N

NOTES

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2. This update only included new flood risk information from River Welland (Fluvial), River Glen (Fluvial) and Tidal hazard mapping (River Welland, River Nene and the Wash sea defences). No new information from the Internal Drainage Boards and associated systems was used for this update.

3. In addition to the potential flood extents shown on this map, there may be shallow flooding in low-lying rural areas

4. The consequences designated as being a Residual Risk arise from direct overtopping of defences, where this would occur, together with breach failure which is assumed could occur at any point along the defences.

5. Functional Floodplain encompasses areas where water is intended to flow or be stored in times of flood.

6. Land outside South Holland District is not considered.

7. This map shows the extents only of the flooding probability bands relevant to the map Title

Map Legend

Peak Velocity (metres per second)

- 0 - 0.3
- 0.3 - 1
- 1 - 1.5
- 1.5 - 2.5
- 2.5 +
- Functional Floodplain
- South Holland District Boundary

REV	DATE	REMARKS
2	Feb 17	Modelling and Mapping Update
1	Dec 16	Modelling and Mapping Update

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UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

Residual Peak Velocity
District - Present Day
1% Fluvial / 0.5% Tidal Event Probability

DATE OF ISSUE: Feb 2017 **REV NO:** 2

SCALE: 1 : 60,000 @ A1

MAP NO:

N

NOTES

1. The potential flooding consequences shown on this map primarily relate to flooding from the sea and main rivers taking into account the presence of current flood risk management measures such as flood defences.

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- 0.3 - 1
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REV	DATE	REMARKS
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UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

Residual Peak Velocity District - Year 2115 1% Fluvial / 0.5% Tidal Event Probability

DATE OF ISSUE: Feb 2017 **REV NO:** 2

SCALE: 1 : 60,000 @ A1

MAP NO:

N

NOTES

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7. This map shows the extents only of the flooding probability bands relevant to the map Title

Map Legend

Max Hazard
(Flood Risk to People : FD2320)

- Less than 0.75 (Low Hazard)
- Between 0.75 and 1.25 (Danger for Some)
- Between 1.25 and 2.0 (Danger for Most)
- Greater than 2.0 (Danger for All)
- Functional Floodplain
- South Holland District Boundary

REV	DATE	REMARKS
2	Feb 17	Modelling and Mapping Update
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UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

Residual Flood Hazard District - Present Day 1% Fluvial / 0.5% Tidal Event Probability

DATE OF ISSUE: Feb 2017 **REV NO:** 2

SCALE: 1 : 60,000 @ A1

MAP NO:

N

NOTES

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REV	DATE	REMARKS
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UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

