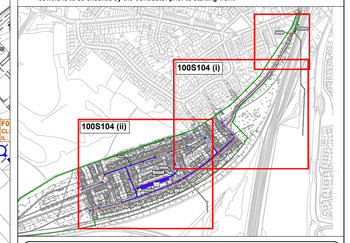
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GENERAL NOTES

- This drawing is to be read in conjunction with relevant architectural and engineering drawings.
- Any discrepancies between the details shown and actual on site conditions to be reported immediately to the engineer prior to commencement of works.
- This drawing is not intended to show details of ground conditions or ground contaminants. Each area of ground relied upon to support any structure depicted (including drainage) must be investigated by the Contractor any areas of formation for said structures which do not accord with the anticipated conditions as described in the site investigation report are to be immediately notified to the Engineer, where applicable. Any suspect fluid ground or ground contaminants on or within the ground should be further investigated by a suitable expert. Any earthworks shown indicate typical slopes for guidance only and should be investigated further by a suitable geotechnical expert.
- Where existing trees are shown to be retained they should be subject to a full Arboricultural Inspection for safety. All trees are to be planted so as to ensure they are a minimum of 5 metres from buildings and 3 metres from drainage and services, where applicable. A foundation is to be provided to accommodate the proposed tree planting, where applicable.

ADOPTABLE ROADS AND SEWERS

- Roads, footways and parking bays which form part of the highway to be adopted under Section 38 of the Highways Act 1980 shall comply with the requirements of the Adopting Authority.
- Sewers to be adopted under Section 104 of the Water Industries Act 1991 shall comply with the Sewerage Sector Guidance (SSG) "Design & Construction Guidance" with any amendments specified by the Adopting Water Authority.
- All pipes to be used in adoptable sewerage shall be either clayware to BS EN 295 or concrete to BS EN 1916 and BS 5911: Part 1 with Class S bedding unless otherwise stated. With approval of the Adopting Authority solid wall concentric external rib reinforced uPVC pipes complying with the relevant provisions of BS EN 13476 may be used.
- Where cover to a pipe is more than 1200mm under adoptable carriageway the trench shall be filled to formation of the carriageway with well compacted DTp Type 1 material.
- Where cover to a pipe is less than 1200mm under adoptable carriageway it shall be provided with concrete protection in accordance with the specification of the adopting authority and back filled to formation of the carriageway with well compacted DTp Type 1 material. Where concrete bed and surround is specified flexibility of joints is to be maintained by using compressible bitumen impregnated fibreboard at each pipe joint.
- All existing drainage invert levels, diameters and locations are to be checked by the Contractor prior to the commencement of any proposed drainage work. Any difference between actual and drawn details is to be reported to the Engineer immediately.
- Positions of existing services/statutory undertakers apparatus adjacent to or crossing proposed sewers is to be checked by the Contractor prior to starting work.



SECTION 104 LEGEND

DRAINAGE

- S104 SURFACE WATER MANHOLE & SEWER
- S02 CL:000.00 IL: 000.00 — S104 SURFACE WATER MANHOLE REFERENCE
- S104 FOUL WATER MANHOLE & SEWER
- F01 CL:000.00 IL: 000.00 — S104 FOUL WATER MANHOLE REFERENCE
- S104 FOUL WATER RISING MAIN
- S104 ONLINE CELLULAR STORAGE CRATES
- S38 HIGHWAY GULLY & CONNECTION TO SEWER
- S38 SURFACE WATER MANHOLE & SEWER
- S02 CL:000.00 IL: 000.00 — S38 SURFACE WATER MANHOLE REFERENCE
- PRIVATE SURFACE WATER PLOT DRAINAGE
- PRIVATE FOUL WATER PLOT DRAINAGE
- EXISTING SURFACE WATER MANHOLE & SEWER
- EXISTING COMBINED WATER MANHOLE & SEWER
- EX5201 CL: 39.64 IL: — EXISTING MANHOLE REFERENCE

GENERAL

- 00.00 — FINISHED FLOOR LEVEL
- S104 SEWER EASEMENT
- DEVELOPMENT BOUNDARY

CONCRETE SLAB PROTECTION TO BE PROVIDED TO 450Ø SURFACE WATER SEWER AS COVER TO SOFFIT OF PIPE IS LESS THAN 1.2M.

