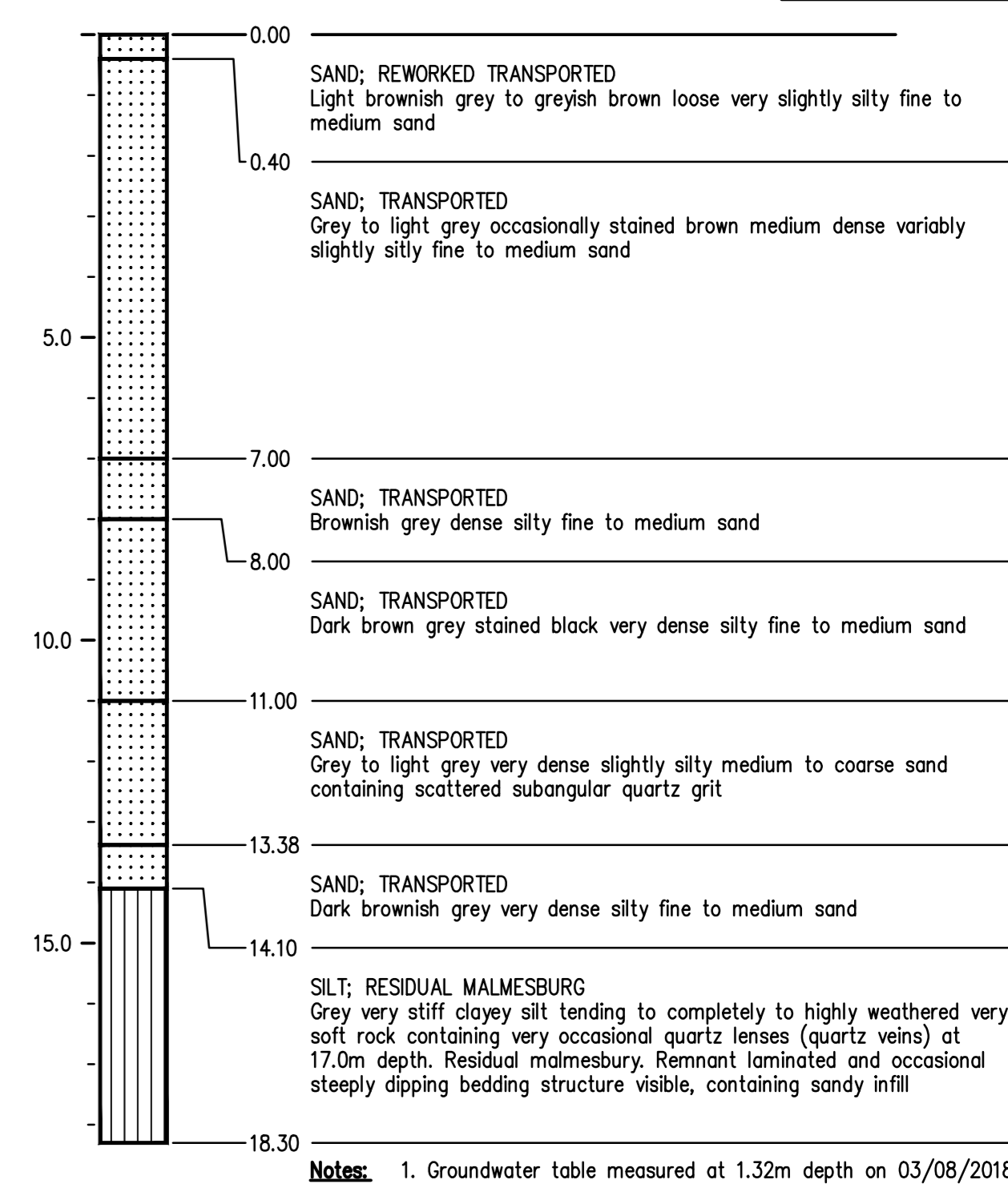
