

ENGINEERING LEGEND

ADOPTABLE DRAINAGE

- PROPOSED ADOPTABLE FOUW MANHOLE
- PROPOSED ADOPTABLE STORM MANHOLE
- EXISTING ADOPTED FOUW MANHOLE
- EXISTING ADOPTED STORM MANHOLE
- EXISTING ADOPTED COMBINED MANHOLE

ADOPTABLE HIGHWAYS

- PROPOSED HIGHWAY TO BE CAMBERED
- PROPOSED HIGHWAY TO HAVE CROSSFALL
- PROPOSED HIGHWAY GULLY
- PROPOSED TACTILE PEDESTRIAN CROSSING

PRIVATE DRAINAGE

- PRIVATE DRAINAGE CHANNEL
- PRIVATE STORM RODDING EYE
- 300MM DIA. PRIVATE INSPECTION CHAMBER. TO BE USED WHERE DEPTH TO INVERT IS 600MM OR LESS
- 450MM DIA. PRIVATE INSPECTION CHAMBER. TO BE USED WHERE DEPTH TO INVERT IS 300MM OR LESS. REDUCED ACCESS FITTING REQUIRED AT DEPTHS GREATER THAN 1200MM

- ALL PRIVATE DRAINAGE TO BE 100MM RIGID PIPE OR 110MM FLEXIBLE PIPE UNLESS OTHERWISE SHOWN
- WHERE 5 OR MORE PROPERTIES CONNECT TO THE SAME PRIVATE STORM RUN THE PIPE(S) SHOULD BE UP-SIZED TO 150MM DIA. AFTER THE FIFTH PROPERTY
- PLEASE REFER TO LAYOUT TO SEE PIPES THAT MAYBE AFFECTED
- WHERE 10 OR MORE PROPERTIES CONNECT TO THE SAME PRIVATE FOUL RUN THE PIPE(S) SHOULD BE UP-SIZED TO 150MM DIA. AFTER THE TENTH PROPERTY. PLEASE REFER TO LAYOUT TO SEE PIPES THAT MAYBE AFFECTED
- ALL PRIVATE DRAINAGE TO HAVE A MINIMUM FALL OF 1:70 UNLESS OTHERWISE SHOWN
- BEDDING TO BE GRANULAR MATERIAL TO BS 882: PART 2 OF 10MM NOMINAL SINGLE SIZED AGGREGATE. RIGID PIPES OF NOMINAL SIZE 150MM & 160MM FLEXIBLE PIPES SHOULD HAVE GRANULAR MATERIAL BEDDING TO BS 882: PART 2 OF 10MM OR 14MM NOMINAL SIZED AGGREGATE OR 14MM TO 5MM GRADED AGGREGATE

RETAINING WALLS AND STEPS

- RETAINING WALL (RETAINED HEIGHT SHOWN) (ALLOW EDGE PROTECTION OVER 600MM HT)
- FLAG ON EDGE
- BLOCKWORK TO BE SHOWN BELOW DPC
- PAVING FLAG STEPS - 300MM GOING 150MM RISE

- EXISTING GROUND LEVEL (WITH BRACKETS)
- DPC LEVELS MUST NOT BE ALTERED WITHOUT INFORMING DESIGNER
- REFER TO ARCHITECTS LAYOUT FOR DETAILS OF FENCING AND WALLS