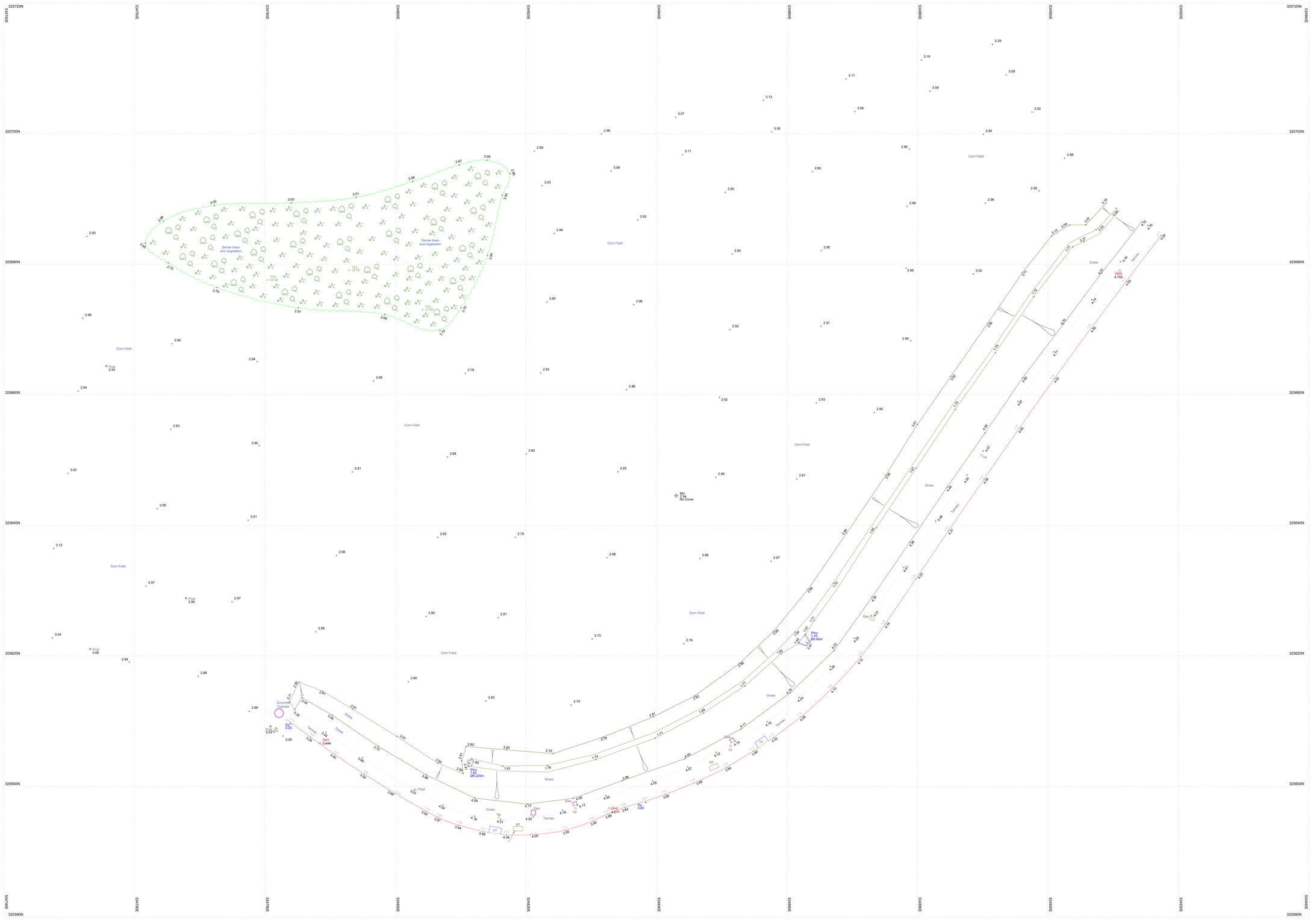
Residual Flood Hazard
District - Year 2115
1% Fluvial / 0.5% Tidal Event Probability

DATE OF ISSUE: Feb 2017 **REV NO:** 2

SCALE: 1 : 60,000 @ A1

MAP NO:

Appendix F
Topographic Survey



N

Station Information:

Station	Easting (m)	Northing (m)	Level (m)
GH1	534788.439	325606.641	3.444
GH2	534832.743	325596.674	4.011
GH3	534910.975	325679.087	4.755

OS Note:

This survey has been orientated to the Ordnance Survey (O.S) National Grid OSGB36(15) via Global Navigation Satellite Systems (GNSS) and the O.S. Active Network (OS Net).

A true OSGB36 coordinate has been established near to the site centre via a transformation using the OSTN15GB & OSGM15GB transformation models.

The survey has been correlated to this point and a further one or more OSGB36 (15) points established to create a true O.S. bearing for angle orientation.

Please refer to Survey Station Table to enable establishment of the on-site grid and datum.

Legend:

Buildings
Wall
Kerb line
Top of bank
Drop kerb
Centre line
Top of bank
Station and Name
Station Level
Tree / Bush / Sapling
Area of Undergrowth
Woodland
Ridge Level
Eaves Level
Flat Roof Level
Gate
Fence types:
Overhead Cable
Concrete edge
Tarmac edge
Grass verge
Hedge
Bottom of bank
IC Inspection chamber
Pinv Pipe invert
Cty Gully
Bg Back gully
Dp Down pipe
Pipe Pipe above ground
MH Manhole
WL Water level
Fl Flood light
Lp Lamp post
Tp Telegraph post
Ep Electricity post
Tl Traffic light
Bus Bus stop
Sv Stop valve
St Stop tap
Er Earth rod
Wm Water meter
Gas Gas valve
Av Air valve
ICU Unidentified inspection
Wo Wash out
Re Rodding eye
BB Bellmix beacon
CTV Cable tv
Mkr Marker post
Gmkr Gas marker post
So Soil
Fh Fire hydrant
Bo Bollard
Rl Illuminated bollard
Rbn Rubbish bin
Vp Vent pipe
Gl Ground light
Lbox Letter box
Strop Tree Stump
Sty Stile
IFL Internal floor level
ThL Threshold level
Sp Sign post
TH Trashcans
BH Borehole
ELC Electric
BT British Telecom
Chow Control box
TT Tactile
BP Brick paired
CPS Concrete paving slabs
CVR Cover
Rwall Retaining wall
TWL Top of Wall Level
TCL Tree canopy level
G Grids
MG Multi grith
IC Inspection chamber
CL Cover level
IL Invert level
UTL Unable to lift