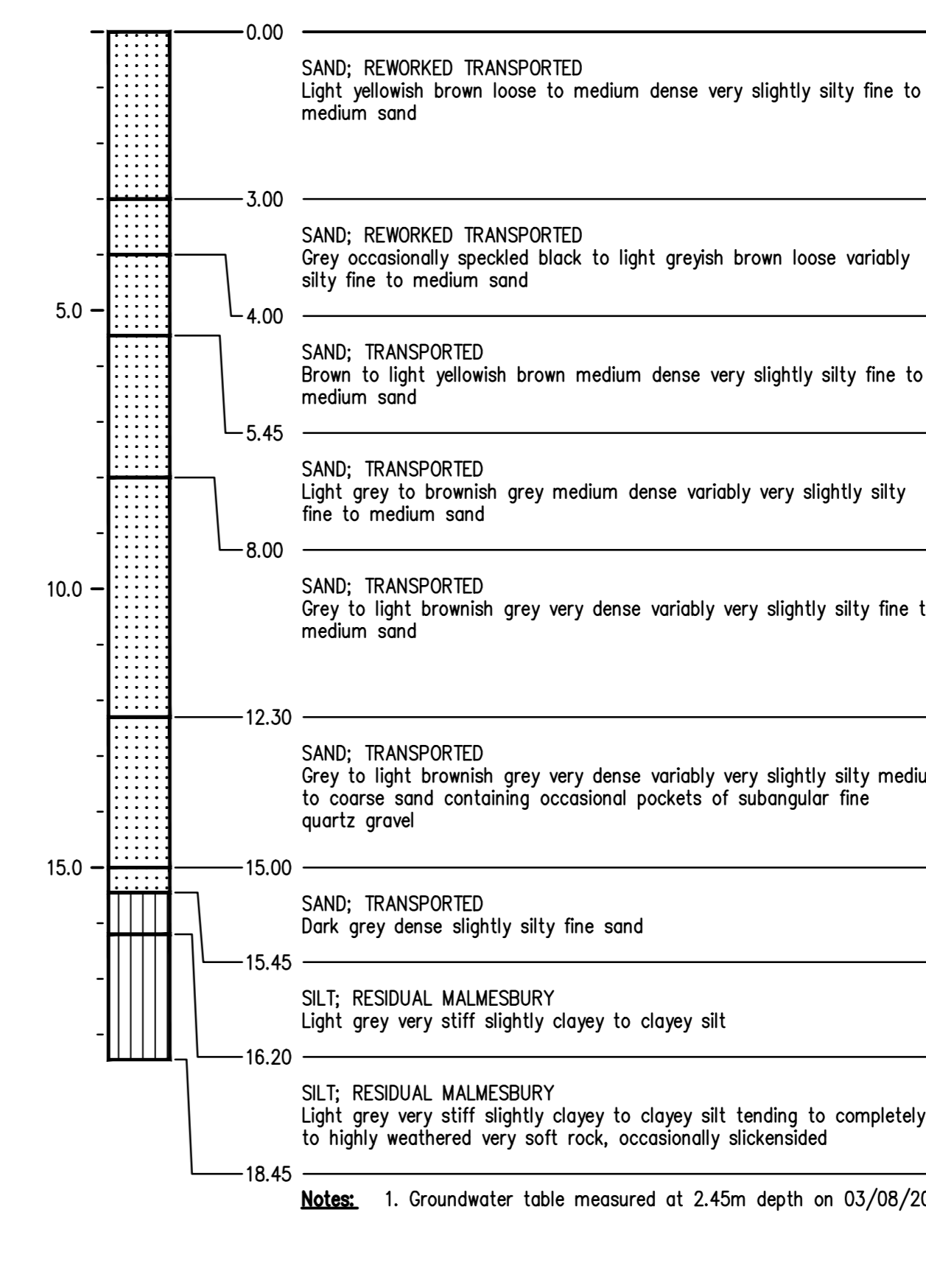
