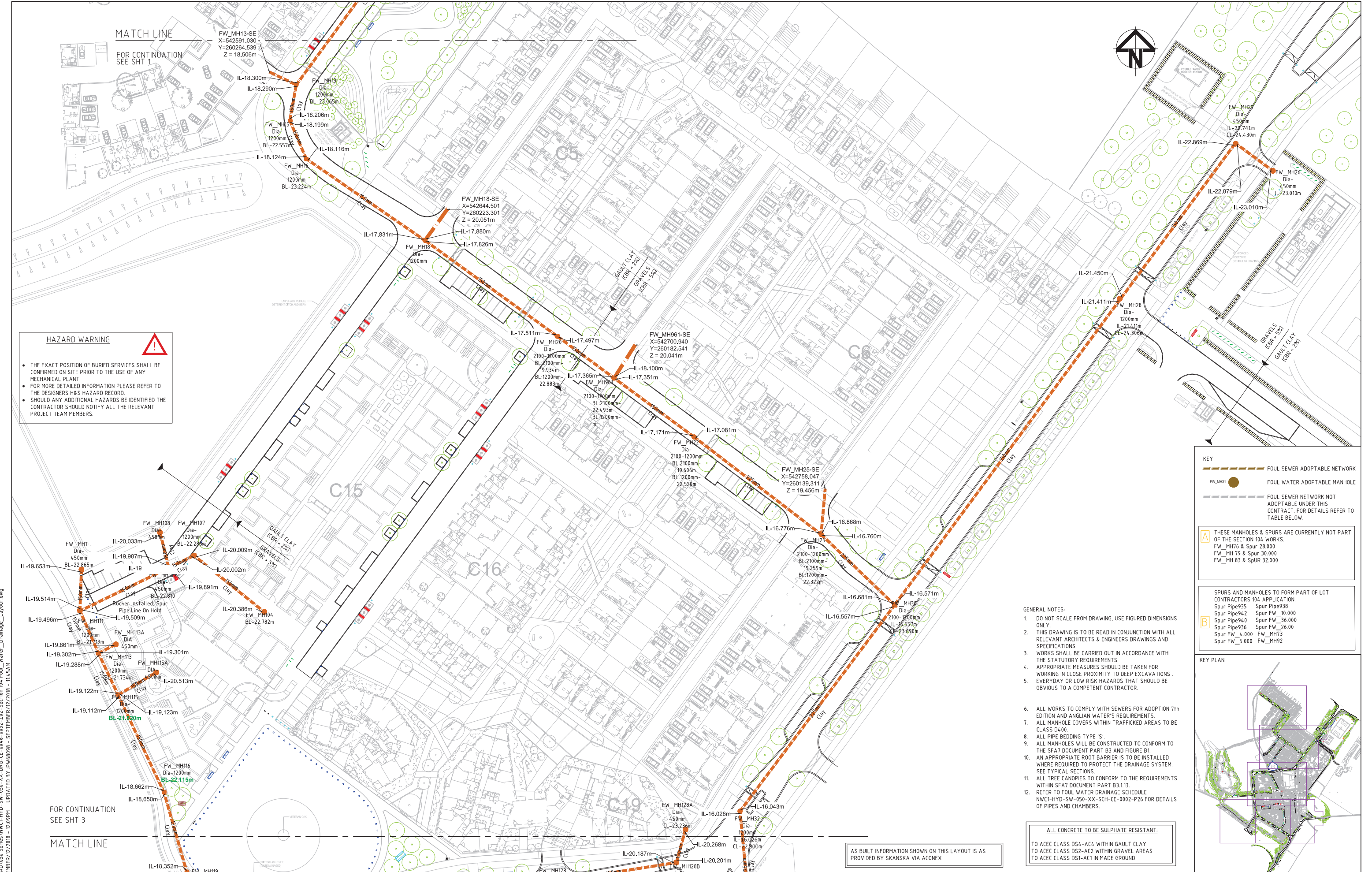


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PRINTED BY: P468098 - SEPTEMBER/12/2018 - 10:09PM UPDATED BY: P468098 - SEPTEMBER/12/2018 - 11:45AM



Issue	Description	Date
Z01	AS BUILT	12-09-18
C07	AS BUILTS UPDATED AS OF INFORMATION RECEIVED ON 2017-05-31	03-07-17
C06	SITE LAYOUT UPDATED	26-09-16
C05	DRAINAGE ANNOTATION, RIDGEWAY MANHOLES COVER LEVELS REVISED AND NOTES ADDED	22-04-16

Client	UNIVERSITY OF CAMBRIDGE
Project	NORTH WEST CAMBRIDGE DEVELOPMENT
Scale	1:500
Original Size	A1
Height Datum	DATUM
Grid	GRID
Filename	NWC1-HYD-SW-050-XX-DRG-CE-0048-0052-Z02-Section 104_Foul_Water_Drainage_Layout.dwg

Current Issue Signatures	Status	AS BUILT
Author M.GRIFFITHS	Project	NORTH WEST CAMBRIDGE
Checker P.JOHNSON		
Approver S.A.DAVIES		
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Title	FOUL WATER DRAINAGE SECTION 104 AGREEMENT (SHEET 2 OF 5)
Project No.	UA006967
Drawing Number	NWC1-HYD-SW-050-XX-DRG-CE-0049
Issue	Z01

Project No.	UA006967
Drawing Number	NWC1-HYD-SW-050-XX-DRG-CE-0049
Issue	Z01

Project No.	UA006967
Drawing Number	NWC1-HYD-SW-050-XX-DRG-CE-0049
Issue	Z01

Project No.	UA006967
Drawing Number	NWC1-HYD-SW-050-XX-DRG-CE-0049
Issue	Z01

AS BUILT INFORMATION SHOWN ON THIS LAYOUT IS AS PROVIDED BY SKANSKA VIA ACONEX

MATCH LINE

FOR CONTINUATION
SEE SHT 2



- GENERAL NOTES:
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 - APPROPRIATE MEASURES SHOULD BE TAKEN FOR WORKING IN CLOSE PROXIMITY TO DEEP EXCAVATIONS. EVERYDAY OR LOW RISK HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR.

- DRAINAGE NOTES:
- ALL WORKS TO COMPLY WITH SEWERS FOR ADOPTION 7th EDITION AND ANGLIAN WATER'S REQUIREMENTS.
 - ALL MANHOLE COVERS WITHIN TRAFFICKED AREAS TO BE CLASS DA00.
 - ALL PIPE BEDDING TYPE 'S'.
 - ALL MANHOLES WILL BE CONSTRUCTED TO CONFORM TO THE SFA7 DOCUMENT PART B3 AND FIGURE B1.
 - AN APPROPRIATE ROOT BARRIER IS TO BE INSTALLED WHERE REQUIRED TO PROTECT THE DRAINAGE SYSTEM. SEE TYPICAL SECTIONS.
 - ALL TREE CANOPIES TO CONFORM TO THE REQUIREMENTS WITHIN SFA7 DOCUMENT PART B3.1.13.
 - REFER TO FOUL WATER DRAINAGE SCHEDULE NWC1-HYD-SW-050-XX-SCH-CE-0002-P26 FOR DETAILS OF PIPES AND CHAMBERS.

- KEY
- FOUL SEWER ADOPTABLE NETWORK
 - FOUL WATER ADOPTABLE MANHOLE
 - FOUL SEWER NETWORK NOT ADOPTABLE UNDER THIS CONTRACT. FOR DETAILS REFER TO TABLE BELOW.

THESE MANHOLES & SPURS ARE CURRENTLY NOT PART OF THE SECTION 104 WORKS.
FW_MH76 & Spur 28.000
FW_MH79 & Spur 30.000
FW_MH83 & Spur 32.000

SPURS AND MANHOLES TO FORM PART OF LOT CONTRACTORS 104 APPLICATION.
Spur Pipe935 Spur Pipe938
Spur Pipe942 Spur FW_10.000
Spur Pipe940 Spur FW_36.000
Spur Pipe936 Spur FW_26.000
Spur FW_4.000 FW_MH73
Spur FW_5.000 FW_MH92

ALL CONCRETE TO BE SULPHATE RESISTANT:
TO AEC CLASS D54-AC4 WITHIN GAULT CLAY
TO AEC CLASS D52-AC2 WITHIN GRAVEL AREAS
TO AEC CLASS D51-AC1 IN MADE GROUND

HAZARD WARNING

- THE EXACT POSITION OF BURIED SERVICES SHALL BE CONFIRMED ON SITE PRIOR TO THE USE OF ANY MECHANICAL PLANT.
- FOR MORE DETAILED INFORMATION PLEASE REFER TO THE DESIGNERS H&S HAZARD RECORD.
- SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED THE CONTRACTOR SHOULD NOTIFY ALL THE RELEVANT PROJECT TEAM MEMBERS.

