DRAINAGE IMPACT ASSESSMENT

UK Greetings
Bretton Park
Dewsbury

Reference	**6359-JPG-XX-XX-RP-D-0621-S2-P01**
Date	**28 February 2025**
Author	**BT**

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CONTENTS

APPENDICES

CONFIDENTIALITY STATEMENT

This report is addressed to and may be relied upon by the following:

UK Greetings Limited
Mill Street East
DEWSBURY
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WF12 9AW

This report has been prepared for the sole use and reliance of the above-named party. This report shall not be relied upon or transferred to any other parties without the express written authorisation of JPG (Leeds) Limited. No responsibility will be accepted where this report is used, either in its entirety or in part, by any other party.

DOCUMENT HISTORY

Revision	Date	Revision Details	Status	Author(s)	Approved
P01	28.02.2025	First Issue	Preliminary	BT	RMR

1.0 INTRODUCTION

JPG (Leeds) Limited (JPG) has been instructed UK Greetings Limited to prepare a Drainage Impact Assessment for a proposed office extension on the existing UK Greetings Warehouse, Dewsbury.

The report will cover the detailed drainage strategy and recommend any mitigation which should take place as part of the development.

A separate Flood Risk Assessment Report will cover the detailed drainage strategy document reference 6359-JPG-XX-XX-RP-0620. This document should be read in conjunction with the Flood Risk Assessment Report.

2.0 THE SITE

2.1 Location

The site is located approximately 1.5km south of Dewsbury town centre. The approximate centre of the site is located at NGR 425278 420001.

A location plan is provided in Appendix A.

2.2 Site Description and Topography

The site comprises a rectangular shaped parcel of land, located adjacent to the existing warehouse building to the northwest. The site measures approximately 18m along its northwest to southeast axis and approximately 60m along its northeast to southwest axis, occupying an area of 0.12 hectares.

The site comprises a landscaped area with a strip of gravel along the side of the building. The site is flat and level.

The wider site area is accessed off Bretton Park Way through a gated access to the west.

The boundaries to the wider site area are formed by post and mesh fencing.

The site is located within an industrial estate. Land to the north comprises the existing UK Greetings warehouse and offices. Car parking associated with the existing warehouse building is located to the south and west.

3.0 EXISTING DRAINAGE NETWORK

3.1 Watercourses and Land Drainage

There are no known or visible existing water courses or land drainage systems located within the site boundary or immediately outside the site adjacent to the boundary.

The River Calder is located approximately 0.25km to the east.

There is no direct access to these watercourses from the site without passing through third party land and it is unlikely that a gravity connection would be possible.

3.2 Public Sewer Network

Public sewer records have been obtained from Yorkshire Water (YW) and indicate public sewer assets outside of the boundary in Bretton Park Way.

Based on the Yorkshire Water record drawing there is a public foul water sewer and public surface water sewer as detailed below:

- 750dia. Surface Water Public Sewer (material concrete).
- 150dia. Foul Water Public Sewer (material vitrified clay).

The law regarding responsibility for drains and sewers changed on the 1 October 2011. From this date the Government transferred the majority of drainage pipes that are either outside a property's boundary or are shared with other buildings to the Sewage/Water companies. The sewer records may not show all of the transferred sewers.

As part of the design of the adopted network a total catchment area of 36050m2 was allowed for from the UK Greetings Site.

An extract from Yorkshire Water sewer record plan and the original design drawing is provided in Appendix C.

3.3 Private Drainage Systems/Network

There is an extensive existing private drainage system which serves the existing building, car park, service yards and access roads. There are existing private stubs located on the site with connection to the offsite adopted network.

A schematic private plot drainage layout plan is located in Appendix D.

4.0 DEVELOPMENT PROPOSALS

It is proposed to develop the site for an office development associated with the existing warehouse and distribution centre located on the wider site.

A proposed site layout plan showing the location of the proposed extension is referenced below, a copy of which is presented in Appendix B of this report.

KPP Architects. Proposed Site Plan. Bretton Park. Job no. 2157-01. Project 2003. Dated January 2025.

5.0 PROPOSED DRAINAGE STRATEGY

5.1 Surface Water Drainage Strategy

Requirement H3 of the Building Regulations establishes a preferred hierarchy for the disposal of surface water. Consideration should firstly be given to soakaway, infiltration, watercourse, and sewer in that priority order.

However, the Phase 2 Geotechnical assessment identified ground conditions to be made ground up to a depth of circa 5.0m in the vicinity of the extension. Furthermore, ground water was record between 4.95 – 5.60m below ground level, therefore infiltration is not deemed a viable means of surface water disposal due to the underlying strata and presence of groundwater.

The nearest watercourse is the River Calder located approximately 0.25km to the east, this could only b accessed via 3rd party land, therefore is not viable.

The site benefits from existing drainage connections to the adopted sewer network from stubs left into site, this provides the most practical means of surface water disposal for the extension.

As shown in the adopted sewer design drawing within Appendix C the adopted network had catchment allowance for 4775m², 12060 m², 11925 m² and 7290 m² draining from the UK Greetings site, generating a total cumulative catchment of 36050m2.

As displayed in Appendix E the existing impermeable drained area is 31940m² and the proposed extension impermeable (Appendix F) is 1000m², therefore the total impermeable area post development is 32940m². This is 3110m² under the allowable catchment area identified.

Sewer record drawings and design drawings have been obtained and are located in Appendix C.

A proposed drainage layout for the office extension can be seen in Appendix G.

5.2 Foul Water Drainage Strategy

The proposed foul water drainage is to discharge unrestricted into the existing foul water stub located at "FW1" within Appendix C.

A proposed drainage layout for the office extension can be seen in Appendix G.

6.0 CONCLUSIONS

The report has been prepared to assess the drainage impact for an office extension at Bretton Park Way, Dewsbury

This report shall be read in conjunction with the corresponding Flood Risk Assessment Report 6359-JPG-XX-XX-RP-D-0620.

This report shall be read in conjunction with the corresponding drainage Maintenance and Management Plan 6359-JPG-XX-XX-RP-D-0622.

As confirmed by the accompanying Flood Risk Assessment Report the site falls within Flood Zone 2 and is considered to be at a low and acceptable flood risk.

The onsite private surface water drainage system will be designed and constructed in accordance with Building Regulations, all national and local standards and best practice.

The extension surface water runoff will drain unrestricted to the existing 750mm sewer in Bretton Park Way via the existing drainage network, this is due to the post development impermeable area being less than the allowable catchment designed to enter the adopted sewer network from this plot.

The proposed foul water drainage will discharge unrestricted into the existing 150mm foul water sewer via an existing drainage stub.

The reports supporting drawings provide a robust case for justifying the means of surface water drainage and that the site can be suitably, safely, and sustainably drained.

Overall, this report demonstrates that the foul and surface water drainage systems proposed are reasonable and acceptable for the proposed development.

