

No. C	APPROX. COVER LEVEL 100.53	INVERT LEVEL IN	INVERT LEVEL	DEPTH	PIPE SIZE													
L	LEVEL	IN		(mm)	OUT (mm)	GRADIENT OUT	TYPE/COMMENT		TYPE/COMMENT		COVER							
NCMH1	100.53		OUT		()		SIZE/DIA.	TYPE										
		98.05	98.05	2480	150Ø	1:100 MINIMUM	1200Ø	P.C. RING (DETAIL 1)	750×600 DUCTILE IRON 'C250'									
										PLIME	P CHAMBER S							
NSMH1	100.53	98.15	98.15	2380	150Ø	1:100	1200ø	P.C. RING WITH FLOW CONTROL (DETAIL 1a)	750×600 DUCTILE IRON 'C250'							NOTEO		
NSMH2	99.99	98.86	98.86	1130	150Ø	1:100	450Ø	UIC (DETAIL 3)	450Ø PLASTIC 'B125'	TANK N°	STORAGE CAPACITY (I)	PUMP CAPACITY (I/s)	APPROX. RISE (m)	SIZE (mm)	COVER & FRAME NOT BY DELTA	NOTES		
NSMH3	99.99	99.54	99.54	450	150Ø	1:10	450Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	450Ø PLASTIC 'B125'	NFPC1	1100	4.5	4.5	1000Ø ×2000 DEEP	750×600 DOUBLE SEALED	SUPPLIED BY WATERPROOFING SPECIALIST		
NSMH4	99.99	99.14	99.14	1150	150Ø	1:100	450Ø	UIC (DETAIL 3a)	450Ø PLASTIC 'B125'	NFPC2	1100	4.5	4.5	1000Ø ×2000 DEEP	750×600 DOUBLE SEALED	CABLE DUCT AND VENT 110 Ø		
NSMH5	99.99	99.54	99.54	450	150Ø	1:4	450Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	450Ø PLASTIC 'B125'	NFPC3	1100	4.5	4.5	1000Ø ×2000 DEEP	750×600 DOUBLE SEALED	PIPE		
										NFPC4	1100	4.5	4.5	1000Ø ×2000 DEEP	750×600 DOUBLE SEALED	INLETS 110 Ø PIPES		
										NFPC5	1100	4.5	4.5	1000Ø ×2000 DEEP	750×600 DOUBLE SEALED	OUTLET CONNECTION FEMALE 2" BSP THREAD		
NFMH1	100.59	99.44	99.44	1150	100Ø	1:70	450Ø	UIC (DETAIL 3)	450Ø PLASTIC 'B125'	NFPC6	1100	4.5	4.5	1000Ø ×2000 DEEP	750×600 DOUBLE SEALED			
NFMH2	99.99	99.54	99.54	450	100Ø	1:70	450Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	450Ø PLASTIC 'B125'									
NFMH3	99.99	99.54	99.54	450	100Ø	1:70	450Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	450Ø PLASTIC 'B125'		(00)	0.75						
NFMH4	99.99	99.54	99.54	450	100Ø	1:70	450Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	450Ø PLASTIC 'B125'	NSPC1	600	2.75	4.5	800Ø ×1300 DEEP	450×600	SUPPLIED BY WATERPROOFING SPECIALIST		
	L						1			NSPC2	600	2.75	4.5	800Ø ×1300 DEEP	450×600	CABLE DUCT AND VENT		
ANNOTATIONS	3				MANHOLE CC	VERS TO BS EI	N 124			NSPC3	600	2.75	4.5	800Ø ×1300 DEEP	450×600	50mm SPIGOT FOR WASTE		
UIC UNI	NIVERSAL IN	NSPECTION CH	AMBER		CLASS A	LIGHT DUTY	PEDESTRIAN	ONI Y		NSPC4	600	2.75	4.5	800Ø ×1300 DEEP	450×600	INLETS 110 Ø PIPES		
					CLASS B					NSPC5	600	2.75	4.5	800Ø ×1300 DEEP	450×600	OUTLET CONNECTION FEMALE		
						NSPC6	600	2.75	4.5	800Ø ×1300 DEEP	450×600	2" BSP THREAD						
		NSTRUCTION		- ' L	CLASS D			AY & HARD SHOULDERS			LOCATION OF PUN ATIONS FOR AS B		BE CO-ORDINATED	BETWEEN ARCHITEC	T AND WATERPROOFING SPE	CIALIST ADVISE ENGINEER		
NOTE: AL										ARCHIT	ECT TO CONFIRM	IF RECESSED COV	ERS ARE REQUIRE	ED AND TO COORDINA	TE SET OUT WITH PAVING SE	T OUT.		

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- ALL MATERIALS AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT CURRENT BRITISH STANDARDS' AND, WHERE REQUIRED BY THE EMPLOYER, TO NHBC

DRAINAGE NOTES

NOTATION KEY							
	COMBINED WATER PIPE RUN						
	COMBINED WATER MANHOLE OR INSPECTION CHAMBER						
	FOUL WATER PIPE RUN						
<u> </u>	FOUL WATER RISING MAIN						
	FOUL WATER MANHOLE OR INSPECTION CHAMBER						
	FOUL WATER PUMPING CHAMBER						
>	SURFACE WATER PIPE RUN						
77) //	SURFACE WATER RISING MAIN						
	SURFACE WATER MANHOLE OR INSPECTION CHAMBER						
	SURFACE WATER PUMPING CHAMBER						
SVP: RWP: SS: AAV: YG: RE: TD: CD: VBD: NFMH: NSMH: NCMH: NFPC:	NEW FOUL WATER PUMP CHAMBER						
NSPC:	NEW SURFACE WATER PUMP CHAMBER						
SPECIFICA	<u>NTION</u> IS ARE TO BE 100mm NOMINAL DIAMETER LAID AT A						
GRADIENT N	IOT FLATTER THAN 1:70. U.N.O.						
to BS 65 0 Joints Bed	2. DRAINS ARE TO BE CONSTRUCTED USING VITRIFIED CLAY PIPES TO BS 65 OR FLEXIBLE UPVC PIPES TO BS4660 WITH FLEXIBLE JOINTS BEDDED AND BACKFILLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND BS 8301.						
OF 150mm (COVER ARE	3. 100mm RIGID PIPES WITH LESS THAN 300mm COVER OR PIPES OF 150mm OR GREATER DIAMETER WITH LESS THAN 600mm COVER ARE TO BE SURROUNDED BY 150mm OF CONCRETE WITH MOVEMENT JOINTS PROVIDED AT EVERY PIPE JOINT.						
SURROUNDE SLABS LAI BUILDINGS	4. FLEXIBLE PIPES WITH LESS THAN 600mm COVER ARE TO BE SURROUNDED WITH CONCRETE OR TO HAVE CONCRETE PAVING SLABS LAID AS BRIDGING ABOVE THE PIPE. PIPES UNDER BUILDINGS ARE TO BE SURROUNDED WITH 100mm MIN. OF GRANULAR MATERIAL.						
5. ACCESS TO DRAINS MAY PROVIDED BY VITRIFIED CLAY, GRP OR POLYPROPYLENE INSPECTION CHAMBERS TO BS 7158, OR MANHOLES CONSTRUCTED USING CLASS B ENGINEERING BRICKS TO BS 3921, OR PRECAST CONCRETE SECTIONS TO BS 5911, SURROUNDED WITH 150mm OF CONCRETE MINIMUM DIMENSIONS TO CONFORM TO TABLE 8 OF BS 8301. COVERS AND FRAMES FOR MANHOLES/INSPECTION CHAMBERS MUST COMPLY WITH THE APPROPRIATE LOADING GRADE OF BS 497 OR BS 5911.							
6. Provide Gu	ILLIES AND RWP'S WITH RODDABLE ACCESS.						
	7. ALL PIPES THAT CONNECT TO MAIN RUN DRAINAGE MANHOLES TO BE FIXED 'CROWNS ADJACENT'						
TABLE 6 OF	Bedding & Surround to be mix type gen 1 to 5 bs 5328-part 2 U.N.O. IF a different 'gen' mix 0 it will be to the above table.						
9. ALL RWP'S	TO CONNECT INTO RODDABLE GULLIES.						
Status: C	Status: CONSTRUCTION						
	pace Free Ltd.						
^{Project:} 138-140 Highgate Road, London, NW5 1PB							
Title: Di	rainage G.A. Sheet 1						
Project N°: Drawing N°: Rev							