KEY PLAN



FOR CONTINUATION
SEE SHT 4

MATCH LINE

Issue	Description	Date
Z02	AS BUILT - KEY REVISED	12-09-18
Z01	AS BUILT ISSUE	03-07-17
C05	DRAINAGE LAYOUT AMENDED & SITE LAYOUT UPDATED	26-09-16
C04	DRAINAGE ANNOTATION, RIDGEWAY MANHOLES COVER LEVELS REVISED AND NOTES ADDED	22-04-16
C03	ADDED SHEET 5 TO SHOW NEW EXTENT OF FOUL NETWORK	10-12-15

ALL CONCRETE TO BE SULPHATE RESISTANT:
TO AEC CLASS D54-AC4 WITHIN GAULT CLAY
TO AEC CLASS D52-AC2 WITHIN GRAVEL AREAS
TO AEC CLASS D51-AC1 IN MADE GROUND



Scales	1:500
Original Size	A1
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Grid	GRID
Filename	NWC1-HYD-SW-050-XX-DRG-CE-0048-0052-SECTION 104_Foul_Water_Drainage_Layout.dwg

Current Issue Signatures	Status
Author M.GRIFFITHS	
Checker P.JOHNSON	
Approver S.DAVIES	
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AS BUILT ISSUE

NORTH WEST CAMBRIDGE

FOUL WATER DRAINAGE
SECTION 104 AGREEMENT
(SHEET 3 OF 5)

Project No. UA006967



Hyder Consulting (UK) Limited
Manning House
22 Carlisle Place
London SW1P 1JA
Tel: +44(0) 203 014 9000

Drawing Number
NWC1-HYD-SW-050-XX-DRG-CE-0050

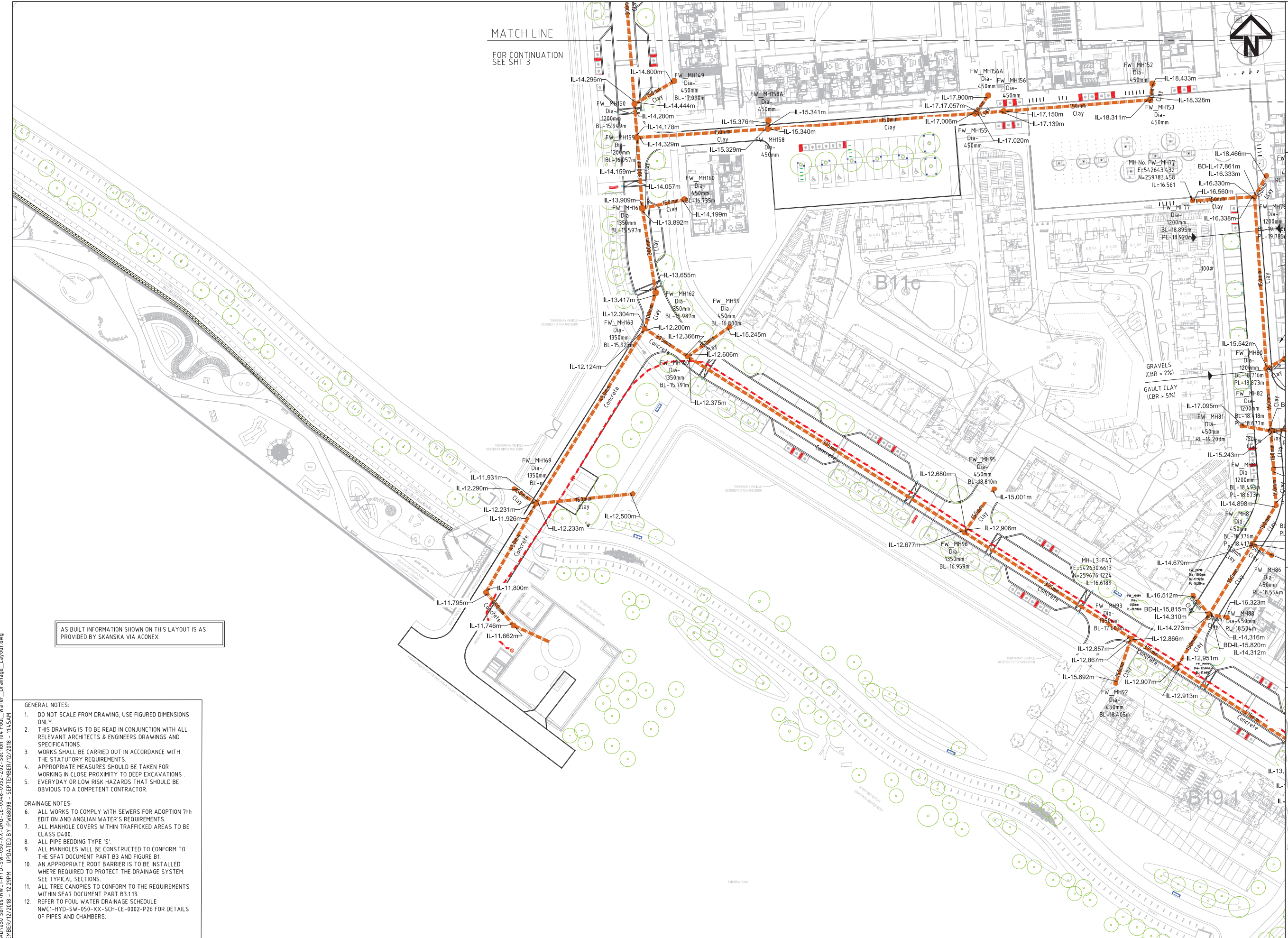
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12/Sep/2018 12:20 PM

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 - APPROPRIATE MEASURES SHOULD BE TAKEN FOR WORKING IN CLOSE PROXIMITY TO DEEP EXCAVATIONS.
 - EVERYDAY OR LOW RISK HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR.
- DRAINAGE NOTES:
- ALL WORKS TO COMPLY WITH SEWERS FOR ADOPTION 7th EDITION AND ANGLIAN WATER'S REQUIREMENTS.
 - ALL MANHOLE COVERS WITHIN TRAFFICKED AREAS TO BE CLASS D400.
 - ALL PIPE BEDDING TYPE 'S'.
 - ALL MANHOLES WILL BE CONSTRUCTED TO CONFORM TO THE SFA7 DOCUMENT PART B3 AND FIGURE B1.
 - AN APPROPRIATE ROOT BARRIER IS TO BE INSTALLED WHERE REQUIRED TO PROTECT THE DRAINAGE SYSTEM. SEE TYPICAL SECTIONS.
 - ALL TREE CANOPIES TO CONFORM TO THE REQUIREMENTS WITHIN SFA7 DOCUMENT PART B3.1.3.
 - REFER TO FOUL WATER DRAINAGE SCHEDULE NWC1-HYD-SW-050-XX-SCH-CE-0002-P26 FOR DETAILS OF PIPES AND CHAMBERS.

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Z01	AS BUILT ISSUE	03-07-17
C05	SITE LAYOUT UPDATED	26-09-16
C04	DRAINAGE ANNOTATION REVISED AND NOTES ADDED	22-04-16
C03	ADDED SHEET 5 TO SHOW NEW EXTENT OF FOUL NETWORK	10-12-15
Issue	Description	Date

MATCH LINE
FOR CONTINUATION
SEE SHT 3

Client

UNIVERSITY OF CAMBRIDGE

SKANSKA

NORTH WEST CAMBRIDGE DEVELOPMENT

Scales	1:500	Current Issue Signatures	Status
Original Size	A1	Author M.GRIFFITHS	AS BUILT
Height Datum	DATUM	Checker P.JOHNSON	Project
Grid	GRID	Approver S.A.DAVIES	
Filename	NWC1-HYD-SW-050-XX-DRG-CE-0048-0052-Z02-SECTION 104 Foul Water Drainage Layout.dwg		

Status	AS BUILT
Project	NORTH WEST CAMBRIDGE

Title	FOUL WATER DRAINAGE SECTION 104 AGREEMENT (SHEET 4 OF 5)
Project No.	UA006967

Hyder Consulting

Hyder Consulting (UK) Limited
Manning House
22 Carlisle Place
London
SW1P 1JA
Tel: +44(0) 203 014 9000

Drawing Number	NWC1-HYD-SW-050-XX-DRG-CE-0051	Issue	Z02
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ALL CONCRETE TO BE SULPHATE RESISTANT:
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TO AEC CLASS DS2-AC2 WITHIN GRAVEL AREAS
TO AEC CLASS DS1-AC1 IN MADE GROUND

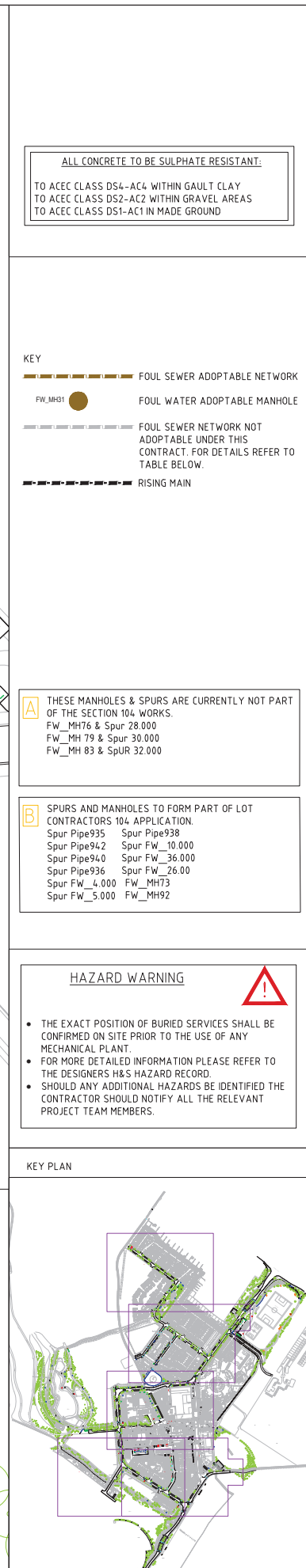
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 - FOUL WATER ADAPTABLE MANHOLE
 - FOUL SEWER NETWORK NOT ADAPTABLE UNDER THIS CONTRACT. FOR DETAILS REFER TO TABLE BELOW.
 - RIISING MAIN

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FW_MH76 & Spur 28.000
FW_MH 79 & Spur 30.000
FW_MH 83 & Spur 32.000

SPURS AND MANHOLES TO FORM PART OF LOT CONTRACTORS 104 APPLICATION.
Spur Pipe935 Spur Pipe938
Spur Pipe942 Spur FW_10.000
Spur Pipe940 Spur FW_36.000
Spur Pipe936 Spur FW_26.000
Spur FW_4.000 FW_MH73
Spur FW_5.000 FW_MH92

