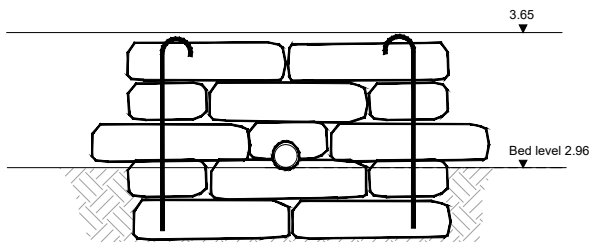
Issue Status FOR APPROVAL

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11 Tungsten Building
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BN41 1RA
01273 424424
reception@civil.co.uk
www.civil.co.uk

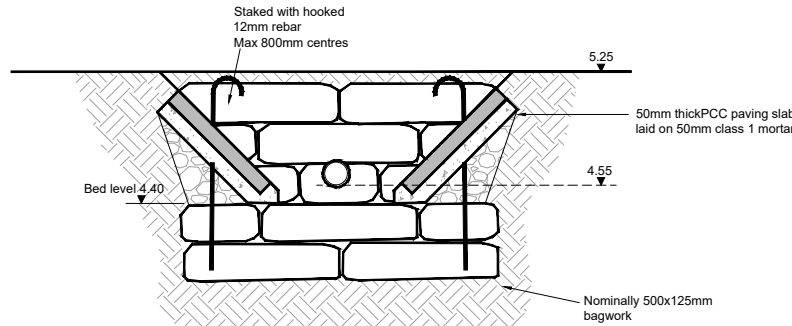
CLIENT		Barfoots Of Botley	
PROJECT		Setter Farm Extension	
TITLE			
Construction Details - Drainage			
DRAWN		DATE	
A Davies		March 2025	
ENGINEER		CHECKED	
S Doughty		SRD	
SCALE		PROJECT NO.	
As Shown @ A1		23995	
		DWG. No.	
		512	
		REV.	
		A	



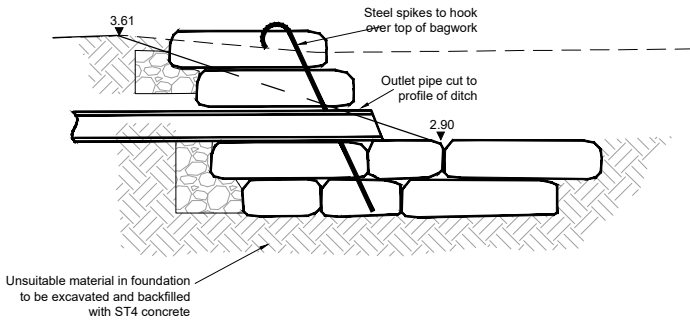
ELEVATION



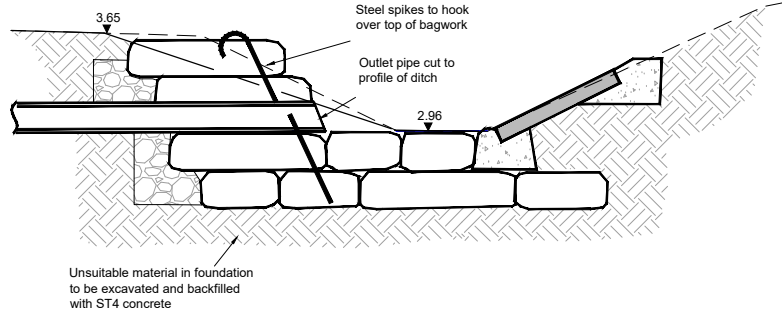
ELEVATION



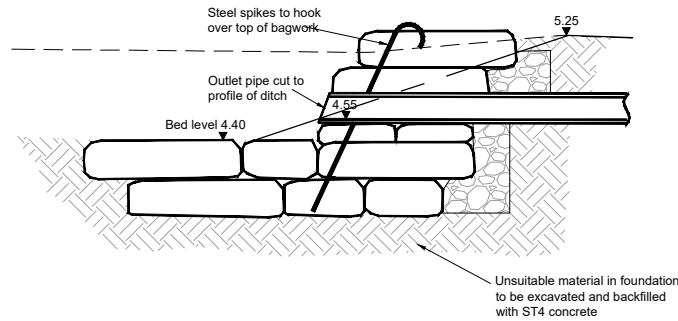
ELEVATION



SECTION
HEADWALL 1
OUTLET FROM DITCH
(Scale 1:25)



SECTION
HEADWALL 2
INLET TO DITCH
(Scale 1:25)



SECTION
HEADWALL 3
INLET TO DITCH
(Scale 1:25)



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REV	DATE	INT	DESCRIPTION	CHK
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Issue Status FOR APPROVAL



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CLIENT	Barfoots Of Botley		
PROJECT	Setter Farm Extension		
TITLE	Construction Details - Headwalls		
DRAWN	DATE	PROJECT NO.	
A Davies	March 2025	23995	
ENGINEER	CHECKED	DWG NO.	REV
S Doughty	SRD	513	-
SCALE	1:25 @ A1, 1:50 @ A3		