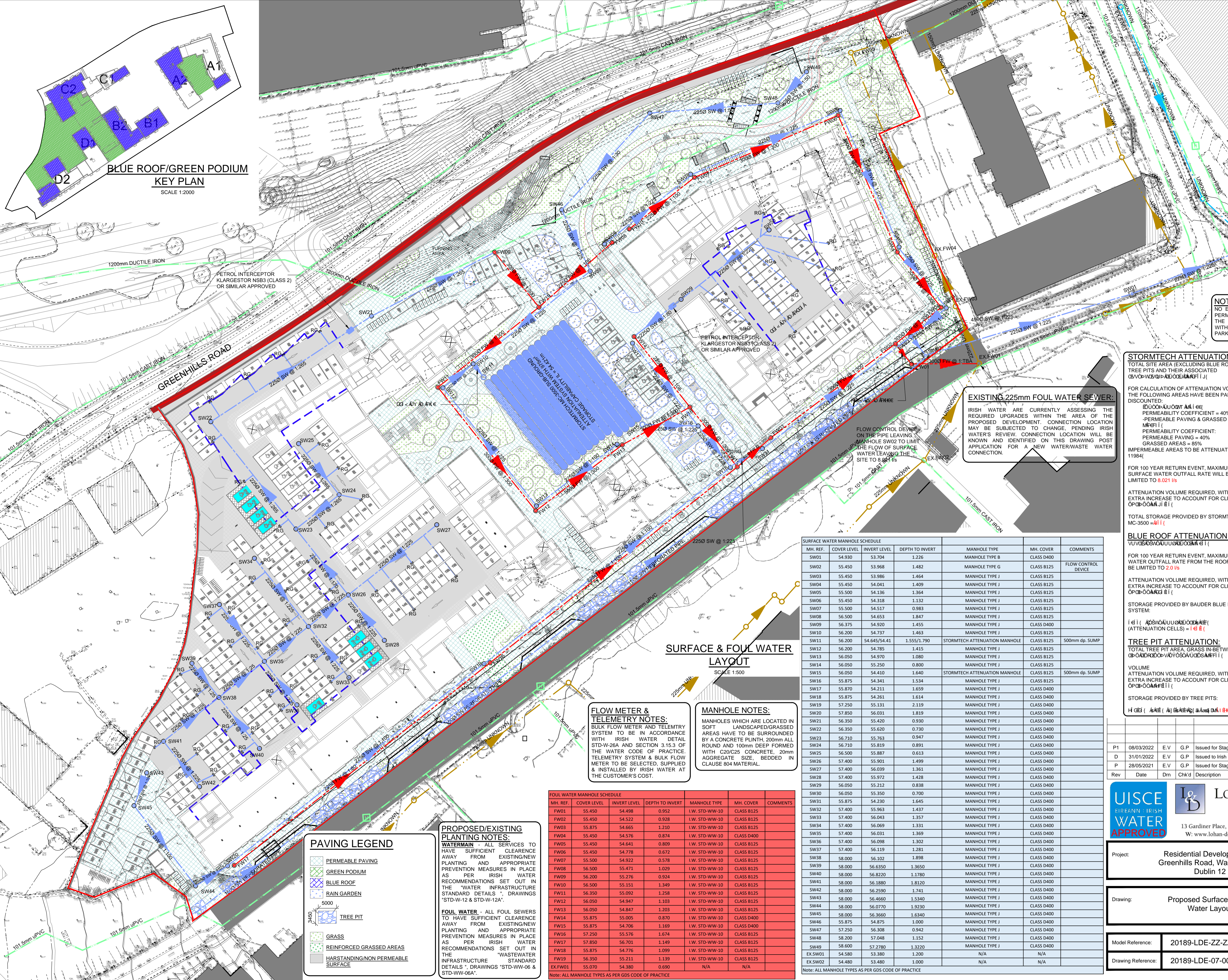


LEGEND

- EX. SURFACE WATER SEWER: EX-SW03
- EX. FOUL WATER SEWER: EX-FW03
- NEW FOUL WATER SEWER: FW03
- NEW SURFACE WATER SEWER: SW03
- ROAD GULLY: RG
- EXISTING WATERMAIN: ---
- NEW 200 MDPE TYPE PE-80 WATERMAIN: ---
- NEW 150 MDPE TYPE PE-80 SERVICE MAIN: ---
- NEW 150 MDPE TYPE PE-80 DISTRIBUTION MAIN: ---
- EXISTING GROUND LEVELS / CONTOURS: ---
- METER/BOUNDARY BOX: [Symbol]
- SLUICE VALVE: [Symbol]
- SCOUR VALVE/SCOUR VALVE CHAMBER: [Symbol]
- (CLASS 2) PETROL INTERCEPTOR: [Symbol]
- NEW HYDRANT: [Symbol]
- NEW WASHOUT HYDRANT: [Symbol]
- NEW ONLINE HYDRANT: [Symbol]
- EXISTING FIRE HYDRANT: [Symbol]
- FLOW METER KIOSK: [Symbol]
- EXISTING FIRE HYDRANT: [Symbol]
- OUTLINE OF STRUCTURES ABOVE: ---
- SITE BOUNDARY: ---

NOTES:
NO EXTERNAL SURFACE WATER IS PERMITTED TO BE COLLECTED BY THE SURFACE WATER SEWERS WITHIN THE TWO UNDERCROFT CAR PARKS OF THE DEVELOPMENT.

HYDRANTS, AIR VALVES, SLUICE VALVES & SCOUR VALVES:
ALL AIR VALVES, HYDRANTS, SLUICE VALVES, SCOUR VALVES & SCOUR VALVE CHAMBERS SHALL BE BUILT IN ACCORDANCE TO SECTION 3.18 OF IRISH WATER CODE OF PRACTICE DOCUMENT IW-CDS-5020-03



