



HYDROBRAKE DETAILS	
MANHOLE REFERENCE	S3
MANHOLE SIZE	2700mm DIA.
HYDROBRAKE TYPE	OPTIMUM
HYDROBRAKE REFERENCE	SHE-0097-5000-1600-5000
DISCHARGE RATE	5.0 l/sec
DESIGN HEAD	1.60 m
ORIFICE SIZE (mm)	97
WEIR DETAILS	N/A
INVERT LEVEL (m)	51.607m
WEIR LEVEL (m)	N/A

DRAINAGE KEY

--- NEW SURFACE WATER DRAIN / SEWER

--- EX COM > --- NEW FOUL WATER DRAIN / SEWER

--- EX COM > --- EXISTING COMBINED DRAIN / SEWER

--- EX SW > --- EXISTING SURFACE WATER DRAIN / SEWER

--- EX FW > --- EXISTING FOUL WATER DRAIN / SEWER

--- XCX --- XCX --- EXISTING DRAINAGE TO BE ABANDONED TO U.U. / L.A. APPROVAL

--- NEW MANHOLE - REFER TO PLAN FOR SIZE

--- NEW POLYPROPYLENE INSPECTION CHAMBER (PPIC)

--- NEW MINI ACCESS CHAMBER

EXTG MH

CL: XXX --- IL: XXX

EXISTING MANHOLE / ACCESS CHAMBER

DESIGN CONTINGENCY

FOR COST PURPOSES THE CONTRACTOR IS TO INCLUDE THE FOLLOWING CONTINGENCY (% OF PRIMARY CIVILS DESIGN COST) AT THE RELEVANT PROJECT STATUS INDICATED ON THE DRAWING.

RIBA STAGE 2 - CONCEPT DESIGN - 25%

RIBA STAGE 3 - SPATIAL COORDINATION - 15%

RIBA STAGE 4 - TECHNICAL DESIGN - 10%

RIBA STAGE 5 - PRODUCTION INFORMATION - 5%

GENERAL NOTES

A1.1 THIS DRAWING TO READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

A1.2 ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR / FABRICATOR PRIOR TO COMMENCEMENT OF WORKS.

A1.3 ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.

A1.4 ALL WORKS TO BE CARRIED OUT IN STRICT ACCORDANCE WITH THE ENGINEER'S SPECIFICATIONS, RELEVANT BRITISH STANDARDS AND WHERE APPLICABLE LOCAL AUTHORITIES REQUIREMENTS.

A1.5 ALL MATERIALS TO BE MARKED WITH BSI KITE MARK WHERE APPLICABLE.

EXISTING SERVICES

E2.1 PRIOR TO CONSTRUCTION THE CONTRACTOR IS TO ENSURE THAT:

NO PROPOSED DRAINAGE CLASHES WITH ANY OF THE EXISTING SERVICES.

ANY NEW HIGHWAY WORKS DO NOT ADVERSELY AFFECT THE COVER TO EXISTING SERVICES BELOW THE RELEVANT MINIMUM COVER REQUIREMENTS.

THE CONTRACTOR IS TO ALLOW FOR THIS PROVISION WITHIN THE TENDER SUM.

E2.2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ATTAINING ALL NECESSARY APPROVAL FOR ANY SERVICE DIVERSIONS REQUIRED TO FACILITATE THE PROPOSED WORKS.

E2.3 THE CONTRACTOR SHALL CHECK ALL EXISTING COVER / INVERT LEVELS AND PIPE / SEWER SIZES ON SITE PRIOR TO START OF WORKS TO ENSURE PROPOSED DRAINAGE CAN BE CONSTRUCTED AS INDICATED ON THE DRAWING. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

E2.4 ALL GULLIES TO BE PROTECTED FROM SILT DURING THE CONSTRUCTION PROCESS WITH A LAYER OF HESSIAN SHEETING PLACED UNDER THE GULLY GRATING. THE HESSIAN SHALL BE CLEANED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD

E2.5 ALL LIVE CONNECTIONS IDENTIFIED IDENTIFIED IN THE CCTV SURVEY, MUST BE RE-PIPED TO ANY DIVERTED SEWERS.

E2.6 ANY LAND DRAIN OR WATERCOURSE ON SITE TO BE DIVERTED SO AS NOT TO PASS UNDER PROPOSED BUILDING. ANY DIVERSION TO BE INSPECTED ON SITE BY LOCAL AUTHORITY.

REDUNDANT DRAINAGE

E3.1 DRAINS OR SEWERS LESS THAN 1.5m DEEP WHICH ARE IN OPEN GROUND SHOULD AS FAR AS IS PRACTICABLE BE REMOVED. OTHER PIPES SHOULD BE SEALED AT BOTH ENDS AND AT ANY POINT OF CONNECTION, AND GROUT FILLED TO ENSURE THAT RATS CANNOT GAIN ACCESS.

E3.2 LARGER PIPES (225mm AND ABOVE) SHOULD BE GROUT FILLED TO PREVENT SUBSIDENCE OR DAMAGE TO BUILDINGS OR SERVICES IN THE EVENT OF COLLAPSE.

WHERE EXISTING CHAMBERS ARE TO BE REUSED:

E4.1 THE COVER AND INVERT LEVELS ARE REQUIRED TO CONFIRM THE DESIGN.

E4.2 ALLOW FOR REPLACING COVER AND FRAMES WHERE DAMAGED, MISSING, BURIED OR WHERE RECESSED COVERS ARE REQUIRED TO RECEIVE ARCHITECTS FINISHES.

E4.3 ALLOW FOR REPLACING THE EXISTING CHAMBER SUBJECT TO CONDITION OR THE REQUIREMENTS OF THE SEWERAGE UNDERTAKER.

PRIVATE FOUL WATER DRAINAGE

D1.1 ALL PROPOSED PRIVATE FOUL WATER DRAINAGE TO BE 100MM Ø AT 1:40 GRADIENT UNLESS NOTED OTHERWISE

D1.2 INTERNAL VENTING OF DRAINAGE SYSTEM TO ARCHITECTS DETAILS

D1.3 ARCHITECT TO CONFIRM ALL SOIL PIPE LOCATIONS PRIOR TO CONSTRUCTION.

PRIVATE SURFACE WATER DRAINAGE

D1.4 ALL PRIVATE SURFACE WATER DRAINAGE TO BE 100MM Ø AT 1:80 GRADIENT UNLESS NOTED OTHERWISE.

D1.5 ALL SURFACE WATER GULLEYS TO BE TRAPPED.

D1.6 ARCHITECT TO CONFIRM ALL RWP LOCATIONS PRIOR TO CONSTRUCTION.

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Rev	Description	Date	By	Chkd

Drawing Status

S2 - CONCEPT DESIGN

Sutcliffe

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Client: **ONWARD HOMES**

Project: **PENNINGTON STREET MANCHESTER**

Drawing Title: **PROPOSED ADOPTABLE DRAINAGE**

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