Appendix A Site Location Plan

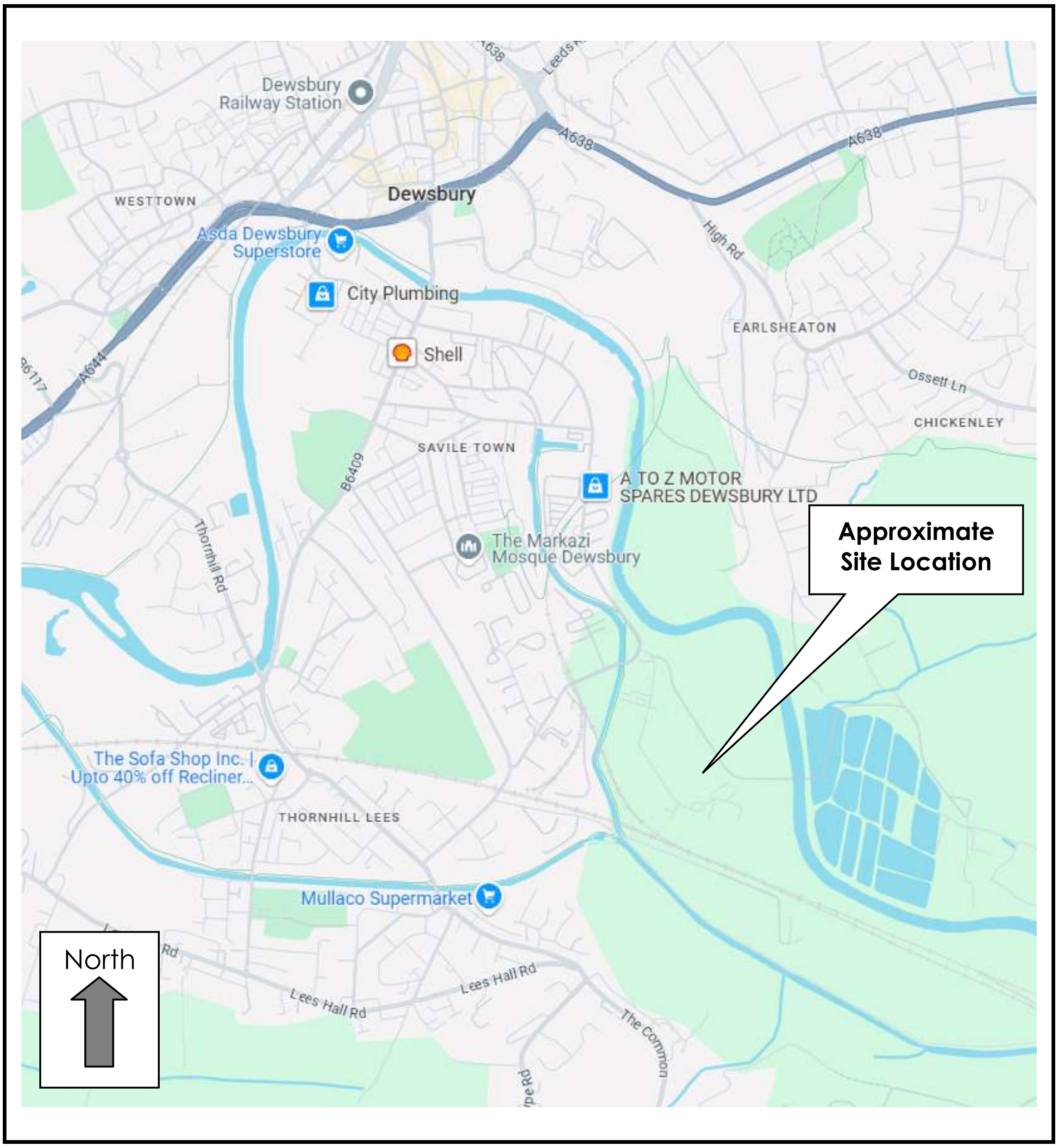
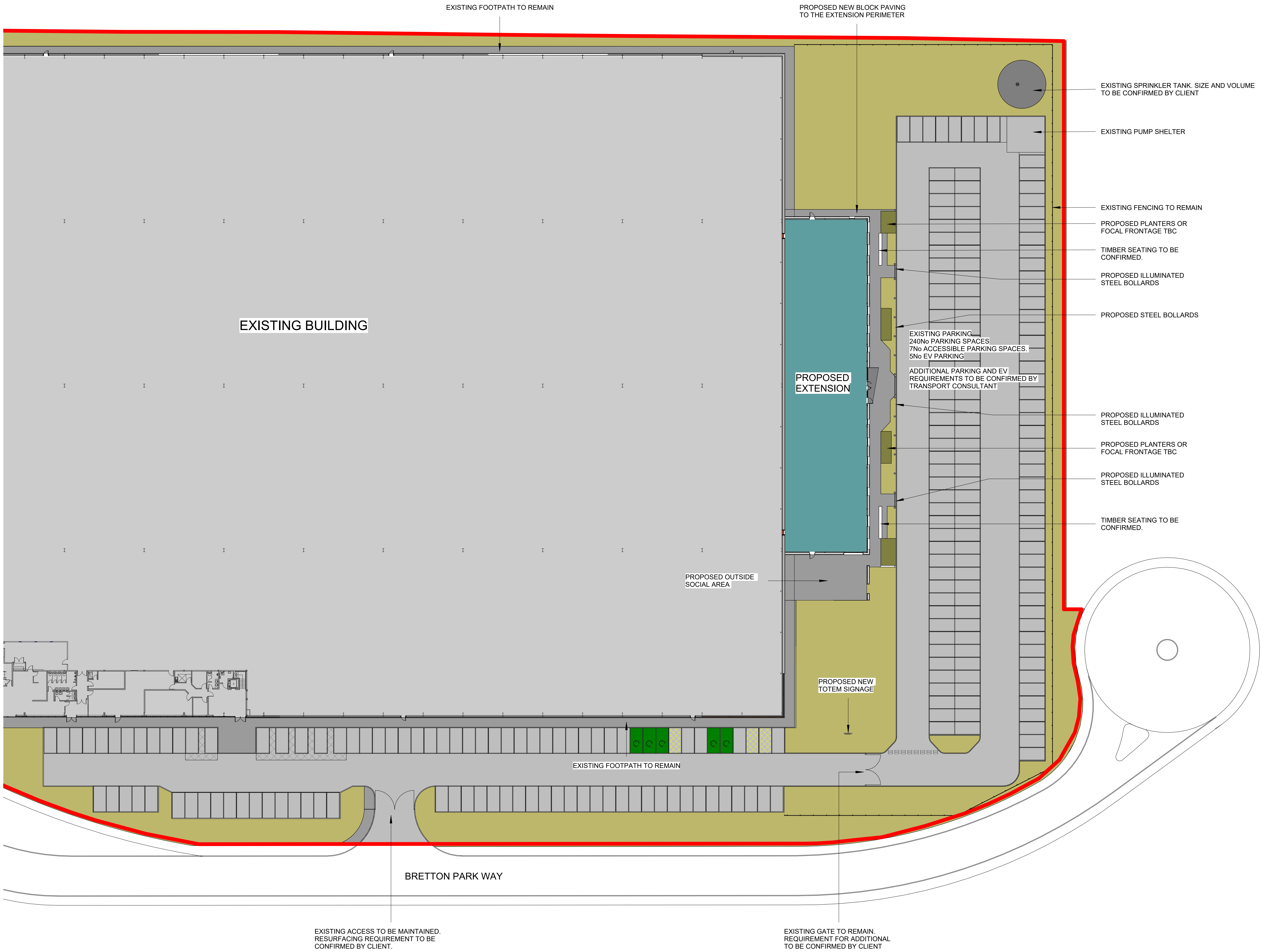
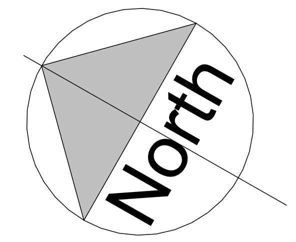


Figure 1 – Site Location Plan	
Site	**UK Greetings, Bretton Park, Dewsbury**
Client	**UK Greetings Limited**
Job Number	**6359**
Scale	**NTS**

Appendix B Proposed Site Plan





TOTAL SITE AREA - 9.9 ACRES

PROPOSED EXTENSION:

GROUND FLOOR 10,000sq.ft

FIRST FLOOR 10,000sq.ft

SECOND FLOOR 10,000sq.ft

TOTAL - 30,000sq.ft

Rev	Description	By	Chkd	Date

Client

UK GREETINGS

Project Title

BRETTON PARK

Drawing Title

PROPOSED SITE PLAN

KPP ARCHITECTS

Lodge House
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Horsforth, Leeds LS18 4RJ