ONLINE CELLULAR STORAGE
POLYSTORM-XTRA (OR SIMILAR APPROVED)

BASE LEVEL = 129.025
AVG COVER LEVEL = 133.000
TOP OF CRATES LEVEL = 130.915
INLET LEVEL = 129.120

9M (WIDE) X 75M (LONG) X 1.89M (HEIGHT) = 1275.8M³
(WITH 94% VOID ALLOWANCE IN CRATES)

CELLULAR STORAGE LAID AT 1:500

STORAGE VOLUME UP TO MAX. WATER LEVEL = 1170m³

ATTENUATION FOR ALL RAINFALL EVENTS UP TO AND INCLUDING 100 YEAR + 40% CLIMATE CHANGE RAINFALL EVENT

SUBJECT TO ICOSA WATER APPROVAL

SURFACE WATER FLOW CONTROL

TOTAL DISCHARGE RATE IS 90.0 L/S, RESTRICTED VIA THE USE OF A HYDROBRAKE. DISCHARGE RATE HAS BEEN GIVEN BY KELLEN HOMES.
IMPERMEABLE AREA FOR INCLUDED CATCHMENT AREA IS 3.363HA, INCLUDING 10% URBAN CREEP ALLOWANCE.
SUBJECT TO APPROVAL WITH ICOSA WATER & LLFA.

NEW 2400Ø MH TO BE CONSTRUCTED OVER-LINE OF EXISTING 1500Ø STORM CULVERT. INCOMING 450Ø FROM PROPOSED SURFACE WATER SEWER HAS BEEN DESIGNED TO SOFFIT OF 1200Ø CULVERT. SUBJECT TO S104 APPROVAL WITH ICOSA WATER.

675MM PIPEWORK TO SPLIT INTO 2 X 500MM MANIFOLD ARRANGEMENT TO CONNECT INTO ONLINE CELLULAR STORAGE. FLANGE ADAPTOR & MANIFOLD ARRANGEMENT AS PER POLYSTORM DESIGN. SUBJECT TO APPROVAL WITH ADOPTING WATER AUTHORITY.

S70 TO BE A CATCHPIT WITH 500MM DEEP SUMP TO SUIT ICOSA WATER REQUIREMENTS. SUBJECT TO S104 APPROVAL.

FOUL WATER PUMPING STATION

COVER LEVEL = 133.350
INCOMING INVERT LEVEL = 127.945
OUTGOING RM LEVEL = 132.000

TOTAL LENGTH OF RISING MAIN = 546.45M

EMERGENCY STORAGE REQUIREMENT = 30.56M³

EMERGENCY STORAGE TO BE CONTAINED WITHIN WET-WELL & ADOPTED SYSTEM UP TO LOWEST LATERAL IL.

SUBJECT TO ICOSA WATER APPROVAL.

Rev.	Description	Date	By
E	Minor amendments to plot drainage to suit client request.	25/07/2024	LJ
D	Pipework into cellular storage amended.	15/07/2024	LJ
C	Adoptable drainage amended to suit Road 01 changes.	27/06/2024	LJ
B	Plan updated to suit latest plot drainage changes.	13/05/2024	LJ
A	Location of foul pump station amended & drainage updated to suit latest layout.	15/04/2024	LJ
-	First Issue	11/03/2024	LJ

Drawing Status

PRELIMINARY

SUBJECT TO ICOSA WATER SECTION 104 TECHNICAL APPROVAL. AMENDMENTS MAY THEREFORE BE REQUESTED.

Client

KELLEN HOMES

Project

Heywood Road, Castleton, Rochdale

Title

Section 104 Agreement Plan
Sheet 2 of 2

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Scale	A1 @ 1:250	Drawn	LB
Date	March 2024	Checked	LJ
File	23147 / dwgs / civils / current	Drawing	23147-BGC-D-100S104 (ii) - E