

Project Name:	Land at Bayards, Eastergate (Miller Homes)
Document Reference:	091.5016/SVR/2.2
Document Name:	SuDS Verification Report – Area 2
Prepared By:	Samuel Flesher
Checked By:	Meagan Weedon
Approved By:	Jon Soar

Revision Record				
Rev	Date	By	Summary of Changes	Aprvd
1	30/04/2026	SF	First issue (Draft)	MDW
2	01/05/2026	MW	Second Issue	JS

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1. INTRODUCTION

- 1.1 This Sustainable urban Drainage Strategy (SuDS) Verification Report – Area 2, has been prepared by Paul Basham Associates on behalf of Miller Homes to support the 'As-Built' verification report to Arun District Council in relation to Land at Bayards, Eastergate.
- 1.2 This Verification Report has been prepared to support the discharge of Planning Condition 24. The report authors are Paul Basham Associates Ltd. Paul Basham Associates were established in 2009 and are a multi-disciplinary Transport Planning, Civil and Structural Engineering Consultancy, employing a team of Civil Engineers.
- 1.3 The development is located to the north of Fontwell Farm, west of Northfield Farmhouse. The nearest postcode to the site is PO20 3SA, Grid reference SU 94608 06305. The outline application number is AL/113/21/OUT and the reserved matters application is AL/122/22/DOC.
- 1.4 The total site development is approximately 2.31ha and development comprises of 67 dwellings with associated hardstanding and landscaping.
- 1.5 The Surface Water Management for the development comprises of a series of localised infiltration / soakaway systems which for the purposes of verification have been divided into discrete local areas as work progresses throughout the site with each area being dealt with separately for the purposes of Verification of the Surface Water Management.

- 1.6 The development must comply with Condition 24 outlined by Arun district council: *“Immediately following implementation of the approved surface water drainage system and prior to occupation of any part of the development, the developer/applicant shall provide the local planning authority with as-built drawings of the implemented scheme together with a completion report prepared by an independent engineer that confirms that the scheme was built in accordance with the approved drawing/s and is fit for purpose. The scheme shall thereafter be maintained in perpetuity.”*
- 1.7 **Figure 1** outlines the total site area however, the site will be subdivided and assessed independently of each other due to each section being self-contained.



Figure 1- Total site Area

- 1.8 Submitting discrete independently assessed local areas allows the verification process to align with the plot construction and completion process for the site.
- 1.9 An independent company, OST Engineering has been appointed to conduct inspections of the surface water network design construction.
- 1.10 **Figure 2** shows the extent of Verification Area 2, comprising of 16 dwellings and associated roads.
- 1.11 See **Appendix A** for the location of all the discrete verification areas as show on drawing number 091.5016.0578.

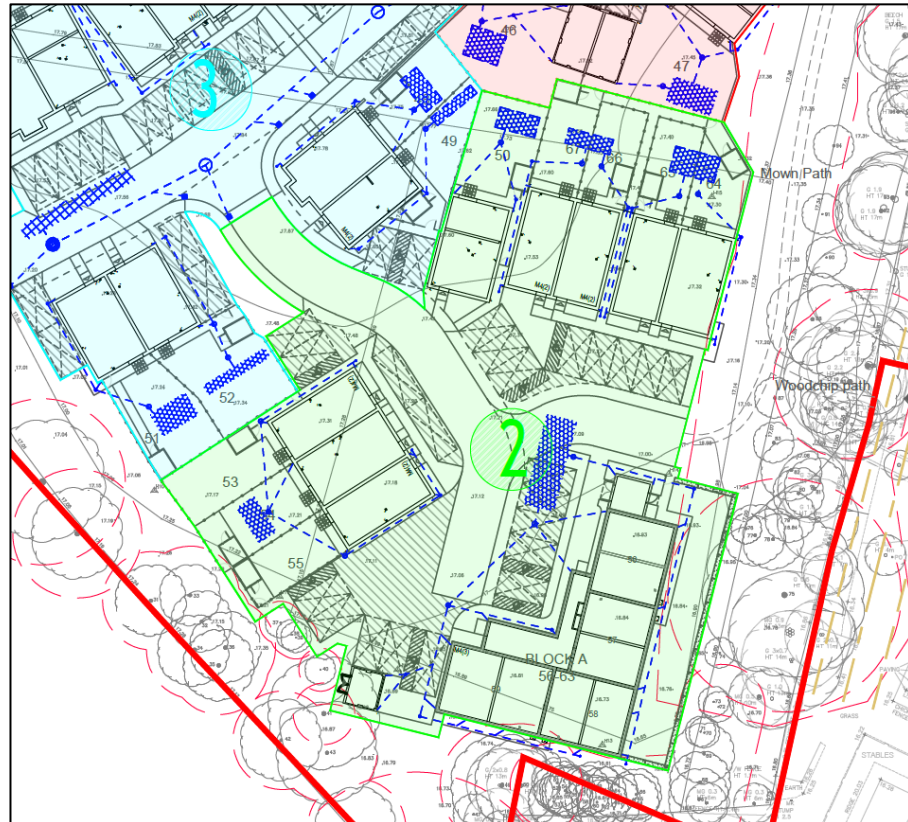


Figure 2- Site extent of Area 2

- 1.12 The relevant Drainage Layout drawings that cover the extent of Area 2 are included as **Appendix B**.

2. INSPECTIONS

- 2.1 Site staff and OST, see 1.8 above, have carried out inspection of the works although some sections of Area 2 have been inspected retroactively by exposing soakaways and pipelines.

3. AS-BUILT SURVEY

- 3.1 As-Built surveys of the site area and drainage systems have been carried out and the surveys are included as **Appendix C**.
- 3.1 These levels have been reviewed against the design levels shown in 091.5016.0501 C08, 091.5016.0502 C05 and 092.5016.0503 C06 the design drawings can be found in **Appendix B**
- 3.2 A tabulated summary of invert levels for chambers constructed within Area 2 is given below.

Area	Ref No	As-Built CL	Design IL	As-Built IL	Comments
2	PS216	17.38	16.88	16.92	
2	PSCP217	17.50	16.81	16.85	
2	SA50	17.45	16.791	16.74	
2	RE383	17.45	16.937	16.96	
2	PS209	17.49	16.773	16.80	
2	PS210	17.45	16.712	16.75	
2	SA66-67	17.46	16.37	16.35	
2	RE201	17.40	16.90	17.00	
2	PS212	17.29	16.765	16.80	
2	PSCP213	17.45	16.707	16.75	
2	RE205	17.40	16.90	17.00	
2	PS5251	17.30	16.765	16.81	
2	PSCP206	17.41	16.691	16.71	
2	SA64-65	17.40	16.436	16.52	
2	RE200	17.38	16.819	16.86	
2	PS202	17.38	16.684	16.75	
2	PSCP203	17.40	16.609	16.60	
2	RE222	17.10	16.60	16.62	
2	PS221	17.08	16.371	16.40	
2	PSCP220	17.13	16.26	16.30	
2	SA 53-55	17.13	16.214	16.22	
2	RE52	17.10	16.60	16.63	
2	PS53	17.11	16.526	16.52	
2	PS54	17.11	16.388	16.40	
2	RE5259	17.43	16.989	17.00	
2	PS344	17.18	16.643	16.61	
2	PS342	17.33	16.490	16.43	
2	RE5265	17.37	16.975	16.91	
2	PS5262	17.32	16.680	16.71	
2	PS5266	17.09	16.558	16.58	
2	PS5281	17.16	16.540	16.49	

Area	Ref No	As-Built CL	Design IL	As-Built IL	Comments
2	PS5281A (indicated as N/A on as-built)	17.28		16.57	No level provided on design, however pipe gradient has been shown at 1:80. As-built suggests this to be 1:339 and therefore likely not achieving self cleansing velocities.
2	PSCP61	17.32	16.396	16.38	
2	SA57-65	17.29	16.215	16.22	

Table 1: As Built levels against design levels

- 3.3 The comparison between the design and as built levels shown that the invert levels are generally within normal building site tolerances and fall in the correct directions, unless otherwise noted within the comments provided in Table 1 above.
- 3.4 Cross checks of raised invert levels appear to show that no backfalls have been created.