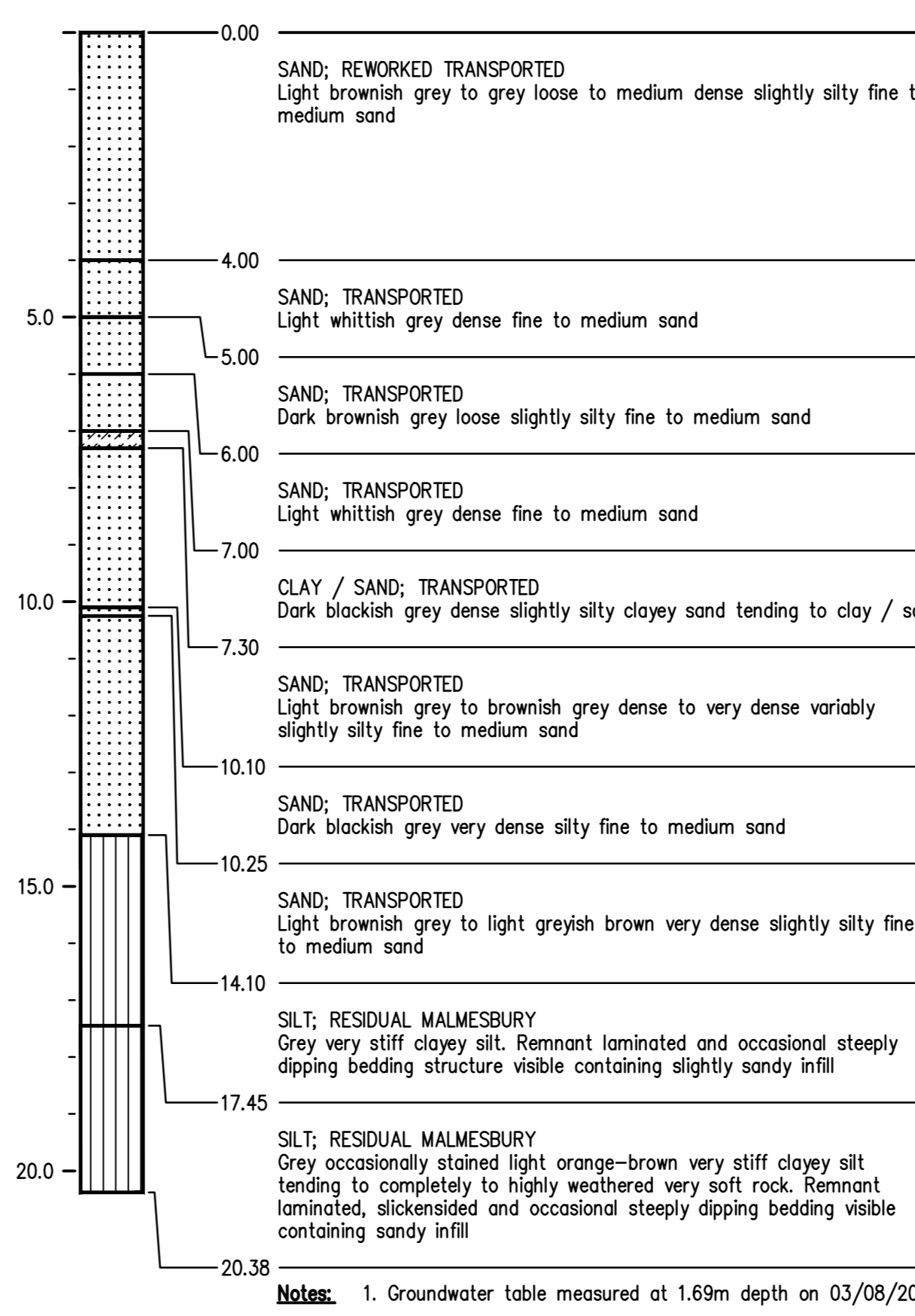
