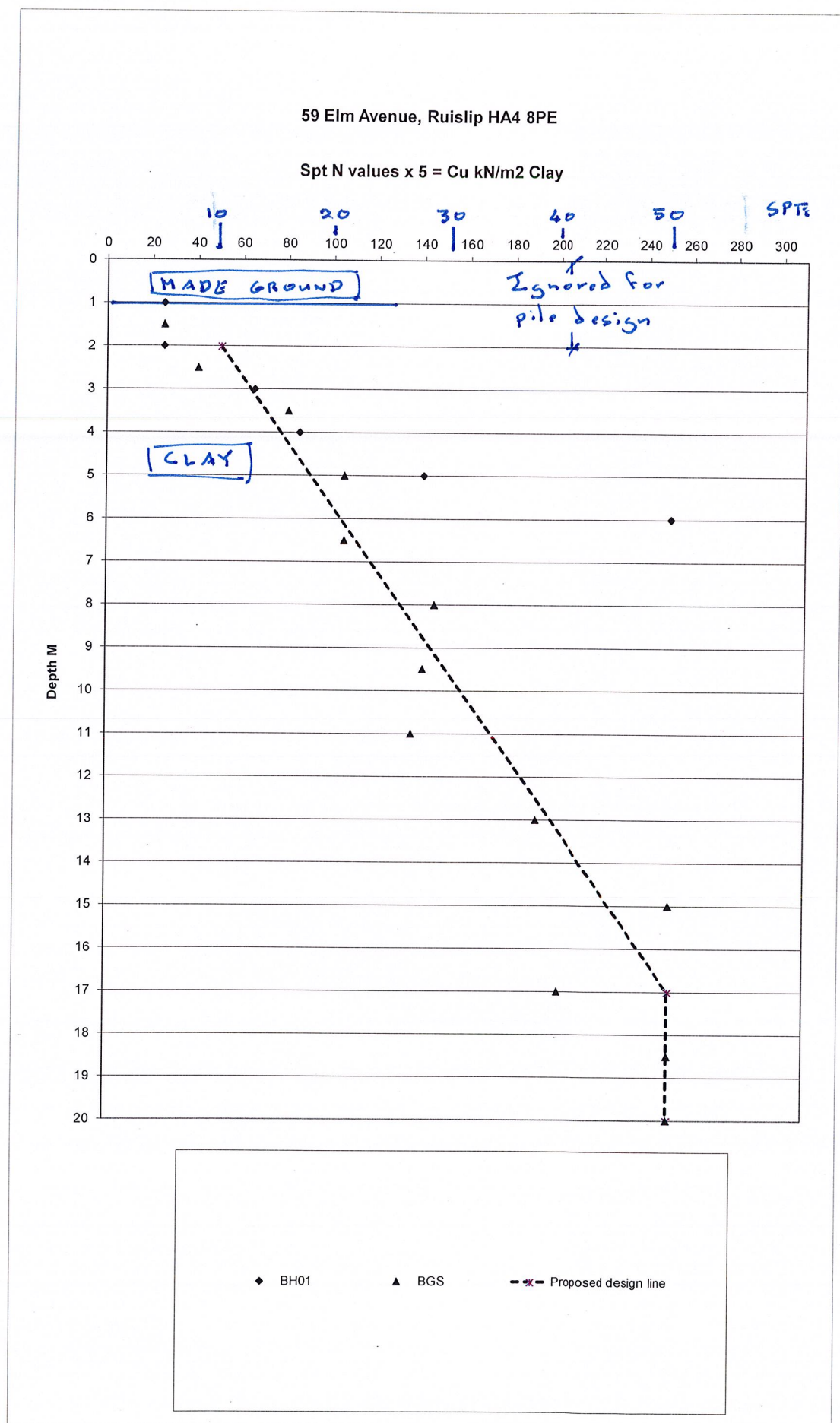


Fig1 - Design Line



Drawn	Checked	Passed	Date
TP			01/08/22

Pile Loads

From a visual assessment of Fernhurst Design drawing no. 2022-021-SE01/P1 and our drawing no. 9715/01 showing the piling layout the most heavily loaded pile is P2.

Load on Pile P2

From wall (see Fernhurst drawing 2022-021-SE01/P1)
 $3m \times (80 + 22 \times 1.3) = 325.8 kN$