4. MATERIALS AND CONSTRUCTION RECORDS

- 4.1 The list of materials suppliers is contained within **Appendix D**.
- 4.2 The materials selected for inclusion in the works have Manufacturers confirmation that the materials selected meet the required national standards.
- 4.3 Photographic evidence of the materials used during construction works is given below:



Plot 50



Plots 66-67



Plots 64-65



Plots 53-55



Plots 53-55



Plots 56-63

- 4.4 The image for plots 64-65 shows a different arrangement to what was proposed, this would suggest the wrong image has been supplied or the incorrect number of crates have been installed, the proposed design was for 2.5m wide by 4.5m long and 0.4 deep which with a total storage volume of 4.28m^3 . The image appears to show 6 SDS GEOLight crates with a total storage capacity of 4.28m^3 , the storage requirement is therefore met. However, the surface area from the sides and base of the crates have reduced from 16.85m^2 to 14.25m^2 this will have a minor effect on the rate of infiltration. The image also shows signs of poor workmanship - Damaged crates, crates not clipped together, crates moving away from each other likely due to an uneven surface and sediment appears to already be in the crates reducing the overall capacity of the system.

- 4.5 From the images it appears that the installation of the geotextile membrane are not installed and sealed in accordance with the manufacturer's specifications.
- 4.6 Where the images do not show the crates systems uncovered, we were unable to determine if sufficient storage was included.
- 4.7 The SDS GEOLight system appears to have been substituted and installed in this area. This product typically requires a specific arrangement, including a perforated pipe running centrally through the attenuation crates, as illustrated in **Figure 3** below.

However, the contractor has instead installed an in-situ pipe that has been hand-cut with spiral slits to function as a perforated pipe, intended to feed water into the crates. This pipe appears to have been installed without appropriate bedding.

Furthermore, the structural integrity of the pipe has likely been compromised due to the hand-cut slits, which is also evident from the CCTV footage. There also appears to be no restraint preventing the pipe from shifting or rotating. As a result, there is no assurance that the slits will remain correctly oriented (i.e. facing downward towards the crates).

This may lead to ineffective interaction between the pipe and the attenuation system, potentially causing the drainage to perform in an unintended and unpredictable manner. will face down towards the crates therefore resulting in a non-compatible interaction that may cause the drainage to act in away that is unexpected.

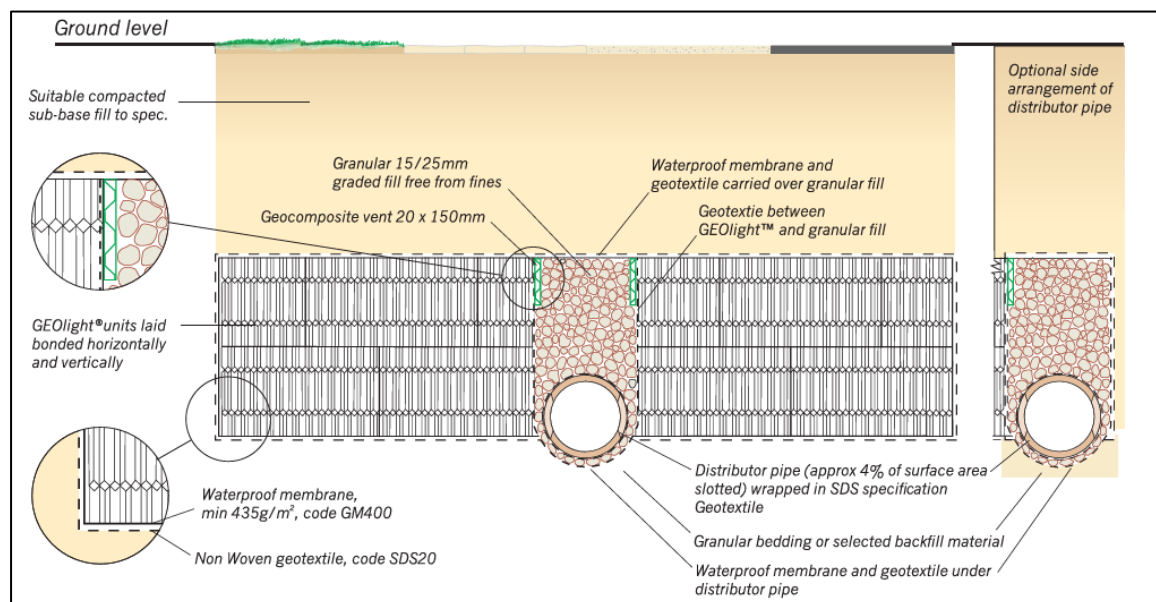


Figure 3: SDS GEOLight Cross Section

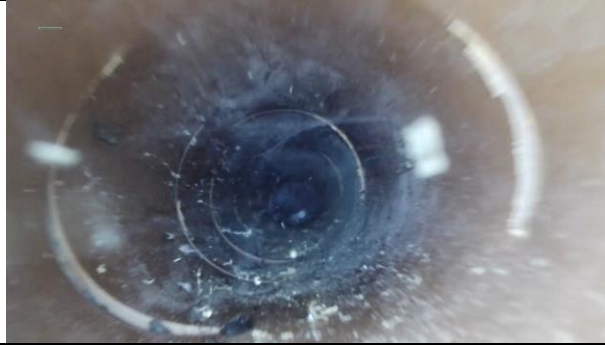
- 4.8 The images also suggest that vents have not been installed in line with the construction detail on sheet 091.5061.551 C01 and in accordance with manufactures specifications which can be found in **Appendix D**.
- 4.9 No images have been provided for any of the permeable paving within this area, therefore, we are unable to verify this element on the absence of this evidence.

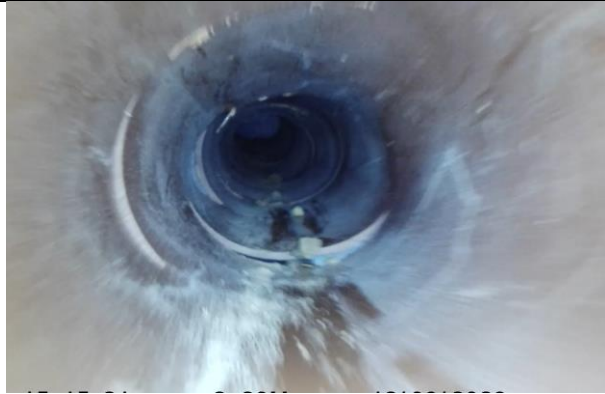
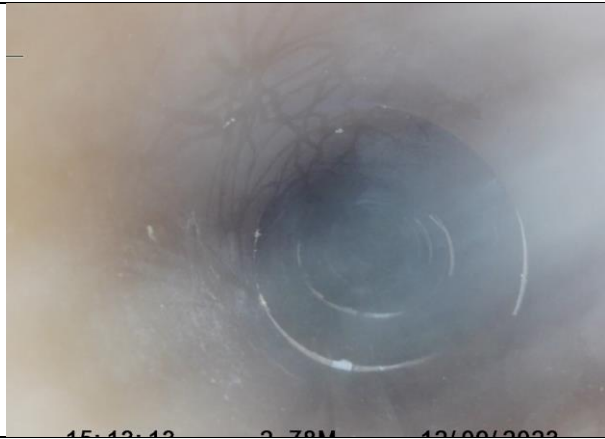
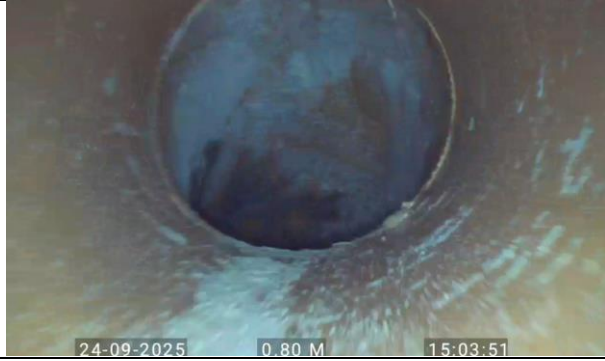
5. CCTV SURVEY OF PIPELINES

