

PLEASE NOTE THAT THIS DRAWING IS ISSUED FOR INFORMATION/TENDER PURPOSES ONLY UNTIL TECHNICAL APPROVAL HAS BEEN GRANTED. ANY WORK UNDERTAKEN PRIOR TO TECHNICAL APPROVAL BEING GRANTED IS AT THE CLIENT'S RISK.

THIS DRAWING IS BASED ON PLANNING LAYOUT PROVIDED BY CLIENT
DRAWING NUMBER: HG001 PHASE 1
REVISION: K
CLIENT TO VERIFY THE ABOVE LAYOUT IS CURRENT BEFORE USING THIS DRAWING FOR CONSTRUCTION PURPOSES

NTS

- GENERAL**
- All adoptable sewers and associated works are to comply fully with 'Design and Construction Guidance' & Local Practices.
 - All highway works are to be adoptable standards and to comply fully with the Local Authority specification.
 - All private drainage works are to comply fully with part 1 of the Building Regulations.
 - All existing sewer levels to be checked by the Contractor at intervals of 20m and any discrepancies related to levels and any other information to be reported to the Client. All levels are based on topographical survey information provided by others.
 - All materials to meet the relevant BS/EN/BSI standards and comply fully with the specifications. All concrete and concrete products must use sulphate resistant cement (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur).
 - All opening notices etc. as required under highway acts etc. are to be obtained prior to commencement of works. All works are to be inspected by L.A., NERC or relevant Water Authority as applicable.
- C.D.M. REGULATIONS 2015**
- In line with the above regulations we are obliged to inform the Client of their responsibilities under section 15(1) and residual risks that may be encountered in the construction of these works. All design work has been carried out with Health and Safety aspects given full consideration. Wherever possible risks have been eliminated from the design, however due to the very nature of this type of work it is not possible to remove all the risks from the design. They should also provide satisfactory responses at tender stage as to the manner in which they will deal with the elements of risk involved in this type of work and in particular those highlighted by REFA below:
- Support / treatment for All excavation work.
 - Guarding to edges of excavations to prevent pedestrians and vehicles falling into excavation.
 - Guarding of excavations outside working hours to prevent unauthorised access.
 - Ordering to adjacent roads or structures.
 - Confined space operations.
 - Dealing with existing services.
 - Traffic management on existing highways.
 - Procedure to be followed in event of accident or emergency.
 - Method of working where contaminated ground is present on site.
 - Confirmation will be required that all operatives are adequately trained, copies of relevant training certificates to be supplied.
- The above list is by no means exhaustive but it does highlight operations that present a risk to contractors and the general public. For clarification on any item please contact REFA.

SECTION 104 & 38 NOTES

- All adoptable drainage works have been designed and are to be constructed in accordance with 'Design and Construction Guidance' & Local Practices.
- All city pipe work shall be Extra Strength Clayware to BS EN 12450:1991 Part 1.
- All precast concrete pipework shall be to the class stated on the drawings in accordance with BS EN 12450:2002. All manholes and chambers shall be to BS EN 1917:2002.
- All plastic pipes being offered for adoption under S104 must be structural wall and must comply with BS EN 13476-1 and BS 4-35-01. Max. pipe length to be 3.0m.
- All levels relate to an Ordnance Datum.
- This drawing is to be read in conjunction with all other relevant drawings.
- House drainage connections to sewers must be 150mm ø and unless otherwise stated lead to the drop-in level shown.
- Levels given on drop out chambers are incoming pipe levels.
- House drainage runs to be kept within the curtilage of the plot they serve wherever possible.
- The Contractor shall be responsible for ensuring that any existing invert levels indicated on drawings are correct before work commences.
- The Contractor shall verify himself on to the position and depth of any existing Statutory Undertakers plant which could affect the works before the works are commenced.
- Road gully connections are to be 150mm ø connecting either directly to manholes shown, or to sewer runs using pre-formed junctions.
- All connections to adoptable sewers shall be by manufactured junction pipes. Saddle connections will not be permitted.
- All sewers for adoption with greater than 1.20 metres cover in roads or 0.9m metres cover in fields shall have Class S granular bed and surround.
- Any sewer for adoption with less than 1.2 metres cover in roads or 0.9 metres cover in fields shall have a minimum of 150mm S14 concrete surround. Flexibility shall be maintained by the provision of flexible or similar approved joint filler breaks in the concrete surround at each pipe joint.