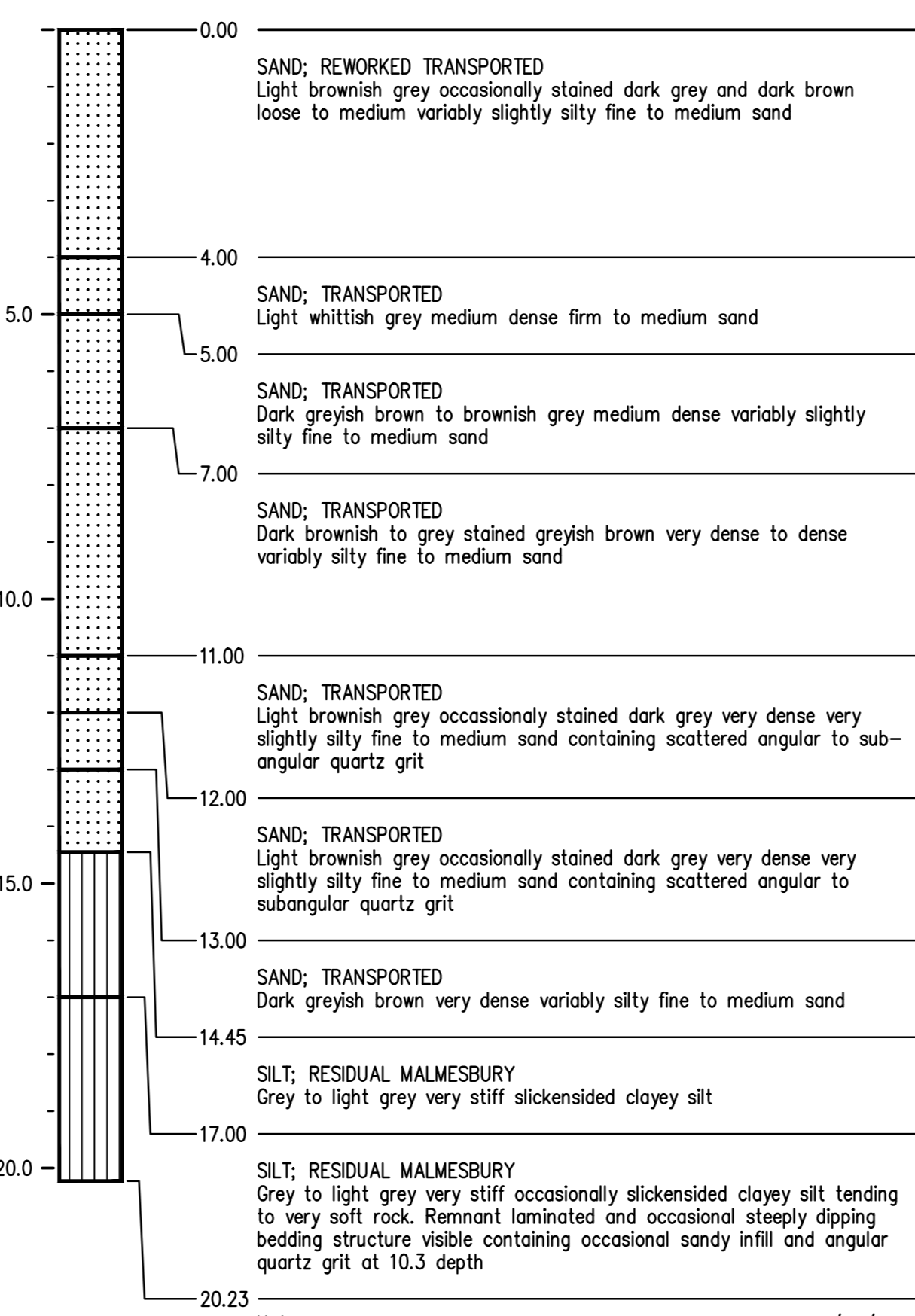