T : +44 (0) 113 2390460
E : architects@kpp-leeds.co.uk
W : www.kpp-leeds.co.uk

Scale	Size	Date	Drawn	Checked
1 : 500	A2	JAN'25	JB	DR

Status

PLANNING

KPP Job No.	Revision
2157-01	

Project	Originator	Level	Type	Role	Class	Number
2003						

DRAFT

Appendix C Sewer Record Plans and Design Drawing

Property Identfier

or

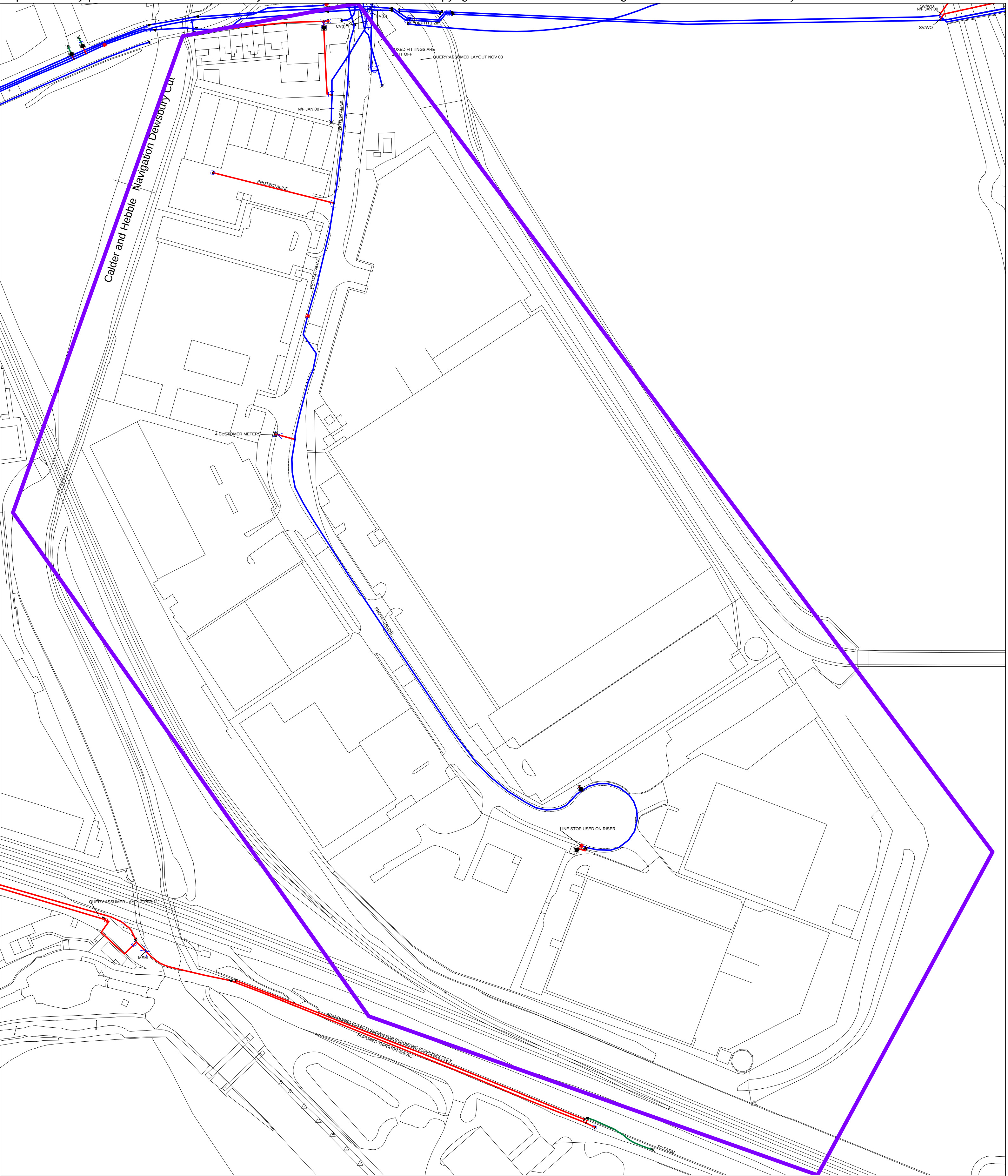
Sewer Legend

Combined Sewer	S24 Combined Sewer
Surface Water Sewer	S24 Surface Water Sewer
Foul Sewer	S24 Foul Sewer
Section 104 Sewer	Rising Main
Overflow Sewer	Abandoned Sewer
Manhole	Syphone Sewer & Vacuum Sewer
Pumping Station	STW Public Sewer Tretment Works

Please note that the direction of flow arrows may not always appear depending on the scale of the map.

Water Legend

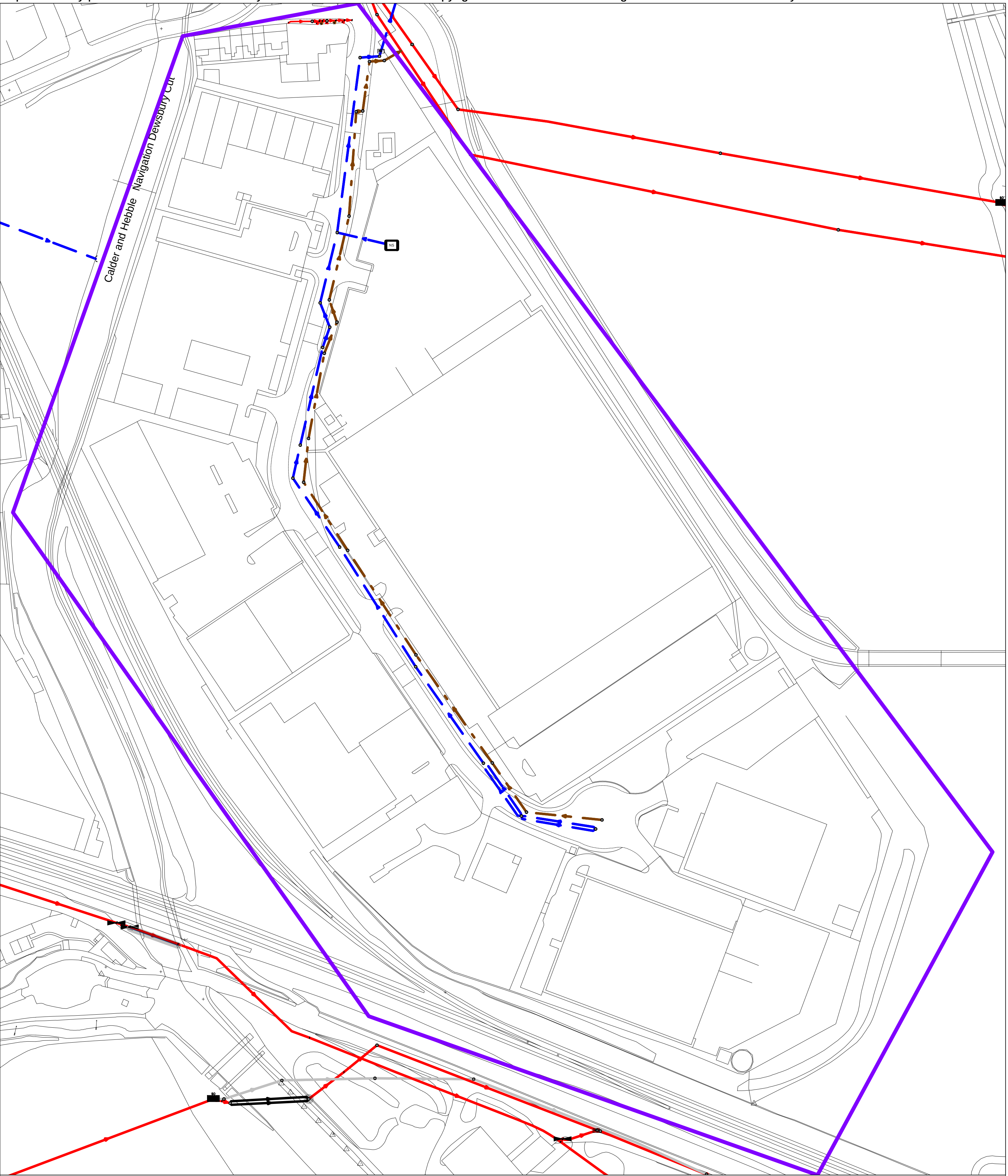
- Water Main 4" and below
- Water Main 4" and above
- Raw Water Main
- Private Water Main
- H Fire Hydrant
- Pumping Station
- NAV The assets in this area are the responsibility of another Water Undertaker



Public Clean Water Network 12/02/2025 10:15:31 OS Grid Coordinates: 424982 : 419751 Map Name : SE2419NE svcGISSafeMovePD