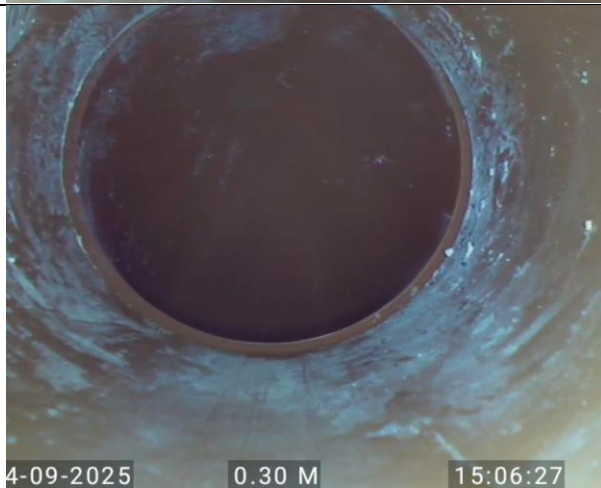
- 5.1 CCTV Surveys of most pipelines in Area 2 have been carried out to confirm the as-built conditions. The video files have been examined in detail with pipe conditions and a report assessing the condition of the pipe produced is included in **Appendix E**. Copies of the CCTV media files are listed below and are appended to this report as **Appendix E**.

- plot53 ps221-pscp220
- plot64 ps202-pscp203
- plot65 ps5251-pscp206
- plot66 ps212-pscp213
- plot67 ps209-pscp210
- plot67 pscp-sa66-67
- PSCP206X_e14da5a9-b449-4877-8dcd-0be54a85bf8f
- PSCP213X_a746dae1-9f55-431f-88f5-8f0f50b9b979
- PSCP217X_0a6f5447-8337-43bc-8637-60960fc10add
- Block A ps61-sa57
- Block A ps5281-PS61
- block a-ps344-ps342
- Plot 53-55 ps220-sa52-55
- plot 57 ps54-pscp220
- Plot 64 pscp203 - sa64
- plot50 ps216-pscp217

- 5.2 Each video has been reviewed and comments relating to specific pipes are listed below;
- 5.3 The general quality of the CCTV surveys is incomplete, the videos do not start looking up at the chamber at the head of the run, so there is no way to guarantee the position in the pipe, equally they do not finish looking up at the downstream chamber. There are also several videos where the footage is blocked due to obstructions in the pipe.

Ref	Defect Images	Comments
PS216-PSCP217		Imagery very blurry and camera light appears to be dim. Appears to be no defects to the pipe
PSCP217-SA50		Pipe has snapped at the point where pipe rests on crates.
PS209-PSCP210		Imagery very blurry and camera light appears to be dim. Appears to be no defects to the pipe
PS210-SA66-67		Connection into side of infiltration crate, appears to be PolyStorm crate unit. Membrane is slightly protruding into pipe. No other visible defects.
PS212-PS213		No major defects
PS213-SA66-67		Pipe with spiral splits shown, pipe has deformed and no longer circular. Pipe also appears to be bent and changes direction without a junction. Drainage approach differs between plots 66 & 67, contractor to confirm if this is correct.
PS5251-S206		Appears to be a small amount of water build up at start of survey due to sediment in the pipe. No other major visible defects.

S206-SA64-SA65		Pipe with spiral splits shown, pipe has deformed and no longer circular. Pipe also appears to be bent and changes direction without a junction.
PS202-PSCP203		No visible major defects
PS203-SA64-65		Pipe with spiral splits shown, pipe has deformed and no longer circular. Pipe also appears to be bent and changes direction without a junction.
PS221-PSCP220		No visible major defects
PSCP220-SA53		No visible major defects, pipe run appears to end in a bend into the top of crate system
PS54-PSCP220		No visible major defects
PS344-PSCP342		Footage starts at -10m and shows a pipe bend at 0m the 4.7m upstream of PSCP342. No joint for rainwater pipe.
PS342-SA57-63	Footage not provided	

PS5281-PS61		Footage shows a pipe junction, design shows no junction into this pipe.
PS61-SA57-63		Pipe appears to run into the top of the crates with a bend at the end of the pipe.

6. VARIATIONS TO THE APPROVED DESIGN

- 6.1 The design levels have in certain areas been subject to minor amendments, these are shown in 3.2 (Table 1) above.
- 6.2 For the most part the level changes to the Surface Water Drainage Systems within Area 2 are not likely to prevent the systems from performing adequately. However, the CCTV footage indicates general workmanship issues.
- 6.3 The air vents to all the Soakaways appear to have been missing. This needs to be investigated.
- 6.4 The pipe connections to the plot soakaways within Area 2 may restrict the flow of surface water into the soakaway. The hand cut PVC pipes compromise the pipe's structural integrity and do not have the correct bedding which has caused the pipe to deform, along with this, the rate of infiltration into the soakaways cannot be guaranteed.
- 6.5 The soakaways have been constructed with other types of infiltration crates opposed to the previously specified Aquacell Core-R, and as such the shape and size of the crates has been changed. In some cases this has resulted in a reduction of storage capacity and infiltration surface area.
- 6.6 Given the number of crates used is not clear from the images, the Contractor will need to confirm the amount of crates for each soakaway to ensure compliance was achieved.

7. REMEDIAL WORKS TO BE UNDERTAKEN AND PLANNED

- 7.1 The air vent to the Soakaways requires investigation and resolution.
- 7.2 The remedial works carried out within Area 2 is as listed below:
- The Contractor shall obtain written approval from crate supplier that the constructed soakaways comply with their specification. Notwithstanding this requirement, it is recommended that all damaged or deformed pipes be removed and replaced.
 - Install additional infiltration crates where the storage volume is less than what was specified in the approved design or provide supporting hydraulic modelling to support the as-built storage.
 - Once remedial works have been carried out the system will need to be re-CCTV surveyed.

8. CONCLUSION

- 8.1 The records and details contained within this report reference 091.5016/SVR2 "SuDS Verification Report Area 2 and Appendices" show that the Surface Water Systems within Area 2 have not been constructed completely to the design and that the surface water network cannot be signed off without remedial actions.

Appendix A Verification Areas (Dwg 0915016.0578)



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1. Existing services present
- 2.
- 3.