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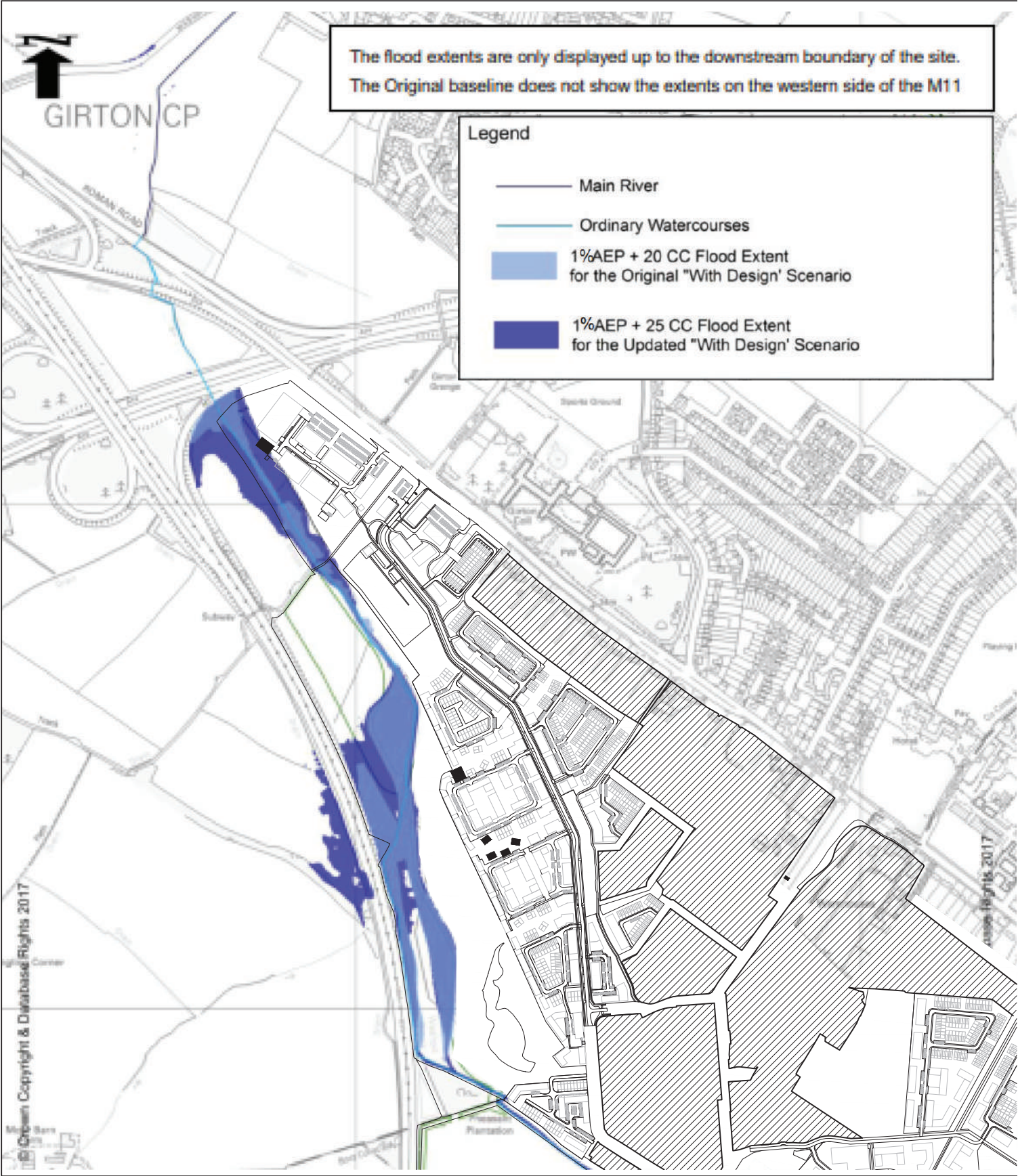




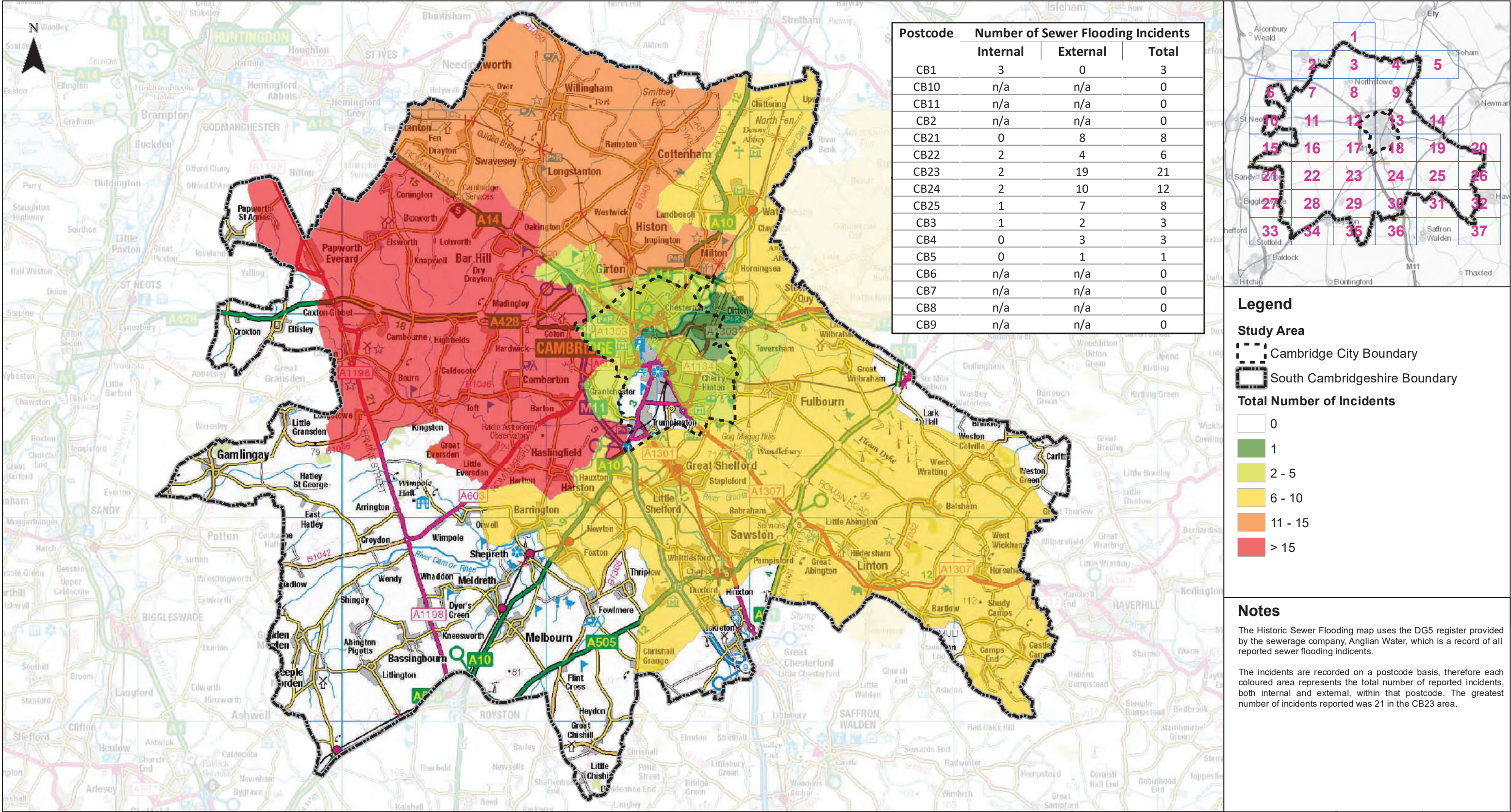
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		Author M.GRIFFITHS	
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Height Datum	DATUM	Approver S.A.DAVIES	
Grid	GRID	© Copyright reserved	
Filename:	NACT-PRD-004-99-XX-085-CI-004R-002-02-DSECTION IN FILE, WATER, DRAINAGE, FLOODING		

Title	FOUL WATER DRAINAGE SECTION 104 AGREEMENT (SHEET 5 OF 5)
Project No.	UA006967

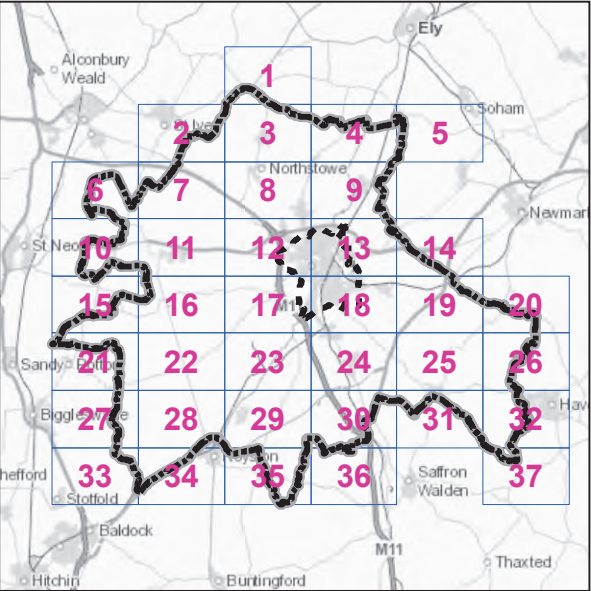
Appendix E Flood Alleviation Scheme



Appendix F SFRA Maps



Postcode	Number of Sewer Flooding Incidents		
	Internal	External	Total
CB1	3	0	3
CB10	n/a	n/a	0
CB11	n/a	n/a	0
CB2	n/a	n/a	0
CB21	0	8	8
CB22	2	4	6
CB23	2	19	21
CB24	2	10	12
CB25	1	7	8
CB3	1	2	3
CB4	0	3	3
CB5	0	1	1
CB6	n/a	n/a	0
CB7	n/a	n/a	0
CB8	n/a	n/a	0
CB9	n/a	n/a	0