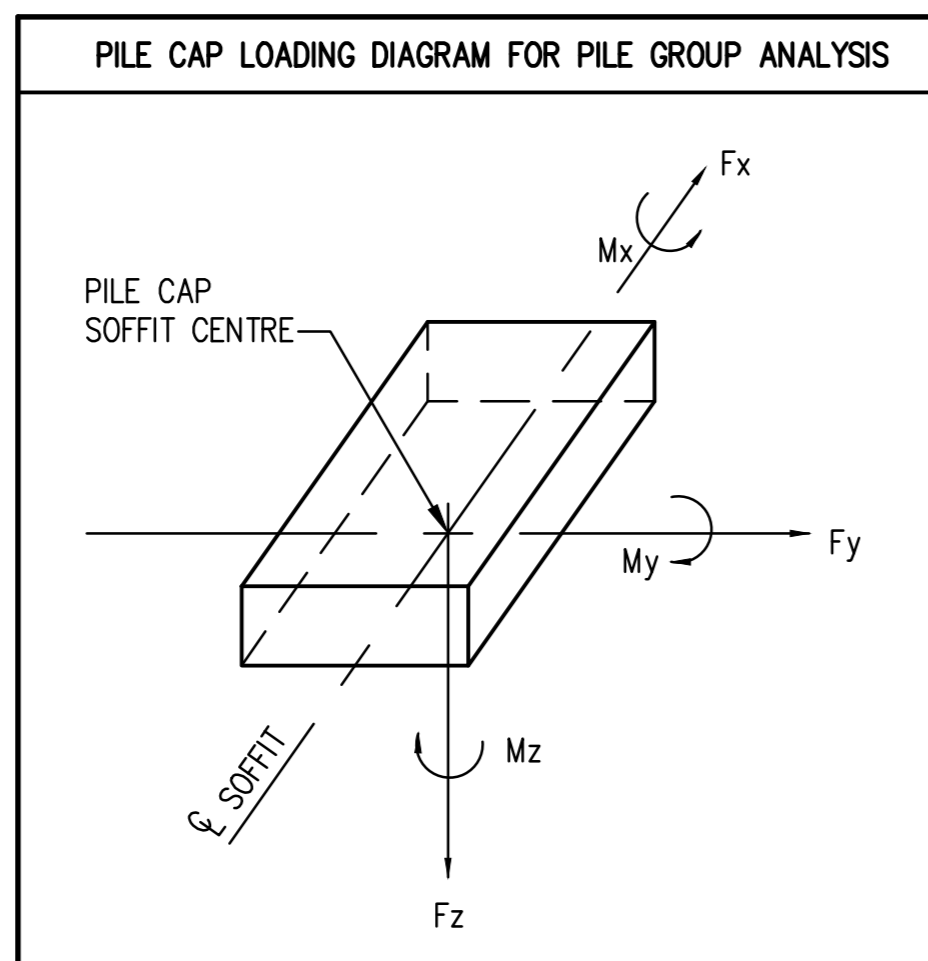