All pipes to have class "B" bed and surround unless shown otherwise.
All concrete pipes to be class 120.
All city pipes to be extra strength vitrified clay or u-pvc pipes to comply with BS 4660:2000 & BS EN 1401-1 structured wall u-pvc pipes to comply with BS 4-35-01.
Max. pipe length to be 3.0m.
Foundations to be designed / constructed to take into account the proximity and depth of adjacent sewers and drains in accordance with Design & Construction Guidance.

CIVILS DESIGN RISK MANAGEMENT

Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:

- 1. EXISTING SERVICES
- 2. WORKING ON EXISTING ROAD
- 3. DANGER OF COLLAPSE TO ALL EXISTING RISKS TO BE ASSESSED AND MANAGED BY CONTRACTOR IN ACCORDANCE WITH HSE GUIDANCE
- 4. WORKING IN AREAS WHERE MEMBERS OF THE PUBLIC HAVE ACCESS E.G. MAIN ROAD
- 5. WORKING ADJACENT ON LIVE FOULED / COMBINED SEWERS (Over a street)

Contractor to be aware of and take appropriate action to ensure de-stabilisation of any existing structures, trees, embankments or other features does not occur as a result of any excavation works undertaken in accordance with the designs shown on this drawing. It is the contractor's responsibility to ensure that the above he should seek advice before commencing excavation work.

Contractor/client should note the existence of existing buried pipes and/or overhead power (OH&L). Before work commences contractor must undertake risk assessment and provide method statement for working in this area in accordance with HSE and power suppliers guidelines to satisfaction of the principal designer.

To cater for any deviations in the as constructed road / footpath levels in relation to the design levels, the proposed floor levels shown must be checked on site by the site agent or engineer in relation to as built road levels to ensure compliance with part 1 of the Building Regulations.

All existing services to be located at commencement to accordance with undertakers requirements and protected accordingly during the work.

All existing manhole level tests are to be located and surveyed prior to start on site to ensure that they are correct and also to ensure that level test does not proceed and that interpolated level tests are correct. Any discrepancies to be reported to REFA prior to start to enable any changes to be made to design that prove necessary.

SCALE IN METRES

Rev	Description	By	Date
J	UPDATED FOLLOWING SCHEMATICS	EV	27/02/23
I	TO PLANNING LAYOUT REV K	EV	27/02/23
H	TO PLANNING LAYOUT REV J	EV	24/02/23
G	SITE BOUNDARY UPDATED	EV	21/02/23
F	TO LATEST FOLLOWING S38 COMMENTS	EV	21/02/23
E	TO LATEST FOLLOWING LAYOUT	EV	21/02/23
D	TO PLANNING LAYOUT REV G	EV	21/02/23
C	FULL SITE SURVEY POSITIONS UPDATED	EV	16/02/23
B	TO PLANNING LAYOUT REV F	EV	16/02/23
A	REVISED FOLLOWING S104 COMMENTS	EV	15/02/23
rev	Revision details	Rev By	Date

worksafe designer SSSP
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Drawing Stage	Drawing Status
Drawn	Information
Issued	Construction
	Approval
	As Built

Client
NORTHSTONE LIMITED

Job Title
HORWICH GOLF CLUB HORWICH

Drawing title
S104 AGREEMENT PLAN PHASE 1

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Date	Scale	Drawn
27/02/23	1:500	EV

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