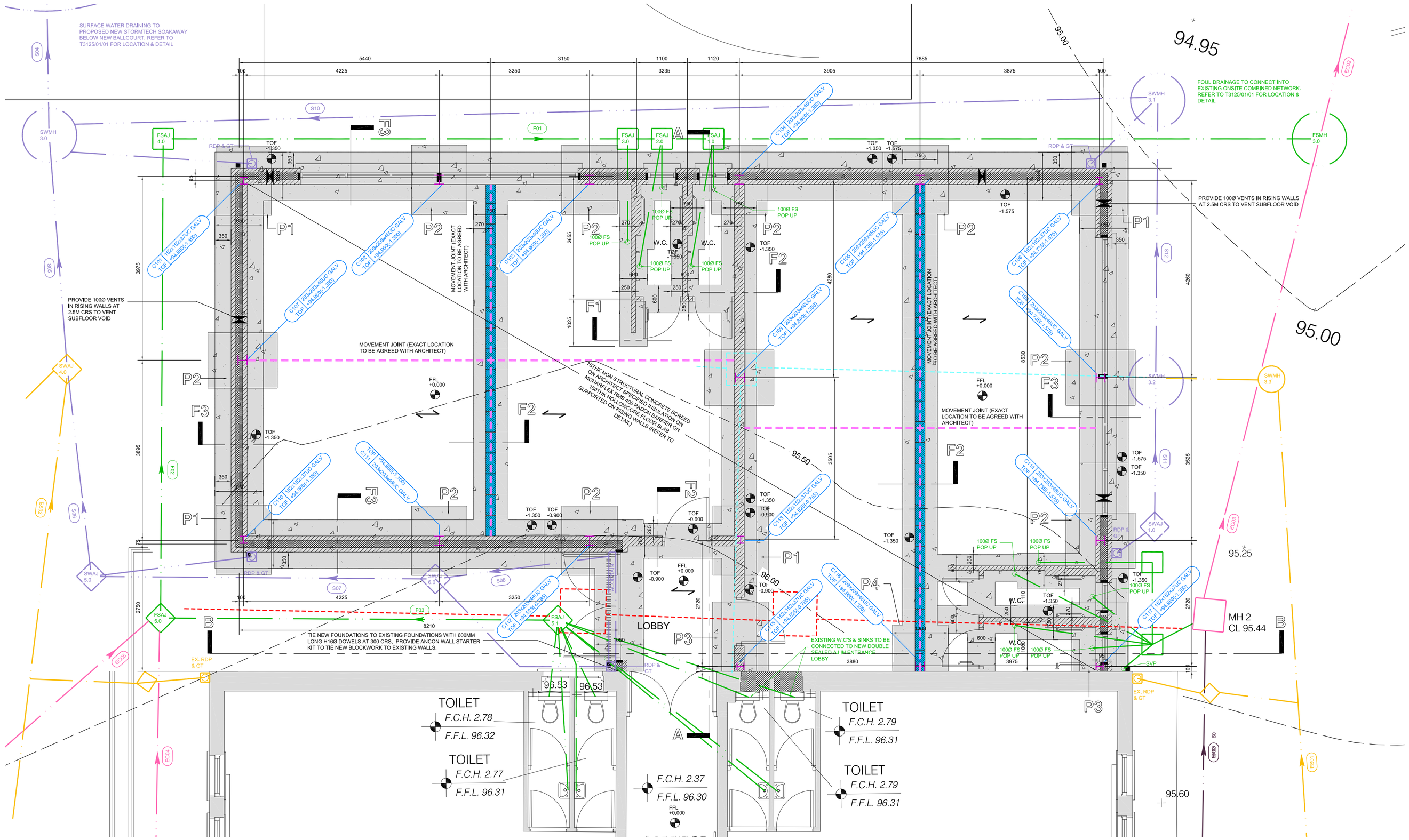


FOUNDATION & DRAINAGE LAYOUT
SCALE 1:50

FOUNDATIONS

FOUNDATIONS SHALL BE FORMED USING GRADE C25/30 CONCRETE (30N20) SLUMP CLASS S2. DO NOT ADD WATER ON SITE. EXTERNAL STRIP FOUNDATIONS TO BE MIN. 1050MM WIDE X 300MM DEEP BELOW 350MM THICK WALLS. INTERNAL STRIP FOUNDATIONS TO BE 750MM WIDE X 300MM DEEP BELOW 215MM THICK WALLS AND 600MM WIDE X 300MM DEEP BELOW 100MM THICK WALLS. THE FOUNDATIONS SHALL NOT CONTAIN WATER WHEN CASTING FOUNDATIONS. REMOVE ALL SOFT SPOTS AND LOOSE MATERIAL AND FILL WITH LEAN MIX CONCRETE (GRADE C8/10). ALL FOUNDATIONS TO BE REINFORCED WITH A393 GRADE 500 MESH REINFORCEMENT SUPPORTED ON PROPRIETARY CHAIRS.