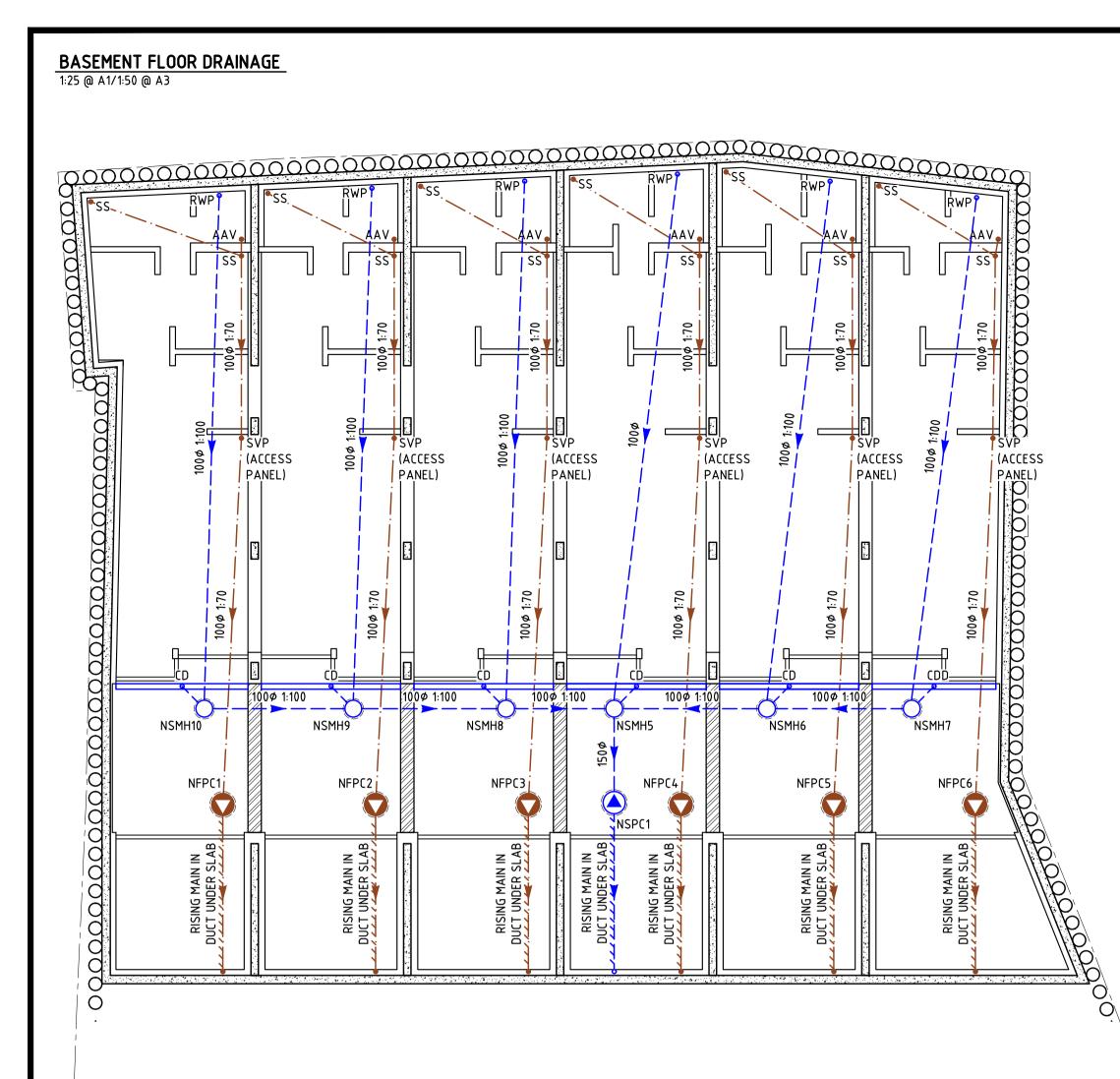
D100

C2

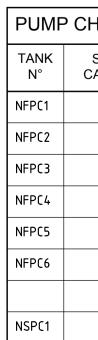
Consulting

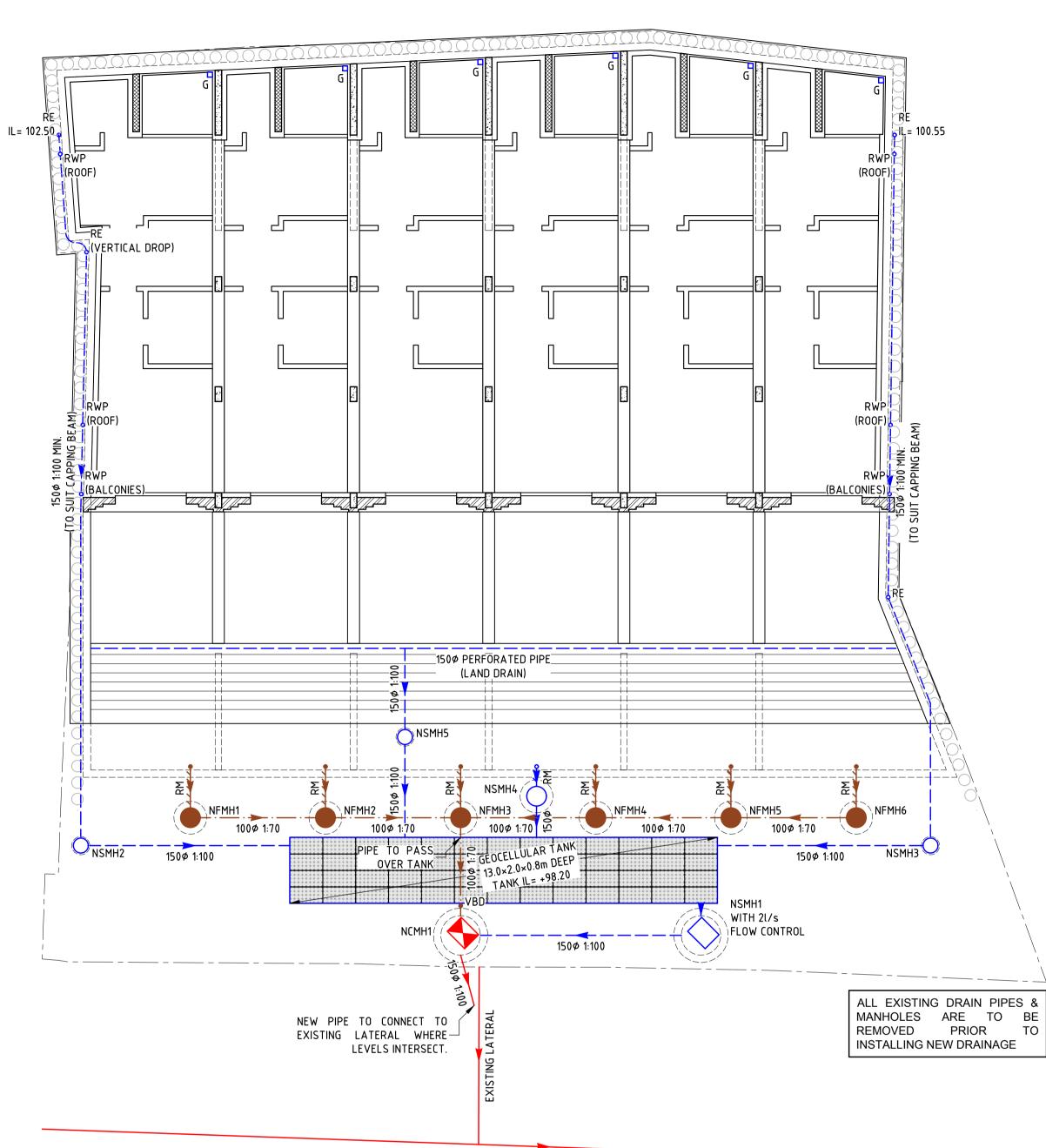
Engineers

3 Marconi Place, London, N11 1PE +44(0)20 8361 6827 www.amacl.co.uk



450φ PLASTIC 'B125' 600φ PLASTIC 'B125' 7 600φ PLASTIC 'B125' 7 600φ PLASTIC 'B125' 7 600φ PLASTIC 'B125' 7 600φ PLASTIC 'B125'							DULE	E SCHED	MANHOL	
ITROL 750×600 DUCTILE IRON 'C250' 450Ø PLASTIC 'B125' 600Ø PLASTIC 'B125' 600Ø PLASTIC 'B125' 8 600Ø PLASTIC 'B125' 9 NFPC1 10 NFPC2 11 NFPC2 12 NFPC3	TYPE/COMMENT		GRADIENT OUT	PIPE SIZE OUT (mm)	DEPTH (mm)	INVERT LEVEL	INVERT LEVEL	APPROX. COVER	MANHOLE No.	
ITROL 750×600 DUCTILE IRON 'C250' 450Ø PLASTIC 'B125' 600Ø PLASTIC 'B125' 600Ø PLASTIC 'B125' 8 600Ø PLASTIC 'B125' 10 NFPC1 11 NFPC2 12 NFPC3	TYPE	SIZE/DIA.			()	OUT	IN	LEVEL		
450φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 8 6000φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 9 NFPC1 9 NFPC2 9 NFPC3	P.C. RING	1200Ø	1:100 MINIMUM	150Ø	2480	98.05	98.05	100.53	NCMH1	
450φ PLASTIC 'B125' 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 9 NFPC1 9 NFPC2 9 NFPC3	P.C. RING WITH FLOW CONTROL	1200Ø	1:100	150Ø	2380	98.15	98.15	100.53	NSMH1	
R 600Ø PLASTIC 'B125' 450Ø PLASTIC 'B125' 600Ø PLASTIC 'B125' R 600Ø PLASTIC 'B125' NFPC1 NFPC2 NFPC3 NFPC3	UIC	450Ø	1:6	150Ø	640	100.00	100.00	100.64	NSMH2	
450Ø PLASTIC 'B125' 600Ø PLASTIC 'B125' 8 600Ø PLASTIC 'B125' 7 600Ø PLASTIC 'B125' 8 600Ø PLASTIC 'B125' 7 600Ø PLASTIC 'B125' 8 600Ø PLASTIC 'B125' 7 600Ø PLASTIC 'B125' 8 600Ø PLASTIC 'B125' 9 NFPC1 10 NFPC2 11 NFPC3	UIC	450Ø	1:100	150Ø	940	99.70	99.70	100.64	NSMH3	
450¢ PLASTIC 'B125' 600¢ PLASTIC 'B125' 7 600¢ PLASTIC 'B125' 8 600¢ PLASTIC 'B125' 9 NFPC1 10 NFPC2 10 NFPC3	DISCHARGE CHAMBER	600Ø	1:2	150Ø	1200	99.33	99.33	100.53	NSMH4	
450φ PLASTIC 'B125' 600φ PLASTIC 'B125' 7 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 7 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 9 NFPC1 9 NFPC2 9 NFPC3	UIC	450Ø	1:100	150Ø	1150	98.85	98.85	100.00	NSMH5	