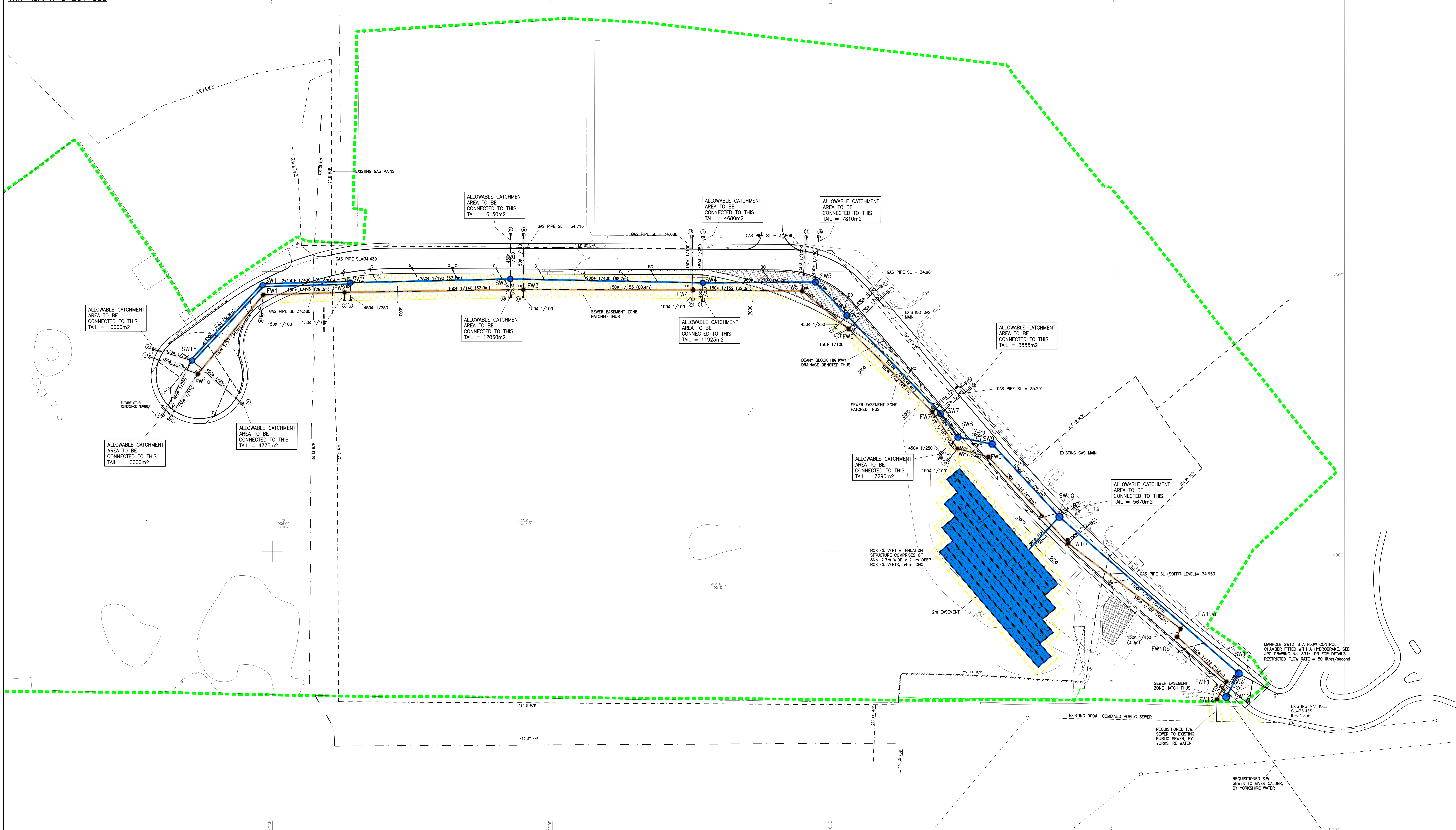
Registered office, Yorkshire water Services Limited. 1 Western House, Halifax Road, Bradford BD62SZ.
Registered in England and wales No. 2366682

SafeMove
A part of YorkshireWater



Public Waste Water Network 12/02/2025 10:15:32 OS Grid Coordinates: 424982 : 419751 Map Name : SE2419NE svcGISSafeMovePD

Y.W. REF: H-3-261-385



MH REF.	INVERT LEVELS	COVER LEVEL	DEPTH TO SOFFIT	MH TYPE	SIZE	COVER TYPE	NOTES
SW1a	35.080	36.750	1.220	B	2400ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW1	34.917	36.480	1.113	B1	2100ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW2	33.320	36.280	2.210	B	2100ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW3	33.020	36.230	2.310	B	2100ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW4	32.849	36.310	2.560	B	2400ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW5	32.700	36.550	2.800	B	2400ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW6	32.590	36.580	2.940	B	2400ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW7	32.468	36.218	2.700	B	2400ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW8	32.398	36.208	2.760	B	2400ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW9	32.315	36.130	2.765	B	2400ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW10	32.130	36.000	2.670	B	2400ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW11	31.575	35.710	2.935	B	2400ø CONC.	GRADE D400	ADOPTABLE MANHOLE
SW12	31.552	36.140	3.388	B	2400ø CONC.	GRADE C250	CONTROL CHAMBER ADOPTABLE MANHOLE

SURFACE WATER MANHOLE SCHEDULE.

MH REF.	INVERT LEVELS	COVER LEVEL	DEPTH TO SOFFIT	MH TYPE	SIZE	COVER TYPE	NOTES
FW1a	35.660	36.880	1.070	B1	1350ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW1	35.020	36.440	1.270	B1	1350ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW2	34.816	36.616	1.650	B1	1350ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW3	34.360	36.630	2.120	B	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW4	33.966	36.576	2.400	B	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW5	33.710	36.680	2.820	B	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW6	33.450	36.580	2.980	B	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW7	32.446	36.126	3.530	A	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW8	32.340	36.060	3.570	A	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW9	32.140	36.010	3.720	A	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW10	31.780	35.830	3.900	A	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW10a	31.510	35.710	4..050	A	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW10b	31.490	35.630	3.990	A	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW11	31.310	35.940	4.480	A	1200ø CONC.	GRADE D400	ADOPTABLE MANHOLE
FW12	31.262	36.140	4.728	A	1200ø CONC.	GRADE C250	ADOPTABLE MANHOLE

FOUL WATER MANHOLE SCHEDULE.

KEY:
- PROPOSED FOUL DRAIN
- PROPOSED SURFACE WATER DRAIN
- 150mm CONCRETE BED & SURROUND
- FW PROPOSED FOUL MANHOLE
- SW PROPOSED SURFACE WATER MANHOLE
- G PROPOSED ROAD GULLY

NOTE:
THIS DRAWING TO BE READ IN CONJUNCTION WITH THE FOLLOWING DRAWING:
3314–D2 – DRAINAGE CONSTRUCTION DETAILS
3314–D3 – G.A. OF SURFACE WATER ATTENUATION STRUCTURE
3314–D4 – MANHOLE DETAILS (SHEET 1)
3314–D5 – MANHOLE DETAILS (SHEET 2)
3314–D6 – MANHOLE DETAILS (SHEET 3)
3314–D7 – FLOW CONTROL CHAMBER – G.A.

DO NOT SCALE

NOTES

1. ALL GULLY CONNECTIONS TO BE 150 DIA WITH CONCRETE SURROUND.

2. ALL FUTURE STUBS TO BE SEALED WITH CIRCULAR PLY CUT TO SIZE AND CONCRETE IN.

YORKSHIRE WATER NOTES:

1. ALL ADOPTABLE SEWER WORKS & MATERIAL TO BE IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 5th EDITION & YORKSHIRE WATER'S REQUIREMENTS.

2. MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 600mm & SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.

3. FILLED GROUND MUST BE FILLED & CONSOLIDATED UNDER THE SUPERVISION & TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.

4. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m & MANHOLES 0.5m FROM KERB FACES & SERVICE MARGINS.

5. SEWERS MUST HAVE 5m CLEARANCE FROM TREES & HEDGES, WHERE IT IS NOT POSSIBLE TO ACHIEVE THIS CLEARANCE CONCRETE BED & SURROUND IS REQUIRED.

6. SEWERS TO BE LAID IN CLASS "S" BEDDING (150mm GRANULAR BED & SURROUND). WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m IN HIGHWAYS & VERGES THEN 150mm CONCRETE BED & SURROUND SHALL BE USED.

7. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE CONNECTIONS & BENDS.

8. YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES & 1050ø MANHOLE RINGS. INSTEAD IT IS PREFERRED A TYPE "B" MANHOLE WITH 1200ø OR 1350ø RINGS ARE USED WITH THE OPENING SITED OVER THE CHANNEL, WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1–1.5m.

9. GAS MAINS SOFFIT LEVELS INTERPOLATED FROM WEBFELL DRAWING 'GE524–003 REV 0'

REV	DESCRIPTION	DATE	BY
M	UPDATED 'AS-BUILT'	06.08.09	AF
L	TAIL TO FWMH5 AMENDED FW9–FW12 INVERT LEVELS REVISED	05.08.05	PY
K	MANHOLE FW11,12 & SW11,12 COVER LEVELS REVISED	15.06.05	PY
J	CONSTRUCITON ISSUE SW10–SW12 INVERTS REVISED	24.05.05	AMF
H	STORAGE STRUCTURE REPOSITIONED TO SUIT SITE CONDITIONS. DRAINAGE UPDATED TO SUIT	22.04.05	PY
G	MANHOLE CO–ORDINATES ADDED	14.04.05	RAK
F	PIPE RUN MHSW3–SW4 RESIZED TO 900ø	04.04.05	PY
E	UPDATED TO SUIT YORKSHIRE WATER's COMMENTS	21.03.05	PY
D	DRAINAGE UPDATED FOLLOWING GAS MAIN SURVEY	15.02.05	PY
C	CATCHMENT AREAS ADDED	06.01.05	AMF
B	UPDATED FOR SUBMISSION TO YORKSHIRE WATER	23.12.04	AMF
A	ROAD LAYOUT AND DRAINAGE UPDATED TO SUIT ARCHITECTS LATEST LAYOUT	01.12.04	PY

Job Title
BRETTON STREET
DEWSBURY

Drawing Title.
DRAINAGE LAYOUT

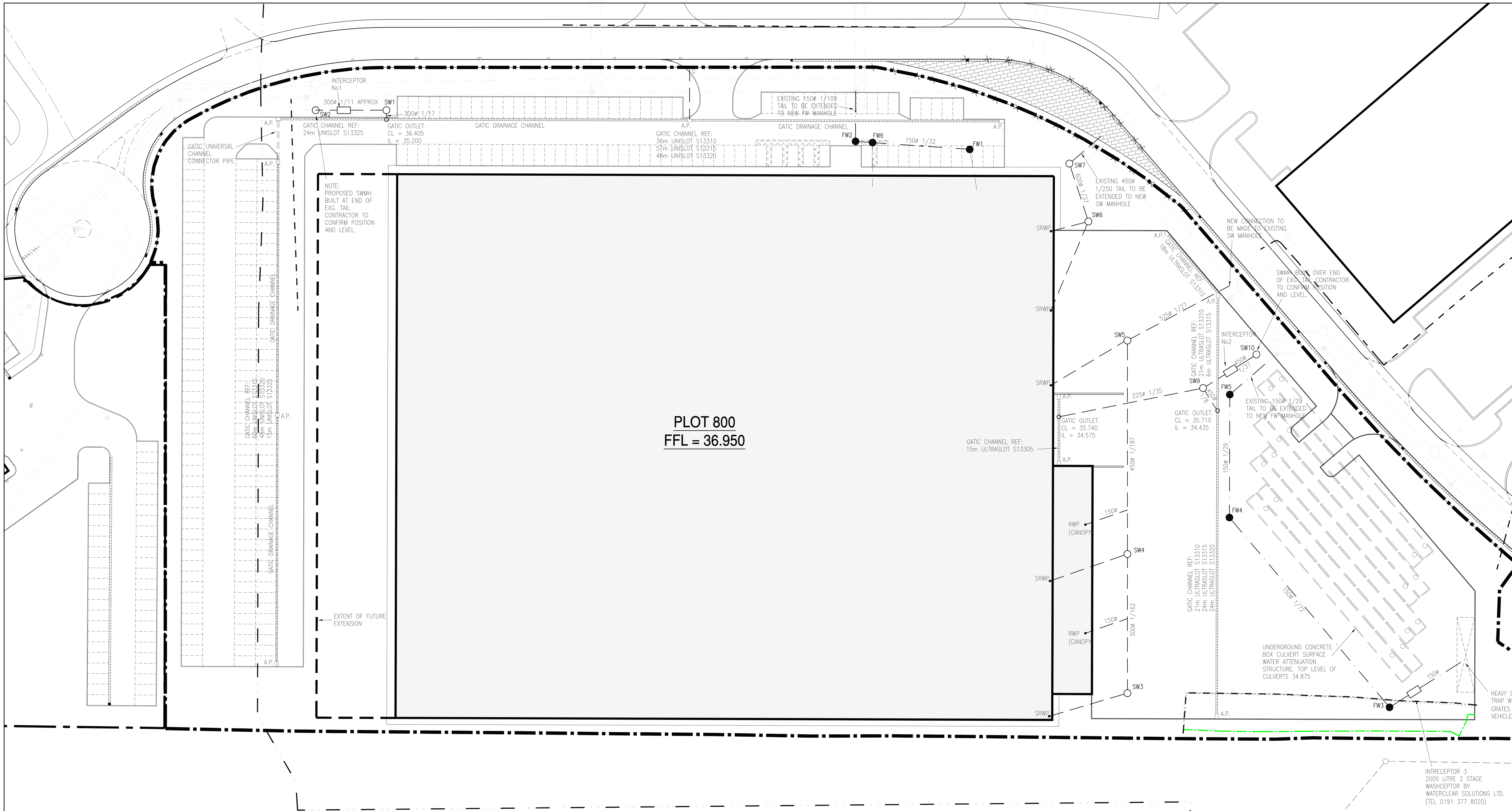
Architect
KILMARTIN PLOWMAN & PARTNERS

JORDAN PRITCHARD GORMAN
Consulting Civil & Structural Engineers
5 John Charles Way
Leeds LS12 6QD
Tel 0113 263 1155 Fax 263 0405

Checked	Date	Scale	Drawn
	05.10.04	1:500	AMF

Drawing No 3314–D1 M

Appendix D Existing Private Drainage Layout



DO NOT SCALE

N O T E S

DRAINAGE KEY:

- PROPOSED SURFACE WATER DRAIN
- PROPOSED FOUL DRAIN
- PIPES HATCHED THUS TO BE PROVIDED WITH 150mm CONCRETE BED & SURROUND
- FW PROPOSED FOUL WATER MANHOLE
- SW PROPOSED SURFACE WATER MANHOLE
- RE PROPOSED RODDING EYE
- AP PROPOSED TYPE 1 GATIC ACCESS POINT
- VP PROPOSED INTERCEPTOR VENT PIPE

NOTE:
ALL COVER LEVELS TO MANHOLES ARE APPROXIMATE & ARE TO SUIT FINISHED LEVEL SCHEME.

GATIC CHANNELS MANUFACTURED & SUPPLIED BY ELKINGTON GATIC–TEL 01304 203545. MANUFACTURERS TO DESIGN/SIZE UP CHANNELS

REFER TO ARCHITECT AND/OR ROOFING CONTRACTORS DRAWINGS FOR ALL ABOVE GROUND DRAINAGE DETAILS. ALL INTERNAL DRAINAGE TO ARCHITECTS DETAILS.

INTERCEPTORS:	
INTERCEPTOR No.	CATCHMENT AREA (m^2)
1	5800 m^2
2	7300 m^2
3	(WASHCEPTOR)

NOTES
ALL INTERCEPTORS TO HAVE 100mm STEP ACROSS INVERTS ALL INTERCEPTORS TO BE CLASS 1, BYPASS TYPE (UNLESS NOTED OTHERWAISE IN TABLE ABOVE). PROVIDE TURRET & FILTER EXTRACTION DEVICE EXTENSION TO ALLOW ACCESS FROM FINISHED GROUND LEVEL. INTERCEPTORS TO BE PROVIDED WTH AN OIL LEVEL MONITOR & ALARM, CONTRACTOR TO PROVIDE ELECTRIC SUPPLY TO MONITOR. INTERCEPTOR SUPPLIER MUST BE ON THE ENVIRONMENT AGENCY'S APPROVED LIST OF COMPLIANT MANUFACTURERS IN ACCORDANCE WITH THE 'CONSTRUCTION PRODUCTS REGULATIONS' 1991 AND PPG3.