Legend

Study Area

Cambridge City Boundary

South Cambridgeshire Boundary

Total Number of Incidents

0

1

2 - 5

6 - 10

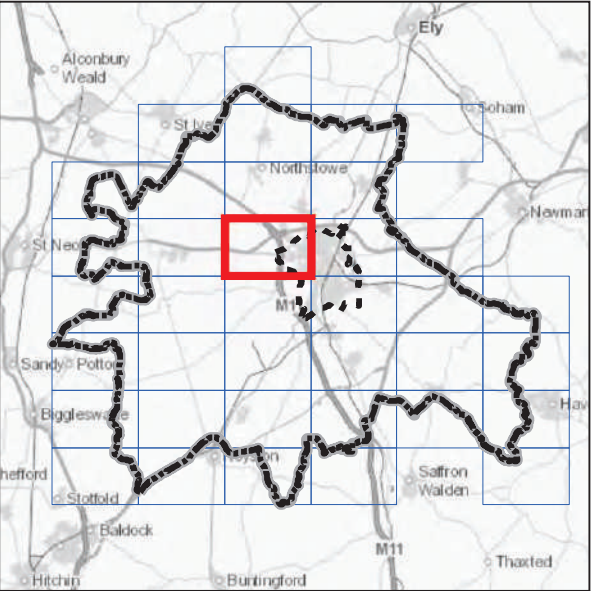
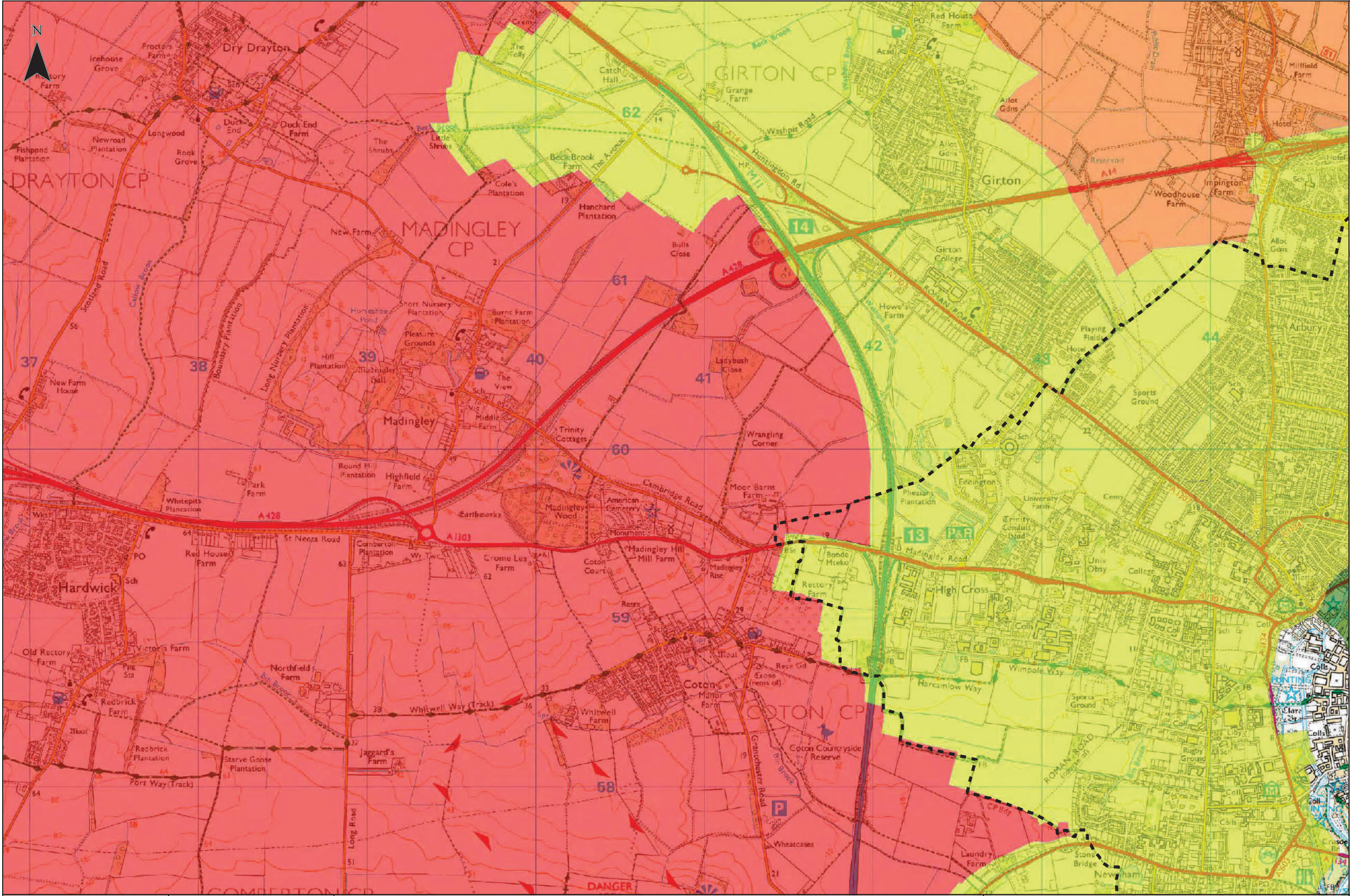
11 - 15

> 15

Notes

The Historic Sewer Flooding map uses the DG5 register provided by the sewerage company, Anglian Water, which is a record of all reported sewer flooding incidents.

The incidents are recorded on a postcode basis, therefore each coloured area represents the total number of reported incidents, both internal and external, within that postcode. The greatest number of incidents reported was 21 in the CB23 area.