450φ PLASTIC 'B125' 450φ PLASTIC 'B125' 450φ PLASTIC 'B125' 450φ PLASTIC 'B125' 600φ PLASTIC 'B125' R 600φ PLASTIC 'B125' NFPC1 NFPC2 NFPC3 NFPC3	UIC CATCHPIT	450Ø	1:100	150Ø	900	95.26	95.26	96.16	NSMH6	
450φ PLASTIC 'B125' 450φ PLASTIC 'B125' 450φ PLASTIC 'B125' 600φ PLASTIC 'B125' R 600φ PLASTIC 'B125' R 600φ PLASTIC 'B125' N° CAP. NFPC1 NFPC2 NFPC3 NFPC3	UIC	450Ø	1:100	100Ø	870	95.29	95.29	96.16	NSMH7	
450φ PLASTIC 'B125' 450φ PLASTIC 'B125' 600φ PLASTIC 'B125' 7 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 7 600φ PLASTIC 'B125' 8 600φ PLASTIC 'B125' 9 NFPC1 NFPC2 NFPC3	₊50¢ UIC		1:100	100Ø	840	95.32	95.32	96.16	NSMH8	
450φ PLASTIC 'B125' R 600φ PLASTIC 'B125' N NFPC1 NFPC2 NFPC3	450Ø UIC		1:100	100Ø	870	95.29	95.29	96.16	NSMH9	
R 600Ø PLASTIC 'B125' N° CAP/ R 600Ø PLASTIC 'B125' NFPC1 NFPC2 NFPC3 NFPC3	UIC	450Ø	1:100	100Ø	840	95.32	95.32	96.16	NSMH10	
R 600Ø PLASTIC 'B125' N° CAP/ NFPC1 NFPC2 NFPC3 NFPC3	UIC	450Ø	1:100	100Ø	810	95.35	95.35	96.16	NSMH11	
R 600Ø PLASTIC 'B125' R 600Ø PLASTIC 'B125' R 600Ø PLASTIC 'B125' R 600Ø PLASTIC 'B125' N 600Ø PLASTIC 'B125' N NFPC1 NFPC2 NFPC3	DISCHARGE CHAMBER	600Ø	1:70	100Ø	870	99.70	99.70	100.57	NFMH1	
PUMP CHA R 600Ø PLASTIC 'B125' R 600Ø PLASTIC 'B125' R 600Ø PLASTIC 'B125' NFPC1 NFPC2 NFPC3	DISCHARGE CHAMBER	600Ø	1:70	100Ø	920	99.65	99.65	100.57	NFMH2	
R 600Ø PLASTIC 'B125' TANK STO R 600Ø PLASTIC 'B125' N° CAP. R 600Ø PLASTIC 'B125' NFPC1 NFPC2 NFPC3 NFPC3 NFPC3 NFPC3	DISCHARGE CHAMBER	600Ø	1:70	100ø	970	99.60	99.60	100.57	NFMH3	
R 600Ø PLASTIC 'B125' N° CAP. R 600Ø PLASTIC 'B125' NFPC1 NFPC2 NFPC3 NFPC3 NFPC3 NFPC3	DISCHARGE CHAMBER	600Ø	1:70	100Ø	920	99.65	99.65	100.57	NFMH4	
NFPC2 NFPC3	600¢ DISCHARGE CHAMBER 600¢ PLASTIC 'B125		1:70	100Ø	870	99.70	99.70	100.57	NFMH5	
NFPC3	600Ø DISCHARGE CHAMBER 600Ø PLASTIC 'B125'		1:70	100Ø	820	99.75	99.75	100.57	NFMH6	
					· · ·			·		
NFPC4		MANHOLE COVERS TO BS EN 124				IOTATIONS				
	ONLY	LIGHT DUTY	CLASS A		UNIVERSAL INSPECTION CHAMBER					
NFPC5	ES	MEDIUM DUTY	CLASS B		IAMBER	INSPECTION CH	NON-ENTRY I	NEIC		
NFPC6	Y <0.5m FROM KERB	CARRIAGEWA	HEAVY DUTY	CLASS C	ETE	ECAST CONCRE	BRICK OR PRI		TRAD./ P.C. RING	
	CARRIAGEWAY & HARD SHOULDERS					CHAMBER CONSTRUCTION				





