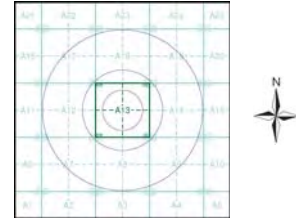


Industrial Land Use ap

- General**
- Identified site
 - Approved subject
 - Approved licence form
 - Other
- Industrial Land Use**
- Emergency, Trade/General only
 - Full Station & Site
 - Site Storage
 - Waste of Hazard - Commercial/General
 - Waste of Hazard - Education and Health
 - Waste of Hazard - Manufacturing and Production
 - Waste of Hazard - Public Infrastructure
 - Waste of Hazard - Recreational and Amusement
 - Waste of Hazard - General

Industrial Land Use ap - Slice A



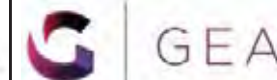
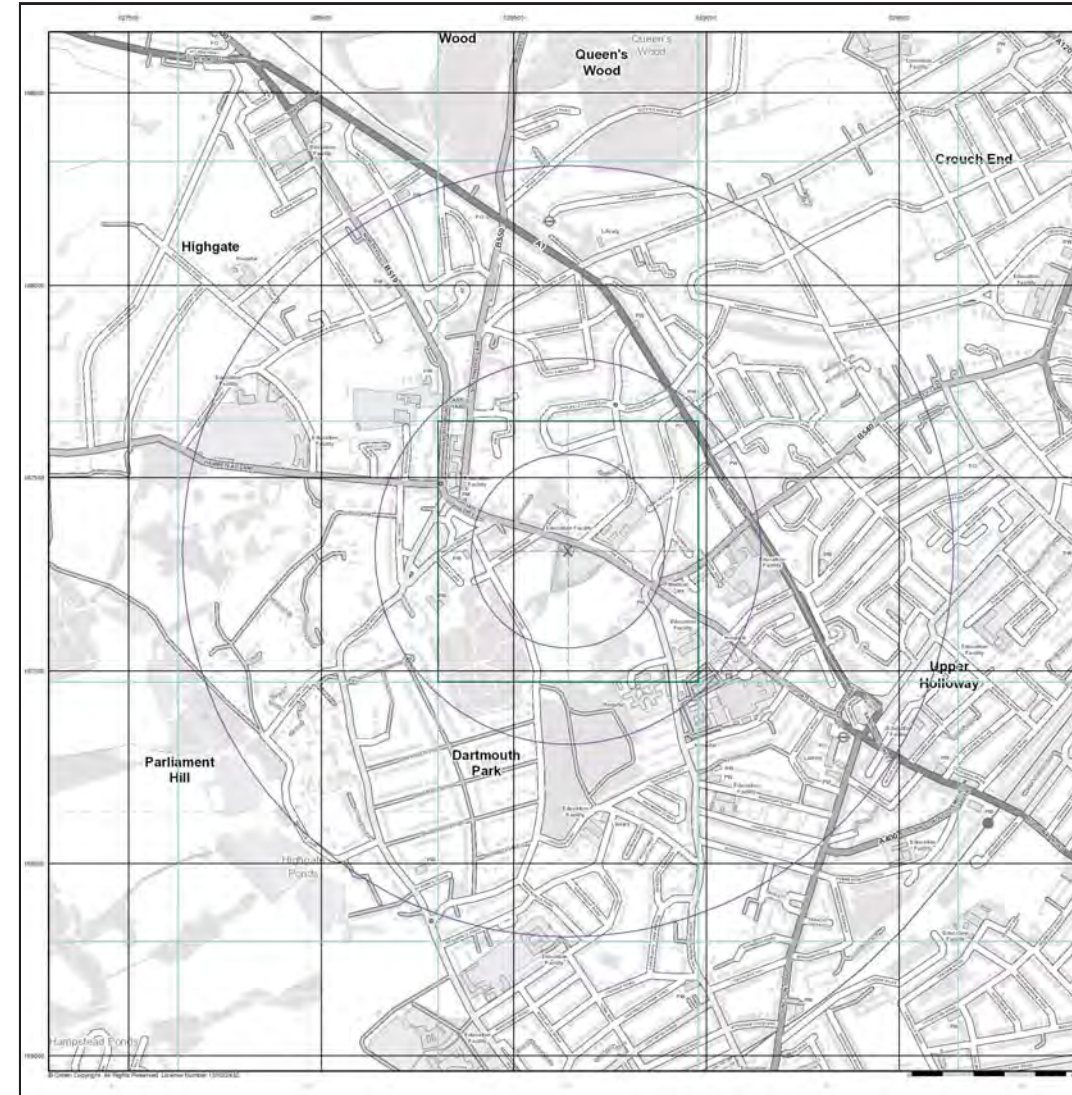
Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF

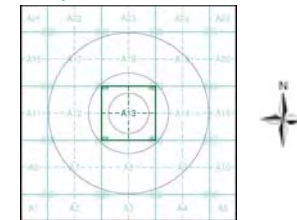
Landmark Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



General

- Identified site
 - Approved subject
 - Approved licence form
 - Other
- Agency and Hydrological (Flood)**
- Extreme Flooding from Rivers of Sites without Defences (Zone 2)
 - Flooding from Rivers or Sea without Defences (Zone 2)
 - Area Resisting from Flood Defences
 - Flood Water Storage Areas
 - Flood Defences

flood ap - Slice A



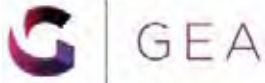
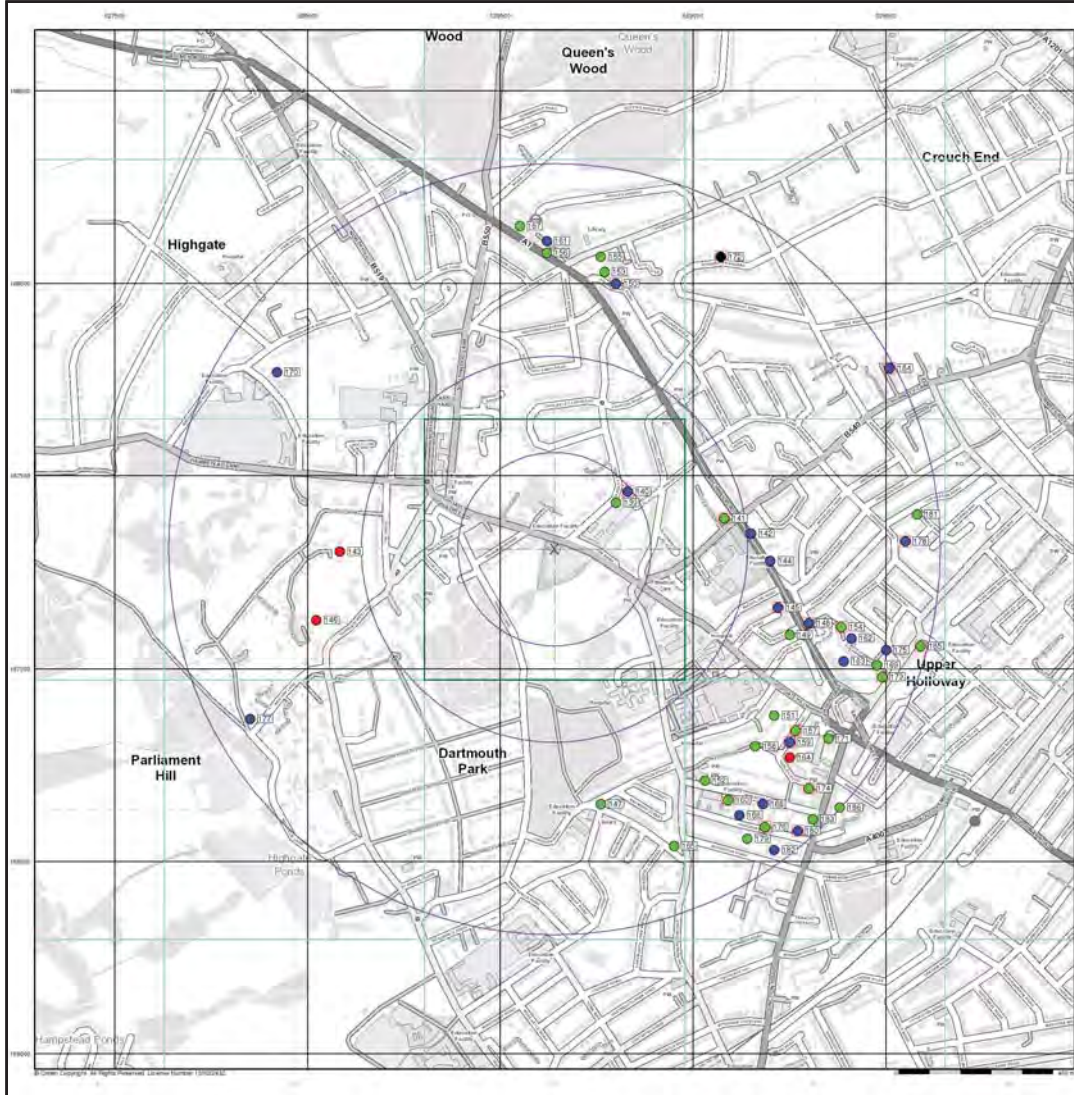
Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF

Landmark Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

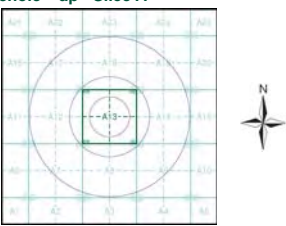


- General**
- Borehole
 - Special Buffer
 - Special Buffer
 - ✕ Borehole Reference Point
 - Borehole Location

- Agency and Hydrological (Boreholes)**
- Borehole Depth 10 - 20m
 - Borehole Depth 20 - 30m
 - Borehole Depth 30 - 40m
 - Borehole Depth 40 - 50m
 - Borehole Depth 50 - 60m
 - Borehole Depth 60 - 70m
 - Borehole Depth 70 - 80m
 - Borehole Depth 80 - 90m
 - Borehole Depth 90 - 100m
 - Borehole Depth 100 - 110m
 - Borehole Depth 110 - 120m
 - Borehole Depth 120 - 130m
 - Borehole Depth 130 - 140m
 - Borehole Depth 140 - 150m
 - Borehole Depth 150 - 160m
 - Borehole Depth 160 - 170m
 - Borehole Depth 170 - 180m
 - Borehole Depth 180 - 190m
 - Borehole Depth 190 - 200m
 - Borehole Depth 200 - 210m
 - Borehole Depth 210 - 220m
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 - Borehole Depth 330 - 340m
 - Borehole Depth 340 - 350m
 - Borehole Depth 350 - 360m
 - Borehole Depth 360 - 370m
 - Borehole Depth 370 - 380m
 - Borehole Depth 380 - 390m
 - Borehole Depth 390 - 400m
 - Borehole Depth 400 - 410m
 - Borehole Depth 410 - 420m
 - Borehole Depth 420 - 430m
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 - Borehole Depth 660 - 670m
 - Borehole Depth 670 - 680m
 - Borehole Depth 680 - 690m
 - Borehole Depth 690 - 700m
 - Borehole Depth 700 - 710m
 - Borehole Depth 710 - 720m
 - Borehole Depth 720 - 730m
 - Borehole Depth 730 - 740m
 - Borehole Depth 740 - 750m
 - Borehole Depth 750 - 760m
 - Borehole Depth 760 - 770m
 - Borehole Depth 770 - 780m
 - Borehole Depth 780 - 790m
 - Borehole Depth 790 - 800m
 - Borehole Depth 800 - 810m
 - Borehole Depth 810 - 820m
 - Borehole Depth 820 - 830m
 - Borehole Depth 830 - 840m
 - Borehole Depth 840 - 850m
 - Borehole Depth 850 - 860m
 - Borehole Depth 860 - 870m
 - Borehole Depth 870 - 880m
 - Borehole Depth 880 - 890m
 - Borehole Depth 890 - 900m
 - Borehole Depth 900 - 910m
 - Borehole Depth 910 - 920m
 - Borehole Depth 920 - 930m
 - Borehole Depth 930 - 940m
 - Borehole Depth 940 - 950m
 - Borehole Depth 950 - 960m
 - Borehole Depth 960 - 970m
 - Borehole Depth 970 - 980m
 - Borehole Depth 980 - 990m
 - Borehole Depth 990 - 1000m

For Borehole information please refer to the Borehole .csv file which accompanied this slice.
 A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

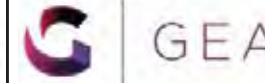
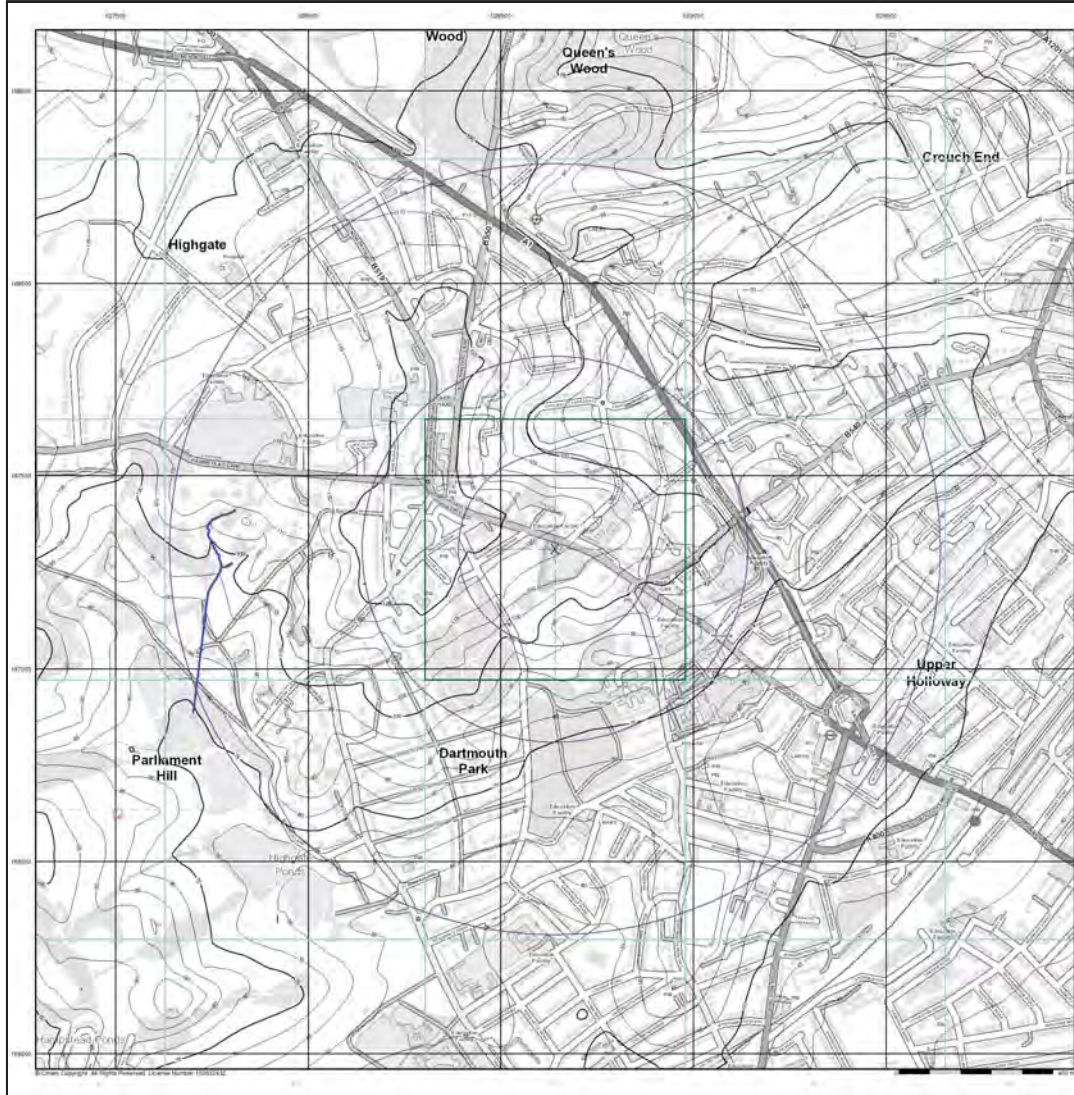
Borehole ap - Slice A



Order Details
 Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details
 Channing School, Highgate Hill, LONDON, N6 5HF

Landmark Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

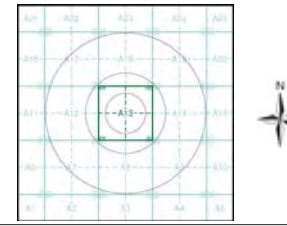


- General**
- Borehole
 - Special Buffer
 - Special Buffer
 - ✕ Borehole Reference Point

- OS Water Network Data**
- Canal
 - Reservoir
 - Footpath
 - Marsh
 - Tidal River
 - Wind River
 - Drain
 - Tidal
 - Leek
 - Trench
 - Lock Or Flight Of Locks
 - Sea

- Contours (Height in meters)**
- Standard Contour
 - Major Contour
 - Spot Height
 - Mean Low Water
 - Mean High Water

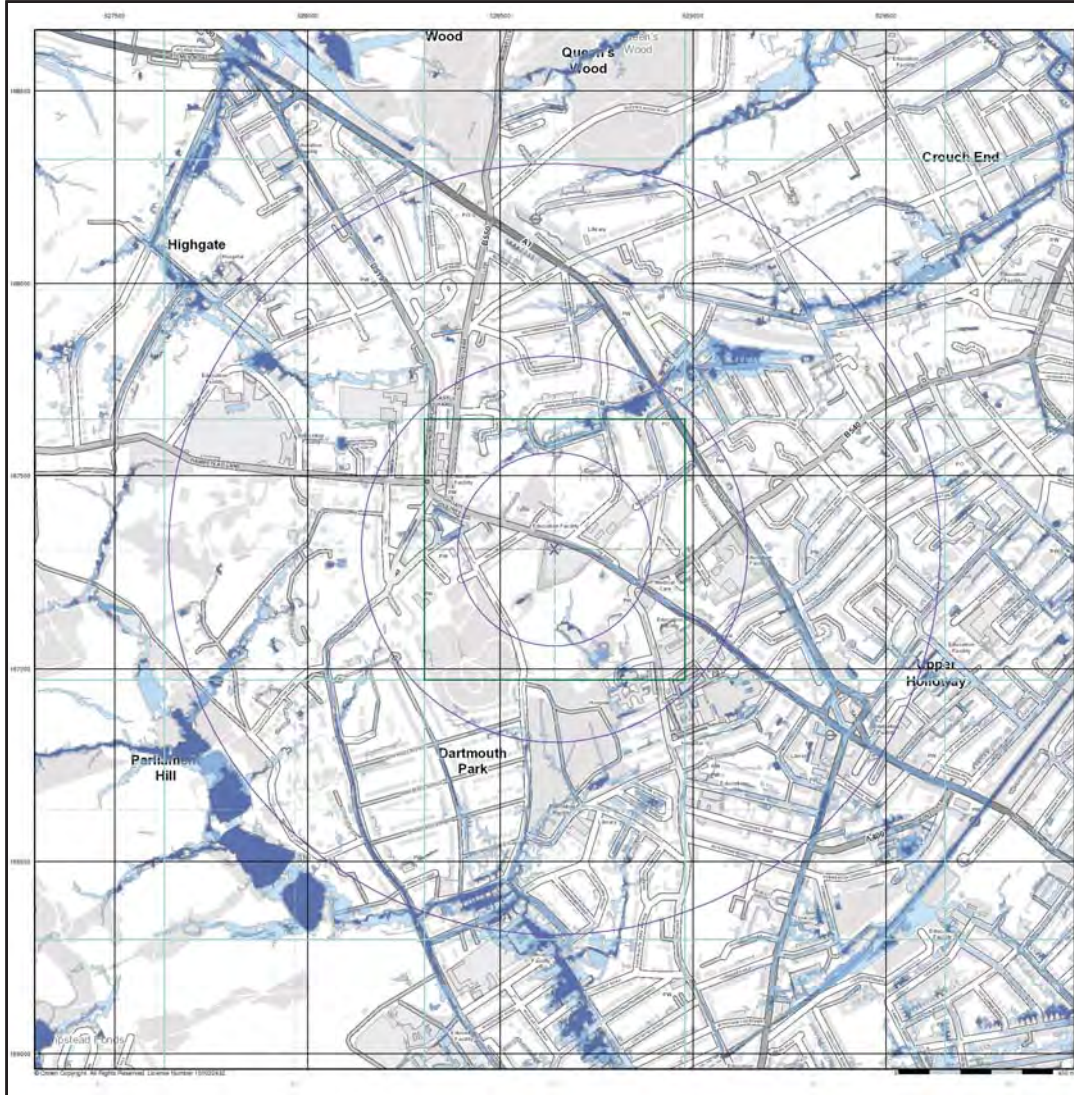
OS Water Net ork ap - Slice A



Order Details
 Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details
 Channing School, Highgate Hill, LONDON, N6 5HF

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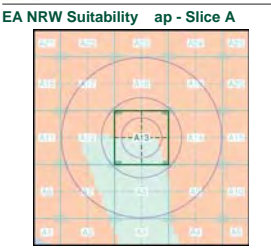


General
 □ Boundary File
 □ Search Buffer
 X Search Buffer Size

Risk of Flooding from Surface Water

■ High - 10 Year Return
 ■ Medium - 100 Year Return
 ■ Low - 1000 Year Return

Suitability
 ■ High
 ■ Medium
 ■ Low

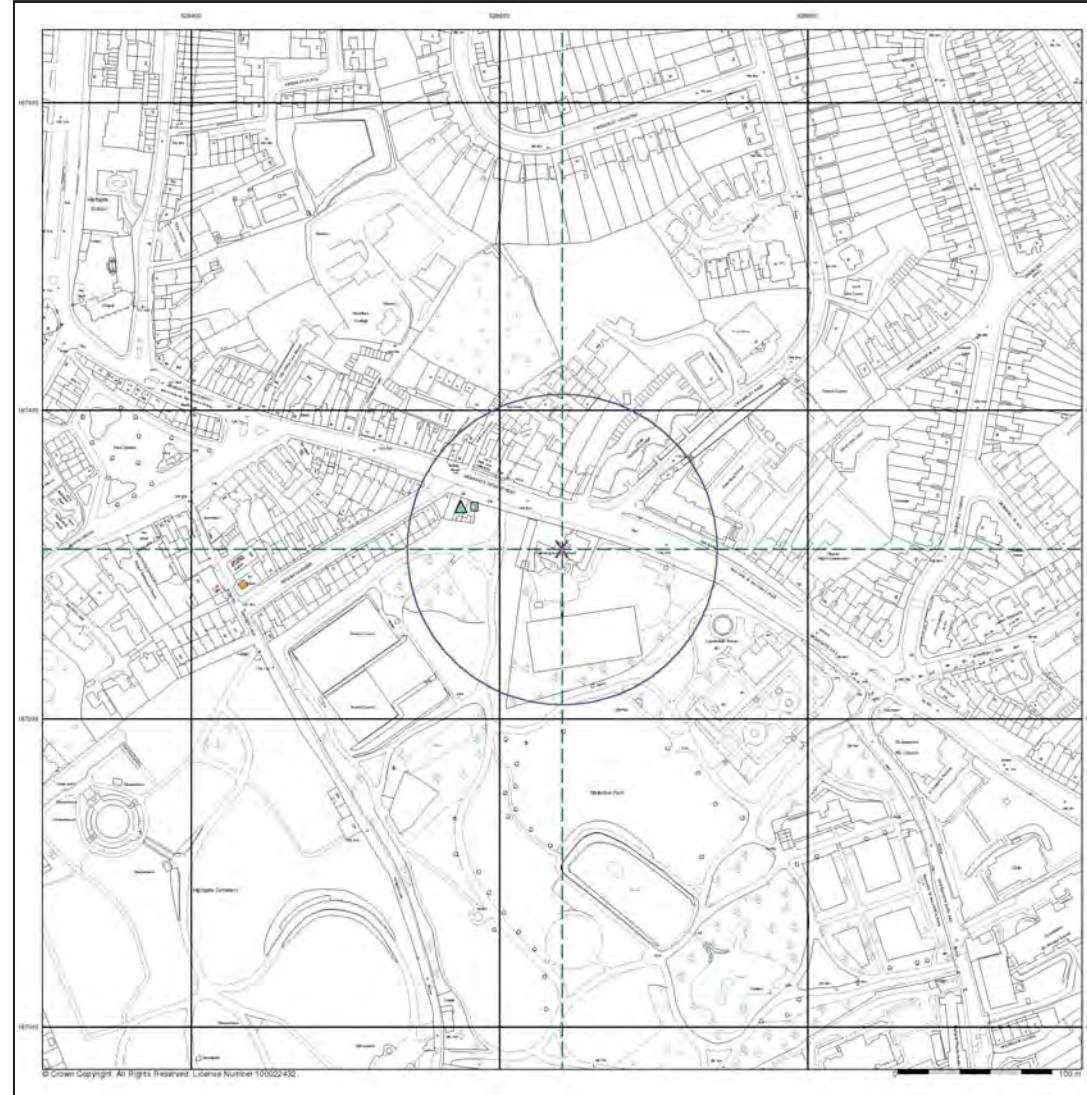


Order Details
 Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details
 Channing School, Highgate Hill, LONDON, N6 5HF

Landmark
 Tel: 0844 844 9952
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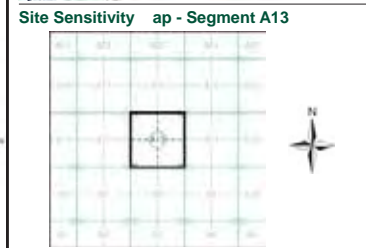
A Landmark Information Group Service v50.0 11-Oct-2017 Page 6 of 6



General
 □ Boundary File
 □ Search Buffer
 X Search Buffer Size

Agency and Hydrological

■ High
 ■ Medium
 ■ Low



Order Details
 Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Plot Buffer (m): 100

Site Details
 Channing School, Highgate Hill, LONDON, N6 5HF

Landmark
 Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

A Landmark Information Group Service v50.0 11-Oct-2017 Page 1 of 1

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2 500

Ordnance Survey Plan Additional S.I.s and Supply of Unpublished Survey Information 1:2 500 and 1:1 250

Large-Scale National Grid Data 1:2 500 and 1:1 250

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Page
London	1:2 500	1873	2
London	1:2 500	1870	3
London	1:2 500	1879	5
London	1:2 500	1915	5
London	1:2 500	1935	7
Historical Aerial Photography	1:1 250	19 08 - 19 09	7
Ordnance Survey Plan	1:1 250	1952 - 1953	9
Additional S.I.s	1:1 250	1952 - 1963	10
Ordnance Survey Plan	1:1 250	19 02 - 1979	11
Ordnance Survey Plan	1:1 250	19 08 - 1973	12
Additional S.I.s	1:1 250	19 08 - 198	13
Ordnance Survey Plan	1:2 500	1970	1
Supply of Unpublished Survey Information	1:1 250	197	15
Supply of Unpublished Survey Information	1:1 250	197	1
Ordnance Survey Plan	1:1 250	1978	17
Additional S.I.s	1:1 250	19 08 - 198	13
Ordnance Survey Plan	1:1 250	1970	1
Supply of Unpublished Survey Information	1:1 250	197	15
Supply of Unpublished Survey Information	1:1 250	197	1
Ordnance Survey Plan	1:1 250	1978	17
Large-Scale National Grid Data	1:1 250	1991	18
Large-Scale National Grid Data	1:1 250	1992	19
Large-Scale National Grid Data	1:1 250	199	20
Large-Scale National Grid Data	1:1 250	199	21
Historical Aerial Photography	1:2 500	1999	22

Historical Map - Segment A13

Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF

Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

A Landmark Information Group Service v50.0 11-Oct-2017 Page 1 of 22

Historical Mapping Legends

Ordnance Survey County Series 1:10 5 0

Ordnance Survey Plan 1:10 000

1:10 000 Raster Mapping

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Page
Essex	1:10 5 0	1873	3
Essex	1:10 5 0	1879	5
Essex	1:10 5 0	1920	7
Essex	1:10 5 0	1920	7
Essex	1:10 5 0	193	8
Essex	1:10 5 0	1938	9
Essex	1:10 5 0	1938	10
Historical Aerial Photography	1:10 5 0	1950	11
Ordnance Survey Plan	1:10 000	1951	12
Ordnance Survey Plan	1:10 000	1958	13
Ordnance Survey Plan	1:10 000	19 08	1
Ordnance Survey Plan	1:10 000	197	15
Ordnance Survey Plan	1:10 000	199	17
10 Raster Mapping	1:10 000	1999	18
10 Raster Mapping	1:10 000	200	19
Vector Map Local	1:10 000	2017	20

Historical Map - Slice A

Order Details

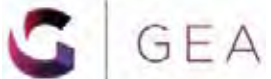
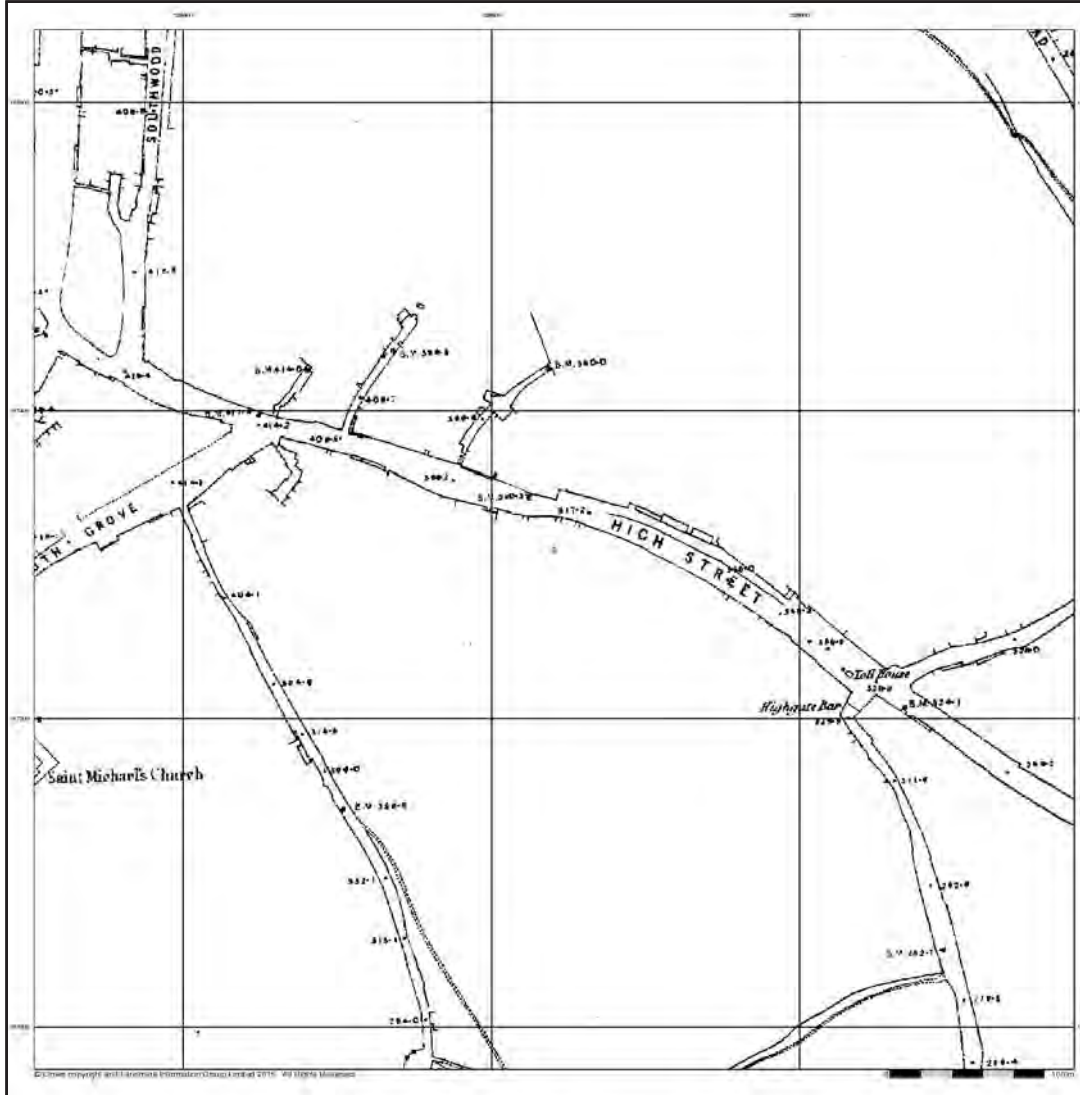
Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF

Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

A Landmark Information Group Service v50.0 11-Oct-2017 Page 1 of 20

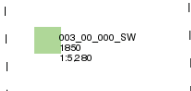


London
Published 1850
Source map scale - 1:5 280

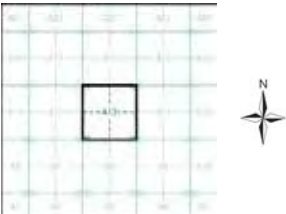
The historical town plans shown derive from Ordnance Survey mapping from the early to mid 1850s. The 1:2640 scale was introduced in the early 1850s, to survey districts covered by the Local Boards of Health and for a map of the Osborne Estate of Queen Victoria. The general style is similar to that of the early 1:2500s published shortly afterwards. 1:5280 scale was surveyed shortly afterwards in the mid 1850s as general purpose mapping with a standard of content similar to the more contemporary 1:10,560 mapping. The scale was also used for a reduction of the 1:1056 'skeleton survey' of London that was undertaken between 1848 and 1850.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

ap Name(s) and Date(s)



Historical London Plan - Segment A13

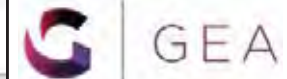


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 0

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



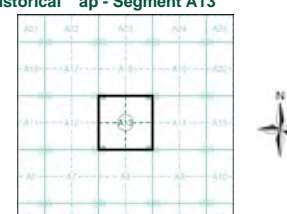
Highgate
Published 1850
Source map scale - 1:2 500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often many years later than the surveyed date. Before 1939, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

ap Name(s) and Date(s)



Historical London Plan - Segment A13

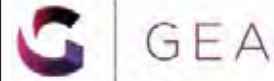
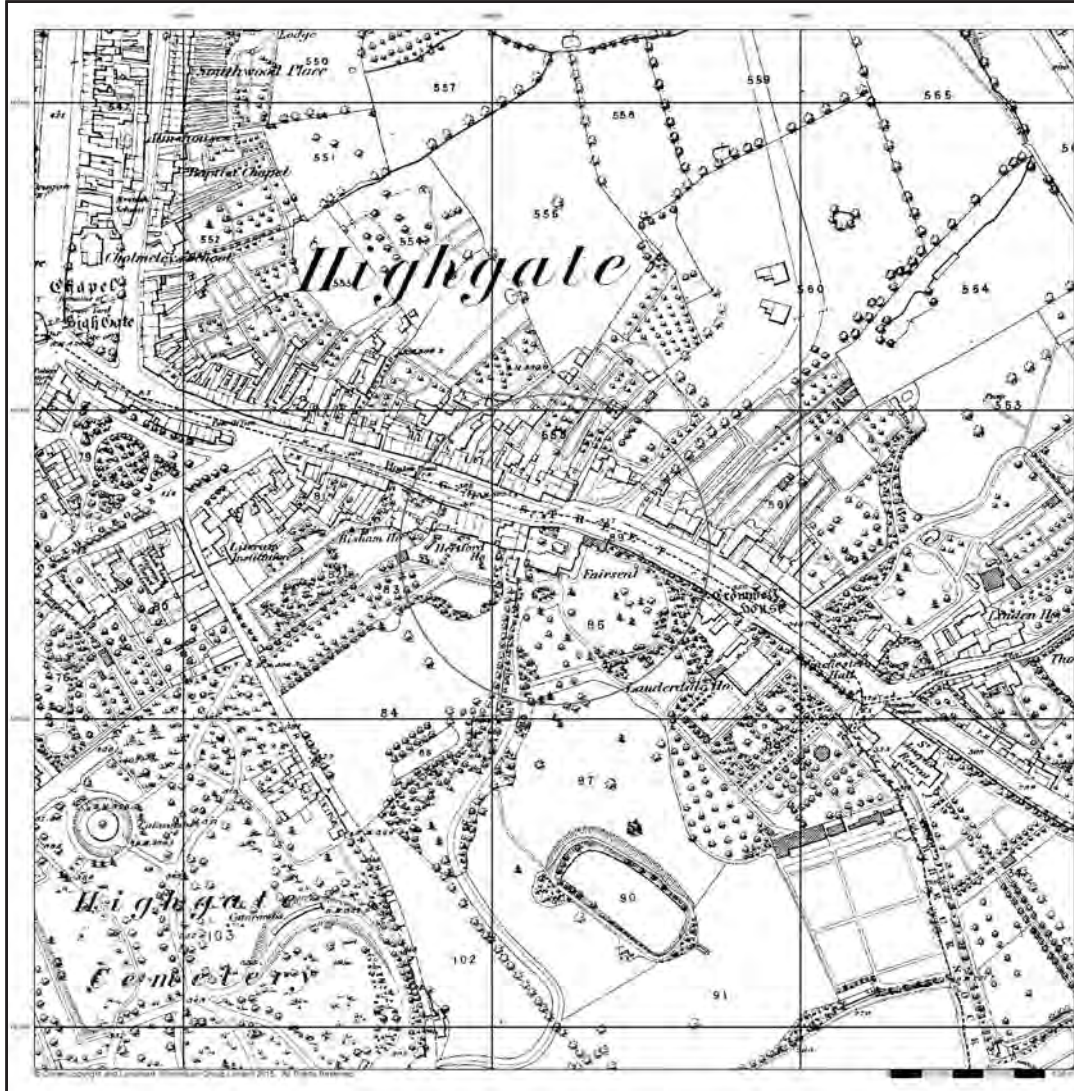


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



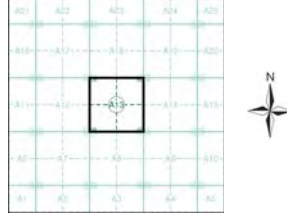
London
Published 1870
Source map scale - 1:2 500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

ap Name(s) and Date(s)



Historical ap - Segment A13

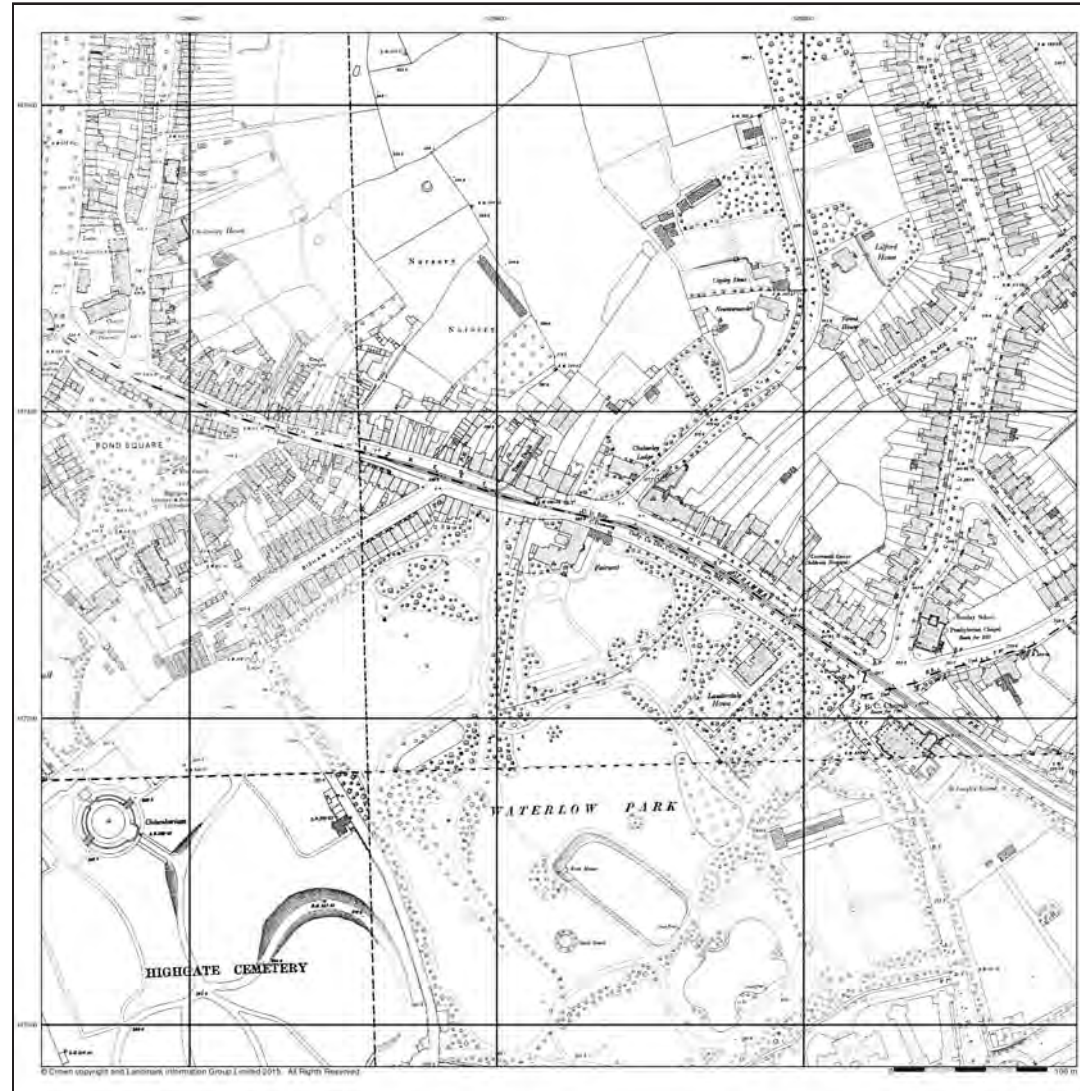


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF

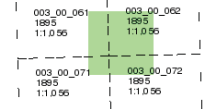


London
Published 1895
Source map scale - 1:1 050

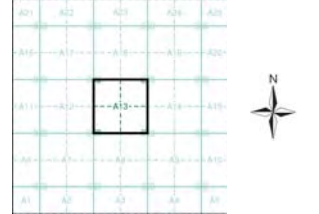
The 1:1050 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

ap Name(s) and Date(s)



Historical on Plan - Segment A13



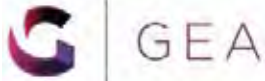
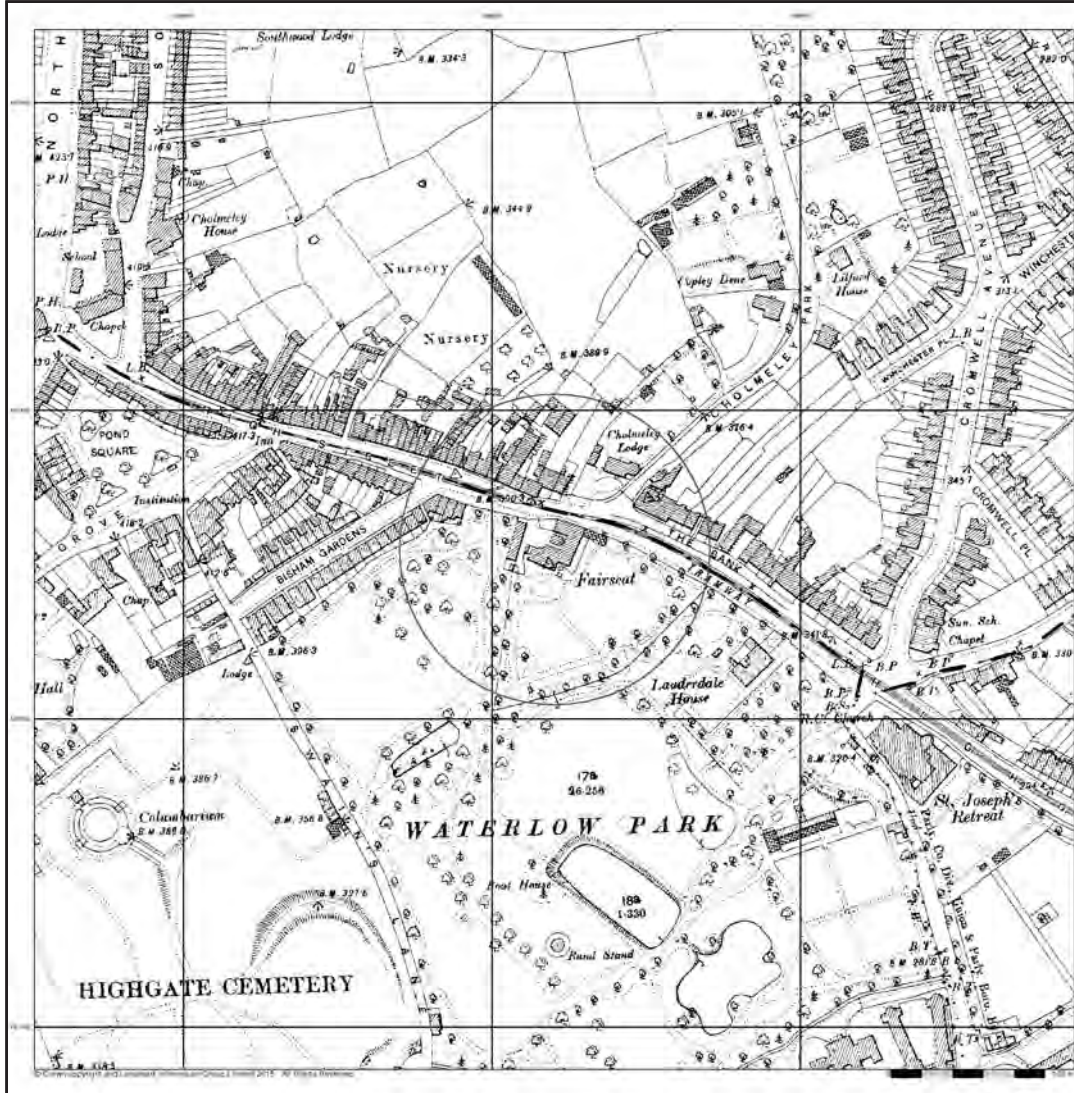
Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF





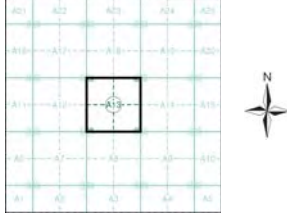
London
Published 189
Source map scale - 1:2 500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840 s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

ap Name(s) and Date(s)



Historical ap - Segment A13

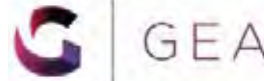
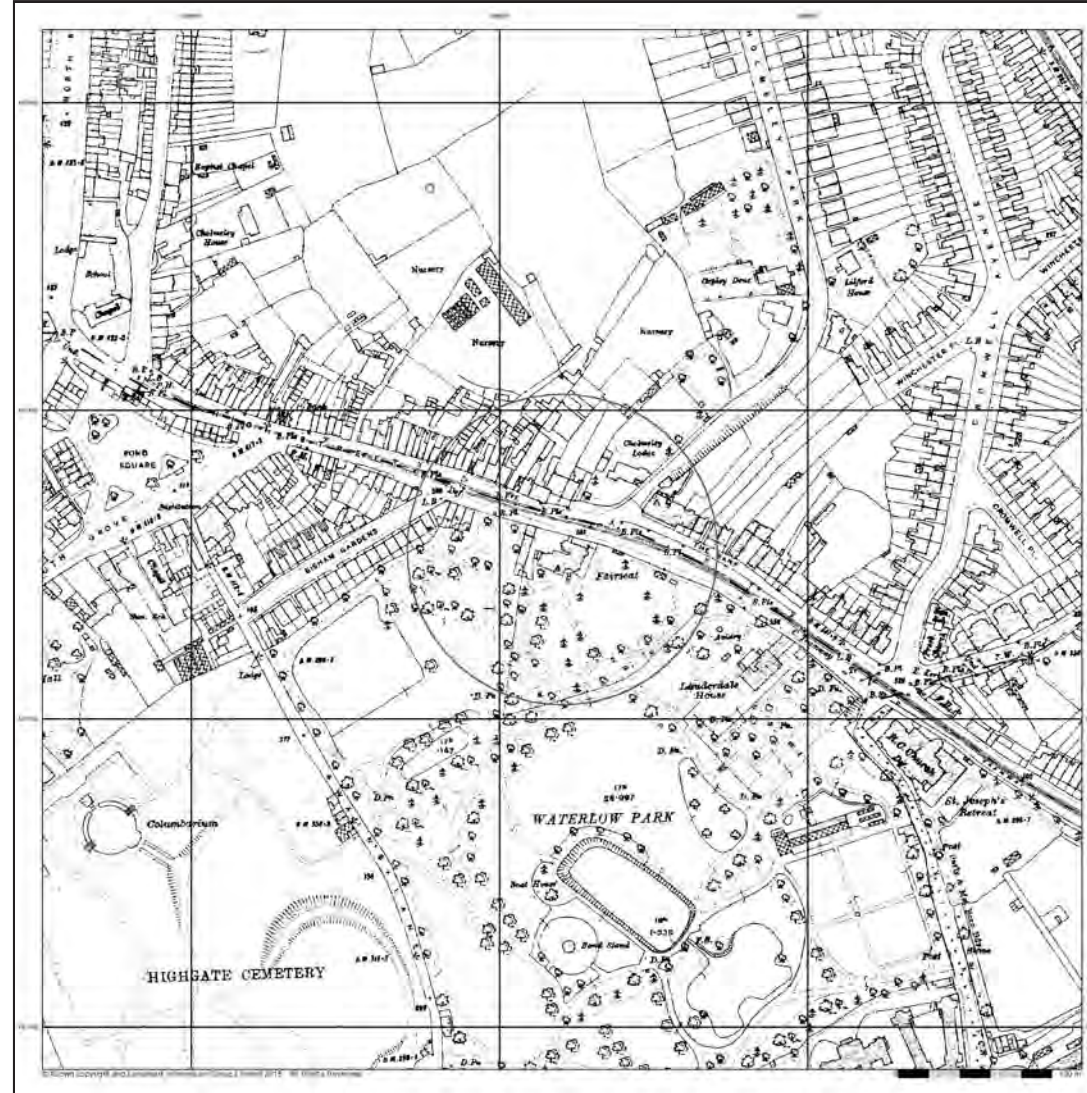