ADOPTABLE DRAINAGE

GENERAL NOTES

- DO NOT USE THIS DRAWING IN ISOLATION. THIS DRAWING HAS BEEN PREPARED AS PART OF A SET, AND MUST THEREFORE BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS. ANY DISCREPANCIES OR DESIGN CHANGES MUST BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORKS. FOLLOWING COMPLETION OF TENDER IT IS ASSUMED THAT DEVELOPER AND CONTRACTOR ARE IN FULL AGREEMENT WITH THE DESIGN DRAWINGS (WITH THE EXCEPTION OF PRE-TENDER QUERIES ONLY).
- THIRD PARTY INFORMATION IS USED TO PREPARE THE ENGINEERING DESIGN (INCLUDING, ARCHITECTURAL LAYOUT, GROUND INVESTIGATION, EXISTING UTILITIES RECORDS, AND SPECIALIST DESIGN ITEMS). THE ENGINEERING DESIGN MUST THEREFORE BE READ IN CONJUNCTION WITH ALL THIRD PARTY INFORMATION PRIOR TO COMMENCING WORK. QUEENSBERRY DESIGN LTD ARE NOT RESPONSIBLE FOR ANY THIRD PARTY INFORMATION OR DETAILS.
- HOUSE TYPE WORKING DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE PLOT SETTING OUT DRAWING.
- DRAWING STATUS WILL REMAIN PRELIMINARY UNTIL FULL TECHNICAL APPROVAL IS RECEIVED FROM LOCAL AUTHORITY AND SEWERAGE UNDERTAKER. WORKS COMMENCED PRIOR TO TECHNICAL APPROVAL ARE DONE SO AT RISK AND MAY BE SUBJECT TO CHANGE.
- THE CONTRACTOR IS EXPECTED TO PREPARE APPROPRIATE CONSTRUCTION METHOD STATEMENTS FOR ALL ASPECTS OF APPOINTED WORK. THIS SHOULD INCLUDE ANY TEMPORARY PROTECTION WORKS.
- LAND DRAINAGE IS NOT PERMITTED TO DISCHARGE INTO THE PUBLIC SEWER NETWORK. ANY NEED FOR LAND DRAINAGE SHOULD BE ASSESSED BY THE GROUND WORKER AND LANDSCAPER DURING CONSTRUCTION AND PLACEMENT OF GARDENS ON AN INDIVIDUAL PLOT BASIS. IF LAND DRAINAGE DESIGNS ARE REQUIRED, THEY SHOULD BE APPOINTED PRIOR TO PLOT COMPLETION.
- THE CONTRACTOR IS EXPECTED TO CROSS CHECK ALL DRAINAGE INVERTS PRIOR TO COMMENCING WORK. THIS MAY INVOLVE COMPLETION OF TRIAL HOLES IF INVERT LEVELS HAVE BEEN INTERPOLATED.
- THE CONTRACTOR MUST MONITOR THE 'AS BUILT' PROGRESS OF EACH CONSTRUCTION STAGE (ROADS/SEWERS/PLANT WORKS ETC.) TO ENABLE THE NEXT STAGES OF CONSTRUCTION TO BE CHECKED BEFORE INSTALLATION. FOR THIS REASON THE DESIGN OF, FLOOR LEVELS, EXTERNAL WORKS, RETAINING WALLS, AND PLOT DRAINAGE ARE TO BE READ AS GUIDANCE ONLY.

HIGHWAYS

- ALL HIGHWAY WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT LOCAL AUTHORITY DESIGN GUIDE AND SPECIFICATION
- ALL EXCAVATIONS BELOW PROPOSED AND EXISTING HIGHWAYS TO BE BACK FILLED WITH GRANULAR TYPE 1 SUB BASE AND WELL COMPACTED LAYERS NOT EXCEEDING 150MM UNLESS OTHERWISE AGOED
- HIGHWAY AUTHORITY TO BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS.

ADOPTABLE DRAINAGE

- ALL ADOPTABLE DRAINAGE WORKS TO BE IN ACCORDANCE WITH THE WATER AUTHORITIES PUBLICATION - 'CODE OF ADOPTION' AS WELL AS THE APPROVED DRAWINGS.
- PRECAST CONCRETE MANHOLE RINGS TO COMPLY WITH THE RELEVANT PROVISIONS OF BS8911 PART 200.
- ALL BLOCKWORK TO BE CLASS B ENGINEERING COMPLYING WITH THE RELEVANT PROVISIONS OF BS 3291. CONCRETE BRICKS MAYBE USED IF THEIR SPECIFICATION IS THE SAME AS CLASS B ENGINEERING BRICKS. PLEASE SEEK APPROVAL FROM RELEVANT WATER AUTHORITY BEFORE USING.
- MANHOLE COVERS & FRAMES SHALL COMPLY WITH RELEVANT PROVISIONS OF BS 594 AND BE OF A NON-VENTILATING DESIGN.
- LADDERS THAT ARE REQUIRED IN TYPE A MANHOLES ARE TO COMPLY WITH 'CODE FOR ADOPTION'.
- CONCRETE MUST BE EITHER C20 SULPHATE RESISTANT PORTLAND CEMENT WITH HIGH STRENGTH CONCRETE TOPPING TO THE BENCHING OR C35 ORDINARY PORTLAND CEMENT.
- 150MM CONCRETE SUBSIDIARY IS REQUIRED AROUND PIPES WHERE THE DEPTH FROM FINISHED SURFACE TO SOFFIT OF PIPE IS LESS THAN 1200MM. THIS MAY BE REDUCED TO 900MM WITHIN OPEN SPACE.
- THE LOCATION OF EXISTING DRAINAGE THAT IS WITHIN CLOSE PROXIMITY TO THE PROPOSED SITE WORKS, WHICH IS NOT TO BE DIVERTED, SHOULD BE CONFIRMED BY THE CONTRACTOR AND REPORTED TO THE DEVELOPER TO ENSURE IT CORRESPONDS TO THAT SHOWN ON THE ENGINEERING LAYOUT AND THAT NO PROPOSED WORKS ARE AFFECTED.
- THE POSITION, LINE AND DIAMETER OF ALL EXISTING DRAINAGE APPARATUS SHOULD BE CONFIRMED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.
- THE CONNECTION OF FOUL AND SURFACE WATER DRAINAGE TO THE EXISTING PUBLIC SEWER SYSTEM SHALL BE SUBJECT TO THE APPROVAL OF THE LOCAL SEWERAGE UNDERTAKER. THE CONTRACTOR IS EXPECTED TO APPLY FOR RELEVANT PERMITS PRIOR TO COMMENCING THE WORK.
- ROADS AND SEWERS CONTRACTOR MUST INFORM WATER AUTHORITY PRIOR TO WORKS COMMENCING.