1270×787 EXISTING COMBINED SEWER

HAMBER SCHEDULE									
STORAGE CAPACITY (I)	PUMP CAPACITY (I/s)	APPROX. RISE (m)	LOCATION						
1000	3.0	4.5	BURIED IN COURTYARD						
1000	3.0	4.5	BURIED IN COURTYARD						
1000	3.0	4.5	BURIED IN COURTYARD						
1000	3.0	4.5	BURIED IN COURTYARD						
1000	3.0	4.5	BURIED IN COURTYARD						
1000	3.0	4.5	BURIED IN COURTYARD						
1000	6.0	4.5	BURIED IN COURTYARD						

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DRAINAGE NOTES

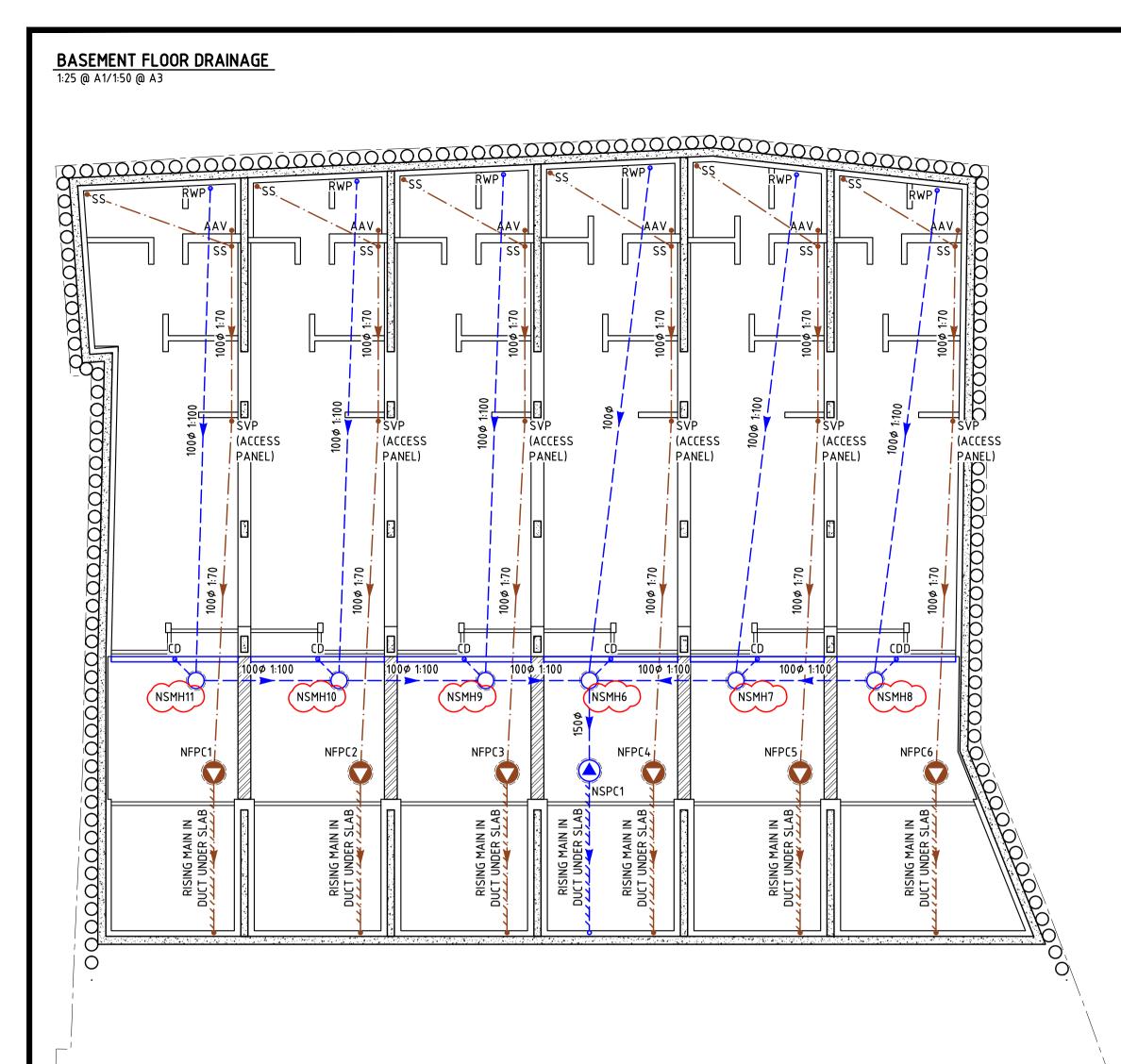
NOTATION KEY

SVP:	Soil and vent pipe
RWP:	RAIN WATER PIPE
SS:	STUB STACK
AAV:	AIR ADMITTANCE VALVE
YG:	YARD GULLY
RE:	RODDING EYE
/BD:	VERTICAL BACKDROP
NFMH:	NEW FOUL WATER MANHOLE
NSMH:	NEW SURFACE WATER MANHOLE
NCMH:	NEW COMBINED WATER MANHOLE
NFPC:	NEW FOUL WATER PUMP CHAMBER
NSPC:	NEW SURFACE WATER PUMP CHAMBER
	COMBINED WATER PIPE RUN
	COMBINED WATER MANHOLE OR INSPECTION CHAMBER
	FOUL WATER PIPE RUN
	FOUL WATER RISING MAIN
	FOUL WATER MANHOLE OR INSPECTION CHAMBER
\bigcirc	FOUL WATER PUMPING CHAMBER
>	SURFACE WATER PIPE RUN
	SURFACE WATER RISING MAIN
	SURFACE WATER MANHOLE OR INSPECTION CHAMBER
	SURFACE WATER PUMPING CHAMBER