INTERCEPTOR TABLE

MH REF.	INVERT LEVELS	COVER LEVELS	DEPTH TO SOFFIT	TYPE	SIZE	COVER TYPE	NOTES	SET–OUT COORDINATES
SW1	(1) 35.078	36.530	1.152	E	1200ø CONC.	C250		E256.984, N510.308
SW2	(1) 33.600	36.530	2.630	B	1200ø CONC.	C250		E273.055, N510.278
SW3	(1) 34.615	35.965	1.050	C	1240x750 BRICK	D400	OPEN GRATE COVER	E88.901, N643.040
SW4	(1) 34.420	35.965	1.095	E	1200ø CONC.	D400	OPEN GRATE COVER	E88.842, N611.426
SW5	(1) 34.160	36.113	1.428	E	1200ø CONC.	D400	OPEN GRATE COVER	E88.751, N562.932
SW6	(1) 33.346	36.760	2.814	B	1500ø CONC.	D400	OPEN GRATE COVER	E97.565, N535.876
SW7	(1) 32.914 EX TAIL (2) 32.914	36.800	3.286	A	1500ø CONC.	C250		E101.850, N522.715
~~SW8~~	~~(1) 33.985~~	OMITTED ~~35.750~~	~~1.315~~	~~E~~	~~1200ø CONC.~~	~~D400~~	OMITTED	~~E71.638, N601.697~~
SW9	(1) 33.391 (2) 33.616	35.750	1.909	B	1200ø CONC.	D400		E71.586, N573.764
SW10	(1) 33.000 EXG (2) 33.000	35.815	2.212	B	1200ø CONC.	D400		E59.447, N566169

SURFACE WATER SCHEDULE

MH REF.	INVERT LEVELS	COVER LEVELS	DEPTH TO SOFFIT	TYPE	SIZE	COVER TYPE	NOTES	SET–OUT COORDINATES
FW1	(1) 34.952	36.575	1.473	E	1200ø CONC.	C250		E124.494, N519.448
FW2	(1) 34.187	36.530	2.193	B	1200ø CONC.	C250		E150.417, N517.587
FW3	(1) 34.360	36.195	1.685	B	1200ø CONC.	D400		E29.358, N646.355
FW4	(1) 33.575	35.742	2.017	B	1200ø CONC.	D400		E65.647, N603.182
FW5	(1) 32.616	35.742	2.976	B	1200ø CONC.	D400		E65.512, N575.242
FW6	(1) 34.267	36.535	2.118	B	1200ø CONC.	D400		E146.555, N517.862

FOUL WATER SCHEDULE

REV	DESCRIPTION	DATE	BY	CK
G	AS BUILT ISSUE	27.11.08	MdP	
F	GATIC CHANNEL REFERENCES ADDED.	12.05.08	RAK	
E	SURFACE WATER DRAINAGE IN SERVICE YARD REVISED, MANHOLE SCHEDULE ALSO UPDATED.	07.05.08	RAK	
D	MANHOLE SCHEDULE UPDATED TO SUIT REVISED LEVELS IN SERVICE YARD, SW8 OMITTED AND GATIC OUTLET POSITION AMENDED.	11.04.08	RAK	
C	SW6 AMENDED TO SUIT NEW SRWP POSITIONS, SW6 & SW7 MANHOLE SIZE AMENDED TO 1500ø, FW6 ADDED & FW1 RE–POSITIONED TO SUIT INTERNAL DRAINAGE, POSITON OF DOCK LEVELLER WALL AMENDED TO SUIT LATEST ARCHITECTS PLAN.	02.04.08	RAK	
B	MANHOLE COVER AND SOFFIT LEVELS AMENDED TO SUIT REVISED LEVELS. NEW GULLY ADDED TO ENTRANCE AND ACCESS POINT OF GATIC AMENDED, SHOWN CLOUDED.	26.03.08	RAK	
A	CONSTRUCTION ISSUE. GATIC CHANNEL MOVED TO AVOID GAS MAIN.	13.03.08	RAK	

Job Title
BRETTON STREET
DEWSBURY

Drawing Title.
PLOT 800
DRAINAGE LAYOUT

AS BUILT

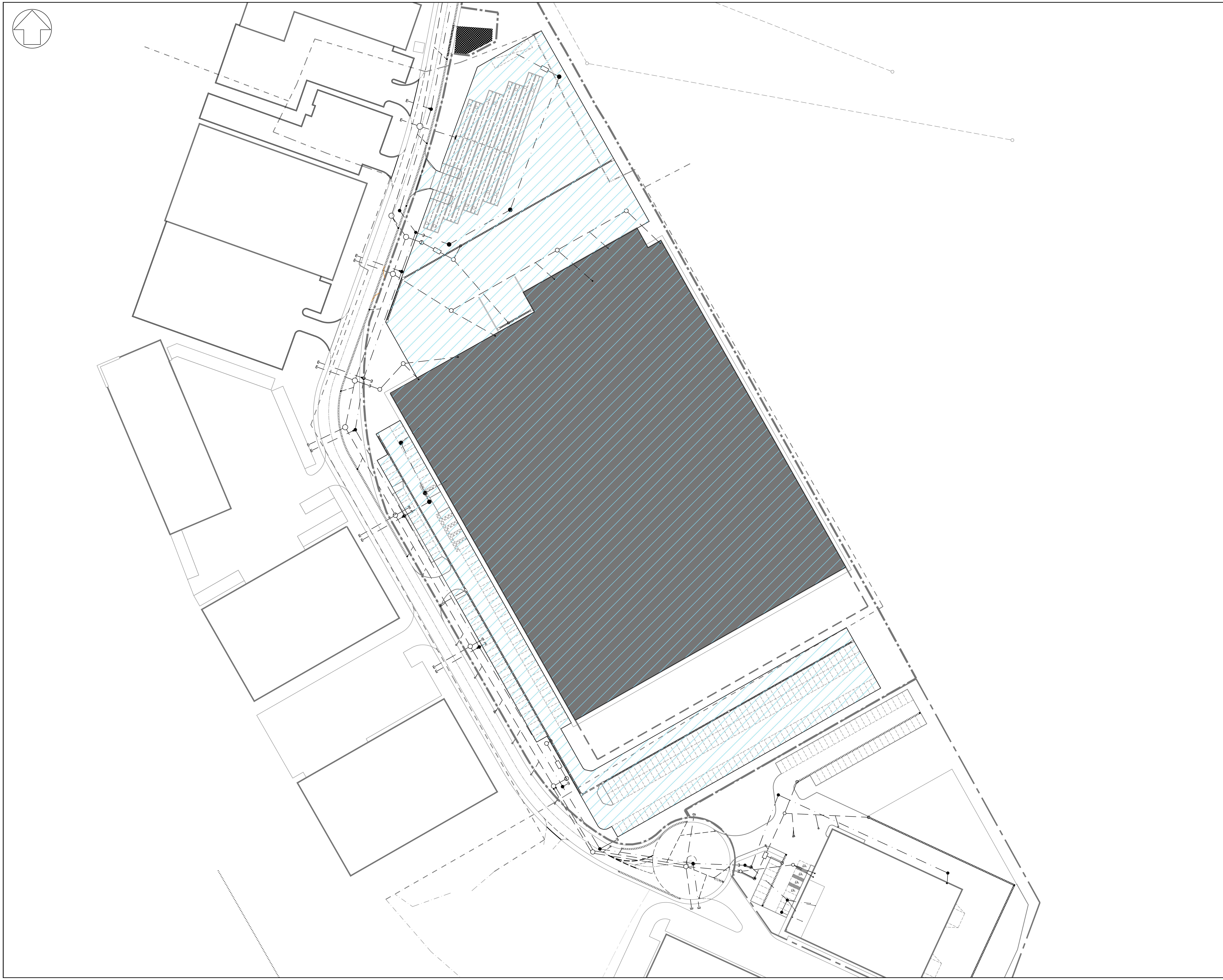
Architect
KILMARTIN PLOWMAN & PARTNERS

JORDAN PRITCHARD GORMAN
Consulting Civil & Structural Engineers
5 John Charles Way
Leeds LS12 6QD
Tel 0113 263 1155 Fax 263 0405

Checked	Date	Scale	Drawn
	06.11.04	1:500	MDT

Drawing No 3314–800–D1 G

Appendix E Existing Impermeable Area Plan



DO NOT SCALE (A1)

NOTES

GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP IS TO COMPLY WITH JPG CONSULTANTS STANDARD SPECIFICATION & ALL RELEVANT BRITISH & EUROPEAN STANDARDS.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, M & E CONSULTANTS AND JPG CONSULTANTS DRAWINGS.
3. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO COMMENCEMENT OF WORKS.