EXISTING SERVICES

- PRIOR TO THE COMMENCEMENT OF ANY WORKS UNDER GROUND MAPPING SURVEYS AND CONSTRAINTS PLAN IS TO BE REFERRED TO ANY DISCREPANCIES ARE TO BE REPORTED TO ENGINEER.
- ANY EXISTING SERVICES WHICH MAY BE AFFECTED BY THE PROPOSED WORKS SHOULD BE LOCATED BY MEANS OF A HAND DIG IN CLOSE LIAISON WITH THE STATUTORY SERVICE AUTHORITIES. THE CONTRACTOR SHALL INFORM THE DEVELOPER OF ANY SERVICES THAT MAY AFFECT THE PROPOSED DESIGN. CONTRACTOR TO NOTIFY STATUTORY SERVICE AUTHORITIES PRIOR TO COMMENCEMENT OF WORK.

AS CONSTRUCTED INFORMATION

- IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE THE FOLLOWING AS CONSTRUCTED DRAWINGS TO THE DEVELOPER UPON THE COMPLETION OF THE WORKS COVERED BY THE CONTRACT.
- POSITION CO-ORDINATES OF ALL ADOPTABLE MANHOLES.
 - INVERT AND COVER LEVELS OF ALL ADOPTABLE MANHOLES.
 - NEW GULLY POSITIONS AND CONNECTIONS.
 - POSITION AND DEPTH OF SERVICE DUCTS FOR WATER, GAS, ELECTRIC, BT, CABLE AND STREET LIGHTING, STATING SIZE AND NUMBER OF DUCTS.

Warning Triangles

- INVERT LEVEL AND CAPACITY OF EXISTING SEWER TO BE CONFIRMED PRIOR TO FORMING THE CONNECTION INTO EXISTING FOUL
- EXISTING FOUL SEWER DIVERSION TO AVOID PROPOSED SUDS BASIN
- DRAINAGE POINTS MISSING FROM HOUSETYPE TO BE REVIEWED
- FOOTPATH ROUTE TO BE UPDATED TO PROPOSED DUE TO LEVEL DIFFERENCE

B	11.09.26	UPDATED TO SUIT REVISED LAYOUT	JP	AL
A	06.07.26	UPDATED TO SUIT REVISED LAYOUT	JP	AL

Rev.	Date	Revision Details	Drawn	Checked
------	------	------------------	-------	---------

© This drawing is the property of Queensberry Design Limited and the information can only be reproduced with their prior permission.



QUEENSBERRY DESIGN
CIVIL, STRUCTURAL, ARCHITECTURAL &
GEOTECHNICAL CONSULTANTS
5 STATHENS, THE WATERMARK, GATESHEAD,
TYNE AND WEAR NE11 9BN
T: 0191 460 8900
YORKSHIRE OFFICE
SUITE 5A, BROOKFIELD COURT, SELBY ROAD,
LEEDS, LS25 1NB
T: 0113 517 1999
www.queensberrydesign.co.uk

Client
GLEESON HOMES

Project
HARRAS MOOR

Title
**ENGINEERING LAYOUT
SHHET 2**

Drawn
JP

Checked
AL

Date
JUNE 2026

Drawing Number
QD2478-03-03

Drawing Status
PRELIMINARY

Scale
1:500 - A1

Rev.
B