FOUNDATION STEPS, WHERE SHOWN ON THE DRAWINGS OR REQUIRED ON SITE SHALL BE IN ACCORDANCE WITH DIAGRAM 12, BUILDING REGULATIONS, TGD A, 2012. STEPPING SHALL FOLLOW COURSEWORK AND NOT BE GREATER THAN TWICE THE THICKNESS OF THE FOUNDATION. LAPPING OF STEPS SHALL BE TWICE THE HEIGHT OF THE STEP. FOUNDATION TRENCHES SHALL BE INSPECTED AND APPROVED BY THE ARCHITECT/ENGINEER PRIOR TO CASTING.

RISING WALLS

RISING WALLS SHALL BE SOLID AND CONSTRUCTED OF ROADSTONE GROUP 1, S7.5N SOLID CONCRETE BLOCKWORK COMPLYING WITH I.S. EN 771-3:2011. RISING WALLS BELOW EXTERNAL WALLS SHALL BE NOT LESS THAN 375MM WIDE. RISING WALLS BENEATH INTERNAL WALLS SHALL BE AT LEAST THE SAME THICKNESS AS THE SUPPORTED WALL. PROVIDE NECOFLEX EASH-LOAD RADON DAMP PROOF COURSE AT FLOOR LEVEL. PROVIDE 50MM GAPS IN INTERNAL RISING WALLS AT 0.9M CRS AT SAME LEVEL AS RADON SUMP, PROVIDE M6(ll) MORTAR BELOW DPC LEVEL.

PROVIDE ROADSTONE THERMAL LITEBLOCK GROUP 1, S7.5N SOLID BLOCKWORK WHERE SHOWN ON THE DRAWINGS AND ASSOCIATED DETAILS. THERMAL BLOCKWORK SHALL ACHIEVE THERMAL CONDUCTIVITY (LAMBDA λ) VALUES LESS THAN 0.33W/MK. DO NOT SUBSTITUTE MATERIALS WITHOUT WRITTEN APPROVAL.

FLOOR CONSTRUCTION

REMOVE ALL TOPSOIL AND VEGETABLE MATTER TO DEPTHS NOT LESS THAN 150MM. SUBFLOOR FILLING SHALL CONSIST OF MATERIALS COMPLYING WITH SR 21:ANNEX E AND I.S. 888.

FLOORS SHALL BE FORMED USING 150MM THICK GRADE C20/25 CONCRETE (25N20) SLUMP CLASS S2 OR S3 ON 150MM THICK KINGSPAN KOOLTHERM PIR INSULATION WITH 25MM PERIMETER INSULATION ON MONARFLEX RMB 400 RADON BARRIER WITH ALL JOINTS WELL LAPPED AND DOUBLE SEALED WITH MONOBOND RT DOUBLE-SIDED BUTYL SEALANT TAPE, ON NOT MORE THAN 50MM 'T3 BLIND' FINE SAND BLINDING ON 200MM 'T2 PERM' GAS PERMEABLE LAYER ON 150MM THICK 'T1 STRUC' SUBBASE FILLING ON 'T0 STRUC' HARDCORE FILLING TO DEPTHS AS REQUIRED, COMPACTED IN LAYERS NOT EXCEEDING 225MM IN THICKNESS. ALL LAYERS SHALL BE WELL COMPACTED IN ACCORDANCE WITH TABLE B.1, I.S. 888:2016 (BELOW).

PROVIDE NECOFLEX EASH-SUMP RADON SUMP IN T2 PERM GAS PERMEABLE LAYER CENTRALLY IN STRUCTURE AS SHOWN ON THE DRAWING. PROVIDE 50MM GAPS IN INTERNAL RISING WALLS AT 0.9M CRS AT SAME LEVEL AS SUMP. PROVIDE 110ØMM DIAMETER VENT CARRIED THROUGH EXTERNAL WALL, TURNED UP IN FOOTPATH AWAY FROM DOORS AND WINDOWS AND CAPPED WITH NECOFLEX EASH-SUMP CAP-LINK.

U VALUE OF FLOORS TO ARCHITECTS INSTRUCTIONS. CONTRACTOR SHALL RETAIN ALL MATERIAL CERTIFICATES FOR SAFETY FILE AND SHALL HAND SAME OVER TO THE ARCHITECT / ENGINEER WHEN REQUESTED. DO NOT SUBSTITUTE MATERIALS WITHOUT WRITTEN APPROVAL.