SURFACE & FOUL WATER LAYOUT
SCALE 1:500

FLOW METER & TELEMETRY NOTES:
BULK FLOW METER AND TELEMETRY SYSTEM TO BE IN ACCORDANCE WITH IRISH WATER DETAIL STD-W-26A AND SECTION 3.15.3 OF THE WATER CODE OF PRACTICE. TELEMETRY SYSTEM & BULK FLOW METER TO BE SELECTED, SUPPLIED & INSTALLED BY IRISH WATER AT THE CUSTOMER'S COST.

MANHOLE NOTES:
MANHOLES WHICH ARE LOCATED IN SOFT LANDSCAPED/GRASSED AREAS HAVE TO BE SURROUNDED BY A CONCRETE PLINTH, 200mm ALL ROUND AND 100mm DEEP FORMED WITH C20/25 CONCRETE, 20mm AGGREGATE SIZE, BEDDED IN CLAUSE 804 MATERIAL.

EXISTING 225mm FOUL WATER SEWER:
IRISH WATER ARE CURRENTLY ASSESSING THE REQUIRED UPGRADES WITHIN THE AREA OF THE PROPOSED DEVELOPMENT. CONNECTION LOCATION MAY BE SUBJECT TO CHANGE, PENDING IRISH WATER'S REVIEW. CONNECTION LOCATION WILL BE KNOWN AND IDENTIFIED ON THIS DRAWING POST APPLICATION FOR A NEW WATERWASTE WATER CONNECTION.

STORMTECH ATTENUATION:
TOTAL SITE AREA (EXCLUDING BLUE ROOF, TREE PITS AND THEIR ASSOCIATED DISCOUNTS):
PERMEABLE PAVING & GRASSED AREAS: PERMEABILITY COEFFICIENT = 40%
GRASSED AREAS = 85%
IMPERMEABLE AREAS TO BE ATTENUATED = 11984l

