



- To be read in conjunction with Eastwood and Partners drawings prefixed 48871.
- All pipes shall be either:
 - Wired clay to BS EN 206 with a minimum crushing strength as follows:
 - 150 dia - 45 N/m²
 - 225 dia - 45 N/m²
 - 300 dia - 72 N/m²
 - PVC (certified to BS 435-01 & BS EN 13476)
 - Class 120 concrete to BS 5911-1:2002 EN 1916.
- All pipes should always connect to a gully or manhole unless noted otherwise.
- All sewers to be laid in Class 'D' Bedding (150mm granular bed and surround). Where depth of cover to top of the sewer is less than 1.2m in highways and verges or less than 800mm in non-vehicle access areas, then a concrete slab should be provided above granular bed and surround.
- Manhole covers shall have a clear opening of 675 and shall be class D400 to BS EN 124 with 150 deep frames in highways.
- Pipes entering manholes and roof gullies shall have a flexible joint within 600 of the inside the manhole or gully giving a 45° root flange angle.
- The gully covers shall be a minimum of 1m and manholes 0.5m from kerb lines and service margins.
- Sewers must have 5m clearance from trees and hedges.
- All trenches in roads and paved areas shall be backfilled with Type 1 DOT granular sub-base material, or other granular material approved by the highway authority.
- Fill ground must be flat and consolidated under the supervision and to the satisfaction of ICOSA before any new drains are constructed.
- All inlets concrete to be designated mix FN20 to BS 8000-1 unless agreed otherwise.
- The invert levels at the proposed points of connection to existing public sewers shall be checked before any new drains are constructed. Any variation to the levels shown on the drawing shall be noted to Eastwood & Partners.
- The diameter size of manholes with more than one connection in them may need to be increased or increased to accommodate the connections and levels.
- Cover levels are indicative only. Covers to be set to suit camber/gradients of existing and proposed roads.
- Cover slabs must carry the BS1 Kitemark or be specified by ICOSA inspectors. Where the cover opening of the Kitemarked product is different to that of the cover and frame, a bedding bedding shall be laid above the cover slab to bring the slab down to the depth of the ICOSA specified cover slabs. Please refer to Concrete Pipe Systems Association (CPSA) Technical Bulletin issued Autumn 2004 for Kitemarked cover slab opening sizes.
- All four lateral sewers and drains to be 1000 unless noted otherwise.
- ICOSA policy is that 'C' brick manholes and 1000mm dia manhole rings are not preferred. Instead it is preferred that you use a type 'D' manhole with 1000mm dia or 1500mm dia rings, with the opening slab over the channel where depth of cover to pipe soffit is 1.1-1.5m.
- Manhole covers shall have a clear opening of 675mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- Where a B125 cover and frame has been approved, this must not be covered in plastic and must have 100gsm weed-safety mat to accommodate standard 80gsm bags. Sewer cover covers are not acceptable.
- All adoptable sewer works and material to be in accordance with 'Code for Adoption'. The relevant British/European and ICOSA's Standards/Requirements/Adendum to the Mechanical and Electrical Specification and Kitemarked.
- ICOSA is not obliged to accept their drainage system runoff into the public sewer network or adoptable drainage system (directly or indirectly). An alternative method of disposal of the land drainage will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the sewer drainage runoff.
- Subsidence resistant cement (SRS-C) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
- Adoptable plastic sewer pipes to be BS1 Kitemarked (certified to BS 435-01 and BS EN 13476). Adoptable plastic sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need for longer lengths. Plastic channel sections in manholes are not acceptable and ICOSA would prefer clayware channel in manholes. We have found that plastic channels are difficult to set in concrete because they float and a satisfactory finish cannot be obtained on the bedding.
- The clearance of the crossover points (min 300mm) between the surface water, foul sewers, rising main and other services should be sufficient clearance to provide 150mm minimum of a certain min that exceeds this (300mm).
- All adoptable materials to be 1500 and VC unless stated otherwise.

KEY	
	Proposed adoptable surface water sewer
	Proposed adoptable foul water sewer
	Foul pumping main
	Foul pumping main
	Foul pumping main
	Proposed gully
	Proposed adoptable surface water lateral
	Proposed adoptable foul water lateral
	Existing foul water sewer
	Division covered under S185 submission
	Easement

P02	Easements added	DAB	TB	26.06.2024
P01	First Issue	GT	TB	06.06.2024
REV	DESCRIPTION	SIG	CHK	DATE

HARRON HOMES

MERCHANT FIELDS

S104 DRAINAGE LAYOUT
SHEET 2 OF 2



ECE PROJECT No	SCALE AT A0	STATUS	SUITABLE FOR
48867	1:500	S0	Initial
DRAWING NUMBER		REV	
48867 - ECE - XX - XX - DR - C - 0002	P02	Project	Originator
Zone	Level	Type	Role
			Number