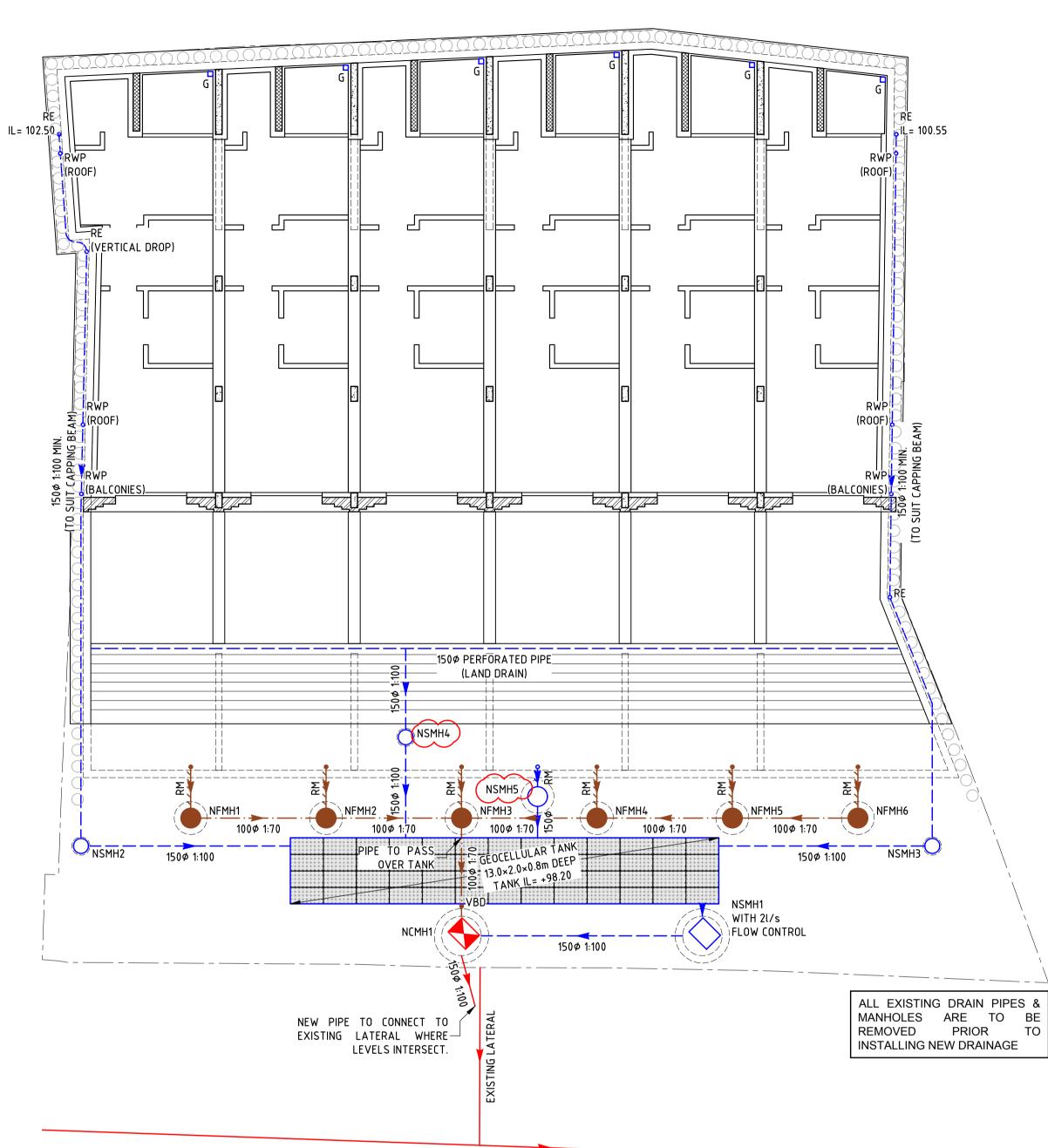
SPECIFICATION

- FOUL DRAINS ARE TO BE 100mm NOMINAL DIAMETER LAID AT A GRADIENT NOT FLATTER THAN 1:70. U.N.O.
- DRAINS ARE TO BE CONSTRUCTED USING VITRIFIED CLAY PIPES TO BS 65 OR FLEXIBLE UPVC PIPES TO BS4660 WITH FLEXIBLE JOINTS BEDDED AND BACKFILLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND BS 8301.
- 100mm RIGID PIPES WITH LESS THAN 300mm COVER OR PIPES OF 150mm OR GREATER DIAMETER WITH LESS THAN 600mm COVER ARE TO BE SURROUNDED BY 150mm OF CONCRETE WITH MOVEMENT JOINTS PROVIDED AT EVERY PIPE JOINT.
- FLEXIBLE PIPES WITH LESS THAN 600mm COVER ARE TO BE SURROUNDED WITH CONCRETE OR TO HAVE CONCRETE PAVING SLABS LAID AS BRIDGING ABOVE THE PIPE. PIPES UNDER BUILDINGS ARE TO BE SURROUNDED WITH 100mm MIN. OF GRANULAR MATERIAL.
- ACCESS TO DRAINS MAY PROVIDED BY VITRIFIED CLAY, GRP OR POLYPROPYLENE INSPECTION CHAMBERS TO BS 7158, OR MANHOLES CONSTRUCTED USING CLASS B ENGINEERING BRICKS TO BS 3921, OR PRECAST CONCRETE SECTIONS TO BS 5911, SURROUNDED WITH 150mm OF CONCRETE MINIMUM DIMENSIONS TO CONFORM TO TABLE 8 OF BS 8301. COVERS AND FRAMES FOR MANHOLES/ INSPECTION CHAMBERS MUST COMPLY WITH THE APPROPRIATE LOADING GRADE OF BS 497 OR BS 5911.
- 6. PROVIDE GULLIES AND RWP'S WITH RODDABLE ACCESS.
- ALL PIPES THAT CONNECT TO MAIN RUN DRAINAGE MANHOLES TO BE FIXED 'CROWNS ADJACENT'
- 3. Concrete Bedding & Surround to be mix type gen 1 to TABLE 6 OF BS 5328-PART 2 U.N.O.. IF A DIFFERENT 'GEN' MIX IS SPECIFIED IT WILL BE TO THE ABOVE TABLE.
- 9. ALL RWP'S TO CONNECT INTO RODDABLE GULLIES.

NOT FO	R CO	NSTR							
P1 Prelimina REV	ry DETA	AIL	08/07/19 DATE						
	LIMIN								
Project: 138-140 Highgate Road, London, NW5 1PB									
Title: Drai	Title: Drainage G.A. Sheet 1								
Project N°: 1803		awing N°: D10	0 Rev:						
Date: Ju	ul 2019								
Scale @A1:	1:100	H	VН						
Drawn:	JL		Consulting Engineers						
Engineer:	NK	+44(0)	ice, London, N11 1PE 20 8361 6827 amacl.co.uk						



										\					
MANHOL		OULE													
MANHOLE	APPROX.	INVERT	INVERT	DEPTH	PIPE SIZE	GRADIENT		TYPE/COMMENT	COVER						NEW PIP EXISTING
No.	COVER LEVEL	LEVEL IN	LEVEL OUT	(mm)	OUT (mm)	OUT	SIZE/DIA.	TYPE							
NCMH1	100.53	98.05	98.05	2480	150Ø	1:100 MINIMUM	1200ø	P.C. RING (DETAIL 1)	750×600 DUCTILE IRON 'C250'						
NSMH1	100.53	98.15	98.15	2380	150ø	1:100	1200ø	P.C. RING WITH FLOW CONTROL (DETAIL 1a)	750×600 DUCTILE IRON 'C250'						
NSMH2	100.64	100.00	100.00	640	150ø	1:6	450Ø	UIC (DETAIL 3)	450Ø PLASTIC 'B125'						
NSMH3	100.64	99.70	99.70	940	150Ø	1:100	450Ø	UIC (DETAIL 3)	450Ø PLASTIC 'B125'						
NSMH4	100.00	98.85	98.85	1150	150ø	1:100	450Ø	UIC (DETAIL 3a)	450¢ PLASTIC 'B125'						
NSMH5	100.53	99.33	99.33	1200	150ø	1:2	600ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	600Ø PLASTIC 'B125'						
NSMH6	96.16	95.26	95.26	900	150ø	1:100	450ø	UIC CATCHPIT (DETAIL 4)	450ø PLASTIC 'B125'						
NSMH7	96.16	95.29	95.29	870	100ø	1:100	450Ø	UIC (DETAIL 3a)	450ø PLASTIC 'B125'						
NSMH8	96.16	95.32	95.32	840	100ø	1:100	450Ø	UIC (DETAIL 3a)	450ø PLASTIC 'B125'						
NSMH9	96.16	95.29	95.29	870	100Ø	1:100	450Ø	UIC (DETAIL 3a)	450Ø PLASTIC 'B125'						
NSMH10	96.16	95.32	95.32	840	100Ø	1:100	450Ø	UIC (DETAIL 3a)	450Ø PLASTIC 'B125'						
NSMH11	96.16	95.35	95.35	810	100Ø	1:100	450Ø	UIC (DETAIL 3a)	450Ø PLASTIC 'B125'						
NFMH1	100.57	99.70	99.70	870	100ø	1:70	600Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	600Ø PLASTIC 'B125'						
NFMH2	100.57	99.65	99.65	920	100ø	1:70	600Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	600Ø PLASTIC 'B125'						
NFMH3	100.57	99.60	99.60	970	100Ø	1:70	600Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	600Ø PLASTIC 'B125'						
NFMH4	100.57	99.65	99.65	920	100Ø	1:70	600Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	600Ø PLASTIC 'B125'		P CHAMBER S	1		1	·····
NFMH5	100.57	99.70	99.70	870	100Ø	1:70	600Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	600Ø PLASTIC 'B125'	TANK N°	STORAGE CAPACITY (I)	PUMP CAPACITY (I/s)	APPROX. RISE (m)	LOCATION	CONSTRUCTION TYPE
NFMH6	100.57	99.75	99.75	820	100ø	1:70	600Ø	BACKWASH DISCHARGE CHAMBER (DETAIL 2)	600Ø PLASTIC 'B125'	NFPC1	1000	3.0	4.5	BURIED IN COURTYARD	SIMILAR TO DETAIL 3a
										NFPC2	1000	3.0	4.5	BURIED IN COURTYARD	SIMILAR TO DETAIL 3a
ANNOTATIO	NNOTATIONS MANHOLE COVERS TO BS EN 124						NFPC3	1000	3.0	4.5	BURIED IN COURTYARD	SIMILAR TO DETAIL 3a			
UIC	UNIVERSAL INSPECTION CHAMBER CLASS A LIGHT DUTY PEDESTRIAN ONLY							NFPC4	1000	3.0	4.5	BURIED IN COURTYARD	SIMILAR TO DETAIL 3a 🧹		
NEIC	NON-ENTRY INSPECTION CHAMBER CLASS B MEDIUM DUTY LIG					MEDIUM DUTY	LIGHT VEHIC	LES		NFPC5	1000	3.0	4.5	BURIED IN COURTYARD	SIMILAR TO DETAIL 3a
TRAD./ P.C. RING	TRADITIONAL CHAMBER COI		ECAST CONCR	ETE	CLASS C	HEAVY DUTY	CARRIAGEW	AY <0.5m FROM KERB		NFPC6	1000	3.0	4.5	BURIED IN COURTYARD	SIMILAR TO DETAIL 3a
					CLASS D	HEAVY DUTY	CARRIAGEW	AY & HARD SHOULDERS							<u>}</u>
NOTE:	ALL CATCHPIT MANHOLES ARE 200mm DEEPER THAN INVERT LEVELS SHOWN TO ALLOW FOR SILT PIT								NSPC1	1000	6.0	4.5	BURIED IN COURTYARD	SIMILAR TO DETAIL 3a	