FOR 100 YEAR RETURN EVENT, MAXIMUM SURFACE WATER OUTFALL RATE WILL BE LIMITED TO 8.021 l/s

ATTENUATION VOLUME REQUIRED, WITH 20% EXTRA INCREASE TO ACCOUNT FOR CLIMATE: 0.000m³

TOTAL STORAGE PROVIDED BY STORMTECH MC-3500 = 41 l

BLUE ROOF ATTENUATION:
FOR 100 YEAR RETURN EVENT, MAXIMUM RAIN WATER OUTFALL RATE FROM THE ROOFS WILL BE LIMITED TO 2.0 l/s

ATTENUATION VOLUME REQUIRED, WITH 20% EXTRA INCREASE TO ACCOUNT FOR CLIMATE: 0.000m³

STORAGE PROVIDED BY BAUDER BLUE ROOF SYSTEM: 1.0 l

TREE PIT ATTENUATION:
TOTAL TREE PIT AREA, GRASS IN-BETWEEN ATTENUATION CELLS = 1.0 l

VOLUME ATTENUATION VOLUME REQUIRED, WITH 20% EXTRA INCREASE TO ACCOUNT FOR CLIMATE: 0.000m³

STORAGE PROVIDED BY TREE PITS: 1.0 l

NOTES:
THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DETAIL DRAWINGS AND SPECIFICATIONS.

DO NOT SCALE DIMENSIONS, REFER TO ARCHITECTS DRAWINGS FOR ALL SETTING OUT DIMENSIONS, WORK TO FIGURED DIMENSIONS ONLY.

THE ENGINEER IS TO BE AFFORDED SUFFICIENT TIME TO CARRY OUT INSPECTIONS OF THE WORKS IN ACCORDANCE WITH THE PROJECT INSPECTION PLAN AND INSPECTION NOTIFICATION FRAMEWORK.

ALL CONSTRUCTION PRODUCTS TO HAVE RELEVANT CE MARKING WHERE APPLICABLE.

ALL DEMOLITION WORKS TO BE IN ACCORDANCE WITH BS 6187: 2011.

ALL CONTRACTORS OR SUB-CONTRACTORS RESPONSIBLE FOR SPECIALIST DESIGN MUST PROVIDE PROFESSIONAL INDEMNITY INSURANCES, ANCILLARY CERTIFICATES FOR DESIGN AND ANCILLARY CERTIFICATES FOR INSPECTION IN ACCORDANCE WITH BCAR 2014.

DRAINAGE
ALL DRAINAGE WORK TO BE CARRIED OUT IN ACCORDANCE WITH IS EN 752: 2008, TGD PART H, GDR CODE OF PRACTICE FOR DRAINAGE WORKS V6.0 AND IRISH WATER SPECIFICATIONS.

MIN. 150mm C16/20 CONCRETE BED & SURROUND TO BE PROVIDED TO SEWER PIPELINES WHERE THE COVER IS LESS THAN 1.200m UNDER ROADS, VERGES AND FOOTPATHS.

BACKFILL FOR ALL uPVC PIPES TO BE FREE FROM STONE EXCEEDING 50mm FOR 300mm ABOVE GRANULAR SURROUND.

ALL REINSTATEMENT WORKS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY.

SEWER PIPE LINES TO BE uPVC PIPES UP TO AND INCLUDING 150mm TO INCORPORATE LONG RADIUS BENDS AND STRICTLY TO MANUFACTURERS INSTRUCTIONS.

ALL VERTICAL STACK CONNECTIONS TO FOUL SEWER CHAMBERS TO INCORPORATE LONG RADIUS BENDS AND TYPICAL TO MANUFACTURERS INSTRUCTIONS.