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- — STORM WATER SEWER, Ø AS NOTED
- ○ SURFACE WATER MANHOLE (CUL/SILT/TYPE AS SHOWN)
- ○ SURFACE WATER INSPECTION CHAMBER/CATCHPIT
- ○ SURFACE WATER RODDING EYE
- ■ ROAD GULLY
- ⊙ DOWNSTREAM DEFENDER VORTEX PLUS
- ▨ GRAVEL INFILTRATION TRENCH (SEE 091.5016.551 FOR FULL DETAILS)
- ▨ INFILTRATION CRATES (SEE 091.5016.551 FOR FULL DETAILS)
- ▨ PERMEABLE PAVING

FOR
CONSTRUCTION

C02	UPDATED TO SUIT CLIENT COMMENT	03.08.2023	OJT	JM
C01	FIRST ISSUE	31.07.2023	OJT	JM
Rev	Description	Date	By	Chkd



Paul Basham Associates Ltd
The Bobby, Curra Hall Estate, Farnham, PO16 8UT
01263 711 000
info@paulbashamassociates.com www.paulbashamassociates.com

Client

millershomes

Project Name
LAND AT BAYARDS,
EASTGATE

Title
SURFACE WATER
VERIFICATION AREAS

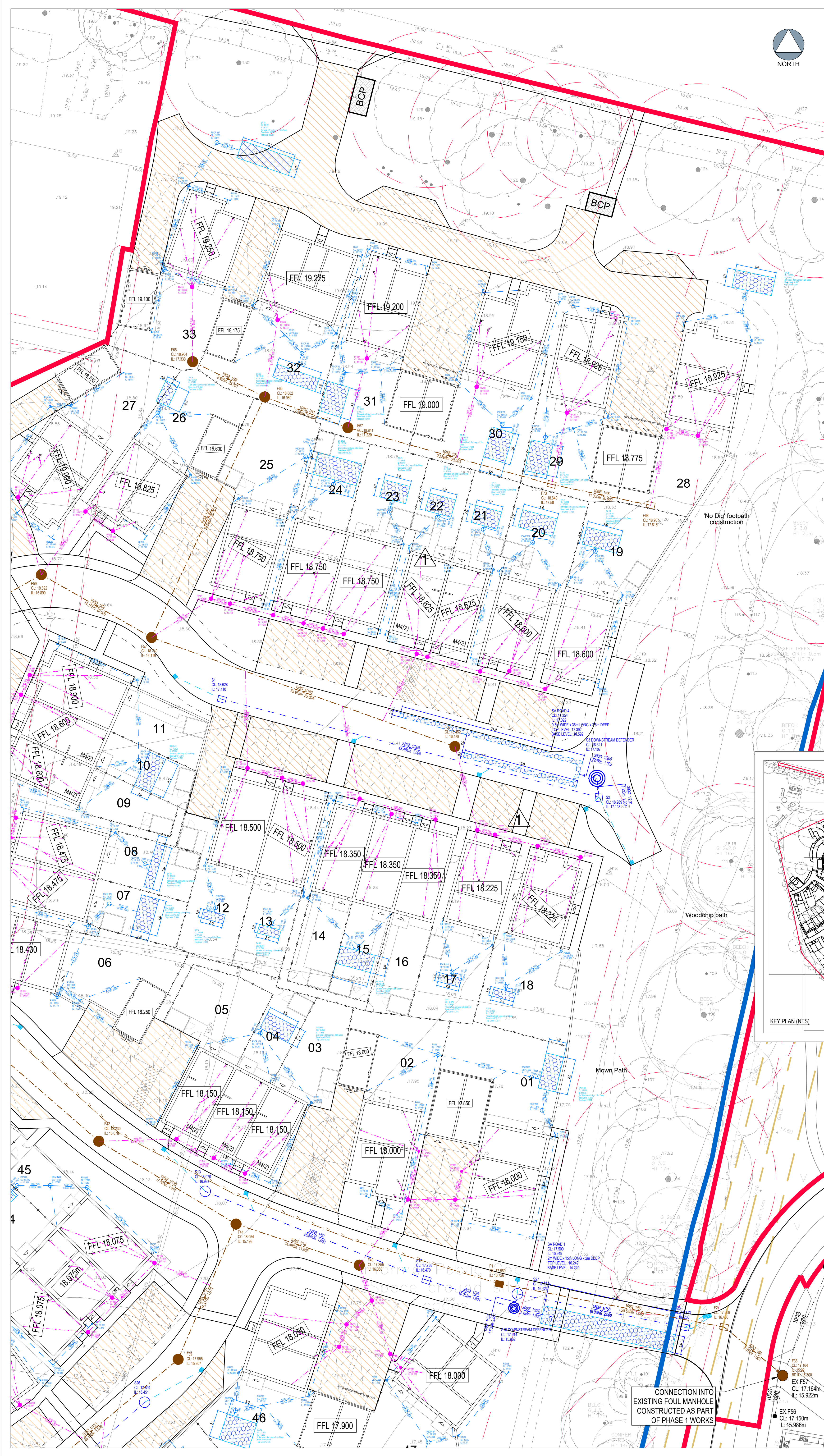
Project Phase

FOR CONSTRUCTION

Checked By	Checked Date	Drawn By	Drawn Date
JM	31.07.2023	OJT	31.07.2023
Client Drawing No.	Scale	(AT A1 SIZE)	
-	1:500		

PBA Drawing No.	Revision
091.5016.0578	C02

Appendix B Relevant Drainage Layout Drawings



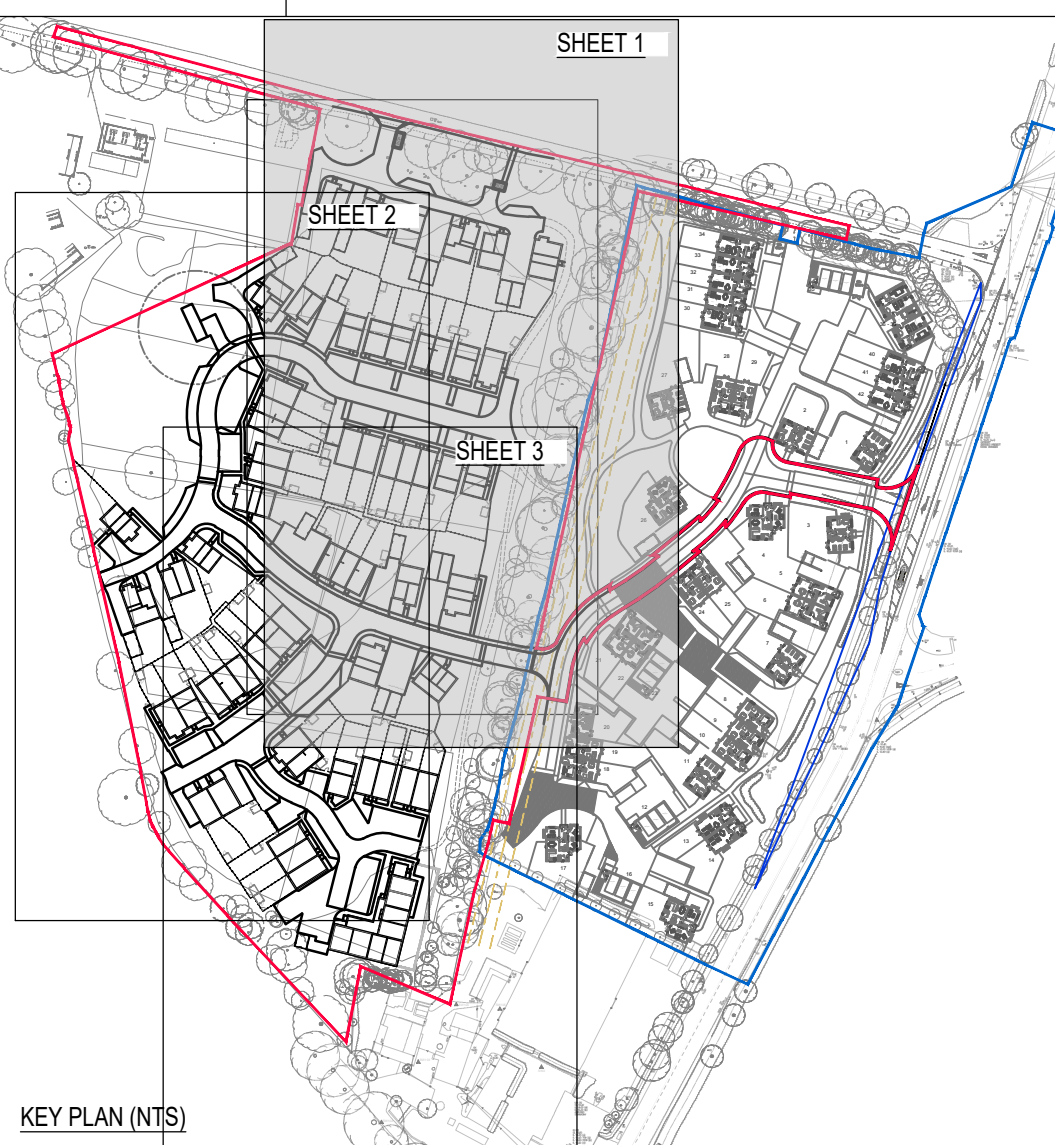
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2	
3	