1270×787 EXISTING COMBINED SEWER

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- 4. ALL MATERIALS AND WORKMANSHIP ARE TO COMPLY WITH THE RELEVANT CURRENT BRITISH STANDARDS' AND, WHERE REQUIRED BY THE EMPLOYER, TO NHBC STANDARDS.

DRAINAGE NOTES

NOTATION KEY

SVP:	Soil and vent pipe
RMD:	RAIN WATER PIPE
SS:	STUB STACK
AAV:	AIR ADMITTANCE VALVE
rG:	
RE:	
/BD: NFMH:	VERTICAL BACKDROP NEW FOUL WATER MANHOLE
NEMIA:	NEW SURFACE WATER MANHOLE
NCMH:	NEW COMBINED WATER MANHOLE
NFPC:	NEW FOUL WATER PUMP CHAMBER
NSPC:	NEW SURFACE WATER PUMP CHAMBER
	COMBINED WATER PIPE RUN
	COMBINED WATER MANHOLE OR INSPECTION CHAMBER
	FOUL WATER PIPE RUN
	FOUL WATER RISING MAIN
	FOUL WATER MANHOLE OR INSPECTION CHAMBER
\bigcirc	FOUL WATER PUMPING CHAMBER
>	SURFACE WATER PIPE RUN
	SURFACE WATER RISING MAIN
	SURFACE WATER MANHOLE OR INSPECTION CHAMBER
	SURFACE WATER PUMPING CHAMBER

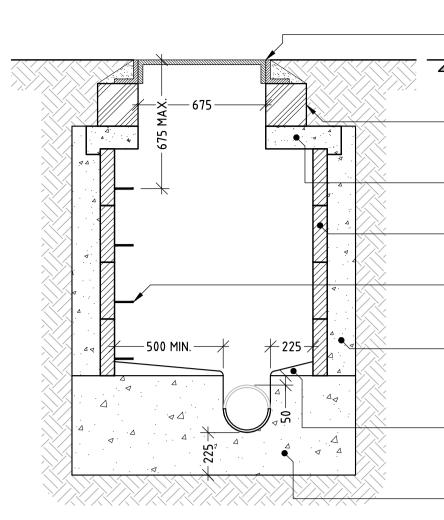
SPECIFICATION

- FOUL DRAINS ARE TO BE 100mm NOMINAL DIAMETER LAID AT A GRADIENT NOT FLATTER THAN 1:70. U.N.O.
- 2. DRAINS ARE TO BE CONSTRUCTED USING VITRIFIED CLAY PIPES TO BS 65 OR FLEXIBLE UPVC PIPES TO BS4660 WITH FLEXIBLE JOINTS BEDDED AND BACKFILLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND BS 8301.
- 3. 100mm RIGID PIPES WITH LESS THAN 300mm COVER OR PIPES OF 150mm OR GREATER DIAMETER WITH LESS THAN 600mm COVER ARE TO BE SURROUNDED BY 150mm OF CONCRETE WITH MOVEMENT JOINTS PROVIDED AT EVERY PIPE JOINT.
- 4. FLEXIBLE PIPES WITH LESS THAN 600mm COVER ARE TO BE SURROUNDED WITH CONCRETE OR TO HAVE CONCRETE PAVING SLABS LAID AS BRIDGING ABOVE THE PIPE. PIPES UNDER BUILDINGS ARE TO BE SURROUNDED WITH 100mm MIN. OF GRANULAR MATERIAL.
- 5. ACCESS TO DRAINS MAY PROVIDED BY VITRIFIED CLAY, GRP OR POLYPROPYLENE INSPECTION CHAMBERS TO BS 7158, OR MANHOLES CONSTRUCTED USING CLASS B ENGINEERING BRICKS TO BS 3921, OR PRECAST CONCRETE SECTIONS TO BS 5911, SURROUNDED WITH 150mm OF CONCRETE MINIMUM DIMENSIONS TO CONFORM TO TABLE 8 OF BS 8301. COVERS AND FRAMES FOR MANHOLES/ INSPECTION CHAMBERS MUST COMPLY WITH THE APPROPRIATE LOADING GRADE OF BS 497 OR BS 5911.
- 6. PROVIDE GULLIES AND RWP'S WITH RODDABLE ACCESS.
- 7. ALL PIPES THAT CONNECT TO MAIN RUN DRAINAGE MANHOLES TO BE FIXED 'CROWNS ADJACENT'
- 8. CONCRETE BEDDING & SURROUND TO BE MIX TYPE GEN 1 TO TABLE 6 OF BS 5328-PART 2 U.N.O.. IF A DIFFERENT 'GEN' MIX IS SPECIFIED IT WILL BE TO THE ABOVE TABLE.

9. ALL RWP'S TO CONNECT INTO RODDABLE GULLIES.									
NOT FOR CONSTRUCTION									
P2 Revised as cloud	ed 15/07/19								
P1 Preliminary	08/07/19								
REV DET	AIL DATE								
Status: PRELIMINARY									
Client: Space Fre	ee Ltd.								
Project: 138-140	Highgate Road,								
London, NW5 1PB									
,									
	G.A. Sheet 1								
Title: Drainage									
Title: Drainage	G.A. Sheet 1								
Title: Drainage Project N°:	G.A. Sheet 1 rawing N°: Rev:								
Title: Drainage Project N°: 18035	G.A. Sheet 1 Trawing N°: Rev: D100 P2 ANA								
Title: Drainage Project N°: 18035 Date: Jul 2019 Date: 2019	G.A. Sheet 1 rawing N°: Rev:								

DETAIL 1: P.C. RING MANHOLE CHAMBER 1.2–3.0m DEEP NOT TO SCALE

NOT TO SCALE



MANHOLE COVER & FRAME TO BS 497 BEDDED ON CLASS M1 OR M2 MORTAR. **E**.G.L.

CLASS B ENGINEERING BRICK- WORK (4 COURSES MAX. - 2 COURSES MIN.)