Legend

- Study Area**
- Cambridge City Boundary
 - South Cambridgeshire Boundary

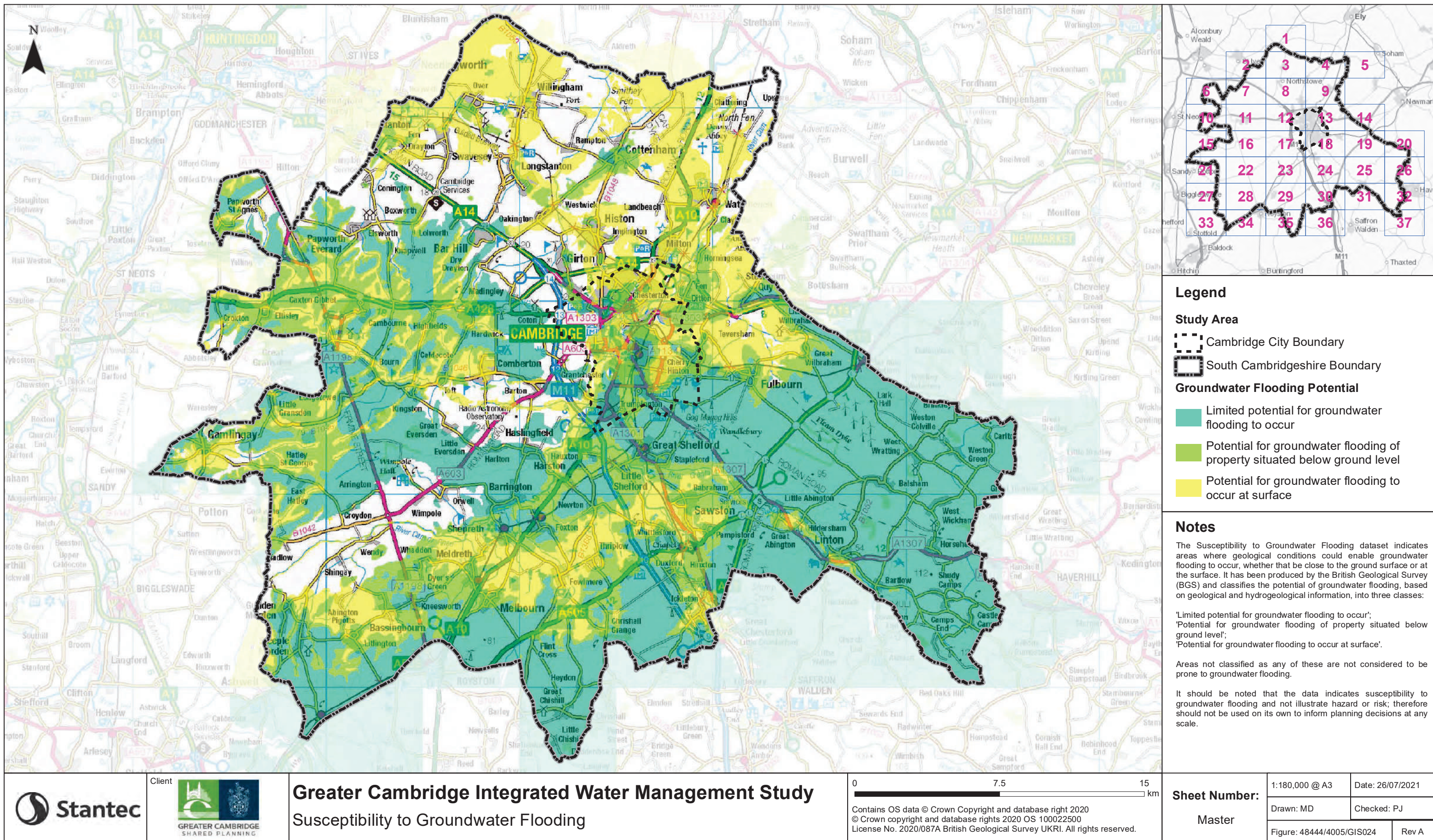
Total Number of Incidents

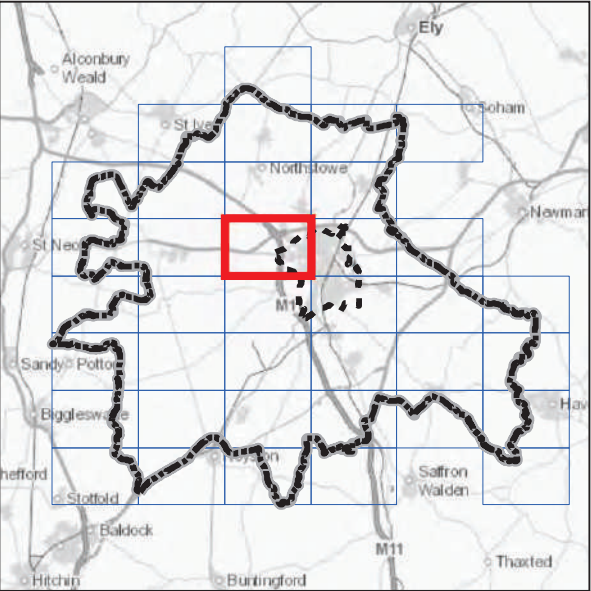
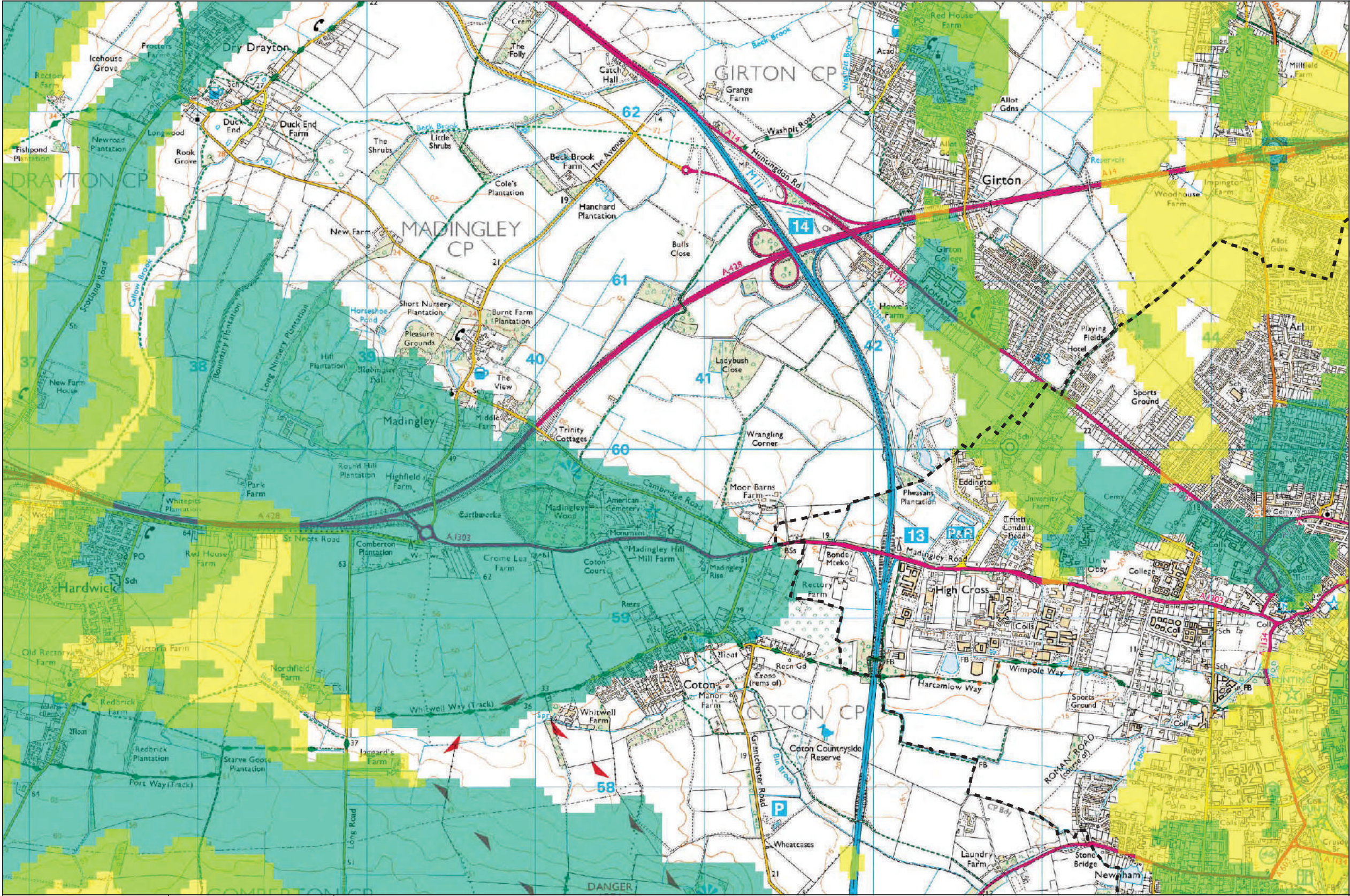
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- 6 - 10
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Notes

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Legend

Study Area

- Cambridge City Boundary
- South Cambridgeshire Boundary

Groundwater Flooding Potential

- Limited potential for groundwater flooding to occur
- Potential for groundwater flooding of property situated below ground level
- Potential for groundwater flooding to occur at surface

Notes

The Susceptibility to Groundwater Flooding dataset indicates areas where geological conditions could enable groundwater flooding to occur, whether that be close to the ground surface or at the surface. It has been produced by the British Geological Survey (BGS) and classifies the potential of groundwater flooding, based on geological and hydrogeological information, into three classes:

- 'Limited potential for groundwater flooding to occur';
- 'Potential for groundwater flooding of property situated below ground level';
- 'Potential for groundwater flooding to occur at surface'.

Areas not classified as any of these are not considered to be prone to groundwater flooding.

It should be noted that the data indicates susceptibility to groundwater flooding and not illustrate hazard or risk; therefore should not be used on its own to inform planning decisions at any scale.

Appendix G PREPLANNING ENQUIRY ANGLIAN WATER



Pre-Planning Assessment Report

North West Cambridge

InFlow Reference: PPE-0217160

Assessment Type: Used Water

Report published: 13/12/2024



Thank you for submitting a pre-planning enquiry.

This has been produced for AECOM Ltd.

Your reference number is **PPE-0217160**.

This report can be submitted as a drainage strategy for the development should it seek planning permission.

If you have any questions upon receipt of this report, you can submit a further question via InFlow. Alternatively, please contact the Planning & Capacity team on **07929 786 955** or email planningliaison@anglianwater.co.uk

Section 1 - Proposed development

The response within this report has been based on the following information which was submitted as part of your application:

List of planned developments	
Type of development	No. Of units
Dwellings	6000

The anticipated residential build rate is:

Year	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
Build rate	50	50	50	50	50	50	50	50	50	50	50	5450

Development type: Greenfield

Planning application status: Unknown

Site grid reference number: TL4268060293

The comments contained within this report relate to the public water mains and sewers indicated on our records.

Your attention is drawn to the disclaimer in the useful information section of this report.

Section 2 - Assets affected

Our records indicate that we have the following types of assets within or overlapping the boundary of your development site as listed in the table below.

Additionally, it is highly recommended that you carry out a thorough investigation of your proposed working area to establish whether any unmapped public or private sewers and lateral drains are in existence. We are unable to permit development either over or within the easement strip without our prior consent. The extent of the easement is provided in the table below. Please be aware that the existing water mains/public sewers should be located in highway or open space and not in private gardens. This is to ensure available access for any future maintenance and repair and this should be taken into consideration when planning your site layout.

Water and Used water easement information		
Asset type	Pipe size (mm)	Total easement required (m)
Sewer mains	150	3.00 m either side of the centre line
Sewer mains	225	3.00 m either side of the centre line
Sewer mains	300	3.00 m either side of the centre line
Sewer mains	375	3.00 m either side of the centre line
Sewer mains	450	3.50 m either side of the centre line

If it is not possible to avoid our assets then these may need to be diverted in accordance with Section 185 of the Water Industry Act (1991). You will need to make a formal application if you would like a diversion to be considered.

Pumping Station

The development site is within 15 metres of a sewage pumping station. This asset requires access for maintenance and will have sewerage infrastructure leading to it. For practical reasons therefore it cannot be easily relocated. Anglian Water consider that dwellings located within 15 metres of the pumping station would place them at risk of nuisance in the form of noise, odour or the general disruption from maintenance work caused by the normal operation of the pumping station. The site layout should take this into account and accommodate this infrastructure type through a necessary cordon sanitaire, through public space or highway infrastructure to ensure that no development within 15 metres from the boundary of a sewage pumping station if the development is potentially sensitive to noise or other disturbance or to ensure future amenity issues are not created.

Due to the private sewer transfer in October 2011 many newly adopted public used water assets and their history are not indicated on our records. You also need to be aware that your development site may contain private water mains, drains or other assets not shown on our records. These are private assets and not the responsibility of Anglian Water but that of the landowner.

Section 3 - Water recycling services

In examining the used water system we assess the ability for your site to connect to the public sewerage network without causing a detriment to the operation of the system. We also assess the receiving water recycling centre and determine whether the water recycling centre can cope with the increased flow and effluent quality arising from your development.

Water recycling centre

The foul drainage from this development is in the catchment of Cambridge Water Recycling Centre which currently does not have capacity to treat the flows from the development site. Anglian Water has applied to the Environment Agency for an interim new permit to address exceedance. Please note that it is Anglian Water responsibility to take the necessary steps to ensure there is capacity to accommodate the domestic flows from the proposed development.

Our long-term plans for Cambridge WRC are linked to the Cambridge relocation project and the Development Consent Order. The new Cambridge WRC will take all existing domestic flows from current Cambridge WRC and all flows from the future growth within the WRC catchment.

We are working with Greater Cambridgeshire to understand the long-term growth figures, using the emerging local plan allocations and planning permissions. This allows us to design and deliver a new Cambridge WRC which can meet future demand.

Used water network

Our assessment has been based on development flows connecting to the nearest foul water sewer of the same size or greater pipe diameter to that required to drain the site. The infrastructure to convey foul water flows to the receiving sewerage network is assumed to be the responsibility of the developer. Conveyance to the connection point is considered as Onsite Work and includes all work carried out upstream from of the point of connection, including making the connection to our existing network.

This connection point has been determined in reference to the calculated discharge flow and on this basis, a 750mm internal diameter pipe is required to drain the development site. We have assessed your preferred connection point which is to the 1200mm sewer located in Madingley Road at National Grid reference (NGR) TL 43650 59105. Anglian Water has assessed the impact of a pumped conveyance from the planned development to the public foul sewerage network and we can confirm that this connection is acceptable as the foul sewerage system, at present, has available capacity for your site. In line with Sewers for Adoption, the pumped discharge will need to connect via an intermediate manhole and at least 5 metres of an appropriately sized gravity sewer. The pump rate and configuration of the connection will be determined with your detailed design. You should submit this detail with your Section 106 new connection application.

Due to the size of this site, we would like to understand your onsite drainage design in greater detail. Therefore, we would like to arrange a meeting to examine the available options and establish an effective strategy. Please advise our team of your availability for a meeting via Planningliaison@anglianwater.co.uk.

Please note that Anglian Water will request a suitably worded condition at planning application stage to ensure this strategy is implemented to mitigate the risk of flooding.

It is assumed that the developer will provide the necessary infrastructure to convey flows from the site to the network. Consequently, this report does not include any costs for the conveyance of flows.

Surface water disposal

You indicated on the Pre-Planning Application form that a connection to the public surface water sewer network is not required. Therefore a capacity assessment has not been made on the public surface water network.