MH. REF.	COVER LEVEL	INVERT LEVEL	DEPTH TO INVERT	MANHOLE TYPE	MH. COVER	COMMENTS
SW01	54.930	53.704	1.226	MANHOLE TYPE B	CLASS D400	
SW02	55.450	53.968	1.482	MANHOLE TYPE G	CLASS B125	FLOW CONTROL DEVICE
SW03	55.450	53.986	1.464	MANHOLE TYPE J	CLASS B125	
SW04	55.450	54.041	1.409	MANHOLE TYPE J	CLASS B125	
SW05	55.500	54.136	1.364	MANHOLE TYPE J	CLASS B125	
SW06	55.450	54.318	1.132	MANHOLE TYPE J	CLASS B125	
SW07	55.500	54.517	0.983	MANHOLE TYPE J	CLASS B125	
SW08	56.500	54.653	1.847	MANHOLE TYPE J	CLASS B125	
SW09	56.375	54.920	1.455	MANHOLE TYPE J	CLASS D400	
SW10	56.200	54.737	1.463	MANHOLE TYPE J	CLASS B125	
SW11	56.200	54.645/54.41	1.555/1.790	STORMTECH ATTENUATION MANHOLE	CLASS B125	500mm dp. SUMP
SW12	56.200	54.785	1.415	MANHOLE TYPE J	CLASS B125	
SW13	56.050	54.970	1.080	MANHOLE TYPE J	CLASS B125	
SW14	56.050	55.250	0.800	MANHOLE TYPE J	CLASS B125	
SW15	56.050	54.410	1.640	STORMTECH ATTENUATION MANHOLE	CLASS B125	500mm dp. SUMP
SW16	55.875	54.341	1.534	MANHOLE TYPE J	CLASS B125	
SW17	55.875	54.211	1.665	MANHOLE TYPE J	CLASS D400	
SW18	55.875	54.261	1.614	MANHOLE TYPE J	CLASS D400	
SW19	57.250	55.131	2.119	MANHOLE TYPE J	CLASS D400	
SW20	57.850	56.031	1.819	MANHOLE TYPE J	CLASS D400	
SW21	56.350	55.420	0.930	MANHOLE TYPE J	CLASS D400	
SW22	56.350	55.620	0.730	MANHOLE TYPE J	CLASS D400	
SW23	56.710	55.763	0.947	MANHOLE TYPE J	CLASS D400	
SW24	56.710	55.819	0.891	MANHOLE TYPE J	CLASS D400	
SW25	56.500	55.887	0.613	MANHOLE TYPE J	CLASS D400	
SW26	57.400	55.901	1.499	MANHOLE TYPE J	CLASS D400	
SW27	57.400	56.039	1.361	MANHOLE TYPE J	CLASS D400	
SW28	57.400	55.972	1.428	MANHOLE TYPE J	CLASS D400	
SW29	56.050	55.212	0.838	MANHOLE TYPE J	CLASS D400	
SW30	56.050	55.350	0.700	MANHOLE TYPE J	CLASS D400	
SW31	55.875	54.230	1.645	MANHOLE TYPE J	CLASS D400	
SW32	57.400	55.963	1.437	MANHOLE TYPE J	CLASS D400	
SW33	57.400	56.043	1.357	MANHOLE TYPE J	CLASS D400	
SW34	57.400	56.069	1.331	MANHOLE TYPE J	CLASS D400	
SW35	57.400	56.031	1.369	MANHOLE TYPE J	CLASS D400	
SW36	57.400	56.098	1.302	MANHOLE TYPE J	CLASS D400	
SW37	57.400	56.119	1.281	MANHOLE TYPE J	CLASS D400	
SW38	58.000	56.102	1.898	MANHOLE TYPE J	CLASS D400	
SW39	58.000	56.630	1.369	MANHOLE TYPE J	CLASS D400	
SW40	58.000	56.820	1.179	MANHOLE TYPE J	CLASS D400	
SW41	58.000	56.180	1.819	MANHOLE TYPE J	CLASS D400	
SW42	58.000	56.290	1.710	MANHOLE TYPE J	CLASS D400	
SW43	58.000	56.460	1.540	MANHOLE TYPE J	CLASS D400	
SW44	58.000	56.070	1.930	MANHOLE TYPE J	CLASS D400	
SW45	58.000	56.360	1.640	MANHOLE TYPE J	CLASS D400	
SW46	55.875	54.875	1.000	MANHOLE TYPE J	CLASS D400	
SW47	57.250	56.308	0.942	MANHOLE TYPE J	CLASS D400	
SW48	58.200	57.048	1.152	MANHOLE TYPE J	CLASS D400	
SW49	58.600	57.280	1.320	MANHOLE TYPE J	CLASS D400	
EX-SW01	54.580	53.380	1.200	N/A	N/A	
EX-SW02	54.480	53.480	1.000	N/A	N/A	

