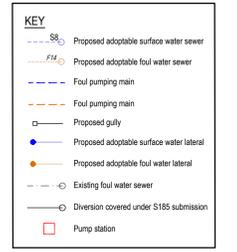


- To be read in conjunction with Eastwood and Patners drawings prefixed 48871.
- All pipes shall be either:
  - Wired clay to BS EN 206 with a minimum crushing strength as follows:
    - 150 dia - 45 N/m<sup>2</sup>
    - 225 dia - 45 N/m<sup>2</sup>
    - 300 dia - 72 N/m<sup>2</sup>
  - PVC (conformed to BS 435-01 & BS EN 13476)
  - Class 120 concrete to BS 5911-1:2002 EN 1916.
- All pipes should always connect suffits to suffits unless noted otherwise.
- All sewers to have BS kilnmark status (conformed to BS 435-01 & BS EN 13476). Maximum pipe length to be 3m. Plastic channel sections in manholes are not acceptable. Clay channel sections shall be used.
- Sewers to be laid in Class 'C' Bedding (150mm granular bed and surround). Where depth of cover to top of the sewer is less than 1.2m in highways and areas 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 entry and a roof flange cast.
- The adoptable sewers should 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 flatted and consolidated under the supervision and to the satisfaction of ICCSA before any new drains are constructed. Any variation to the levels shown on the drawing shall be checked before Eastwood & Partners.
- 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 checked before Eastwood & Partners.
- The chamber 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/gradient of existing and proposed roads.
- Cover slabs must carry the BS1 Kilnmark or will be rejected by ICCSA inspectors. Where the clear opening of the Kilnmarked product is different to that of the cover and frame, a bedding bedding slab should be laid above the cover slab to bring the slab down to the level of the ICCSA specified cover slabs. Please refer to Concrete Pipe Systems Association (CPSA) Technical Bulletin issued Autumn 2004 for Kilnmarked cover slab opening sizes.
- All four lateral sewers and drains to be 1000 unless noted otherwise.
- ICCSA policy is that 'Type 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 chamber where depth of cover to pipe suffits is 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 lifting eye ability used to accommodate standard lifting bars. Cover slabs covers are not acceptable.
- Adoptable sewer works and material to be in accordance with 'Code for Adoption'. The Relevant British/European and ICCSA's Standards/Requirements/Adendum to the Mechanical and Electrical Specification and Kilnmarked.
- ICCSA 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 land drainage runoff.
- Substrate resistant cement (SRC) 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 Kilnmarked (conformed 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 ICCSA would prefer clayware channel in manholes. We have used the plastic channels as an effort to set in concrete because they cost 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 around of a certain min that exceeds this (300mm).
- All adoptable laterals to be 1000 and VC unless stated otherwise.



REV	DESCRIPTION	SIG	CHK	DATE
P01	First Issue	GT	TB	06.06.2024

**HARRON HOMES**

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**MERCHANT FIELDS**

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**S104 DRAINAGE LAYOUT**  
**SHEET 2 OF 2**



ECE PROJECT No	SCALE	AT	STATUS	SUITABLE FOR
48867	1:500	S0	Initial	

DRAWING NUMBER	REV
48867 - ECE - XX - XX - DR - C - 0002	P01

Project Originator Zone Level Type Role Number