Rev	Date	Description	Drawn	Q. Ref.

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- Topographical Surveys
- Site Engineering
- Utility / CCTV Surveys
- Measured Building Surveys
- 3D Laser Scanning
- Revit & BIM Models

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London: 27, Cornwall Terrace Mews, Regents Park, London, NW1 5LL, t. (02072) 241806

CLIENT
Willmott Dixon Construction Ltd

PROJECT
University of Lincoln A151, Holbeach CP Lincolnshire, PE12 7BF

TITLE
Topographical Survey

SCALE	DATE
A0@ 1: 200	13.08.19
DRAWN	QUALITY REF
MR	GH5689

Level datum	See note
Grid orientation	See note
Job number	34468
Drawing No.	Rev.
34468_T	0

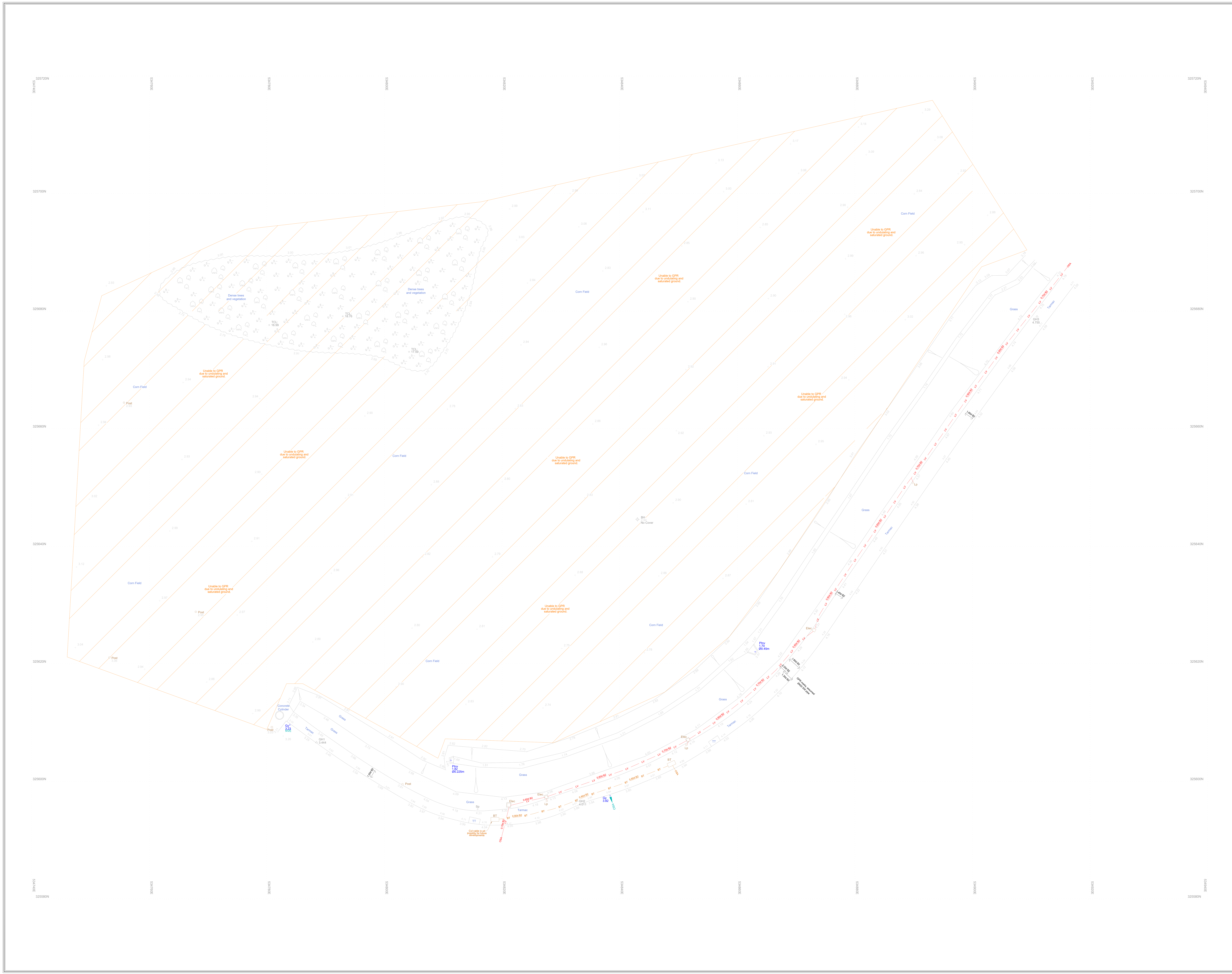
Comments
This plan should only be used for its original purpose. Greenhatch Group accepts no responsibility for this plan if supplied to any party other than the original client.