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



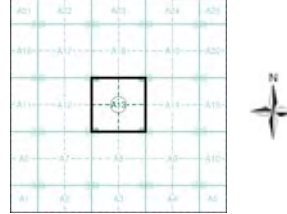
London
Published 1915
Source map scale - 1:2 500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840 s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

ap Name(s) and Date(s)



Historical ap - Segment A13



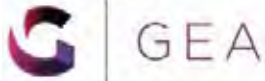
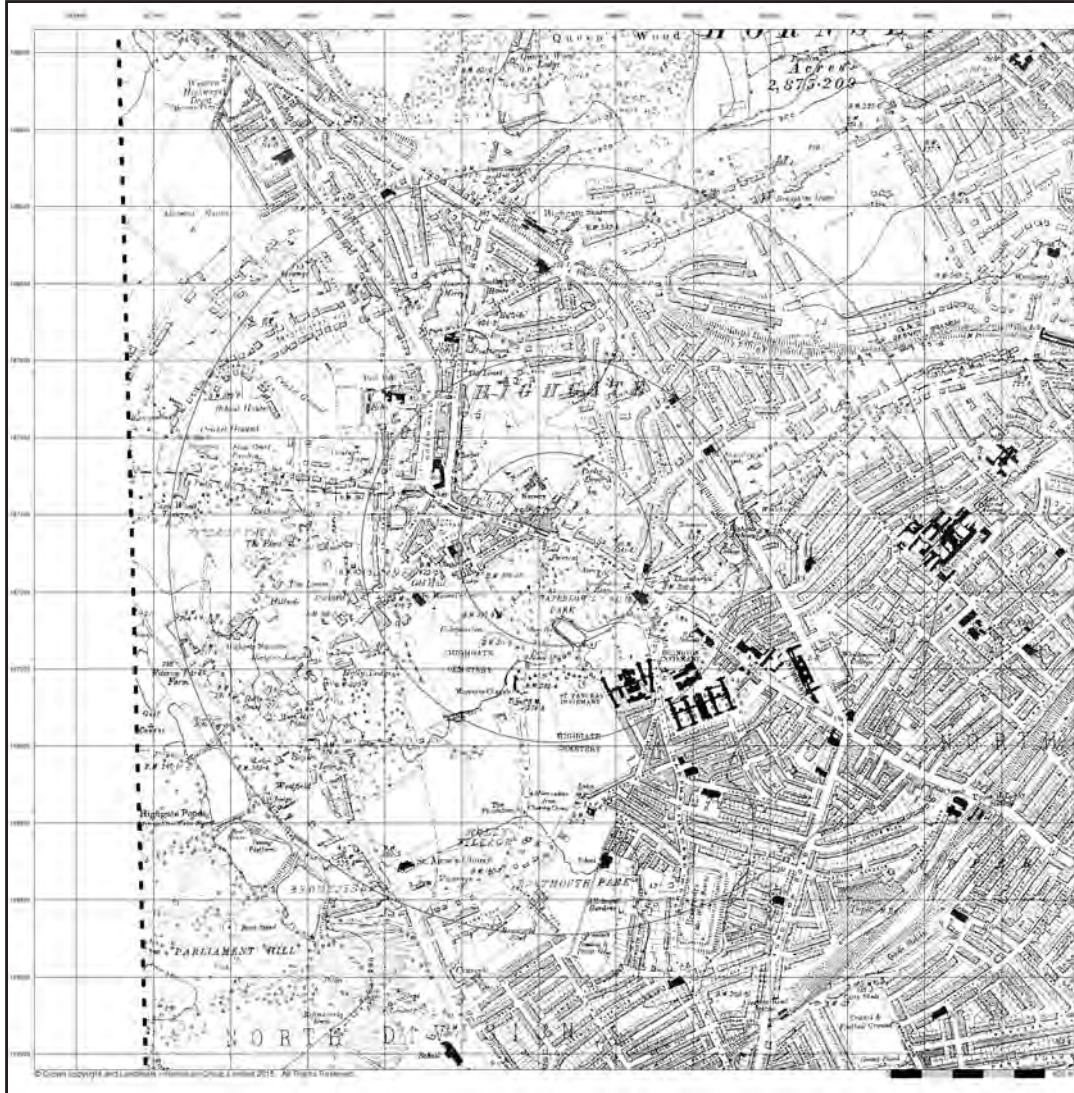
Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF





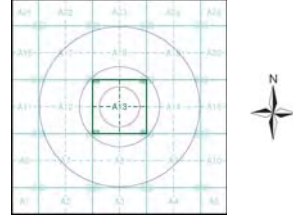
Esse
Published 1920
Source map scale - 1:10 500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840 s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940 s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

ap Name(s) and Date(s)



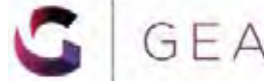
Historical ap - Slice A



Order Details
 Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details
 Channing School, Highgate Hill, LONDON, N6 5HF

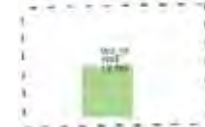
Landmark Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



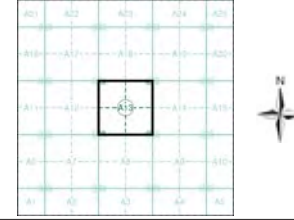
London
Published 1935
Source map scale - 1:2 500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840 s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

ap Name(s) and Date(s)



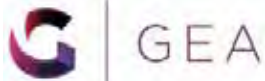
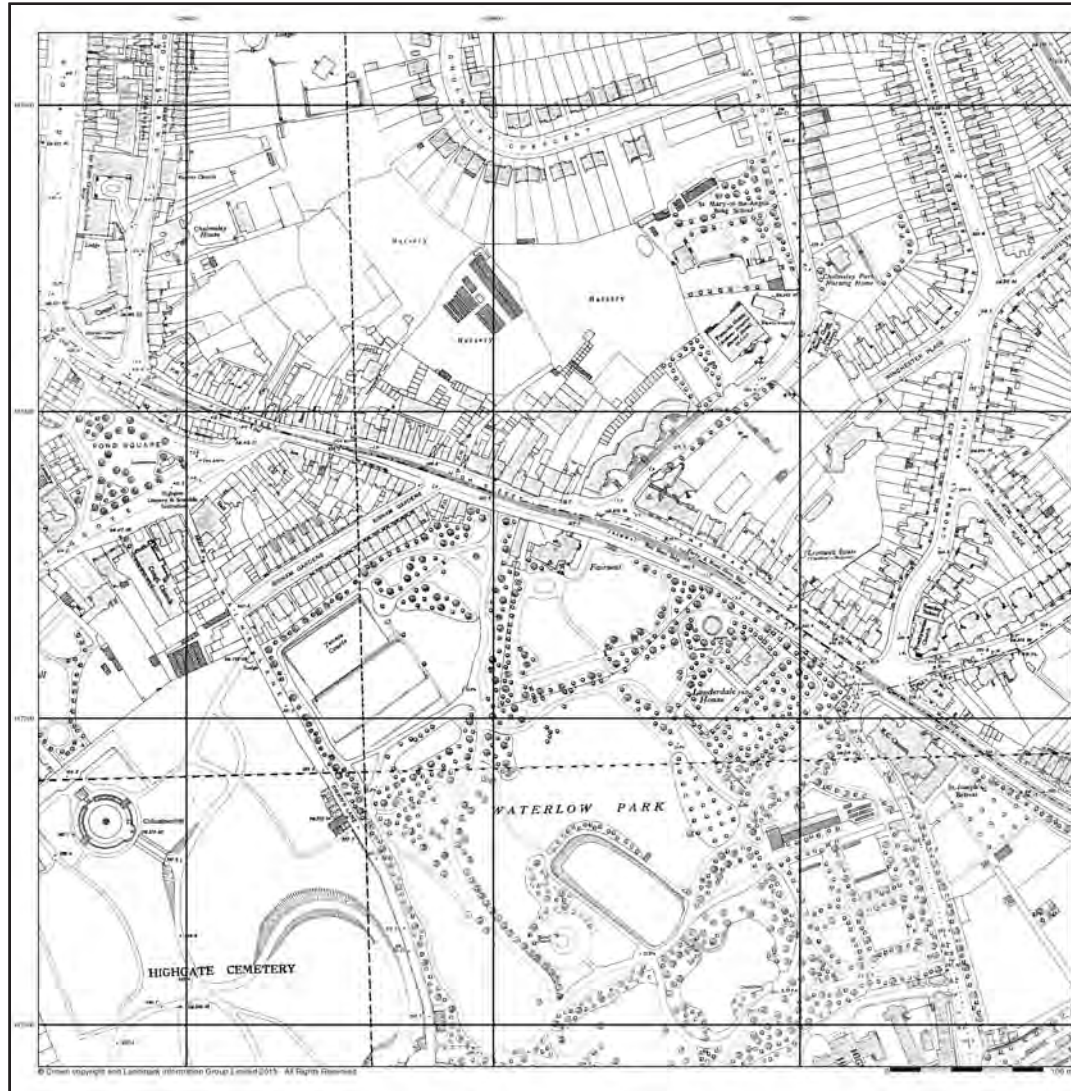
Historical ap - Segment A13



Order Details
 Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details
 Channing School, Highgate Hill, LONDON, N6 5HF

Landmark Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



**London
Published 1937
Source map scale - 1:1 05**

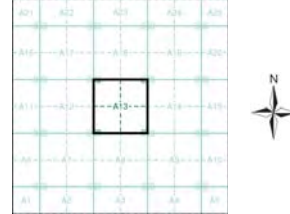
The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

ap Name(s) and Date(s)

003_00_061 1937 1:1,056	003_00_062 1937 1:1,056
003_00_071 1937 1:1,056	003_00_072 1937 1:1,056

Historical Town Plan - Segment A13



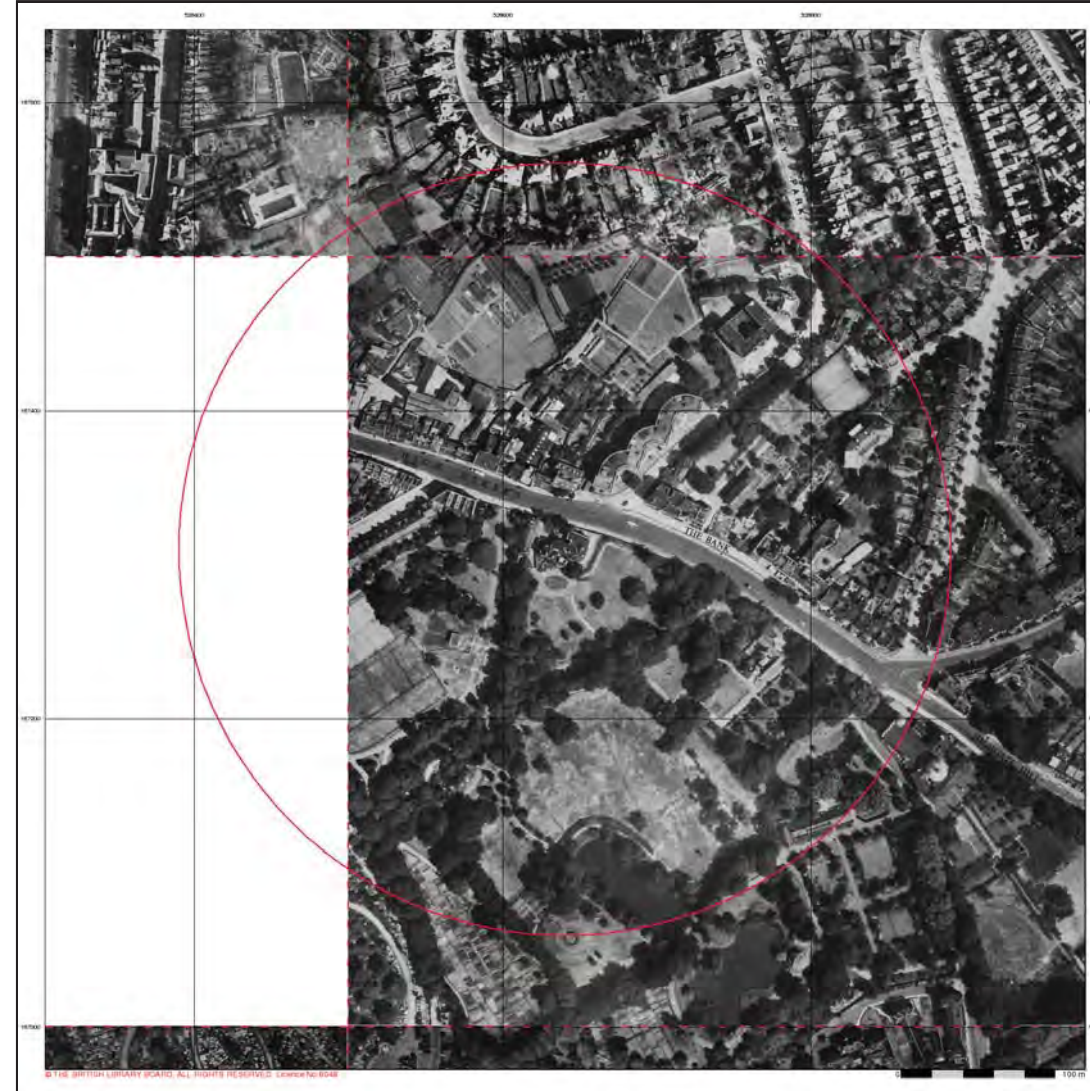
Order Details

Order Number: 142467377_1_1
Customer Ref: J17268
National Grid Reference: 528640, 187310
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 0

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF

Landmark INFORMATION GROUP
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



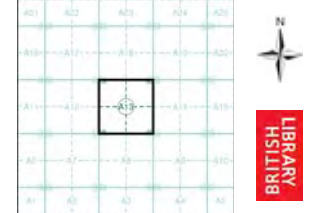
**Historical Aerial Photography
Published 19 - 19 9
Source map scale - 1:1 250**

The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

ap Name(s) and Date(s)

COMPOSITE 1949 1:1,250	COMPOSITE 1949 1:1,250
COMPOSITE 1949 1:1,250	COMPOSITE 1949 1:1,250

Historical Aerial Photography - Segment A13



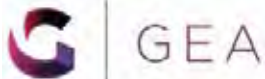
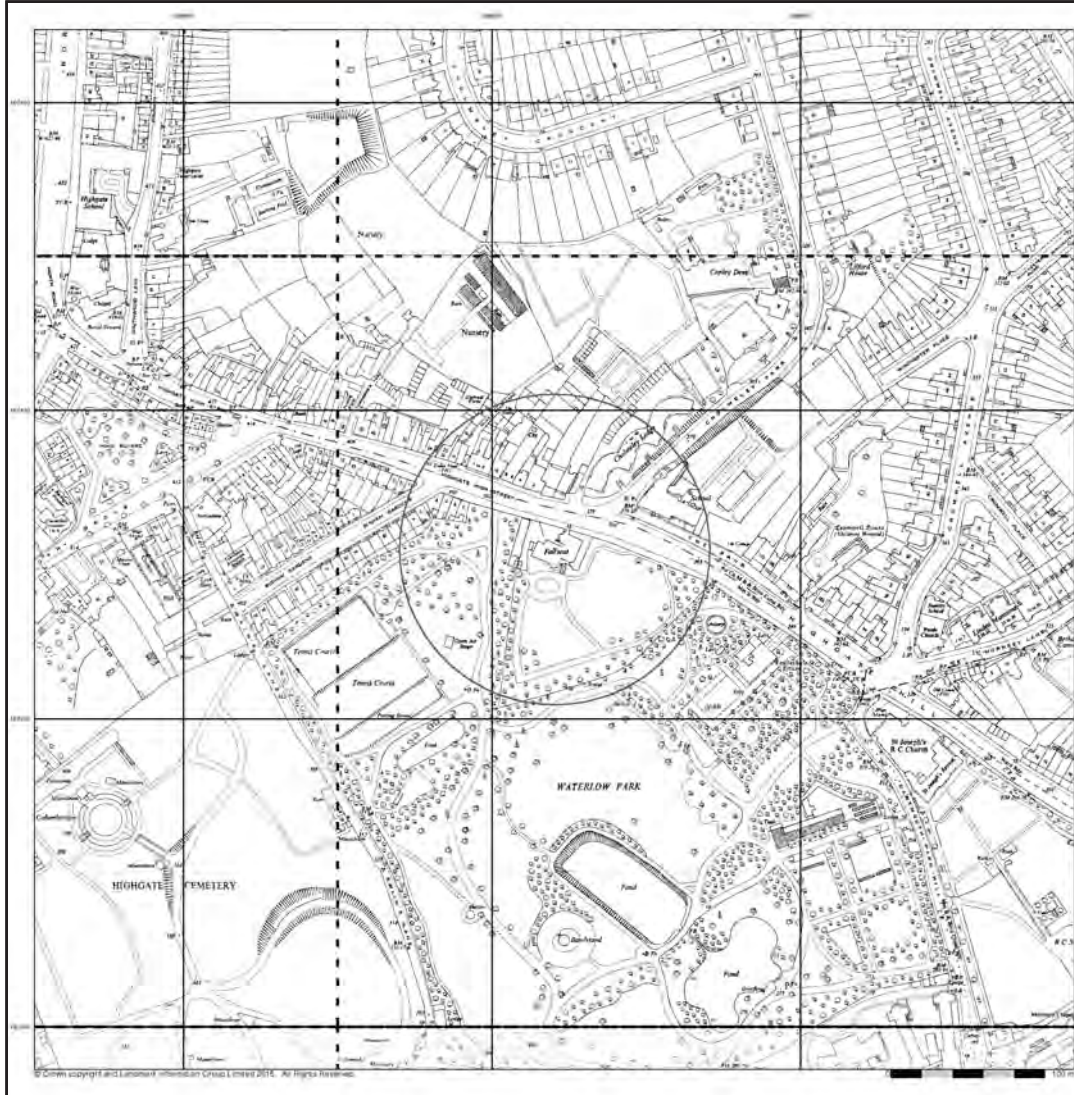
Order Details

Order Number: 142467377_1_1
Customer Ref: J17268
National Grid Reference: 528640, 187310
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF

Landmark INFORMATION GROUP
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



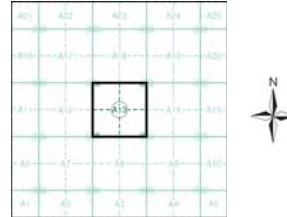
**Ordnance Survey Plan
Published 1952
Source map scale - 1:1 250**

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840 s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

ap Name(s) and Date(s)



Historical ap - Segment A13

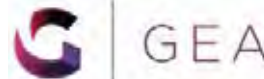


Order Details

Order Number: 142467377_1_1
Customer Ref: J17268
National Grid Reference: 528640, 187310
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



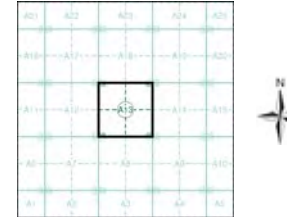
**Ordnance Survey Plan
Published 1952 - 1953
Source map scale - 1:2 500**

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840 s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

ap Name(s) and Date(s)



Historical ap - Segment A13

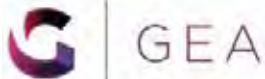
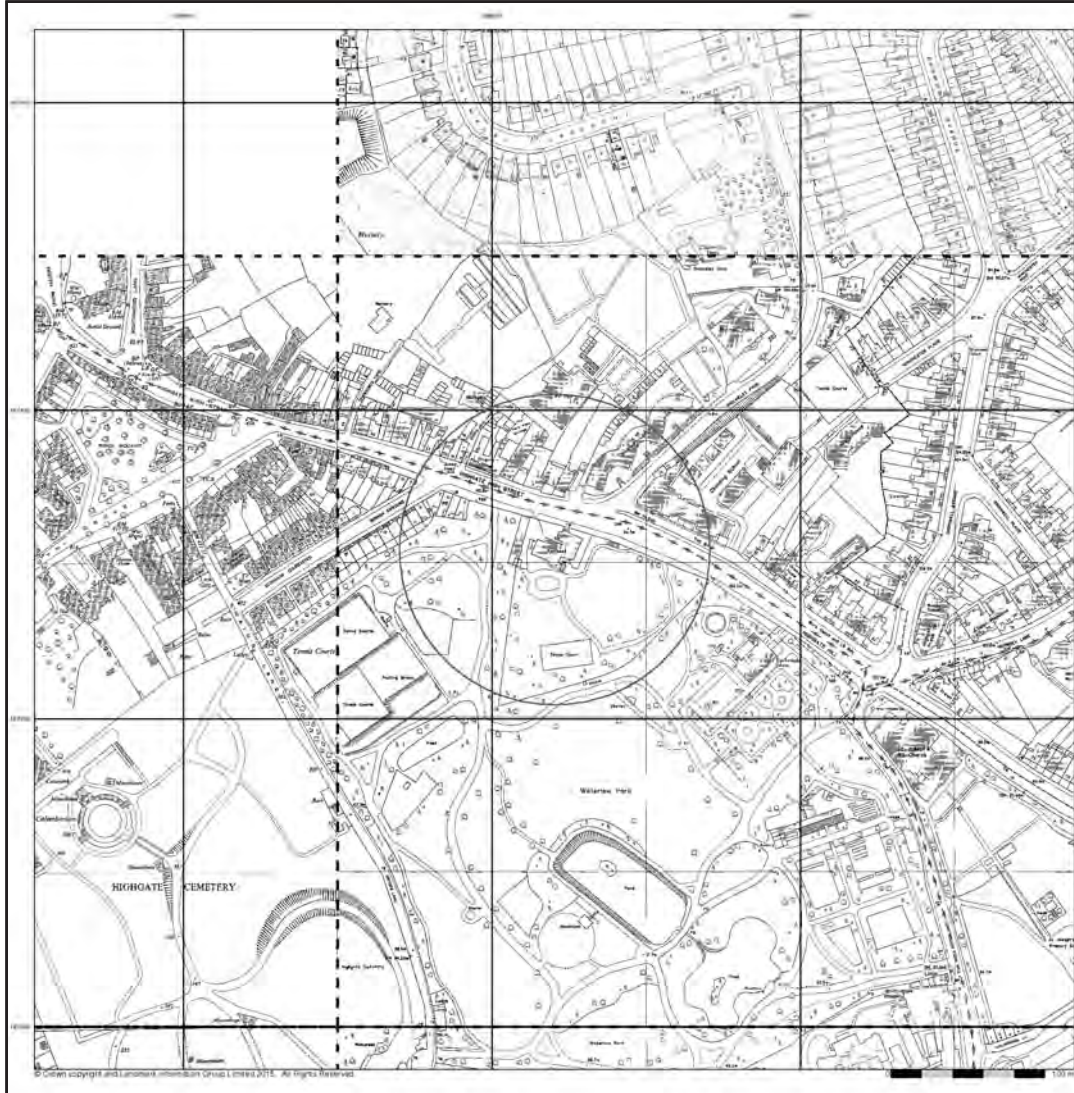


Order Details

Order Number: 142467377_1_1
Customer Ref: J17268
National Grid Reference: 528640, 187310
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



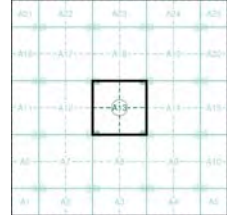
Additional SIs
Published 1952 - 1983
Source map scale - 1:1 250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

ap Name(s) and Date(s)



Historical ap - Segment A13

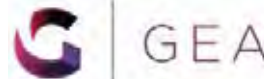
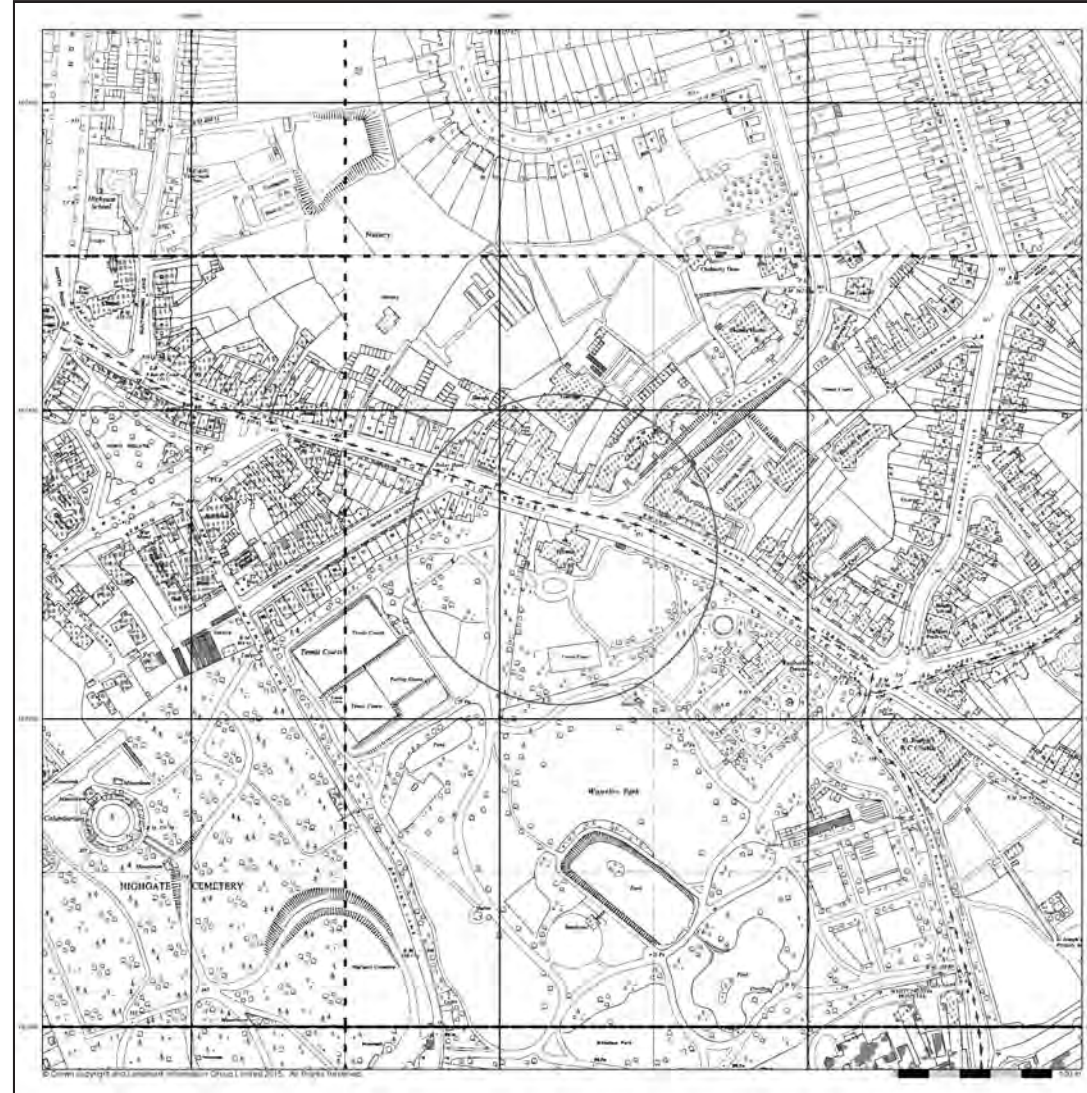


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



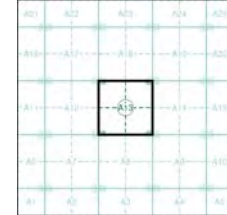
Ordnance Survey Plan
Published 19 2 - 1979
Source map scale - 1:1 250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840 s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1935, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

ap Name(s) and Date(s)



Historical ap - Segment A13

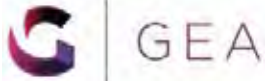
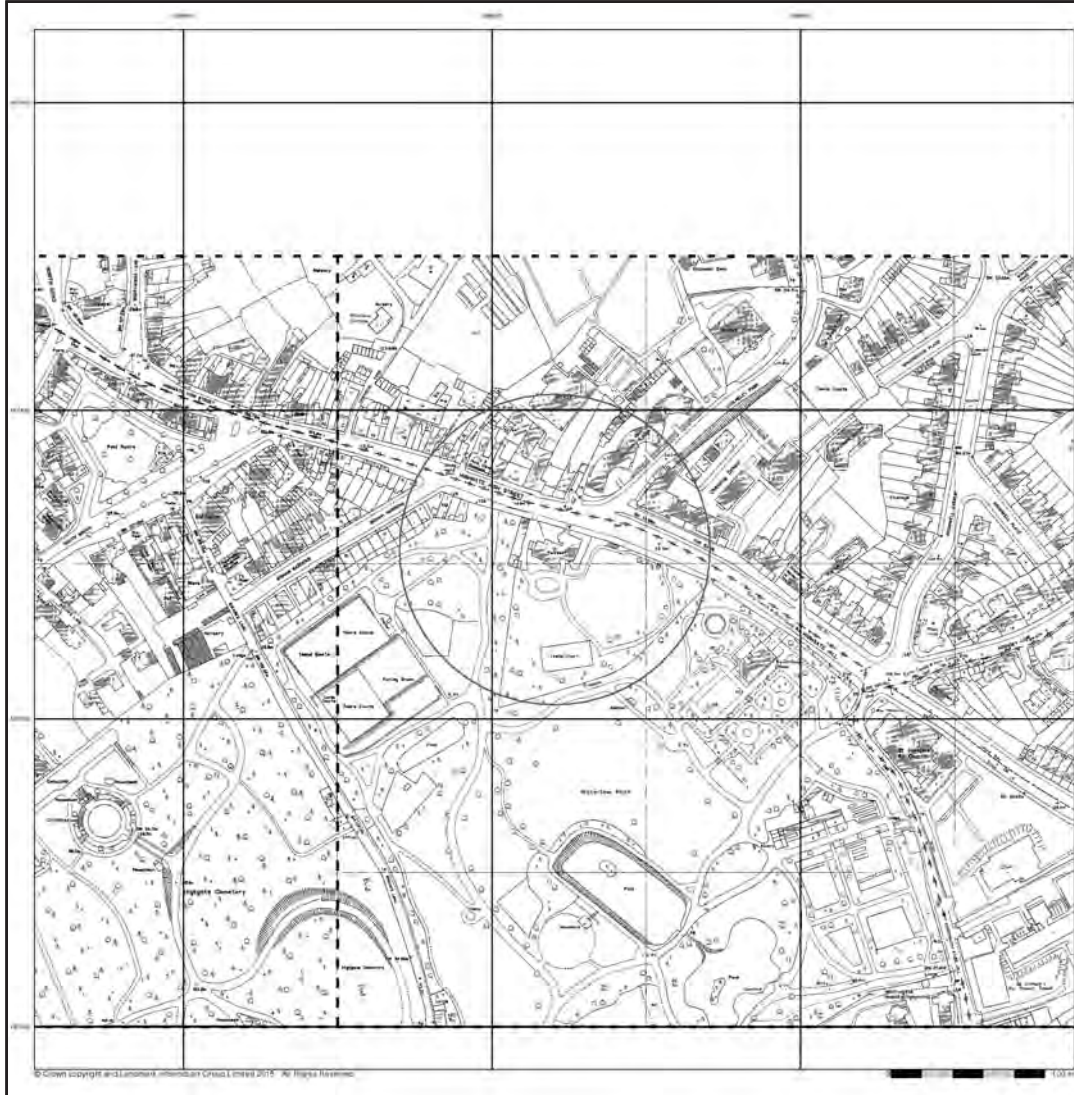


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

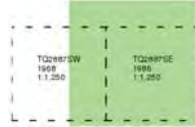
Channing School, Highgate Hill, LONDON, N6 5HF



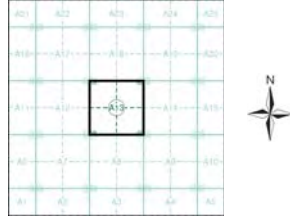
Additional SI s
Published 19 8 - 198
Source map scale - 1:1 250

The SIM cards (Ordnance Survey's Survey of Information on Microfilm) are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

ap Name(s) and Date(s)



Historical ap - Segment A13

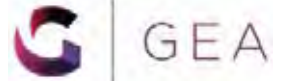
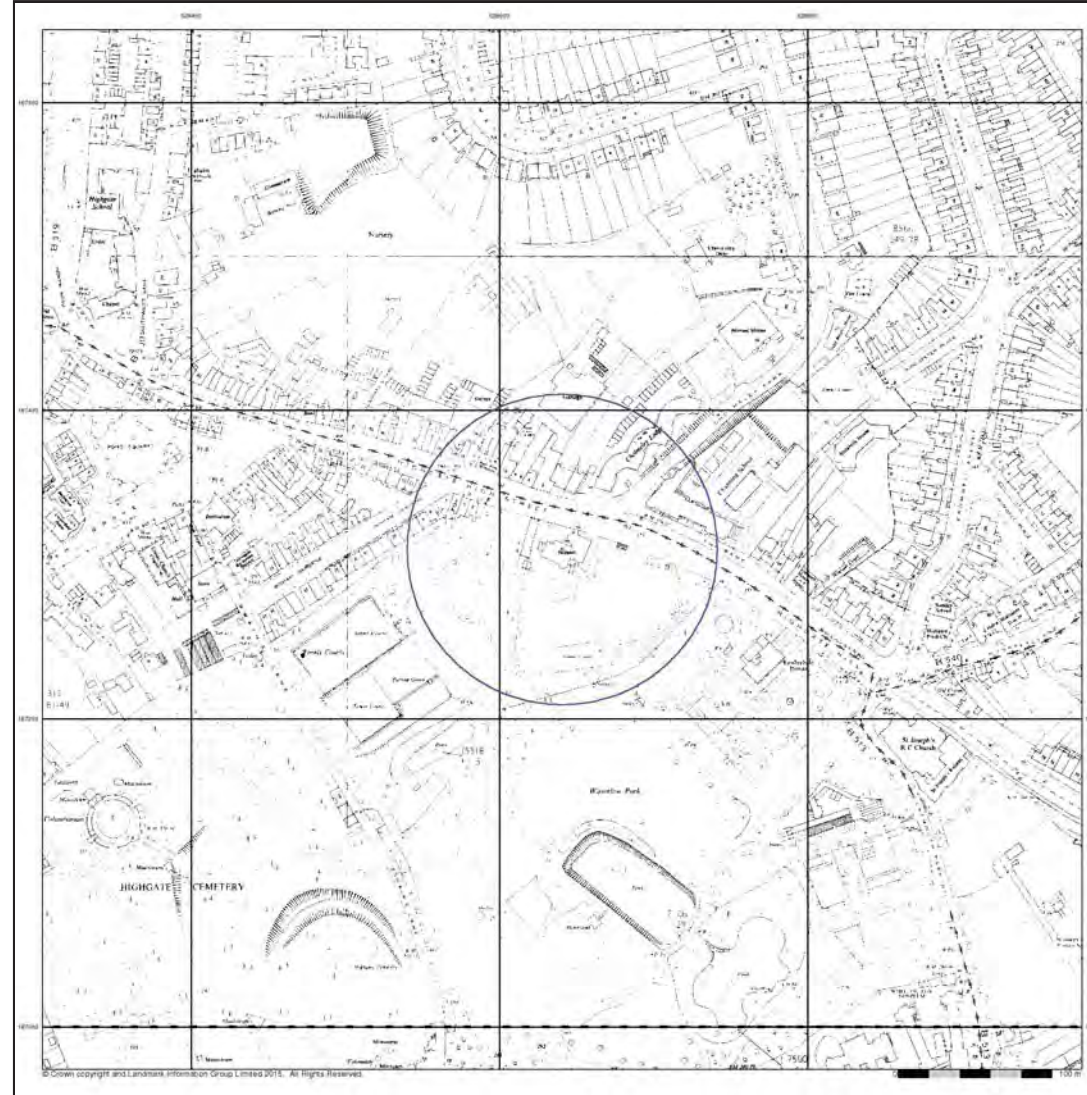


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



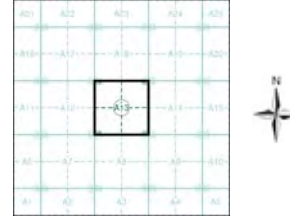
Ordnance Survey Plan
Published 1970
Source map scale - 1:2 500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840 s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

ap Name(s) and Date(s)



Historical ap - Segment A13



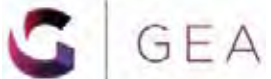
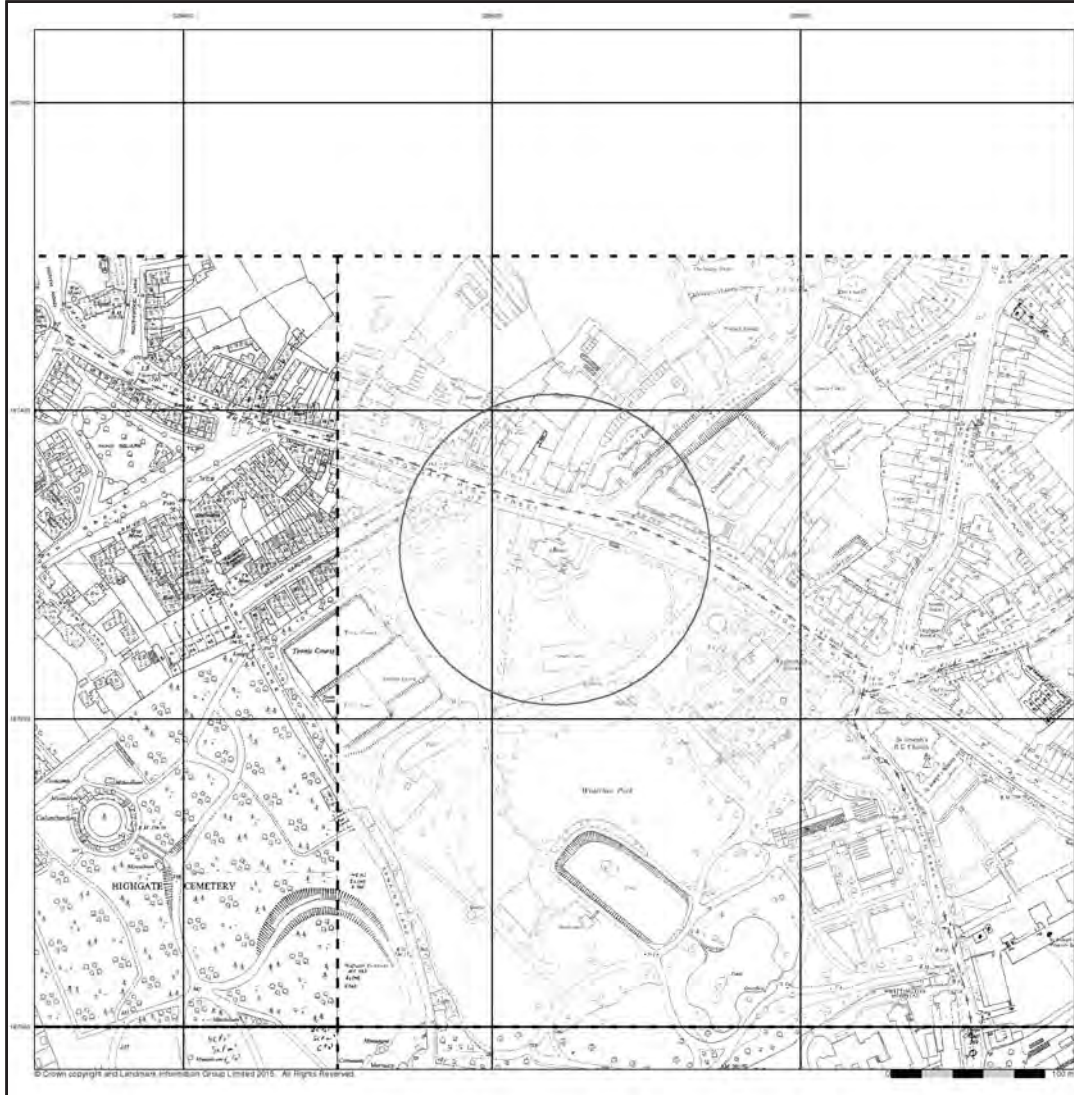
Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF





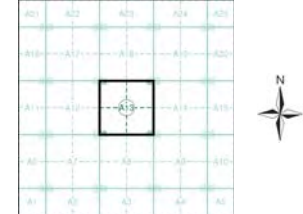
Supply of Unpublished Survey Information
Published 197
Source map scale - 1:1 250

SI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

ap Name(s) and Date(s)



Historical ap - Segment A13

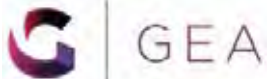
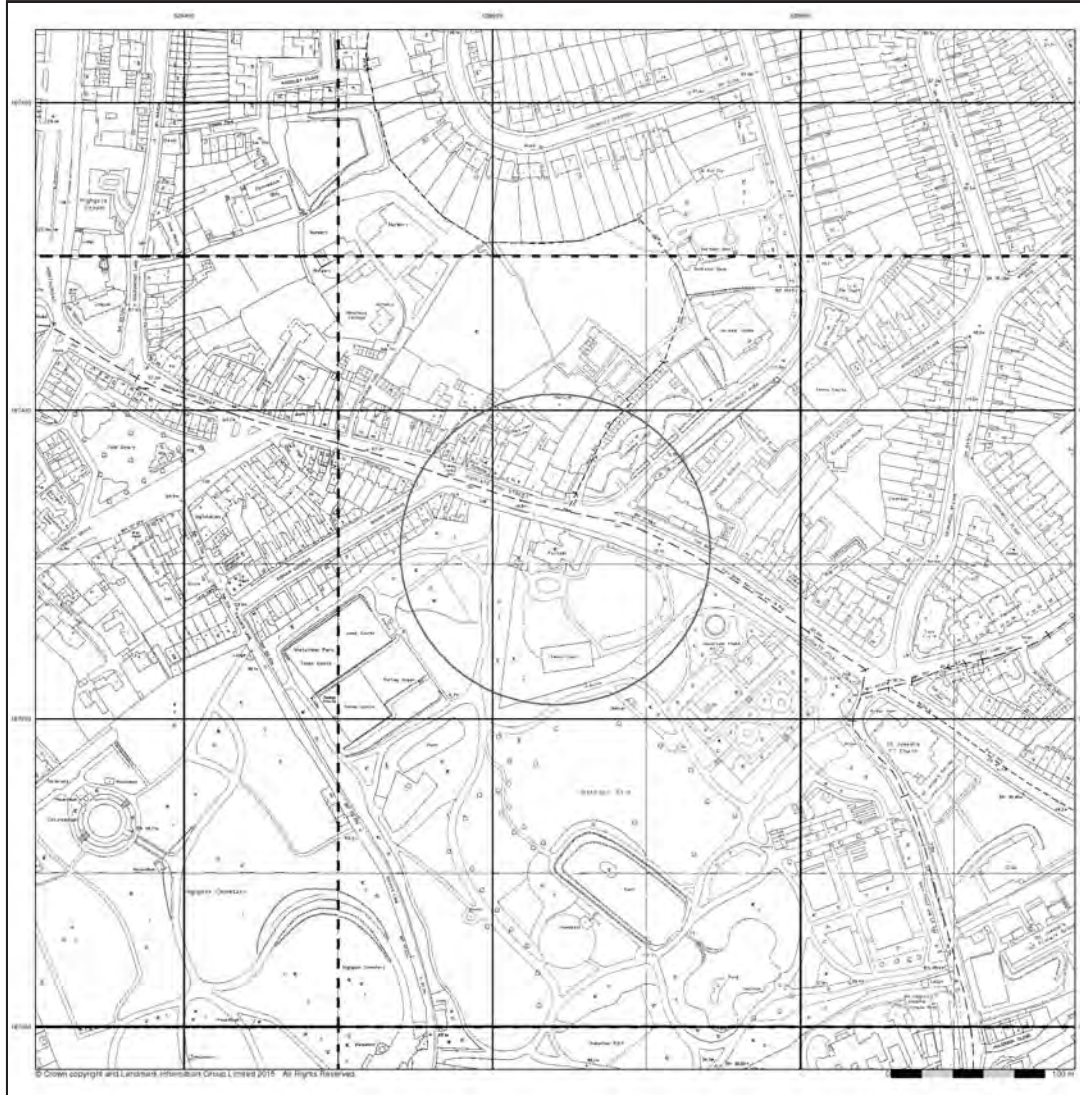


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



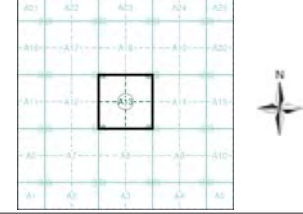
Large-Scale National Grid Data
Published 1991
Source map scale - 1:1 250

Large Scale National Grid Data superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

ap Name(s) and Date(s)



Historical ap - Segment A13

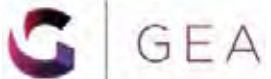


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



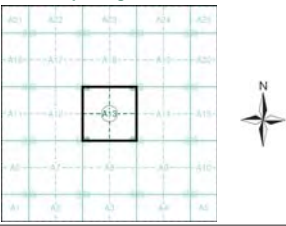
**Large-Scale National Grid Data
Published 1992**

Source map scale - 1:1 250
 Large Scale National Grid Data superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

ap Name(s) and Date(s)



Historical ap - Segment A13

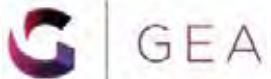


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



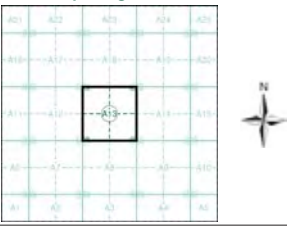
**Large-Scale National Grid Data
Published 199**

Source map scale - 1:1 250
 Large Scale National Grid Data superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

ap Name(s) and Date(s)



Historical ap - Segment A13

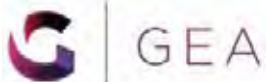


Order Details

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 National Grid Reference: 528640, 187310
 Slice: A
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 Search Buffer (m): 100

Site Details

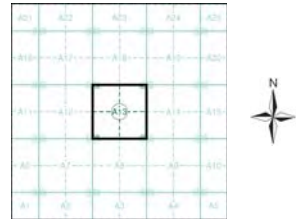
Channing School, Highgate Hill, LONDON, N6 5HF



**Historical Aerial Photography
Published 1999**

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13

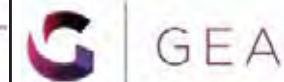


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 100

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF



**10k Raster Mapping
Published 1999**

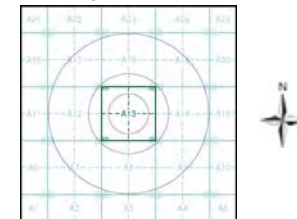
Source map scale - 1:10 000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

ap Name(s) and Date(s)



Historical ap - Slice A

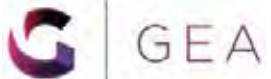
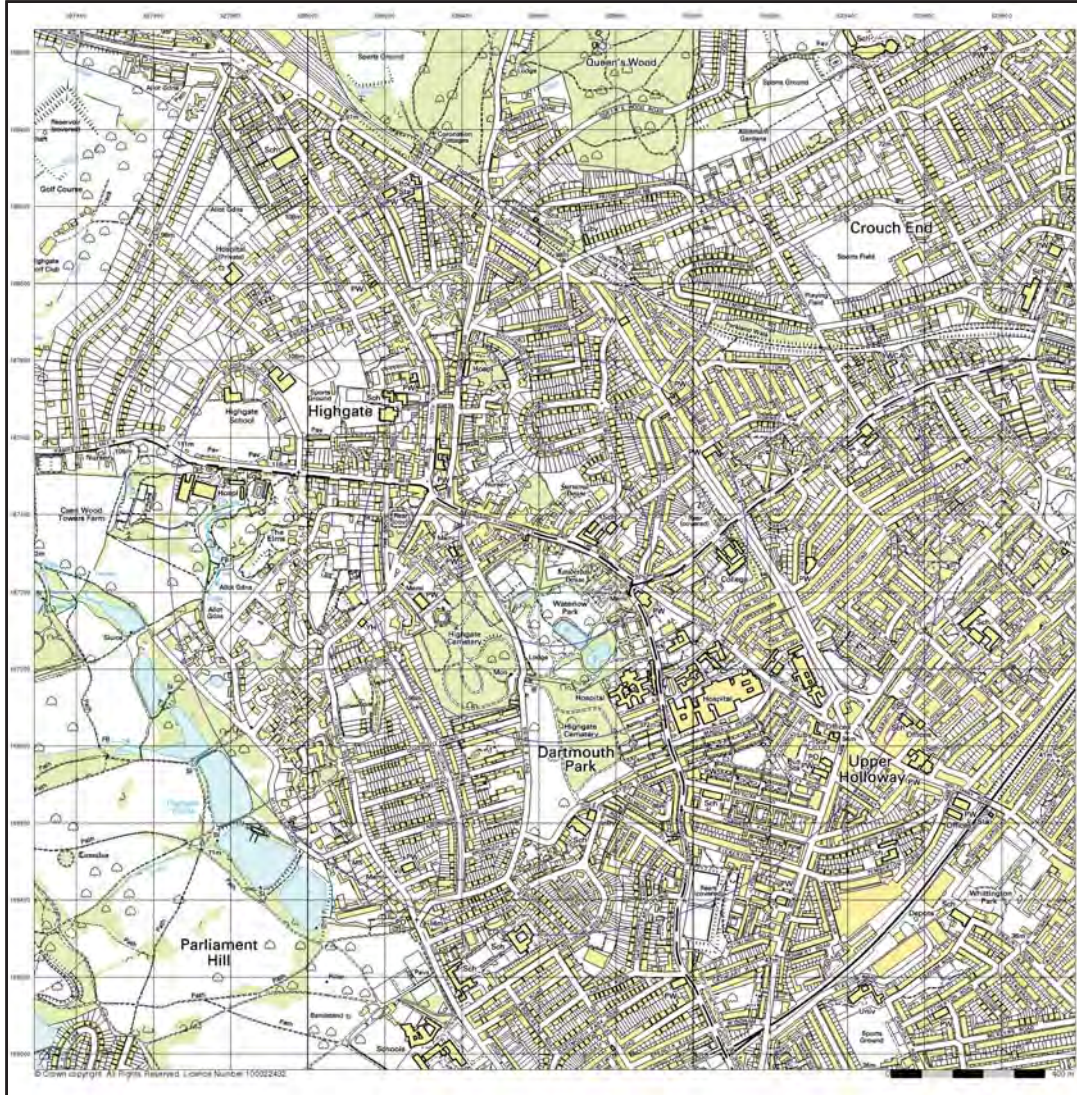


Order Details

Order Number: 142467377_1_1
 Customer Ref: J17268
 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details

Channing School, Highgate Hill, LONDON, N6 5HF

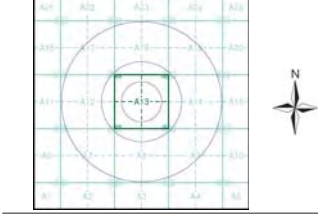


10k Raster Mapping
Published 200
Source map scale - 1:10 000
 The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

ap Name(s) and Date(s)

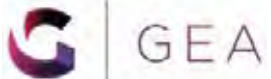
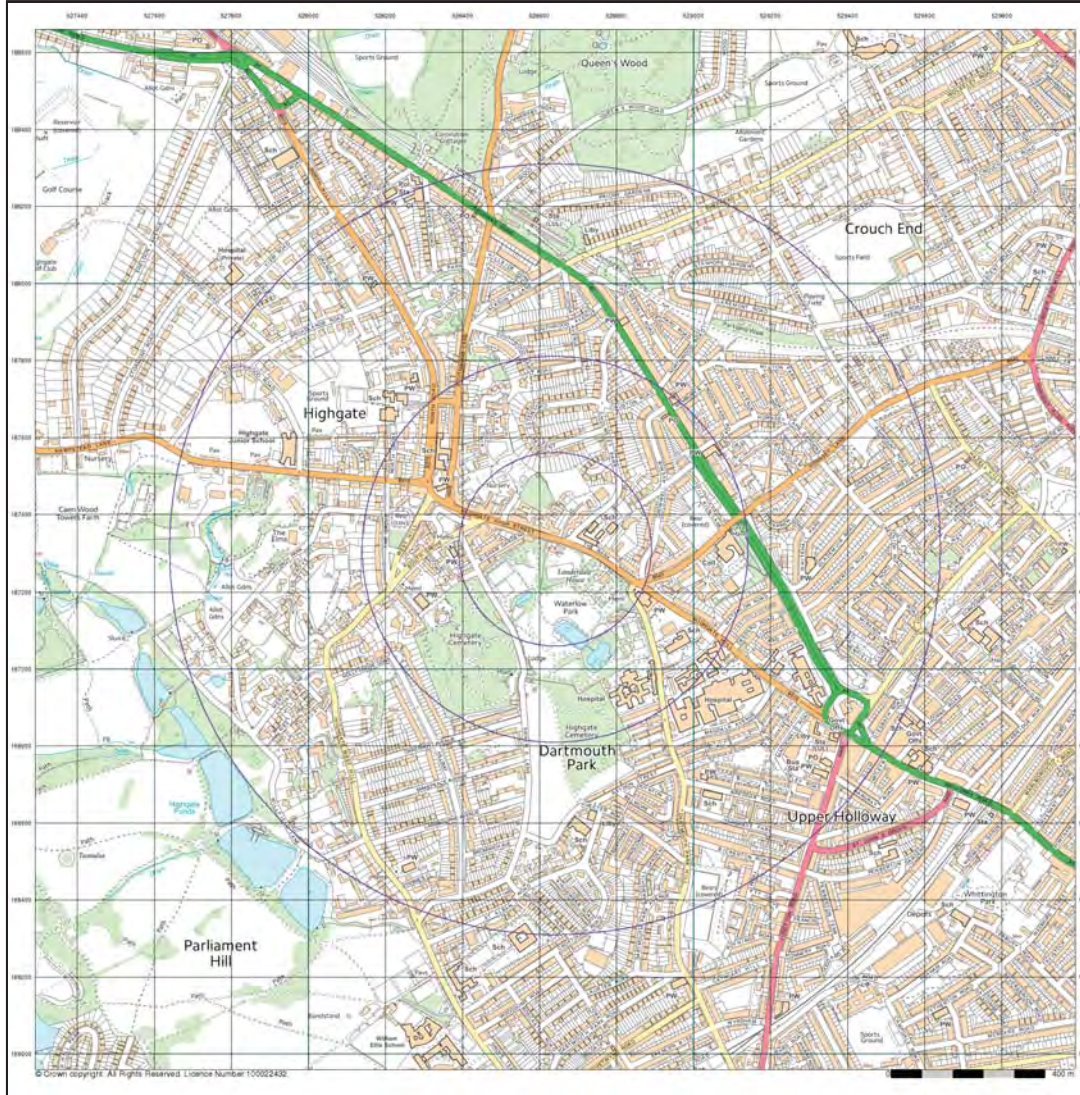


Historical ap - Slice A



Order Details
 Order Number: 142467377_1_1
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 National Grid Reference: 528640, 187310
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details
 Channing School, Highgate Hill, LONDON, N6 5HF

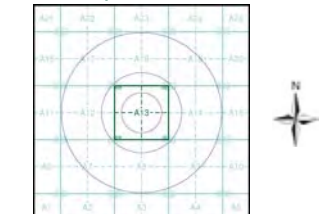


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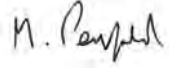



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Document Control

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APPENDIX

1.0 INTRODUCTION

Geotechnical and Environmental Associates Limited (GEA) has been commissioned by Heyne Tillett Steel, on behalf of Channing Junior School, to carry out a ground movement analysis for the proposed basement construction at Channing Junior School, Highgate High Street, London N6 5JR, within the London Borough of Camden.