CONTRACTION JOINTS IN FLOOR SLABS

PROVIDE CONTRACTION JOINTS IN FRESH CONCRETE (NOT OLDER THAN 12 HOURS) AS SHOWN ON THE DRAWINGS. JOINTS SHALL NOT BE LESS THAN 50MM OR 1/4 OF THE SLAB DEPTH WHICHEVER IS GREATER. JOINTS SHALL BE CUT SQUARE AND STRAIGHT. CONCRETE SLAB PANELS SHALL NOT BE ALLOWED TO EXCEED 6M IN ANY DIRECTION WITHOUT PROVIDING A CONTRACTION JOINT.

FOOTPATHS

CONCRETE FOOTPATHS WHERE SHOWN SHALL BE CONSTRUCTED TO A THICKNESS OF 100MM EXCEPT AT AREAS LIABLE TO BE SUBJECTED TO VEHICULAR TRAFFIC WHERE THE THICKNESS SHALL BE INCREASED TO 150MM. FOOTPATHS SHALL BE LAID AT 1:60 GRADIENTS AWAY FROM BUILDINGS AND BE CONSTRUCTED FROM CONCRETE GRADE 20 N 20 WITH A BRUSHED FINISH.

FOOTPATH JOINTING

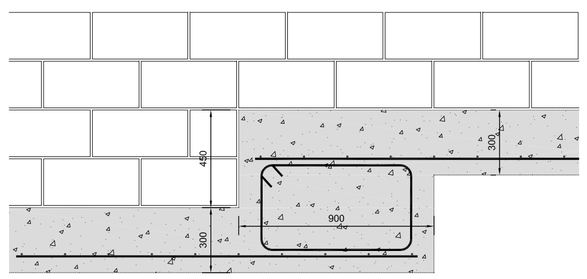
TRANSVERSE EXPANSION-CONTRACTION JOINTS SHALL BE FORMED IN CONCRETE FOOTPATHS AT NOT GREATER THAN 3600MM CENTRES AND EACH SIDE OF VEHICULAR CROSSINGS. EXPANSION-CONTRACTION JOINTS IN KERBING AND FOOTPATHS SHALL COMPRISE A DOUBLE THICKNESS OF BITUMINOUS ROOFING FELT OR "FLEXCELL" (OR SIMILAR) WITH POURED BITUMEN. THE JOINTING MATERIAL SHALL BE LAID STRAIGHT, SET TRULY VERTICAL AT RIGHT ANGLES TO THE KERBING AND SHALL EXTEND THE FULL DEPTH OF THE CONCRETE. IT SHALL BE NEATLY CUT OFF AT SURFACE LEVEL AND THE SURFACE OF THE CONCRETE SHALL BE CAREFULLY FINISHED TO THE SAME LEVEL OF EACH SIDE OF THE JOINTS.

DRAINAGE LEGEND

- PROPOSED FOUL DRAINAGE SHOWN (F16)
- PROPOSED SURFACE WATER DRAINAGE SHOWN (S16)
- MOVEMENT JOINT IN FLOOR
- EXISTING FOUL DRAINAGE SHOWN (EC16)
- EXISTING SURFACE WATER DRAINAGE SHOWN (EC16)
- EXISTING CONTOURS SHOWN (100.00)
- EXISTING FOUL DRAINAGE TO BE REMOVED SHOWN (F16)
- EXISTING SURFACE WATER DRAINAGE TO BE REMOVED SHOWN (S16)

Pipe	Diameter	Length	Grade	Upstream MH				Downstream MH			
				Manhole	Easting	Northing	Invert Level	Manhole	Easting	Northing	Invert Level
(#)	(mm)	(m)	(1 in)	(#)	(m)	(m)	(m)	(#)	(m)	(m)	(m)
F03	100	8.58	30.00	FS AJ 6.0	724323.542	714751.685	94.773	FS AJ 5.0	724315.386	714749.032	94.487
F02	150	10.15	30.00	FS AJ 5.0	724315.386	714749.032	94.487	FS AJ 4.0	724312.247	714758.681	94.149
F01-1	150	9.21	100.00	FS AJ 4.0	724312.247	714758.681	94.149	FS AJ 3.0	724321.008	714761.531	94.057
F01-2	150	1.26	100.00	FS AJ 3.0	724321.008	714761.531	94.057	FS AJ 2.0	724322.202	714761.919	94.044
F01-3	150	1.22	100.00	FS AJ 2.0	724322.202	714761.919	94.044	FS AJ 1.0	724323.363	714762.297	94.032
F01-4	150	13.21	100.00	FS AJ 1.0	724323.363	714762.297	94.032	FS MH 3.0	724335.929	714766.385	93.900
EC03	150	10.17	68.00	FS MH 3.1	724336.752	714756.246	94.050	FS MH 3.0	724335.929	714766.385	93.900
EC02	150	11.56	68.00	FS MH 3.0	724335.929	714766.385	93.900	FS MH 2.0	724335.019	714777.913	93.540
EC01	150	5.75	80.00	FS MH 2.0	724335.019	714777.913	93.540	FS MH 1.0	724332.936	714783.277	93.468