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LEGEND

DENOTES EXISTING IMPERMEABLE AREA = 31940m² (3.194Ha)

REV	DESCRIPTION	DATE	CHK	BY
P01	INITIAL ISSUE	25.02.25		BT

Project
UK GREETINGS
BRETTON PARK

Drawing Title
EXISTING IMPERMEABLE AREA PLAN

INFORMATION

JPG
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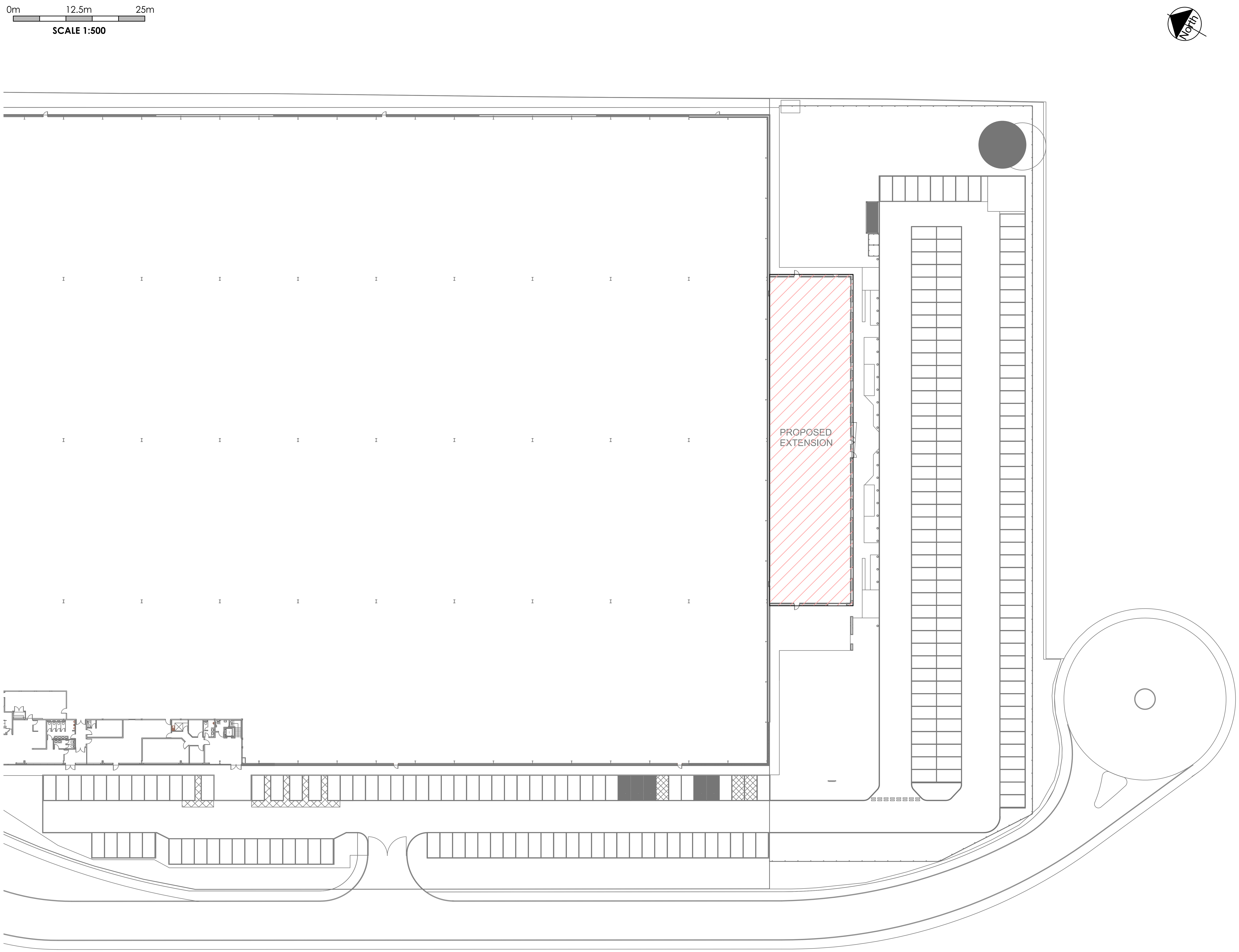
6359-JPG-ZZ-ZZ-DR-D-1451 | S2 | P01

Appendix F Proposed Impermeable Area Plan



DO NOT SCALE (A2)

NOTES

GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP IS TO COMPLY WITH JPG CONSULTANTS STANDARD SPECIFICATION & ALL RELEVANT BRITISH & EUROPEAN STANDARDS.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, M & E CONSULTANTS AND JPG CONSULTANTS DRAWINGS.
3. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO COMMENCEMENT OF WORKS.

LEGEND

DENOTES PROPOSED BUILDINGS
AREA = 1000m² (0.100Ha)

REV	DESCRIPTION	DATE	CHK	BY
P01	INITIAL ISSUE	25.02.25		BT

Project
UK GREETINGS
BRETTON PARK

Drawing Title
PROPOSED IMPERMEABLE AREA PLAN

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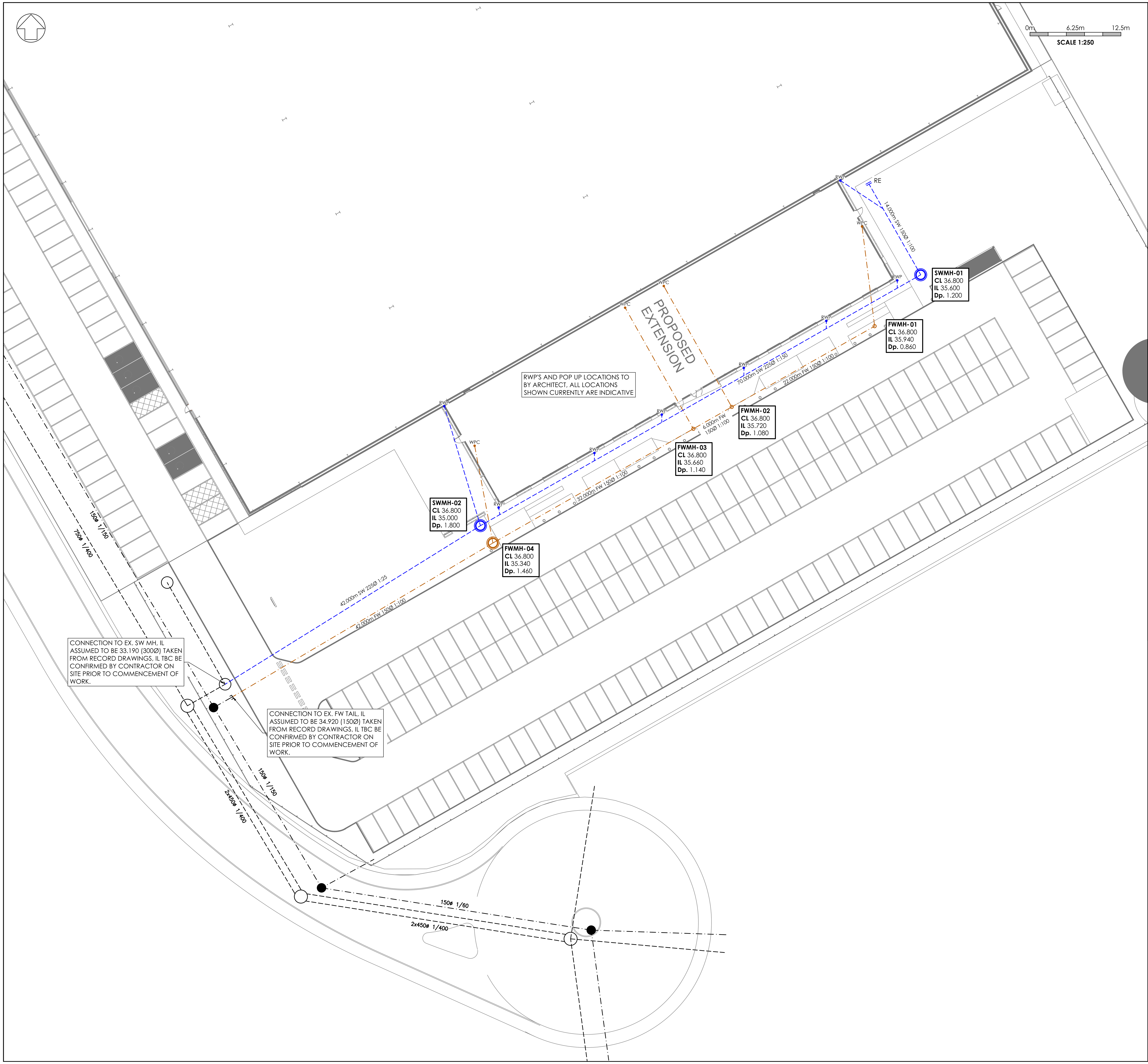
Appendix G Proposed Drainage Layout Drawing