A desk study and ground investigation has been undertaken by GEA (Report ref J17268, dated December 2017) the findings of which have been used in the derivation of parameters for use in this assessment.

An analysis has been carried out of the likely movements arising from the proposed basement excavation and the results of this analysis have been used to predict the effect of these movements on surrounding structures. The damage assessment is considered to represent a reasonable estimate of movements at this stage and offer a simple 'global' view of the movement contours around the site.

1.1 Proposed Development

It is proposed to construct lower ground floor extensions along the eastern and southern elevations of the existing school building, in addition to a 3.10 m deep excavation beneath the existing playground for a new pavilion building, extending to a level of roughly 110.95 m OD.

The southern extension will be an irregular shaped rectangle, measuring approximately 17.55 m by 13 m in maximum dimensions to provide a dining hall and kitchen. This extension will extend to a depth of approximately 1 m below the existing playground level, which is located at a level of about 113.60 m OD. It will be a single storey structure with a play area above and extend about 16.7 m laterally from the rear elevation of the existing lower ground floor. The eastern extension will include excavating 3 m of soil from beneath the terrace level to create a drama studio, classroom and enlarged toilets. The excavation will extend to a level of approximately 114.35 m OD.

The pavilion will provide changing rooms and will involve an excavation up to 3.10 m deep constructed partly under the playground and partly into the grass bank located to the north of the tennis courts. At playground level, a lift and stairs will be located on the upper level and at the lower level an entrance will be set within the grass bank.

Drawings provided by Heyne Tillett Steel are included in the Appendix and outline the extent of the formation levels and the location of proposed areas of underpinning and new pad foundations for the eastern and southern extensions, along with the extent of proposed sheet piling and raft foundation construction for the proposed Pavilion. In addition, a series of figures (Fig 1 to 3) is appended, which has been produced as part of the assessment to summarise how the information provided has been interpreted.

This report is specific to the proposed development and the advice herein should be reviewed if the development proposals are amended.

1.2 Limitations

The conclusions and recommendations made in this report are limited to those that can be made on the basis of the investigation. The results of the work should be viewed in the context of the range of data sources consulted, the number of locations where the ground was

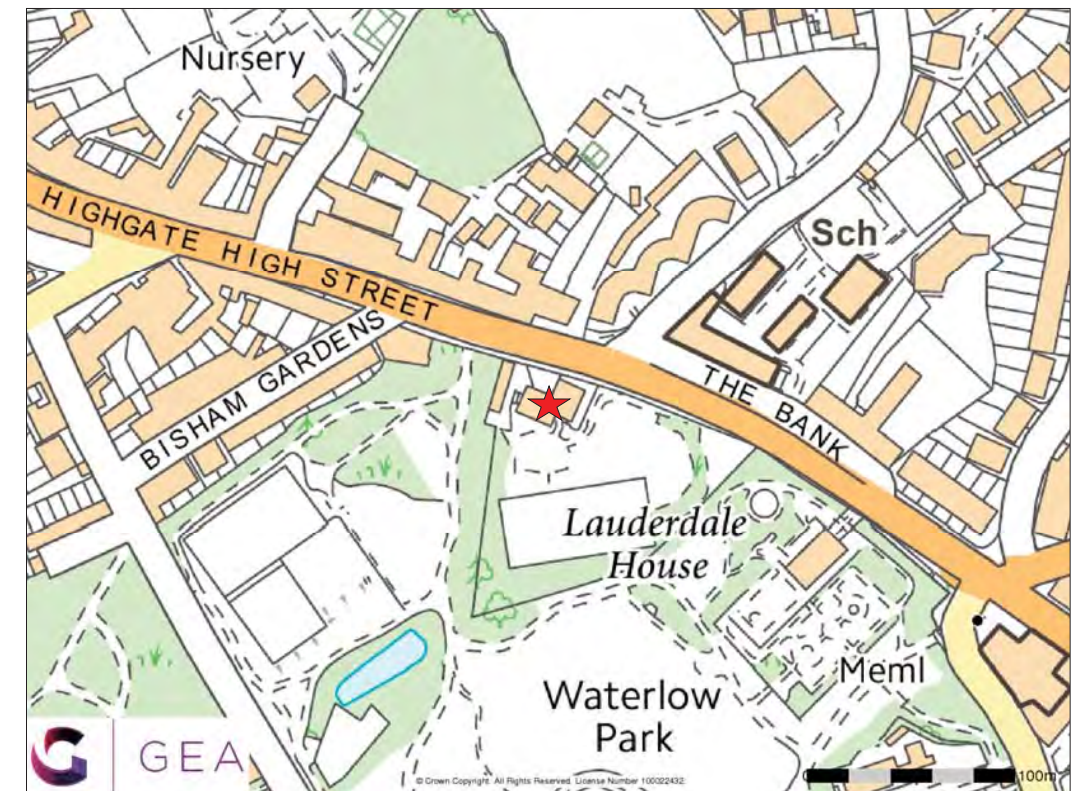
sampled and the number of soil, gas or groundwater samples tested; no liability can be accepted for information in other data sources or conditions not revealed by the sampling or testing. Any comments made on the basis of information obtained from the client or other third parties are given in good faith on the assumption that the information is accurate; no independent validation of such information has been made by GEA.

2.0 THE SITE

2.1 Site Description

The site is located in the London Borough of Camden, approximately 930 m to the northwest of Archway London Underground Station, and about 900 m south-southeast of Highgate London Underground Station. It is bounded by Highgate High Street to the north and is bordered to the east by Lauderdale House and to the south and west by Waterlow Park.

The site may be additionally located by National Grid Reference 528640, 187310 and is shown on the map extract below.



A walkover of the site was carried out during the fieldwork and selected photographs are included overleaf. The local topography slopes down in both easterly and southerly directions and the site is essentially on three levels ranging from about 118 m OD to 111 m OD. The ground floor level of the school is located at approximately 117 m OD, the lower ground floor and playground levels are at roughly 114.27 m OD to 113.59 m OD and the tennis courts are located on the lowest level at about 110.40 m OD. The site slopes generally from north to south over a distance of about 106 m, with an overall slope angle of 10°, and from west to east also at about 10° over a distance of about 110 m.



The site is currently occupied by Channing Junior School, an independent day school for girls. The main building is Fairseat House which is set back from the main road and comprises an irregular shaped detached three-storey brick building with a lower ground floor and accommodation at roof level. To the west of this building is a detached rectangular shaped, two-storey brick building with roof accommodation, which also forms part of the school premises, referred to as the stable block. These buildings are understood to be listed.

The school is set within extensive landscaped grounds with a large area for tennis courts, a temporary building used for sports facilities in the south of the site and a number of portacabins. A tarmac playground area is present to the south of the main school building and an access road is located along the western elevation of the main school building leading from Highgate High Street to the eastern corner of the site where a car park area is situated. Along the eastern elevation, a retaining wall 2.12 m high separates a terrace located at ground floor level from the landscaped gardens and playground areas. A grass bank is located to the north of the tennis courts with steps leading from the playground to the tennis courts. The northern boundary of the site is formed by a brick wall separating the school grounds from Highgate High Street.

Numerous mature and immature trees are present within the landscaped gardens located to the southeast of Fairseat House and along the eastern and southern perimeters of the site. Planted areas are located just to the southwest of Fairseat House in an area located between the access road and playground and on the lower level in front of the retaining wall of the terrace.

3.0 SUMMARY OF GROUND CONDITIONS

The investigation generally encountered the expected ground conditions in that, beneath a moderate to significant thickness of made ground, extending to depths of between 0.32 m and 2.90 m (115.49 m OD and 110.20 m OD), the Bagshot Formation overlies the Claygate Member of the London Clay Formation, which was proved to the maximum depth investigated of 17.45 m.

The Bagshot Formation generally comprises fine to coarse sand with varying quantities of flint gravel and nodules of sandstone. This stratum has been interpreted to extend to depths of between 3.25 m and 5.60 m (111.25 m OD and 108.40 m OD). The Claygate Member generally comprises light brown silty fine sand, extending to depths of 11.55 m (102.10 m OD) and 12.20 m (101.80 m OD), although an upper horizon of clay was noted locally. At depth, the Claygate Member becomes stiff locally firm dark grey silty clay, and

was proved to the maximum depth investigated of 17.45 m (96.55 m OD).

Groundwater was encountered during drilling at depths of 4.00 m, 5.10 m and 15.50 m and subsequent monitoring of the installed standpipes has measured water at depths of 3.89 m and 4.80 m (110.56 m OD and 109.15 m OD).

A borehole drilled by the BGS on Hampstead Lane, roughly 2.3 km to the west of the site (BGS reference TQ28NE198), generally referred to as the 'Hampstead Heath borehole', was advanced to a depth of 66.74 m (61.97 m OD) at National Grid Reference 526455, 186890. The borehole record indicates that the Bagshot Formation extended to a level of 109.71 m OD and the base of the Claygate Member was encountered at a level of 93.71 m OD. The Hampstead Heath borehole proved the London Clay to extend to a level of at least 61.97 m OD.

3.1 Recommended Parameters

The table below summarises the vertical soil parameters used in the subsequent analysis, which are based on the findings of the investigation.

Due to the sloping nature of the site and various levels on which parts of the existing and proposed structures are located, the site has been divided into a series of three soil zones with ground levels of 117 m OD, 114 m OD and 112 m OD.

Values of stiffness for the soils at this site are readily available from published data^{1, 2, 3 & 4} and a well-established method has been used to provide estimated values.

Stratum	Base of Formation (m OD)	Effective Friction Angle (Φ' - degrees)	Undrained Cohesion (C_u - kN/m ²)	Young's Modulus (E_u - kN/m ²)	Young's Modulus (E' - kN/m ²)
Made Ground	115 to 111 (varies)	27	-	-	10000
Bagshot Beds	110	35	-	-	40000
Claygate Member (upper Sand)	102	32	-	-	25000 to 50000
Claygate Member (clay)**	90*	38	70 to 142	52500 to 106500	39375 to 79875
London Clay**	60*	23	142 to 322	106500 to 241500	79875 to 181125

* Base of Claygate Member and underlying London Clay as indicated by nearby BGS records.

**An increase in cohesion of 6 kN/m² for each metre of depth has been adopted to provide an estimate of the likely strength profile below the depth of the investigation.

- 1 Padfield CJ and Sharrock MJ (1983) *Settlement of structures on clay soils*. CIRIA Special Publication 27
- 2 Butler FG (1974) *Heavily overconsolidated clays: a state of the art review*. Proc Conf Settlement of Structures, Cambridge, 531-578, Pentech Press, Lond
- 3 O'Brien AS and Sharp P (2001) *Settlement and heave of overconsolidated clays - a simplified non-linear method*. Part Two, Ground Engineering, Nov 2001, 48-53
- 4 Burland JB, Standing, JR, and Jardine, FM (2001) Building response to tunnelling, case studies from construction of the Jubilee Line Extension. CIRIA Special Publication 200

4.0 CONSTRUCTION SEQUENCE

The following sequence of operations has been derived to enable analysis of the ground movements around the basement both during and after construction and is based upon the preferred construction methods for each part of the development, as outlined in the drawings provided by Heyne Tillett Steel, copies of which are included in the appendix.

Essentially the sequence may be considered as two groups of activities, the first comprising the short term temporary works, whilst the second represents the construction of the permanent works.

The detail of the support provided to adjacent walls is beyond the scope of this report at this stage and the structural engineer will be best placed to agree a methodology with the piling contractor(s) once appointed. However, it is assumed that propping of all walls will take place throughout the temporary and permanent works.

The sides of a basement excavation will move to some extent regardless of how they are supported. The movement will typically be both horizontal and vertical and will be influenced by the engineering properties of the ground, groundwater level and flow, the efficiency of the various support systems employed during underpinning and the efficiency or stiffness of any support structures used.

The development also includes a series of new pad foundations, the position and size of which are indicated in the information provided by Heyne Tillett Street (drawing ref 1843/SK007, dated December 2017). Also refer to Figure 1 in the appendix.

Additional works to re-model and slightly lower some of the foundations of a number of the existing walls on the central and southern parts of the existing building are understood to be required due to changes in slab level. However, the degree of excavation and changes to the existing loads are minor and they have not therefore been included as part of the analysis.

4.1 Temporary Support to Underpinned Walls (Existing Building)

It is understood that underpinning of the existing school building will take place where a lower ground floor level is not currently present, i.e. below the north-eastern part of the building (see Figure 1 in the appendix). This will be undertaken in a 'hit and miss' sequence, in stages to be agreed with the temporary works engineer and under party wall agreement.

Underpinning is to be undertaken in short sections not exceeding 1.0 m in length, with no adjacent pin to be excavated until a minimum of 48 hours after the adjacent pin has been cast and dry-packed placed, with the sides of the excavation adequately shored and propped.

The underpins will be adequately laterally propped and sufficiently dowelled together, and the concrete will be cast and adequately cured prior to excavation of the basement and removal of the formwork and supports. It is assumed that the corners of the excavation will be locally stiffened by cross-bracing or similar and that the new retaining walls will not be cantilevered at any stage during the construction process.

It is assumed that adequate temporary propping of the new retaining walls, particularly at the top level, will occur at all times during excavation of the proposed basement and will remain in place until the construction of permanent concrete floor slabs.

4.2 Temporary Support to Reinforced Concrete Retaining Walls (East Extension)

It is understood that the new concrete retaining walls to form the northern part of the east extension (See Figure 1 in the appendix) will be undertaken in an underpinning type 'hit and miss' sequence, using a trench box excavation, commonly sheet lined, shored and strutted. All temporary shoring and propping to be inspected by a suitably qualified person.

The retaining walls will be adequately laterally propped and sufficiently dowelled together, and the concrete will be cast and adequately cured prior to excavation of the basement and removal of the formwork and supports. It is assumed that the corners of the excavation will be locally stiffened by cross-bracing or similar and that the new retaining walls will not be cantilevered at any stage during the construction process.

It is assumed that adequate temporary propping of the new retaining walls, particularly at the top level, will occur at all times during excavation of the proposed basement and will remain in place until the construction of permanent concrete floor slabs.

4.3 Temporary Support to Sheet Piled Walls (Pavilion)

Following the installation of the sheet piled wall to support the excavations for the new Pavilion structure, temporary props will be installed and the excavation to form the new Pavilion structure will proceed. The detail of section sizes and spacings will be finalised by the contractor but the levels indicated are considered reasonable for such a basement excavation.

The general philosophy adopted is that diagonal braces will be used across the corners or returns of the basement walls whilst props will be positioned at regular intervals along the long walls of the basement. Where horizontal restraint cannot be provided by other parts of the piled wall the prop forces will be provided by so-called 'flying shores' where the reaction to horizontal forces is provided by pile caps, gravity blocks or basement thickenings in the centre of the excavation.

It is anticipated that steel temporary props will be used with strut forces spread along the wall by steel waling beams fixed to the piles. Although the detail of the propping is to be finalised there is the option to use hydraulic 'active' props where the propping force is applied prior to excavation in order to minimise movement at critical locations.

Excavation will proceed in stages and in broad terms the order of operations will be install capping beam props, excavate to a suitable depth below the next propping level, install props and then repeat the operation until the final excavation level has been reached.

4.4 Permanent Works

When the final excavation depths have been reached the permanent works will be formed, which are likely to comprise reinforced concrete walls with a drained cavity lining the inside of the newly formed retaining walls.

Reinforced concrete will be used for floor slabs and it is understood that heave protection will be installed beneath the basement slab for the Eastern and Southern Extensions, whilst a 350 mm thick reinforced raft foundation will be adopted for the new Pavilion building. Following this, slabs will be constructed at basement and ground floor levels and the temporary props may be removed thereafter.

5.0 GROUND MOVEMENTS

An assessment of ground movements within and surrounding the excavations has been undertaken using the X-Disp and P-Disp computer programs licensed from the OASYS suite of geotechnical modelling software from Arup. These programs are commonly used within the ground engineering industry and are considered to be appropriate tools for this analysis.

The X-Disp and P-Disp programs have been used to predict ground movements likely to arise from the construction of the proposed basement. This includes the heave / settlement of the ground (vertical movement) and the lateral movement of soil behind the proposed retaining walls (horizontal movement).

For the purpose of these analyses, the corners have been defined by x and y coordinates, with the x-direction orientated approximately east-west, whilst the y-direction is orientated approximately north-south. Vertical movement is in the z-direction.

It is assumed that suitable propping will be provided during the construction of the basement and in the permanent condition, such that the walls can be considered to be stiff for the purpose of the ground movement modelling.

Published data for ground movements associated with underpinned retaining walls and subsequent excavation in front of this system is limited compared to other types of retaining wall. It is possible to use the well-documented predictions and movement curves for embedded retaining walls contained within CIRIA C760⁵. However, this approach is considered to be conservative as underpinned walls are unlikely to move horizontally to any significant degree as they are usually subject to a continued vertical loading from the structure above. Therefore, the analysis of potential ground movements associated with the proposed underpinning of the existing school building, as a result of unloading of the underlying soils, and loading through the installation of the underpins, has been carried out using the Oasys P-Disp software package and is based on the assumption that the soils behave elastically, which provides a reasonable approximation to soil behavior at small strains. The analysis of potential ground movements associated with installation of the RC retaining wall on the northern part of the site and the sheet piled retaining wall for the proposed Pavilion has been carried out using Oasys X-Disp.

In order to address the potential impact of the proposed underpinning and RC retaining wall construction, the likely vertical movements calculated using P-Disp (displacement lines only – see Figure 3 in appendix), have been imported into X-Disp to enable a damage assessment to be undertaken of all the potential movements. For the purpose of this analysis, the total movements have been adopted as the most critical case in terms of potential damage to the neighbouring properties.

The full outputs of all the analyses are included within the appendix.

5.1 Vertical Ground Movements (Settlement / Heave)

At this site unloading of the underlying soils will take place as a result of the proposed excavations and the reduction in vertical stress will cause heave to take place. Loading of the soils beneath the proposed foundations and sections of underpinning will take place as the new foundations are formed and the proposed new structures gain height.

⁵ Gaba, A, Hardy, S, Powrie, W, Doughty, L and Selemetas, D (2017) *Embedded retaining walls – guidance for economic design* CIRIA Report C760

Undrained soil parameters have been used to estimate the potential short-term movements, which include the “immediate” or elastic movements, and drained parameters have been used to provide an estimate of the total movements.

A rigid boundary for the analysis has been set at a level of 60 m OD, at which point nearby BGS records indicate the base of the London Clay is likely to be encountered, below which essentially incompressible soils of the Lambeth Group and Thanet Sand are expected to be present.

The soil parameters used in the analysis are set out in Section 3.1, with Poisson’s ratio (ν) for cohesive soils taken as 0.5 for the short term and 0.2 for the long term whilst for granular soils a value of 0.2 has been adopted for both short and long-term behaviour.

The proposed development will comprise a maximum excavation depth for the new Pavilion structure of approximately 3.0 m, which will result in a net unloading of about 60 kN/m² (see Figure 2). In the long term some of this unloading will be countered by the adoption of a raft foundation (see Figure 1). However, as the bearing pressure of the proposed raft is expected to be in the region of 25 kN/m², this structure will be subject to a long-term net unloading of 35 kN/m².

On the upper part of the site, where the proposed excavations for the new Eastern and Southern extensions are either much shallower, or will comprise the removal of a greater thickness of made ground, the degree of unloading is expected to reduce to 45 kN/m² and 20 kN/m² respectively (see Figure 2).

Information provided by Heyne Tillett Steel indicates that the loads on the proposed reinforced and mass concrete underpinning to form the proposed Eastern extension will result in a bearing pressure of between 70 kN/m² and 210 kN/m². Bearing pressures of between 74 kN/m² and 162 kN/m² are anticipated for the new pad foundations for the Eastern and Southern extensions (see Figure 1). An assessment of the potential behaviour of these foundations has been included within the analysis.

An assessment of vertical ground movements as a result of the proposed development has been undertaken by GEA using the P-Disp computer program licensed from the OASYS suite of programmes from Arup. The predicted movements are summarised in each of the tables below for each the various parts of the development, with associated contour plots (Figures 4 to 8) in the appendix.

5.1.1 Results – Eastern Extension

Location	Movement (mm)*		
	Short-term Heave / Settlement (Excavation Phase)	Long-term Heave / Settlement (post construction)	Total Heave / Settlement
Centre of excavations	6.0 to -6.0	0.5 to -0.5	6.5 to -6.5
Edge of excavations	1.5 to -1.5	0.5 to -0.5	2.0 to -2.0
At 5 m from edge of excavations	0.0 to -0.5	-	0.0 to -0.5

*A positive number denotes settlement, whilst a negative number denotes heave.

5.1.2 Results – Southern Extension

Location	Movement (mm)*		
	Short-term Heave / Settlement (Excavation Phase)	Long-term Heave / Settlement (post construction)	Total Heave / Settlement
Centre of excavations	2.0 to -3.5	0.0 to -0.5	2.0 to -4.0
Edge of excavations	1.0 to -2.0	0.0 to -1.0	1.0 to -3.0
At 5 m from edge of excavations	1.0 to -0.5	-	1.0 to -0.5

*A positive number denotes settlement, whilst a negative number denotes heave.

5.1.3 Results - Pavilion

Location	Movement (mm)*			
	Short-term Heave / Settlement (Excavation Phase)	Short-term Heave / Settlement (following raft construction)	Long-term Heave / Settlement (post construction)	Total Heave / Settlement
Centre of excavations	-13.0	5.0	-2.0	-9.0
Edge of excavations	-6.0	2.0	-1.0	-5.0

*A positive number denotes settlement, whilst a negative number denotes heave.

The analysis for the Pavilion indicates that following excavation and application of the proposed raft loadings, there will be some recovery of the short-term heave movements of up to 5 mm, following which, a further 2 mm of heave may be expected in the long term.

It is important to note that the analysis is based on an unrestrained excavation as the model is unable to take account of the mitigating effect of the proposed sheet piled retaining wall, which in reality will combine to restrict all movements within the proposed excavation. The movements predicted at or just beyond the excavation boundaries (see Figures 6, 7 and 8) are unlikely to be realised and have therefore been omitted from the above table and in the subsequent assessment of potential damage to any sensitive structures, such as the nearby boundary wall.

5.2 Ground Movements due to Wall Deflection

5.2.1 Underpinning of Existing Foundations

Vertical Movements:

The likely vertical movements on underpinning, which will result from the loading applied by the existing and proposed structures, are based on the above P-Disp analysis (see Figure 5 in appendix). For the purpose of this analysis, the total movements have been adopted as the most critical case in terms of potential damage to the neighbouring properties.

Horizontal Movements:

For an underpinned wall this movement is likely to be small as the wall will be subject to a continued vertical loading from the structure above, which will also act as additional support at ground level. In addition, the proposed sections of underpinning of existing foundation at this site will also be constructed against existing areas of lower ground floor construction or, in the case of the wall that will be formed between the existing building and the new east

extension (see DL31 on Figure 3), will involve excavation on both sides of the wall. The potential for horizontal movement on the sections of traditional underpinning proposed as part of this development are therefore considered to be negligible and assumed to be zero as part of the subsequent assessment.

5.2.2 Reinforced Concrete Retaining Walls (East Extension)

Wall Installation:

As the proposed reinforced concrete retaining wall will be formed beyond the footprint of the existing building and will not therefore be supported by the existing structure or subject to any loading during construction, it is likely that some vertical and horizontal settlement will occur during installation.

Due to the lack of publicly available information for reinforced concrete retaining walls, predictions of the vertical and horizontal ground movements behind the wall, as a result of wall installation, have been based on case study information from CIRIA for planar diaphragm walls installed into stiff clay. There are no data sets available for the installation of this type of wall in granular material and the predicted movements for a wall in clay are considered to be a conservative approach.

Following Excavation:

Experience with respect to the construction of underpinned retaining walls suggests that horizontal ground movements should typically remain within the range of 2 mm to 5 mm following completion of the works, provided that they are installed by a reputable and experienced contractor in accordance with the guidelines published by the Association of Specialist Underpinning Contractors⁶. Whilst the new retaining walls are not strictly underpins, the sequence of construction is assumed to be similar, such that the reported movements above are deemed reasonable for this assessment.

For the purpose of this X-Disp analysis, the plot for horizontal wall movements as a result of the excavation in front of a stiff wall in stiff clay (based on Fig 2.11a CIRIA C580⁷) has been adapted to reflect a trend line (ref; 'Curve for 5 mm of horizontal settlement due to excavation in front of new RC retaining wall'). This assumes a movement of 5 mm immediately behind the wall, with movement that diminishes with distance from the wall according to the trend line set by a wall within clay.

As with the sections of traditional underpinning, the results from the above P-Disp analysis have been used to assess the likely vertical movements (see Figure 5 in appendix) due to excavation in front of the proposed RC retaining wall.

Results:

The movements predicted by X-Disp are summarised in the table below and are also presented in the contour plots displayed in Figures 9A to 10B in the appendix. The results are presented below and in subsequent tables to the degree of accuracy required to allow predicted variations in ground movements around the structure to be illustrated, but may not reflect the anticipated accuracy of the predictions.

⁶ Haslam S, O'Connor L (2013) *Guidelines on safe and efficient basement construction directly below or near to existing structures* ASUC

⁷ Gaba, A, Simpson, B, Powrie, W and Beadman, D (2003) *Embedded retaining walls – guidance for economic design*. CIRIA Report C580.

Phase of Works	Wall Movement (mm)	
	Vertical Heave / Settlement	Horizontal Movement
Installation of retaining walls (see Figure 9 A & B)	1.0 to 1.5	1.5
Excavation Phase (see Figure 10A)	Refer to Figure 5 for P-Dips output	5.0*

* Limiting movements immediately behind the proposed wall.

The estimated movements are considered to represent a worst-case scenario, particularly as the movements resulting from basement excavation will be minimised due to control of the propping in the temporary works.

5.2.2 Pavilion – Sheet Piled Retaining Wall

For the new Pavilion construction, which will be formed through sheet piling, the ground movement curves for ‘installation of secant bored pile wall in stiff clay’ have been adopted as being most appropriate for modelling the likely ground movements during the installation phase.

It is assumed that the sheet piles will be embedded into the Claygate Member (to a minimum level of 108 m OD) and propped in the temporary condition. The ground movement curves for ‘excavations in front of a high stiffness wall in stiff clay’ have therefore been adopted to provide an estimate of the likely movements from the subsequent excavations.

Results:

The movements predicted by X-Disp are summarised in the table below and are also presented in the contour plots displayed in Figures 11A to 13B in the appendix; the results are presented below

Phase of Works	Wall Movement (mm)	
	Vertical Settlement	Horizontal Movement
Installation of retaining walls (see Figure 11A & B)	2.5 to 3.0	4.0 to 5.0
Excavation Phase (see Figure 12A & B)	2.0 to 2.5	4.0 to 5.0

The analysis has indicated that the maximum vertical and horizontal movements that will result from sheet pile installation are approximately 3.0 mm and 5.0 mm respectively, whilst maximum vertical and horizontal movements due to excavation are approximately 2.5 mm and 5.0 mm respectively.

The movements arising from the combined installation and excavation phases are therefore not likely to exceed 5.0 mm of vertical settlement (see Figure 13A in appendix), whilst the maximum horizontal movements are anticipated to be in the region of 9.0 mm to 10.0 mm (see Figure 13B in appendix).

The estimated movements are considered to represent a worst-case scenario, particularly as the movements resulting from basement excavation will be minimised due to control of the propping in the temporary works.

6.0 DAMAGE ASSESSMENT

In addition to the assessment of the likely movements that will result from the proposed development, some of the neighbouring structures have been set as sensitive structures, requiring Building Damage Assessments, on the basis of the classification given in Table 6.4 of C760, as follows.

- Boundary Wall with Highgate High Street to the north;
- the existing Stable Block building to the west;
- the existing Boundary Wall to the west of the proposed Pavilion; and
- the walls of the existing School Building.

The sensitive structures outlined above have been assessed as falling within the zone of influence of the proposed basement and are modelled as lines in the analysis, along which the damage assessment has been undertaken.

The location of each of the buildings or sensitive structures is detailed in Figure 3 in the appendix, each of which is represented by an individual displacement line, labelled DL1 to DL39. Other nearby structures have been assessed as being sufficiently distant from the site as to not be affected and have not therefore been included within the analysis presented below.

The critical lines for the sensitive structures are expected to be sensitive at their respective foundation levels, which have been established based on the findings of the recent site investigation and / or from information provided by the structural engineer. For example, the boundary wall between the site and Highgate High Street, which is shown as having foundations extending to level of approximately 114.5 m OD. No information is available for the adjoining Stable Block or the Boundary Wall adjacent to the proposed Pavilion, and these structures have therefore been assumed to have shallow foundations that extend to a depth of approximately 1.0 m below ground level.

6.1 Damage to Neighbouring Structures

The combined movements calculated using the P-Disp and X-Disp modelling software have been used to carry out an assessment of the likely damage to adjacent properties and the results are summarised in the table below.

Building Damage Assessment	Displacement Line No	Max Tensile Strain	Category of Damage*
Existing School Building -With Lower Ground Floor Level (Foundations at 113.5 m OD to 114 m OD)	1	0.015	Category 0 (Negligible)
	2	<0.010	Category 0 (Negligible)
	3	<0.010	Category 0 (Negligible)
	4	<0.010	Category 0 (Negligible)
	5	<0.010	Category 0 (Negligible)
	6	0.052	Category 1 (Very Slight)
	7	0.011	Category 0 (Negligible)
	8	<0.010	Category 0 (Negligible)
	9	<0.010	Category 0 (Negligible)

Building Damage Assessment			
Sensitive Structure	Displacement Line No	Max Tensile Strain	Category of Damage*
	10	<0.010	Category 0 (Negligible)
	11	<0.010	Category 0 (Negligible)
	12	<0.010	Category 0 (Negligible)
	13	<0.010	Category 0 (Negligible)
	14	<0.010	Category 0 (Negligible)
	15	<0.010	Category 0 (Negligible)
	16	<0.010	Category 0 (Negligible)
	17	<0.010	Category 0 (Negligible)
	18	0.032	Category 0 (Negligible)
	19	0.030	Category 0 (Negligible)
	21	<0.010	Category 0 (Negligible)
	22	<0.010	Category 0 (Negligible)
	23	<0.010	Category 0 (Negligible)
	24	<0.010	Category 0 (Negligible)
	25	<0.010	Category 0 (Negligible)
	26	<0.010	Category 0 (Negligible)
	27	0.012	Category 0 (Negligible)
	28	0.029	Category 0 (Negligible)
	29	0.058	Category 1 (Very Slight)
Existing School Building -Without Lower Ground Floor Level (Foundations at 116 m OD)	20	<0.01	Category 0 (Negligible)
	30	0.054	Category 1 (Very Slight)
	31	0.034	Category 0 (Negligible)
Boundary Wall with Highgate High Street (Foundations at 114.5 m OD)	32	0.040	Category 0 (Negligible)
	33	<0.010	Category 0 (Negligible)
	34	<0.01	Category 0 (Negligible)
Stable Block (Foundations assumed at 116 m OD)	35	<0.01	Category 0 (Negligible)
	36	<0.01	Category 0 (Negligible)
	37	<0.01	Category 0 (Negligible)
	38	<0.01	Category 0 (Negligible)
Boundary Wall adjacent to Pavilion Structure (Foundations assumed at 113 m OD to 111 m OD)	39	0.025	Category 0 (Negligible)

*From Table 6.4 of C760: Classification of visible damage to walls.

The building damage reports for sensitive structures highlighted in the above table predict that the damage to the adjoining and nearby structures would generally be Category 0 (Negligible). Some limited sections of Category 1 (Very Slight) damage have been identified along three walls of the existing school building, notably DL06, DL29 and DL30. However, this is only marginally above the limit for Category 0 damage of 0.05 and these movements are within the acceptable limits outlined in the draft version of CPG4 in accordance with Policy A5 of the Local Plan.

The results discussed above are based on individual building lines, or walls, that have been further divided up into a series of 1.0 m segments that can move independently of one another. In reality, this is unlikely to be the case as the walls will behave as single stiff elements that are also joined continuously with the rest of the structure. The results therefore provide a conservative estimate of the behaviour of each of the sensitive structures and overestimate the degree of damage, although they provide a useful indication of the most critical structures within the adjoining properties. It is also worth noting that, with particular respect to DL30, that this structure will be underpinned as part of the proposed development, such that the present assessment of this structure with a higher foundation level of 116 m OD is considered extremely conservative.

6.2 Monitoring of Ground Movements

The predictions of ground movement based on the ground movement analysis should be checked by monitoring of adjacent properties and structures. The structures to be monitored during the construction stages should include:

- Boundary Wall with Highgate High Street to the north;
- the existing Stable Block building to the west;
- the existing Boundary Wall to the west of the proposed Pavilion; and
- the walls of the existing School Building.

The precise monitoring strategy will be developed at a later stage and it will be subject to discussions and agreements with the owners of the adjacent properties and structures. Contingency measures will be implemented if movements of the adjacent structures exceed predefined trigger levels. Both contingency measures and trigger levels will need to be developed within a future monitoring specification for the works.

7.0 GMA CONCLUSIONS

The analysis has concluded that the predicted damage to the adjoining and nearby structures would generally be Category 0 (Negligible), with a limited number of segments of 'Very Slight' damage. It is, however, important to bear in mind that the results provide a conservative estimate of the behaviour of each of the sensitive structures and that in reality the predicted movements are unlikely to be fully realised. It is therefore considered that the maximum damage is unlikely to exceed Category 0 (Negligible).

Current guidance produced by the London Borough of Camden indicates that the risk of damage to neighbouring properties should be no greater than Category 1 (Very Slight). On this basis, the predicted damage that would inevitably occur as a result of the proposed development falls within acceptable limits, although monitoring is recommended to ensure that no excessive movements occur that would lead to damage in excess of these limits.

The separate phases of work, including underpinning and subsequent excavation of the proposed basement, will in practice be separated by a number of weeks. This will provide an opportunity for the ground movements during and immediately after installation of the retaining walls to be measured and the data acquired can be fed back into the design and compared with the predicted values. Such a comparison will allow the ground model to be reviewed and the predicted wall movements to be reassessed prior to the main excavation taking place so that propping arrangements can be adjusted if required.

APPENDIX

Proposed Development Plans

Plans of proposed loading (Figure 1), unloading (Figure 2)
and Displacement Lines for analysis (Figure 3)

SOIL DISPLACEMENT MODEL RESULTS

P-DISP ANALYSIS

Existing School & Proposed Extensions - Short Term Movement (Figure 4)

Existing School & Proposed Extensions - Total Movement (Figure 5)

Pavilion - Short Term Movement (Figure 6 & 7)

Pavilion - Total Movement (Figure 8)

X-DISP ANALYSIS

RC Retaining Wall - Vertical Movements and Horizontal Movements (Figure 9 to 10)

Pavilion - Vertical Movements and Horizontal Movements (Figure 11 to 13)

BUILDING DAMAGE ASSESSMENT (X-DISP)

Existing School & Proposed Extensions - Tabular Output of Input & Results

Pavilion - Tabular Output of Input & Results



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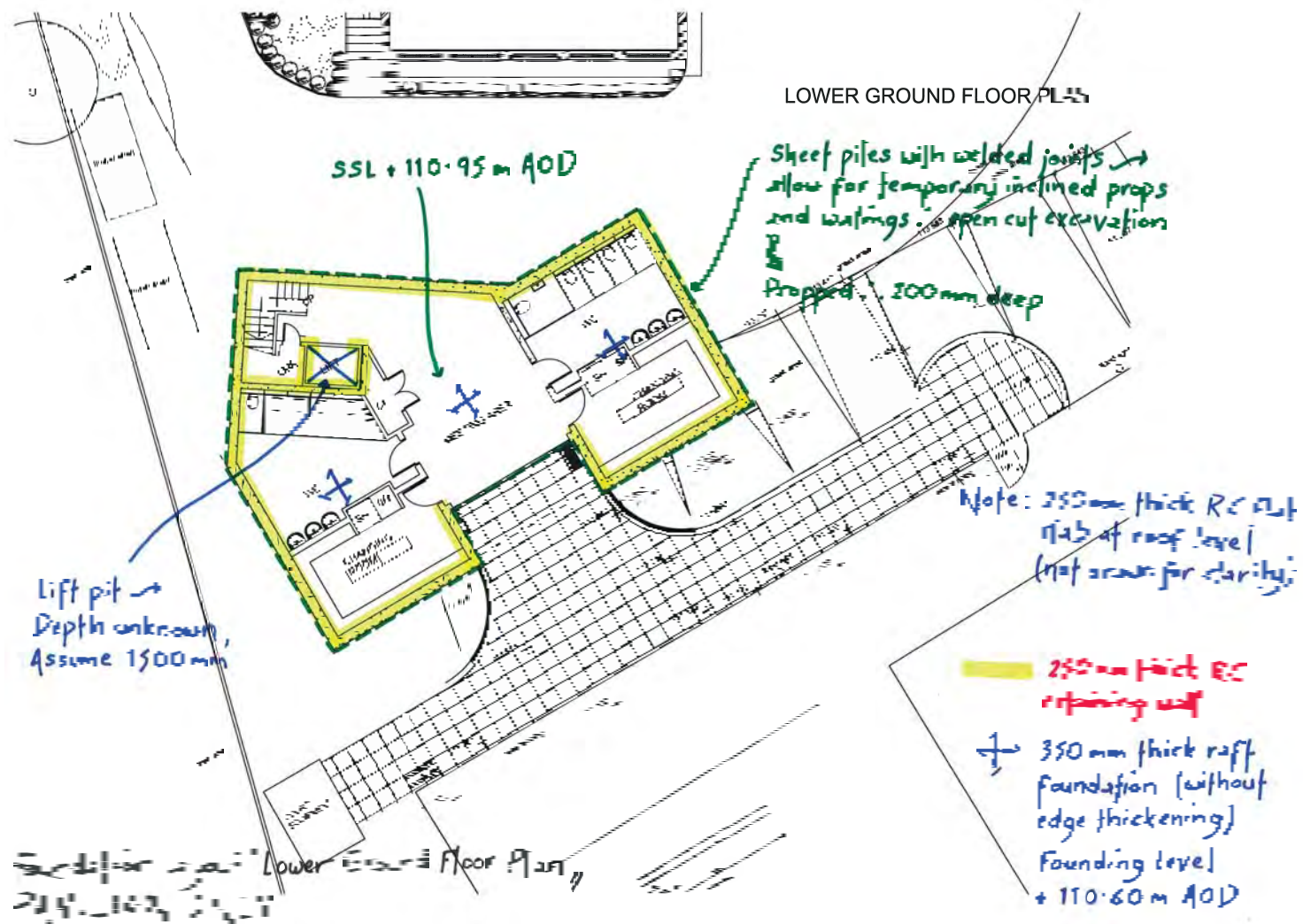
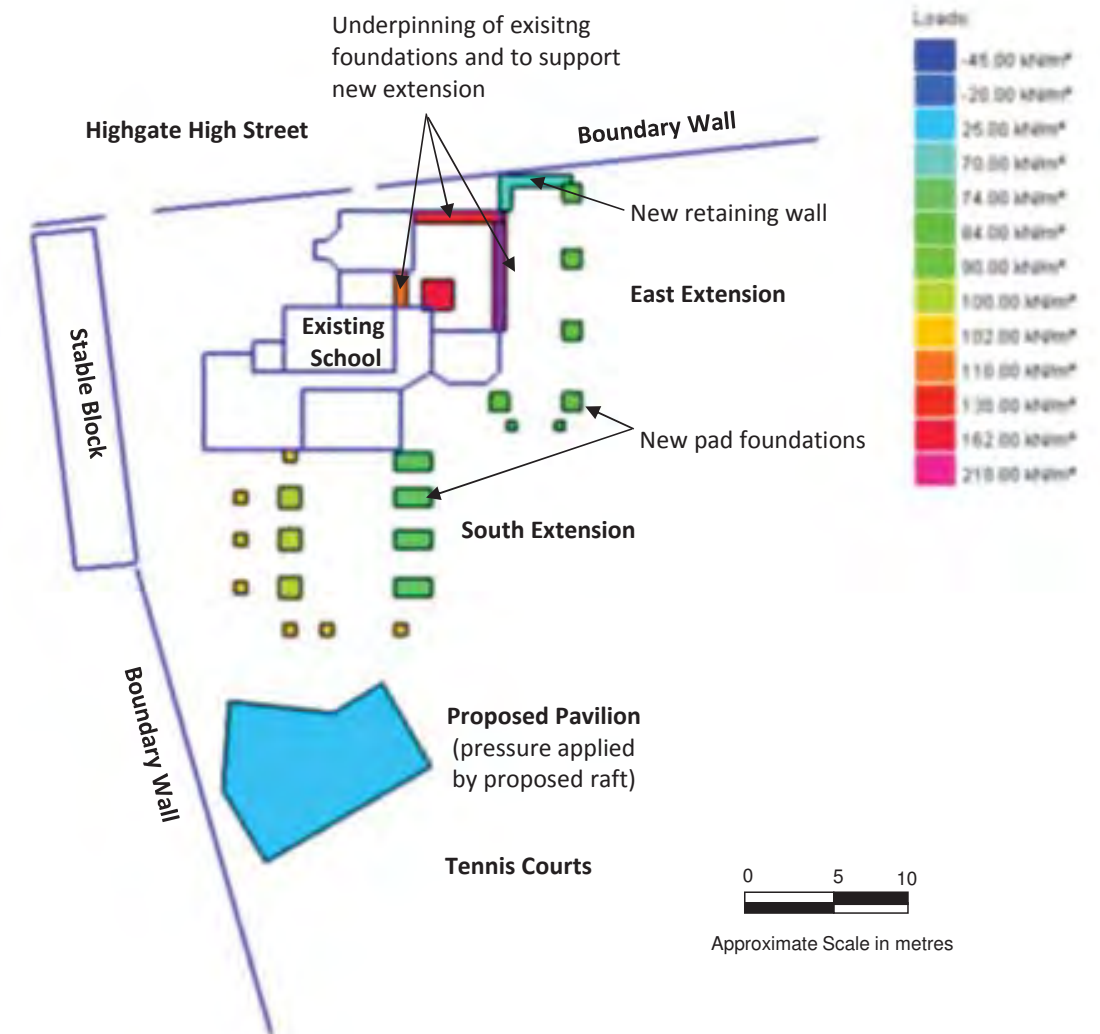