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 - THE LEVEL OF THE EXISTING FOUL AND STORM SEWERS ON SITE HAS BEEN EXTRAPOLATED FROM THE LEVELS OF ADJACENT MANHOLES THE EXACT LEVEL AT THE POINT OF CONNECTION SHALL BE CHECKED PRIOR TO THE COMMENCEMENT OF THE WORKS AND ANY VARIANCE REPORTED TO THE ENGINEER IMMEDIATELY.
 - ALL LEVELS ARE TO ORDNANCE DATUM
 - ALL DRAINAGE TO BE IN ACCORDANCE WITH BUILDING REGULATIONS PART H. SEWERS NOTED AS ADOPTABLE SHALL BE TO SEWERS FOR ADOPTION 7th EDITION.
 - THE LOCATION OF EXISTING UNDERGROUND UTILITY SERVICES IS AS PROVIDED BY THE RELEVANT STATUTORY UNDERTAKERS THE CONTRACTOR IS TO ASCERTAIN THE EXACT LOCATION PRIOR TO COMMENCEMENT OF WORKS.
 - UNLESS NOTED OTHERWISE ALL DRAINAGE PIPES ARE TO BE 100mm DIA. AND ALL GULLY LEADS ARE TO BE 150mm DIA. MINIMUM ADOPTABLE SEWER 100mm DIA.
 - MAXIMUM OUTFLOW RATE FOR FOUL PUMP STATION TO BE 4.0 l/s

- LEGEND:**
- ADOPTABLE/PRIVATE FOUL WATER SEWER, Ø AS NOTED
 - PRIVATE FOUL WATER DRAIN, 100mm Ø U.N.O
 - PRIVATE/ADOPTABLE STORM WATER SEWER, Ø AS NOTED
 - PRIVATE STORM WATER DOMESTIC DRAIN, 100mm Ø, U.N.O.
 - FOUL RISING MAIN
 - FOUL WATER MANHOLE (CUL/S/L/TYPE AS SHOWN)
 - SURFACE WATER MANHOLE (CUL/S/L/TYPE AS SHOWN)
 - FOUL WATER CATCHPIT/INSPECTION CHAMBER
 - SURFACE WATER INSPECTION CHAMBER/CATCHPIT
 - SURFACE WATER ROOFTOP EYE
 - FOUL GULLY
 - ROAD GULLY
 - FINISHED FLOOR LEVELS
 - DOWNSTREAM DEFENDER
 - VORTEX PLUS
 - INFILTRATION CRATES (SEE 091.5016.551 FOR FULL DETAILS)
 - GRAVEL INFILTRATION TRENCH (SEE 091.5016.551 FOR FULL DETAILS)
 - PERMEABLE PAVING
 - SITE BOUNDARY
 - EXISTING FOUL WATER SEWER
 - TREE ROOT PROTECTION AREAS
 - TREE ROOT PROTECTION AREAS CALCULATED AND SPECIFIED IN ACCORDANCE WITH BS 5827:2012 - 'TREES IN RELATION TO DESIGN, DEMOLITION AND CONSTRUCTION - RECOMMENDATIONS'



FOR CONSTRUCTION

Rev	Description	Date	By	Chkd
C08	LEGEND REVERTED TO REV. C05	16.02.2024	RL	RW
C07	COVER LEVELS UPDATED TO SUIT V.E. / PART M REVISIONS	08.08.2023	RL	RW
C06	SITE LAYOUT UPDATED	21.04.2023	RL	RW
C05	PLOT 19: PS115 LOCALLY RELOCATED	24.02.2023	RL	RW
C04	FW: Mh's F1, F2 & F33 AMENDED	08.02.2023	RL	RW
C03	ROAD 4 SOAKAWAY SIZED AMD.	07.02.2023	RL	RW
C02	ROAD 1/4 SOAKAWAY INFORMATION ADDED	02.02.2023	RL	RW
C01	ISSUED FOR CONSTRUCTION	20.01.2023	RL	RW

Paul Basham Associates Ltd
The Belfry, Curlew Hall Estate, Farnham, PO16 8UT
01525 711 000
info@paulbashamassociates.com www.paulbashamassociates.com

Project Name
LAND AT BAYARDS, EASTERGATE

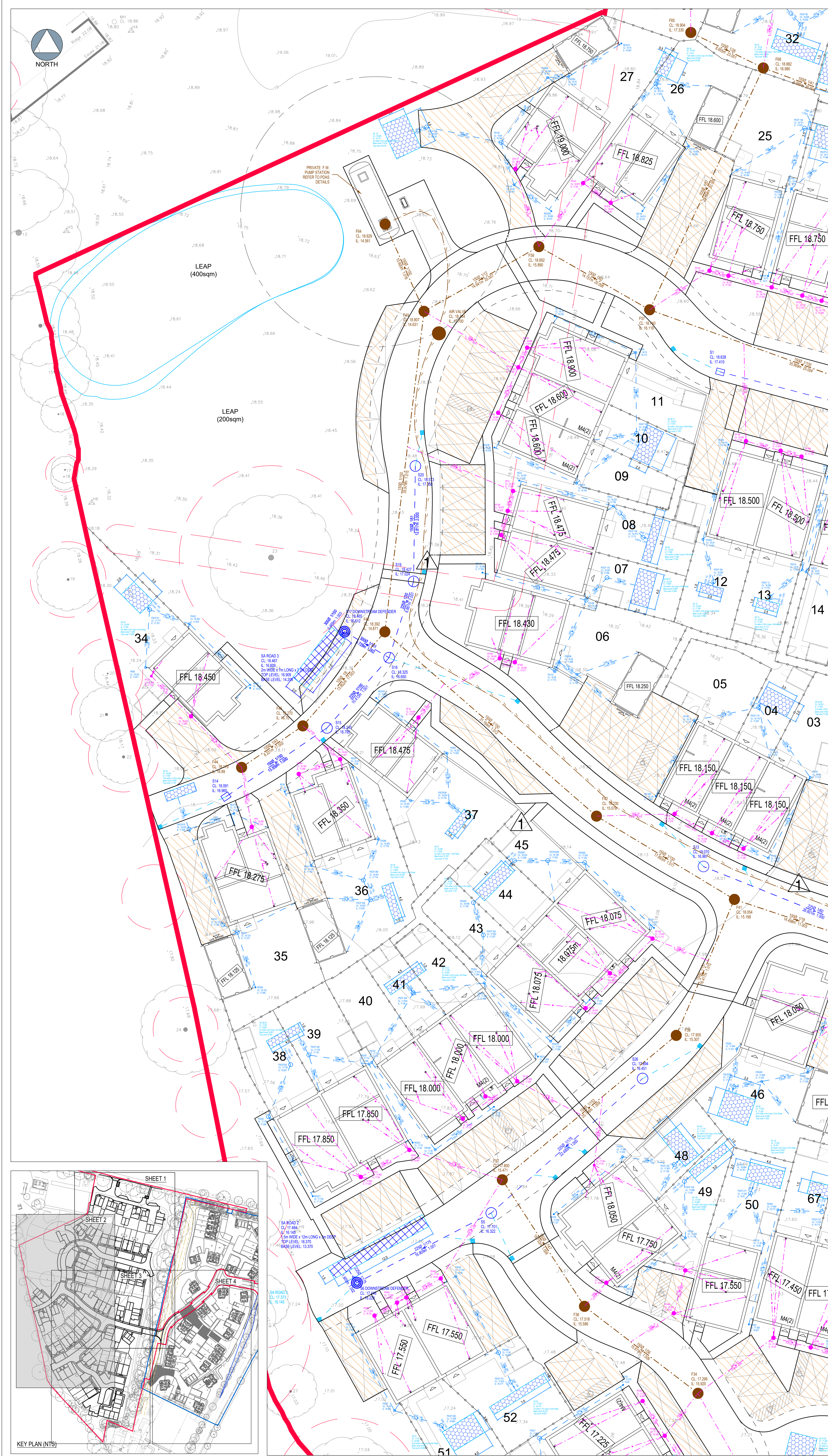
From
ENGINEERING LAYOUT DRAINAGE SHEET 1