PILE LOADS AT SOFFIT OF PILE CAP - ABUTMENTS (SERVICEABILITY)												
ACTION	Px kN	Py kN	Pz kN	Mx kNm	My kNm	Mz kNm	CRITICAL PILE FORCES			CRITICAL PILE FORCES		
							MAXIMUM LOADS	MINIMUM LOADS	MAXIMUM LOADS	MINIMUM LOADS	MAXIMUM LOADS	MINIMUM LOADS
DEAD LOADS ONLY							P	M	V	P	M	V
LOAD CASE GIVING CRITICAL PILE LOADS												

PILE LOADS AT SOFFIT OF PILE CAP - PIERS - (SERVICEABILITY)												
ACTION	Px kN	Py kN	Pz kN	Mx kNm	My kNm	Mz kNm	CRITICAL PILE FORCES			CRITICAL PILE FORCES		
							MAXIMUM LOADS	MINIMUM LOADS	MAXIMUM LOADS	MINIMUM LOADS	MAXIMUM LOADS	MINIMUM LOADS
DEAD LOADS ONLY							P	M	V	P	M	V
LOAD CASE GIVING CRITICAL PILE LOADS												



- PILE DESIGN NOTES:**
- THE DESIGN IS BASED ON THE USE OF 600mm Ø DRIVEN DISPLACEMENT PILES.
 - THE PILE DESIGN IS BASED ON END BEARING PLUS SIDE FRICTION.
 - THE REQUIRED PILE AXIAL LOAD CAPACITY (SERVICEABILITY) IS 2000 kN.
 - PILES ARE DESIGNED AS PINNED AT THE BOTTOM AND FIXED AT THE TOP.
 - 'AS BUILT' PILE CONCRETE LENGTHS MUST BE MEASURED TO THE CUT-OFF LEVELS.
 - CONCRETE CUBE STRENGTH AFTER 28 DAYS = 30 MPa, CONCRETE CLASS 30/19 (MPa/mm).