Figure 1: Plan of Proposed Loading



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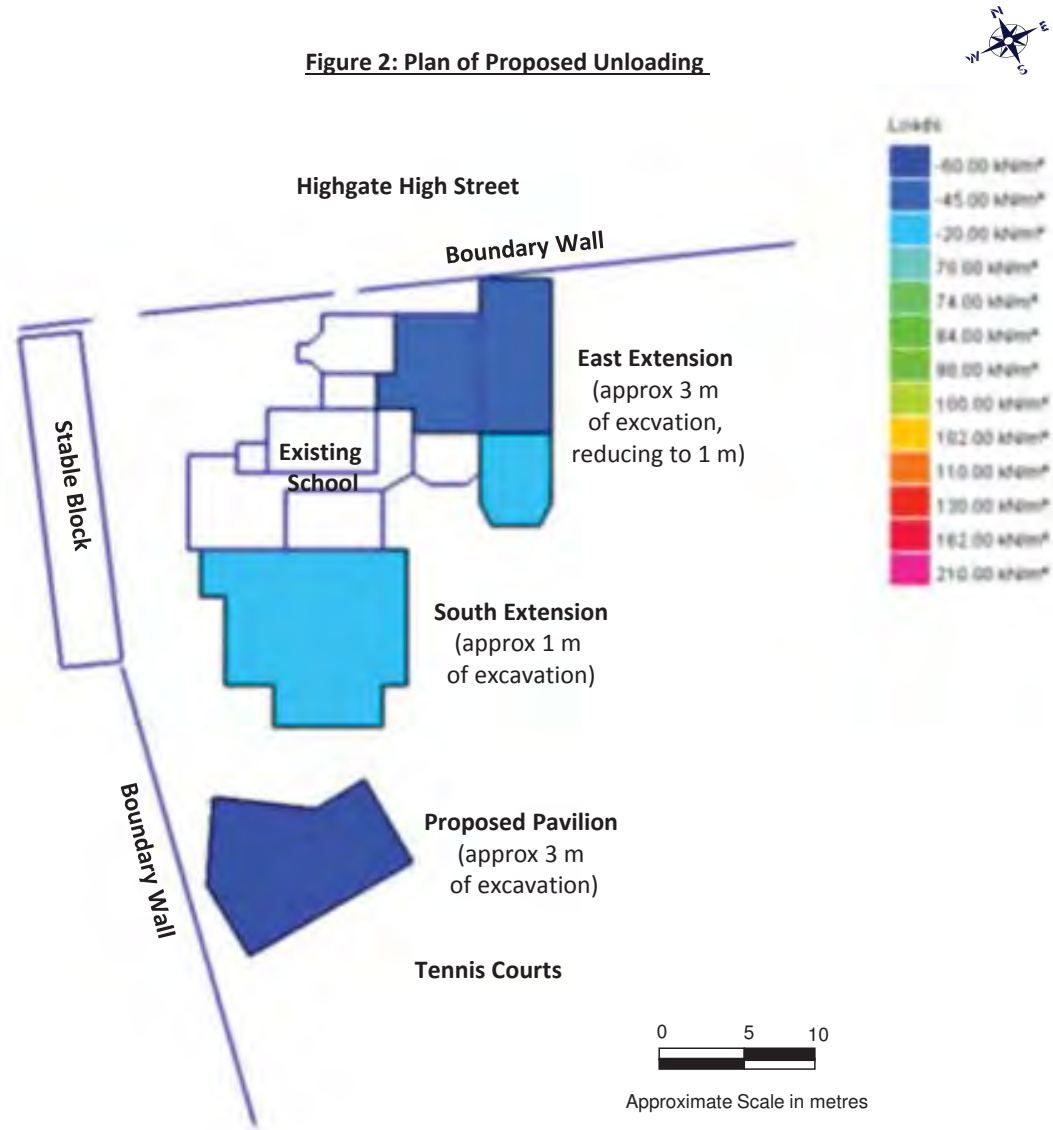
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Figure 2: Plan of Proposed Unloading



Site Channing Junior School, Highgate High Street, N6 5JR

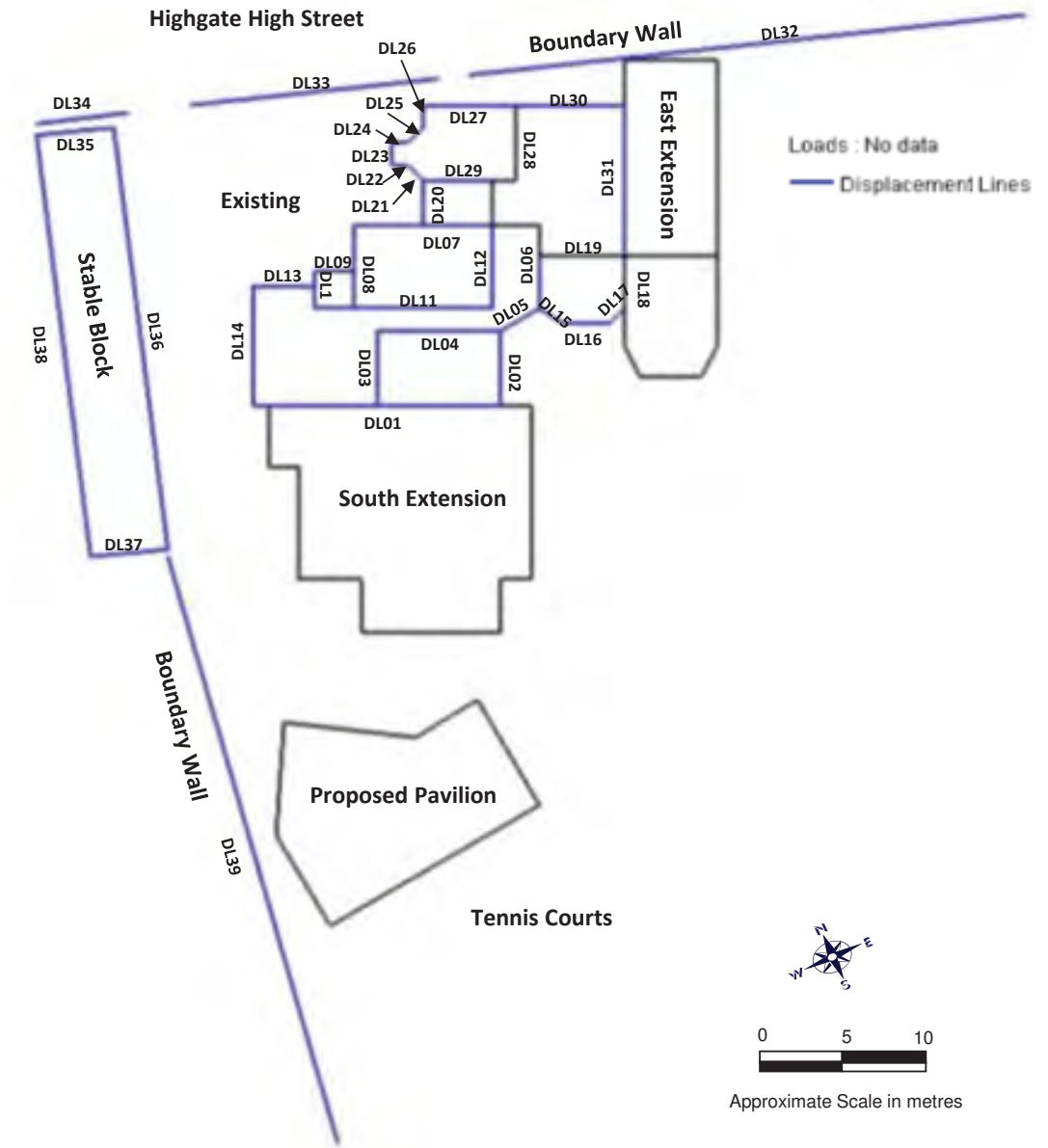
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Figure 3: Displacement Lines (outlining extent of existing buildings and nearby sensitive structures)





Ground Movement Plot

Site Channing Junior School, Highgate High Street, N6 5JR

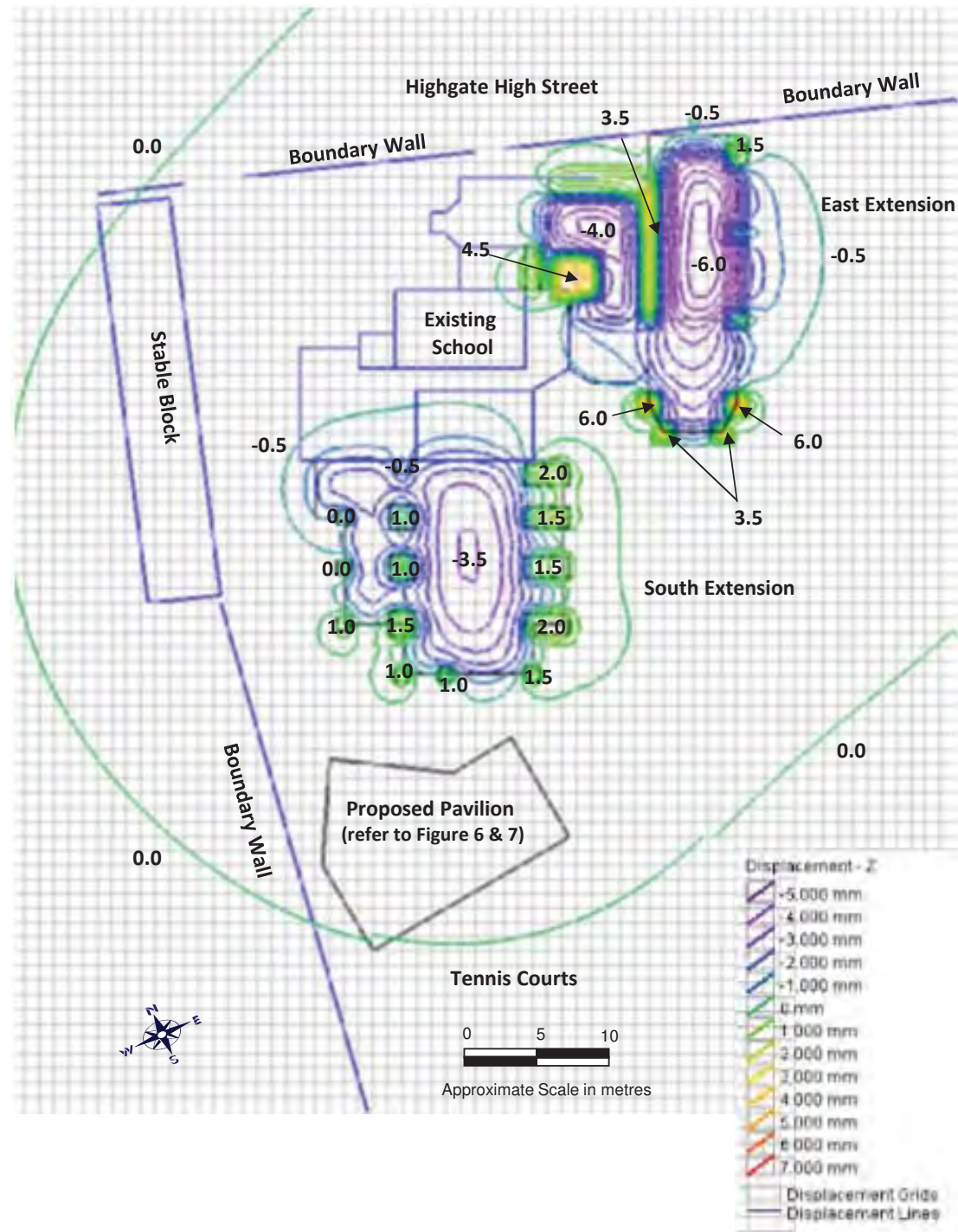
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Figure 4 - Short-Term Heave / Settlement



Channing Junior School, Highgate High Street, N6 5JR Short-Term Heave / Settlement Excluding Pavilion

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Notes

Refer to Figure 4 for contour output of displacement grids

Analysis Options

Analysis: Boussinesq
Global Poisson's ratio: 0.50
Maximum allowable ratio between values of E: 1.5
Horizontal rigid boundary level: 60.00 [m OD]
Displacements at load centroids: Yes

Soil Profiles Soil Profile 1

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m²]	Poissons ratio	Non-linear curve
1	117.00	1	10000.	0.20000	None
2	115.00	5	40000.	0.20000	None
3	110.00	8	25000.	0.20000	None
4	102.00	12	52500.	0.50000	None
5	90.000	15	106500.	0.50000	None

Soil Profiles Soil Profile 2

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m²]	Poissons ratio	Non-linear curve
1	114.00	1	10000.	0.20000	None
2	113.00	5	40000.	0.20000	None
3	110.00	8	25000.	0.20000	None
4	102.00	12	52500.	0.50000	None
5	90.000	15	106500.	0.50000	None

Soil Profiles Soil Profile 3

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m²]	Poissons ratio	Non-linear curve
1	112.00	1	10000.	0.20000	None
2	111.00	5	40000.	0.20000	None
3	110.00	8	25000.	0.20000	None
4	102.00	12	52500.	0.50000	None
5	90.000	15	106500.	0.50000	None

Soil Zones

Zone	Name	X coordinates [m]	Y coordinates [m]	Profile
1	Soil Zone 1	-20.00000	0.00000	Soil Profile 1
2	Soil Zone 2	0.00000	31.00000	Soil Profile 1
3	Soil Zone 3	31.00000	50.00000	Soil Profile 1
4	Soil Zone 4	0.00000	31.00000	Soil Profile 2
5	Soil Zone 5	31.00000	50.00000	Soil Profile 2
6	Soil Zone 6	-20.00000	50.00000	Soil Profile 2
7	Soil Zone 7	-20.00000	5.00000	Soil Profile 2
8	Soil Zone 8	5.00000	-34.50000	Soil Profile 3
9	Soil Zone 9	-20.00000	50.00000	Soil Profile 3

Load Data

Load ref.	Name	Shape	Orientation of Plane	Centre of load [m]	Load position [Degrees]	Width x or Radius [m]	Length y [m]	Polygon Coordinates [m]	Rectangle tolerance	Number of rectangles	Normal Load value [kN/m²]	Tangential Load value [kN/m²]
1	East Extension	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(24,23) (24,20) (17,20) (17,15) (15.5,15) (15.5,12) (18.5,12) (18.5,10) (30,10) (30,23)	10.000	4	-45.000	N/A
2	East Extension	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(24,10) (24,4) (25,2) (29,2) (30,4) (30,10)	10.000	2	-20.000	N/A
3	South Extension	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(17,0) (18,0) (18,-11.5) (16,-11.5) (16,-15) (7,-15) (7,-11.5) (3,-11.5) (3,-4) (1,-4)	10.000	3	-20.000	N/A
4	Pavilion	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(2,-21) (10.5,-22) (14.5,-19.5) (18.5,-26.5) (5,-34.5) (1.5,-28.5)	5.00000	10	0.0	N/A
5	L-Shaped RC Underpin for East Extension	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(30,23) (30,22) (25,22) (25,20) (24,20) (24,23)	10.000	2	70.000	N/A
6	RC Underpin of Wall 30	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(24.5,20) (17,20) (17,19) (24.5,19)	10.000	1	130.00	N/A
7	RC Underpin between Wall 27 & 29	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(15.5,12) (15.5,12) (16.5,12) (16.5,15)	10.000	1	110.00	N/A
8	RC Underpin of Wall 31	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(23.5,19) (24.5,19) (24.5,10) (23.5,10)	10.000	1	210.00	N/A
9	Pad 6	Rectangular	Horizontal	19.00000	13.00000	113.85000	0.0	2.5000 2.5000	N/A	1	162.00	0.0
10	Pad 1 - A	Rectangular	Horizontal	24.00000	4.00000	113.85000	0.0	1.5000 1.5000	N/A	1	90.000	0.0
11	Pad 2 - A	Rectangular	Horizontal	25.00000	2.00000	113.85000	0.0	0.75000 0.75000	N/A	1	84.000	0.0
12	Pad 2 - B	Rectangular	Horizontal	29.00000	2.00000	113.85000	0.0	0.75000 0.75000	N/A	1	84.000	0.0
13	Pad 5 - A	Rectangular	Horizontal	7.00000	-0.50000	112.60000	0.0	1.0000 1.0000	N/A	1	102.00	0.0
14	Pad 5 - B	Rectangular	Horizontal	3.00000	-4.00000	112.60000	0.0	1.0000 1.0000	N/A	1	102.00	0.0
15	Pad 5 - C	Rectangular	Horizontal	3.00000	-7.50000	112.60000	0.0	1.0000 1.0000	N/A	1	102.00	0.0
16	Pad 5 - D	Rectangular	Horizontal	3.00000	-11.50000	112.60000	0.0	1.0000 1.0000	N/A	1	102.00	0.0
17	Pad 5 - E	Rectangular	Horizontal	7.00000	-15.00000	112.60000	0.0	1.0000 1.0000	N/A	1	102.00	0.0
18	Pad 5 - F	Rectangular	Horizontal	10.00000	-15.00000	112.60000	0.0	1.0000 1.0000	N/A	1	102.00	0.0
19	Pad 5 - G	Rectangular	Horizontal	16.00000	-15.00000	112.60000	0.0	1.0000 1.0000	N/A	1	102.00	0.0
20	Pad 4 - A	Rectangular	Horizontal	17.00000	-1.00000	112.60000	0.0	3.0000 1.5000	N/A	1	74.000	0.0
21	Pad 4 - B	Rectangular	Horizontal	17.00000	-4.00000	112.60000	0.0	3.0000 1.5000	N/A	1	74.000	0.0
22	Pad 4 - C	Rectangular	Horizontal	17.00000	-7.50000	112.60000	0.0	3.0000 1.5000	N/A	1	74.000	0.0
23	Pad 4 - D	Rectangular	Horizontal	17.00000	-11.50000	112.60000	0.0	3.0000 1.5000	N/A	1	74.000	0.0
24	Pad 3 - A	Rectangular	Horizontal	7.00000	-4.00000	112.60000	0.0	1.7500 1.7500	N/A	1	100.00	0.0
25	Pad 3 - B	Rectangular	Horizontal	7.00000	-7.50000	112.60000	0.0	1.7500 1.7500	N/A	1	100.00	0.0
26	Pad 3 - C	Rectangular	Horizontal	7.00000	-11.50000	112.60000	0.0	1.7500 1.7500	N/A	1	100.00	0.0
27	Pad 1 - B	Rectangular	Horizontal	30.00000	21.50000	113.85000	0.0	1.5000 1.5000	N/A	1	90.000	0.0



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Excluding Pavillion

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MP		

Load ref.	Name	Shape	Orientation of Plane	Centre of load (Global) X Y Z (level)	Load position local x or Radius	Width x or Length y	Polygon Coordinates	Rectangle of tolerance	Number of rectangles	Normal (local x)	Tangential (local y)	Load value (local z)
28	Pad 1 - C	Rectangular	Horizontal	30.00000 16.00000 113.85000	0.0 1.5000 1.5000	N/A			1	90.000	0.0	0.0
29	Pad 1 - D	Rectangular	Horizontal	30.00000 16.00000 113.85000	0.0 1.5000 1.5000	N/A			1	90.000	0.0	0.0
30	Pad 1 - E	Rectangular	Horizontal	30.00000 4.00000 113.85000	0.0 1.5000 1.5000	N/A			1	90.000	0.0	0.0

Polygonal Loads' Rectangles

No.	Centre of load X [m]	Y [m]	Angle of local x from global X [degrees]	Width x [m]	Depth y [m]
Load 1 : East Extension (Edge 1 optimal)					
1	27.00000	21.50000	-90.000	3.0000	6.0000
2	23.50000	17.50000	-90.000	5.0000	13.000
3	22.75000	13.50000	-90.000	3.0000	14.500
4	24.25000	11.00000	-90.000	2.0000	11.500
Load 2 : East Extension (Edge 1 optimal)					
1	27.00000	7.00000	-90.000	6.0000	6.0000
2	27.00000	3.00000	-90.000	2.0000	5.0000
Load 3 : South Extension (Edge 1 optimal)					
1	10.50000	-7.75000	-90.000	7.5000	15.000
2	11.50000	-13.25000	-90.000	3.5000	9.0000
3	9.50000	-2.00000	-90.000	4.0000	17.000
Load 4 : Pavillion (Edge 1 optimal)					
1	3.53052	-30.88353	30.651	1.0634	7.7207
2	4.05044	-29.67497	30.651	1.0634	9.2700
3	5.57037	-28.46640	30.651	1.0634	10.819
4	5.09029	-27.25784	30.651	1.0634	12.369
5	6.54628	-26.44788	30.651	2.2676	12.278
6	8.93832	-26.03655	30.651	2.2676	10.547
7	11.33037	-25.62521	30.651	2.2676	8.8153
8	14.48617	-24.22666	30.651	4.5882	8.0040
9	15.95946	-22.15034	30.651	0.063725	6.0437
10	14.98449	-20.38145	30.651	0.063725	2.0140
Load 5 : L-Shaped RC Underpin for East Extension (Edge 2 optimal)					
1	27.00000	22.50000	-90.000	1.0000	6.0000
2	24.50000	21.00000	-90.000	2.0000	1.0000
Load 6 : RC Underpin of Wall 30 (Edge 1 optimal)					
1	20.75000	19.50000	-180.00	7.5000	1.0000
Load 7 : RC Underpin between Wall 27 & 29 (Edge 1 optimal)					
1	16.00000	13.50000	-90.000	3.0000	1.0000
Load 8 : RC Underpin of Wall 31 (Edge 2 optimal)					
1	24.00000	14.50000	0.0	1.0000	9.0000

Displacement Data

Ref.	Type	Name	Direction of Extrusion	First point X [m] Y [m] Z [level]	Second point X [m] Y [m] Z [level]	No. of intrvl across extrusion/line	Extrusion Depth [m]	No. of intrvl along extrusion	Calculate	Show Detailed results
1	Line	Line 1	N/A	0.00000 0.00000 113.50000	8.00000 0.00000 113.50000	8	N/A	N/A	Yes	No
2	Line	Line 2	N/A	16.00000 0.00000 113.50000	16.00000 5.00000 113.50000	5	N/A	N/A	Yes	No
3	Line	Line 3	N/A	0.00000 0.00000 113.50000	8.00000 0.00000 113.50000	8	N/A	N/A	Yes	No
4	Line	Line 4	N/A	8.00000 5.00000 113.50000	16.00000 5.00000 113.50000	8	N/A	N/A	Yes	No
5	Line	Line 5	N/A	16.00000 5.00000 113.50000	18.50000 6.50000 113.50000	2	N/A	N/A	Yes	No
6	Line	Line 6	N/A	18.50000 6.50000 113.50000	18.50000 12.00000 113.50000	5	N/A	N/A	Yes	No
7	Line	Line 7	N/A	6.50000 12.00000 113.50000	18.50000 12.00000 113.50000	6	N/A	N/A	Yes	No
8	Line	Line 8	N/A	6.50000 6.50000 113.50000	6.50000 12.00000 113.50000	5	N/A	N/A	Yes	No
9	Line	Line 9	N/A	4.00000 9.00000 113.50000	6.50000 9.00000 113.50000	2	N/A	N/A	Yes	No
10	Line	Line 10	N/A	4.00000 6.50000 113.50000	4.00000 9.00000 113.50000	2	N/A	N/A	Yes	No
11	Line	Line 11	N/A	4.00000 6.50000 113.50000	15.50000 6.50000 113.50000	5	N/A	N/A	Yes	No
12	Line	Line 12	N/A	15.50000 6.50000 113.50000	15.50000 12.00000 113.50000	5	N/A	N/A	Yes	No
13	Line	Line 13	N/A	9.00000 6.50000 113.50000	12.00000 6.50000 113.50000	3	N/A	N/A	Yes	No
14	Line	Line 14	N/A	0.00000 0.00000 113.50000	0.00000 8.00000 113.50000	8	N/A	N/A	Yes	No
15	Line	Line 15	N/A	18.50000 6.50000 113.50000	20.00000 3.50000 113.50000	1	N/A	N/A	Yes	No
16	Line	Line 16	N/A	20.00000 5.50000 113.50000	23.00000 5.50000 113.50000	3	N/A	N/A	Yes	No
17	Line	Line 17	N/A	23.00000 5.50000 113.50000	24.00000 6.50000 113.50000	1	N/A	N/A	Yes	No
18	Line	Line 18	N/A	24.00000 6.50000 113.50000	24.00000 10.00000 113.50000	3	N/A	N/A	Yes	No
19	Line	Line 19	N/A	18.50000 10.00000 113.50000	24.00000 10.00000 113.50000	5	N/A	N/A	Yes	No
20	Line	Line 20	N/A	11.00000 12.00000 114.00000	15.00000 12.00000 114.00000	3	N/A	N/A	Yes	No
21	Line	Line 21	N/A	11.00000 15.00000 114.00000	10.00000 16.00000 114.00000	1	N/A	N/A	Yes	No
22	Line	Line 22	N/A	10.00000 16.00000 114.00000	9.00000 16.00000 114.00000	1	N/A	N/A	Yes	No
23	Line	Line 23	N/A	9.00000 17.50000 114.00000	17.50000 17.50000 114.00000	1	N/A	N/A	Yes	No
24	Line	Line 24	N/A	9.00000 17.50000 114.00000	10.00000 17.50000 114.00000	1	N/A	N/A	Yes	No
25	Line	Line 25	N/A	10.00000 17.50000 114.00000	11.00000 18.50000 114.00000	1	N/A	N/A	Yes	No
26	Line	Line 26	N/A	11.00000 18.50000 114.00000	11.00000 20.00000 114.00000	1	N/A	N/A	Yes	No
27	Line	Line 27	N/A	10.00000 20.00000 114.00000	20.00000 14.00000 114.00000	6	N/A	N/A	Yes	No
28	Line	Line 28	N/A	17.00000 15.00000 114.00000	17.00000 20.00000 114.00000	5	N/A	N/A	Yes	No
29	Line	Line 29	N/A	14.00000 15.00000 114.00000	17.00000 15.00000 114.00000	6	N/A	N/A	Yes	No
30	Line	Line 30	N/A	17.00000 20.00000 114.00000	24.00000 20.00000 114.00000	7	N/A	N/A	Yes	No
31	Line	Line 31	N/A	24.00000 10.00000 116.00000	24.00000 20.00000 116.00000	5	N/A	N/A	Yes	No
32	Line	Line 32	N/A	14.00000 22.00000 114.50000	50.00000 26.00000 114.40000	18	N/A	N/A	Yes	No
33	Line	Line 33	N/A	-4.00000 20.00000 114.50000	21.75000 114.50000	8	N/A	N/A	Yes	No
34	Line	Line 34	N/A	-14.00000 18.75000 114.50000	-8.00000 19.50000 114.50000	6	N/A	N/A	Yes	No
35	Line	Line 35	N/A	-14.00000 18.00000 116.00000	-9.00000 18.50000 116.00000	5	N/A	N/A	Yes	No
36	Line	Line 36	N/A	-9.00000 18.50000 116.00000	-5.50000 -9.50000 116.00000	14	N/A	N/A	Yes	No
37	Line	Line 37	N/A	-10.50000 -9.99500 116.00000	-5.50000 -9.50000 116.00000	5	N/A	N/A	Yes	No
38	Line	Line 38	N/A	-14.00000 18.00000 116.00000	-10.50000 -9.99500 116.00000	14	N/A	N/A	Yes	No
39	Line	Line 39	Global X	-5.50000 -10.00000 113.00000	5.50000 -49.00000 111.00000	20	N/A	N/A	Yes	No
40	Grid	Grid 1	Global X	0.00000 0.00000 117.00000	N/A 40.00000 117.00000	50	19.99500	31	No	N/A
41	Grid	Grid 2	Global X	0.00000 5.00500 117.00000	N/A 40.00000 117.00000	35	30.99500	31	No	N/A
42	Grid	Grid 3	Global X	31.00000 20.00500 117.00000	N/A 40.00000 117.00000	20	19.00000	19	No	N/A
43	Grid	Grid 4	Global X	0.00000 -10.00000 114.00000	N/A 5.00000 114.00000	15	31.00000	31	No	N/A
44	Grid	Grid 5	Global X	30.00000 -10.00000 114.00000	N/A 20.00000 114.00000	30	20.00000	20	No	N/A
45	Grid	Grid 6	Global X	-20.00000 -26.49500 114.00000	N/A -10.00000 114.00000	16	70.00000	70	No	N/A
46	Grid	Grid 7	Global X	-20.00000 -34.49500 114.00000	N/A -26.50000 114.00000	8	24.99500	25	No	N/A
47	Grid	Grid 8	Global X	5.00000 -34.50000 112.00000	N/A -34.50000 112.00000	8	45.00000	45	No	N/A
48	Grid	Grid 9	Global X	-20.00000 -50.00000 112.00000	N/A -34.50000 112.00000	15	70.00000	70	No	N/A

RESULTS FOR GRIDS

Analysis: Boussinesq
Global Poisson's ratio: 0.50
Horizontal rigid boundary level: 60.00 [m OD]
The maximum displacement difference between the Boussinesq method (3.4202mm) and the Mindlin method (-1.4882mm) occurs at point X = 24.00000m, Y = 16.00000m, level = 116.00mOD, and is 4.9084mm.

Name	X [m]	Location Y [m]	Z [level]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
East Extension	23.81856	15.91773	114.00000	3.0595	113.60	151.11	299.98	0.0030334
East Extension	27.00000	6.14493	114.00000	-2.8814	113.60	-19.975	-53.543	-0.31154E-6
South Extension	10.32783	-6.72288	113.00000	-3.4040	112.75	-20.000	-58.214	-308.92E-6
Pavillion	8.89752	-26.39877	110.50000	-0.035544	110.25	-0.010951	-0.32681	1.3055E-6
L-shaped RC Underpin for East Extension	26.37500	22.12500	113.85000	-1.3396	113.37	1.7676	-5.1206	78.631E-6
RC Underpin of	20.75000	19.50000	113.85000	1.8677	113.37	68.923	111.72	0.0015091



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Excluding Pavillion

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Name	X [m]	Location Y [m]	Z [level]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
Wall 30								
RC Underpin between Wall 27 & 29	16.00000	13.50000	113.85000	1.7767	113.37	52.808	88.421	0.0011422
RC Underpin of Wall 31	24.00000	14.50000	113.85000	2.7254	113.37	129.41	201.64	0.0028741
Pad 6	19.00000	13.00000	113.85000	4.1718	113.37	111.85	220.04	0.0022552
Pad 1 - A	24.00000	4.00000	113.85000	5.9854	113.43	75.378	128.70	0.0064713
Pad 2 - A	25.00000	2.00000	113.85000	3.4763	113.43	44.845	56.111	0.



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Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
Line 20	11.00000	12.00000	116.00000	-0.12603	115.50	0.0	0.0	0.0
	11.00000	13.00000	116.00000	-0.11845	115.50	0.0	0.0	0.0
	11.00000	14.00000	116.00000	-0.12017	115.50	0.0	0.0	0.0
	11.00000	15.00000	116.00000	-0.12820	115.50	0.0	0.0	0.0
Line 21	11.00000	15.00000	114.00000	-0.12893	113.60	-0.0021838	-0.42242	2.04665E-6
	10.00000	16.00000	114.00000	-0.12100	113.60	-0.0011109	-0.32724	1.60298E-6
Line 22	10.00000	16.00000	114.00000	-0.12100	113.60	-0.0011109	-0.32724	1.60298E-6
	9.00000	16.00000	114.00000	-0.10757	113.60	-0.54121E-6	-0.25352	1.24808E-6
Line 23	9.00000	16.00000	114.00000	-0.10757	113.60	-0.54121E-6	-0.25352	1.24808E-6
	9.00000	17.00000	114.00000	-0.10260	113.60	-588.68E-6	-0.24741	1.21948E-6
Line 24	9.00000	17.00000	114.00000	-0.10260	113.60	-588.68E-6	-0.24741	1.21948E-6
	10.00000	17.00000	114.00000	-0.11980	113.60	-971.45E-6	-0.31954	1.5685E-6
Line 25	10.00000	17.00000	114.00000	-0.11980	113.60	-971.45E-6	-0.31954	1.5685E-6
	11.00000	18.00000	114.00000	-0.13854	113.60	-0.0014641	-0.40181	1.9651E-6
Line 26	11.00000	18.00000	114.00000	-0.13854	113.60	-0.0014641	-0.40181	1.9651E-6
	11.00000	20.00000	114.00000	-0.12188	113.60	-0.0010892	-0.34569	1.6958E-6
Line 27	11.00000	20.00000	114.00000	-0.12188	113.60	-0.0010892	-0.34569	1.6958E-6
	12.00000	20.00000	114.00000	-0.14607	113.60	-0.0019010	-0.45507	2.2183E-6
	13.00000	20.00000	114.00000	-0.17552	113.60	-0.0036486	-0.61639	2.9725E-6
	14.00000	20.00000	114.00000	-0.20737	113.60	-0.0081103	-0.85452	4.0293E-6
	15.00000	20.00000	114.00000	-0.22660	113.60	-0.023148	-1.3474	5.0427E-6
	16.00000	20.00000	114.00000	-0.16765	113.60	-0.10333	-0.56595	0.0
	17.00000	20.00000	114.00000	0.57899	113.60	21.050	50.115	380.93E-6
Line 28	17.00000	15.00000	114.00000	-1.6896	113.60	-32.460	-66.906	-639.25E-6
	17.00000	16.00000	114.00000	-2.1000	113.60	-22.620	-59.108	-383.05E-6
	17.00000	17.00000	114.00000	-2.2108	113.60	-22.477	-58.719	-380.72E-6
	17.00000	18.00000	114.00000	-1.4862	113.60	-22.290	-53.309	-402.14E-6
	17.00000	19.00000	114.00000	-0.19402	113.60	10.056	24.895	177.20E-6
	17.00000	20.00000	114.00000	0.57899	113.60	21.050	50.115	380.93E-6
Line 29	11.00000	15.00000	114.00000	-0.12858	113.60	-0.0021838	-0.42242	2.0466E-6
	12.00000	15.00000	114.00000	-0.13664	113.60	-0.0046778	-0.97038	2.7116E-6
	13.00000	15.00000	114.00000	-0.13730	113.60	-0.012251	-0.78305	3.5477E-6
	14.00000	15.00000	114.00000	-0.12366	113.60	-0.046447	-0.98791	3.4461E-6
	15.00000	15.00000	114.00000	-0.096605	113.60	-0.229924	2.2144	-20.049E-6
	16.00000	15.00000	114.00000	0.43265	113.60	31.389	62.712	628.10E-6
	17.00000	15.00000	114.00000	-1.6896	113.60	-32.460	-66.906	-639.25E-6
Line 30	17.00000	20.00000	116.00000	0.61852	115.50	0.0	0.0	0.0
	18.00000	20.00000	116.00000	1.4053	115.50	0.0	0.0	0.0
	19.00000	20.00000	116.00000	1.4925	115.50	0.0	0.0	0.0
	20.00000	20.00000	116.00000	1.5200	115.50	0.0	0.0	0.0
	21.00000	20.00000	116.00000	1.5623	115.50	0.0	0.0	0.0
	22.00000	20.00000	116.00000	1.6261	115.50	0.0	0.0	0.0
	23.00000	20.00000	116.00000	1.6250	115.50	0.0	0.0	0.0
	24.00000	20.00000	116.00000	1.11730	115.50	0.0	0.0	0.0
Line 31	24.00000	10.00000	116.00000	0.50197	115.50	0.0	0.0	0.0
	24.00000	12.00000	116.00000	3.2837	115.50	0.0	0.0	0.0
	24.00000	14.00000	116.00000	3.2252	115.50	0.0	0.0	0.0
	24.00000	16.00000	116.00000	3.4202	115.50	0.0	0.0	0.0
	24.00000	18.00000	116.00000	3.8067	115.50	0.0	0.0	0.0
	24.00000	20.00000	116.00000	1.1730	115.50	0.0	0.0	0.0
Line 32	14.00000	22.00000	114.00000	-0.12810	114.04	0.0	0.0	0.0
	16.00000	22.22222	114.49444	-0.098308	114.04	0.0	0.0	0.0
	18.00000	22.44444	114.48889	-0.039574	114.04	0.0	0.0	0.0
	20.00000	22.66667	114.48333	-0.044607	114.04	0.0	0.0	0.0
	22.00000	22.88889	114.47778	-0.12955	114.03	0.0	0.0	0.0
	24.00000	23.11111	114.47222	-0.17011	114.03	0.0	0.0	0.0
	26.00000	23.33333	114.46667	-0.21462	114.02	0.0	0.0	0.0
	28.00000	23.55556	114.46111	-0.55744	114.01	0.0	0.0	0.0
	30.00000	23.77778	114.45556	-0.30833	114.01	0.0	0.0	0.0
	32.00000	24.00000	114.45000	-0.28956	114.00	0.0	0.0	0.0
	34.00000	24.22222	114.44444	-0.25072	114.00	0.0	0.0	0.0
	36.00000	24.44444	114.43889	-0.19307	114.00	0.0	-0.0077934	0.0
	38.00000	24.66667	114.43333	-0.14193	113.99	0.0	-0.0099818	0.0
	40.00000	24.88889	114.42778	-0.10226	113.99	0.0	-0.010273	0.0
	42.00000	25.11111	114.42222	-0.072698	113.98	0.0	-0.0098539	0.0
	44.00000	25.33333	114.41667	-0.050876	113.97	0.0	-0.0091793	0.0
	46.00000	25.55556	114.41111	-0.034769	113.97	0.0	-0.0084385	0.0
	48.00000	25.77778	114.40556	-0.022841	113.96	0.0	-0.0077128	0.0
	50.00000	26.00000	114.40000	-0.013977	113.96	0.0	-0.0070357	0.0
Line 33	-2.00000	20.21875	114.50000	-0.012086	114.05	0.0	0.0	0.0
	0.00000	20.43750	114.50000	-0.017049	114.05	0.0	0.0	0.0
	2.00000	20.65625	114.50000	-0.022934	114.05	0.0	0.0	0.0
	4.00000	20.87500	114.50000	-0.030937	114.05	0.0	0.0	0.0
	6.00000	21.09375	114.50000	-0.040701	114.05	0.0	0.0	0.0
	8.00000	21.31250	114.50000	-0.051366	114.05	0.0	0.0	0.0
	10.00000	21.53125	114.50000	-0.063001	114.05	0.0	0.0	0.0
	12.00000	21.75000	114.50000	-0.075614	114.05	0.0	0.0	0.0
Line 34	-14.00000	18.75000	114.50000	0.0036134	114.05	0.0	0.0	0.0
	-12.00000	19.00000	114.50000	0.0025610	114.05	0.0	0.0	0.0
	-10.00000	19.25000	114.50000	0.0014078	114.05	0.0	0.0	0.0
	-8.00000	19.50000	114.50000	0.0002561	114.05	0.0	0.0	0.0
	-6.00000	19.75000	114.50000	-0.0008943	114.05	0.0	0.0	0.0
	-4.00000	20.00000	114.50000	-0.0027035	114.05	0.0	0.0	0.0
	-2.00000	20.25000	114.50000	-0.0051969	114.05	0.0	0.0	0.0
	0.00000	20.50000	114.50000	-0.0083060	114.05	0.0	0.0	0.0
	2.00000	20.75000	114.50000	-0.0120406	114.05	0.0	0.0	0.0
	4.00000	21.00000	114.50000	-0.0163366	114.05	0.0	0.0	0.0
	6.00000	21.25000	114.50000	-0.0211860	114.05	0.0	0.0	0.0
	8.00000	21.50000	114.50000	-0.0265927	114.05	0.0	0.0	0.0
	10.00000	21.75000	114.50000	-0.0325566	114.05	0.0	0.0	0.0
	12.00000	22.00000	114.50000	-0.0390777	114.05	0.0	0.0	0.0
	14.00000	22.25000	114.50000	-0.0461540	114.05	0.0	0.0	0.0
	16.00000	22.50000	114.50000	-0.0537855	114.05	0.0	0.0	0.0
	18.00000	22.75000	114.50000	-0.0619722	114.05	0.0	0.0	0.0
	20.00000	23.00000	114.50000	-0.0707141	114.05	0.0	0.0	0.0
	22.00000	23.25000	114.50000	-0.0800112	114.05	0.0	0.0	0.0
	24.00000	23.50000	114.50000	-0.0898635	114.05	0.0	0.0	0.0
	26.00000	23.75000	114.50000	-0.1002710	114.05	0.0	0.0	0.0
	28.00000	24.00000	114.50000	-0.1112400	114.05	0.0	0.0	0.0
	30.00000	24.25000	114.50000	-0.1227715	114.05	0.0	0.0	0.0
	32.00000	24.50000	114.50000	-0.1348655	114.05	0.0	0.0	0.0
	34.00000	24.75000	114.50000	-0.1475120	114.05	0.0	0.0	0.0
	36.00000	25.00000	114.50000	-0.1607110	114.05	0.0	0.0	0.0
	38.00000	25.25000	114.50000	-0.1744625	114.05	0.0	0.0	0.0
	40.00000	25.50000	114.50000	-0.1887665	114.05	0.0	0.0	0.0
	42.00000	25.75000	114.50000	-0.2036230	114.05	0.0	0.0	0.0
	44.00000	26.00000	114.50000	-0.2190320	114.05	0.0	0.0	0.0
	46.00000	26.25000	114.50000	-0.2350035	114.05	0.0	0.0	0.0
	48.00000	26.50000	114.50000	-0.2515375	114.05	0.0	0.0	0.0
	50.00000	26.75000	114.50000	-0.2686340	114.05	0.0	0.0	0.0
	52.00000	27.00000	114.50000	-0.2862930	114.05	0.0	0.0	0.0
	54.00000	27.25000	114.50000	-0.3045145	114.05	0.0	0.0	0.0
	56.00000	27.50000	114.50000	-0.3233085	114.05	0.0	0.0	0.0
	58.00000	27.75000	114.50000	-0.3426750	114.05	0.0	0.0	0.0
	60.00000	28.00000	114.50000	-0.3626140	114.05	0.0	0.0	0.0
	62.00000	28.25000	114.50000	-0.3831255	114.05	0.0	0.0	0.0
	64.00000	28.50000	114.50000	-0.4042095	114.05	0.0	0.0	0.0
	66.00000	28.75000						



Ground Movement Plot

Site Channing Junior School, Highgate High Street, N6 5JR

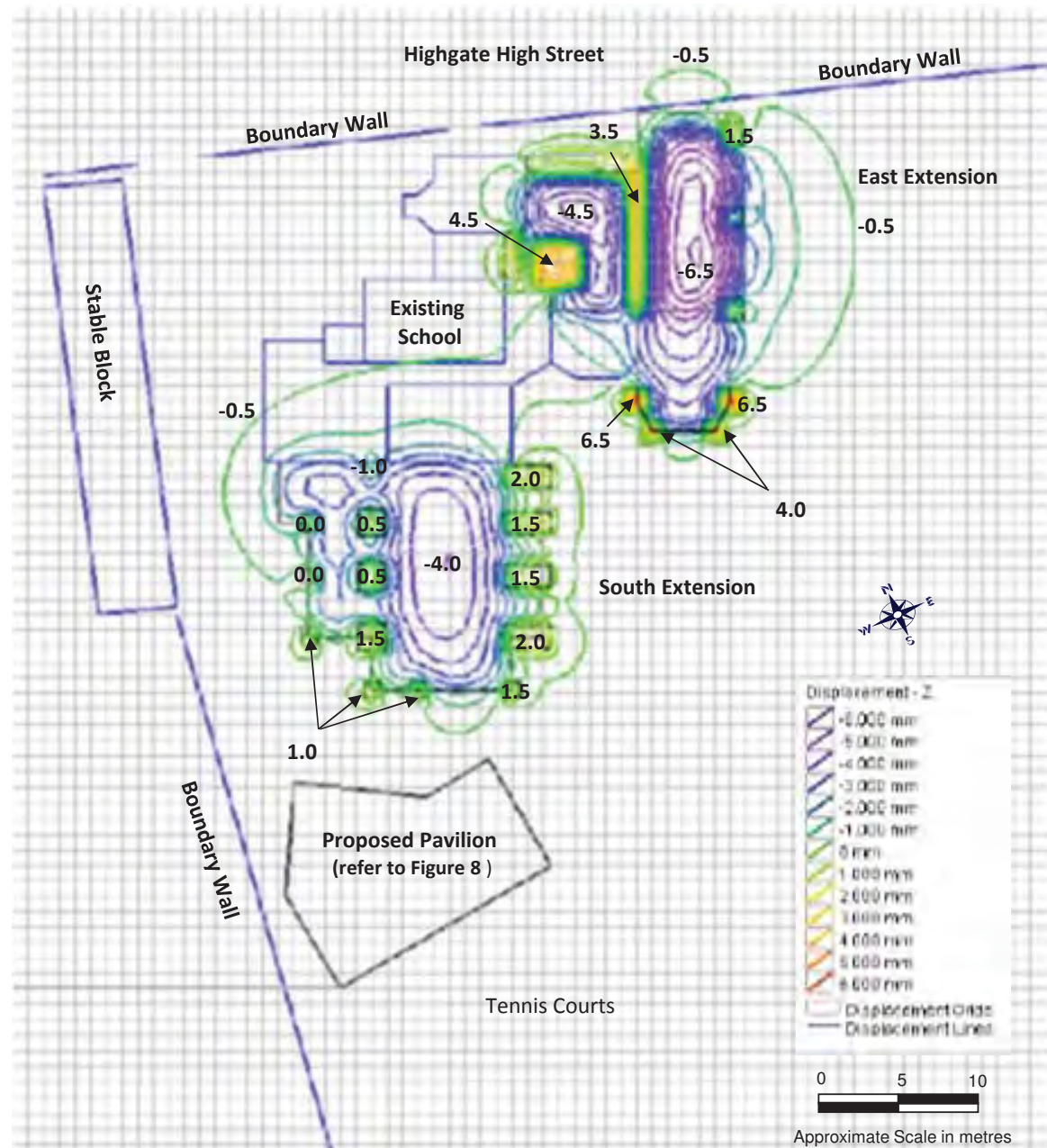
Job Number
J17268

Client Channing Junior School

Sheet
1/1

Engineer Heyne Tillett Steel

Figure 5 - Total Heave / Settlement



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Excluding Pavilion

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Notes

Refer to Figure 5 for contour output of displacement grids

Analysis Options

Analysis: Boussinesq
Global Poisson's ratio: 0.20
Maximum allowable ratio between values of E: 1.5
Horizontal rigid boundary level: 60.00 [m OD]
Displacements at load centroids: Yes

Soil Profiles Soil Profile 1

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m²]	Poissons ratio	Non-linear curve
1	117.00	1	10000.	0.20000	None
2	115.00	5	40000.	0.20000	None
3	110.00	8	25000.	0.20000	None
4	102.00	12	39375.	0.20000	None
5	90.000	15	79875.	0.20000	None

Soil Profiles Soil Profile 2

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m²]	Poissons ratio	Non-linear curve
1	114.00	1	10000.	0.20000	None
2	113.00	5	40000.	0.20000	None
3	110.00	8	25000.	0.20000	None
4	102.00	12	39375.	0.20000	None
5	90.000	15	79875.	0.20000	None

Soil Profiles Soil Profile 3

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m²]	Poissons ratio	Non-linear curve
1	112.00	1	10000.	0.20000	None
2	111.00	5	40000.	0.20000	None
3	110.00	8	25000.	0.20000	None
4	102.00	12	39375.	0.20000	None
5	90.000	15	79875.	0.20000	None

Soil Zones

Zone	Name	X coordinates min [m]	X coordinates max [m]	Y coordinates min [m]	Y coordinates max [m]	Profile
1	Soil Zone 1	-20.00000	0.00000	-10.00000	40.00000	Soil Profile 1
2	Soil Zone 2	0.00000	31.00000	5.00000	40.00000	Soil Profile 1
3	Soil Zone 3	31.00000	50.00000	20.00000	40.00000	Soil Profile 1
4	Soil Zone 4	0.00000	31.00000	-10.00000	5.00000	Soil Profile 2
5	Soil Zone 5	31.00000	50.00000	-10.00000	20.00000	Soil Profile 2
6	Soil Zone 6	-20.00000	50.00000	-26.50000	-10.00000	Soil Profile 2
7	Soil Zone 7	-20.00000	5.00000	-34.50000	-26.50000	Soil Profile 2
8	Soil Zone 8	5.00000	50.00000	-34.50000	-26.50000	Soil Profile 3
9	Soil Zone 9	-20.00000	50.00000	-50.00000	-34.50000	Soil Profile 3