Project Phase
CONSTRUCTION

Checked By	Checked Date	Drawn By	Drawn Date
RW	21.03.2022	CP	21.03.2022

Client Drawing No. - Scale 1:200 (AT A1 SIZE)

PBA Drawing No. 091.5016.0501 Revision C08



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1.	Existing services present		
2.			
3.			

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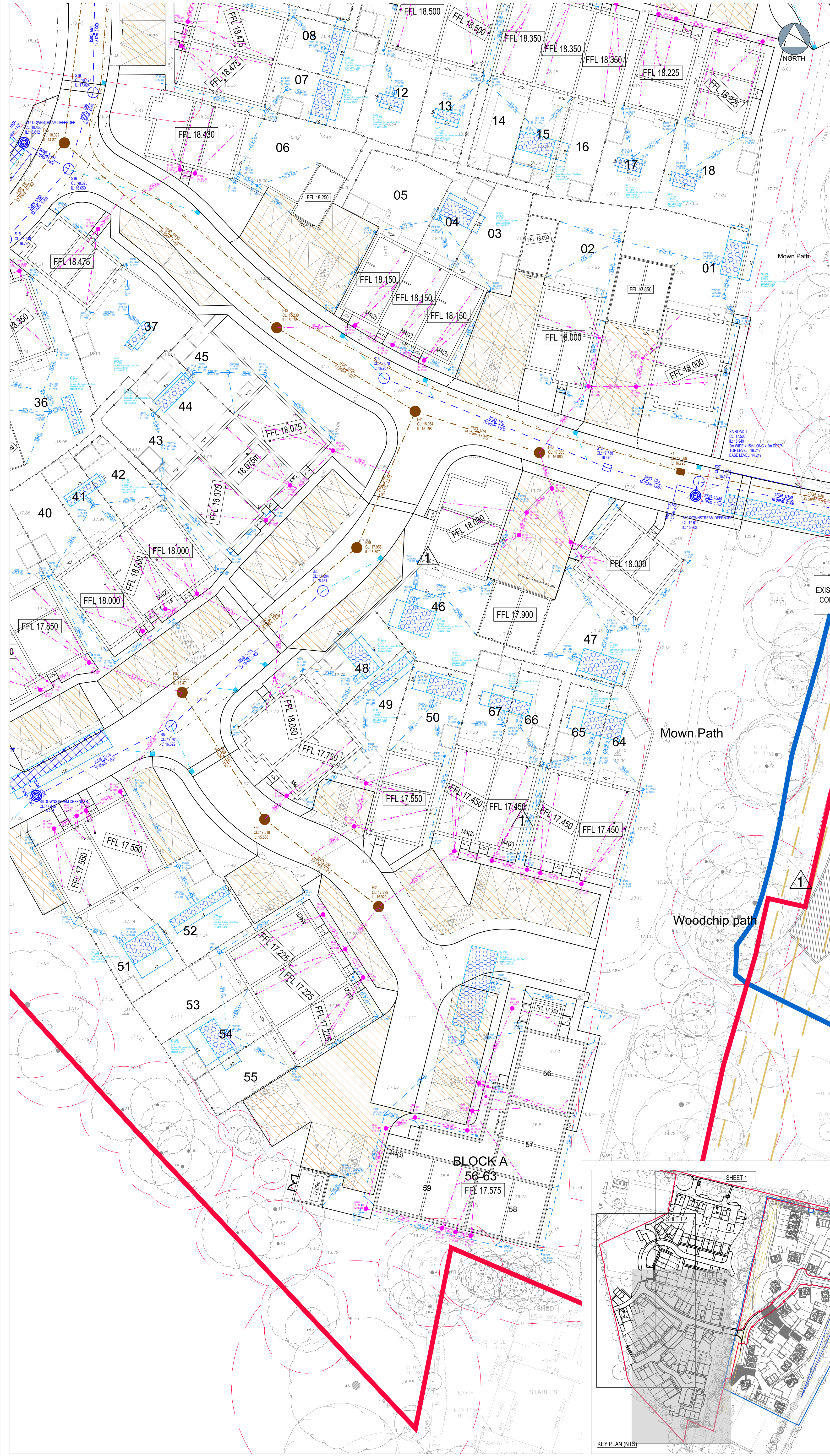
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- #### DRAINAGE NOTES
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS, SERVICES AND SPECIALIST DRAWINGS AND SPECIFICATION.
 - THE LEVEL OF THE EXISTING FOUL AND STORM SEWERS ON SITE HAS BEEN EXTRAPOLATED FROM THE LEVELS OF ADJACENT MANHOLES. THE EXACT LEVEL AT THE POINT OF CONNECTION SHALL BE CHECKED PRIOR TO THE COMMENCEMENT OF THE WORKS AND ANY VARIANCE REPORTED TO THE ENGINEER IMMEDIATELY.
 - ALL LEVELS ARE TO ORDNANCE DATUM.
 - ALL DRAINAGE TO BE IN ACCORDANCE WITH BUILDING REGULATIONS PART H. SEWERS NOTED AS ADAPTABLE SHALL BE TO SEWERS FOR ADOPTION 7th EDITION.
 - THE LOCATION OF EXISTING UNDERGROUND UTILITY SERVICES IS AS PROVIDED BY THE RELEVANT STATUTORY UNDERTAKERS. THE CONTRACTOR IS TO ASCERTAIN THE EXACT LOCATION PRIOR TO COMMENCEMENT OF WORKS.
 - UNLESS NOTED OTHERWISE ALL DRAINAGE PIPES ARE TO BE 100mm DIA. AND ALL GULLY LEADS ARE TO BE 150mm DIA. MINIMUM ADOPTABLE SEWER 100mm DIA.
 - MAXIMUM OUTFLOW RATE FOR FOUL PUMP STATION TO BE 4.0 l/s