Floor load $3 \times 2.5 \times 15 kN/m^2 = 112.5 kN$

Load from partition $2.5 \times 2.1 kN/m = 5.25 kN$
443.55 kN

say 500 kN/pile max load

From Fig 3 - Design Sheet 350mm ϕ piles to 15m

Depth Range (m)	Soil Description	Sand Input		Parameters		Clay Input Parameters				Parameter r	Unit skin				C.F.A. Piles				size in m				C.F.A. Piles				size in m			
		N value φ	K	Ks tan δ	D/B Ratio (for Ng)	Cu Mean kN/m ²	Cu Base kN/m ²	Δ Cu Gradient kN/m ² /m	Alpha α		Beta β	Surrogate Weight Y	Ave Effective strain pressure kN/m ²	Base Effective strain pressure kN/m ²	Unit Base kNm ²	Shaft kN	Uit. kN	Uit. N.S.F. kN	Comp DA1 C2 Capacity kN	Tension DA1 C2 Capacity kN	Shaft kN	Uit. kN	Uit. N.S.F. kN	Comp DA1 C2 Capacity kN	Tension DA1 C2 Capacity kN					
Start	End																													
0.00	0.50									18	4.5	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
0.50	1.00									18	13.5	18.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1.00	1.50									18	22.5	27.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1.50	2.00									18	31.5	36.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
2.00	2.50									20	41.0	45.0	27	15	48	0	504	0	24	5	0	0	0	0	0	0				
2.50	3.00									20	51.0	55.0	30	31	54	0	594	0	33	11	0	0	0	0	0	0				
3.00	3.50									20	61.0	65.0	32	59	59	0	672	0	47	21	0	0	0	0	0	0				
3.50	4.00									20	71.0	75.0	35	69	66	0	694	0	47	21	0	0	0	0	0	0				
4.00	4.50									20	81.0	85.0	36	79	74	0	720	0	69	43	0	0	0	0	0	0				
4.50	5.00									20	91.0	95.0	36	89	81	0	744	0	95	55	0	0	0	0	0	0				
5.00	5.50									20	98.5	103.0	36	99	87	0	774	0	113	68	0	0	0	0	0	0				
5.50	6.00									10	103.5	108.0	68	227	190	0	837	0	132	81	0	0	0	0	0	0				
6.00	6.50									10	108.5	113.0	52	235	195	0	854	0	147	91	0	0	0	0	0	0				
6.50	7.00									10	113.5	118.0	55	245	205	0	864	0	162	102	0	0	0	0	0	0				
7.00	7.50									10	118.5	123.0	59	1092	317	0	1092	0	178	113	0	0	0	0	0	0				
7.50	8.00									10	123.5	128.0	61	1125	380	0	1125	0	195	125	0	0	0	0	0	0				
8.00	8.50									10	128.5	133.0	65	1188	386	0	1188	0	213	138	0	0	0	0	0	0				
8.50	9.00									10	133.5	138.0	68	1242	423	0	1242	0	231	151	0	0	0	0	0	0				
9.00	9.50									10	138.5	143.0	71	1296	462	0	1296	0	251	165	0	0	0	0	0	0				
9.50	10.00									10	143.5	148.0	74	1350	502	0	1350	0	270	179	0	0	0	0	0	0				
10.00	10.50									10	148.5	153.0	77	1404	542	0	1404	0	291	194	0	0	0	0	0	0				
10.50	11.00									10	153.5	158.0	80	1458	586	0	1458	0	312	210	0	0	0	0	0	0				
11.00	11.50									10	158.5	163.0	83	1512	633	0	1512	0	335	228	0	0	0	0	0	0				
11.50	12.00									10	163.5	168.0	86	1566	680	0	1566	0	357	243	0	0	0	0	0	0				
12.00	12.50									10	168.5	173.0	89	1629	729	0	1629	0	381	260	0	0	0	0	0	0				
12.50	13.00									10	173.5	178.0	93	1692	780	0	1692	0	406	279	0	0	0	0	0	0				
13.00	13.50									10	178.5	183.0	96	1755	833	0	1755	0	432	297	0	0	0	0	0	0				
13.50	14.00									10	183.5	188.0	100	1818	887	0	1818	0	459	317	0	0	0	0	0	0				
14.00	14.50									10	188.5	193.0	104	1880	944	0	1880	0	486	337	0	0	0	0	0	0				
14.50	15.00									10	193.5	198.0	107	1943	1003	0	1943	0	513	358	0	0	0	0	0	0				
15.00	15.50									10	198.5	203.0	110	2006	1064	0	2006	0	540	379	0	0	0	0	0	0				
15.50	16.00									10	203.5	208.0	115	2068	1126	0	2068	0	575	402	0	0	0	0	0	0				
16.00	16.50									10	208.5	213.0	119	2129	1189	0	2129	0	609	426	0	0	0	0	0	0				
16.50	17.00									10	213.5	218.0	123	2190	1250	0	2190	0	639	450	0	0	0	0	0	0				
17.00	17.50									10	218.5	223.0	125	2250	1308	0	2250	0	670	474	0	0	0	0	0	0				
17.50	18.00									10	223.5	228.0	125	2250	1308	0	2250	0	670	474	0	0	0	0	0	0				
18.00	18.50									10	228.5	233.0	125	2250	1308	0	2250	0	670	474	0	0	0	0	0	0				
18.50	19.00									10	233.5	238.0	125	2250	1308	0	2250	0	670	474	0	0	0	0	0	0				
19.00	19.50									10	238.5	243.0	125	2250	1308	0	2250	0	670	474	0	0	0	0	0	0				
19.50	20.00									10	243.5	248.0	125	2250	1308	0	2250	0	670	474	0	0	0	0	0	0				