Load Data

Load ref.	Name	Shape	Orientation of Plane	Centre of load X [m]	Centre of load Y [m]	Centre of load Z (level) [m]	Load position Angle of local x from [Degrees]	Width x or Radius [m]	Length y [m]	Polygon Coordinates [m]	Rectangle tolerance	Number of rectangles	Normal Load value [kN/m²]	Tangential Load value (local x) [kN/m²]	Tangential Load value (local y) [kN/m²]
1	East Extension	Polygonal	Horizontal	N/A	N/A	114.00000	N/A	N/A	N/A	(24,23) (24,20) (17,20) (17,15) (15.5,15) (15.5,12) (18.5,12) (18.5,10) (30,10) (30,23)	10.000	4	-45.000	N/A	N/A
2	East Extension	Polygonal	Horizontal	N/A	N/A	114.00000	N/A	N/A	N/A	(24,10) (24,4) (25,2) (29,2) (30,4) (30,10)	10.000	2	-20.000	N/A	N/A
3	South Extension	Polygonal	Horizontal	N/A	N/A	113.00000	N/A	N/A	N/A	(11,0) (18,0) (18,-11.5) (16,-11.5) (16,-15) (7,-15) (7,-11.5) (3,-11.5) (3,-4) (1,-4)	10.000	3	-20.000	N/A	N/A
4	Pavilion	Polygonal	Horizontal	N/A	N/A	110.50000	N/A	N/A	N/A	(2,-21) (10.5,-22) (14.5,-19.5) (18.5,-26.5) (5,-34.5) (1.5,-28.5)	5.00000	10	0.0	N/A	N/A
5	L-Shaped RC Underpin for East Extension	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	N/A	N/A	(30,23) (30,22) (25,22) (25,20) (24,20) (24,23)	10.000	2	70.000	N/A	N/A
6	RC Underpin of Wall 30	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	N/A	N/A	(24.5,20) (17,20) (17,19) (24.5,19)	10.000	1	130.00	N/A	N/A
7	RC Underpin between Wall 27 & 29	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	N/A	N/A	(15.5,12) (16.5,12) (16.5,15)	10.000	1	110.00	N/A	N/A
8	RC Underpin of Wall 31	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	N/A	N/A	(23.5,19) (24.5,19) (24.5,10) (23.5,10)	10.000	1	210.00	N/A	N/A
9	Pad 6	Rectangular	Horizontal	19.00000	13.00000	113.85000	0.0	2.5000	2.5000	N/A	N/A	1	162.00	0.0	0.0
10	Pad 1 - A	Rectangular	Horizontal	24.00000	4.00000	113.85000	0.0	1.5000	1.5000	N/A	N/A	1	90.000	0.0	0.0
11	Pad 2 - A	Rectangular	Horizontal	25.00000	2.00000	113.85000	0.0	0.75000	0.75000	N/A	N/A	1	84.000	0.0	0.0
12	Pad 2 - B	Rectangular	Horizontal	29.00000	2.00000	113.85000	0.0	0.75000	0.75000	N/A	N/A	1	84.000	0.0	0.0
13	Pad 5 - A	Rectangular	Horizontal	7.00000	-0.50000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	102.00	0.0	0.0
14	Pad 5 - B	Rectangular	Horizontal	3.00000	-4.00000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	102.00	0.0	0.0
15	Pad 5 - C	Rectangular	Horizontal	3.00000	-7.50000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	102.00	0.0	0.0
16	Pad 5 - D	Rectangular	Horizontal	3.00000	-11.50000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	102.00	0.0	0.0
17	Pad 5 - E	Rectangular	Horizontal	7.00000	-15.00000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	102.00	0.0	0.0
18	Pad 5 - F	Rectangular	Horizontal	10.00000	-15.00000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	102.00	0.0	0.0
19	Pad 5 - G	Rectangular	Horizontal	16.00000	-15.00000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	102.00	0.0	0.0
20	Pad 4 - A	Rectangular	Horizontal	17.00000	-1.00000	112.60000	0.0	3.0000	1.5000	N/A	N/A	1	74.000	0.0	0.0
21	Pad 4 - B	Rectangular	Horizontal	17.00000	-4.00000	112.60000	0.0	3.0000	1.5000	N/A	N/A	1	74.000	0.0	0.0
22	Pad 4 - C	Rectangular	Horizontal	17.00000	-7.50000	112.60000	0.0	3.0000	1.5000	N/A	N/A	1	74.000	0.0	0.0
23	Pad 4 - D	Rectangular	Horizontal	17.00000	-11.50000	112.60000	0.0	3.0000	1.5000	N/A	N/A	1	74.000	0.0	0.0
24	Pad 3 - A	Rectangular	Horizontal	7.00000	-4.00000	112.60000	0.0	1.7500	1.7500	N/A	N/A	1	100.00	0.0	0.0
25	Pad 3 - B	Rectangular	Horizontal	7.00000	-7.50000	112.60000	0.0	1.7500	1.7500	N/A	N/A	1	100.00	0.0	0.0
26	Pad 3 - C	Rectangular	Horizontal	7.00000	-11.50000	112.60000	0.0	1.7500	1.7500	N/A	N/A	1	100.00	0.0	0.0
27	Pad 1 - B	Rectangular	Horizontal	30.00000	21.50000	113.85000	0.0	1.5000	1.5000	N/A	N/A	1	90.000	0.0	0.0



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Load ref.	Name	Shape	Orientation of Plane	Centre of load (Global) X Y Z (level)	Load position local x local y from Radius	Width x or Length y	Polygon Coordinates	Rectangle of tolerance rectangles	Number of rectangles	Normal (local x) (local y)	Load value Tangential (local x) (local y)
28	Pad 1 - C	Rectangular	Horizontal	30.00000 16.00000 113.85000	0.0 1.5000 1.5000 N/A			N/A	1	90.000 0.0 0.0	
29	Pad 1 - D	Rectangular	Horizontal	30.00000 16.00000 113.85000	0.0 1.5000 1.5000 N/A			N/A	1	90.000 0.0 0.0	
30	Pad 1 - E	Rectangular	Horizontal	30.00000 4.00000 113.85000	0.0 1.5000 1.5000 N/A			N/A	1	90.000 0.0 0.0	

30 Polygon Loads' Rectangles

No.	Centre of load X Y	Angle of local x from global X (Degrees)	Width x [m]	Depth y [m]
Load 1 : East Extension (Edge 1 optimal)				
1	27.00000 21.50000	-90.000	3.0000	6.0000
2	23.50000 17.50000	-90.000	5.0000	13.0000
3	22.75000 13.50000	-90.000	3.0000	14.5000
4	24.25000 11.00000	-90.000	2.0000	11.5000
Load 2 : East Extension (Edge 1 optimal)				
1	27.00000 7.00000	-90.000	6.0000	6.0000
2	27.00000 2.00000	-90.000	2.0000	5.0000
Load 3 : South Extension (Edge 1 optimal)				
1	10.50000 -7.75000	-90.000	7.5000	15.0000
2	11.50000 -13.25000	-90.000	3.5000	9.0000
3	9.50000 -2.00000	-90.000	4.0000	17.0000
Load 4 : Pavillion (Edge 1 optimal)				
1	3.53052 -30.88353	30.651	1.0634	7.7207
2	4.05044 -29.67497	30.651	1.0634	9.2700
3	4.57037 -28.46640	30.651	1.0634	10.8139
4	5.09029 -27.25784	30.651	1.0634	12.369
5	5.61022 -26.04928	30.651	1.0634	13.924
6	6.13015 -24.84072	30.651	1.0634	15.479
7	6.65008 -23.63216	30.651	1.0634	17.034
8	7.17001 -22.42360	30.651	1.0634	18.589
9	7.69000 -21.21504	30.651	1.0634	20.144
10	8.21000 -20.00648	30.651	1.0634	21.699
Load 5 : L-Shaped RC Underpin for East Extension (Edge 2 optimal)				
1	27.00000 22.50000	-90.000	1.0000	6.0000
2	24.50000 21.00000	-90.000	2.0000	1.0000
Load 6 : RC Underpin of Wall 30 (Edge 1 optimal)				
1	20.75000 19.50000	-180.000	7.5000	1.0000
Load 7 : RC Underpin between Wall 27 & 29 (Edge 1 optimal)				
1	16.00000 13.50000	-90.000	3.0000	1.0000
Load 8 : RC Underpin of Wall 31 (Edge 2 optimal)				
1	24.00000 14.50000	0.0	1.0000	9.0000

Displacement Data

Ref.	Type	Name	Direction of Extrusion	First point X Y Z (level)	Second point X Y Z (level)	No. of intrvl across extrusion/line	Extrusion Depth [m]	No. of intrvl along extrusion	Calculate	Show Detailed results
1	Line	Line 1	N/A	0.00000 0.00000 113.50000	16.00000 0.00000 113.50000	8	N/A	N/A	Yes	No
2	Line	Line 2	N/A	0.00000 0.00000 113.50000	16.00000 5.00000 113.50000	5	N/A	N/A	Yes	No
3	Line	Line 3	N/A	0.00000 0.00000 113.50000	16.00000 10.00000 113.50000	2	N/A	N/A	Yes	No
4	Line	Line 4	N/A	0.00000 5.00000 113.50000	16.00000 10.00000 113.50000	8	N/A	N/A	Yes	No
5	Line	Line 5	N/A	0.00000 5.00000 113.50000	18.50000 6.50000 113.50000	2	N/A	N/A	Yes	No
6	Line	Line 6	N/A	18.50000 6.50000 113.50000	18.50000 12.00000 113.50000	5	N/A	N/A	Yes	No
7	Line	Line 7	N/A	6.50000 12.00000 113.50000	18.50000 12.00000 113.50000	6	N/A	N/A	Yes	No
8	Line	Line 8	N/A	6.50000 6.50000 113.50000	6.50000 12.00000 113.50000	5	N/A	N/A	Yes	No
9	Line	Line 9	N/A	4.00000 9.00000 113.50000	6.50000 9.00000 113.50000	2	N/A	N/A	Yes	No
10	Line	Line 10	N/A	4.00000 6.50000 113.50000	4.00000 9.00000 113.50000	2	N/A	N/A	Yes	No
11	Line	Line 11	N/A	4.00000 6.50000 113.50000	15.50000 6.50000 113.50000	5	N/A	N/A	Yes	No
12	Line	Line 12	N/A	15.50000 6.50000 113.50000	15.50000 12.00000 113.50000	5	N/A	N/A	Yes	No
13	Line	Line 13	N/A	0.00000 0.00000 113.50000	4.00000 9.00000 113.50000	3	N/A	N/A	Yes	No
14	Line	Line 14	N/A	0.00000 0.00000 113.50000	0.00000 8.00000 113.50000	8	N/A	N/A	Yes	No
15	Line	Line 15	N/A	18.50000 6.50000 113.50000	20.00000 5.00000 113.50000	1	N/A	N/A	Yes	No
16	Line	Line 16	N/A	20.00000 5.50000 113.50000	23.00000 5.50000 113.50000	3	N/A	N/A	Yes	No
17	Line	Line 17	N/A	23.00000 5.50000 113.50000	24.00000 6.50000 113.50000	1	N/A	N/A	Yes	No
18	Line	Line 18	N/A	24.00000 6.50000 113.50000	24.00000 10.00000 113.50000	3	N/A	N/A	Yes	No
19	Line	Line 19	N/A	18.50000 10.00000 113.50000	24.00000 10.00000 113.50000	5	N/A	N/A	Yes	No
20	Line	Line 20	N/A	11.00000 12.00000 114.00000	10.00000 16.00000 114.00000	3	N/A	N/A	Yes	No
21	Line	Line 21	N/A	11.00000 15.00000 114.00000	10.00000 16.00000 114.00000	1	N/A	N/A	Yes	No
22	Line	Line 22	N/A	10.00000 16.00000 114.00000	9.00000 16.00000 114.00000	1	N/A	N/A	Yes	No
23	Line	Line 23	N/A	9.00000 17.00000 114.00000	9.00000 17.50000 114.00000	7	N/A	N/A	Yes	No
24	Line	Line 24	N/A	9.00000 17.50000 114.00000	10.00000 17.50000 114.00000	1	N/A	N/A	Yes	No
25	Line	Line 25	N/A	10.00000 17.50000 114.00000	11.00000 18.50000 114.00000	1	N/A	N/A	Yes	No
26	Line	Line 26	N/A	11.00000 18.50000 114.00000	11.00000 20.00000 114.00000	1	N/A	N/A	Yes	No
27	Line	Line 27	N/A	10.00000 20.00000 114.00000	20.00000 14.00000 114.00000	6	N/A	N/A	Yes	No
28	Line	Line 28	N/A	17.00000 15.00000 114.00000	17.00000 20.00000 114.00000	5	N/A	N/A	Yes	No
29	Line	Line 29	N/A	14.00000 15.00000 114.00000	17.00000 15.00000 114.00000	6	N/A	N/A	Yes	No
30	Line	Line 30	N/A	17.00000 20.00000 114.00000	20.00000 16.00000 114.00000	7	N/A	N/A	Yes	No
31	Line	Line 31	N/A	24.00000 10.00000 116.00000	24.00000 20.00000 116.00000	5	N/A	N/A	Yes	No
32	Line	Line 32	N/A	14.00000 22.00000 114.50000	50.00000 26.00000 114.50000	18	N/A	N/A	Yes	No
33	Line	Line 33	N/A	-4.00000 20.00000 114.50000	12.00000 21.75000 114.50000	8	N/A	N/A	Yes	No
34	Line	Line 34	N/A	-14.00000 18.75000 114.50000	-8.00000 19.50000 114.50000	6	N/A	N/A	Yes	No
35	Line	Line 35	N/A	-14.00000 18.00000 116.00000	-9.00000 18.50000 116.00000	5	N/A	N/A	Yes	No
36	Line	Line 36	N/A	-9.00000 18.50000 116.00000	-5.50000 19.50000 116.00000	14	N/A	N/A	Yes	No
37	Line	Line 37	N/A	-10.50000 19.99500 116.00000	-5.50000 19.50000 116.00000	5	N/A	N/A	Yes	No
38	Line	Line 38	N/A	-14.00000 18.00000 116.00000	-10.50000 19.99500 116.00000	14	N/A	N/A	Yes	No
39	Line	Line 39	N/A	-5.50000 10.00000 116.00000	5.50000 49.00000 111.00000	20	N/A	N/A	Yes	No
40	Grid	Grid 1	Global X	-9.99500 117.00000	N/A	40	0.00000	117.00000	No	N/A
41	Grid	Grid 2	Global X	5.00500 117.00000	N/A	35	0.00000	117.00000	No	N/A
42	Grid	Grid 3	Global X	31.00000 20.00500 117.00000	N/A	20	0.00000	117.00000	No	N/A
43	Grid	Grid 4	Global X	0.00000 10.00000 114.00000	N/A	15	0.00000	114.00000	No	N/A
44	Grid	Grid 5	Global X	30.00000 10.00000 114.00000	N/A	30	0.00000	114.00000	No	N/A
45	Grid	Grid 6	Global X	-20.00000 26.49500 114.00000	N/A	16	0.00000	114.00000	No	N/A
46	Grid	Grid 7	Global X	-20.00000 34.49500 114.00000	N/A	8	24.99500	25	No	N/A
47	Grid	Grid 8	Global X	5.00000 34.50000 112.00000	N/A	45	0.00000	45	No	N/A
48	Grid	Grid 9	Global X	-50.00000 50.00000 112.00000	N/A	15	0.00000	70	No	N/A

RESULTS FOR GRIDS

Analysis: Boussinesq
Global Poisson's ratio: 0.20
Horizontal rigid boundary level: 60.00 [m OD]
The maximum displacement difference between the Boussinesq method (3.5382mm) and the Mindlin method (-1.7618mm) occurs at point X = 24.00000m, Y = 16.00000m, level = 116.0000m, and is 5.3000mm.

Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
East Extension	23.81856	15.91773	114.00000	3.0452	113.60	151.11	239.98	0.0033334
East Extension	27.00000	6.14493	114.00000	-3.2936	113.60	-19.975	-42.834	-385.08E-6
South Extension	10.32783	-6.72288	113.00000	-3.8560	112.75	-20.000	-46.571	-367.14E-6
Pavillion	6.88752	-26.39877	110.50000	-0.10408	110.25	-0.010951	-0.26145	0.0
L-shaped RC	26.37500	22.12500	113.85000	-1.6131	113.37	1.7676	-4.0965	73.511E-6
East Extension								
RC Underpin of	20.75000	19.50000	113.85000	1.7845	113.37	68.923	89.376	0.0016208



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Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
Wall 30								
RC Underpin of between Wall 27 & 29	16.00000	13.50000	113.85000	1.6999	113.37	52.808	70.737	0.0012306
RC Underpin of Wall 31	24.00000	14.50000	113.85000	2.6212	113.37	129.41	161.31	0.0030757
Pad 6	19.00000	13.00000	113.85000	4.2282	113.37	111.85	176.03	0.0024752
Pad 1 - A	24.00000	4.00000	113.85000	6.2159	113.43	75.378	102.96	0.0069861
Pad 2 - A	25.00000	2.00000	113.85000	3.4628	113.43	44.845	44.889	0.0044836
Pad 2 - B	29.00000	2.00000	113.85000	3.4831	113.43	44.845	44.931	0.0044829
Pad 5 - A	7.00000	-0.50000	112.60000	0.19881	112.34	76.94		



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Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
Line 20	11.00000	12.00000	116.00000	-0.28995	115.50	0.0	0.0	0.0
	11.00000	13.00000	116.00000	-0.27763	115.50	0.0	0.0	0.0
	11.00000	14.00000	116.00000	-0.27531	115.50	0.0	0.0	0.0
	11.00000	15.00000	116.00000	-0.27978	115.50	0.0	0.0	0.0
Line 21	11.00000	15.00000	114.00000	-0.28004	113.60	-0.0021838	-0.33794	1.6242E-6
	10.00000	16.00000	114.00000	-0.26187	113.60	-0.0011109	-0.26179	1.2756E-6
Line 22	10.00000	16.00000	114.00000	-0.26187	113.60	-0.0011109	-0.26179	1.2756E-6
	9.00000	16.00000	114.00000	-0.24205	113.60	-0.5421E-6	-0.20282	0.0
Line 23	9.00000	16.00000	114.00000	-0.24205	113.60	-0.5421E-6	-0.20282	0.0
	9.00000	17.00000	114.00000	-0.23050	113.60	-588.68E-6	-0.19793	0.0
Line 24	9.00000	17.00000	114.00000	-0.23050	113.60	-588.68E-6	-0.19793	0.0
	10.00000	17.00000	114.00000	-0.25425	113.60	-971.45E-6	-0.25563	1.2490E-6
Line 25	10.00000	17.00000	114.00000	-0.25425	113.60	-971.45E-6	-0.25563	1.2490E-6
	11.00000	18.00000	114.00000	-0.27557	113.60	-0.0014641	-0.32145	1.5633E-6
Line 26	11.00000	18.00000	114.00000	-0.27557	113.60	-0.0014641	-0.32145	1.5633E-6
	11.00000	20.00000	114.00000	-0.25091	113.60	-0.0010892	-0.27655	1.3501E-6
Line 27	11.00000	20.00000	114.00000	-0.25091	113.60	-0.0010892	-0.27655	1.3501E-6
	12.00000	20.00000	114.00000	-0.28236	113.60	-0.0019010	-0.36405	1.7632E-6
	13.00000	20.00000	114.00000	-0.31978	113.60	-0.0036486	-0.49311	2.3561E-6
	14.00000	20.00000	114.00000	-0.36015	113.60	-0.0081103	-0.68361	3.1748E-6
	15.00000	20.00000	114.00000	-0.38749	113.60	-0.023148	-0.93794	3.8953E-6
	16.00000	20.00000	114.00000	-0.33181	113.60	-0.10333	-0.45276	0.0
	17.00000	20.00000	114.00000	0.46541	113.60	21.050	40.092	431.04E-6
Line 28	17.00000	20.00000	114.00000	0.46541	113.60	21.050	40.092	431.04E-6
	17.00000	16.00000	114.00000	-2.4199	113.60	-22.620	-47.286	-442.15E-6
	17.00000	17.00000	114.00000	-2.5323	113.60	-22.477	-46.975	-439.44E-6
	17.00000	18.00000	114.00000	-2.40956	113.60	-22.290	-42.647	-435.45E-6
	17.00000	19.00000	114.00000	-0.36361	113.60	10.056	19.516	202.09E-6
	17.00000	20.00000	114.00000	0.46541	113.60	21.050	40.092	431.04E-6
Line 29	11.00000	15.00000	114.00000	-0.28004	113.60	-0.0021838	-0.33794	1.6242E-6
	12.00000	15.00000	114.00000	-0.29396	113.60	-0.0046778	-0.48630	2.1432E-6
	13.00000	15.00000	114.00000	-0.30270	113.60	-0.012251	-0.62644	2.7647E-6
	14.00000	15.00000	114.00000	-0.29570	113.60	-0.046447	-0.77433	2.4782E-6
	15.00000	15.00000	114.00000	-0.23064	113.60	-0.229924	1.7715	-17.835E-6
	16.00000	15.00000	114.00000	0.29269	113.60	31.389	50.170	690.82E-6
Line 30	17.00000	15.00000	114.00000	-1.9848	113.60	-32.460	-53.525	-706.16E-6
	17.00000	20.00000	116.00000	0.51781	115.50	0.0	0.0	0.0
	18.00000	20.00000	116.00000	1.3691	115.50	0.0	0.0	0.0
	19.00000	20.00000	116.00000	1.4531	115.50	0.0	0.0	0.0
	20.00000	20.00000	116.00000	1.4739	115.50	0.0	0.0	0.0
	21.00000	20.00000	116.00000	1.5311	115.50	0.0	0.0	0.0
	22.00000	20.00000	116.00000	1.5701	115.50	0.0	0.0	0.0
	23.00000	20.00000	116.00000	1.5611	115.50	0.0	0.0	0.0
	24.00000	20.00000	116.00000	1.0846	115.50	0.0	0.0	0.0
Line 31	24.00000	10.00000	116.00000	0.35301	115.50	0.0	0.0	0.0
	24.00000	12.00000	116.00000	3.3835	115.50	0.0	0.0	0.0
	24.00000	14.00000	116.00000	3.4283	115.50	0.0	0.0	0.0
	24.00000	16.00000	116.00000	3.5382	115.50	0.0	0.0	0.0
	24.00000	18.00000	116.00000	3.9650	115.50	0.0	0.0	0.0
	24.00000	20.00000	116.00000	1.0846	115.50	0.0	0.0	0.0
Line 32	14.00000	22.00000	114.00000	-0.26371	114.05	0.0	0.0	0.0
	16.00000	22.22222	114.00000	-0.24236	114.05	0.0	0.0	0.0
	18.00000	22.44444	114.00000	-0.19057	114.05	0.0	0.0	0.0
	20.00000	22.66667	114.00000	-0.20644	114.05	0.0	0.0	0.0
	22.00000	22.88889	114.00000	-0.30619	114.05	0.0	0.0	0.0
	24.00000	23.11111	114.00000	-0.35498	114.05	0.0	0.0	0.0
	26.00000	23.33333	114.00000	-0.72592	114.05	0.0	0.0	0.0
	28.00000	23.55556	114.00000	-0.76945	114.05	0.0	0.0	0.0
	30.00000	23.77778	114.00000	-0.49847	114.05	0.0	0.0	0.0
	32.00000	24.00000	114.00000	-0.46608	114.05	0.0	0.0	0.0
	34.00000	24.22222	114.00000	-0.41168	114.05	0.0	0.0	0.0
	36.00000	24.44444	114.00000	-0.33561	114.05	0.0	0.0	0.0
	38.00000	24.66667	114.00000	-0.26693	114.05	0.0	0.0	0.0
	40.00000	24.88889	114.00000	-0.21152	114.05	0.0	0.0	0.0
	42.00000	25.11111	114.00000	-0.16817	114.05	0.0	0.0	0.0
	44.00000	25.33333	114.00000	-0.13443	114.05	0.0	0.0	0.0
	46.00000	25.55556	114.00000	-0.10808	114.05	0.0	0.0	0.0
	48.00000	25.77778	114.00000	-0.087357	114.05	0.0	0.0	0.0
	50.00000	26.00000	114.00000	-0.070942	114.05	0.0	0.0	0.0
Line 33	-4.00000	20.00000	114.00000	-0.077049	114.05	0.0	0.0	0.0
	-2.00000	20.21875	114.00000	-0.087444	114.05	0.0	0.0	0.0
	0.00000	20.43750	114.00000	-0.099124	114.05	0.0	0.0	0.0
	2.00000	20.65625	114.00000	-0.11249	114.05	0.0	0.0	0.0
	4.00000	20.87500	114.00000	-0.12822	114.05	0.0	0.0	0.0
	6.00000	21.09375	114.00000	-0.14735	114.05	0.0	0.0	0.0
	8.00000	21.31250	114.00000	-0.17139	114.05	0.0	0.0	0.0
	10.00000	21.53125	114.00000	-0.20190	114.05	0.0	0.0	0.0
	12.00000	21.75000	114.00000	-0.23778	114.05	0.0	0.0	0.0
Line 34	-14.00000	18.75000	114.00000	-0.039102	114.05	0.0	0.0	0.0
	-13.00000	18.87500	114.00000	-0.042050	114.05	0.0	0.0	0.0
	-12.00000	19.00000	114.00000	-0.045171	114.05	0.0	0.0	0.0
	-11.00000	19.12500	114.00000	-0.048471	114.05	0.0	0.0	0.0
	-10.00000	19.25000	114.00000	-0.051955	114.05	0.0	0.0	0.0
	-9.00000	19.37500	114.00000	-0.055627	114.05	0.0	0.0	0.0
	-8.00000	19.50000	114.00000	-0.059492	114.05	0.0	0.0	0.0
Line 35	-14.00000	18.00000	116.00000	-0.040669	115.50	0.0	0.0	0.0
	-13.00000	18.10000	116.00000	-0.043835	115.50	0.0	0.0	0.0
	-12.00000	18.20000	116.00000	-0.047199	115.50	0.0	0.0	0.0
	-11.00000	18.30000	116.00000	-0.050767	115.50	0.0	0.0	0.0
	-10.00000	18.40000	116.00000	-0.054545	115.50	0.0	0.0	0.0
Line 36	-9.00000	18.50000	116.00000	-0.058540	115.50	0.0	0.0	0.0
	-8.75000	16.50000	116.00000	-0.067209	115.50	0.0	0.0	0.0
	-8.50000	14.50000	116.00000	-0.077364	115.50	0.0	0.0	0.0
	-8.25000	12.50000	116.00000	-0.089350	115.50	0.0	0.0	0.0
	-8.00000	10.50000	116.00000	-0.10357	115.50	0.0	0.0	0.0
	-7.75000	8.50000	116.00000	-0.12042	115.50	0.0	0.0	0.0
	-7.50000	6.50000	116.00000	-0.14019	115.50	0.0	0.0	0.0
	-7.25000	4.50000	116.00000	-0.16277	115.50	0.0	0.0	0.0
	-7.00000	2.50000	116.00000	-0.18711	115.50	0.0	0.0	0.0
	-6.75000	0.50000	116.00000	-0.21050	115.50	0.0	0.0	0.0
	-6.50000	-1.50000	116.00000	-0.22839	115.50	0.0	0.0	0.0
	-6.25000	-3.50000	116.00000	-0.23604	115.50	0.0	0.0	0.0
	-6.00000	-5.50000	116.00000	-0.23157	115.50	0.0	0.0	0.0
	-5.75000	-7.50000	116.00000	-0.21702	115.50	0.0	0.0	0.0
	-5.50000	-9.50000	116.00000	-0.19529	115.50	0.0	0.0	0.0
Line 37	-10.50000	-9.99500	116.00000	-0.10637	115.50	0.0	0.0	0.0
	-9.50000	-9.89600	116.00000	-0.11967	115.50	0.0	0.0	0.0
	-8.50000	-9.79700	116.00000	-0.13495	115.50	0.0	0.0	0.0
	-7.50000	-9.69800	116.00000	-0.15254	115.50	0.0	0.0	0.0
	-6.50000	-9.59900	116.00000	-0.17284	115.50	0.0	0.0	0.0
	-5.50000	-9.50000	116.00000	-0.19629	115.50	0.0	0.0	0.0
Line 38	-14.00000	18.00000	116.00000	-0.040669	115.50	0.0	0.0	0.0
	-13.75000	16.00036	116.00000	-0.046103	115.50	0.0	0.0	0.0
	-13.50000	14.00071	116.00000	-0.052028	115.50	0.0	0.0	0.0
	-13.25000	12.00107	116.00000	-0.059034	115.50	0.0	0.0	0.0
	-13.00000	10.00143	116.00000	-0.066599	115.50	0.0	0.0	0.0
	-12.75000	8.00179	116.00000	-0.074848	115.50	0.0	0.0	0.0
	-12.50000	6.00214	116.00000	-0.083809	115.50	0.0	0.0	0.0
	-12.25000	4.00250	116.00000	-0.093537	115.50	0.0	0.0</	

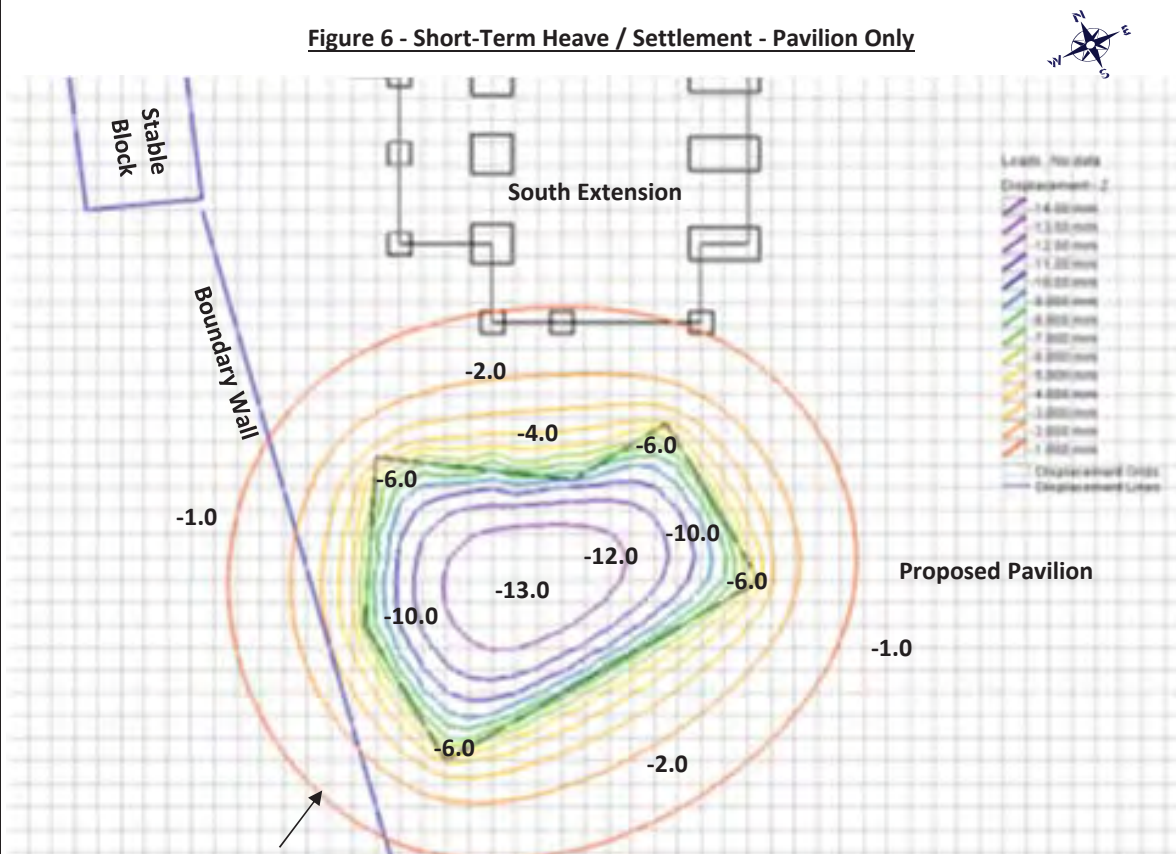


Ground Movement Plot

Site Channing Junior School, Highgate High Street, N6 5JR
Client Channing Junior School
Engineer Heyne Tillett Steel

Job Number
J17268
Sheet
1/1

Figure 6 - Short-Term Heave / Settlement - Pavilion Only



Model is based on an unrestrained excavation, which is unable to account for the presence of the proposed sheet piled wall, which will act to constrain movements within the excavation. In reality the contours shown beyond the extent of the excavation will not be realised and are therefore ignored in subsequent assessment of damage to nearby structures.

Tennis Courts
0 5 10
Approximate Scale in metres



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Notes

Refer to Figure 6 for contour output

Analysis Options

Analysis: Boussinesq
Global Poisson's ratio: 0.50
Maximum allowable ratio between values of E: 1.5
Horizontal rigid boundary level: 60.00 [m OD]
Displacements at load centroids: Yes

Soil Profiles Soil Profile 1

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m ²]	Poissons ratio	Non-linear curve
1	117.00	1	10000	0.20000	None
2	115.00	5	40000	0.20000	None
3	110.00	8	25000	0.20000	None
4	102.00	12	52500	0.50000	None
5	90.000	15	106500	0.50000	None

Soil Profiles Soil Profile 2

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m ²]	Poissons ratio	Non-linear curve
1	114.00	1	10000	0.20000	None
2	113.00	5	40000	0.20000	None
3	110.00	8	25000	0.20000	None
4	102.00	12	52500	0.50000	None
5	90.000	15	106500	0.50000	None

Soil Profiles Soil Profile 3

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m ²]	Poissons ratio	Non-linear curve
1	112.00	1	10000	0.20000	None
2	111.00	5	40000	0.20000	None
3	110.00	8	25000	0.20000	None
4	102.00	12	52500	0.50000	None
5	90.000	15	106500	0.50000	None

Soil Zones

Zone	Name	X coordinates [m]	Y coordinates [m]	Profile
1	Soil Zone 1	-20.00000	0.00000	Soil Profile 1
2	Soil Zone 2	0.00000	31.00000	Soil Profile 1
3	Soil Zone 3	31.00000	50.00000	Soil Profile 1
4	Soil Zone 4	0.00000	-10.00000	Soil Profile 2
5	Soil Zone 5	31.00000	-10.00000	Soil Profile 2
6	Soil Zone 6	-20.00000	-26.50000	Soil Profile 2
7	Soil Zone 7	-20.00000	5.00000	Soil Profile 2
8	Soil Zone 8	5.00000	-34.50000	Soil Profile 3
9	Soil Zone 9	-20.00000	-50.00000	Soil Profile 3

Load Data

Load ref.	Name	Shape	Orientation of Plane	Centre of load [m]	Load position [Degrees]	Width x or Radius [m]	Length y [m]	Polygon Coordinates [m]	Rectangle tolerance	Number of rectangles	Normal Load value [kN/m ²]	Tangential Load value [kN/m ²]
1	East Extension	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(24,23) (24,20) (17,20) (17,15) (15.5,15) (15.5,12) (18.5,12) (18.5,10) (30,10) (30,23)	10.000	4	0.0	N/A
2	East Extension	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(24,10) (24,4) (25,2) (29,2) (30,4) (30,10)	10.000	2	0.0	N/A
3	South Extension	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(18,0) (18,0) (18,-11.5) (16,-11.5) (16,-15) (7,-15) (7,-11.5) (3,-11.5) (3,-4) (1,-4)	10.000	3	0.0	N/A
4	Pavilion	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(2,-21) (10.5,-22) (14.5,-19.5) (18.5,-26.5) (5,-34.5) (1.5,-28.5)	5.00000	10	-60.000	N/A
5	L-Shaped RC Underpin for East Extension	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(30,23) (30,22) (25,22) (25,20) (24,20) (24,23)	10.000	2	0.0	N/A
6	RC Underpin of Wall 30	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(24.5,20) (17,20) (17,19) (24.5,19)	10.000	1	0.0	N/A
7	RC Underpin between Wall 27 & 29	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(15.5,15) (15.5,12) (16.5,12) (16.5,15)	10.000	1	0.0	N/A
8	RC Underpin of Wall 31	Polygonal	Horizontal	N/A	N/A	N/A	N/A	(23.5,19) (24.5,19) (24.5,10) (23.5,10)	10.000	1	0.0	N/A
9	Pad 6	Rectangular	Horizontal	19.00000	13.00000	113.85000	0.0	2.5000 2.5000	N/A	1	0.0	0.0
10	Pad 1 - A	Rectangular	Horizontal	24.00000	4.00000	113.85000	0.0	1.5000 1.5000	N/A	1	0.0	0.0
11	Pad 2 - A	Rectangular	Horizontal	25.00000	2.00000	113.85000	0.0	0.75000 0.75000	N/A	1	0.0	0.0
12	Pad 2 - B	Rectangular	Horizontal	29.00000	2.00000	113.85000	0.0	0.75000 0.75000	N/A	1	0.0	0.0
13	Pad 5 - A	Rectangular	Horizontal	7.00000	-0.50000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0
14	Pad 5 - B	Rectangular	Horizontal	3.00000	-4.00000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0
15	Pad 5 - C	Rectangular	Horizontal	3.00000	-7.50000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0
16	Pad 5 - D	Rectangular	Horizontal	3.00000	-11.50000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0
17	Pad 5 - E	Rectangular	Horizontal	7.00000	-15.00000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0
18	Pad 5 - F	Rectangular	Horizontal	10.00000	-15.00000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0
19	Pad 5 - G	Rectangular	Horizontal	16.00000	-15.00000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0
20	Pad 4 - A	Rectangular	Horizontal	17.00000	-1.00000	112.60000	0.0	3.0000 1.5000	N/A	1	0.0	0.0
21	Pad 4 - B	Rectangular	Horizontal	17.00000	-4.00000	112.60000	0.0	3.0000 1.5000	N/A	1	0.0	0.0
22	Pad 4 - C	Rectangular	Horizontal	17.00000	-7.50000	112.60000	0.0	3.0000 1.5000	N/A	1	0.0	0.0
23	Pad 4 - D	Rectangular	Horizontal	17.00000	-11.50000	112.60000	0.0	3.0000 1.5000	N/A	1	0.0	0.0
24	Pad 3 - A	Rectangular	Horizontal	7.00000	-4.00000	112.60000	0.0	1.7500 1.7500	N/A	1	0.0	0.0
25	Pad 3 - B	Rectangular	Horizontal	7.00000	-7.50000	112.60000	0.0	1.7500 1.7500	N/A	1	0.0	0.0
26	Pad 3 - C	Rectangular	Horizontal	7.00000	-11.50000	112.60000	0.0	1.7500 1.7500	N/A	1	0.0	0.0
27	Pad 1 - B	Rectangular	Horizontal	30.00000	21.50000	113.85000	0.0	1.5000 1.5000	N/A	1	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Hevave / Settlement
Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Load ref.	Name	Shape	Orientation of Plane	Centre of load (Global) X Y Z (level)	Load position local x or Radius	Width x or Length y	Polygon Coordinates	Rectangle of tolerance rectangles	Number of rectangles	Normal (local z)	Tangential (local x)	Load value (local y)
28	Pad 1 - C	Rectangular	Horizontal	30.00000 16.00000 113.85000	0.0 1.5000 1.5000	N/A			1	0.0	0.0	0.0
29	Pad 1 - D	Rectangular	Horizontal	30.00000 16.00000 113.85000	0.0 1.5000 1.5000	N/A			1	0.0	0.0	0.0
30	Pad 1 - E	Rectangular	Horizontal	30.00000 4.00000 113.85000	0.0 1.5000 1.5000	N/A			1	0.0	0.0	0.0

Polygonal Loads' Rectangles

No.	Centre of load X Y	Angle of local x from global X (degrees)	Width x [m]	Depth y [m]
Load 1 : East Extension (Edge 1 optimal)				
1	27.00000 21.50000	-90.0000	3.0000	6.0000
2	23.50000 17.50000	-90.0000	5.0000	13.0000
3	22.75000 13.50000	-90.0000	3.0000	14.5000
4	24.25000 11.00000	-90.0000	2.0000	11.5000
Load 2 : East Extension (Edge 1 optimal)				
1	27.00000 7.00000	-90.0000	6.0000	6.0000
2	27.00000 2.00000	-90.0000	2.0000	5.0000
Load 3 : South Extension (Edge 1 optimal)				
1	10.50000 -7.75000	-90.0000	7.5000	15.0000
2	11.50000 -13.25000	-90.0000	3.5000	9.0000
3	9.50000 -2.00000	-90.0000	4.0000	17.0000
Load 4 : Pavilion (Edge 1 optimal)				
1	3.53052 -30.88353	30.6511	1.0634	7.7207
2	4.05044 -29.67497	30.6511	1.0634	9.2700
3	4.57037 -28.46640	30.6511	1.0634	10.8139
4	5.09029 -27.25784	30.6511	1.0634	12.369
5	5.61022 -26.04928	30.6511	2.2676	12.278
6	6.13015 -24.84072	30.6511	2.2676	10.547
7	6.65008 -23.63216	30.6511	2.2676	8.8163
8	7.17001 -22.42360	30.6511	4.5882	8.0040
9	7.69004 -21.21504	30.6511	0.063725	6.0437
10	8.21007 -20.00648	30.6511	0.063725	2.0144
Load 5 : L-Shaped RC Underpin for East Extension (Edge 2 optimal)				
1	27.00000 22.50000	-90.0000	1.0000	6.0000
2	24.50000 21.00000	-90.0000	2.0000	1.0000
Load 6 : RC Underpin of Wall 30 (Edge 1 optimal)				
1	20.75000 19.50000	-180.0000	7.5000	1.0000
Load 7 : RC Underpin between Wall 27 & 29 (Edge 1 optimal)				
1	16.00000 13.50000	-90.0000	3.0000	1.0000
Load 8 : RC Underpin of Wall 31 (Edge 2 optimal)				
1	24.00000 14.50000	0.0	1.0000	9.0000

Displacement Data

Ref.	Type	Name	Direction of Extrusion	First point X Y Z (level)	Second point X Y Z (level)	No. of intrvl across extrusion/line	Extrusion Depth [m]	No. of intrvl along extrusion	Calculate	Show Detailed results
1	Line	Line 1	N/A	0.00000 0.00000 113.50000	8.00000 0.00000 113.50000	8	N/A	N/A	No	N/A
2	Line	Line 2	N/A	16.00000 0.00000 113.50000	16.00000 5.00000 113.50000	5	N/A	N/A	No	N/A
3	Line	Line 3	N/A	8.00000 0.00000 113.50000	8.00000 5.00000 113.50000	5	N/A	N/A	No	N/A
4	Line	Line 4	N/A	8.00000 5.00000 113.50000	16.00000 5.00000 113.50000	8	N/A	N/A	No	N/A
5	Line	Line 5	N/A	16.00000 5.00000 113.50000	18.50000 6.50000 113.50000	2	N/A	N/A	No	N/A
6	Line	Line 6	N/A	18.50000 6.50000 113.50000	18.50000 12.00000 113.50000	5	N/A	N/A	No	N/A
7	Line	Line 7	N/A	6.50000 12.00000 113.50000	18.50000 12.00000 113.50000	6	N/A	N/A	No	N/A
8	Line	Line 8	N/A	6.50000 6.50000 113.50000	6.50000 12.00000 113.50000	5	N/A	N/A	No	N/A
9	Line	Line 9	N/A	4.00000 9.00000 113.50000	6.50000 9.00000 113.50000	2	N/A	N/A	No	N/A
10	Line	Line 10	N/A	4.00000 12.00000 113.50000	4.00000 8.00000 113.50000	4	N/A	N/A	No	N/A
11	Line	Line 11	N/A	4.00000 6.50000 113.50000	15.50000 6.50000 113.50000	5	N/A	N/A	No	N/A
12	Line	Line 12	N/A	15.50000 6.50000 113.50000	15.50000 12.00000 113.50000	5	N/A	N/A	No	N/A
13	Line	Line 13	N/A	0.00000 8.00000 113.50000	0.00000 8.00000 113.50000	8	N/A	N/A	No	N/A
14	Line	Line 14	N/A	0.00000 0.00000 113.50000	0.00000 8.00000 113.50000	8	N/A	N/A	No	N/A
15	Line	Line 15	N/A	18.50000 6.50000 113.50000	20.00000 5.50000 113.50000	1	N/A	N/A	No	N/A
16	Line	Line 16	N/A	20.00000 5.50000 113.50000	23.00000 5.50000 113.50000	3	N/A	N/A	No	N/A
17	Line	Line 17	N/A	23.00000 5.50000 113.50000	24.00000 6.50000 113.50000	1	N/A	N/A	No	N/A
18	Line	Line 18	N/A	24.00000 6.50000 113.50000	24.00000 10.00000 113.50000	3	N/A	N/A	No	N/A
19	Line	Line 19	N/A	18.50000 10.00000 113.50000	24.00000 10.00000 113.50000	5	N/A	N/A	No	N/A
20	Line	Line 20	N/A	11.00000 12.00000 114.00000	11.00000 15.00000 114.00000	3	N/A	N/A	No	N/A
21	Line	Line 21	N/A	11.00000 15.00000 114.00000	10.00000 16.00000 114.00000	1	N/A	N/A	No	N/A
22	Line	Line 22	N/A	10.00000 16.00000 114.00000	9.00000 16.00000 114.00000	1	N/A	N/A	No	N/A
23	Line	Line 23	N/A	9.00000 16.00000 114.00000	9.00000 17.50000 114.00000	1	N/A	N/A	No	N/A
24	Line	Line 24	N/A	9.00000 17.50000 114.00000	10.00000 17.50000 114.00000	1	N/A	N/A	No	N/A
25	Line	Line 25	N/A	10.00000 17.50000 114.00000	11.00000 18.50000 114.00000	1	N/A	N/A	No	N/A
26	Line	Line 26	N/A	11.00000 18.50000 114.00000	11.00000 20.00000 114.00000	1	N/A	N/A	No	N/A
27	Line	Line 27	N/A	11.00000 20.00000 114.00000	20.00000 20.00000 114.00000	6	N/A	N/A	No	N/A
28	Line	Line 28	N/A	17.00000 15.00000 114.00000	17.00000 20.00000 114.00000	5	N/A	N/A	No	N/A
29	Line	Line 29	N/A	14.00000 15.00000 114.00000	17.00000 15.00000 114.00000	6	N/A	N/A	No	N/A
30	Line	Line 30	N/A	17.00000 20.00000 114.00000	20.00000 20.00000 114.00000	7	N/A	N/A	No	N/A
31	Line	Line 31	N/A	24.00000 10.00000 116.00000	24.00000 20.00000 116.00000	10	N/A	N/A	No	N/A
32	Line	Line 32	N/A	14.00000 22.00000 114.50000	50.00000 26.00000 114.50000	18	N/A	N/A	No	N/A
33	Line	Line 33	N/A	-4.00000 20.00000 114.00000	12.00000 21.75000 114.50000	8	N/A	N/A	No	N/A
34	Line	Line 34	N/A	-14.00000 18.75000 114.50000	-8.00000 19.50000 114.50000	6	N/A	N/A	No	N/A
35	Line	Line 35	N/A	-14.00000 18.00000 116.00000	-9.00000 18.50000 116.00000	5	N/A	N/A	No	N/A
36	Line	Line 36	N/A	-9.00000 18.50000 116.00000	-9.50000 18.50000 116.00000	14	N/A	N/A	No	N/A
37	Line	Line 37	N/A	-10.50000 -9.99500 116.00000	-5.50000 -9.50000 116.00000	5	N/A	N/A	No	N/A
38	Line	Line 38	N/A	-14.00000 18.00000 116.00000	-10.50000 -9.99500 116.00000	14	N/A	N/A	No	N/A
39	Line	Line 39	N/A	-5.50000 -10.00000 113.00000	5.50000 -49.00000 111.00000	20	N/A	N/A	Yes	No
40	Grid	Grid 1	Global X	-9.99500 117.00000	N/A 40.00000 117.00000	50	19.99500	N/A	No	N/A
41	Grid	Grid 2	Global X	0.00000 5.00500 117.00000	N/A 40.00000 117.00000	35	30.99500	N/A	No	N/A
42	Grid	Grid 3	Global X	31.00000 20.00500 117.00000	N/A 40.00000 117.00000	20	19.00000	N/A	No	N/A
43	Grid	Grid 4	Global X	0.00000 -10.00000 114.00000	N/A 5.00000 114.00000	15	31.00000	N/A	No	N/A
44	Grid	Grid 5	Global X	30.00000 -10.00000 114.00000	N/A 20.00000 114.00000	20	20.00000	N/A	No	N/A
45	Grid	Grid 6	Global X	-20.00000 -26.49500 114.00000	N/A -10.00000 114.00000	16	70.00000	N/A	Yes	No
46	Grid	Grid 7	Global X	-20.00000 -34.49500 114.00000	N/A -26.50000 114.00000	8	24.99500	N/A	Yes	No
47	Grid	Grid 8	Global X	0.00000 -34.50000 112.00000	N/A -26.50000 112.00000	8	45.00000	N/A	Yes	No
48	Grid	Grid 9	Global X	-20.00000 -50.00000 112.00000	N/A -34.50000 112.00000	15	70.00000	N/A	Yes	No

RESULTS FOR GRIDS

Analysis: Boussinesq
Global Poisson's ratio: 0.50
Horizontal rigid boundary level: 60.00 [m OD]

The maximum displacement difference between the Boussinesq method (-11.830mm) and the Mindlin method (-8.4664mm) occurs at point X = 4.99500m, Y = -28.49875m, level = 114.00mOD, and is 3.3632mm.