LEGEND:	
	ADOPTABLE/PRIVATE FOUL WATER SEWER, Ø AS NOTED
	PRIVATE FOUL WATER DRAIN, 100mm Ø U.N.O
	PRIVATE/ADOPTABLE STORM WATER SEWER, Ø AS NOTED
	PRIVATE STORM WATER DOMESTIC DRAIN, 100mm Ø, U.N.O.
	FOUL RISING MAIN
	FOUL WATER MANHOLE (CUL/SL/TYPE AS SHOWN)
	SURFACE WATER MANHOLE (CUL/SL/TYPE AS SHOWN)
	FOUL WATER CATCHPIT/INSPECTION CHAMBER
	SURFACE WATER INSPECTION CHAMBER/CATCHPIT
	SURFACE WATER ROOSTING EYE
	FOUL GULLY
	ROAD GULLY
	FINISHED FLOOR LEVELS
	DOWNSTREAM DEFENDER
	VORTEX PLUS
	INFILTRATION CRATES (SEE 091.5016.551 FOR FULL DETAILS)
	GRAVEL INFILTRATION TRENCH (SEE 091.5016.551 FOR FULL DETAILS)
	PERMEABLE PAVING
	SITE BOUNDARY
	EXISTING FOUL WATER SEWER
	TREE ROOT PROTECTION AREAS
	TREE ROOT PROTECTION AREAS CALCULATED AND SPECIFIED IN ACCORDANCE WITH BS 5837:2012 - 'TREES IN RELATION TO DESIGN, DEMOLITION AND CONSTRUCTION - RECOMMENDATIONS'

FOR CONSTRUCTION

C05	LEGEND REVERTED TO REV. C02	16.02.2024	RL	RW
C04	COVER LEVELS UPDATED TO SUIT V.E./PART M REVISIONS	08.08.2023	RL	RW
C03	SITE LAYOUT UPDATED	21.04.2023	RL	RW
C02	ROAD 2/3 SOAKAWAY INFORMATION ADDED	02.02.2023	RL	RW
C01	ISSUED FOR CONSTRUCTION	20.01.2023	RL	RW
Rev	Description	Date	By	Chkd

Paul Basham Associates Ltd The Bolly, Curns Hall Estate, Farnham, PO16 8UT 01529 711 000 info@paulbashamassociates.com www.paulbashamassociates.com	
Client	
Project Name LAND AT BAYARDS, EASTERGATE	
Project Phase ENGINEERING LAYOUT DRAINAGE SHEET 2	
Project Phase CONSTRUCTION	
Checked By RW	Checked Date 21.03.2022
Client Drawing No. -	Drawn By CP
PBA Drawing No. 091.5016.0502	Drawn Date 21.03.2022
	Scale 1:250 (AT A1 SIZE)
	Revision C05



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CDM Regulations 2015 - Reg. 9			
None of the below is deemed to relieve any contractor of his obligations under all applicable health and safety legislation.			
In preparing the design shown on this and related drawings Paul Basham Associates has considered and, where reasonably practicable, eliminated foreseeable risks. Any further abnormal or unusual risks, which remain, are numbered below and identified thus (X), and should be given particular attention by all those carrying out construction or of future maintenance works.			
1.	Existing services present		
2.			
3.			

- GENERAL NOTES**
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- DRAINAGE NOTES**
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- LEGEND:**
- ADOPTABLE/PRIVATE FOUL WATER SEWER, Ø AS NOTED
 - PRIVATE FOUL WATER DRAIN, 100mm Ø U.N.O
 - PRIVATE/ADOPTABLE STORM WATER SEWER, Ø AS NOTED
 - PRIVATE STORM WATER DOMESTIC DRAIN, 100mm Ø, U.N.O.
 - FOUL RISING MAIN
 - FOUL WATER MANHOLE (CL/ULS/TYPE AS SHOWN)
 - SURFACE WATER MANHOLE (CL/ULS/TYPE AS SHOWN)
 - FOUL WATER CATCHPIT/INSPECTION CHAMBER
 - SURFACE WATER INSPECTION CHAMBER/CATCHPIT
 - SURFACE WATER ROOING EYE
 - FOUL GULLY
 - ROAD GULLY
 - FINISHED FLOOR LEVELS
 - DOWNSIDE DEFENDER
 - VORTEX PLUS
 - INFILTRATION CRATES (SEE 091.5016.551 FOR FULL DETAILS)
 - GRAVEL INFILTRATION TRENCH (SEE 091.5016.551 FOR FULL DETAILS)
 - PERMEABLE PAVING
 - SITE BOUNDARY
 - EXISTING FOUL WATER SEWER
 - TREE ROOT PROTECTION AREAS
 - TREE ROOT PROTECTION AREAS CALCULATED AND SPECIFIED IN ACCORDANCE WITH BS 5837:2012 - 'TREES IN RELATION TO DESIGN, DEMOLITION AND CONSTRUCTION - RECOMMENDATIONS'

FOR CONSTRUCTION

C06	LEGEND REVERTED TO REV. C03	16.02.2024	RL	RW
C05	COVER LEVELS UPDATED TO SUIT V.E. / PART M REVISIONS	08.08.2023	RL	RW
C04	SITE LAYOUT UPDATED	21.04.2023	RL	RW
C03	FW Mths F1, F2 & F33 AMENDED	08.02.2023	RL	RW
C02	ROAD 1 SOAKAWAY INFORMATION ADDED	02.02.2023	RL	RW
C01	ISSUED FOR CONSTRUCTION	20.01.2023	RL	RW
Rev	Description	Date	By	Chkd



Paul Basham Associates Ltd
The Bolly, Cume Hall Estate, Farnham, PO16 8UT
01250 711 000
info@paulbashamassociates.com www.paulbashamassociates.com

Client



Project Name
LAND AT BAYARDS, EASTERGATE

Draw
ENGINEERING LAYOUT DRAINAGE SHEET 3

Project Phase
CONSTRUCTION

Checked By	Checked Date	Drawn By	Drawn Date
RW	21.03.2022	CP	21.03.2022
Client Drawing No.	-	Scale	(AT A1 SIZE)
		1:250	
PBA Drawing No.	091.5016.0503	Revision	C06

Appendix C As Built Survey

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- ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS SHOWN OTHERWISE.