DRAINAGE NOTES

1. ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752:2008 DRAINAGE AND SEWER SYSTEMS OUTSIDE BUILDINGS, THE CURRENT BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REQUIREMENTS.
2. ANY DRAINAGE TO BE PUT FORWARD FOR ADOPTION EITHER WITHIN THE SITE OR OUTSIDE SHALL BE CONSTRUCTED TO SEWERS FOR ADOPTION LATEST EDITION AND ANY SPECIFIC REQUIREMENTS OF THE ADOPTING SEWERAGE/WATER AUTHORITY.
3. THE LOCATION, SIZE AND DEPTH OF ALL EXISTING DRAINS/SEWERS AND SERVICES SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS ON SITE. ANY DISCREPANCIES FROM THE INFORMATION INDICATED ON THESE DRAWINGS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SHOULD ANY EXISTING LIVE DRAINAGE BE FOUND WITHIN THE SITE BOUNDARY SERVING ADJACENT PROPERTIES.
5. ALL EXISTING DRAINAGE WITHIN THE SITE NOT REQUIRED FOR THE NEW DEVELOPMENT SHALL BE ABANDONED. DRAINS AND SEWERS LESS THAN 1.500m DEEP WHICH ARE IN OPEN GROUND SHOULD AS FAR AS IS PRACTICABLE BE FULLY REMOVED ALL OTHER PIPES SHOULD BE SEALED AT BOTH ENDS AND AT ANY POINT OF CONNECTION, AND BE GROUT FILLED TO ENSURE THAT RATS CANNOT GAIN ACCESS. LARGER PIPES 225Ø OR ABOVE SHOULD BE GROUT FILLED TO PREVENT SUBSIDENCE OR DAMAGE TO BUILDINGS OR SERVICES IN THE EVENT OF COLLAPSE.
6. THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT AND DIVERSION WORKS AS NECESSARY, TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE UTILITY COMPANIES.
7. THE CONTRACTOR SHALL ALLOW FOR DEALING WITH SURFACE WATER RUN OFF INTO EXCAVATIONS AND FROM GROUNDWATER BY MEANS OF SUMPS, PUMPING AND DE WATERING AS APPROPRIATE, IN ORDER TO KEEP THE EXCAVATION AS REASONABLY DRY AS POSSIBLE DURING THE CONSTRUCTION OF THE WORKS.
8. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS IN LINE WITH CURRENT LEGISLATION WHEN WORKING IN/NEAR CONFINED SPACES, DEEP EXCAVATIONS AND MACHINERY.
9. THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON THE SEWERAGE SYSTEM.
10. THE CONTRACTOR SHALL SUITABLY PROTECT PEDESTRIANS AND VEHICLES FROM WORKING AREAS.
11. ALL MANHOLE/CHAMBER COVER LEVELS ARE APPROXIMATE AND SHALL BE ADJUSTED ON SITE TO SUIT THE PROPOSED FINISHED LEVELS.
12. ALL PIPES SHALL BE LAID WITH LEVEL SOFFITS AND ALL MANHOLE/INSPECTION CHAMBER INVERT LEVELS SHOWN ARE FOR THE OUT GOING PIPE UNO. ON THE DRAWING (NOTE THAT ALL PIPE GRADIENTS INDICATED ON THE DRAWING ARE APPROXIMATE ONLY).
13. ALL PIPE CONNECTION FROM DRAINAGE CHANNELS AND GULLIES SHALL BE 150Ø PIPES AT A MINIMUM GRADIENT OF 1:100 WITH CLASS Z BEDDING UNO. ON THE DRAWING.
14. ALL PIPE CONNECTIONS FROM RWP'S TO BE 100Ø AT 1:60 MIN. AND ALL PIPE CONNECTIONS FROM WPC'S TO FIRST CHAMBER SHALL BE 100Ø AT 1:40 MIN. WITH CLASS S BEDDING BENEATH THE BUILDING AND CLASS Z UNDER EXTERNALS WHERE COVER IS LESS THAN 1.20m UNO. ON THE DRAWING (LOCATION OF RWP'S AND WPC'S TO BE CONFIRMED BY THE ARCHITECT AND ARE SHOWN INDICATIVELY ONLY).
15. ALL SYPHONIC RWP SYSTEMS TO BE DESIGNED BY OTHERS. PIPEWORK FROM DOWN PIPE TO FIRST MANHOLE TO BE SIZED/ DESIGNED BY SYPHONIC SYSTEM DESIGNER. THE FIRST MANHOLE TO HAVE AN OPEN GRATE COVER SAINT GOBAIN WATERWAY 2000 - D400 OR SIMILAR APPROVED.
16. SUITABLY SIZED PETROL INTERCEPTORS MUST COMPLY WITH THE REQUIREMENTS OUTLINE IN PPG3 THESE INCLUDE SILT STORAGE CAPACITY AND HIGH LEVEL HYDROCARBON ALARM WIRED BACK TO A MANNED OFFICE.
17. UPON COMPLETION OF THE DRAINAGE WORKS THE CONTRACTOR SHALL CLEAN ALL DRAIN RUNS BY JETTING AND REMOVE ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC SEWER AND/OR WATERCOURSE SYSTEM. ONCE THE DRAINAGE SYSTEM HAS BEEN FULLY CLEANED OUT A CCTV CAMERA CONDITION SURVEY SHALL BE UNDERTAKEN TO ALL CONSTRUCTED DRAINAGE AND SEWER PIPES WITH THE FOOTAGE ISSUED TO THE ENGINEER FOR VIEW. THE AS BUILT INVERT AND COVER LEVELS SHALL BE RECORDED BY THE CONTRACTOR AND PASSED ON TO THE ENGINEER FOR REVIEW.

DO NOT SCALE (A1)

NOTES

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LEGEND

PROPOSED SURFACE WATER PIPE
PROPOSED SURFACE WATER MANHOLE
PROPOSED FOUL WATER PIPE
PROPOSED FOUL WATER MANHOLE
EXISTING SURFACE WATER PIPE
EXISTING SURFACE WATER MANHOLE
EXISTING FOUL WATER PIPE
EXISTING FOUL WATER MANHOLE
PROPOSED DRAINAGE CHANNEL
PROPOSED KERBDRAIN
RG PROPOSED ROAD GULLY
RWP PROPOSED RAINWATER PIPE
SRWP PROPOSED SYPHONIC RAINWATER PIPE
WPC PROPOSED WASTE POINT CONNECTION

REV	DESCRIPTION	DATE	CHK	BY
P01	INITIAL ISSUE	25.02.25		BT

Project
UK GREETINGS
BRETTON PARK WAY

Drawing Title
DRAINAGE LAYOUT

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