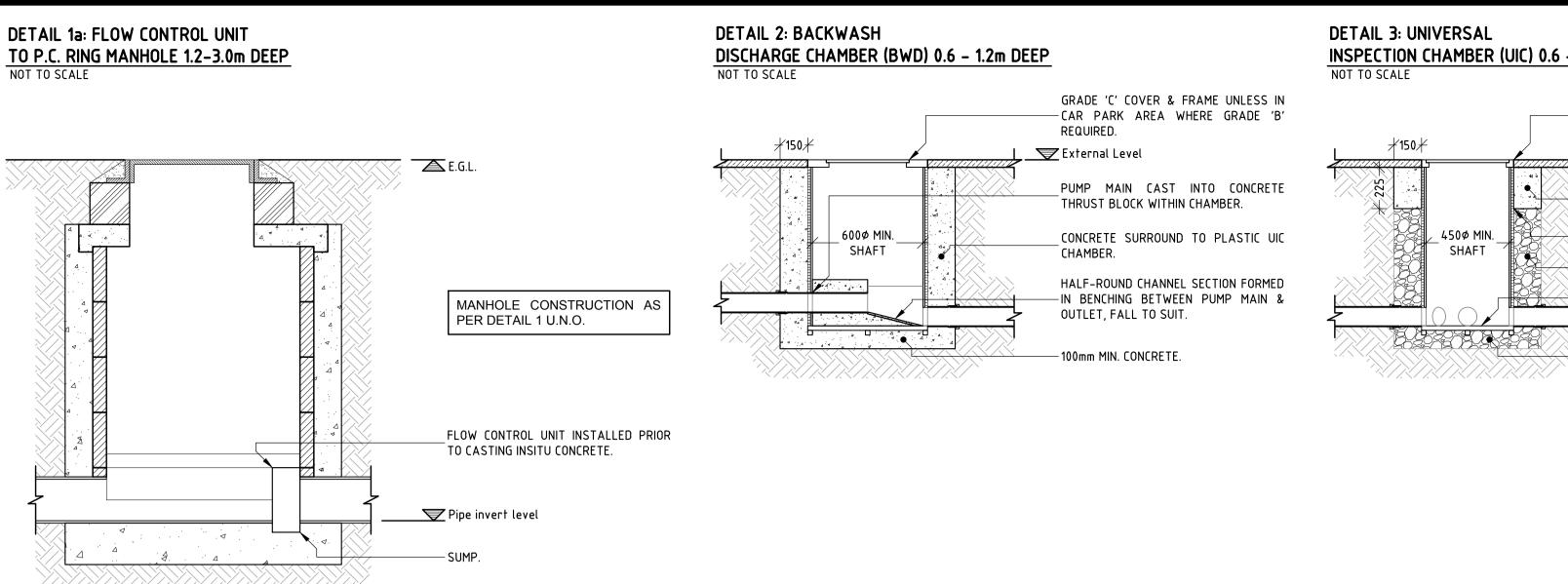
150mm THICK HEAVY DUTY R.C. COVER -SLAB TO BS 5911 BEDDED WITH CLASS M1 OR M2 MORTAR ON MASTIC SEALANT.

-P.C. CHAMBER SECTIONS TO BS 5911. STEP IRONS TO BS 1247 AT 250mm C/C OR LADDER MAX. 675mm FROM COVER LEVEL TO FIRST STEP IRON OR LADDER RUNG.

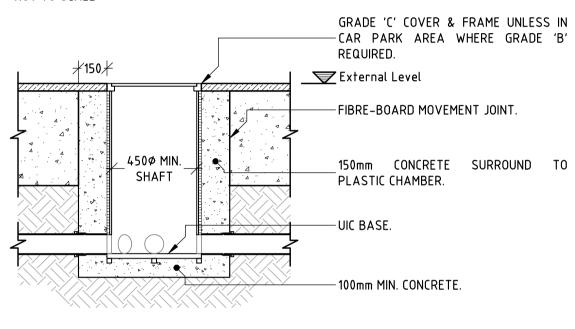
- 150mm THICK C20P CONCRETE SURROUND.

BENCHING SLOPE TO BE NOT FLATTER THAN 1:30. GRANO. C20P CONCRETE BENCHING TO BE BROUGHT UP TO A DENSE SMOOTH FACE, NEATLY SHAPED AND FINISHED TO ALL BRACH CONNECTION – 20mm THICK

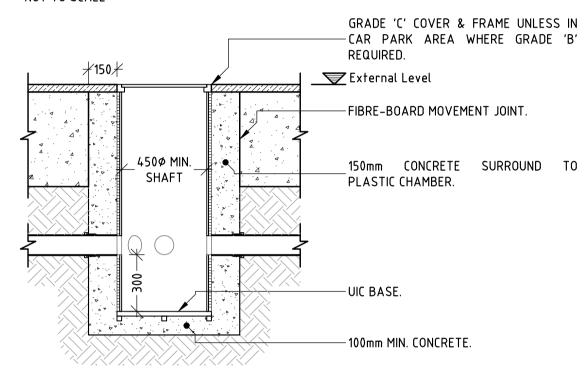
- C20P CONCRETE



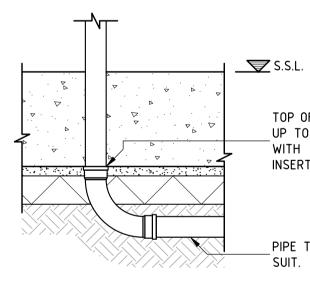
DETAIL 3a: CAST THROUGH SLAB UNIVERSAL INSPECTION CHAMBER (UIC) 0.6 – 1.2m DEEP NOT TO SCALE



DETAIL 4: CATCH-PIT UNIVERSAL **INSPECTION CHAMBER (UIC) 0.6 – 1.2m DEEP** NOT TO SCALE



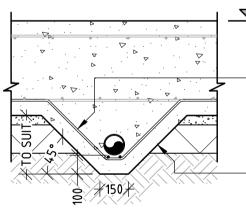
TYPICAL STUB STACK NOT TO SCALE



TOP OF LONG RADIUS BEND POSITIONED UP TO UNDERSIDE OF PROPOSED SLAB WITH TEMPORARY STUB STACK INSERTED DURING CASTING.

PIPE TO MAIN RUN LAID AT FALLS TO SUIT.

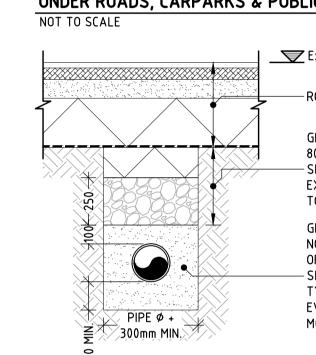
TYPICAL STUB STACK NOT TO SCALE



_____ S.S.L.

PROVIDE ADDITIONAL BARS BENT TO SUIT TRENCH & LACER BARS.

TRENCH FOR PIPE RUN WITH COVER AS SHOWN TO ALLOW FOR ADDITIONAL REINFORCEMENT.