Fig 4 - Pile Schedule

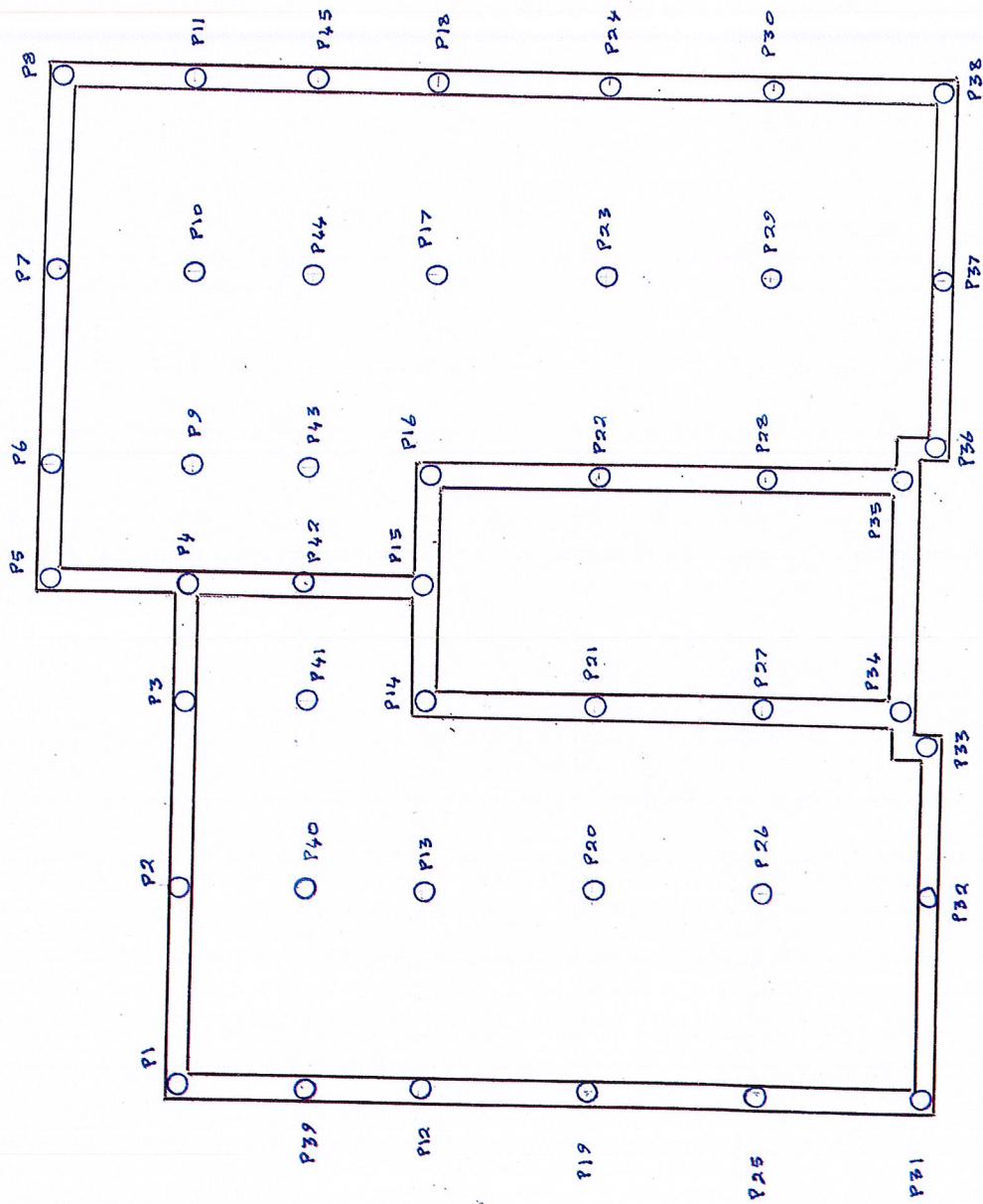


C9715 - 59 Elm Avenue, Ruislip HA4 9PE

Pile Schedule - 350mm Dia. Piles

Pile Ref.	Shaft Diameter (mm)	Number of Piles	Piling Platform Level (m bgl)	Lowest Pile Cut-Off Level (m)	TENSION KN		Pile Type	Compression Toe Level (m bgl)	Bore Length from Cut-off Level m	Concreted Length (m)	Main Reinforcement Cage				Central Tension bar m
					COMPRESSION KN	TENSION KN					No. of Bars	Bar dia. mm	Links	Length (m)	Concrete
Bearing Piles P1 to P45	350	45	TBA	TBC	500	n/a	OB	15.00	n/a	15.00	4	B12	B8 at 200mm	4.0	C28/35
Contig Wall P46 to P74	350	28	TBA	TBC	n/a	n/a	OB	8.00	7.36	8.00	4	B16	B10 at 150mm	8.00	C28/35
Note:- 1. PPL assumed to be a ground level 2. All piles to be installed in one visit from same PPL 3. Bore length from cut-off is simply the pile length less 40D															
TOTAL :	No. of Piles	73													

Fig 5 - Piling Layout



PILING LAYOUT

59 ELM AVENUE

BRISLIP HA4 8PE

Drawing No. 9715/61 Date: 01/06/02