All dimensions should be checked on site prior to design and construction.

Drainage information (where applicable) has been visually inspected from the surface and therefore should be treated as approximate only.

Notes:

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N

NOTES;

In all cases please call the BT Dial before you dig service to mark their own plant before any site works commence 0800 917 3993
Always consult utility plans

1. *Drainage Information provided has been determined without man entry into the chambers. Whilst every effort has been made to correctly identify the duty/pipes/chamber detail, it is recommended that this information should be checked in areas that are critical to the future proposal/development.*
2. *All sewer runs are presumed to be straight line connections between chambers unless proven otherwise by the use of a sonde or CCTV survey.*
3. *Unable to GPR in the field due to undulating and saturated ground.*

UTILITY LINETYPES

Air Line	AIR	Fuel Line	FL
British Telecom	BT	Gas Line	GAS
British Telecom Overhead	O/H	Gauge Line	GL
CCTV / Cable Television	TV	GPR Line	GPR
Communication Cable	COM	Heating Pipes	HTG
Drainage - Combined Water	Ø150	Offset Fills	OF
Drainage - Foul Water	Ø150	Oil Pipe	OIL
Drainage - Storm Water	Ø150	Rising Main	RM
Earth Cable	ETH	Telecom	TEL
Empty Duct	ED	Traffic Light Signals	TL
Electric & Comms	E&C	Unknown	UKN
Electric Low Voltage	LV	Vapour Recovery	VR
Electric High Voltage	HV	Vent Line	VP
Electric Overhead	O/H	Water	WTR
Fibre Optic	FO	Trench Scar	

UTILITY SURVEY INFORMATION

Contracted Survey Area	SVY AREA	Unable to Survey	UTS
Depth to Top of Service (m)	0.40d	Unable to Raise (cover)	UTR
End of Trace	EOT	Unable to Trace	UTT
Head of Run	HoR	Assumed Route	AR
Weak Signal	WS	Assumed Connection	ACP
Taken From Records	TFR	Sound Connection	S/C
Off Survey Area	OSA	No Visible Exit	NVE
Back Drop	BD	No Pipes Visible	NPV
Silt Level	SL	No Depth Indicated	NDI
Above Ground	A/G		
Unable to Survey		GPR Anomaly	
Chamber Extents		Multiple Services Route	