Pipe	Diameter	Length	Grade	Upstream MH				Downstream MH			
				Manhole	Easting	Northing	Invert Level	Manhole	Easting	Northing	Invert Level
(#)	(mm)	(m)	(1 in)	(#)	(m)	(m)	(m)	(#)	(m)	(m)	(m)
S07	100	7.99	100.00	SW AJ 6.0	724320.758	714751.701	95.100	SW AJ 5.0	724313.163	714749.230	95.020
S06	100	4.49	100.00	SW AJ 5.0	724313.163	714749.230	94.500	SW AJ 4.0	724311.775	714753.502	94.455
S05	225	5.27	150.00	SW AJ 4.0	724311.775	714753.502	93.700	SW MH 3.0	724309.750	714758.368	93.665
S11	225	2.76	150.00	SW AJ 1.0	724335.052	714758.032	94.240	SW MH 3.2	724334.198	714760.658	94.222
S10	225	5.39	150.00	SW MH 3.2	724334.198	714760.658	94.222	SW MH 3.1	724332.531	714765.779	94.186
S09	225	23.96	150.00	SW MH 3.1	724332.531	714765.779	94.186	SW MH 3.0	724309.750	714758.368	94.026
S04	225	16.19	150.00	SW MH 3.0	724309.750	714758.368	93.665	SW MH 2.0	724304.428	714773.661	93.557
S02	225	19.69	150.00	SW MH 2.0	724304.428	714773.661	93.857	SW MH 1.0	724323.087	714779.955	93.726
S01	225	10.39	150.00	SW MH 1.0	724323.087	714779.955	93.726	FS MH 1.0	724332.936	714783.277	93.656



25N30 CONCRETE STRIP FOUNDATIONS. PROVIDE A393 MESH WITH 75MM COVER ON PROPRIETY SUPPORT CHAIRS

FOUNDATION STEPS, WHERE SHOWN ON THE DRAWINGS OR REQUIRED ON SITE SHALL BE IN ACCORDANCE WITH DIAGRAM 12, BUILDING REGULATIONS, TGD A, 2012. STEPPING SHALL FOLLOW COURSEWORK AND NOT BE GREATER THAN TWICE THE THICKNESS OF THE FOUNDATION. LAPPING OF STEPS SHALL BE TWICE THE HEIGHT OF THE STEP.

FOUNDATION STEP DETAIL
SCALE 1:20

FOUNDATION NAME	FOUNDATION DIMENSION	FOUNDATION DESCRIPTION	CONCRETE GRADE	REINFORCEMENT
F1	600x300	STRIP FOUNDATION 100THK WALLS	GRADE XC, C28/35, D20, S2 (30N20)	A393 MESH REINFORCEMENT. 75 COVER TO STEEL
F2	750x300	CONCRETE STRIP FOUNDATION 215THK WALLS	GRADE XC, C28/35, D20, S2 (30N20)	A393 MESH REINFORCEMENT. 75 COVER TO STEEL
F3	1050x300	CONCRETE STRIP FOUNDATION 350THK WALLS	GRADE XC, C28/35, D20, S2 (30N20)	A393 MESH REINFORCEMENT. 75 COVER TO STEEL
P1	1500x1200x500	PAD FOUNDATION CENTRED ON COLUMN	GRADE XC, C28/35, D20, S2 (35N20)	7NO. H12-02-200B. 8NO. H12-02-200B
P2	1500x1200x500	PAD FOUNDATION CENTRED ON COLUMN	GRADE XC, C28/35, D20, S2 (35N20)	7NO. H12-02-200B. 8NO. H12-02-200B
P3	1500x1200x500	ECCENTRIC PAD FOUNDATION	GRADE XC, C28/35, D20, S2 (35N20)	7NO. H12-02-200B. 8NO. H12-02-200B
P4	1500x1000x500	PAD FOUNDATION CENTRED ON COLUMN	GRADE XC, C28/35, D20, S2 (35N20)	7NO. H12-02-200B. 8NO. H12-02-200B

TENDER ISSUE
26/05/2023

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ISSUE	DETAILS	CHK	DRN	DATE
0	TENDER ISSUE	CD	JD	26/05/2023

CLIENT: B.O.M- KILMACANOGUE N.S
PROJECT: EXTENSION TO KILMACANOGUE N.S
KILMACANOGUE N.S KILMACANOGUE, BRAY, CO. WICKLOW A98 D602
DRAWING: FOUNDATION & DRAINAGE LAYOUT

PROJECT: T3125
REVISION: 0
PHASE: TENDER
DRAWING NO: 02/01
SCALE: 1:50/1:20 A1
DATE: MAY 2023

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