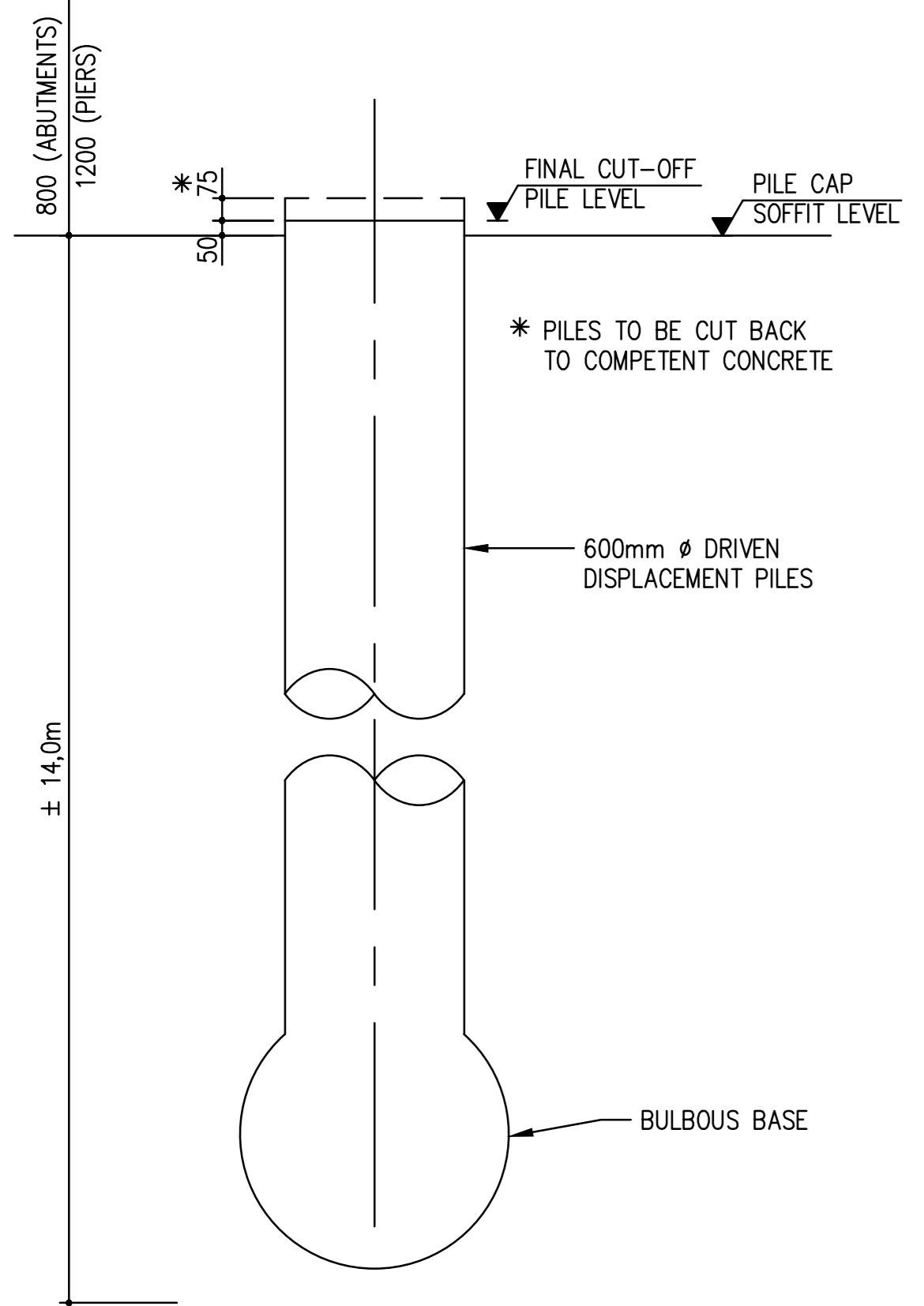


TABLE "A" - DESIGN LENGTHS OF PILES, CUT OFF LEVELS AND AS-BUILT LENGTHS

PILE No.	DESIGN CUT-OFF LEVEL	DESIGNED LENGTH (m)	'AS BUILT' LENGTH (m)*	PILE No.	DESIGN CUT-OFF LEVEL	DESIGNED LENGTH (m)	'AS BUILT' LENGTH (m)*
1				16			
2				17			
3				18			
4				19			
5				20			
6				21			
7				22			
8				23			
9				24			
10				25			
11				26			
12				27			
13				28			
14				29			
15				30			

* 'AS BUILT' LENGTH TO BE TAKEN AS THE DISTANCE FROM THE BOTTOM OF THE PILE TO THE 'CUT-OFF' LEVEL. (SEE ELEVATION OF PILE REINFORCEMENT)

