PROPOSED DRAINAGE LAYOUT

SCALE 1:500

SD Pipe Section			Ext Flo (l/per.	U/S CL (m)	U/S IL (m)	D/S IL (m)	Length Lpipe (m)	Pipe Dia (mm)	Note
* F1.0	to	F1.1		61.800	60.900	60.180	43.785	150	
* F1.1	to	F1.2		61.100	60.180	60.015	18.300	150	
* F1.2	to	F2.4		61.150	60.015	59.575	64.500	150	
* F2.0	to	F2.1		61.700	60.800	60.200	35.160	150	
F2.1	to	F2.2		61.700	60.200	60.000	19.830	150	
F2.2	to	F2.3		61.600	60.000	59.825	18.750	150	
F2.3	to	F2.4		61.375	59.825	59.575	36.410	150	
* F2.4	to	F2.5		60.600	59.500	59.380	24.025	225	
F2.5	to	F2.6		60.850	59.380	59.290	17.150	225	
F2.6	to	Ex MH03		91.000	59.290	59.260	5.950	225	
* F3.0	to	F3.1		61.600	60.700	60.335	20.500	150	
* F3.1	to	F2.5		61.500	60.335	59.455	52.750	150	
* F4.0	to	F4.1		61.000	60.100	59.850	15.185	150	
* F4.1	to	Ex		61.000	59.850	59.645	12.300	150	
F5.0	to	F5.1		61.350	59.825	59.225	35.930	150	
F5.1	to	F5.2		61.125	59.225	59.100	7.525	150	
F5.2	to	Ex MH07		61.125	59.100	58.995	12.490	150	
* F6.0	to	F6.1		61.350	60.125	59.800	19.540	150	
F6.1	to	F5.2		61.350	59.800	59.100	41.735	150	

NOTE
* = CONCRETE PROTECTION WILL BE PROVIDED OVER PIPES
uPVC PIPES ASSUMED AS THE DRAINAGE MATERIAL, PLEASE NOTIFY
BD DENOTES BACKDROP MANHOLE

GENERAL DRAINAGE NOTES:

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. ALL LEVELS ARE IN METRES ABOVE DATUM UNLESS OTHERWISE NOTED.
4. ALL PIPE DIAMETERS ARE NORMAL.
3. THE CONTRACTOR MUST CONTACT THE RELEVANT AUTHORITIES PRIOR TO CONSTRUCTION WORK, & SATISFY HIMSELF IN RESPECT TO THE LOCATION OF ALL EXISTING SERVICES.
4. ALL SEWER & DRAIN PIPES ARE CLASS 'C' uPVC UNLESS OTHERWISE STATED.
5. ALL BEDDING TO SEWERS IS CLASS 'B' UNLESS OTHERWISE NOTED.
6. ALL MANHOLES CAN BE EITHER PRECAST CONCRETE RING MANHOLES OR BLOCKWORK UNLESS OTHERWISE STATED.
7. 600mm MAX. LENGTH ROCKER PIPES ARE TO BE PROVIDED ON SEWER WHERE:

(A) A PIPE ENTERS A MANHOLE OR PUMPING STATION.
(B) A PIPE LEAVES A MANHOLE.
(C) A PIPE ENTERS CONCRETE ENCASEMENT.
(D) A PIPE LEAVES CONCRETE ENCASEMENT.
(E) ANY OTHER LOCATION AS DIRECTED BY THE ENGINEER.

8. ALL SEWER ROCKER PIPES ARE TO BE FORMED BY CUTTING & TRIMMING A LENGTH OF SPIGOT & SOCKET PIPE TO FORM A SPIGOT AT THE CUT END, THEREBY FORMING SPIGOT & SOCKET JOINTS AT BOTH ENDS OF THE ROCKER PIPE.
9. WHERE SEWER PIPES OR RISING MAINS CONNECT TO EXISTING MANHOLES, THE CONTRACTOR IS REQUIRED TO:

(A) CONTACT THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK.
(B) MAKE GOOD THE EXISTING CHAMBER WALL AT THE PROPOSED POINT OF PENETRATION & ADJUST THE EXISTING BENCHING TO THE SATISFACTION OF THE ENGINEER.

10. WHERE SEWER PIPES, RISING MAINS OR ROAD GULLY DRAINS CROSS EXISTING ROADS, THE CONTRACTOR IS REQUIRED TO:

(A) CONTACT THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK.
(B) MAKE GOOD THE EXISTING ROAD TO ITS ORIGINAL SPECIFICATION AS APPROVED BY THE ENGINEER.

11. MINIMUM FALLS INDICATED ON DRAINAGE PIPES, LEVELS TO BE REVISED IF MANHOLE LOCATIONS ARE MODIFIED BY CONTRACTOR.
12. CONCRETE PROTECTION TO BE PROVIDED AROUND ALL PIPES UNO.
13. ALL BRANCH & PERIMETER DRAINAGE ARE TO BE DETAILED BY ARCHITECT.
14. PROPRIETARY ACCESS JUNCTIONS TO BE USED TO DEPTHS OF 600mm OR LESS.
15. 450x450mm INSPECTION CHAMBERS TO BE USED AT DEPTHS OF 600–1000mm.
16. MANHOLES TO DETAILS TO BE USED AT DEPTHS OVER 1000mm.
17. ROAD GULLIES TO BE PROVIDED SO THAT MAX AREA CONTRIBUTING TO A SINGLE GULLEY IS 180m2.
18. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH 'RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS FOR HOUSING AREAS', DEPARTMENT OF THE ENVIRONMENT.
19. ALL STORM MANHOLE BASES TO BE PRECAST CONCRETE PRE-BENCHED OFF SITE.