BEDDING CONSTRUCTION FOR DRAINAGE UNDER ROADS, CARPARKS & PUBLIC FOOTWAYS

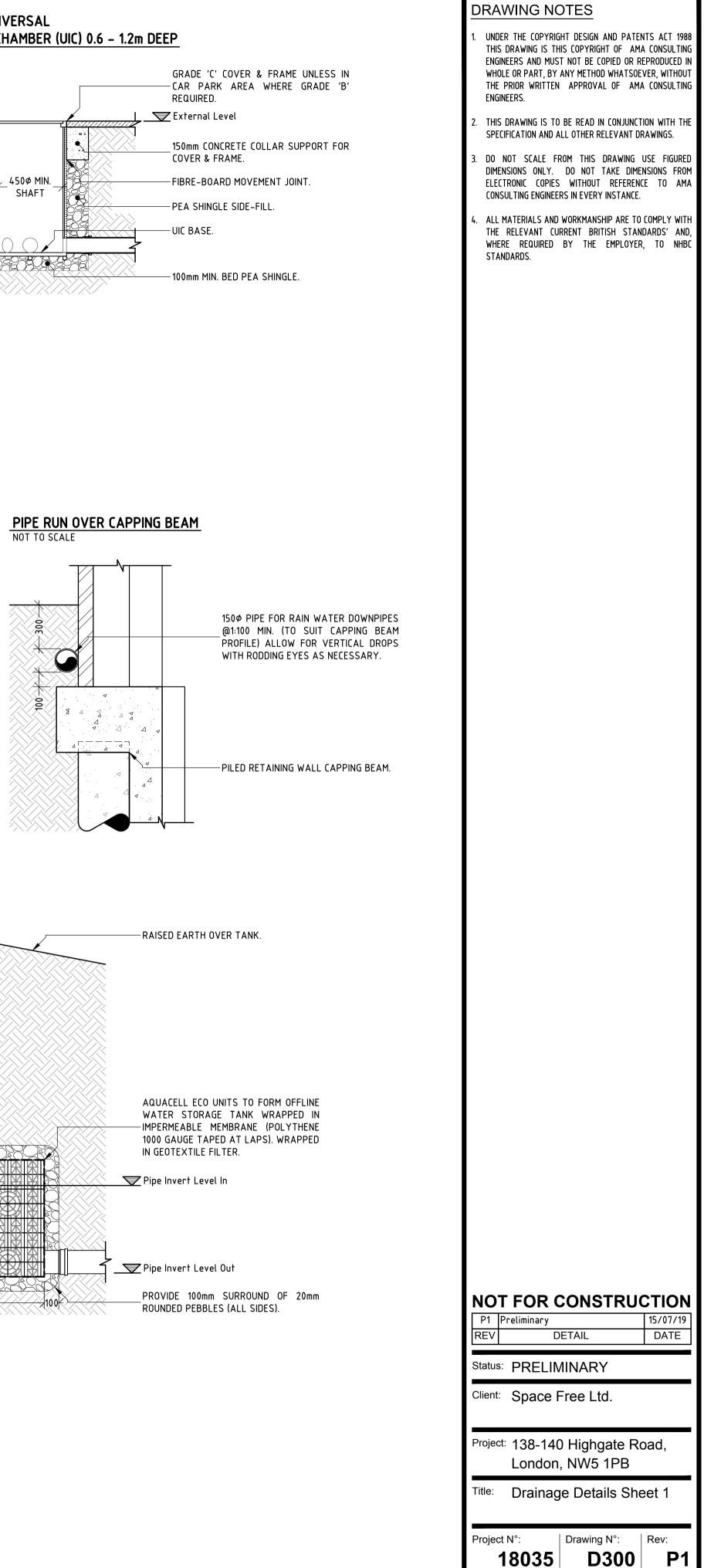
____ External Level -ROAD/PATH CONSTRUCTION.

> GRANULAR MATERIAL TYPE 1 TO CLAUSE 803 OF DEPARTMENT OF TRANSPORT - SPECIFICATION COMPACTED IN LAYERS NOT EXCEEDING 150mm LOWER 250mm BACKFILL TO BE COMPACTED TO SPECIFICATION.

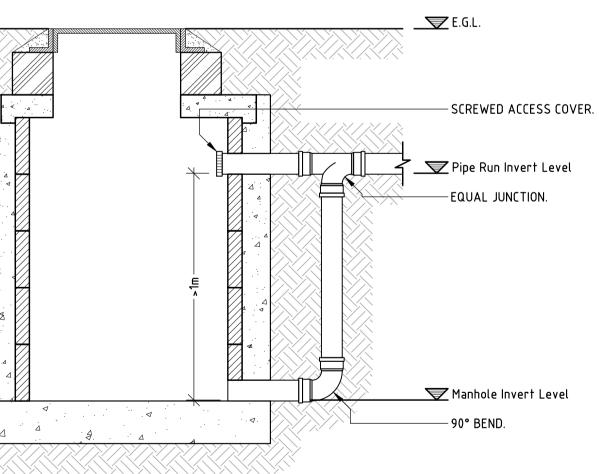
GRANULAR MATERIAL SEE SPECIFICATION. NOTE: WHERE GROUND COVER TO CROWN OF PIPE IS LESS THAN 900mm THE PIPE - SHALL BE ENCASED IN 150mm OF CONCRETE TYPE GEN 1 WITH MOVEMENT JOINTS AT EVERY PIPE JOINT POSITION (SEE MOVEMENT JOINT DETAIL).

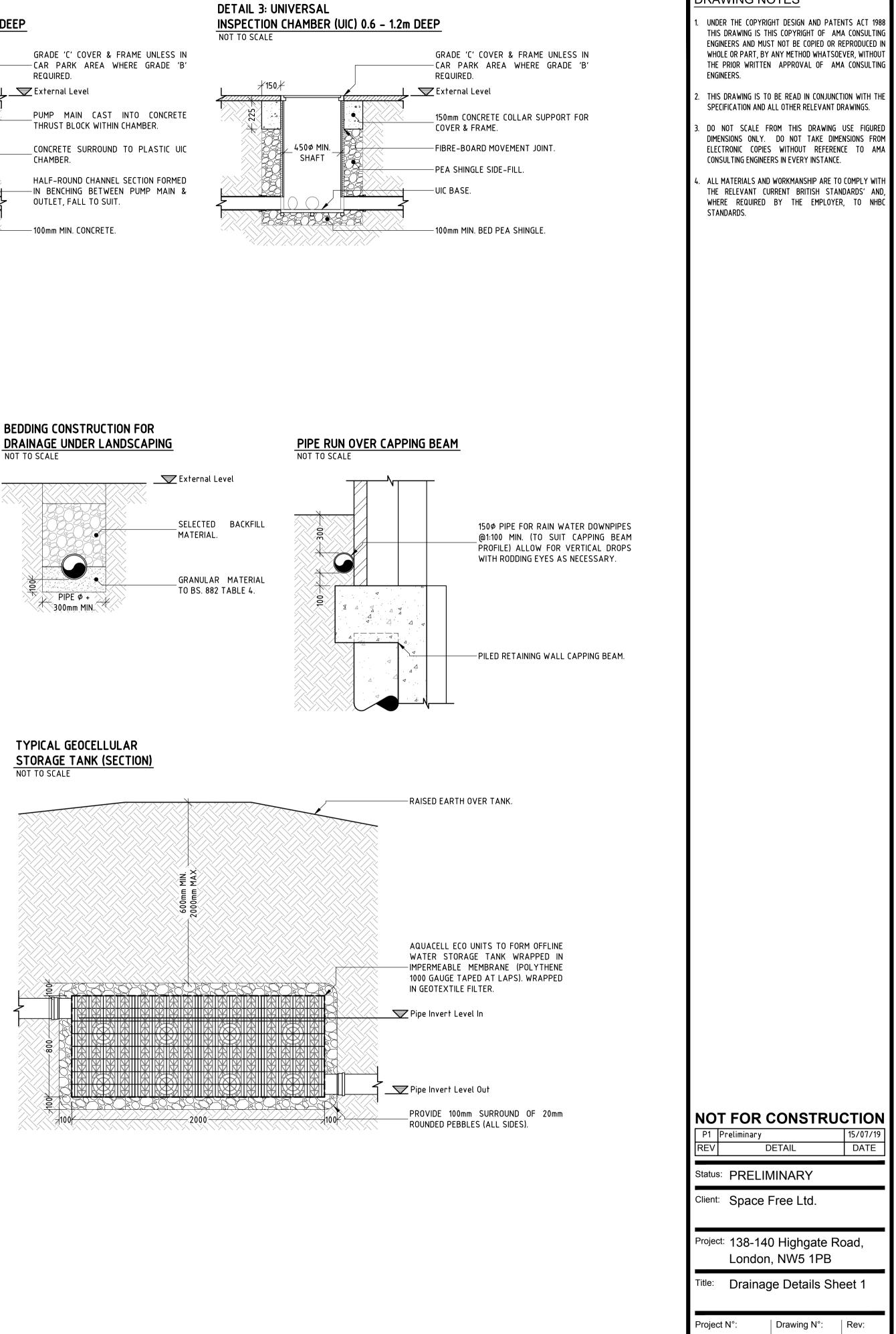
DRAINAGE UNDER LANDSCAPING NOT TO SCALE 🛛 🕎 External Level SELECTED BACKFILL MATERIAL. GRANULAR MATERIAL TO BS. 882 TABLE 4. PIPE Ø + 300mm MIN. 💎

NOT TO SCALE



TYPICAL VERTICAL BACKDROP **CONNECTION FOR DROPS GREATER THAN 1m**





Project N°: 18
Date:
Scale @A

Drawn:

Engineer:

Consulting

Engineers

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NK