BOREHOLE 1
SCALE 1:100

BOREHOLE 2
SCALE 1:100

BOREHOLE 3
SCALE 1:100

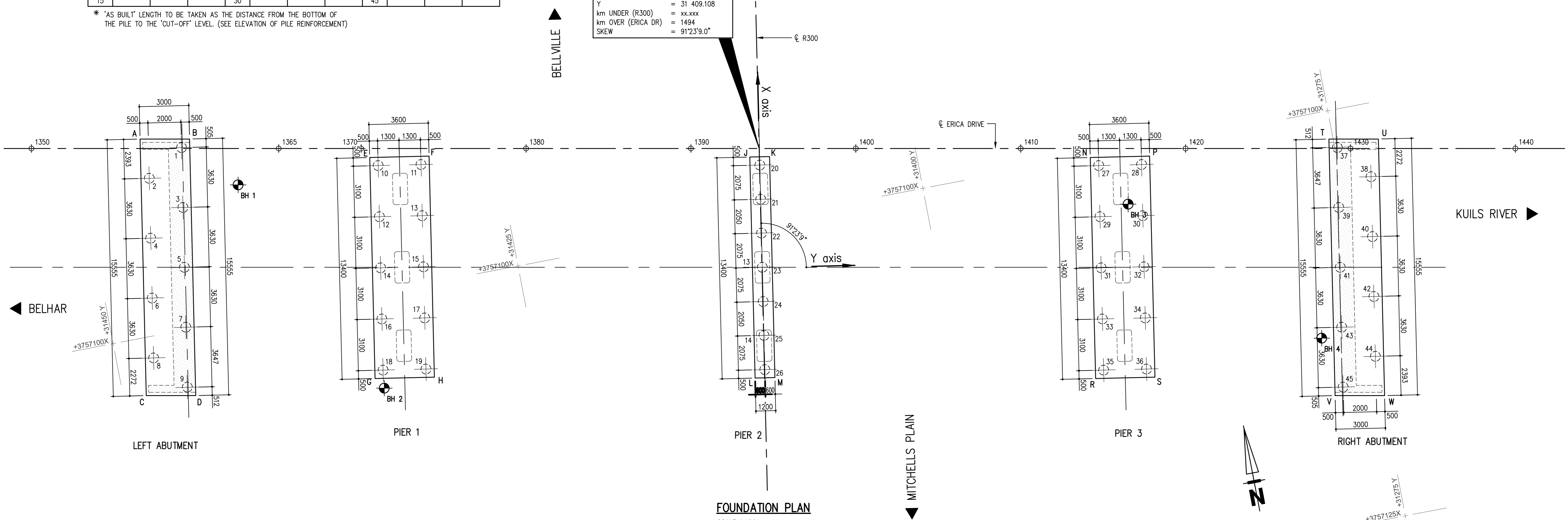
BOREHOLE 4
SCALE 1:100

TEST & BOREHOLE CO-ORDINATES

HOLE No	Y	X	LEVEL (MASL)
BH1	31 440.746	3 757 091.977	53.037
BH2	31 434.100	3 757 104.390	53.201
BH3	31 387.954	3 757 103.285	53.352
BH4	31 377.953	3 757 113.474	52.573

PILE CAP CO-ORDINATES (WGS84)

POINT	Y	X
LEFT ABUTMENT		
A		
B		
C		
D		
PIER 1		
E		
F		
G		
H		
PIER 2		
J		
K		
L		
M		
PIER 3		
N		
P		
R		
S		
RIGHT ABUTMENT		
T		
U		
V		
W		



PILE CAP SOFFIT LEVELS

LEFT ABUTMENT	PIER 1	PIER 2	PIER 3	RIGHT ABUTMENT

CONSTRUCTION RECORD (AS-BUILT) WORKS CONTRACT ENGINEER Name: ... Prof. Reg. No.: ... Date: ... SANRAL PROJECT MANAGER Name: ... Prof. Reg. No.: ... Date: ...	CONSULTANT: its INNOVATIVE TRANSPORT SOLUTIONS 29 De Hayland Crescent Pin Point, Building 1 Persimmon Technopark Pretoria 0020 Tel: (012) 349 1664 g@itsgroup.co.za www.itsgroup.co.za	BRIDGE ENGINEER ARQ (PTY) LTD PO Box 76379 LYNWOOD RIDGE 0040 RSA TEL: 012 348 6668 FAX: 012 348 6669	DESIGNED BY NAME: RG MILLER Prof. Reg. No.: 840176 CHECKED BY NAME: ... Prof. Reg. No.: ... DRAWN BY NAME: G. COOMBE	CONSULTANT APPROVAL Name: RG MILLER Prof. Reg. No.: 840176 Date: 18/09/2018 BRIDGE ENGINEER Name: RG MILLER Prof. Reg. No.: 840176 Date: 18/09/2018	HEAD OFFICE SANRAL 48 Tambotie Avenue Val de Grace Pretoria 0184 PO Box 415 Pretoria 0001 South Africa Tel: (012) 844 8000	WESTERN REGION 1 Havenga Street Oakdale Bellville 7530 Private Bag X19 Bellville 7535 Tel: (021) 957 4600	ACCEPTANCE THIS ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWSOEVER ARISING for the SA NATIONAL ROADS AGENCY SOC. LTD. Date:	PROJECT DESCRIPTION 3785.4 CITY OF CAPE TOWN EASTERN REGION ERICA DRIVE ACROSS THE R300 BETWEEN BELHARD DR AND HIGHBURY RD DRAWING DESCRIPTION M71 ERICA DRIVE - PHASE 1 FOUNDATION PLAN AND SUBSURFACE DATA SCALE: AS SHOWN	PROJECT NUMBER DRAWING LOCATION DATA ROUTE SECTION DRAWING km DISTANCE DRAWING TYPE BRIDGE/STRUCTURE No. CONSULTANT DRAWING No. SANRAL DOC #	START R300 xx 19.8 Bxxxx-005 Bxxxx-005	END R300 xxx 04.000 STRUCTURES-BRIDGES Bxxxx-005 Bxxxx-005	VER V1