- SW — SURFACE WATER
- FW — FOUL WATER
- MANHOLE/INSPECTION CHAMBER/RODDING EYE
- FOUL WATER MANHOLE

I01	FOR INFORMATION	22/08/2023	RU	RU
Rev	Description	Date	By	App

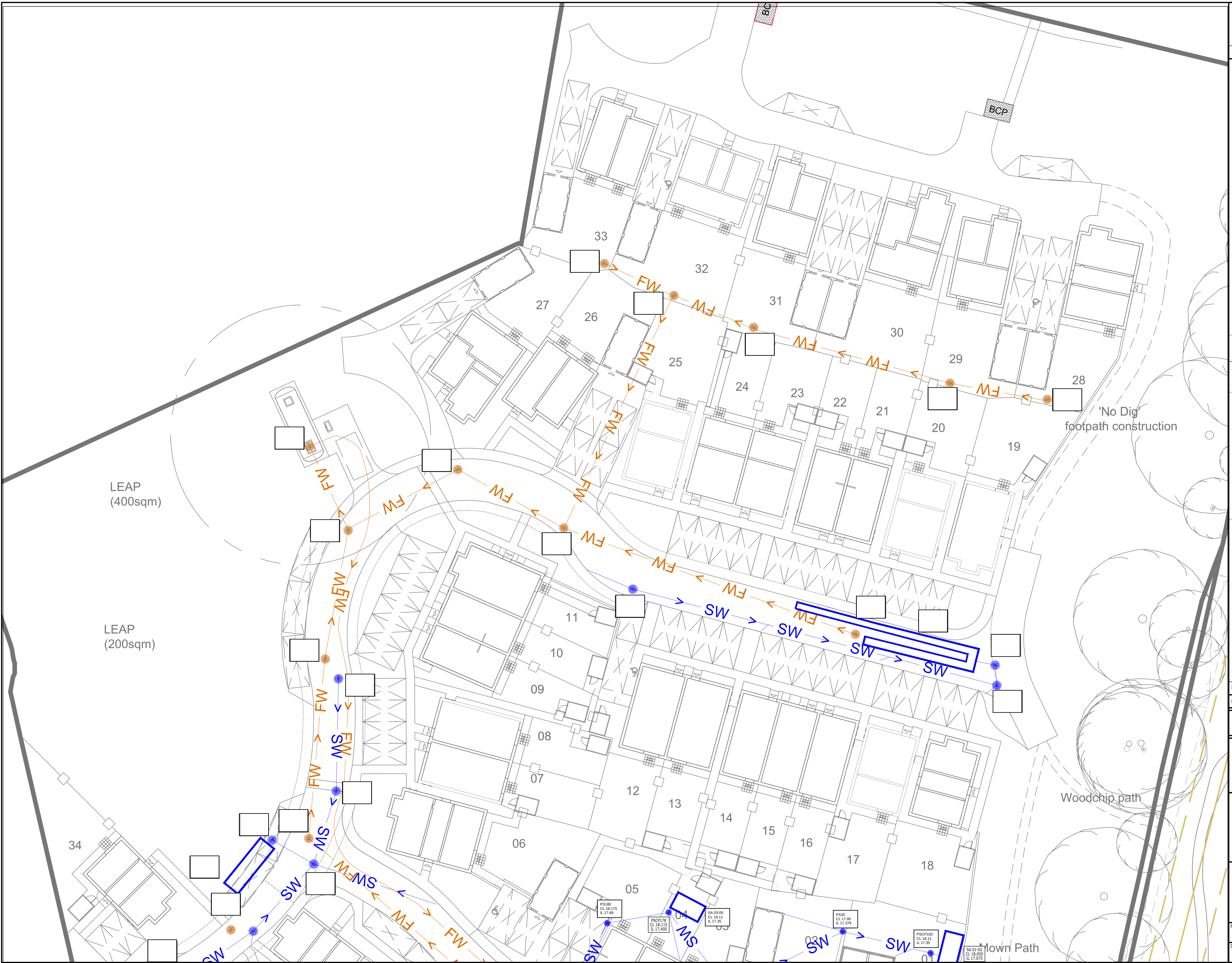
FOR INFORMATION

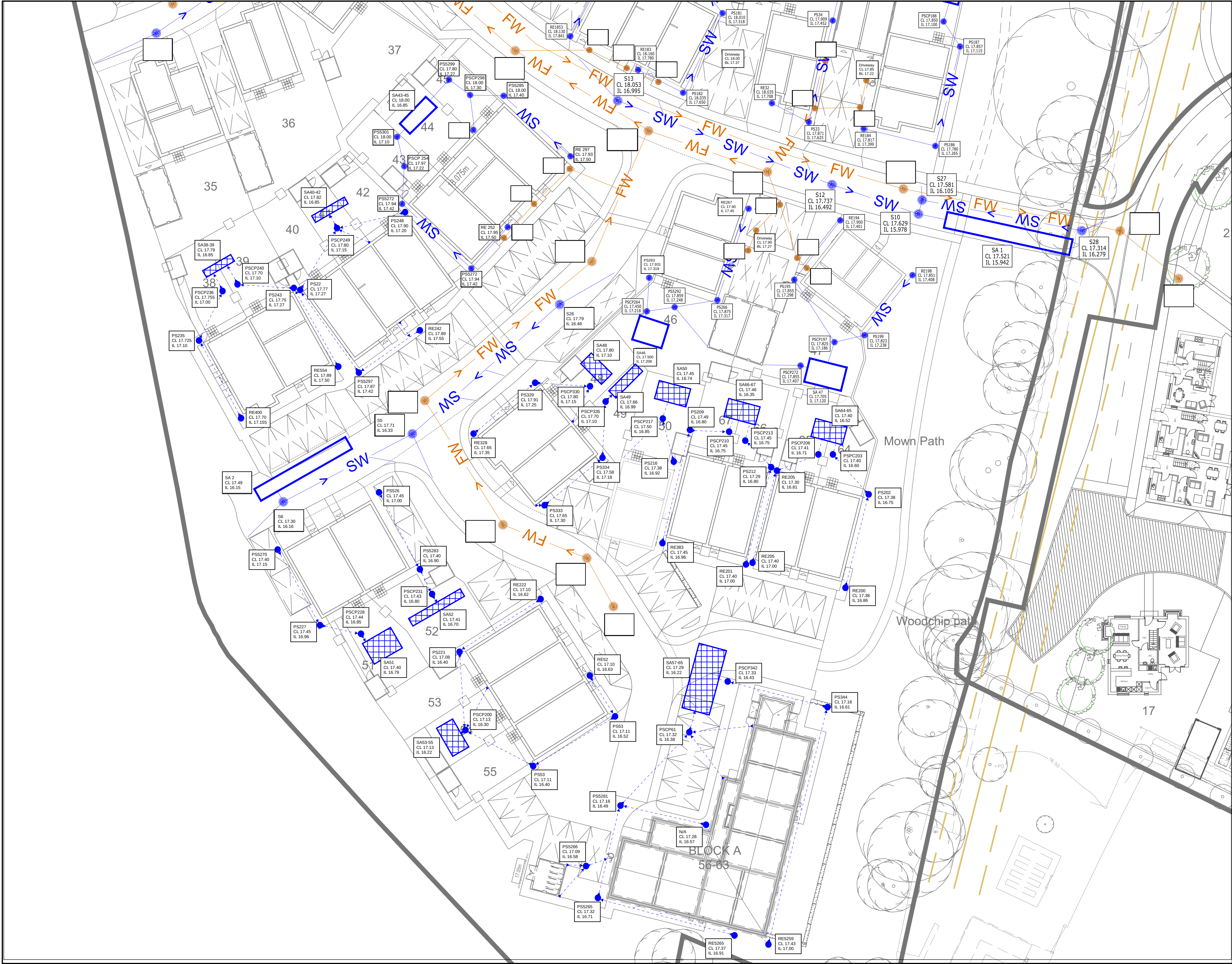
BAYARDS LANE
EASTERGATE

HI-ACRE CONSTRUCTION

AS BUILT DRAINAGE
LAYOUT PLAN
SHEET 1 OF 2

Project No:	Scale (@A1):	Drawn:	Date:
EASTERGATE	1:200	BT	AUG 23
Drawing No:		Rev:	
EASTERGATE-HA-XX-DR-C-00001		I01	





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MANHOLE/INSPECTION CHAMBER/RODDING EYE

FOUL WATER MANHOLE

I01	FOR INFORMATION	22/08/2023	RU	RU
Rev	Description	Date	By	App
			Chk	

FOR INFORMATION

BAYARDS LANE
EASTERGATE

HI-ACRE CONSTRUCTION

AS BUILT DRAINAGE
LAYOUT PLAN
SHEET 2 OF 2

Project No:	Scale (8A1):	Drawn:	Date:
EASTERGATE	1:200	BT	AUG 23
Drawing No:		Rev:	
EASTERGATE-HA-XX-DR-C-00002			I01

Appendix D Materials

Appendix E CCTV Survey of Pipelines and CCTV Video Files