A1

SUDS DRAINAGE LEGEND

- DENOTES PROPOSED BIO-RETENTION AREA PROVIDED WITH GRANITE AGGREGATE SETTS
- O.F. — DENOTES PROPOSED OVERFLOW MANHOLE WITH PERFORATED LID
- I.C. — DENOTES PROPOSED INSPECTION CHAMBER
- DENOTES PROPOSED TREE PIT

STORM DRAINAGE LEGEND

- S1.0 — DENOTES PROPOSED STORMWATER DRAINAGE
- DENOTES PROPOSED HYDROBRAKE
- P.I. — DENOTES PROPOSED BYPASS SEPERATOR
- G. — DENOTES PROPOSED ROAD GULLY
- AJ — DENOTES PROPOSED ACCESS JUNCTION
- DENOTES PROPOSED LAND DRAIN

GENERAL LEGEND

- PROPOSED SITE BOUNDARY
- 6.46 + — EXISTING SPOT LEVEL & ELEVATION
- PROPOSED BUILDING
- EXISTING BUILDING
- 29 — PROPOSED UNIT NUMBER
- PROPOSED ROAD & PARKING FALLS
- PROPOSED ENTRANCE ARROW

STRADBALLY ROAD

CONCRETE ATTENUATION TANK
STORAGE CAPACITY = 46M³
T.O.W. = 96.250m

CONCRETE ATTENUATION TANK
STORAGE CAPACITY = 54M³
T.O.W. = 96.250m

CONCRETE ATTENUATION TANK
STORAGE CAPACITY = 132M³
T.O.W. = 96.410m

CROSSOVER POINT 1
FOUL IL: +95.605m
STORM IL: +96.215m
SEPARATION 460mm

CROSSOVER POINT 2
FOUL IL: +94.545m
STORM IL: +96.100m
SEPARATION 1330mm

CROSSOVER POINT 3
FOUL IL: +94.480m
STORM IL: +96.040m
SEPARATION 1410mm

CROSSOVER POINT 4
FOUL IL: +94.320m
STORM IL: +95.985m
SEPARATION 1430mm

CROSSOVER POINT 5
FOUL IL: +94.270m
STORM IL: +96.000m
SEPARATION 1505mm

Stradbrook A1

Pond

STORM DRAINAGE TABLE

	SD Pipe Section			US MH CL [mod]	US MH IL [mod]	DS MH IL [mod]	Pipe Diameter [mm]	Gradient [1 in…]	Notes:
	S1.0	to	S1.1	99.100	97.600	96.850	225	40	
	S1.1	to	S1.2	98.350	96.850	96.455	225	90	
*	S1.2	to	S1.3	97.500	96.455	96.235	300	200	
*	S1.3	to	S1.4	97.100	96.235	96.175	300	200	
*	S1.4	to	S1.5	97.000	96.175	96.085	300	200	
*	S1.5	to	S1.6	97.000	96.085	96.040	300	200	
*	S1.6	to	S1.7	97.100	96.040	95.965	300	200	
*	S1.7	to	S1.8	96.800	95.965	95.910	300	200	
*	S1.8	to	S1.9	96.800	95.910	95.760	300	200	Sump
*	S1.9	to	PI	96.800	95.760	95.720	225	200	
*	PI	to	S1.10	96.800	95.620	95.530	225	200	
*	S1.10	to	OUT	96.300	95.530	95.500	225	200	
	S2.0	to	S2.1	97.400	95.975	95.730	225	200	
*	S2.1	to	S1.2	97.100	95.730	95.645	225	200	
	S2.2	to	OUT	97.200	95.545	95.500	225	200	Sump
*	S3.0	to	S3.1	97.200	96.205	96.155	225	200	
*	S3.1	to	S3.2	97.100	96.155	96.100	225	200	
*	S3.2	to	S1.7	96.800	96.100	95.965	225	200	HDPE
*	S4.0	to	S4.1	96.750	95.925	95.870	225	200	
*	S4.1	to	S1.9	96.700	95.870	95.760	225	200	
*	S5.0	to	S4.1	97.000	96.050	95.870	225	200	
*	S6.0	to	S1.3	97.400	96.385	96.235	225	200	
	S7.0	to	S7.1	99.150	97.450	96.050	225	30	
	S7.1	to	S7.2	97.600	96.050	95.790	225	30	
	S7.2	to	S7.3	97.500	95.790	95.750	225	200	
	S7.3	to	S7.4	97.200	95.750	95.655	225	200	Sump
	S7.4	to	OUT	97.100	95.555	95.500	225	150	
*	S8.0	to	S1.2	97.100	95.880	95.820	225	200	
	S8.1	to	S7.2	97.250	95.820	95.790	225	200	
	S9.0	to	S7.2	97.700	96.275	95.790	225	30	
*	S10.0	to	S10.1	97.150	96.230	96.165	225	200	
*	S10.1	to	S10.2	97.050	96.165	96.125	225	200	
*	S10.2	to	S3.2	96.800	96.125	96.100	225	200	
*	S11.0	to	S1.7	96.750	96.040	95.965	225	200	

NOTES: uPVC PIPES ASSUMED AS THE DRAINAGE MATERIAL, PLEASE NOTIFY ENGINEER IF DIFFERENT
* = CONCRETE PROTECTION WILL BE PROVIDED OVER PIPES
BD = DENOTES BACKDROP MANHOLE
Sump = DENOTES 0.5m DEEP SUMP BELOW PIPE INVERT

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 & VIDEO & SHALL BE SUBMITTED TO THE ENGINEER & ARCHITECT PRIOR TO PRACTICAL COMPLETION.
5. ON COMPLETION OF ALL SEWERS, DRAINS, GULLIES & A CONDITION SURVEY OF ALL MANHOLES 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.

PROPOSED STORM DRAINAGE LAYOUT

SCALE 1:500 @ A1 / 1:1000 @ A3

QUALITY ISO 9001:2000 NSAI Certified

ENGINEERS IRELAND cpd ACCREDITED COMPANY

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.

Issue register

Rev.	Date	Description	Dwn.	Chkd.	Appvd.
PL1	01.03.24	PLANNING ISSUE	GG	TD	NP
PL2	31.07.24	RSA COMMENTS INCORPORATED	GG	TD	NP
PL3	12.02.25	PLANNING UPDATE ISSUE	MT	TD	NP
PL4	09.05.25	PLANNING UPDATE ISSUE	GG	TD	NP
PL5	19.08.25	PLANNING UPDATE ISSUE	GG	TD	NP

Status: PLANNING

Drawing Title: PROPOSED STORM DRAINAGE LAYOUT

Date:	Scale:	
28.02.24	1:500 @ A1 / 1:1000 @ A3	
Drawn By: G.GOODSON	Checked By: T.DELANEY	Approved By: N.PATTERSON

Client: LAOIS COUNTY COUNCIL

Job Description: PROPOSED HOUSING DEVELOPMENT TYRRELLS LAND, PORTLAOISE, CO. LAOIS

Project No:	Drawing Ref:	Rev:
23KK001	C-020	PL5

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