LEGEND

Buildings	Overhead Cable	IC	Inspection chamber	Bo	Bollard		
Wall	Concrete edge	PInv	Pipe invert	IB	Illuminated bollard		
Kerb line	Tarmac edge	Gy	Gully	Bin	Rubbish bin		
Line marking	Grass verge	Bg	Back gully	Vp	Vent pipe		
Drop kerb	Canopy/Overhang	Dp	Down pipe	Grl	Ground light		
Centre line	Verge	Pipe	Pipe above ground	Lbox	Letter box		
Top of bank	Bottom of bank	MH	Manhole	Stmp	Tree Stump		
1 100.000	Station and Name / Station Level	WL	Water level	Sty	Stile		
	Tree / Bush / Sapling	Fl	Flood light	IFL	Internal floor level		
	Area of Undergrowth	Lp	Lamp post	THL	Threshold level		
	Woodland	Tp	Telegraph post	Sp	Sign post		
R:	Ridge Level	Ep	Electricity post	TH	Trialhole		
E:	Eaves Level	Tl	Traffic light	BH	Borehole		
F:	Flat Roof Level	Bus	Bus stop	ELC	Electric		
	Gate	Sv	Stop valve	BT	British Telecom		
Fence types:		St	Stop tap	C'box	Control box		
I\W	Interwoven	Er	Earth rod	TT	Tactile		
I\R	Iron Railings	Wm	Water meter	BP	Brick paved		
W\M	Wire Mesh	Gas	Gas valve	CPS	Concrete paving slabs		
P\R	Post & Rail	Av	Air valve	CVR	Cover		
P\W	Post & Wire	ICU	Unidentified inspection	R/wall	Retaining wall		
C\L	Chain Link	Wo	Wash out	TWL	Top of Wall Level		
W\P	Wooden Panels	Re	Rodding eye	TCL	Tree canopy level		
C\B	Close Boarded	BB	Belisha beacon	G:	Girth		
S\P	Steel Palisade	CTV	Cable tv	MG	Multi girth		
		Mkr	Marker post	IC	Inspection chamber		
		Gmkr	Gas marker post	CL:	Cover level		
		So	Soffit	IL:	Invert level		
		Fh	Fire hydrant	UTL	Unable to locate		

PAS 128 : 2014

SURVEY CATEGORY	QUALITY LEVEL	CRITERIA USED IN THE DETERMINATION OF QUALITY LEVEL
TYPE B - DETECTION	QL-B4	A UTILITY SEGMENT WHICH IS SUSPECTED TO EXIST BUT HAS NOT BEEN DETECTED AND THEREFORE SHOWN AS AN ASSUMED ROUTE. **(NO DETECTION POSSIBLE)**
	QL-B3	POSITION OF THE UTILITY DETECTED BY ONE OF THE GEOPHYSICAL TECHNIQUES. **(EML OR GPR DETECTION WITH LIMITED CONFIDENCE IN DEPTH)**
	QL-B2	POSITION AND DEPTH OF THE UTILITY DETECTED BY ONE OF THE GEOPHYSICAL TECHNIQUES. **(EML OR GPR DETECTION WITH CONFIDENCE IN DEPTH)**
	QL-B1	POSITION AND DEPTH OF THE UTILITY DETECTED BY MULTIPLE GEOPHYSICAL TECHNIQUES. **(EML + GPR DETECTION)**

DISCLAIMER

Whilst every effort has been taken in the preparation of this drawing, the original land marks/apparatus configuration may have been altered since the survey/drawing was produced. The user shall make further enquiries and investigations to satisfy himself as to the accuracy of this drawing and position of the apparatus. The exact positions of the apparatus should be verified by the use of suitable detection devices and safe digging practices in accordance with HSG47, further advice on the location of apparatus should be recommended by the owner. No representation is made by Greenhatch Group, its agents or servants as to the accuracy, completeness, and sufficiency or otherwise of this drawing and the position of the apparatus.

All apparatus shall be treated as live unless proved otherwise by the owner. It is the users responsibility to ensure that the information on the location of apparatus is provided to all persons (either direct labour or contractors) working in proximity to the apparatus.

Rev	Date	Description	Drawn	Q. Ref.

greenhatch group

Topographical Surveys / Site Engineering / Utility / CCTV Surveys
Measured Building Surveys / 3D Laser Scanning / Revit & BIM Models

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Newcastle: 24 Riverside Studios, Amethyst Road, Newcastle Bus. Park, Newcastle-U-Tyne, NE4 7YL, t. (01912) 736391
London: 27, Cornwall Terrace Mews, Regents Park, London, NW1 5LL, t. (02072) 241806