Name	X [m]	Location Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
East Extension	23.81856	15.91773	114.00000	0.034876	113.60	0.0	0.0	0.0
East Extension	27.00000	6.14493	114.00000	0.026080	113.60	0.0	0.0	0.0
South Extension	10.32783	-6.72288	113.00000	-0.20876	112.75	0.0	0.0	0.0
Pavilion	8.88752	-26.39877	110.50000	-12.855	110.25	-59.996	-173.07	-934.54E-6
L-shaped RC Underpin for East Extension	26.37500	22.12500	113.85000	0.034286	113.37	0.0	0.0	0.0
RC Underpin of East Extension	20.75000	19.50000	113.85000	0.035202	113.37	0.0	0.0	0.0



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Name	X [m]	Location Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
Wall 30								
RC Underpin between Wall 27 & 29	16.00000	13.50000	113.85000	0.032238	113.37	0.0	0.0	0.0
RC Underpin of Wall 31	24.00000	14.50000	113.85000	0.034404	113.37	0.0	0.0	0.0
Pad 6	19.00000	13.00000	113.85000	0.032302	113.37	0.0	0.0	0.0
Pad 1 - A	24.00000	4.00000	113.85000	0.015764	113.43	0.0	0.0	0.0
Pad 2 - A	25.00000	2.00000	113.85000	0.0093735	113.43	0.0	0.0	0.0
Pad 2 - B	29.00000	2.00000	113.85000	0.018404	113.43	0.0	0.0	0.0
Pad 5 - A	7.00000	-0.50000	112.60000	-0.046521	112.34	0.0	0.0	0.0
Pad 5 - B	3.00000	-4.00000	112.60000	-0.097619	112.34	0.0	0.0	0.0
Pad 5 - C	3.00000	-7.50000	112.60000	-0.20312	112.34	0.0	0.0	0.0
Pad 5 - D	-4.00000	-11.50000	112.60000	-0.43989	112.34	0.0	0.0	0.0
Pad 5 - E	7.00000	-15.00000	112.60000	-1.0999	112.34	0.0	0.0	0.0
Pad 5 - F	10.00000	-15.00000	112.60000	-1.1540	112.34	0.0	0.0	0.0
Pad 5 - G	16.00000	-15.00000	112.60000	-0.90652	112.34	0.0	0.0	0.0
Pad 4 - A	17.00000	-1.00000	112.60000	-0.040864	112.34	0.0	0.0	0.0
Pad 4 - B	17.00000	-4.00000	112.60000	-0.090688	112.34	0.0	0.0	0.0
Pad 4 - C	17.000							



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Name	Location	Displacement	Stresses	Vert Strain		
X [m]	Y [m]	Z [Level] [mOD]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
-10.00000	-25.46406	114.00000	-0.29187	113.75	0.0	0.0
-9.00000	-25.46406	114.00000	-0.35906	113.75	0.0	0.0
-8.00000	-25.46406	114.00000	-0.44239	113.75	0.0	0.0
-7.00000	-25.46406	114.00000	-0.54685	113.75	0.0	0.0
-6.00000	-25.46406	114.00000	-0.67940	113.75	0.0	0.0
-5.00000	-25.46406	114.00000	-0.85005	113.75	0.0	0.0
-4.00000	-25.46406	114.00000	-1.07336	113.75	0.0	0.0
-3.00000	-25.46406	114.00000	-1.37228	113.75	0.0	0.0
-2.00000	-25.46406	114.00000	-1.7848	113.75	0.0	0.0
-1.00000	-25.46406	114.00000	-2.3744	113.75	0.0	0.0
0.00000	-25.46406	114.00000	-3.22717	113.75	0.0	0.0
1.00000	-25.46406	114.00000	-4.3107	113.75	0.0	0.0
2.00000	-25.46406	114.00000	-5.62768	113.75	0.0	0.0
3.00000	-25.46406	114.00000	-7.1839	113.75	0.0	0.0
4.00000	-25.46406	114.00000	-9.0000	113.75	0.0	0.0
5.00000	-25.46406	114.00000	-11.0926	113.75	0.0	0.0
6.00000	-25.46406	114.00000	-13.4734	113.75	0.0	0.0
7.00000	-25.46406	114.00000	-16.1577	113.75	0.0	0.0
8.00000	-25.46406	114.00000	-19.1500	113.75	0.0	0.0
9.00000	-25.46406	114.00000	-22.4678	113.75	0.0	0.0
10.00000	-25.46406	114.00000	-26.1273	113.75	0.0	0.0
11.00000	-25.46406	114.00000	-30.1452	113.75	0.0	0.0
12.00000	-25.46406	114.00000	-34.5285	113.75	0.0	0.0
13.00000	-25.46406	114.00000	-39.2841	113.75	0.0	0.0
14.00000	-25.46406	114.00000	-44.4200	113.75	0.0	0.0
15.00000	-25.46406	114.00000	-50.0444	113.75	0.0	0.0
16.00000	-25.46406	114.00000	-56.1654	113.75	0.0	0.0
17.00000	-25.46406	114.00000	-62.7910	113.75	0.0	0.0
18.00000	-25.46406	114.00000	-69.9303	113.75	0.0	0.0
19.00000	-25.46406	114.00000	-77.5924	113.75	0.0	0.0
20.00000	-25.46406	114.00000	-85.7873	113.75	0.0	0.0
21.00000	-25.46406	114.00000	-94.5241	113.75	0.0	0.0
22.00000	-25.46406	114.00000	-103.8119	113.75	0.0	0.0
23.00000	-25.46406	114.00000	-113.6607	113.75	0.0	0.0
24.00000	-25.46406	114.00000	-124.0805	113.75	0.0	0.0
25.00000	-25.46406	114.00000	-135.0814	113.75	0.0	0.0
26.00000	-25.46406	114.00000	-146.6634	113.75	0.0	0.0
27.00000	-25.46406	114.00000	-158.8365	113.75	0.0	0.0
28.00000	-25.46406	114.00000	-171.6107	113.75	0.0	0.0
29.00000	-25.46406	114.00000	-184.9860	113.75	0.0	0.0
30.00000	-25.46406	114.00000	-198.9724	113.75	0.0	0.0
31.00000	-25.46406	114.00000	-213.5700	113.75	0.0	0.0
32.00000	-25.46406	114.00000	-228.7777	113.75	0.0	0.0
33.00000	-25.46406	114.00000	-244.5956	113.75	0.0	0.0
34.00000	-25.46406	114.00000	-261.0237	113.75	0.0	0.0
35.00000	-25.46406	114.00000	-278.0620	113.75	0.0	0.0
36.00000	-25.46406	114.00000	-295.7105	113.75	0.0	0.0
37.00000	-25.46406	114.00000	-313.9692	113.75	0.0	0.0
38.00000	-25.46406	114.00000	-332.8381	113.75	0.0	0.0
39.00000	-25.46406	114.00000	-352.3172	113.75	0.0	0.0
40.00000	-25.46406	114.00000	-372.4065	113.75	0.0	0.0
41.00000	-25.46406	114.00000	-393.1060	113.75	0.0	0.0
42.00000	-25.46406	114.00000	-414.4157	113.75	0.0	0.0
43.00000	-25.46406	114.00000	-436.3356	113.75	0.0	0.0
44.00000	-25.46406	114.00000	-458.8657	113.75	0.0	0.0
45.00000	-25.46406	114.00000	-482.0060	113.75	0.0	0.0
46.00000	-25.46406	114.00000	-505.7565	113.75	0.0	0.0
47.00000	-25.46406	114.00000	-530.1172	113.75	0.0	0.0
48.00000	-25.46406	114.00000	-555.0881	113.75	0.0	0.0
49.00000	-25.46406	114.00000	-580.6692	113.75	0.0	0.0
50.00000	-25.46406	114.00000	-606.8605	113.75	0.0	0.0
51.00000	-25.46406	114.00000	-633.6630	113.75	0.0	0.0
52.00000	-25.46406	114.00000	-661.0767	113.75	0.0	0.0
53.00000	-25.46406	114.00000	-689.1016	113.75	0.0	0.0
54.00000	-25.46406	114.00000	-717.7367	113.75	0.0	0.0
55.00000	-25.46406	114.00000	-746.9820	113.75	0.0	0.0
56.00000	-25.46406	114.00000	-776.8375	113.75	0.0	0.0
57.00000	-25.46406	114.00000	-807.3032	113.75	0.0	0.0
58.00000	-25.46406	114.00000	-838.3791	113.75	0.0	0.0
59.00000	-25.46406	114.00000	-870.0652	113.75	0.0	0.0
60.00000	-25.46406	114.00000	-902.3615	113.75	0.0	0.0
61.00000	-25.46406	114.00000	-935.2680	113.75	0.0	0.0
62.00000	-25.46406	114.00000	-968.7847	113.75	0.0	0.0
63.00000	-25.46406	114.00000	-1002.9116	113.75	0.0	0.0
64.00000	-25.46406	114.00000	-1037.6487	113.75	0.0	0.0
65.00000	-25.46406	114.00000	-1072.9960	113.75	0.0	0.0
66.00000	-25.46406	114.00000	-1108.9535	113.75	0.0	0.0
67.00000	-25.46406	114.00000	-1145.5212	113.75	0.0	0.0
68.00000	-25.46406	114.00000	-1182.6991	113.75	0.0	0.0
69.00000	-25.46406	114.00000	-1220.4872	113.75	0.0	0.0
70.00000	-25.46406	114.00000	-1258.8855	113.75	0.0	0.0
71.00000	-25.46406	114.00000	-1297.8940	113.75	0.0	0.0
72.00000	-25.46406	114.00000	-1337.5127	113.75	0.0	0.0
73.00000	-25.46406	114.00000	-1377.7416	113.75	0.0	0.0
74.00000	-25.46406	114.00000	-1418.5807	113.75	0.0	0.0
75.00000	-25.46406	114.00000	-1459.9300	113.75	0.0	0.0
76.00000	-25.46406	114.00000	-1501.7895	113.75	0.0	0.0
77.00000	-25.46406	114.00000	-1544.1592	113.75	0.0	0.0
78.00000	-25.46406	114.00000	-1587.0391	113.75	0.0	0.0
79.00000	-25.46406	114.00000	-1630.4292	113.75	0.0	0.0
80.00000	-25.46406	114.00000	-1674.3295	113.75	0.0	0.0
81.00000	-25.46406	114.00000	-1718.7400	113.75	0.0	0.0
82.00000	-25.46406	114.00000	-1763.6607	113.75	0.0	0.0
83.00000	-25.46406	114.00000	-1809.0916	113.75	0.0	0.0
84.00000	-25.46406	114.00000	-1855.0327	113.75	0.0	0.0
85.00000	-25.46406	114.00000	-1901.4840	113.75	0.0	0.0
86.00000	-25.46406	114.00000	-1948.4455	113.75	0.0	0.0
87.00000	-25.46406	114.00000	-1995.9172	113.75	0.0	0.0
88.00000	-25.46406	114.00000	-2043.8991	113.75	0.0	0.0
89.00000	-25.46406	114.00000	-2092.3912	113.75	0.0	0.0
90.00000	-25.46406	114.00000	-2141.3935	113.75	0.0	0.0
91.00000	-25.46406	114.00000	-2190.9060	113.75	0.0	0.0
92.00000	-25.46406	114.00000	-2240.9287	113.75	0.0	0.0
93.00000	-25.46406	114.00000	-2291.4616	113.75	0.0	0.0
94.00000	-25.46406	114.00000	-2342.5047	113.75	0.0	0.0
95.00000	-25.46406	114.00000	-2394.0580	113.75	0.0	0.0
96.00000	-25.46406	114.00000	-2446.1315	113.75	0.0	0.0
97.00000	-25.46406	114.00000	-2498.7252	113.75	0.0	0.0
98.00000	-25.46406	114.00000	-2551.8391	113.75	0.0	0.0
99.00000	-25.46406	114.00000	-2605.4732	113.75	0.0	0.0
100.00000	-25.46406	114.00000	-2659.6275	113.75	0.0	0.0



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Name	Location	Displacement	Stresses	Vert Strain		
X [m]	Y [m]	Z [Level] [mOD]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
49.00000	-24.43313	114.00000	0.030511	113.75	0.0	0.0
50.00000	-24.43313	114.00000	0.031776	113.75	0.0	0.0
-20.00000	-23.40219	114.00000	-0.018402	113.75	0.0	0.0
-19.00000	-23.40219	114.00000	-0.028999	113.75	0.0	0.0
-18.00000	-23.40219	114.00000	-0.041483	113.75	0.0	0.0
-17.00000	-23.40219	114.00000	-0.056210	113.75	0.0	0.0
-16.00000	-23.40219	114.00000	-0.073619	113.75	0.0	0.0
-15.00000	-23.40219	114.00000	-0.094251	113.75	0.0	0.0
-14.00000	-23.40219	114.00000	-0.11878	113.75	0.0	0.0
-13.00000	-23.40219	114.00000	-0.14807	113.75	0.0	0.0
-12.00000	-23.40219	114.00000	-0.18218	113.75	0.0	0.0
-11.00000	-23.40219	114.00000	-0.22552	113.75	0.0	0.0
-10.00000	-23.40219	114.00000	-0.27689	113.75	0.0	0.0
-9.00000	-23.40219	114.00000	-0.33666	113.75	0.0	0.0
-8.00000	-23.40219	114.00000	-0.41700	113.75	0.0	0.0
-7.00000	-23.40219	114.00000	-0.51319	113.75	0.0	0.0
-6.00000	-23.40219	114.00000	-0.63415	113.75	0.0	0.0
-5.00000	-23.40219	114.00000	-0.78227	113.75	0.0	0.0
-4.00000	-23.40219	114.00000	-0.98773	113.75	0.0	0.0
-3.00000	-23.40219	114.00000	-1.2511	113.75	0.0	0.0
-2.00000	-23.40219	114.00000	-1.6080	113.75	0.0	0.0
-1.00000	-23.40219	114.00000	-2.1111	113.75	0.0	0.0
0.00000	-23.40219	1				



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Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
37.00000	-22.37125	114.00000	-0.028737	113.75	0.0	0.0	0.0	
38.00000	-22.37125	114.00000	-0.018135	113.75	0.0	0.0	0.0	
39.00000	-22.37125	114.00000	-0.0091447	113.75	0.0	0.0	0.0	
40.00000	-22.37125	114.00000	-0.0015184	113.75	0.0	0.0	0.0	
41.00000	-22.37125	114.00000	0.0049488	113.75	0.0	0.0	0.0	
42.00000	-22.37125	114.00000	0.010427	113.75	0.0	0.0	0.0	
43.00000	-22.37125	114.00000	0.015060	113.75	0.0	0.0	0.0	
44.00000	-22.37125	114.00000	0.018966	113.75	0.0	0.0	0.0	
45.00000	-22.37125	114.00000	0.022248	113.75	0.0	0.0	0.0	
46.00000	-22.37125	114.00000	0.024992	113.75	0.0	0.0	0.0	
47.00000	-22.37125	114.00000	0.027270	113.75	0.0	0.0	0.0	
48.00000	-22.37125	114.00000	0.029146	113.75	0.0	0.0	0.0	
49.00000	-22.37125	114.00000	0.030673	113.75	0.0	0.0	0.0	
50.00000	-22.37125	114.00000	0.031899	113.75	0.0	0.0	0.0	
-20.00000	-21.34031	114.00000	-0.015369	113.75	0.0	0.0	0.0	
-19.00000	-21.34031	114.00000	-0.025306	113.75	0.0	0.0	0.0	
-18.00000	-21.34031	114.00000	-0.036975	113.75	0.0	0.0	0.0	
-17.00000	-21.34031	114.00000	-0.050692	113.75	0.0	0.0	0.0	
-16.00000	-21.34031	114.00000	-0.066839	113.75	0.0	0.0	0.0	
-15.00000	-21.34031	114.00000	-0.085886	113.75	0.0	0.0	0.0	
-14.00000	-21.34031	114.00000	-0.10841	113.75	0.0	0.0	0.0	
-13.00000	-21.34031	114.00000	-0.13513	113.75	0.0	0.0	0.0	
-12.00000	-21.34031	114.00000	-0.16694	113.75	0.0	0.0	0.0	
-11.00000	-21.34031	114.00000	-0.20493	113.75	0.0	0.0	0.0	
-10.00000	-21.34031	114.00000	-0.25070	113.75	0.0	0.0	0.0	
-9.00000	-21.34031	114.00000	-0.30595	113.75	0.0	0.0	0.0	
-8.00000	-21.34031	114.00000	-0.37315	113.75	0.0	0.0	0.0	
-7.00000	-21.34031	114.00000	-0.45547	113.75	0.0	0.0	0.0	
-6.00000	-21.34031	114.00000	-0.55716	113.75	0.0	0.0	0.0	
-5.00000	-21.34031	114.00000	-0.68399	113.75	0.0	0.0	0.0	
-4.00000	-21.34031	114.00000	-0.84394	113.75	0.0	0.0	0.0	
-3.00000	-21.34031	114.00000	-1.0485	113.75	0.0	0.0	0.0	
-2.00000	-21.34031	114.00000	-1.3149	113.75	0.0	0.0	0.0	
-1.00000	-21.34031	114.00000	-1.6709	113.75	0.0	0.0	0.0	
0.00000	-21.34031	114.00000	-2.1665	113.75	0.0	0.0	0.0	
1.00000	-21.34031	114.00000	-2.9076	113.75	0.0	0.0	0.0	
2.00000	-21.34031	114.00000	-4.0664	113.75	0.0	0.0	0.0	
3.00000	-21.34031	114.00000	-5.7355	113.75	0.0	0.0	0.0	
4.00000	-21.34031	114.00000	-7.3136	113.75	0.0	0.0	0.0	
5.00000	-21.34031	114.00000	-9.5569	113.75	0.0	0.0	0.0	
6.00000	-21.34031	114.00000	-12.4703	113.75	0.0	0.0	0.0	
7.00000	-21.34031	114.00000	-16.4983	113.75	0.0	0.0	0.0	
8.00000	-21.34031	114.00000	-21.3251	113.75	0.0	0.0	0.0	
9.00000	-21.34031	114.00000	-27.3285	113.75	0.0	0.0	0.0	
10.00000	-21.34031	114.00000	-34.0342	113.75	0.0	0.0	0.0	
11.00000	-21.34031	114.00000	-41.9992	113.75	0.0	0.0	0.0	
12.00000	-21.34031	114.00000	-50.4014	113.75	0.0	0.0	0.0	
13.00000	-21.34031	114.00000	-59.3839	113.75	0.0	0.0	0.0	
14.00000	-21.34031	114.00000	-68.8663	113.75	0.0	0.0	0.0	
15.00000	-21.34031	114.00000	-78.8212	113.75	0.0	0.0	0.0	
16.00000	-21.34031	114.00000	-89.3380	113.75	0.0	0.0	0.0	
17.00000	-21.34031	114.00000	-101.4563	113.75	0.0	0.0	0.0	
18.00000	-21.34031	114.00000	-115.2715	113.75	0.0	0.0	0.0	
19.00000	-21.34031	114.00000	-130.8978	113.75	0.0	0.0	0.0	
20.00000	-21.34031	114.00000	-149.4530	113.75	0.0	0.0	0.0	
21.00000	-21.34031	114.00000	-170.0421	113.75	0.0	0.0	0.0	
22.00000	-21.34031	114.00000	-192.6470	113.75	0.0	0.0	0.0	
23.00000	-21.34031	114.00000	-217.3000	113.75	0.0	0.0	0.0	
24.00000	-21.34031	114.00000	-244.0356	113.75	0.0	0.0	0.0	
25.00000	-21.34031	114.00000	-272.9000	113.75	0.0	0.0	0.0	
26.00000	-21.34031	114.00000	-303.0424	113.75	0.0	0.0	0.0	
27.00000	-21.34031	114.00000	-334.5298	113.75	0.0	0.0	0.0	
28.00000	-21.34031	114.00000	-367.5185	113.75	0.0	0.0	0.0	
29.00000	-21.34031	114.00000	-402.0639	113.75	0.0	0.0	0.0	
30.00000	-21.34031	114.00000	-438.2219	113.75	0.0	0.0	0.0	
31.00000	-21.34031	114.00000	-476.0486	113.75	0.0	0.0	0.0	
32.00000	-21.34031	114.00000	-515.5993	113.75	0.0	0.0	0.0	
33.00000	-21.34031	114.00000	-556.9451	113.75	0.0	0.0	0.0	
34.00000	-21.34031	114.00000	-600.1537	113.75	0.0	0.0	0.0	
35.00000	-21.34031	114.00000	-645.2915	113.75	0.0	0.0	0.0	
36.00000	-21.34031	114.00000	-692.4251	113.75	0.0	0.0	0.0	
37.00000	-21.34031	114.00000	-741.6210	113.75	0.0	0.0	0.0	
38.00000	-21.34031	114.00000	-792.9457	113.75	0.0	0.0	0.0	
39.00000	-21.34031	114.00000	-847.4650	113.75	0.0	0.0	0.0	
40.00000	-21.34031	114.00000	-905.2450	113.75	0.0	0.0	0.0	
41.00000	-21.34031	114.00000	-966.3522	113.75	0.0	0.0	0.0	
42.00000	-21.34031	114.00000	-1030.7522	113.75	0.0	0.0	0.0	
43.00000	-21.34031	114.00000	-1098.5000	113.75	0.0	0.0	0.0	
44.00000	-21.34031	114.00000	-1169.6600	113.75	0.0	0.0	0.0	
45.00000	-21.34031	114.00000	-1244.2000	113.75	0.0	0.0	0.0	
46.00000	-21.34031	114.00000	-1322.1800	113.75	0.0	0.0	0.0	
47.00000	-21.34031	114.00000	-1403.5600	113.75	0.0	0.0	0.0	
48.00000	-21.34031	114.00000	-1488.3000	113.75	0.0	0.0	0.0	
49.00000	-21.34031	114.00000	-1576.3800	113.75	0.0	0.0	0.0	
50.00000	-21.34031	114.00000	-1667.7800	113.75	0.0	0.0	0.0	
-20.00000	-20.30938	114.00000	-0.013421	113.75	0.0	0.0	0.0	
-19.00000	-20.30938	114.00000	-0.022938	113.75	0.0	0.0	0.0	
-18.00000	-20.30938	114.00000	-0.034092	113.75	0.0	0.0	0.0	
-17.00000	-20.30938	114.00000	-0.047172	113.75	0.0	0.0	0.0	
-16.00000	-20.30938	114.00000	-0.062529	113.75	0.0	0.0	0.0	
-15.00000	-20.30938	114.00000	-0.080588	113.75	0.0	0.0	0.0	
-14.00000	-20.30938	114.00000	-0.10187	113.75	0.0	0.0	0.0	
-13.00000	-20.30938	114.00000	-0.12701	113.75	0.0	0.0	0.0	
-12.00000	-20.30938	114.00000	-0.15681	113.75	0.0	0.0	0.0	
-11.00000	-20.30938	114.00000	-0.19225	113.75	0.0	0.0	0.0	
-10.00000	-20.30938	114.00000	-0.23458	113.75	0.0	0.0	0.0	
-9.00000	-20.30938	114.00000	-0.28357	113.75	0.0	0.0	0.0	
-8.00000	-20.30938	114.00000	-0.34062	113.75	0.0	0.0	0.0	
-7.00000	-20.30938	114.00000	-0.40629	113.75	0.0	0.0	0.0	
-6.00000	-20.30938	114.00000	-0.48116	113.75	0.0	0.0	0.0	
-5.00000	-20.30938	114.00000	-0.56578	113.75	0.0	0.0	0.0	
-4.00000	-20.30938	114.00000	-0.66073	113.75	0.0	0.0	0.0	
-3.00000	-20.30938	114.00000	-0.76652	113.75	0.0	0.0	0.0	
-2.00000	-20.30938	114.00000	-0.88362	113.75	0.0	0.0	0.0	
-1.00000	-20.30938	114.00000	-1.0125	113.75	0.0	0.0	0.0	
0.00000	-20.30938	114.00000	-1.1529	113.75	0.0	0.0	0.0	
0.00000	-20.30938	114.00000	-1.3053	113.75	0.0	0.0	0.0	
1.00000	-20.30938	114.00000	-1.4701	113.75	0.0	0.0	0.0	
2.00000	-20.30938	114.00000	-1.6478	113.75	0.0	0.0	0.0	
3.00000	-20.30938	114.00000	-1.8390	113.75	0.0	0.0	0.0	
4.00000	-20.30938	114.00000	-2.0442	113.75	0.0	0.0	0.0	
5.00000	-20.30938	114.00000	-2.2650	113.75	0.0	0.0	0.0	
6.00000	-20.30938	114.00000	-2.5020	113.75	0.0	0.0	0.0	
7.00000	-20.30938	114.00000	-2.7568	113.75	0.0	0.0	0.0	
8.00000	-20.30938	114.00000	-3.0300	113.75	0.0	0.0	0.0	
9.00000	-20.30938	114.00000	-3.3222	113.75	0.0	0.0	0.0	
10.00000	-20.30938	114.00000	-3.6350	113.75	0.0	0.0	0.0	
11.00000	-20.30938	114.00000	-3.9690	113.75	0.0	0.0	0.0	
12.00000	-20.30938	114.00000	-4.3248	113.75	0.0	0.0	0.0	
13.00000	-20.30938	114.00000	-4.7030	113.75	0.0	0.0	0.0	
14.00000	-20.30938	114.00000	-5.1042	113.75	0.0	0.0	0.0	
15.00000	-20.30938	114.00000	-5.5290	113.75	0.0	0.0	0.0	
16.00000	-20.30938	114.00000	-5.9780	113.75	0.0	0.0	0.0	
17.00000	-20.30938	114.00000	-6.4518	113.75	0.0	0.0	0.0	
18.00000	-20.30938	114.00000	-6.9510	113.75	0.0	0.0	0.0	
19.00000	-20.30938	114.00000	-7.4762	113.75	0.0	0.0	0.0	
20.00000	-20.30938	114.00000	-8.0290	113.75	0.0	0.0	0.0	
21.00000	-20.30938	114.00000	-8.6110	113.75	0.0	0.0	0.0	
22.00000	-20.30938	114.00000	-9.2230	113.75	0.0	0.0	0.0	
23.00000	-20.30938	114.00000	-9.8660	113.75	0.0	0.0	0	



Channing Junior School, Highgate High Street, N6 5JR
 Short-Term Hevae / Settlement
 Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Name	Location	Displacement	Stresses				
X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
13.00000	-18.24750	114.00000	-2.5777	113.75	0.0	0.0	0.0
14.00000	-18.24750	114.00000	-2.4945	113.75	0.0	0.0	0.0
15.00000	-18.24750	114.00000	-2.2794	113.75	0.0	0.0	0.0
16.00000	-18.24750	114.00000	-1.9774	113.75	0.0	0.0	0.0
17.00000	-18.24750	114.00000	-1.6742	113.75	0.0	0.0	0.0
18.00000	-18.24750	114.00000	-1.4031	113.75	0.0	0.0	0.0
19.00000	-18.24750	114.00000	-1.1703	113.75	0.0	0.0	0.0
20.00000	-18.24750	114.00000	-0.97364	113.75	0.0	0.0	0.0
21.00000	-18.24750	114.00000	-0.80889	113.75	0.0	0.0	0.0
22.00000	-18.24750	114.00000	-0.67154	113.75	0.0	0.0	0.0
23.00000	-18.24750	114.00000	-0.55728	113.75	0.0	0.0	0.0
24.00000	-18.24750	114.00000	-0.46228	113.75	0.0	0.0	0.0
25.00000	-18.24750	114.00000	-0.38322	113.75	0.0	0.0	0.0
26.00000	-18.24750	114.00000	-0.31732	113.75	0.0	0.0	0.0
27.00000	-18.24750	114.00000	-0.26226	113.75	0.0	0.0	0.0
28.00000	-18.24750	114.00000	-0.21613	113.75	0.0	0.0	0.0
29.00000	-18.24750	114.00000	-0.17736	113.75	0.0	0.0	0.0
30.00000	-18.24750	114.00000	-0.14469	113.75	0.0	0.0	0.0
31.00000	-18.24750	114.00000	-0.11708	113.75	0.0	0.0	0.0
32.00000	-18.24750	114.00000	-0.09386	113.75	0.0	0.0	0.0
33.00000	-18.24750	114.00000	-0.073818	113.75	0.0	0.0	0.0
34.00000	-18.24750	114.00000	-0.056912	113.75	0.0	0.0	0.0
35.00000	-18.24750	114.00000	-0.042502	113.75	0.0	0.0	0.0
36.00000	-18.24750	114.00000	0.030206	113.75	0.0	0.0	0.0
37.00000	-18.24750	114.00000	0.019705	113.75	0.0	0.0	0.0
38.00000	-18.24750	114.00000	0.010734	113.75	0.0	0.0	0.0
39.00000	-18.24750	114.00000	0.0030723	113.75	0.0	0.0	0.0
40.00000	-18.24750	114.00000	0.0034675	113.75	0.0	0.0	0.0
41.00000	-18.24750	114.00000	0.0090420	113.75	0.0	0.0	0.0
42.00000	-18.24750	114.00000	0.013784	113.75	0.0	0.0	0.0
43.00000	-18.24750	114.00000	0.017808	113.75	0.0	0.0	0.0
44.00000	-18.24750	114.00000	0.021208	113.75	0.0	0.0	0.0
45.00000	-18.24750	114.00000	0.024070	113.75	0.0	0.0	0.0
46.00000	-18.24750	114.00000	0.026462	113.75	0.0	0.0	0.0
47.00000	-18.24750	114.00000	0.028448	113.75	0.0	0.0	0.0
48.00000	-18.24750	114.00000	0.030079	113.75	0.0	0.0	0.0
49.00000	-18.24750	114.00000	0.031401	113.75	0.0	0.0	0.0
50.00000	-18.24750	114.00000	0.032455	113.75	0.0	0.0	0.0
-20.00000	-17.21656	114.00000	-0.0063103	113.75	0.0	0.0	0.0
-19.00000	-17.21656	114.00000	-0.014334	113.75	0.0	0.0	0.0
-18.00000	-17.21656	114.00000	-0.023667	113.75	0.0	0.0	0.0
-17.00000	-17.21656	114.00000	-0.034518	113.75	0.0	0.0	0.0
-16.00000	-17.21656	114.00000	-0.047132	113.75	0.0	0.0	0.0
-15.00000	-17.21656	114.00000	-0.061798	113.75	0.0	0.0	0.0
-14.00000	-17.21656	114.00000	-0.078858	113.75	0.0	0.0	0.0
-13.00000	-17.21656	114.00000	-0.098720	113.75	0.0	0.0	0.0
-12.00000	-17.21656	114.00000	-0.121866	113.75	0.0	0.0	0.0
-11.00000	-17.21656	114.00000	-0.14887	113.75	0.0	0.0	0.0
-10.00000	-17.21656	114.00000	-0.18041	113.75	0.0	0.0	0.0
-9.00000	-17.21656	114.00000	-0.21730	113.75	0.0	0.0	0.0
-8.00000	-17.21656	114.00000	-0.26049	113.75	0.0	0.0	0.0
-7.00000	-17.21656	114.00000	-0.31109	113.75	0.0	0.0	0.0
-6.00000	-17.21656	114.00000	-0.37040	113.75	0.0	0.0	0.0
-5.00000	-17.21656	114.00000	-0.43997	113.75	0.0	0.0	0.0
-4.00000	-17.21656	114.00000	-0.52105	113.75	0.0	0.0	0.0
-3.00000	-17.21656	114.00000	-0.61550	113.75	0.0	0.0	0.0
-2.00000	-17.21656	114.00000	-0.72452	113.75	0.0	0.0	0.0
-1.00000	-17.21656	114.00000	-0.84867	113.75	0.0	0.0	0.0
0.00000	-17.21656	114.00000	-0.98704	113.75	0.0	0.0	0.0
1.00000	-17.21656	114.00000	-1.1363	113.75	0.0	0.0	0.0
2.00000	-17.21656	114.00000	-1.2898	113.75	0.0	0.0	0.0
3.00000	-17.21656	114.00000	-1.4381	113.75	0.0	0.0	0.0
4.00000	-17.21656	114.00000	-1.5709	113.75	0.0	0.0	0.0
5.00000	-17.21656	114.00000	-1.6814	113.75	0.0	0.0	0.0
6.00000	-17.21656	114.00000	-1.7684	113.75	0.0	0.0	0.0
7.00000	-17.21656	114.00000	-1.8343	113.75	0.0	0.0	0.0
8.00000	-17.21656	114.00000	-1.8827	113.75	0.0	0.0	0.0
9.00000	-17.21656	114.00000	-1.9173	113.75	0.0	0.0	0.0
10.00000	-17.21656	114.00000	-1.9405	113.75	0.0	0.0	0.0
11.00000	-17.21656	114.00000	-1.9511	113.75	0.0	0.0	0.0
12.00000	-17.21656	114.00000	-1.9443	113.75	0.0	0.0	0.0
13.00000	-17.21656	114.00000	-1.9075	113.75	0.0	0.0	0.0
14.00000	-17.21656	114.00000	-1.8250	113.75	0.0	0.0	0.0
15.00000	-17.21656	114.00000	-1.6884	113.75	0.0	0.0	0.0
16.00000	-17.21656	114.00000	-1.5117	113.75	0.0	0.0	0.0
17.00000	-17.21656	114.00000	-1.3217	113.75	0.0	0.0	0.0
18.00000	-17.21656	114.00000	-1.1381	113.75	0.0	0.0	0.0
19.00000	-17.21656	114.00000	-0.97077	113.75	0.0	0.0	0.0
20.00000	-17.21656	114.00000	-0.82284	113.75	0.0	0.0	0.0
21.00000	-17.21656	114.00000	-0.69443	113.75	0.0	0.0	0.0
22.00000	-17.21656	114.00000	-0.58427	113.75	0.0	0.0	0.0
23.00000	-17.21656	114.00000	-0.49037	113.75	0.0	0.0	0.0
24.00000	-17.21656	114.00000	-0.41067	113.75	0.0	0.0	0.0
25.00000	-17.21656	114.00000	-0.34316	113.75	0.0	0.0	0.0
26.00000	-17.21656	114.00000	-0.28601	113.75	0.0	0.0	0.0
27.00000	-17.21656	114.00000	-0.23763	113.75	0.0	0.0	0.0
28.00000	-17.21656	114.00000	-0.19663	113.75	0.0	0.0	0.0
29.00000	-17.21656	114.00000	-0.16183	113.75	0.0	0.0	0.0
30.00000	-17.21656	114.00000	-0.13224	113.75	0.0	0.0	0.0
31.00000	-17.21656	114.00000	-0.10705	113.75	0.0	0.0	0.0
32.00000	-17.21656	114.00000	-0.085570	113.75	0.0	0.0	0.0
33.00000	-17.21656	114.00000	-0.067220	113.75	0.0	0.0	0.0
34.00000	-17.21656	114.00000	-0.051528	113.75	0.0	0.0	0.0
35.00000	-17.21656	114.00000	-0.038096	113.75	0.0	0.0	0.0
36.00000	-17.21656	114.00000	-0.026590	113.75	0.0	0.0	0.0
37.00000	-17.21656	114.00000	-0.016731	113.75	0.0	0.0	0.0
38.00000	-17.21656	114.00000	-0.0082858	113.75	0.0	0.0	0.0
39.00000	-17.21656	114.00000	-0.0010541	113.75	0.0	0.0	0.0
40.00000	-17.21656	114.00000	0.0051308	113.75	0.0	0.0	0.0
41.00000	-17.21656	114.00000	0.010412	113.75	0.0	0.0	0.0
42.00000	-17.21656	114.00000	0.014911	113.75	0.0	0.0	0.0
43.00000	-17.21656	114.00000	0.018732	113.75	0.0	0.0	0.0
44.00000	-17.21656	114.00000	0.021964	113.75	0.0	0.0	0.0
45.00000	-17.21656	114.00000	0.024684	113.75	0.0	0.0	0.0
46.00000	-17.21656	114.00000	0.026959	113.75	0.0	0.0	0.0
47.00000	-17.21656	114.00000	0.028846	113.75	0.0	0.0	0.0
48.00000	-17.21656	114.00000	0.030394	113.75	0.0	0.0	0.0
49.00000	-17.21656	114.00000	0.031647	113.75	0.0	0.0	0.0
50.00000	-17.21656	114.00000	0.032643	113.75	0.0	0.0	0.0
-20.00000	-16.18563	114.00000	-0.0036596	113.75	0.0	0.0	0.0
-19.00000	-16.18563	114.00000	-0.011141	113.75	0.0	0.0	0.0
-18.00000	-16.18563	114.00000	-0.019820	113.75	0.0	0.0	0.0
-17.00000	-16.18563	114.00000	-0.028877	113.75	0.0	0.0	0.0
-16.00000	-16.18563	114.00000	-0.041524	113.75	0.0	0.0	0.0
-15.00000	-16.18563	114.00000	-0.055010	113.75	0.0	0.0	0.0
-14.00000	-16.18563	114.00000	-0.070523	113.75	0.0	0.0	0.0
-13.00000	-16.18563	114.00000	-0.088698	113.75	0.0	0.0	0.0
-12.00000	-16.18563	114.00000	-0.10963	113.75	0.0	0.0	0.0
-11.00000	-16.18563	114.00000	-0.13389	113.75	0.0	0.0	0.0
-10.00000	-16.18563	114.00000	-0.16199	113.75	0.0	0.0	0.0
-9.00000	-16.18563	114.00000	-0.19456	113.75	0.0	0.0	0.0
-8.00000	-16.18563	114.00000	-0.23230	113.75	0.0	0.0	0.0
-7.00000	-16.18563	114.00000	-0.27600	113.75	0.0	0.0	0.0
-6.00000	-16.18563	114.00000	-0.32653	113.75	0.0	0.0	0.0
-5.00000	-16.18563	114.00000	-0.38478	113.75	0.0	0.0	0.0
-4.00000	-16.18563	114.00000	-0.45164	113.75	0.0	0.0	0.0
-3.00000	-16.18563	114.00000	-0.52784	113.75	0.0	0.0	0.0
-2.00000	-16.18563	114.00000	-0.61376	113.75	0.0	0.0	0.0
-1.00000	-16.18563	114.00000	-0.70924	113.75	0.0	0.0	0.0
0.00000	-16.18563	114.00000	-0.81266	113.75			



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Hevave / Settlement
Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
MP		

Name	Location	Displacement	Stresses				
X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
-11.00000	-14.12375	114.00000	-0.10485	113.75	0.0	0.0	0.0
-10.00000	-14.12375	114.00000	-0.12674	113.75	0.0	0.0	0.0
-9.00000	-14.12375	114.00000	-0.15166	113.75	0.0	0.0	0.0
-8.00000	-14.12375	114.00000	-0.17996	113.75	0.0	0.0	0.0
-7.00000	-14.12375	114.00000	-0.21200	113.75	0.0	0.0	0.0
-6.00000	-14.12375	114.00000	-0.24812	113.75	0.0	0.0	0.0
-5.00000	-14.12375	114.00000	-0.28862	113.75	0.0	0.0	0.0
-4.00000	-14.12375	114.00000	-0.33368	113.75	0.0	0.0	0.0
-3.00000	-14.12375	114.00000	-0.38334	113.75	0.0	0.0	0.0
-2.00000	-14.12375	114.00000	-0.43734	113.75	0.0	0.0	0.0
-1.00000	-14.12375	114.00000	-0.49513	113.75	0.0	0.0	0.0
0.00000	-14.12375	114.00000	-0.55566	113.75	0.0	0.0	0.0
1.00000	-14.12375	114.00000	-0.61748	113.75	0.0	0.0	0.0
2.00000	-14.12375	114.00000	-0.67969	113.75	0.0	0.0	0.0
3.00000	-14.12375	114.00000	-0.73722	113.75	0.0	0.0	0.0
4.00000	-14.12375	114.00000	-0.79102	113.75	0.0	0.0	0.0
5.00000	-14.12375	114.00000	-0.83841	113.75	0.0	0.0	0.0
6.00000	-14.12375	114.00000	-0.87820	113.75	0.0	0.0	0.0
7.00000	-14.12375	114.00000	-0.90969	113.75	0.0	0.0	0.0
8.00000	-14.12375	114.00000	-0.93252	113.75	0.0	0.0	0.0
9.00000	-14.12375	114.00000	-0.94643	113.75	0.0	0.0	0.0
10.00000	-14.12375	114.00000	-0.95105	113.75	0.0	0.0	0.0
11.00000	-14.12375	114.00000	-0.94574	113.75	0.0	0.0	0.0
12.00000	-14.12375	114.00000	-0.92965	113.75	0.0	0.0	0.0
13.00000	-14.12375	114.00000	-0.90196	113.75	0.0	0.0	0.0
14.00000	-14.12375	114.00000	-0.86243	113.75	0.0	0.0	0.0
15.00000	-14.12375	114.00000	-0.81188	113.75	0.0	0.0	0.0
16.00000	-14.12375	114.00000	-0.75241	113.75	0.0	0.0	0.0
17.00000	-14.12375	114.00000	-0.68707	113.75	0.0	0.0	0.0
18.00000	-14.12375	114.00000	-0.61915	113.75	0.0	0.0	0.0
19.00000	-14.12375	114.00000	-0.55169	113.75	0.0	0.0	0.0
20.00000	-14.12375	114.00000	-0.48669	113.75	0.0	0.0	0.0
21.00000	-14.12375	114.00000	-0.42585	113.75	0.0	0.0	0.0
22.00000	-14.12375	114.00000	-0.36994	113.75	0.0	0.0	0.0
23.00000	-14.12375	114.00000	-0.31930	113.75	0.0	0.0	0.0
24.00000	-14.12375	114.00000	-0.27393	113.75	0.0	0.0	0.0
25.00000	-14.12375	114.00000	-0.23360	113.75	0.0	0.0	0.0
26.00000	-14.12375	114.00000	-0.19798	113.75	0.0	0.0	0.0
27.00000	-14.12375	114.00000	-0.16666	113.75	0.0	0.0	0.0
28.00000	-14.12375	114.00000	-0.13921	113.75	0.0	0.0	0.0
29.00000	-14.12375	114.00000	-0.11523	113.75	0.0	0.0	0.0
30.00000	-14.12375	114.00000	-0.09426	113.75	0.0	0.0	0.0
31.00000	-14.12375	114.00000	-0.07608	113.75	0.0	0.0	0.0
32.00000	-14.12375	114.00000	-0.06017	113.75	0.0	0.0	0.0
33.00000	-14.12375	114.00000	-0.04629	113.75	0.0	0.0	0.0
34.00000	-14.12375	114.00000	-0.03426	113.75	0.0	0.0	0.0
35.00000	-14.12375	114.00000	-0.02360	113.75	0.0	0.0	0.0
36.00000	-14.12375	114.00000	-0.01481	113.75	0.0	0.0	0.0
37.00000	-14.12375	114.00000	-0.00698	113.75	0.0	0.0	0.0
38.00000	-14.12375	114.00000	-0.00045	113.75	0.0	0.0	0.0
39.00000	-14.12375	114.00000	0.00328	113.75	0.0	0.0	0.0
40.00000	-14.12375	114.00000	0.01061	113.75	0.0	0.0	0.0
41.00000	-14.12375	114.00000	0.01493	113.75	0.0	0.0	0.0
42.00000	-14.12375	114.00000	0.01640	113.75	0.0	0.0	0.0
43.00000	-14.12375	114.00000	0.02183	113.75	0.0	0.0	0.0
44.00000	-14.12375	114.00000	0.02401	113.75	0.0	0.0	0.0
45.00000	-14.12375	114.00000	0.02674	113.75	0.0	0.0	0.0
46.00000	-14.12375	114.00000	0.02827	113.75	0.0	0.0	0.0
47.00000	-14.12375	114.00000	0.03018	113.75	0.0	0.0	0.0
48.00000	-14.12375	114.00000	0.03148	113.75	0.0	0.0	0.0
49.00000	-14.12375	114.00000	0.03246	113.75	0.0	0.0	0.0
50.00000	-14.12375	114.00000	0.03326	113.75	0.0	0.0	0.0
-20.00000	-13.09281	114.00000	0.00454	113.75	0.0	0.0	0.0
-19.00000	-13.09281	114.00000	-0.01289	113.75	0.0	0.0	0.0
-18.00000	-13.09281	114.00000	-0.08018	113.75	0.0	0.0	0.0
-17.00000	-13.09281	114.00000	-0.15740	113.75	0.0	0.0	0.0
-16.00000	-13.09281	114.00000	-0.24581	113.75	0.0	0.0	0.0
-15.00000	-13.09281	114.00000	-0.34685	113.75	0.0	0.0	0.0
-14.00000	-13.09281	114.00000	-0.46211	113.75	0.0	0.0	0.0
-13.00000	-13.09281	114.00000	-0.59237	113.75	0.0	0.0	0.0
-12.00000	-13.09281	114.00000	-0.74258	113.75	0.0	0.0	0.0
-11.00000	-13.09281	114.00000	-0.91187	113.75	0.0	0.0	0.0
-10.00000	-13.09281	114.00000	-1.10335	113.75	0.0	0.0	0.0
-9.00000	-13.09281	114.00000	-1.31929	113.75	0.0	0.0	0.0
-8.00000	-13.09281	114.00000	-1.56333	113.75	0.0	0.0	0.0
-7.00000	-13.09281	114.00000	-1.83161	113.75	0.0	0.0	0.0
-6.00000	-13.09281	114.00000	-2.14028	113.75	0.0	0.0	0.0
-5.00000	-13.09281	114.00000	-2.47772	113.75	0.0	0.0	0.0
-4.00000	-13.09281	114.00000	-2.84473	113.75	0.0	0.0	0.0
-3.00000	-13.09281	114.00000	-3.24935	113.75	0.0	0.0	0.0
-2.00000	-13.09281	114.00000	-3.68111	113.75	0.0	0.0	0.0
-1.00000	-13.09281	114.00000	-4.13666	113.75	0.0	0.0	0.0
0.00000	-13.09281	114.00000	-4.60881	113.75	0.0	0.0	0.0
1.00000	-13.09281	114.00000	-5.0846	113.75	0.0	0.0	0.0
2.00000	-13.09281	114.00000	-5.5532	113.75	0.0	0.0	0.0
3.00000	-13.09281	114.00000	-5.9997	113.75	0.0	0.0	0.0
4.00000	-13.09281	114.00000	-6.4109	113.75	0.0	0.0	0.0
5.00000	-13.09281	114.00000	-6.7736	113.75	0.0	0.0	0.0
6.00000	-13.09281	114.00000	-7.0796	113.75	0.0	0.0	0.0
7.00000	-13.09281	114.00000	-7.3320	113.75	0.0	0.0	0.0
8.00000	-13.09281	114.00000	-7.4960	113.75	0.0	0.0	0.0
9.00000	-13.09281	114.00000	-7.5982	113.75	0.0	0.0	0.0
10.00000	-13.09281	114.00000	-7.6252	113.75	0.0	0.0	0.0
11.00000	-13.09281	114.00000	-7.5728	113.75	0.0	0.0	0.0
12.00000	-13.09281	114.00000	-7.4374	113.75	0.0	0.0	0.0
13.00000	-13.09281	114.00000	-7.2165	113.75	0.0	0.0	0.0
14.00000	-13.09281	114.00000	-6.9117	113.75	0.0	0.0	0.0
15.00000	-13.09281	114.00000	-6.5305	113.75	0.0	0.0	0.0
16.00000	-13.09281	114.00000	-6.0867	113.75	0.0	0.0	0.0
17.00000	-13.09281	114.00000	-5.5991	113.75	0.0	0.0	0.0
18.00000	-13.09281	114.00000	-5.0883	113.75	0.0	0.0	0.0
19.00000	-13.09281	114.00000	-4.5736	113.75	0.0	0.0	0.0
20.00000	-13.09281	114.00000	-4.0710	113.75	0.0	0.0	0.0
21.00000	-13.09281	114.00000	-3.5923	113.75	0.0	0.0	0.0
22.00000	-13.09281	114.00000	-3.1450	113.75	0.0	0.0	0.0
23.00000	-13.09281	114.00000	-2.7335	113.75	0.0	0.0	0.0
24.00000	-13.09281	114.00000	-2.3594	113.75	0.0	0.0	0.0
25.00000	-13.09281	114.00000	-2.0223	113.75	0.0	0.0	0.0
26.00000	-13.09281	114.00000	-1.7208	113.75	0.0	0.0	0.0
27.00000	-13.09281	114.00000	-1.4527	113.75	0.0	0.0	0.0
28.00000	-13.09281	114.00000	-1.2153	113.75	0.0	0.0	0.0
29.00000	-13.09281	114.00000	-1.0058	113.75	0.0	0.0	0.0
30.00000	-13.09281	114.00000	-0.8245	113.75	0.0	0.0	0.0
31.00000	-13.09281	114.00000	-0.66956	113.75	0.0	0.0	0.0
32.00000	-13.09281	114.00000	-0.53166	113.75	0.0	0.0	0.0
33.00000	-13.09281	114.00000	-0.41351	113.75	0.0	0.0	0.0
34.00000	-13.09281	114.00000	-0.32504	113.75	0.0	0.0	0.0
35.00000	-13.09281	114.00000	-0.26043	113.75	0.0	0.0	0.0
36.00000	-13.09281	114.00000	-0.21804	113.75	0.0	0.0	0.0
37.00000	-13.09281	114.00000	-0.19362	113.75	0.0	0.0	0.0
38.00000	-13.09281	114.00000	-0.18251	113.75	0.0	0.0	0.0
39.00000	-13.09281	114.00000	-0.18172	113.75	0.0	0.0	0.0
40.00000	-13.09281	114.00000	-0.18789	113.75	0.0	0.0	0.0
41.00000	-13.09281	114.00000	-0.19582	113.75	0.0	0.0	0.0
42.00000	-13.09281	114.00000	-0.20902	113.75	0.0	0.0	0.0
43.00000	-13.09281	114.00000	-0.22319	113.75	0.0	0.0	0.0
44.00000	-13.09281	114.00000	-0.23393	113.75	0.0	0.0	0.0
45.00000	-13.09281	114.00000	-0.24745	113.75	0.0	0.0	0.0
46.00000	-13.09281	114.00000	-0.26213	113.75	0.0	0.0	0.0
47.00000	-13.09281	114.00000	-0.27648	113.75	0.0	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Hevave / Settlement
Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
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MP		

Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
	36.00000	-11.03094	114.00000	-0.0029669	113.75	0.0	0.0	0.0
	37.00000	-11.03094	114.00000	0.0029238	113.75	0.0	0.0	0.0
	38.00000	-11.03094	114.00000	0.0080656	113.75	0.0	0.0	0.0
	39.00000	-11.03094	114.00000	0.0125339	113.75	0.0	0.0	0.0
	40.00000	-11.03094	114.00000	0.0164915	113.75	0.0	0.0	0.0
	41.00000	-11.03094	114.00000	0.019763	113.75	0.0	0.0	0.0
	42.00000	-11.03094	114.00000	0.022637	113.75	0.0	0.0	0.0
	43.00000	-11.03094	114.00000	0.025092	113.75	0.0	0.0	0.0
	44.00000	-11.03094	114.00000	0.027173	113.75	0.0	0.0	0.0
	45.00000	-11.03094	114.00000	0.028923	113.75	0.0	0.0	0.0
	46.00000	-11.03094	114.00000	0.030379	113.75	0.0	0.0	0.0
	47.00000	-11.03094	114.00000	0.031574	113.75	0.0	0.0	0.0
	48.00000	-11.03094	114.00000	0.032539	113.75	0.0	0.0	0.0
	49.00000	-11.03094	114.00000	0.033300	113.75	0.0	0.0	0.0
	50.00000	-11.03094	114.00000	0.033880	113.75	0.0	0.0	0.0
	-20.00000	-10.00000	114.00000	0.012486	113.75	0.0	0.0	0.0
	-19.00000	-10.00000	114.00000	0.0081282	113.75	0.0	0.0	0.0
	-18.00000	-10.00000	114.00000	0.0031573	113.75	0.0	0.0	0.0
	-17.00000	-10.00000	114.00000	-0.0024924	113.75	0.0	0.0	0.0
	-16.00000	-10.00000	114.00000	-0.0088916	113.75	0.0	0.0	0.0
	-15.00000	-10.00000	114.00000	-0.016136	113.75	0.0	0.0	0.0
	-14.00000	-10.00000	114.00000	-0.024245	113.75	0.0	0.0	0.0
	-13.00000	-10.00000	114.00000	-0.033363	113.75	0.0	0.0	0.0
	-12.00000	-10.00000	114.00000	-0.043551	113.75	0.0	0.0	0.0
	-11.00000	-10.00000	114.00000	-0.054900	113.75	0.0	0.0	0.0
	-10.00000	-10.00000	114.00000	-0.067484	113.75	0.0	0.0	0.0
	-9.00000	-10.00000	114.00000	-0.081378	113.75	0.0	0.0	0.0
	-8.00000	-10.00000	114.00000	-0.096638	113.75	0.0	0.0	0.0
	-7.00000	-10.00000	114.00000	-0.11330	113.75	0.0	0.0	0.0
	-6.00000	-10.00000	114.00000	-0.13137	113.75	0.0	0.0	0.0
	-5.00000	-10.00000	114.00000	-0.15080	113.75	0.0	0.0	0.0
	-4.00000	-10.00000	114.00000	-0.17151	113.75	0.0	0.0	0.0
	-3.00000	-10.00000	114.00000	-0.19334	113.75	0.0	0.0	0.0
	-2.00000	-10.00000	114.00000	-0.21640	113.75	0.0	0.0	0.0
	-1.00000	-10.00000	114.00000	-0.23936	113.75	0.0	0.0	0.0
	0.00000	-10.00000	114.00000	-0.26286	113.75	0.0	0.0	0.0
	1.00000	-10.00000	114.00000	-0.28699	113.75	0.0	0.0	0.0
	2.00000	-10.00000	114.00000	-0.30856	113.75	0.0	0.0	0.0
	3.00000	-10.00000	114.00000	-0.32974	113.75	0.0	0.0	0.0
	4.00000	-10.00000	114.00000	-0.34911	113.75	0.0	0.0	0.0
	5.00000	-10.00000	114.00000	-0.36618	113.75	0.0	0.0	0.0
	6.00000	-10.00000	114.00000	-0.38053	113.75	0.0	0.0	0.0
	7.00000	-10.00000	114.00000	-0.39178	113.75	0.0	0.0	0.0
	8.00000	-10.00000	114.00000	-0.39964	113.75	0.0	0.0	0.0
	9.00000	-10.00000	114.00000	-0.40392	113.75	0.0	0.0	0.0
	10.00000	-10.00000	114.00000	-0.40442	113.75	0.0	0.0	0.0
	11.00000	-10.00000	114.00000	-0.40107	113.75	0.0	0.0	0.0
	12.00000	-10.00000	114.00000	-0.39387	113.75	0.0	0.0	0.0
	13.00000	-10.00000	114.00000	-0.38292	113.75	0.0	0.0	0.0
	14.00000	-10.00000	114.00000	-0.36845	113.75	0.0	0.0	0.0
	15.00000	-10.00000	114.00000	-0.35085	113.75	0.0	0.0	0.0
	16.00000	-10.00000	114.00000	-0.33059	113.75	0.0	0.0	0.0
	17.00000	-10.00000	114.00000	-0.30829	113.75	0.0	0.0	0.0
	18.00000	-10.00000	114.00000	-0.28459	113.75	0.0	0.0	0.0
	19.00000	-10.00000	114.00000	-0.26014	113.75	0.0	0.0	0.0
	20.00000	-10.00000	114.00000	-0.23553	113.75	0.0	0.0	0.0
	21.00000	-10.00000	114.00000	-0.21120	113.75	0.0	0.0	0.0
	22.00000	-10.00000	114.00000	-0.18784	113.75	0.0	0.0	0.0
	23.00000	-10.00000	114.00000	-0.16549	113.75	0.0	0.0	0.0
	24.00000	-10.00000	114.00000	-0.14440	113.75	0.0	0.0	0.0
	25.00000	-10.00000	114.00000	-0.12488	113.75	0.0	0.0	0.0
	26.00000	-10.00000	114.00000	-0.10681	113.75	0.0	0.0	0.0
	27.00000	-10.00000	114.00000	-0.090271	113.75	0.0	0.0	0.0
	28.00000	-10.00000	114.00000	-0.075224	113.75	0.0	0.0	0.0
	29.00000	-10.00000	114.00000	-0.061617	113.75	0.0	0.0	0.0
	30.00000	-10.00000	114.00000	-0.049366	113.75	0.0	0.0	0.0
	31.00000	-10.00000	114.00000	-0.038383	113.75	0.0	0.0	0.0
	32.00000	-10.00000	114.00000	-0.028575	113.75	0.0	0.0	0.0
	33.00000	-10.00000	114.00000	-0.019847	113.75	0.0	0.0	0.0
	34.00000	-10.00000	114.00000	-0.012103	113.75	0.0	0.0	0.0
	35.00000	-10.00000	114.00000	-0.0052600	113.75	0.0	0.0	0.0
	36.00000	-10.00000	114.00000	773.03E-6	113.75	0.0	0.0	0.0
	37.00000	-10.00000	114.00000	0.0680728	113.75	0.0	0.0	0.0
	38.00000	-10.00000	114.00000	0.010712	113.75	0.0	0.0	0.0
	39.00000	-10.00000	114.00000	0.014758	113.75	0.0	0.0	0.0
	40.00000	-10.00000	114.00000	0.018272	113.75	0.0	0.0	0.0
	41.00000	-10.00000	114.00000	0.021309	113.75	0.0	0.0	0.0
	42.00000	-10.00000	114.00000	0.023919	113.75	0.0	0.0	0.0
	43.00000	-10.00000	114.00000	0.026149	113.75	0.0	0.0	0.0
	44.00000	-10.00000	114.00000	0.028039	113.75	0.0	0.0	0.0
	45.00000	-10.00000	114.00000	0.029626	113.75	0.0	0.0	0.0
	46.00000	-10.00000	114.00000	0.030943	113.75	0.0	0.0	0.0
	47.00000	-10.00000	114.00000	0.032020	113.75	0.0	0.0	0.0
	48.00000	-10.00000	114.00000	0.032884	113.75	0.0	0.0	0.0
	49.00000	-10.00000	114.00000	0.033560	113.75	0.0	0.0	0.0
	50.00000	-10.00000	114.00000	0.034068	113.75	0.0	0.0	0.0
	-20.00000	-34.49500	114.00000	-0.016994	113.75	0.0	0.0	0.0
	-19.00000	-34.49500	114.00000	-0.019490	113.75	0.0	0.0	0.0
	-18.00000	-34.49500	114.00000	-0.022883	113.75	0.0	0.0	0.0
	-17.00000	-34.49500	114.00000	-0.026228	113.75	0.0	0.0	0.0
	-16.00000	-34.49500	114.00000	-0.029249	113.75	0.0	0.0	0.0
	-15.00000	-34.49500	114.00000	-0.031932	113.75	0.0	0.0	0.0
	-14.00000	-34.49500	114.00000	-0.033929	113.75	0.0	0.0	0.0
	-13.00000	-34.49500	114.00000	-0.035228	113.75	0.0	0.0	0.0
	-12.00000	-34.49500	114.00000	-0.035844	113.75	0.0	0.0	0.0
	-11.00000	-34.49500	114.00000	-0.035781	113.75	0.0	0.0	0.0
	-10.00000	-34.49500	114.00000	-0.035039	113.75	0.0	0.0	0.0
	-9.00000	-34.49500	114.00000	-0.033531	113.75	0.0	0.0	0.0
	-8.00000	-34.49500	114.00000	-0.031299	113.75	0.0	0.0	0.0
	-7.00000	-34.49500	114.00000	-0.028500	113.75	0.0	0.0	0.0
	-6.00000	-34.49500	114.00000	-0.025184	113.75	0.0	0.0	0.0
	-5.00000	-34.49500	114.00000	-0.021396	113.75	0.0	0.0	0.0
	-4.00000	-34.49500	114.00000	-0.017182	113.75	0.0	0.0	0.0
	-3.00000	-34.49500	114.00000	-0.012594	113.75	0.0	0.0	0.0
	-2.00000	-34.49500	114.00000	-0.007674	113.75	0.0	0.0	0.0
	-1.00000	-34.49500	114.00000	-0.002469	113.75	0.0	0.0	0.0
	0.00000	-34.49500	114.00000	0.0020728	113.75	0.0	0.0	0.0
	1.00000	-34.49500	114.00000	0.006320	113.75	0.0	0.0	0.0
	2.00000	-34.49500	114.00000	0.010294	113.75	0.0	0.0	0.0
	3.00000	-34.49500	114.00000	0.014984	113.75	0.0	0.0	0.0
	4.00000	-34.49500	114.00000	0.020398	113.75	0.0	0.0	0.0
	5.00000	-34.49500	114.00000	0.026536	113.75	0.0	0.0	0.0
	6.00000	-34.49500	114.00000	0.033400	113.75	0.0	0.0	0.0
	7.00000	-34.49500	114.00000	0.041000	113.75	0.0	0.0	0.0
	8.00000	-34.49500	114.00000	0.049344	113.75	0.0	0.0	0.0
	9.00000	-34.49500	114.00000	0.058444	113.75	0.0	0.0	0.0
	10.00000	-34.49500	114.00000	0.068300	113.75	0.0	0.0	0.0
	11.00000	-34.49500	114.00000	0.078924	113.75	0.0	0.0	0.0
	12.00000	-34.49500	114.00000	0.090328	113.75	0.0	0.0	0.0
	13.00000	-34.49500	114.00000	0.102516	113.75	0.0	0.0	0.0
	14.00000	-34.49500	114.00000	0.115504	113.75	0.0	0.0	0.0
	15.00000	-34.49500	114.00000	0.129308	113.75	0.0	0.0	0.0
	16.00000	-34.49500	114.00000	0.143944	113.75	0.0	0.0	0.0
	17.00000	-34.49500	114.00000	0.159436	113.75	0.0		



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Hevave / Settlement
Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Name	Location X [m]	Location Y [m]	Displacement Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
	-2.00360	-28.49875	114.00000	-1.7340	113.75	0.0	0.0	0.0
	-1.00380	-28.49875	114.00000	-2.2962	113.75	0.0	0.0	0.0
	-0.00400	-28.49875	114.00000	-3.1596	113.75	0.0	0.0	0.0
	0.99580	-28.49875	114.00000	-4.7455	113.75	0.0	0.0	0.0
	1.99560	-28.49875	114.00000	-6.0765	113.75	0.0	0.0	0.0
	2.99540	-28.49875	114.00000	-9.9919	113.75	0.0	0.0	0.0
	3.99520	-28.49875	114.00000	-11.122	113.75	0.0	0.0	0.0
	4.99500	-28.49875	114.00000	-11.830	113.75	0.0	0.0	0.0
	-20.00000	-27.49938	114.00000	-0.020269	113.75	0.0	0.0	0.0
	-19.00020	-27.49938	114.00000	-0.031271	113.75	0.0	0.0	0.0
	-18.00040	-27.49938	114.00000	-0.044423	113.75	0.0	0.0	0.0
	-17.00060	-27.49938	114.00000	-0.059605	113.75	0.0	0.0	0.0
	-16.00080	-27.49938	114.00000	-0.077792	113.75	0.0	0.0	0.0
	-15.00100	-27.49938	114.00000	-0.099406	113.75	0.0	0.0	0.0
	-14.00120	-27.49938	114.00000	-0.12519	113.75	0.0	0.0	0.0
	-13.00140	-27.49938	114.00000	-0.15607	113.75	0.0	0.0	0.0
	-12.00160	-27.49938	114.00000	-0.19325	113.75	0.0	0.0	0.0
	-11.00180	-27.49938	114.00000	-0.23829	113.75	0.0	0.0	0.0
	-10.00200	-27.49938	114.00000	-0.29321	113.75	0.0	0.0	0.0
	-9.00220	-27.49938	114.00000	-0.36073	113.75	0.0	0.0	0.0
	-8.00240	-27.49938	114.00000	-0.44448	113.75	0.0	0.0	0.0
	-7.00260	-27.49938	114.00000	-0.54946	113.75	0.0	0.0	0.0
	-6.00280	-27.49938	114.00000	-0.68266	113.75	0.0	0.0	0.0
	-5.00300	-27.49938	114.00000	-0.85418	113.75	0.0	0.0	0.0
	-4.00320	-27.49938	114.00000	-1.0786	113.75	0.0	0.0	0.0
	-3.00340	-27.49938	114.00000	-1.3792	113.75	0.0	0.0	0.0
	-2.00360	-27.49938	114.00000	-1.7793	113.75	0.0	0.0	0.0
	-1.00380	-27.49938	114.00000	-2.3889	113.75	0.0	0.0	0.0
	-0.00400	-27.49938	114.00000	-3.3108	113.75	0.0	0.0	0.0
	0.99580	-27.49938	114.00000	-4.9854	113.75	0.0	0.0	0.0
	1.99560	-27.49938	114.00000	-8.2742	113.75	0.0	0.0	0.0
	2.99540	-27.49938	114.00000	-10.283	113.75	0.0	0.0	0.0
	3.99520	-27.49938	114.00000	-11.364	113.75	0.0	0.0	0.0
	4.99500	-27.49938	114.00000	-12.042	113.75	0.0	0.0	0.0
	-20.00000	-26.50000	114.00000	-0.020363	113.75	0.0	0.0	0.0
	-19.00020	-26.50000	114.00000	-0.031387	113.75	0.0	0.0	0.0
	-18.00040	-26.50000	114.00000	-0.044400	113.75	0.0	0.0	0.0
	-17.00060	-26.50000	114.00000	-0.059784	113.75	0.0	0.0	0.0
	-16.00080	-26.50000	114.00000	-0.078017	113.75	0.0	0.0	0.0
	-15.00100	-26.50000	114.00000	-0.099688	113.75	0.0	0.0	0.0
	-14.00120	-26.50000	114.00000	-0.125524	113.75	0.0	0.0	0.0
	-13.00140	-26.50000	114.00000	-0.15652	113.75	0.0	0.0	0.0
	-12.00160	-26.50000	114.00000	-0.19383	113.75	0.0	0.0	0.0
	-11.00180	-26.50000	114.00000	-0.23905	113.75	0.0	0.0	0.0
	-10.00200	-26.50000	114.00000	-0.29421	113.75	0.0	0.0	0.0
	-9.00220	-26.50000	114.00000	-0.36206	113.75	0.0	0.0	0.0
	-8.00240	-26.50000	114.00000	-0.44629	113.75	0.0	0.0	0.0
	-7.00260	-26.50000	114.00000	-0.55197	113.75	0.0	0.0	0.0
	-6.00280	-26.50000	114.00000	-0.68620	113.75	0.0	0.0	0.0
	-5.00300	-26.50000	114.00000	-0.85921	113.75	0.0	0.0	0.0
	-4.00320	-26.50000	114.00000	-1.08624	113.75	0.0	0.0	0.0
	-3.00340	-26.50000	114.00000	-1.3904	113.75	0.0	0.0	0.0
	-2.00360	-26.50000	114.00000	-1.8103	113.75	0.0	0.0	0.0
	-1.00380	-26.50000	114.00000	-2.4134	113.75	0.0	0.0	0.0
	-0.00400	-26.50000	114.00000	-3.3392	113.75	0.0	0.0	0.0
	0.99580	-26.50000	114.00000	-4.9767	113.75	0.0	0.0	0.0
	1.99560	-26.50000	114.00000	-8.2934	113.75	0.0	0.0	0.0
	2.99540	-26.50000	114.00000	-10.335	113.75	0.0	0.0	0.0
	3.99520	-26.50000	114.00000	-11.411	113.75	0.0	0.0	0.0
	4.99500	-26.50000	114.00000	-12.078	113.75	0.0	0.0	0.0
Grid 8	5.00000	-34.50000	112.00000	-4.1330	111.75	0.0	0.0	0.0
	6.00000	-34.50000	112.00000	-4.0828	111.75	0.0	0.0	0.0
	7.00000	-34.50000	112.00000	-3.7126	111.75	0.0	0.0	0.0
	8.00000	-34.50000	112.00000	-3.3572	111.75	0.0	0.0	0.0
	9.00000	-34.50000	112.00000	-3.0280	111.75	0.0	0.0	0.0
	10.00000	-34.50000	112.00000	-2.7236	111.75	0.0	0.0	0.0
	11.00000	-34.50000	112.00000	-2.4423	111.75	0.0	0.0	0.0
	12.00000	-34.50000	112.00000	-2.1824	111.75	0.0	0.0	0.0
	13.00000	-34.50000	112.00000	-1.9423	111.75	0.0	0.0	0.0
	14.00000	-34.50000	112.00000	-1.7204	111.75	0.0	0.0	0.0
	15.00000	-34.50000	112.00000	-1.5166	111.75	0.0	0.0	0.0
	16.00000	-34.50000	112.00000	-1.3294	111.75	0.0	0.0	0.0
	17.00000	-34.50000	112.00000	-1.1587	111.75	0.0	0.0	0.0
	18.00000	-34.50000	112.00000	-1.0042	111.75	0.0	0.0	0.0
	19.00000	-34.50000	112.00000	-0.86559	111.75	0.0	0.0	0.0
	20.00000	-34.50000	112.00000	-0.74235	111.75	0.0	0.0	0.0
	21.00000	-34.50000	112.00000	-0.63378	111.75	0.0	0.0	0.0
	22.00000	-34.50000	112.00000	-0.53893	111.75	0.0	0.0	0.0
	23.00000	-34.50000	112.00000	-0.45662	111.75	0.0	0.0	0.0
	24.00000	-34.50000	112.00000	-0.38557	111.75	0.0	0.0	0.0
	25.00000	-34.50000	112.00000	-0.32449	111.75	0.0	0.0	0.0
	26.00000	-34.50000	112.00000	-0.27210	111.75	0.0	0.0	0.0
	27.00000	-34.50000	112.00000	-0.22723	111.75	0.0	0.0	0.0
	28.00000	-34.50000	112.00000	-0.18882	111.75	0.0	0.0	0.0
	29.00000	-34.50000	112.00000	-0.15594	111.75	0.0	0.0	0.0
	30.00000	-34.50000	112.00000	-0.12778	111.75	0.0	0.0	0.0
	31.00000	-34.50000	112.00000	-0.10365	111.75	0.0	0.0	0.0
	32.00000	-34.50000	112.00000	-0.082956	111.75	0.0	0.0	0.0
	33.00000	-34.50000	112.00000	-0.065197	111.75	0.0	0.0	0.0
	34.00000	-34.50000	112.00000	-0.049448	111.75	0.0	0.0	0.0
	35.00000	-34.50000	112.00000	-0.036849	111.75	0.0	0.0	0.0
	36.00000	-34.50000	112.00000	-0.025595	111.75	0.0	0.0	0.0
	37.00000	-34.50000	112.00000	-0.015927	111.75	0.0	0.0	0.0
	38.00000	-34.50000	112.00000	-0.0076267	111.75	0.0	0.0	0.0
	39.00000	-34.50000	112.00000	-0.006308-6	111.75	0.0	0.0	0.0
	40.00000	-34.50000	112.00000	0.005934	111.75	0.0	0.0	0.0
	41.00000	-34.50000	112.00000	0.010805	111.75	0.0	0.0	0.0
	42.00000	-34.50000	112.00000	0.015257	111.75	0.0	0.0	0.0
	43.00000	-34.50000	112.00000	0.019038	111.75	0.0	0.0	0.0
	44.00000	-34.50000	112.00000	0.022238	111.75	0.0	0.0	0.0
	45.00000	-34.50000	112.00000	0.024933	111.75	0.0	0.0	0.0
	46.00000	-34.50000	112.00000	0.027188	111.75	0.0	0.0	0.0
	47.00000	-34.50000	112.00000	0.029058	111.75	0.0	0.0	0.0
	48.00000	-34.50000	112.00000	0.030592	111.75	0.0	0.0	0.0
	49.00000	-34.50000	112.00000	0.031834	111.75	0.0	0.0	0.0
	50.00000	-34.50000	112.00000	0.032820	111.75	0.0	0.0	0.0
	5.00000	-33.50000	112.00000	-5.9897	111.75	0.0	0.0	0.0
	6.00000	-33.50000	112.00000	-7.2369	111.75	0.0	0.0	0.0
	7.00000	-33.50000	112.00000	-8.8700	111.75	0.0	0.0	0.0
	8.00000	-33.50000	112.00000	-11.8385	111.75	0.0	0.0	0.0
	9.00000	-33.50000	112.00000	-14.1435	111.75	0.0	0.0	0.0
	10.00000	-33.50000	112.00000	-16.6073	111.75	0.0	0.0	0.0
	11.00000	-33.50000	112.00000	-19.1607	111.75	0.0	0.0	0.0
	12.00000	-33.50000	112.00000	-21.7744	111.75	0.0	0.0	0.0
	13.00000	-33.50000	112.00000	-24.4334	111.75	0.0	0.0	0.0
	14.00000	-33.50000	112.00000	-27.1286	111.75	0.0	0.0	0.0
	15.00000	-33.50000	112.00000	-29.8547	111.75	0.0	0.0	0.0
	16.00000	-33.50000	112.00000	-32.6080	111.75	0.0	0.0	0.0
	17.00000	-33.50000	112.00000	-35.3866	111.75	0.0	0.0	0.0
	18.00000	-33.50000	112.00000	-38.1888	111.75	0.0	0.0	0.0
	19.00000	-33.50000	112.00000	-41.0138	111.75	0.0	0.0	0.0
	20.00000	-33.50000	112.00000	-43.8640	111.75	0.0	0.0	0.0
	21.00000	-33.50000	112.00000	-46.7223	111.75	0.0	0.0	0.0
	22.00000	-33.50000	112.00000	-49.5816	111.75	0.0	0.0	0.0
	23.00000	-33.50000	112.00000	-52.4468	111.75	0.0	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Hevae / Settlement
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Job No.	Sheet No.	Rev.
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Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
21.00000	-30.50000	112.00000	-1.0734	111.75	0.0	0.0	0.0	
22.00000	-30.50000	112.00000	-0.87047	111.75	0.0	0.0	0.0	
23.00000	-30.50000	112.00000	-0.70774	111.75	0.0	0.0	0.0	
24.00000	-30.50000	112.00000	-0.57699	111.75	0.0	0.0	0.0	
25.00000	-30.50000	112.00000	-0.47147	111.75	0.0	0.0	0.0	
26.00000	-30.50000	112.00000	-0.38583	111.75	0.0	0.0	0.0	
27.00000	-30.50000	112.00000	-0.31591	111.75	0.0	0.0	0.0	
28.00000	-30.50000	112.00000	-0.25849	111.75	0.0	0.0	0.0	
29.00000	-30.50000	112.00000	-0.21105	111.75	0.0	0.0	0.0	
30.00000	-30.50000	112.00000	-0.17167	111.75	0.0	0.0	0.0	
31.00000	-30.50000	112.00000	-0.13881	111.75	0.0	0.0	0.0	
32.00000	-30.50000	112.00000	-0.11128	111.75	0.0	0.0	0.0	
33.00000	-30.50000	112.00000	-0.088127	111.75	0.0	0.0	0.0	
34.00000	-30.50000	112.00000	-0.068591	111.75	0.0	0.0	0.0	
35.00000	-30.50000	112.00000	-0.052063	111.75	0.0	0.0	0.0	
36.00000	-30.50000	112.00000	-0.038050	111.75	0.0	0.0	0.0	
37.00000	-30.50000	112.00000	-0.026150	111.75	0.0	0.0	0.0	
38.00000	-30.50000	112.00000	-0.016035	111.75	0.0	0.0	0.0	
39.00000	-30.50000	112.00000	-0.0074309	111.75	0.0	0.0	0.0	
40.00000	-30.50000	112.00000	-114.048-6	111.75	0.0	0.0	0.0	
41.00000	-30.50000	112.00000	0.0091040	111.75	0.0	0.0	0.0	
42.00000	-30.50000	112.00000	0.011381	111.75	0.0	0.0	0.0	
43.00000	-30.50000	112.00000	0.015849	111.75	0.0	0.0	0.0	
44.00000	-30.50000	112.00000	0.019223	111.75	0.0	0.0	0.0	
45.00000	-30.50000	112.00000	0.022793	111.75	0.0	0.0	0.0	
46.00000	-30.50000	112.00000	0.025446	111.75	0.0	0.0	0.0	
47.00000	-30.50000	112.00000	0.027449	111.75	0.0	0.0	0.0	
48.00000	-30.50000	112.00000	0.029462	111.75	0.0	0.0	0.0	
49.00000	-30.50000	112.00000	0.030937	111.75	0.0	0.0	0.0	
50.00000	-30.50000	112.00000	0.032119	111.75	0.0	0.0	0.0	
5.00000	-29.50000	112.00000	-11.430	111.75	0.0	0.0	0.0	
6.00000	-29.50000	112.00000	-11.866	111.75	0.0	0.0	0.0	
7.00000	-29.50000	112.00000	-12.050	111.75	0.0	0.0	0.0	
8.00000	-29.50000	112.00000	-12.029	111.75	0.0	0.0	0.0	
9.00000	-29.50000	112.00000	-11.820	111.75	0.0	0.0	0.0	
10.00000	-29.50000	112.00000	-11.424	111.75	0.0	0.0	0.0	
11.00000	-29.50000	112.00000	-10.810	111.75	0.0	0.0	0.0	
12.00000	-29.50000	112.00000	-9.8999	111.75	0.0	0.0	0.0	
13.00000	-29.50000	112.00000	-8.4872	111.75	0.0	0.0	0.0	
14.00000	-29.50000	112.00000	-6.2811	111.75	0.0	0.0	0.0	
15.00000	-29.50000	112.00000	-4.8776	111.75	0.0	0.0	0.0	
16.00000	-29.50000	112.00000	-3.8720	111.75	0.0	0.0	0.0	
17.00000	-29.50000	112.00000	-3.0839	111.75	0.0	0.0	0.0	
18.00000	-29.50000	112.00000	-2.4449	111.75	0.0	0.0	0.0	
19.00000	-29.50000	112.00000	-1.9296	111.75	0.0	0.0	0.0	
20.00000	-29.50000	112.00000	-1.5227	111.75	0.0	0.0	0.0	
21.00000	-29.50000	112.00000	-1.2067	111.75	0.0	0.0	0.0	
22.00000	-29.50000	112.00000	-0.96225	111.75	0.0	0.0	0.0	
23.00000	-29.50000	112.00000	-0.77219	111.75	0.0	0.0	0.0	
24.00000	-29.50000	112.00000	-0.62131	111.75	0.0	0.0	0.0	
25.00000	-29.50000	112.00000	-0.50513	111.75	0.0	0.0	0.0	
26.00000	-29.50000	112.00000	-0.41078	111.75	0.0	0.0	0.0	
27.00000	-29.50000	112.00000	-0.33468	111.75	0.0	0.0	0.0	
28.00000	-29.50000	112.00000	-0.27279	111.75	0.0	0.0	0.0	
29.00000	-29.50000	112.00000	-0.22208	111.75	0.0	0.0	0.0	
30.00000	-29.50000	112.00000	-0.18026	111.75	0.0	0.0	0.0	
31.00000	-29.50000	112.00000	-0.14557	111.75	0.0	0.0	0.0	
32.00000	-29.50000	112.00000	-0.11663	111.75	0.0	0.0	0.0	
33.00000	-29.50000	112.00000	-0.092400	111.75	0.0	0.0	0.0	
34.00000	-29.50000	112.00000	-0.072221	111.75	0.0	0.0	0.0	
35.00000	-29.50000	112.00000	-0.054834	111.75	0.0	0.0	0.0	
36.00000	-29.50000	112.00000	-0.040298	111.75	0.0	0.0	0.0	
37.00000	-29.50000	112.00000	-0.027981	111.75	0.0	0.0	0.0	
38.00000	-29.50000	112.00000	-0.017530	111.75	0.0	0.0	0.0	
39.00000	-29.50000	112.00000	-0.0086555	111.75	0.0	0.0	0.0	
40.00000	-29.50000	112.00000	-0.0011187	111.75	0.0	0.0	0.0	
41.00000	-29.50000	112.00000	0.0052790	111.75	0.0	0.0	0.0	
42.00000	-29.50000	112.00000	0.010703	111.75	0.0	0.0	0.0	
43.00000	-29.50000	112.00000	0.015293	111.75	0.0	0.0	0.0	
44.00000	-29.50000	112.00000	0.019161	111.75	0.0	0.0	0.0	
45.00000	-29.50000	112.00000	0.022420	111.75	0.0	0.0	0.0	
46.00000	-29.50000	112.00000	0.025142	111.75	0.0	0.0	0.0	
47.00000	-29.50000	112.00000	0.027405	111.75	0.0	0.0	0.0	
48.00000	-29.50000	112.00000	0.029463	111.75	0.0	0.0	0.0	
49.00000	-29.50000	112.00000	0.030779	111.75	0.0	0.0	0.0	
50.00000	-29.50000	112.00000	0.031994	111.75	0.0	0.0	0.0	
5.00000	-28.50000	112.00000	-11.832	111.75	0.0	0.0	0.0	
6.00000	-28.50000	112.00000	-12.257	111.75	0.0	0.0	0.0	
7.00000	-28.50000	112.00000	-12.472	111.75	0.0	0.0	0.0	
8.00000	-28.50000	112.00000	-12.516	111.75	0.0	0.0	0.0	
9.00000	-28.50000	112.00000	-12.410	111.75	0.0	0.0	0.0	
10.00000	-28.50000	112.00000	-12.160	111.75	0.0	0.0	0.0	
11.00000	-28.50000	112.00000	-11.762	111.75	0.0	0.0	0.0	
12.00000	-28.50000	112.00000	-11.191	111.75	0.0	0.0	0.0	
13.00000	-28.50000	112.00000	-10.400	111.75	0.0	0.0	0.0	
14.00000	-28.50000	112.00000	-9.2703	111.75	0.0	0.0	0.0	
15.00000	-28.50000	112.00000	-7.8932	111.75	0.0	0.0	0.0	
16.00000	-28.50000	112.00000	-6.3421	111.75	0.0	0.0	0.0	
17.00000	-28.50000	112.00000	-4.6095	111.75	0.0	0.0	0.0	
18.00000	-28.50000	112.00000	-3.0253	111.75	0.0	0.0	0.0	
19.00000	-28.50000	112.00000	-2.2820	111.75	0.0	0.0	0.0	
20.00000	-28.50000	112.00000	-1.7362	111.75	0.0	0.0	0.0	
21.00000	-28.50000	112.00000	-1.3402	111.75	0.0	0.0	0.0	
22.00000	-28.50000	112.00000	-1.0492	111.75	0.0	0.0	0.0	
23.00000	-28.50000	112.00000	-0.83090	111.75	0.0	0.0	0.0	
24.00000	-28.50000	112.00000	-0.66402	111.75	0.0	0.0	0.0	
25.00000	-28.50000	112.00000	-0.53431	111.75	0.0	0.0	0.0	
26.00000	-28.50000	112.00000	-0.43206	111.75	0.0	0.0	0.0	
27.00000	-28.50000	112.00000	-0.35047	111.75	0.0	0.0	0.0	
28.00000	-28.50000	112.00000	-0.28469	111.75	0.0	0.0	0.0	
29.00000	-28.50000	112.00000	-0.23117	111.75	0.0	0.0	0.0	
30.00000	-28.50000	112.00000	-0.18729	111.75	0.0	0.0	0.0	
31.00000	-28.50000	112.00000	-0.15105	111.75	0.0	0.0	0.0	
32.00000	-28.50000	112.00000	-0.12096	111.75	0.0	0.0	0.0	
33.00000	-28.50000	112.00000	-0.095834	111.75	0.0	0.0	0.0	
34.00000	-28.50000	112.00000	-0.074768	111.75	0.0	0.0	0.0	
35.00000	-28.50000	112.00000	-0.057043	111.75	0.0	0.0	0.0	
36.00000	-28.50000	112.00000	-0.042085	111.75	0.0	0.0	0.0	
37.00000	-28.50000	112.00000	-0.029432	111.75	0.0	0.0	0.0	
38.00000	-28.50000	112.00000	-0.018713	111.75	0.0	0.0	0.0	
39.00000	-28.50000	112.00000	-0.0096227	111.75	0.0	0.0	0.0	
40.00000	-28.50000	112.00000	-0.0019110	111.75	0.0	0.0	0.0	
41.00000	-28.50000	112.00000	0.0046290	111.75	0.0	0.0	0.0	
42.00000	-28.50000	112.00000	0.010170	111.75	0.0	0.0	0.0	
43.00000	-28.50000	112.00000	0.014855	111.75	0.0	0.0	0.0	
44.00000	-28.50000	112.00000	0.018903	111.75	0.0	0.0	0.0	
45.00000	-28.50000	112.00000	0.022126	111.75	0.0	0.0	0.0	
46.00000	-28.50000	112.00000	0.024902	111.75	0.0	0.0	0.0	
47.00000	-28.50000	112.00000	0.027207	111.75	0.0	0.0	0.0	
48.00000	-28.50000	112.00000	0.029106	111.75	0.0	0.0	0.0	
49.00000	-28.50000	112.00000	0.030652	111.75	0.0	0.0	0.0	
50.00000	-28.50000	112.00000	0.031894	111.75	0.0	0.0	0.0	
5.00000	-27.50000	112.00000	-12.045	111.75	0.0	0.0	0.0	
6.00000	-27.50000	112.00000	-12.466	111.75	0.0	0.0	0.0	
7.00000	-27.50000	112.00000	-12.700	111.75	0.0	0.0	0.0	
8.00000	-27.50000	112.00000	-12.784	111.75	0.0	0.0	0.0	
9.00000	-27.50000	112.00000	-12.741	111.75	0.0	0.0	0.0	
10.00000	-27.50000	112.00000	-12.581	111.75	0.0	0.0	0.0	
11.00000	-27.50000	112.00000	-12.305	111.75	0.0	0.0	0.0	
12.00000	-27.50000	112.00000	-11.895	111.75	0.0	0.0	0.0	

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Channing Junior School, Highgate High Street, N6 5JR
 Short-Term Hevae / Settlement
 Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Name	Location	Displacement	Stresses				
X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
26.00000	-50.00000	112.00000	-0.010904	111.75	0.0	0.0	0.0
27.00000	-50.00000	112.00000	-0.0061307	111.75	0.0	0.0	0.0
28.00000	-50.00000	112.00000	-0.0016454	111.75	0.0	0.0	0.0
29.00000	-50.00000	112.00000	0.0025431	111.75	0.0	0.0	0.0
30.00000	-50.00000	112.00000	0.0064309	111.75	0.0	0.0	0.0
31.00000	-50.00000	112.00000	0.010018	111.75	0.0	0.0	0.0
32.00000	-50.00000	112.00000	0.013110	111.75	0.0	0.0	0.0
33.00000	-50.00000	112.00000	0.016312	111.75	0.0	0.0	0.0
34.00000	-50.00000	112.00000	0.019034	111.75	0.0	0.0	0.0
35.00000	-50.00000	112.00000	0.021488	111.75	0.0	0.0	0.0
36.00000	-50.00000	112.00000	0.023683	111.75	0.0	0.0	0.0
37.00000	-50.00000	112.00000	0.025640	111.75	0.0	0.0	0.0
38.00000	-50.00000	112.00000	0.027366	111.75	0.0	0.0	0.0
39.00000	-50.00000	112.00000	0.028877	111.75	0.0	0.0	0.0
40.00000	-50.00000	112.00000	0.030188	111.75	0.0	0.0	0.0
41.00000	-50.00000	112.00000	0.031312	111.75	0.0	0.0	0.0
42.00000	-50.00000	112.00000	0.032264	111.75	0.0	0.0	0.0
43.00000	-50.00000	112.00000	0.033057	111.75	0.0	0.0	0.0
44.00000	-50.00000	112.00000	0.033704	111.75	0.0	0.0	0.0
45.00000	-50.00000	112.00000	0.034216	111.75	0.0	0.0	0.0
46.00000	-50.00000	112.00000	0.034606	111.75	0.0	0.0	0.0
47.00000	-50.00000	112.00000	0.034885	111.75	0.0	0.0	0.0
48.00000	-50.00000	112.00000	0.035062	111.75	0.0	0.0	0.0
49.00000	-50.00000	112.00000	0.035148	111.75	0.0	0.0	0.0
50.00000	-50.00000	112.00000	0.035151	111.75	0.0	0.0	0.0
-20.00000	-48.96667	112.00000	0.023832	111.75	0.0	0.0	0.0
-19.00000	-48.96667	112.00000	0.0221547	111.75	0.0	0.0	0.0
-18.00000	-48.96667	112.00000	0.018963	111.75	0.0	0.0	0.0
-17.00000	-48.96667	112.00000	0.016061	111.75	0.0	0.0	0.0
-16.00000	-48.96667	112.00000	0.012819	111.75	0.0	0.0	0.0
-15.00000	-48.96667	112.00000	0.0092187	111.75	0.0	0.0	0.0
-14.00000	-48.96667	112.00000	0.0052423	111.75	0.0	0.0	0.0
-13.00000	-48.96667	112.00000	874.458-6	111.75	0.0	0.0	0.0
-12.00000	-48.96667	112.00000	-0.0038648	111.75	0.0	0.0	0.0
-11.00000	-48.96667	112.00000	-0.0090772	111.75	0.0	0.0	0.0
-10.00000	-48.96667	112.00000	-0.014669	111.75	0.0	0.0	0.0
-9.00000	-48.96667	112.00000	-0.020664	111.75	0.0	0.0	0.0
-8.00000	-48.96667	112.00000	-0.027047	111.75	0.0	0.0	0.0
-7.00000	-48.96667	112.00000	-0.033790	111.75	0.0	0.0	0.0
-6.00000	-48.96667	112.00000	-0.040852	111.75	0.0	0.0	0.0
-5.00000	-48.96667	112.00000	-0.048177	111.75	0.0	0.0	0.0
-4.00000	-48.96667	112.00000	-0.055695	111.75	0.0	0.0	0.0
-3.00000	-48.96667	112.00000	-0.063315	111.75	0.0	0.0	0.0
-2.00000	-48.96667	112.00000	-0.070933	111.75	0.0	0.0	0.0
-1.00000	-48.96667	112.00000	-0.078426	111.75	0.0	0.0	0.0
0.00000	-48.96667	112.00000	-0.085959	111.75	0.0	0.0	0.0
1.00000	-48.96667	112.00000	-0.092487	111.75	0.0	0.0	0.0
2.00000	-48.96667	112.00000	-0.098761	111.75	0.0	0.0	0.0
3.00000	-48.96667	112.00000	-0.104834	111.75	0.0	0.0	0.0
4.00000	-48.96667	112.00000	-0.109707	111.75	0.0	0.0	0.0
5.00000	-48.96667	112.00000	-0.114385	111.75	0.0	0.0	0.0
6.00000	-48.96667	112.00000	-0.11859	111.75	0.0	0.0	0.0
7.00000	-48.96667	112.00000	-0.11221	111.75	0.0	0.0	0.0
8.00000	-48.96667	112.00000	-0.11768	111.75	0.0	0.0	0.0
9.00000	-48.96667	112.00000	-0.11702	111.75	0.0	0.0	0.0
10.00000	-48.96667	112.00000	-0.11525	111.75	0.0	0.0	0.0
11.00000	-48.96667	112.00000	-0.11244	111.75	0.0	0.0	0.0
12.00000	-48.96667	112.00000	-0.10868	111.75	0.0	0.0	0.0
13.00000	-48.96667	112.00000	-0.10407	111.75	0.0	0.0	0.0
14.00000	-48.96667	112.00000	-0.098731	111.75	0.0	0.0	0.0
15.00000	-48.96667	112.00000	-0.092795	111.75	0.0	0.0	0.0
16.00000	-48.96667	112.00000	-0.086376	111.75	0.0	0.0	0.0
17.00000	-48.96667	112.00000	-0.079501	111.75	0.0	0.0	0.0
18.00000	-48.96667	112.00000	-0.072387	111.75	0.0	0.0	0.0
19.00000	-48.96667	112.00000	-0.065444	111.75	0.0	0.0	0.0
20.00000	-48.96667	112.00000	-0.058269	111.75	0.0	0.0	0.0
21.00000	-48.96667	112.00000	-0.051149	111.75	0.0	0.0	0.0
22.00000	-48.96667	112.00000	-0.044159	111.75	0.0	0.0	0.0
23.00000	-48.96667	112.00000	-0.037364	111.75	0.0	0.0	0.0
24.00000	-48.96667	112.00000	-0.03081	111.75	0.0	0.0	0.0
25.00000	-48.96667	112.00000	-0.024551	111.75	0.0	0.0	0.0
26.00000	-48.96667	112.00000	-0.018606	111.75	0.0	0.0	0.0
27.00000	-48.96667	112.00000	-0.013002	111.75	0.0	0.0	0.0
28.00000	-48.96667	112.00000	-0.0077526	111.75	0.0	0.0	0.0
29.00000	-48.96667	112.00000	-0.0028650	111.75	0.0	0.0	0.0
30.00000	-48.96667	112.00000	0.0016592	111.75	0.0	0.0	0.0
31.00000	-48.96667	112.00000	0.0058266	111.75	0.0	0.0	0.0
32.00000	-48.96667	112.00000	0.0096358	111.75	0.0	0.0	0.0
33.00000	-48.96667	112.00000	0.013107	111.75	0.0	0.0	0.0
34.00000	-48.96667	112.00000	0.016249	111.75	0.0	0.0	0.0
35.00000	-48.96667	112.00000	0.019078	111.75	0.0	0.0	0.0
36.00000	-48.96667	112.00000	0.021611	111.75	0.0	0.0	0.0
37.00000	-48.96667	112.00000	0.023863	111.75	0.0	0.0	0.0
38.00000	-48.96667	112.00000	0.025853	111.75	0.0	0.0	0.0
39.00000	-48.96667	112.00000	0.027598	111.75	0.0	0.0	0.0
40.00000	-48.96667	112.00000	0.029115	111.75	0.0	0.0	0.0
41.00000	-48.96667	112.00000	0.030421	111.75	0.0	0.0	0.0
42.00000	-48.96667	112.00000	0.031533	111.75	0.0	0.0	0.0
43.00000	-48.96667	112.00000	0.032465	111.75	0.0	0.0	0.0
44.00000	-48.96667	112.00000	0.033234	111.75	0.0	0.0	0.0
45.00000	-48.96667	112.00000	0.033853	111.75	0.0	0.0	0.0
46.00000	-48.96667	112.00000	0.034336	111.75	0.0	0.0	0.0
47.00000	-48.96667	112.00000	0.034699	111.75	0.0	0.0	0.0
48.00000	-48.96667	112.00000	0.034942	111.75	0.0	0.0	0.0
49.00000	-48.96667	112.00000	0.035088	111.75	0.0	0.0	0.0
50.00000	-48.96667	112.00000	0.035142	111.75	0.0	0.0	0.0
-20.00000	-47.93333	112.00000	0.021991	111.75	0.0	0.0	0.0
-19.00000	-47.93333	112.00000	0.019381	111.75	0.0	0.0	0.0
-18.00000	-47.93333	112.00000	0.016428	111.75	0.0	0.0	0.0
-17.00000	-47.93333	112.00000	0.013105	111.75	0.0	0.0	0.0
-16.00000	-47.93333	112.00000	0.0093860	111.75	0.0	0.0	0.0
-15.00000	-47.93333	112.00000	0.0052459	111.75	0.0	0.0	0.0
-14.00000	-47.93333	112.00000	660.038-6	111.75	0.0	0.0	0.0
-13.00000	-47.93333	112.00000	-0.0043937	111.75	0.0	0.0	0.0
-12.00000	-47.93333	112.00000	-0.0099340	111.75	0.0	0.0	0.0
-11.00000	-47.93333	112.00000	-0.015975	111.75	0.0	0.0	0.0
-10.00000	-47.93333	112.00000	-0.022522	111.75	0.0	0.0	0.0
-9.00000	-47.93333	112.00000	-0.029576	111.75	0.0	0.0	0.0
-8.00000	-47.93333	112.00000	-0.037123	111.75	0.0	0.0	0.0
-7.00000	-47.93333	112.00000	-0.045138	111.75	0.0	0.0	0.0
-6.00000	-47.93333	112.00000	-0.053577	111.75	0.0	0.0	0.0
-5.00000	-47.93333	112.00000	-0.062380	111.75	0.0	0.0	0.0
-4.00000	-47.93333	112.00000	-0.071465	111.75	0.0	0.0	0.0
-3.00000	-47.93333	112.00000	-0.080727	111.75	0.0	0.0	0.0
-2.00000	-47.93333	112.00000	-0.090306	111.75	0.0	0.0	0.0
-1.00000	-47.93333	112.00000	-0.099241	111.75	0.0	0.0	0.0
0.00000	-47.93333	112.00000	-0.10817	111.75	0.0	0.0	0.0
1.00000	-47.93333	112.00000	-0.11663	111.75	0.0	0.0	0.0
2.00000	-47.93333	112.00000	-0.12444	111.75	0.0	0.0	0.0
3.00000	-47.93333	112.00000	-0.13139	111.75	0.0	0.0	0.0
4.00000	-47.93333	112.00000	-0.13730	111.75	0.0	0.0	0.0
5.00000	-47.93333	112.00000	-0.14201	111.75	0.0	0.0	0.0
6.00000	-47.93333	112.00000	-0.14540	111.75	0.0	0.0	0.0
7.00000	-47.93333	112.00000	-0.14739	111.75	0.0	0.0	0.0
8.00000	-47.93333	112.00000	-0.14793	111.75	0.0	0.0	0.0
9.00000	-47.93333	112.00000	-0.14703	111.75	0.0	0.0	0.0
10.00000	-47.93333	112.00000	-0.14475	111.75	0.0	0.0	0.0
11.00000	-47.93333	112.00000	-0.14117	111.75	0.0	0.0	0.0
12.00000	-47.93333	112.00000	-0.13643	111.75	0.0	0.0	0.0</