As you may be aware, Anglian Water will consider the adoption of SuDs provided that they meet the criteria outline in our SuDs adoption manual. This can be found on our [website](#). We will adopt features located in public open space that are designed and constructed, in conjunction with the Local Authority and Lead Local Flood Authority (LLFA), to the criteria within our SuDs adoption manual. Specifically, developers must be able to demonstrate:

- 1. Effective upstream source control,
- 2. Effective exceedance design, and
- 3. Effective maintenance schedule demonstrating than the assets can be maintained both now and in the future with adequate access.

If you wish to look at the adoption of any SuDs then an expression of interest form can be found on our [website](#)

As the proposed method of surface water disposal is not relevant to Anglian Water; we suggest that you contact the relevant Local Authority, Lead Local Flood Authority, the Environment Agency or the Internal Drainage Board, as appropriate.

Trade Effluent

We note that you do not have any trade effluent requirements. Should this be required in the future you will need our written formal consent. This is in accordance with Section 118 of the Water Industry Act (1991).

Used Water Budget Costs

Your development site will be required to pay an Infrastructure charge for each new property connecting to the public water and sewerage network that benefits from Full planning permission. The infrastructure charge replaces the zonal charge as previously identified.

You will be required to pay an infrastructure charge upon connection for each new plot on your development site. The infrastructure charge are types of charges set out in Section 146(2) of the Water Industry Act 1991.

The charge should be paid by anyone who wishes to build or develop a property and is payable upon request of connection.

- The Infrastructure Charge is based on the cost of any reinforcement and upgrades to our existing network (“Network Reinforcements”), whether designed to address strategic or local capacity issues. For more information on our Infrastructure Charge, please see the ‘Useful Information’ section of this report.

Infrastructure charges are raised on a standard basis of one charge per new connection (one for water and one for sewerage).

The Water Recycling Infrastructure charge for your dwellings is:

Infrastructure charge	Number of units	Total
£ 403	6000	£2,418,000.00

Please note that you should also budget for infrastructure charges on non-household premises where applicable and these will be calculated according to the number and type of water fittings in the premises. This is called the “relevant multiplier” method of calculating the charge and the relevant multiplier will be applied to the figures set out in our 2024-25 Developer Charging Arrangements to arrive at the amount payable. Details of the relevant multiplier for each fitting can be found on our [website](#).

Section 4 – Map of connection point

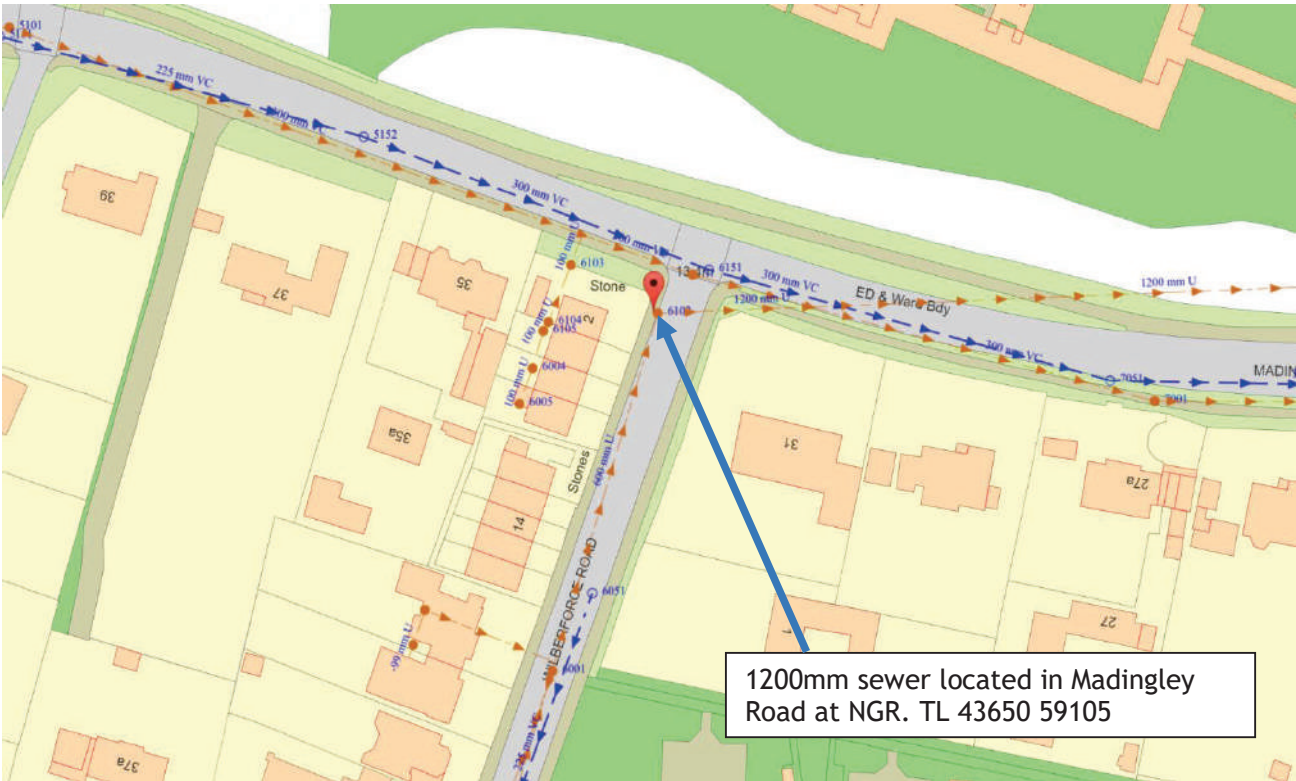


Figure 1: Showing your connection point for foul water

Appendix B Site Layout



Key

Site application boundary

Excluded from application

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No implied licence exists. This drawing should not be used to calculate areas for the purposes of valuation. Do not scale this drawing. All dimensions to be checked on the site by the contractor and such dimensions to be their responsibility. All work must comply with relevant British Standards and Building Regulations requirements. Drawing errors and omissions to be reported to the architect. To be read in conjunction with Architect's specification and other consultant information.

Status codes:		
S1 - Suitable for Coordination		
S2 - Suitable for Information		
S3 - Suitable for Review & Comment		
S4 - Suitable for Review & Authorization		
S5 - Suitable for Review & Acceptance		
An - Approved & Accepted as Stage complete		