CLIENT
Willmott Dixon Construction Ltd

PROJECT
University of Lincoln A151, Holbeach CP Lincolnshire, PE12 7BF

TITLE
Utility Survey

SCALE	DATE
A0@ 1: 200	20/08/2019
DRAWN	QUALITY REF
MAB	GH5689

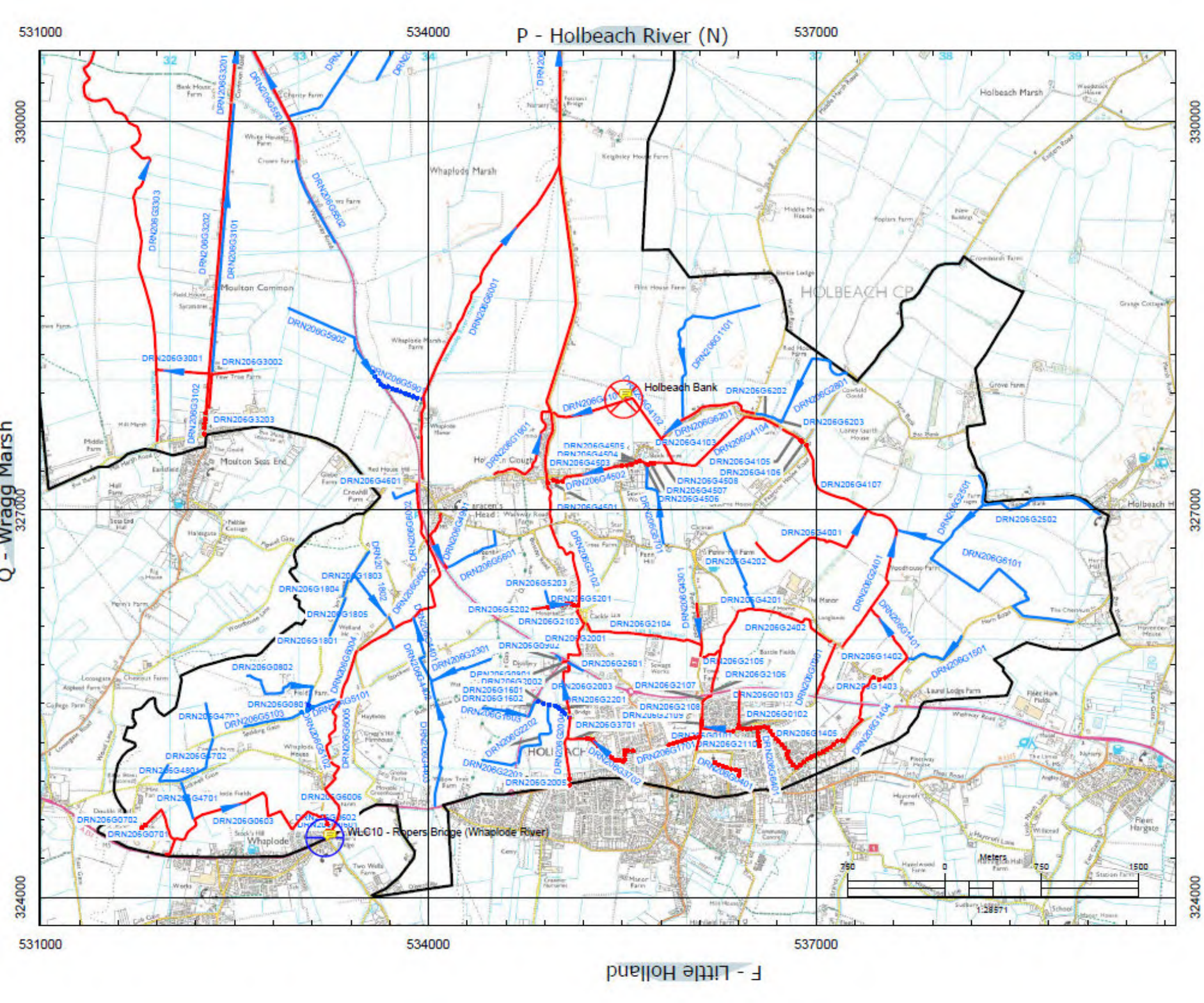
Level datum	See note
Grid orientation	See note
Job number	34468
Drawing No.	Rev.
34468_T_UG	0

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Notes:

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Appendix G
Internal Drainage Board Map



Holbeach River (S)

South Holland Drainage Board

LEGEND

- Catchment Boundary
- High Priority Watercourse
- IDB Ordinary Watercourse
- High Priority Pipeline
- Ordinary Pipeline
- Water Control Structure
- Pumping Station
- Inland Sluice
- Tidal Sluice

KEY MAP



N

SCALE	SHEET NUMBER
Best Fit	CMT206G
PLOT DATE	
05/01/2016	

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FILE NAME

SHIDB_webmap2013.dwg