MH. REF.	COVER LEVEL	INVERT LEVEL	DEPTH TO INVERT	MANHOLE TYPE	MH. COVER	COMMENTS
FW01	55.450	54.498	0.952	I.W. STD-WW-10	CLASS B125	
FW02	55.450	54.522	0.928	I.W. STD-WW-10	CLASS B125	
FW03	55.875	54.665	1.210	I.W. STD-WW-10	CLASS B125	
FW04	55.450	54.576	0.874	I.W. STD-WW-10	CLASS D400	
FW05	55.450	54.641	0.809	I.W. STD-WW-10	CLASS B125	
FW06	55.450	54.778	0.672	I.W. STD-WW-10	CLASS B125	
FW07	55.500	54.922	0.578	I.W. STD-WW-10	CLASS B125	
FW08	56.500	55.471	1.029	I.W. STD-WW-10	CLASS B125	
FW09	56.200	55.276	0.924	I.W. STD-WW-10	CLASS B125	
FW10	56.500	55.151	1.349	I.W. STD-WW-10	CLASS B125	
FW11	56.350	55.092	1.258	I.W. STD-WW-10	CLASS B125	
FW12	56.050	54.947	1.103	I.W. STD-WW-10	CLASS B125	
FW13	56.050	54.847	1.203	I.W. STD-WW-10	CLASS B125	
FW14	55.875	55.005	0.870	I.W. STD-WW-10	CLASS D400	
FW15	55.875	54.706	1.169	I.W. STD-WW-10	CLASS D400	
FW16	57.250	55.576	1.674	I.W. STD-WW-10	CLASS B125	
FW17	57.850	56.701	1.149	I.W. STD-WW-10	CLASS B125	
FW18	55.875	54.776	1.099	I.W. STD-WW-10	CLASS B125	
FW19	56.350	55.211	1.139	I.W. STD-WW-10	CLASS B125	
EX-FW01	55.070	54.380	0.690	N/A	N/A	

PAVING LEGEND

- PERMEABLE PAVING: [Symbol]
- GREEN PODIUM: [Symbol]
- BLUE ROOF: [Symbol]
- RAIN GARDEN: [Symbol]
- TREE PIT: [Symbol]
- GRASS: [Symbol]
- HARSHANDING/NON PERMEABLE SURFACE: [Symbol]

PROPOSED/EXISTING PLANTING NOTES:
WATERMAIN - ALL SERVICES TO HAVE SUFFICIENT CLEARANCE AWAY FROM EXISTING NEW PLANTING AND APPROPRIATE PREVENTION MEASURES IN PLACE AS PER IRISH WATER RECOMMENDATIONS SET OUT IN THE "WATER INFRASTRUCTURE STANDARD DETAILS", DRAWINGS "STD-W-12 & STD-W-12A".

FOUL WATER - ALL FOUL SEWERS TO HAVE SUFFICIENT CLEARANCE AWAY FROM EXISTING NEW PLANTING AND APPROPRIATE PREVENTION MEASURES IN PLACE AS PER IRISH WATER RECOMMENDATIONS SET OUT IN THE "WASTEWATER INFRASTRUCTURE STANDARD DETAILS", DRAWINGS "STD-WW-06 & STD-WW-06A".

UISCE
IRISH WATER
APPROVED

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Green Vale

Project:	Residential Development at Greenhills Road, Walkinstown, Dublin 12	Project No:	20189	Dep. No:	C01a
Drawing:	Proposed Surface & Foul Water Layout	Scale:	@A1	Date:	Feb. 2021
Model Reference:	20189-LDE-ZZ-ZZ-M2-SC-001	Drawn:	E.V	Rev:	P1
Drawing Reference:	20189-LDE-07-00-DR-SC-1C01a	Model Rev:		Suitability:	S01