TESTING OF SEWERS:

1. FOUL & SURFACE WATER SEWERS TO BE TESTED EITHER BY WATER OR AIR TEST. IF THE AIR TEST IS CARRIED OUT & THE RESULTS SHOW A FAILURE THEN A WATER TEST SHALL BE SUBSEQUENTLY CARRIED OUT TO DETERMINE ACCEPTANCE OR REJECTION.
2. WATER TESTS CARRIED OUT SHALL BE TESTED IN UNDER A HEAD OF WATER IN ACCORDANCE WITH BS 8301 1995, & CARRIED OUT FOR A MINIMUM OF 30 MINUTES.
3. THE CONTRACTOR IS TO ENGAGE AN ENGINEER WITH PROFESSIONAL INDEMNITY INSURANCE TO SUPERVISE ALL AIR/WATER TESTS ON MAINS BEFORE BACKFILLING.
4. ON COMPLETION OF ALL SEWERS DRAINS & GULLIES, ALL SEWERS SHALL BE FLUSHED OUT & LEFT FREE FROM DEFECT & OBSTRUCTION & SUBSEQUENTLY A CCTV SURVEY SHALL BE CARRIED OUT BY AN INDEPENDENT CONTRACTOR OF THE AS BUILT DRAINAGE. THE CCTV SURVEY SHALL INCLUDE A REPORT & DVD & SHALL BE SUBMITTED TO THE ENGINEER & ARCHITECT PRIOR TO PRACTICAL COMPLETION.
5. ON COMPLETION OF ALL SEWERS, DRAINS & GULLIES AN AS-BUILT SURVEY MUST BE SUBMITTED INCLUDING LOCATION OF MANHOLES RELATIVE TO THE BUILDING OUTLINE, COVER, INVERT LEVELS & PIPE DIAMETERS TO THE ENGINEER & ARCHITECT FOR THEIR REVIEW PRIOR TO PRACTICAL COMPLETION.

LEGEND:

- F1.0 — PROPOSED FOUL DRAINAGE
- EXISTING FOUL DRAINAGE
- EXISTING FOUL DRAINAGE (TO BE DECOMMISSIONED)

SITE LEGEND:

- SITE BOUNDARY
- LANDS IN OWNERSHIP

ACO CHANNEL SPEC:

ALL ACO DRAINS OTHER THAN DOORWAYS TO CONSIST OF ACO MULTIDRAIN D400 200MM WIDE, WITH GRATINGS TO ARCHITECTS DETAILS WITH CONSTANT DEPTH DRAINAGE CHANNELS WITH GALVANISED STEEL EDGE RAIL WITH PERFORATED GALVANISED STEEL HEEL GUARD GRATING WITH GULLY ASSEMBLY AND BUCKET FOR 110mm DISCHARGE PIPE TO MAIN SYSTEM. THE SYSTEM IS TO BE FULLY CERTIFIED AND CE MARKED TO BS EN 1433:2002 OR EQUIVALENT. ACO MULTIDRAIN D400 200MM WIDE BY ACO OR EQUIVELANT APPROVED

ALL ACO CHANNELS TO HAVE HEEL GUARD PROTECTION ON THE GRATING.

LAND DRAINS AT THE BASE OF ALL RETAINING WALLS TO BE CONNECTED TO THE PROPOSED STORM DRAINAGE NETWORK WITH 225MMø STORM DRAINAGE PIPE AT 1:150 GRADIENT.

ALL GULLIES TO BE CONNECTED TO MAIN DRAINS WITH 150mmø STORM PIPE @ 1:80 GRADIENT.

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH 'RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS FOR HOUSING AREAS', DEPARTMENT OF THE ENVIRONMENT.

CONCRETE PROTECTION WILL BE PROVIDED OVER PIPES WHERE THE DEPTH OF COVER TO PIPES UNDER ROADS IS LESS THAN 1200MM & 900MM UNDER GRASSED/PAVED AREAS.

Referenced drawings

Dwg No.	Dwg Title

Issue register

Rev.	Date	Description	Dwn.	Chkd.	Appvd.
PL1	08.04.22	PART 8	TD	MC	NP
PL2	03.11.22	ARCH COMMENTS INCORPORATED	MH	MC	NP

NOTES:
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SERVICE ENGINEERS DRAWINGS & SPECIFICATIONS.
2. ALL LEVELS ARE STRUCTURAL UNLESS NOTED OTHERWISE.
3. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT BUILDING REGULATIONS.
4. DO NOT SCALE – WORK TO FIGURE DIMENSIONS ONLY.

IHEEM

Qualitas Veritas ISO 9001-2015

ENGINEERS IRELAND cpd ACCREDITED COMPANY

Drawing Title: FOUL DRAINAGE LAYOUT

Date:	Scale:	
02.12.21	A1 – 1:500, A3 – 1:1000	
Drawn By: E.HOARE	Checked By: M.CARR	Approved By: N.PATTERSON

Client: KILDARE CO. CO.

Job Description: HOUSING DEVELOPMENT AT GREENSFIELDS, MAYNOOTH, Co. KILDARE

Project No:	Drawing Ref:	Rev:
21KK001	C–010	PL2

Status: PART 8

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CADFILE: 21KK001-C010 Foul Drainage Layout.dwg