Rev	Description	Date
P00	Issued for planning	01.09.25

30 Clerkenwell Road
London
EC1M 5PG

mail@hawkinsbrown.com
hawkinsbrown.com

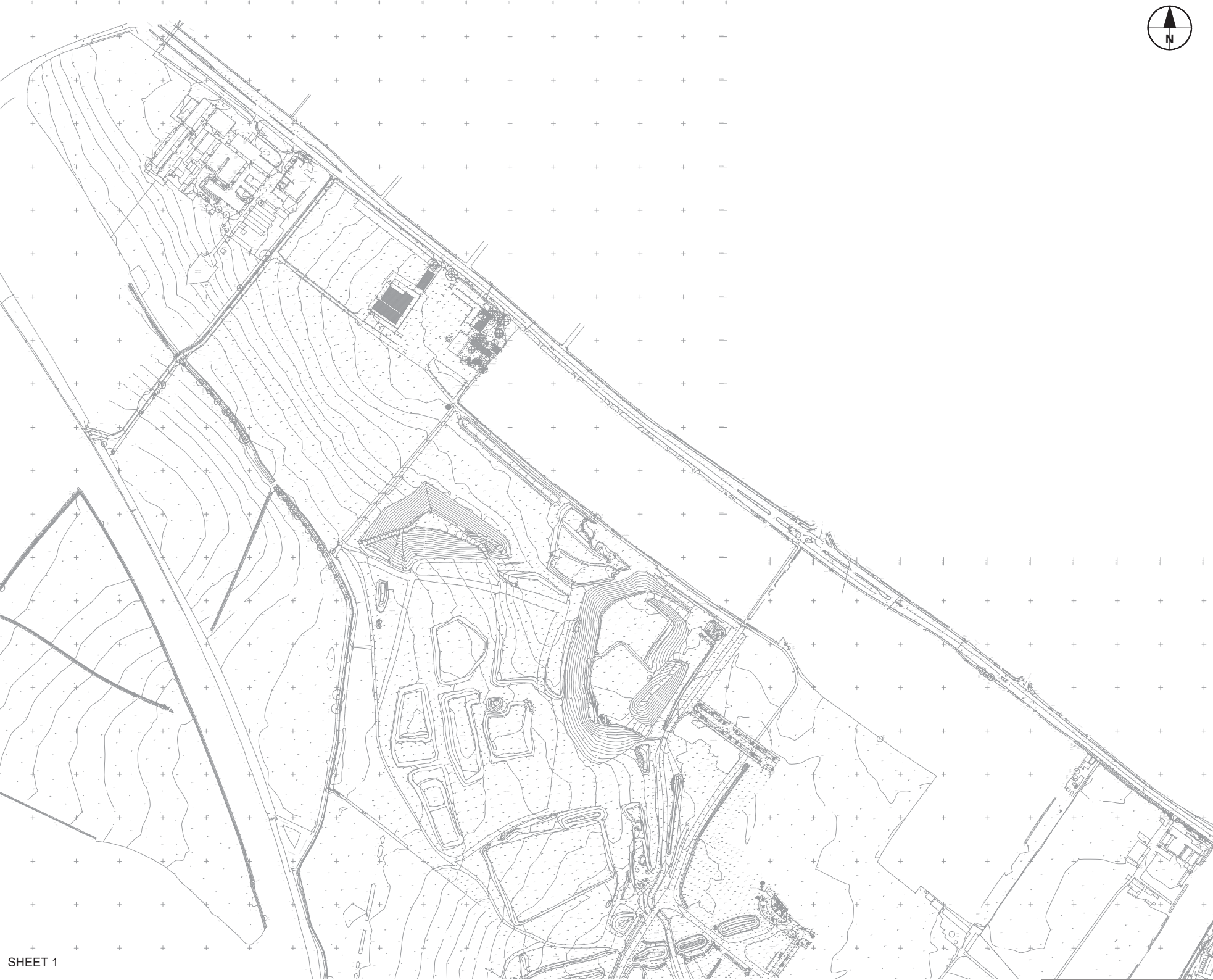
Hawkins\Brown

Project
North West Cambridge
Masterplan
Eddington, North West
Cambridge, CB3 1AF

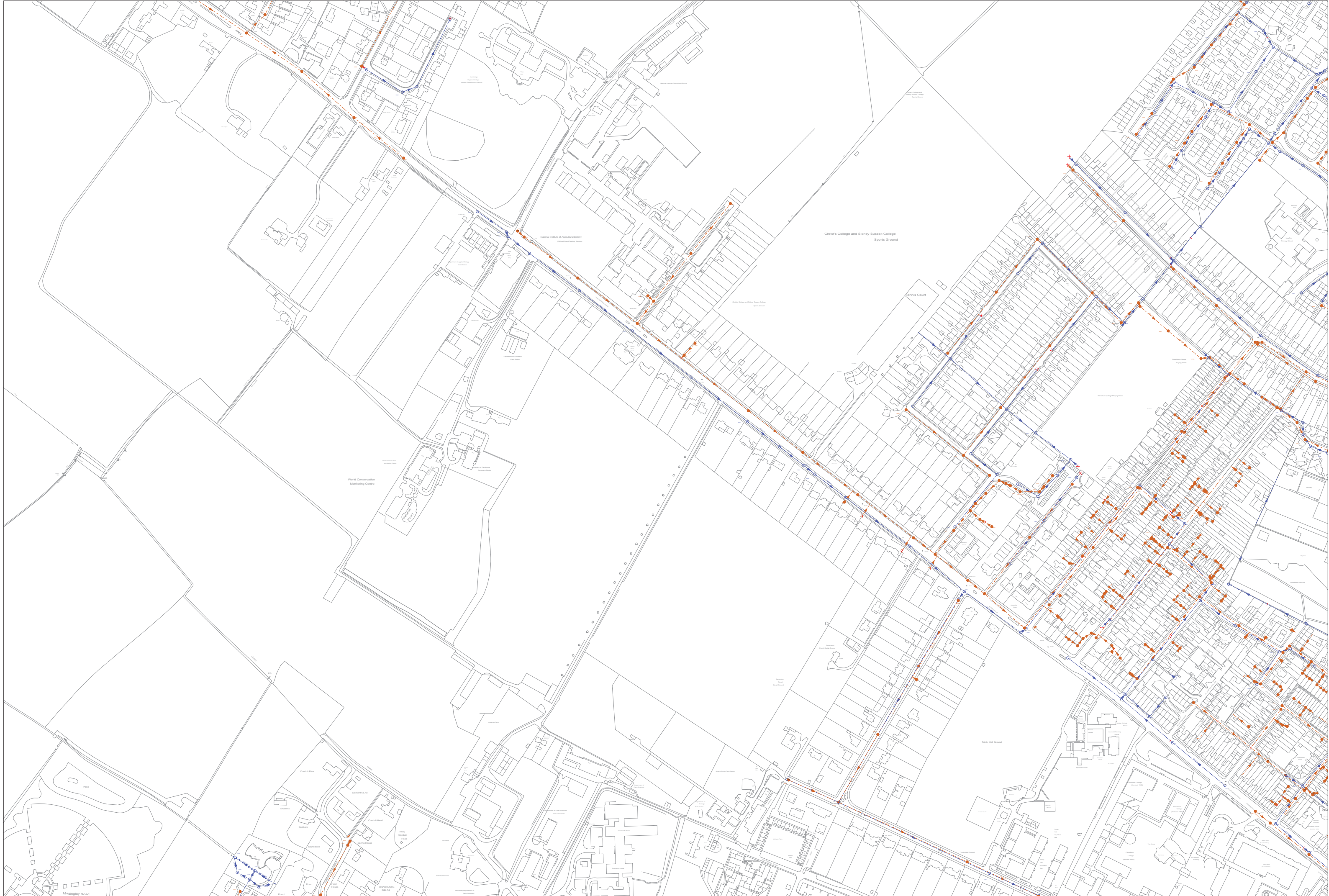
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Illustrative Masterplan

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Drawn By EM		Checked By JM	
Job Number 240061	Status S5	Purpose of Issue For information	
Drawing No. 10009			Rev P00

Appendix C Anglian Water Sewer Records







Appendix: Water Resource, Flood Risk and Drainage

Annex 1: Legislation, Planning Policy and Other Relevant Standard and Guidance

Annex 2: Foul Drainage Sketches

Annex 3: Anglian Water Correspondences

Annex 4: Flood Risk Assessment and Surface Water Drainage Strategy

Annex 5: Cambridge Water Correspondence

Guarniere, Stuart

From: [REDACTED]
Sent: 20 March 2025 11:46
To: [REDACTED]
Subject: RE: RE: North West Cambridge Eddington - Potable Water Capacity

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Hi [REDACTED]

On the strength of your responses John our Network Engineer who prepared the original supply proposal has assessed what will be needed assuming the densification goes ahead as follows:-

Upgrade potable booster.

Upgrade non-potable treatment works and booster.

Lay approx. 300 metres of 315 mm main in Eddington Avenue/Turing Way.

It may also be necessary to reinforce the mains in Five Acres, depending on how many additional properties are built in the eastern parcels H1,H2 and H3.

Clearly this is high level at this stage but if you feel a meeting either virtual or in person would be useful, please come back to me

Kind regards

[REDACTED]

[REDACTED]

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[Developer services charging arrangements 2024/25](#)

From: [REDACTED]
Sent: 13 March 2025 09:16
To: [REDACTED]
[REDACTED] - Potable Water Capacity

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Hi [REDACTED]

No problems – appreciate you getting back to me.

Please find attached a copy of the emerging masterplan proposals. Can I stress that this is for your eyes only as this has not been formally submitted for planning as yet so needs to be treated commercial in confidence, and not shared further.

To answer your specific questions:

What proportion of the original 3000 units is now occupied? **Approximately 1,800 units are either constructed or under construction. Approximately 1,500 are currently occupied**

Will the water usage for the balance of the original 3000 units be similar in nature to the units already occupied? **Yes, we will be limiting potable water usage to a maximum of 80l/pp/pd with non-potable water supplementation.**

Will the water usage for the proposed densification units be similar in nature to the units already occupied?

Yes, if not lower per unit as a significant proportion of the additional units are apartments rather than houses

Are any significant large users expected (e.g., laboratories, hotels etc.)? **None expected at present. There is**

commercial space zoned but as yet this is undefined. For the purposes of these discussions we need to

assume that there are no heavy users of water proposed.

Hope that helps but more than happy to have a call if that would assist.

Many thanks

[REDACTED]

[REDACTED]

AECOM

Aldgate Tower
2 Leman Street
London
E1 8FA, United Kingdom

From:

Subject: RE: North West Cambridge Eddington - Potable Water Capacity

Hi

Apologies for the delayed response however I have now received feedback from the various interested parties at this end but I am afraid before I can give you a definitive answer, I need some further information I appreciate at this stage that might be difficult but your latest thoughts would be helpful:-

What proportion of the original 3000 units is now occupied?

Will the water usage for the balance of the original 3000 units be similar in nature to the units already occupied?

Will the water usage for the proposed densification units be similar in nature to the units already occupied?

Are any significant large users expected (e.g., laboratories, hotels etc.)?

Indicative locations are needed to assess adequacy of mains.

Also, from a water resources point of view we have now been given approval to publish our final WRMP by Defra. The growth forecasts for new housing in the plan are based on existing LA adopted plans, with some sensitivity/headroom within the demand forecasts associated with these that would allow for the numbers of new properties in the LA emerging plan. We cannot say that the final WRMP allows for the water supply requirements of development specific increases in growth/housing numbers above the emerging plan.

Kind regards

See our useful guides below:

[Services connections user guide](#)

[Developer services charging arrangements 2024/25](#)

From: [REDACTED]

Subject: [EXTERNAL]North West Cambridge Eddington - Potable Water Capacity

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Good morning [REDACTED]

Hope all is well with you.

We're getting close to our design freeze and production of documents for the NWC planning application and I have a clarification I need with respect to the potable water discussions we had late last year.

At our meeting of 12th November we discussed potable water capacity. You confirmed that the capacity had been reserved for the 3,000 units in the original planning application, but could not confirm whether there was sufficient capacity within your network to supply the additional 1,500-3,000 units being proposed as part of the scheme densification being submitted for planning.

Can you confirm how we would go about determining whether there is capacity for the additional units or whether network reinforcement is required? Is this something we can get some confidence on before we submit our application in a few months' time?

If you would like a discussion around this please let me know, but any guidance would be greatly appreciated.

Many thanks

[REDACTED]
[REDACTED]

AECOM

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Appendix: Climate Change and Greenhouse Gases

Annex 1: Climate Change Risk Assessment (CCRA)

Appendix: Climate Change and Greenhouse Gases

Annex 1: Climate Change Risk Assessment (CCRA)

3. Climate change risk assessment

RISK IDENTIFICATION														RISK ASSESSMENT										ADAPTATION MEASURES																		
Risk ID	Climate variable	Risk statement	Direct or Indirect, In-combination	Components impacted										Impact type	Planned Controls			Initial risk rating RCP8.5 (2020 - 2049)			Initial risk rating RCP8.5 (2050 - 2079)			Initial risk rating RCP8.5 (2070 - 2099)			Justification			Adaptation Measures			Responsibility	Residual risk rating RCP8.5 (2020 - 2049)			Residual risk rating RCP8.5 (2050 - 2079)			Residual risk rating RCP8.5 (2070 - 2099)		
		Description of impacts		Construction Workforce & Equipment	Foundations	Drainage	Utilities	Concrete / Pavements	Roads / Access Paths	Building Occupants	Roofing	Structure	Natural Spaces	e.g. Asset damage / engineering / operational, Health and safety, Environmental, Social, Financial, Reputation, Cultural	e.g. controls planned within the current design that mitigate the identified risk	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Rationale for likelihood and consequences and any changes between climate scenarios	e.g. additional design or operational measures that can be implemented to further reduce the climate risk		Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating						
CONSTRUCTION																																										
1	Storm events (wind, hail)	Storm events (high winds and hail) make work environments and the use of construction equipment and machinery unsafe for workers. Debris can blow onto the construction site which could result in safety hazards and/or damage to equipment. Areas of the construction site located at a height and those more exposed to winds will be particularly hazardous environments.	Direct	●										Asset Damage, Financial	The Contractor will monitor weather forecasts and plan works accordingly, protecting workers and resources from any extreme weather conditions.	Unlikely	Insignificant	Low							The UKCP18 model suggest a small contribution from storm surges, however it is unclear if the frequency and severity of future storm surges is going to change.	-Consider developing register of vulnerable construction assets - If applicable undertake regular monitoring of trees and vegetation in the area, pruning as necessary to avoid damage to the construction site or blocking access roads, in the event of a storm with high wind speed.	Contractor	Unlikely	Insignificant	Low												
2	Extreme heat events	Extreme heat events can cause unsuitable conditions for workers and building activity, delaying construction and damaging building equipment.	Direct	●										Health & Safety, Financial	The Contractor will monitor weather forecasts and plan works accordingly, protecting workers and resources from any extreme weather conditions. To be included in the CEMP.	Unlikely	Minor	Low							Temperatures are unlikely to increase significantly during the construction phase. Planned controls sufficient to manage potential risk.	-Cease outdoor and non-essential work if working conditions are too dangerous, and could result in injury to workers and damage to equipment -Consider inspection of vulnerable construction assets after a hot day		Unlikely	Minor	Low												
3	Extreme heat	Increased frequency, duration and intensity of extreme heat events may cause an increase in dust and particulate generation during construction. This can increase water requirements for spraying, degrade construction materials and equipment, and threaten the health and safety of construction workers.	Direct	●										Health and safety (air quality, decreased visibility), asset damage (erosion)	Contractors to minimise height of dropped materials, stockpiles treated with wastewater, avoiding dust generating activities during the day, provide sufficient PPE, minimise vehicle speed on site, coverage of materials stockpile and minimise storage time of materials	Unlikely	Minor	Low							Occurrence of extreme heat events unlikely to change considerably during construction phase	None - Sufficient dust suppression measures have been set out in the NWC.14 Construction Environmental Management Plan ('CEMP').		Unlikely	Minor	Low												
4	Extreme Rainfall	Extreme rainfall resulting from storm events can restrict working hours and prevent access to construction sites, delaying the build process and damaging building equipment	Direct	●		●								Health & Safety, Financial	Contractor to select suitable storage locations for construction materials, monitor weather forecasts and schedule work accordingly, Laydown and welfare areas to be laid with permeable membranes to protect from flooding events. Full measures should be included in the CEMP.	Unlikely	Minor	Low							Winter rainfall to increase by up to 5% during the construction phase. This is unlikely to have a significant impact on the construction of the Proposed Development.	Cease outdoor and non-essential work if working conditions are too dangerous, and could result in injury to workers and damage to equipment		Unlikely	Minor	Low												
5	Extreme rainfall	Extreme rainfall causing damage to building foundations due to increased soil moisture			●							●		Health & Safety, Financial	Piling depths to be sufficient for flood resistance purposes.	Rare	Moderate	Medium							Winter rainfall to increase by 19% over the design life of the proposed development.	Design the drainage system on a 1:100 year rainfall event. Additionally, adding stabilising agents to the soil to reduce its susceptibility to moisture changes.		Unlikely	Minor	Low												
6	Flooding	Flooding can prevent site access and create unsafe working conditions, delaying construction		●		●								Health & Safety, Financial	Contractor to select suitable storage locations for construction materials, monitor weather forecasts and schedule work accordingly, Laydown and welfare areas to be laid with permeable membranes to protect from flooding events. Full measures should be included in the CEMP.	Unlikely	Minor	Low							Based on the flood risk area maps available on data.gov.uk, the proposed development is very close to a flood risk area. While unlikely to have a significant impact on construction, it could delay construction.	Ensure sufficient drainage in operation during construction phase		Unlikely	Minor	Low												

RISK IDENTIFICATION														RISK ASSESSMENT										ADAPTATION MEASURES													
Risk ID	Climate variable	Risk statement	Direct or Indirect, In-combination	Components impacted											Impact type	Planned Controls	Initial risk rating RCP8.5 (2020 - 2049)			Initial risk rating RCP8.5 (2050 - 2079)			Initial risk rating RCP8.5 (2070 - 2099)			Justification	Adaptation Measures	Responsibility	Residual risk rating RCP8.5 (2020 - 2049)			Residual risk rating RCP8.5 (2050 - 2079)			Residual risk rating RCP8.5 (2070 - 2099)		
		Description of impacts		Construction Workforce & Equipment	Foundations	Drainage	Utilities	Concrete / Pavements	Roads / Access Paths	Building Occupants	Roofing	Structure	Natural Spaces	e.g. Asset damage / engineering / operational, Health and safety, Environmental, Social, Financial, Reputation, Cultural	e.g. controls planned within the current design that mitigate the identified risk	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Rationale for likelihood and consequences and any changes between climate scenarios	e.g. additional design or operational measures that can be implemented to further reduce the climate risk		Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating	
OPERATION																																					
7	Extreme Heat	Prolonged extreme heat event can have a negative impact on building inhabitants and an increase in energy use for air conditioning					•			•				Health & safety, operations, financial	Significant landscaping around the development. Openable façade elements, lower g-value of glass, mechanical ventilation with heat recovery, maximised floor to ceiling height, implementation of active cooling systems.	Rare	Minor	Low	Unlikely	Minor	Low	Moderate	Minor	Medium	Summer maximum temperatures expected to increase significantly by end of century.	Address risk at detailed design stage and incorporate passive measures such as overhangs from balconies and use of trees to provide shading of facades Additionally, as set out in the Sustainability Strategy, Overheating requirements will comply with Building Regulations Part O.		Rare	Insignificant	Low	Unlikely	Insignificant	Low	Moderate	Insignificant	Low	
8	Extreme Heat	Heat damage, deformation, cracking and thermal expansion of pavement surfaces and walls						•	•					Asset Damage	Construction best practice material choices	Rare	Minor	Low	Rare	Minor	Low	Unlikely	Minor	Low	In line with best practice, materials will be selected with sufficient thermal resistance to projected changes in average temperatures	No further adaptation measures required		Rare	Insignificant	Low	Rare	Insignificant	Low	Unlikely	Insignificant	Low	
9	Extreme Heat	Increasing mean temperature, and frequency and severity of extreme heat events resulting in energy infrastructure failure and impacting reliability of energy supply and overall costs.					•			•				Asset Damage, Financial		Rare	Minor	Low	Unlikely	Minor	Low	Moderate	Minor	Medium	Mean summer temperatures can increase up to 27 degrees by the end of the century.	National Grid's Climate Resilience Strategy will ensure the risk from extreme heat will be reduce as outlined in their strategy under 5.2.3.		Rare	Insignificant	Low	Unlikely	Insignificant	Low	Moderate	Insignificant	Low	
10	Water scarcity	Lack of water available to sustain vegetation											•	Environmental		Rare	Minor	Low	Unlikely	Minor	Low	Moderate	Minor	Medium	Precipitation during summer months expected to reduce significantly by the end of the century	Landscaping to be drought resistant or have low crop coefficient. Water efficient irrigation i.e. drip irrigation.		Rare	Insignificant	Low	Unlikely	Insignificant	Low	Moderate	Insignificant	Low	
11	Water scarcity	Reduced water supply for building users.								•				Health & safety		Unlikely	Minor	Low	Unlikely	Minor	Low	Moderate	Minor	Medium	Precipitation during summer months expected to reduce significantly by the end of the century	South Staff's Water (Incorporating Cambridge Water) Resilience Action Plan outlines measures to ensure a secure and reliable supply of water for the long term. This can be found in their Reliance Plan under 4.3 Operational Resilience. Water efficient fittings and fixtures in dwellings and non-domestic buildings.		Unlikely	Insignificant	Low	Unlikely	Minor	Low	Moderate	Insignificant	Low	
12	Extreme Wind	Extreme wind events may cause damage to building structures and occupants								•	•	•		Asset Damage, Health & Safety	Best practice construction standards	Rare	Minor	Low	Unlikely	Minor	Low	Unlikely	Minor	Low	Annual average wind speed is not expected to change significantly for the design period.	Undertake regular monitoring of trees and large bushes in the area, pruning as necessary to avoid damage to buildings in the event of a storm with high wind speeds.		Rare	Insignificant	Low	Unlikely	Insignificant	Low	Unlikely	Insignificant	Low	
13	Flooding	Increased winter rainfall resulting in an increased likelihood of fluvial flooding				•	•							Asset Damage, Health & Safety, Operations		Unlikely	Minor	Low	Unlikely	Minor	Low	Moderate	Minor	Medium	Winter rainfall to increase by 19% over the design life of the proposed development.	The proposed drainage strategy to be designed to accommodate a 40% increase in precipitation due to climate change, exceeding the likely projected changes in an extreme (RCP8.5) climate change scenario. Monitor extent to which flooding is occurring. If risk is recurring, when current drainage system reaches end of design life, consider incorporating more outlets, steeper gradients or increase eaves gutter catchment to increase flow capacity. Consider introducing a drainage maintenance/operation plan so that the drainage system is monitored and kept blockage free.		Unlikely	Insignificant	Low	Unlikely	Insignificant	Low	Moderate	Insignificant	Low	
14	Increased Summer Temperatures	Increased summer temperatures combined with reduced rainfall increases the susceptibility of the site to wildfires								•		•		Environmental, Asset Damage		Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Due to site location, wildfires unlikely to pose significant risk	No further adaptation measures required		Rare	Insignificant	Low	Rare	Insignificant	Low	Rare	Insignificant	Low	
15	Extreme rainfall	Extreme rainfall events leading to high volumes of water captured on roofs, resulting in damage to roof and drainage systems. This can result in internal flooding				•					•			Asset Damage, Health & Safety	Incorporation of Sustainable Drainage Systems (SuDS) such as swales and rain gardens.	Unlikely	Moderate	Medium	Unlikely	Moderate	Medium	Moderate	Moderate	High	Winter rainfall to increase by 19% over the design life of the proposed development.	The proposed drainage strategy to be designed to accommodate a 40% increase in precipitation due to climate change, exceeding the likely projected changes in an extreme (RCP8.5) climate change scenario.		Unlikely	Minor	Low	Unlikely	Minor	Low	Moderate	Minor	Medium	