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Hevae / Settlement
Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Name	Location	Displacement	Stresses				
X	Y	Z [Level]	Z	Calc Level	Vert Stress	Sum Princ	Vert Strain
[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[-]
2.00000	-45.86667	112.00000	-0.19194	111.75	0.0	0.0	0.0
3.00000	-45.86667	112.00000	-0.20296	111.75	0.0	0.0	0.0
4.00000	-45.86667	112.00000	-0.21237	111.75	0.0	0.0	0.0
5.00000	-45.86667	112.00000	-0.21985	111.75	0.0	0.0	0.0
6.00000	-45.86667	112.00000	-0.22517	111.75	0.0	0.0	0.0
7.00000	-45.86667	112.00000	-0.22817	111.75	0.0	0.0	0.0
8.00000	-45.86667	112.00000	-0.22880	111.75	0.0	0.0	0.0
9.00000	-45.86667	112.00000	-0.22710	111.75	0.0	0.0	0.0
10.00000	-45.86667	112.00000	-0.22317	111.75	0.0	0.0	0.0
11.00000	-45.86667	112.00000	-0.21720	111.75	0.0	0.0	0.0
12.00000	-45.86667	112.00000	-0.20943	111.75	0.0	0.0	0.0
13.00000	-45.86667	112.00000	-0.20016	111.75	0.0	0.0	0.0
14.00000	-45.86667	112.00000	-0.18963	111.75	0.0	0.0	0.0
15.00000	-45.86667	112.00000	-0.17814	111.75	0.0	0.0	0.0
16.00000	-45.86667	112.00000	-0.16595	111.75	0.0	0.0	0.0
17.00000	-45.86667	112.00000	-0.15331	111.75	0.0	0.0	0.0
18.00000	-45.86667	112.00000	-0.14046	111.75	0.0	0.0	0.0
19.00000	-45.86667	112.00000	-0.12758	111.75	0.0	0.0	0.0
20.00000	-45.86667	112.00000	-0.11486	111.75	0.0	0.0	0.0
21.00000	-45.86667	112.00000	-0.10244	111.75	0.0	0.0	0.0
22.00000	-45.86667	112.00000	-0.090426	111.75	0.0	0.0	0.0
23.00000	-45.86667	112.00000	-0.078919	111.75	0.0	0.0	0.0
24.00000	-45.86667	112.00000	-0.067986	111.75	0.0	0.0	0.0
25.00000	-45.86667	112.00000	-0.057673	111.75	0.0	0.0	0.0
26.00000	-45.86667	112.00000	-0.048016	111.75	0.0	0.0	0.0
27.00000	-45.86667	112.00000	-0.039204	111.75	0.0	0.0	0.0
28.00000	-45.86667	112.00000	-0.0310702	111.75	0.0	0.0	0.0
29.00000	-45.86667	112.00000	-0.023040	111.75	0.0	0.0	0.0
30.00000	-45.86667	112.00000	-0.016021	111.75	0.0	0.0	0.0
31.00000	-45.86667	112.00000	-0.0096232	111.75	0.0	0.0	0.0
32.00000	-45.86667	112.00000	-0.0038177	111.75	0.0	0.0	0.0
33.00000	-45.86667	112.00000	0.0014264	111.75	0.0	0.0	0.0
34.00000	-45.86667	112.00000	0.0061421	111.75	0.0	0.0	0.0
35.00000	-45.86667	112.00000	0.0101640	111.75	0.0	0.0	0.0
36.00000	-45.86667	112.00000	0.014125	111.75	0.0	0.0	0.0
37.00000	-45.86667	112.00000	0.017460	111.75	0.0	0.0	0.0
38.00000	-45.86667	112.00000	0.0204002	111.75	0.0	0.0	0.0
39.00000	-45.86667	112.00000	0.022983	111.75	0.0	0.0	0.0
40.00000	-45.86667	112.00000	0.025232	111.75	0.0	0.0	0.0
41.00000	-45.86667	112.00000	0.027178	111.75	0.0	0.0	0.0
42.00000	-45.86667	112.00000	0.028849	111.75	0.0	0.0	0.0
43.00000	-45.86667	112.00000	0.030268	111.75	0.0	0.0	0.0
44.00000	-45.86667	112.00000	0.031461	111.75	0.0	0.0	0.0
45.00000	-45.86667	112.00000	0.032447	111.75	0.0	0.0	0.0
46.00000	-45.86667	112.00000	0.033249	111.75	0.0	0.0	0.0
47.00000	-45.86667	112.00000	0.033883	111.75	0.0	0.0	0.0
48.00000	-45.86667	112.00000	0.034367	111.75	0.0	0.0	0.0
49.00000	-45.86667	112.00000	0.034716	111.75	0.0	0.0	0.0
50.00000	-45.86667	112.00000	0.034946	111.75	0.0	0.0	0.0
-20.00000	-44.83333	112.00000	0.015571	111.75	0.0	0.0	0.0
-19.00000	-44.83333	112.00000	0.011811	111.75	0.0	0.0	0.0
-18.00000	-44.83333	112.00000	0.0075336	111.75	0.0	0.0	0.0
-17.00000	-44.83333	112.00000	0.0026895	111.75	0.0	0.0	0.0
-16.00000	-44.83333	112.00000	-0.0027170	111.75	0.0	0.0	0.0
-15.00000	-44.83333	112.00000	-0.0089163	111.75	0.0	0.0	0.0
-14.00000	-44.83333	112.00000	-0.015792	111.75	0.0	0.0	0.0
-13.00000	-44.83333	112.00000	-0.023460	111.75	0.0	0.0	0.0
-12.00000	-44.83333	112.00000	-0.031979	111.75	0.0	0.0	0.0
-11.00000	-44.83333	112.00000	-0.041404	111.75	0.0	0.0	0.0
-10.00000	-44.83333	112.00000	-0.051783	111.75	0.0	0.0	0.0
-9.00000	-44.83333	112.00000	-0.063154	111.75	0.0	0.0	0.0
-8.00000	-44.83333	112.00000	-0.075544	111.75	0.0	0.0	0.0
-7.00000	-44.83333	112.00000	-0.088958	111.75	0.0	0.0	0.0
-6.00000	-44.83333	112.00000	-0.10337	111.75	0.0	0.0	0.0
-5.00000	-44.83333	112.00000	-0.11873	111.75	0.0	0.0	0.0
-4.00000	-44.83333	112.00000	-0.13493	111.75	0.0	0.0	0.0
-3.00000	-44.83333	112.00000	-0.15183	111.75	0.0	0.0	0.0
-2.00000	-44.83333	112.00000	-0.16915	111.75	0.0	0.0	0.0
-1.00000	-44.83333	112.00000	-0.18666	111.75	0.0	0.0	0.0
0.00000	-44.83333	112.00000	-0.20395	111.75	0.0	0.0	0.0
1.00000	-44.83333	112.00000	-0.22072	111.75	0.0	0.0	0.0
2.00000	-44.83333	112.00000	-0.23636	111.75	0.0	0.0	0.0
3.00000	-44.83333	112.00000	-0.25044	111.75	0.0	0.0	0.0
4.00000	-44.83333	112.00000	-0.26240	111.75	0.0	0.0	0.0
5.00000	-44.83333	112.00000	-0.27201	111.75	0.0	0.0	0.0
6.00000	-44.83333	112.00000	-0.27974	111.75	0.0	0.0	0.0
7.00000	-44.83333	112.00000	-0.28545	111.75	0.0	0.0	0.0
8.00000	-44.83333	112.00000	-0.28307	111.75	0.0	0.0	0.0
9.00000	-44.83333	112.00000	-0.28065	111.75	0.0	0.0	0.0
10.00000	-44.83333	112.00000	-0.27540	111.75	0.0	0.0	0.0
11.00000	-44.83333	112.00000	-0.26758	111.75	0.0	0.0	0.0
12.00000	-44.83333	112.00000	-0.25753	111.75	0.0	0.0	0.0
13.00000	-44.83333	112.00000	-0.24663	111.75	0.0	0.0	0.0
14.00000	-44.83333	112.00000	-0.23226	111.75	0.0	0.0	0.0
15.00000	-44.83333	112.00000	-0.21778	111.75	0.0	0.0	0.0
16.00000	-44.83333	112.00000	-0.20255	111.75	0.0	0.0	0.0
17.00000	-44.83333	112.00000	-0.18688	111.75	0.0	0.0	0.0
18.00000	-44.83333	112.00000	-0.17106	111.75	0.0	0.0	0.0
19.00000	-44.83333	112.00000	-0.15531	111.75	0.0	0.0	0.0
20.00000	-44.83333	112.00000	-0.13986	111.75	0.0	0.0	0.0
21.00000	-44.83333	112.00000	-0.12486	111.75	0.0	0.0	0.0
22.00000	-44.83333	112.00000	-0.11045	111.75	0.0	0.0	0.0
23.00000	-44.83333	112.00000	-0.096725	111.75	0.0	0.0	0.0
24.00000	-44.83333	112.00000	-0.083757	111.75	0.0	0.0	0.0
25.00000	-44.83333	112.00000	-0.071594	111.75	0.0	0.0	0.0
26.00000	-44.83333	112.00000	-0.060259	111.75	0.0	0.0	0.0
27.00000	-44.83333	112.00000	-0.049761	111.75	0.0	0.0	0.0
28.00000	-44.83333	112.00000	-0.040089	111.75	0.0	0.0	0.0
29.00000	-44.83333	112.00000	-0.031225	111.75	0.0	0.0	0.0
30.00000	-44.83333	112.00000	0.023140	111.75	0.0	0.0	0.0
31.00000	-44.83333	112.00000	0.015799	111.75	0.0	0.0	0.0
32.00000	-44.83333	112.00000	-0.0091619	111.75	0.0	0.0	0.0
33.00000	-44.83333	112.00000	-0.0031862	111.75	0.0	0.0	0.0
34.00000	-44.83333	112.00000	0.0021715	111.75	0.0	0.0	0.0
35.00000	-44.83333	112.00000	0.0069551	111.75	0.0	0.0	0.0
36.00000	-44.83333	112.00000	0.011200	111.75	0.0	0.0	0.0
37.00000	-44.83333	112.00000	0.014972	111.75	0.0	0.0	0.0
38.00000	-44.83333	112.00000	0.018288	111.75	0.0	0.0	0.0
39.00000	-44.83333	112.00000	0.021193	111.75	0.0	0.0	0.0
40.00000	-44.83333	112.00000	0.023725	111.75	0.0	0.0	0.0
41.00000	-44.83333	112.00000	0.025917	111.75	0.0	0.0	0.0
42.00000	-44.83333	112.00000	0.027800	111.75	0.0	0.0	0.0
43.00000	-44.83333	112.00000	0.029404	111.75	0.0	0.0	0.0
44.00000	-44.83333	112.00000	0.030756	111.75	0.0	0.0	0.0
45.00000	-44.83333	112.00000	0.031881	111.75	0.0	0.0	0.0
46.00000	-44.83333	112.00000	0.032800	111.75	0.0	0.0	0.0
47.00000	-44.83333	112.00000	0.033537	111.75	0.0	0.0	0.0
48.00000	-44.83333	112.00000	0.034109	111.75	0.0	0.0	0.0
49.00000	-44.83333	112.00000	0.034533	111.75	0.0	0.0	0.0
50.00000	-44.83333	112.00000	0.034827	111.75	0.0	0.0	0.0
-20.00000	-43.80000	112.00000	0.031559	111.75	0.0	0.0	0.0
-19.00000	-43.80000	112.00000	0.0089566	111.75	0.0	0.0	0.0
-18.00000	-43.80000	112.00000	0.0041660	111.75	0.0	0.0	0.0
-17.00000	-43.80000	112.00000	-0.0012746	111.75	0.0	0.0	0.0
-16.00000	-43.80000	112.00000	-0.0074321	111.75	0.0	0.0	0.0
-15.00000	-43.80000	112.00000	-0.014377	111.75	0.0	0.0	0.0
-14.00000	-43.80000	112.00000	-0.022186	111.75	0.0	0.0	0.0
-13.00000	-43.80000	112.00000	-0.030935	111.75	0.0	0.0	0.0
-12.00000	-43.80000	112.00000	-0.04				



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Hevae / Settlement
Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
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Name	Location	Displacement	Stresses			
X	Y	Z	Calc Level	Vert Stress	Sum Princ	Vert Strain
[m]	[m]	[Level]	[mOD]	[kN/m ²]	[kN/m ²]	[-]
49.00000	-42.76667	112.00000	0.034092	111.75	0.0	0.0
50.00000	-42.76667	112.00000	0.034521	111.75	0.0	0.0
-20.00000	-41.73333	112.00000	0.0080109	111.75	0.0	0.0
-19.00000	-41.73333	112.00000	0.0028453	111.75	0.0	0.0
-18.00000	-41.73333	112.00000	-0.0030793	111.75	0.0	0.0
-17.00000	-41.73333	112.00000	-0.0098375	111.75	0.0	0.0
-16.00000	-41.73333	112.00000	-0.017546	111.75	0.0	0.0
-15.00000	-41.73333	112.00000	-0.026310	111.75	0.0	0.0
-14.00000	-41.73333	112.00000	-0.036252	111.75	0.0	0.0
-13.00000	-41.73333	112.00000	-0.047503	111.75	0.0	0.0
-12.00000	-41.73333	112.00000	-0.060206	111.75	0.0	0.0
-11.00000	-41.73333	112.00000	-0.074512	111.75	0.0	0.0
-10.00000	-41.73333	112.00000	-0.090577	111.75	0.0	0.0
-9.00000	-41.73333	112.00000	-0.10856	111.75	0.0	0.0
-8.00000	-41.73333	112.00000	-0.12861	111.75	0.0	0.0
-7.00000	-41.73333	112.00000	-0.15087	111.75	0.0	0.0
-6.00000	-41.73333	112.00000	-0.17544	111.75	0.0	0.0
-5.00000	-41.73333	112.00000	-0.20239	111.75	0.0	0.0
-4.00000	-41.73333	112.00000	-0.23170	111.75	0.0	0.0
-3.00000	-41.73333	112.00000	-0.26234	111.75	0.0	0.0
-2.00000	-41.73333	112.00000	-0.29674	111.75	0.0	0.0
-1.00000	-41.73333	112.00000	-0.33173	111.75	0.0	0.0
0.00000	-41.73333	112.00000	-0.36753	111.75	0.0	0.0
1.00000	-41.73333	112.00000	-0.40317	111.75	0.0	0.0
2.00000	-41.73333	112.00000	-0.43742	111.75	0.0	0.0
3.00000	-41.73333	112.00000	-0.46985	111.75	0.0	0.0
4.00000	-41.73333	112.00000	-0.49953	111.75	0.0	0.0
5.00000	-41.73333	112.00000	-0.51725	111.75	0.0	0.0
6.00000	-41.73333	112.00000	-0.53172	111.75	0.0	0.0
7.00000	-41.73333	112.00000	-0.53873	111.75	0.0	0.0
8.00000	-41.73333	112.00000	-0.53823	111.75	0.0	0.0
9.00000	-41.73333	112.00000	-0.53066	111.75	0.0	0.0
10.00000	-41.73333	112.00000	-0.51683	111.75	0.0	0.0
11.00000	-41.73333	112.00000	-0.49771	111.75	0.0	0.0
12.00000	-41.73333	112.00000	-0.47444	111.75	0.0	0.0
13.00000	-41.73333	112.00000	-0.44800	111.75	0.0	0.0
14.00000	-41.73333	112.00000	-0.41937	111.75	0.0	0.0
15.00000	-41.73333	112.00000	-0.38938	111.75	0.0	0.0
16.00000	-41.73333	112.00000	-0.35876	111.75	0.0	0.0
17.00000	-41.73333	112.00000	-0.32813	111.75	0.0	0.0
18.00000	-41.73333	112.00000	-0.29798	111.75	0.0	0.0
19.00000	-41.73333	112.00000	-0.26873	111.75	0.0	0.0
20.00000	-41.73333	112.00000	-0.24066	111.75	0.0	0.0
21.00000	-41.73333	112.00000	-0.21403	111.75	0.0	0.0
22.00000	-41.73333	112.00000	-0.18897	111.75	0.0	0.0
23.00000	-41.73333	112.00000	-0.16560	111.75	0.0	0.0
24.00000	-41.73333	112.00000	-0.14393	111.75	0.0	0.0
25.00000	-41.73333	112.00000	-0.12403	111.75	0.0	0.0
26.00000	-41.73333	112.00000	-0.10581	111.75	0.0	0.0
27.00000	-41.73333	112.00000	-0.08923	111.75	0.0	0.0
28.00000	-41.73333	112.00000	-0.07420	111.75	0.0	0.0
29.00000	-41.73333	112.00000	-0.06065	111.75	0.0	0.0
30.00000	-41.73333	112.00000	-0.04840	111.75	0.0	0.0
31.00000	-41.73333	112.00000	-0.03717	111.75	0.0	0.0
32.00000	-41.73333	112.00000	-0.02784	111.75	0.0	0.0
33.00000	-41.73333	112.00000	-0.01918	111.75	0.0	0.0
34.00000	-41.73333	112.00000	-0.01150	111.75	0.0	0.0
35.00000	-41.73333	112.00000	-0.00470	111.75	0.0	0.0
36.00000	-41.73333	112.00000	0.00120	111.75	0.0	0.0
37.00000	-41.73333	112.00000	0.00542	111.75	0.0	0.0
38.00000	-41.73333	112.00000	0.01150	111.75	0.0	0.0
39.00000	-41.73333	112.00000	0.01517	111.75	0.0	0.0
40.00000	-41.73333	112.00000	0.01866	111.75	0.0	0.0
41.00000	-41.73333	112.00000	0.02167	111.75	0.0	0.0
42.00000	-41.73333	112.00000	0.02427	111.75	0.0	0.0
43.00000	-41.73333	112.00000	0.02649	111.75	0.0	0.0
44.00000	-41.73333	112.00000	0.02836	111.75	0.0	0.0
45.00000	-41.73333	112.00000	0.02994	111.75	0.0	0.0
46.00000	-41.73333	112.00000	0.03124	111.75	0.0	0.0
47.00000	-41.73333	112.00000	0.03214	111.75	0.0	0.0
48.00000	-41.73333	112.00000	0.03317	111.75	0.0	0.0
49.00000	-41.73333	112.00000	0.03393	111.75	0.0	0.0
50.00000	-41.73333	112.00000	0.03433	111.75	0.0	0.0
-10.00000	-40.70000	112.00000	0.0053172	111.75	0.0	0.0
-19.00000	-40.70000	112.00000	-364.20E-6	111.75	0.0	0.0
-18.00000	-40.70000	112.00000	-0.0068925	111.75	0.0	0.0
-17.00000	-40.70000	112.00000	-0.014376	111.75	0.0	0.0
-16.00000	-40.70000	112.00000	-0.022937	111.75	0.0	0.0
-15.00000	-40.70000	112.00000	-0.032711	111.75	0.0	0.0
-14.00000	-40.70000	112.00000	-0.043851	111.75	0.0	0.0
-13.00000	-40.70000	112.00000	-0.056525	111.75	0.0	0.0
-12.00000	-40.70000	112.00000	-0.070918	111.75	0.0	0.0
-11.00000	-40.70000	112.00000	-0.087233	111.75	0.0	0.0
-10.00000	-40.70000	112.00000	-0.10569	111.75	0.0	0.0
-9.00000	-40.70000	112.00000	-0.12651	111.75	0.0	0.0
-8.00000	-40.70000	112.00000	-0.14993	111.75	0.0	0.0
-7.00000	-40.70000	112.00000	-0.17618	111.75	0.0	0.0
-6.00000	-40.70000	112.00000	-0.20546	111.75	0.0	0.0
-5.00000	-40.70000	112.00000	-0.23795	111.75	0.0	0.0
-4.00000	-40.70000	112.00000	-0.27372	111.75	0.0	0.0
-3.00000	-40.70000	112.00000	-0.31274	111.75	0.0	0.0
-2.00000	-40.70000	112.00000	-0.35479	111.75	0.0	0.0
-1.00000	-40.70000	112.00000	-0.39940	111.75	0.0	0.0
0.00000	-40.70000	112.00000	-0.44575	111.75	0.0	0.0
1.00000	-40.70000	112.00000	-0.49262	111.75	0.0	0.0
2.00000	-40.70000	112.00000	-0.53831	111.75	0.0	0.0
3.00000	-40.70000	112.00000	-0.58071	111.75	0.0	0.0
4.00000	-40.70000	112.00000	-0.61746	111.75	0.0	0.0
5.00000	-40.70000	112.00000	-0.64628	111.75	0.0	0.0
6.00000	-40.70000	112.00000	-0.66543	111.75	0.0	0.0
7.00000	-40.70000	112.00000	-0.67399	111.75	0.0	0.0
8.00000	-40.70000	112.00000	-0.67204	111.75	0.0	0.0
9.00000	-40.70000	112.00000	-0.66044	111.75	0.0	0.0
10.00000	-40.70000	112.00000	-0.64059	111.75	0.0	0.0
11.00000	-40.70000	112.00000	-0.61407	111.75	0.0	0.0
12.00000	-40.70000	112.00000	-0.58249	111.75	0.0	0.0
13.00000	-40.70000	112.00000	-0.54732	111.75	0.0	0.0
14.00000	-40.70000	112.00000	-0.50982	111.75	0.0	0.0
15.00000	-40.70000	112.00000	-0.47111	111.75	0.0	0.0
16.00000	-40.70000	112.00000	-0.43206	111.75	0.0	0.0
17.00000	-40.70000	112.00000	-0.39344	111.75	0.0	0.0
18.00000	-40.70000	112.00000	-0.35580	111.75	0.0	0.0
19.00000	-40.70000	112.00000	-0.31962	111.75	0.0	0.0
20.00000	-40.70000	112.00000	-0.28522	111.75	0.0	0.0
21.00000	-40.70000	112.00000	-0.25285	111.75	0.0	0.0
22.00000	-40.70000	112.00000	-0.22266	111.75	0.0	0.0
23.00000	-40.70000	112.00000	-0.19472	111.75	0.0	0.0
24.00000	-40.70000	112.00000	-0.16904	111.75	0.0	0.0
25.00000	-40.70000	112.00000	-0.14558	111.75	0.0	0.0
26.00000	-40.70000	112.00000	-0.12428	111.75	0.0	0.0
27.00000	-40.70000	112.00000	-0.10502	111.75	0.0	0.0
28.00000	-40.70000	112.00000	-0.08769	111.75	0.0	0.0
29.00000	-40.70000	112.00000	-0.07215	111.75	0.0	0.0
30.00000	-40.70000	112.00000	-0.05827	111.75	0.0	0.0
31.00000	-40.70000	112.00000	-0.04590	111.75	0.0	0.0
32.00000	-40.70000	112.00000	-0.03491	111.75	0.0	0.0
33.00000	-40.70000	112.00000	-0.02518	111.75	0.0	0.0
34.00000	-40.70000	112.00000	-0.01659	111.75	0.0	0.0
35.00000	-40.70000	112.00000	0.00902	111.75	0.0	0.0
36.00000	-40.70000	112.00000	-0.002694	111.75	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Hevae / Settlement
Pavilion Only (excluding Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Name	Location	Displacement	Stresses			
X	Y	Z	Calc Level	Vert Stress	Sum Princ	Vert Strain
[m]	[m]	[Level]	[mOD]	[kN/m ²]	[kN/m ²]	[-]
37.00000	-40.70000	112.00000	0.0034600	111.75	0.0	0.0
38.00000	-40.70000	112.00000	0.0085520	111.75	0.0	0.0
39.00000	-40.70000	112.00000	0.012985	111.75	0.0	0.0
40.00000	-40.70000	112.00000	0.016829	111.75	0.0	0.0
41.00000						



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Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
MP	Date	Checked

Name	Location X [m]	Location Y [m]	Displacement Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
25.00000	-38.63333	112.00000	-0.19560	111.75	0.0	0.0	0.0	
26.00000	-38.63333	112.00000	-0.16659	111.75	0.0	0.0	0.0	
27.00000	-38.63333	112.00000	-0.14076	111.75	0.0	0.0	0.0	
28.00000	-38.63333	112.00000	-0.11784	111.75	0.0	0.0	0.0	
29.00000	-38.63333	112.00000	-0.09794	111.75	0.0	0.0	0.0	
30.00000	-38.63333	112.00000	-0.079718	111.75	0.0	0.0	0.0	
31.00000	-38.63333	112.00000	-0.063980	111.75	0.0	0.0	0.0	
32.00000	-38.63333	112.00000	-0.050153	111.75	0.0	0.0	0.0	
33.00000	-38.63333	112.00000	-0.038024	111.75	0.0	0.0	0.0	
34.00000	-38.63333	112.00000	-0.027405	111.75	0.0	0.0	0.0	
35.00000	-38.63333	112.00000	-0.018124	111.75	0.0	0.0	0.0	
36.00000	-38.63333	112.00000	-0.010027	111.75	0.0	0.0	0.0	
37.00000	-38.63333	112.00000	-0.0029762	111.75	0.0	0.0	0.0	
38.00000	-38.63333	112.00000	0.0031488	111.75	0.0	0.0	0.0	
39.00000	-38.63333	112.00000	0.0084563	111.75	0.0	0.0	0.0	
40.00000	-38.63333	112.00000	0.013042	111.75	0.0	0.0	0.0	
41.00000	-38.63333	112.00000	0.016990	111.75	0.0	0.0	0.0	
42.00000	-38.63333	112.00000	0.020375	111.75	0.0	0.0	0.0	
43.00000	-38.63333	112.00000	0.023263	111.75	0.0	0.0	0.0	
44.00000	-38.63333	112.00000	0.025713	111.75	0.0	0.0	0.0	
45.00000	-38.63333	112.00000	0.027776	111.75	0.0	0.0	0.0	
46.00000	-38.63333	112.00000	0.029497	111.75	0.0	0.0	0.0	
47.00000	-38.63333	112.00000	0.030918	111.75	0.0	0.0	0.0	
48.00000	-38.63333	112.00000	0.032171	111.75	0.0	0.0	0.0	
49.00000	-38.63333	112.00000	0.032994	111.75	0.0	0.0	0.0	
50.00000	-38.63333	112.00000	0.033710	111.75	0.0	0.0	0.0	
51.00000	-37.60000	112.00000	-0.029050	111.75	0.0	0.0	0.0	
52.00000	-37.60000	112.00000	-0.010213	111.75	0.0	0.0	0.0	
53.00000	-37.60000	112.00000	-0.018682	111.75	0.0	0.0	0.0	
54.00000	-37.60000	112.00000	-0.028487	111.75	0.0	0.0	0.0	
55.00000	-37.60000	112.00000	-0.038831	111.75	0.0	0.0	0.0	
56.00000	-37.60000	112.00000	-0.052950	111.75	0.0	0.0	0.0	
57.00000	-37.60000	112.00000	-0.068120	111.75	0.0	0.0	0.0	
58.00000	-37.60000	112.00000	-0.085662	111.75	0.0	0.0	0.0	
59.00000	-37.60000	112.00000	-0.10595	111.75	0.0	0.0	0.0	
60.00000	-37.60000	112.00000	-0.12942	111.75	0.0	0.0	0.0	
61.00000	-37.60000	112.00000	-0.15657	111.75	0.0	0.0	0.0	
62.00000	-37.60000	112.00000	-0.18799	111.75	0.0	0.0	0.0	
63.00000	-37.60000	112.00000	-0.22435	111.75	0.0	0.0	0.0	
64.00000	-37.60000	112.00000	-0.26441	111.75	0.0	0.0	0.0	
65.00000	-37.60000	112.00000	-0.31008	111.75	0.0	0.0	0.0	
66.00000	-37.60000	112.00000	-0.35950	111.75	0.0	0.0	0.0	
67.00000	-37.60000	112.00000	-0.41250	111.75	0.0	0.0	0.0	
68.00000	-37.60000	112.00000	-0.46936	111.75	0.0	0.0	0.0	
69.00000	-37.60000	112.00000	-0.53050	111.75	0.0	0.0	0.0	
70.00000	-37.60000	112.00000	-0.59363	111.75	0.0	0.0	0.0	
71.00000	-37.60000	112.00000	-0.66851	111.75	0.0	0.0	0.0	
72.00000	-37.60000	112.00000	-0.74605	111.75	0.0	0.0	0.0	
73.00000	-37.60000	112.00000	-0.82638	111.75	0.0	0.0	0.0	
74.00000	-37.60000	112.00000	-0.90901	111.75	0.0	0.0	0.0	
75.00000	-37.60000	112.00000	-1.00302	111.75	0.0	0.0	0.0	
76.00000	-37.60000	112.00000	-1.11514	111.75	0.0	0.0	0.0	
77.00000	-37.60000	112.00000	-1.24620	111.75	0.0	0.0	0.0	
78.00000	-37.60000	112.00000	-1.3481	111.75	0.0	0.0	0.0	
79.00000	-37.60000	112.00000	-1.3977	111.75	0.0	0.0	0.0	
80.00000	-37.60000	112.00000	-1.4078	111.75	0.0	0.0	0.0	
81.00000	-37.60000	112.00000	-1.3827	111.75	0.0	0.0	0.0	
82.00000	-37.60000	112.00000	-1.3320	111.75	0.0	0.0	0.0	
83.00000	-37.60000	112.00000	-1.2638	111.75	0.0	0.0	0.0	
84.00000	-37.60000	112.00000	-1.1846	111.75	0.0	0.0	0.0	
85.00000	-37.60000	112.00000	-1.0993	111.75	0.0	0.0	0.0	
86.00000	-37.60000	112.00000	-1.0113	111.75	0.0	0.0	0.0	
87.00000	-37.60000	112.00000	-0.92316	111.75	0.0	0.0	0.0	
88.00000	-37.60000	112.00000	-0.83670	111.75	0.0	0.0	0.0	
89.00000	-37.60000	112.00000	-0.75234	111.75	0.0	0.0	0.0	
90.00000	-37.60000	112.00000	-0.67375	111.75	0.0	0.0	0.0	
91.00000	-37.60000	112.00000	-0.59894	111.75	0.0	0.0	0.0	
92.00000	-37.60000	112.00000	-0.52928	111.75	0.0	0.0	0.0	
93.00000	-37.60000	112.00000	-0.46504	111.75	0.0	0.0	0.0	
94.00000	-37.60000	112.00000	-0.40633	111.75	0.0	0.0	0.0	
95.00000	-37.60000	112.00000	-0.35311	111.75	0.0	0.0	0.0	
96.00000	-37.60000	112.00000	-0.30521	111.75	0.0	0.0	0.0	
97.00000	-37.60000	112.00000	-0.26237	111.75	0.0	0.0	0.0	
98.00000	-37.60000	112.00000	-0.22425	111.75	0.0	0.0	0.0	
99.00000	-37.60000	112.00000	-0.19048	111.75	0.0	0.0	0.0	
100.00000	-37.60000	112.00000	-0.16068	111.75	0.0	0.0	0.0	
101.00000	-37.60000	112.00000	-0.13446	111.75	0.0	0.0	0.0	
102.00000	-37.60000	112.00000	-0.11143	111.75	0.0	0.0	0.0	
103.00000	-37.60000	112.00000	-0.091263	111.75	0.0	0.0	0.0	
104.00000	-37.60000	112.00000	-0.073615	111.75	0.0	0.0	0.0	
105.00000	-37.60000	112.00000	-0.058199	111.75	0.0	0.0	0.0	
106.00000	-37.60000	112.00000	-0.044749	111.75	0.0	0.0	0.0	
107.00000	-37.60000	112.00000	-0.033028	111.75	0.0	0.0	0.0	
108.00000	-37.60000	112.00000	-0.022827	111.75	0.0	0.0	0.0	
109.00000	-37.60000	112.00000	-0.013964	111.75	0.0	0.0	0.0	
110.00000	-37.60000	112.00000	-0.0062659	111.75	0.0	0.0	0.0	
111.00000	-37.60000	112.00000	0.00148-6	111.75	0.0	0.0	0.0	
112.00000	-37.60000	112.00000	0.0061604	111.75	0.0	0.0	0.0	
113.00000	-37.60000	112.00000	0.011128	111.75	0.0	0.0	0.0	
114.00000	-37.60000	112.00000	0.015397	111.75	0.0	0.0	0.0	
115.00000	-37.60000	112.00000	0.019054	111.75	0.0	0.0	0.0	
116.00000	-37.60000	112.00000	0.022171	111.75	0.0	0.0	0.0	
117.00000	-37.60000	112.00000	0.024814	111.75	0.0	0.0	0.0	
118.00000	-37.60000	112.00000	0.027041	111.75	0.0	0.0	0.0	
119.00000	-37.60000	112.00000	0.028901	111.75	0.0	0.0	0.0	
120.00000	-37.60000	112.00000	0.030439	111.75	0.0	0.0	0.0	
121.00000	-37.60000	112.00000	0.031693	111.75	0.0	0.0	0.0	
122.00000	-37.60000	112.00000	0.032599	111.75	0.0	0.0	0.0	
123.00000	-37.60000	112.00000	0.033485	111.75	0.0	0.0	0.0	
124.00000	-36.56667	112.00000	-0.0055785	111.75	0.0	0.0	0.0	
125.00000	-36.56667	112.00000	-0.013431	111.75	0.0	0.0	0.0	
126.00000	-36.56667	112.00000	-0.022557	111.75	0.0	0.0	0.0	
127.00000	-36.56667	112.00000	-0.033157	111.75	0.0	0.0	0.0	
128.00000	-36.56667	112.00000	-0.045467	111.75	0.0	0.0	0.0	
129.00000	-36.56667	112.00000	-0.059762	111.75	0.0	0.0	0.0	
130.00000	-36.56667	112.00000	-0.076370	111.75	0.0	0.0	0.0	
131.00000	-36.56667	112.00000	-0.095677	111.75	0.0	0.0	0.0	
132.00000	-36.56667	112.00000	-0.11814	111.75	0.0	0.0	0.0	
133.00000	-36.56667	112.00000	-0.14430	111.75	0.0	0.0	0.0	
134.00000	-36.56667	112.00000	-0.17480	111.75	0.0	0.0	0.0	
135.00000	-36.56667	112.00000	-0.21040	111.75	0.0	0.0	0.0	
136.00000	-36.56667	112.00000	-0.25200	111.75	0.0	0.0	0.0	
137.00000	-36.56667	112.00000	-0.30065	111.75	0.0	0.0	0.0	
138.00000	-36.56667	112.00000	-0.35758	111.75	0.0	0.0	0.0	
139.00000	-36.56667	112.00000	-0.42418	111.75	0.0	0.0	0.0	
140.00000	-36.56667	112.00000	-0.50208	111.75	0.0	0.0	0.0	
141.00000	-36.56667	112.00000	-0.59298	111.75	0.0	0.0	0.0	
142.00000	-36.56667	112.00000	-0.69871	111.75	0.0	0.0	0.0	
143.00000	-36.56667	112.00000	-0.82100	111.75	0.0	0.0	0.0	
144.00000	-36.56667	112.00000	-0.96120	111.75	0.0	0.0	0.0	
145.00000	-36.56667	112.00000	-1.11197	111.75	0.0	0.0	0.0	
146.00000	-36.56667	112.00000	-1.2946	111.75	0.0	0.0	0.0	
147.00000	-36.56667	112.00000	-1.4794	111.75	0.0	0.0	0.0	
148.00000	-36.56667	112.00000	-1.6576	111.75	0.0	0.0	0.0	
149.00000	-36.56667	112.00000	-1.7985	111.75	0.0	0.0	0.0	
150.00000	-36.56667	112.00000	-1.8699	111.75	0.0	0.0	0.0	
151.00000	-36.56667	112.00000	-1.8676	111.75	0.0	0.0	0.0	
152.00000	-36.56667	112.00000	-1.8111	111.75	0.0	0.0	0.0	
153.00000	-36.56667	112.00000	-1.7210	111.75	0.0	0.0	0.0	
154.00000								

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Name	Location		Displacement		Stresses			
	X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
1.00000	-34.50000	112.00000	-1.6951	111.75	0.0	0.0	0.0	0.0
2.00000	-34.50000	112.00000	-2.0715	111.75	0.0	0.0	0.0	0.0
3.00000	-34.50000	112.00000	-2.5518	111.75	0.0	0.0	0.0	0.0
4.00000	-34.50000	112.00000	-3.1194	111.75	0.0	0.0	0.0	0.0
5.00000	-34.50000	112.00000	-3.8339	111.75	0.0	0.0	0.0	0.0
6.00000	-34.50000	112.00000	-4.6828	111.75	0.0	0.0	0.0	0.0
7.00000	-34.50000	112.00000	-5.7126	111.75	0.0	0.0	0.0	0.0
8.00000	-34.50000	112.00000	-6.9572	111.75	0.0	0.0	0.0	0.0
9.00000	-34.50000	112.00000	-8.0280	111.75	0.0	0.0	0.0	0.0
10.00000	-34.50000	112.00000	-9.7236	111.75	0.0	0.0	0.0	0.0
11.00000	-34.50000	112.00000	-11.9423	111.75	0.0	0.0	0.0	0.0
12.00000	-34.50000	112.00000	-14.824	111.75	0.0	0.0	0.0	0.0
13.00000	-34.50000	112.00000	-18.9423	111.75	0.0	0.0	0.0	0.0
14.00000	-34.50000	112.00000	-24.7206	111.75	0.0	0.0	0.0	0.0
15.00000	-34.50000	112.00000	-32.5166	111.75	0.0	0.0	0.0	0.0
16.00000	-34.50000	112.00000	-43.3294	111.75	0.0	0.0	0.0	0.0
17.00000	-34.50000	112.00000	-57.1587	111.75	0.0	0.0	0.0	0.0
18.00000	-34.50000	112.00000	-74.0042	111.75	0.0	0.0	0.0	0.0
19.00000	-34.50000	112.00000	-94.86559	111.75	0.0	0.0	0.0	0.0
20.00000	-34.50000	112.00000	-120.74235	111.75	0.0	0.0	0.0	0.0
21.00000	-34.50000	112.00000	-153.63378	111.75	0.0	0.0	0.0	0.0
22.00000	-34.50000	112.00000	-195.53893	111.75	0.0	0.0	0.0	0.0
23.00000	-34.50000	112.00000	-248.45662	111.75	0.0	0.0	0.0	0.0
24.00000	-34.50000	112.00000	-315.38557	111.75	0.0	0.0	0.0	0.0
25.00000	-34.50000	112.00000	-399.32449	111.75	0.0	0.0	0.0	0.0
26.00000	-34.50000	112.00000	-504.27210	111.75	0.0	0.0	0.0	0.0
27.00000	-34.50000	112.00000	-635.22723	111.75	0.0	0.0	0.0	0.0
28.00000	-34.50000	112.00000	-797.18882	111.75	0.0	0.0	0.0	0.0
29.00000	-34.50000	112.00000	-995.15594	111.75	0.0	0.0	0.0	0.0
30.00000	-34.50000	112.00000	-1234.12778	111.75	0.0	0.0	0.0	0.0
31.00000	-34.50000	112.00000	-1520.10365	111.75	0.0	0.0	0.0	0.0
32.00000	-34.50000	112.00000	-1869.082956	111.75	0.0	0.0	0.0	0.0
33.00000	-34.50000	112.00000	-2386.06197	111.75	0.0	0.0	0.0	0.0
34.00000	-34.50000	112.00000	-3077.049948	111.75	0.0	0.0	0.0	0.0
35.00000	-34.50000	112.00000	-3958.036849	111.75	0.0	0.0	0.0	0.0
36.00000	-34.50000	112.00000	-5045.025595	111.75	0.0	0.0	0.0	0.0
37.00000	-34.50000	112.00000	-6355.015927	111.75	0.0	0.0	0.0	0.0
38.00000	-34.50000	112.00000	-7916.0076267	111.75	0.0	0.0	0.0	0.0
39.00000	-34.50000	112.00000	-9663.008-6	111.75	0.0	0.0	0.0	0.0
40.00000	-34.50000	112.00000	-11640.0055934	111.75	0.0	0.0	0.0	0.0
41.00000	-34.50000	112.00000	-13893.001809	111.75	0.0	0.0	0.0	0.0
42.00000	-34.50000	112.00000	-16457.0015257	111.75	0.0	0.0	0.0	0.0
43.00000	-34.50000	112.00000	-19270.0019038	111.75	0.0	0.0	0.0	0.0
44.00000	-34.50000	112.00000	-22380.0022238	111.75	0.0	0.0	0.0	0.0
45.00000	-34.50000	112.00000	-25843.0024933	111.75	0.0	0.0	0.0	0.0
46.00000	-34.50000	112.00000	-29618.0027188	111.75	0.0	0.0	0.0	0.0
47.00000	-34.50000	112.00000	-33758.0029058	111.75	0.0	0.0	0.0	0.0
48.00000	-34.50000	112.00000	-38319.0030592	111.75	0.0	0.0	0.0	0.0
49.00000	-34.50000	112.00000	-43354.0031834	111.75	0.0	0.0	0.0	0.0
50.00000	-34.50000	112.00000	-48920.0032820	111.75	0.0	0.0	0.0	0.0

Site Channing Junior School, Highgate High Street, N6 5JR

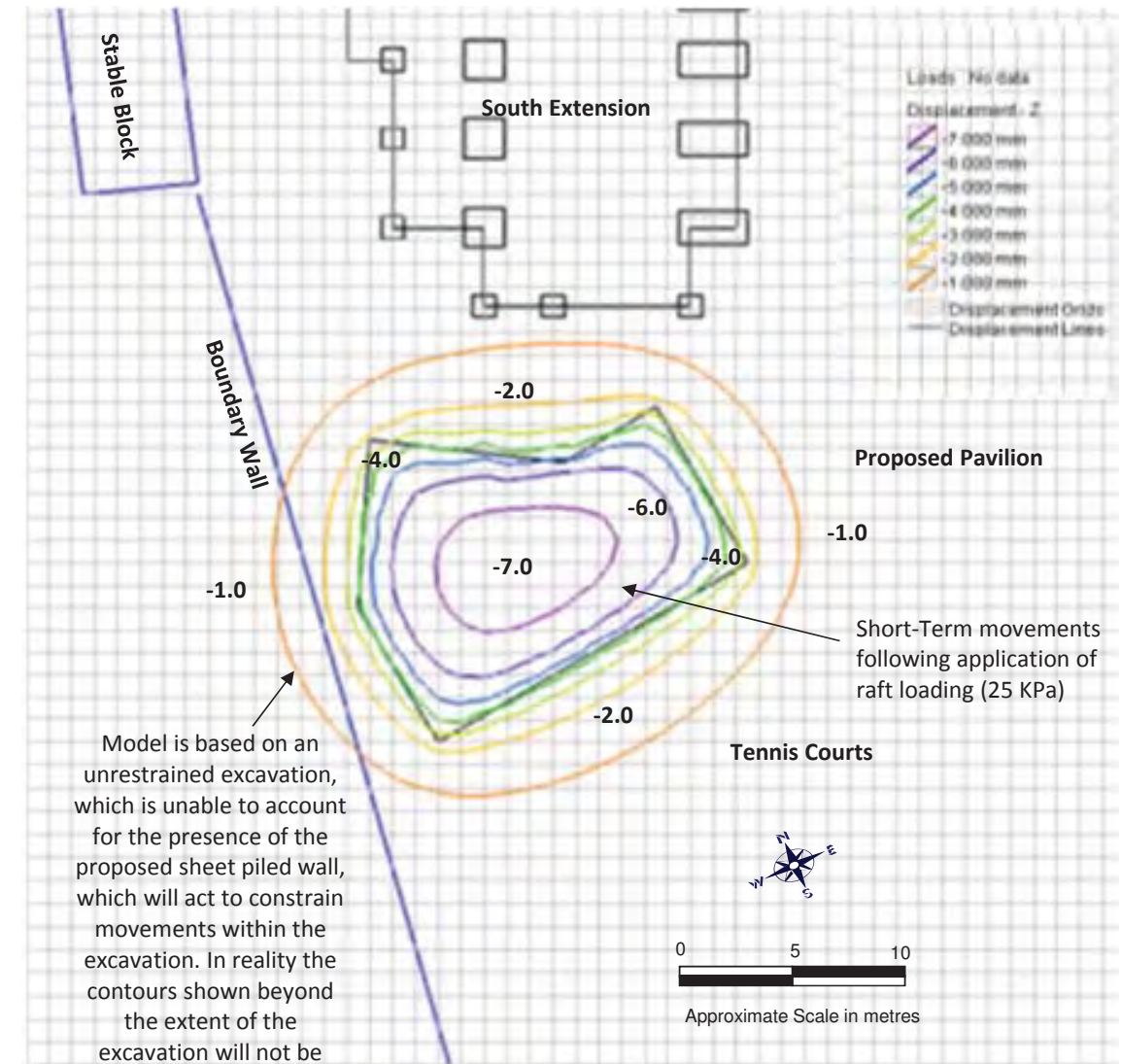
Job Number
J17268

Client Channing Junior School

Sheet
1/1

Engineer Heyne Tillett Steel

Figure 7 - Short-Term Heave / Settlement - Pavilion Only (inc Raft)



Model is based on an unrestrained excavation, which is unable to account for the presence of the proposed sheet piled wall, which will act to constrain movements within the excavation. In reality the contours shown beyond the extent of the excavation will not be realised and are therefore ignored in subsequent assessment of damage to nearby structures.



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Notes
Refer to Figure 7 for contour output

Analysis Options
Analysis: Boussinesq
Global Poisson's ratio: 0.50
Maximum allowable ratio between values of E: 1.5
Horizontal rigid boundary level: 60.00 [m OD]
Displacements at load centroids: Yes

Soil Profiles/Soil Profile 1

Layer	Level at top	Number of intermediate displacement levels	Youngs Modulus [kN/m ²]	Poissons ratio	Non-linear curve
1	117.00	1	10000	0.20000	None
2	115.00	5	40000	0.20000	None
3	110.00	8	25000	0.20000	None
4	102.00	12	52500	0.50000	None
5	90.000	15	106500	0.50000	None

Soil Profiles/Soil Profile 2

Layer	Level at top	Number of intermediate displacement levels	Youngs Modulus [kN/m ²]	Poissons ratio	Non-linear curve
1	114.00	1	10000	0.20000	None
2	111.00	5	40000	0.20000	None
3	110.00	8	25000	0.20000	None
4	102.00	12	52500	0.50000	None
5	90.000	15	106500	0.50000	None

Soil Profiles/Soil Profile 3

Layer	Level at top	Number of intermediate displacement levels	Youngs Modulus [kN/m ²]	Poissons ratio	Non-linear curve
1	112.00	1	10000	0.20000	None
2	111.00	5	40000	0.20000	None
3	110.00	8	25000	0.20000	None
4	102.00	12	52500	0.50000	None
5	90.000	15	106500	0.50000	None

Soil Zones

Zone	Name	X coordinates min max	Y coordinates min max	Profile
1	Soil 1	-20.00000 0.00000	-10.00000 40.00000	Soil Profile 1
2	Soil 2	0.00000 31.00000	5.00000 40.00000	Soil Profile 1
3	Soil 3	31.00000 50.00000	20.00000 40.00000	Soil Profile 1
4	Soil 4	0.00000 31.00000	-10.00000 5.00000	Soil Profile 2
5	Soil 5	31.00000 50.00000	-10.00000 20.00000	Soil Profile 2
6	Soil 6	-20.00000 50.00000	-26.50000 -10.00000	Soil Profile 2
7	Soil 7	-20.00000 5.00000	-34.50000 -26.50000	Soil Profile 2
8	Soil 8	5.00000 50.00000	-34.50000 -26.50000	Soil Profile 3
9	Soil 9	-20.00000 50.00000	-50.00000 -34.50000	Soil Profile 3

Load Data

Load ref.	Name	Shape	Orientation of Plane	Centre of load (Global)	Angle of local x or Y	Width x or Radius	Length y	Polygon Coordinates	Rectangle tolerance	Number of rectangles	Normal (local z)	Tangential (local x)	Load value (local y)
1	East Extension	Polygonal	Horizontal	N/A	N/A	114.00000	N/A	(24,23) (24,20) (17,20) (17,15) (15,15) (15,12) (18,5,12) (18,5,10) (30,10) (30,23)	10.0000	4	0.0	N/A	N/A
2	East Extension	Polygonal	Horizontal	N/A	N/A	114.00000	N/A	(24,10) (24,4) (25,2) (29,2) (30,4) (30,10)	10.0000	2	0.0	N/A	N/A
3	South Extension	Polygonal	Horizontal	N/A	N/A	113.00000	N/A	(1,0) (18,0) (18,-11.5) (16,-11.5) (16,-15) (7,-15) (7,-11.5) (3,-11.5) (3,-4) (1,-4)	10.0000	3	0.0	N/A	N/A
4	Pavilion	Polygonal	Horizontal	N/A	N/A	110.50000	N/A	(2,-21) (10,5,-22) (14,5,-19.5) (18,5,-26.5) (5,-34.5) (1,5,-28.5)	5.0000	10	-35.0000	N/A	N/A
5	L-Shaped RC Underpin for East Extension	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	(30,23) (30,22) (25,22) (25,20) (24,20) (24,23)	10.0000	2	0.0	N/A	N/A
6	RC Underpin of Wall 30	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	(24,5,20) (17,20) (17,19) (24,5,19)	10.0000	1	0.0	N/A	N/A
7	RC Underpin between Wall 27 & 29	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	(15,5,12) (16,5,12) (16,5,15)	10.0000	1	0.0	N/A	N/A
8	RC Underpin of Wall 31	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	(23,5,19) (24,5,19) (24,5,10) (23,5,10)	10.0000	1	0.0	N/A	N/A
9	Pad 6	Rectangular	Horizontal	19.00000	13.00000	113.85000	0.0	2.5000 2.5000	N/A	1	0.0	0.0	0.0
10	Pad 1 - A	Rectangular	Horizontal	24.00000	4.00000	113.85000	0.0	1.5000 1.5000	N/A	1	0.0	0.0	0.0
11	Pad 2 - A	Rectangular	Horizontal	25.00000	2.00000	113.85000	0.0	0.75000 0.75000	N/A	1	0.0	0.0	0.0
12	Pad 2 - B	Rectangular	Horizontal	29.00000	2.00000	113.85000	0.0	0.75000 0.75000	N/A	1	0.0	0.0	0.0
13	Pad 5 - A	Rectangular	Horizontal	7.00000	-6.50000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0	0.0
14	Pad 5 - B	Rectangular	Horizontal	3.00000	-4.00000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0	0.0
15	Pad 5 - C	Rectangular	Horizontal	3.00000	-7.50000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0	0.0
16	Pad 5 - D	Rectangular	Horizontal	3.00000	-11.50000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0	0.0
17	Pad 5 - E	Rectangular	Horizontal	7.00000	-15.00000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0	0.0
18	Pad 5 - F	Rectangular	Horizontal	10.00000	-15.00000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0	0.0
19	Pad 5 - G	Rectangular	Horizontal	16.00000	-15.00000	112.60000	0.0	1.0000 1.0000	N/A	1	0.0	0.0	0.0
20	Pad 4 - A	Rectangular	Horizontal	17.00000	-1.00000	112.60000	0.0	3.0000 1.5000	N/A	1	0.0	0.0	0.0
21	Pad 4 - B	Rectangular	Horizontal	17.00000	-4.00000	112.60000	0.0	3.0000 1.5000	N/A	1	0.0	0.0	0.0
22	Pad 4 - C	Rectangular	Horizontal	17.00000	-7.50000	112.60000	0.0	3.0000 1.5000	N/A	1	0.0	0.0	0.0
23	Pad 4 - D	Rectangular	Horizontal	17.00000	-11.50000	112.60000	0.0	3.0000 1.5000	N/A	1	0.0	0.0	0.0
24	Pad 3 - A	Rectangular	Horizontal	7.00000	-4.00000	112.60000	0.0	1.7500 1.7500	N/A	1	0.0	0.0	0.0
25	Pad 3 - B	Rectangular	Horizontal	7.00000	-7.50000	112.60000	0.0	1.7500 1.7500	N/A	1	0.0	0.0	0.0
26	Pad 3 - C	Rectangular	Horizontal	7.00000	-11.50000	112.60000	0.0	1.7500 1.7500	N/A	1	0.0	0.0	0.0
27	Pad 1 - B	Rectangular	Horizontal	30.00000	21.50000	113.85000	0.0	1.5000 1.5000	N/A	1	0.0	0.0	0.0



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Load ref.	Name	Shape	Orientation of Plane	Centre of load (Global)	Angle of local x or Y	Width x or Radius	Length y	Polygon Coordinates	Rectangle tolerance	Number of rectangles	Normal (local z)	Tangential (local x)	Load value (local y)
28	Pad 1 - C	Rectangular	Horizontal	30.00000	16.00000	113.85000	0.0	1.5000 1.5000	N/A	N/A	1	0.0	0.0
29	Pad 1 - D	Rectangular	Horizontal	30.00000	10.00000	113.85000	0.0	1.5000 1.5000	N/A	N/A	1	0.0	0.0
30	Pad 1 - E	Rectangular	Horizontal	30.00000	4.00000	113.85000	0.0	1.5000 1.5000	N/A	N/A	1	0.0	0.0

Polygonal Loads' Rectangles

No. Centre of load X Y Angle of local x from global X [Degrees] Width x Depth y [m] [m]

Load 1 : East Extension (Edge 1 optimal)

1	27.00000	21.50000	-90.0000	3.0000	6.0000
2	23.50000	17.50000	-90.0000	5.0000	13.0000
3	22.75000	13.50000	-90.0000	3.0000	14.5000
4	24.25000	11.00000	-90.0000	2.0000	11.5000

Load 2 : East Extension (Edge 1 optimal)

1	27.00000	7.00000	-90.0000	6.0000	6.0000
2	27.00000	3.00000	-90.0000	2.0000	5.0000

Load 3 : South Extension (Edge 1 optimal)

1	10.50000	-7.75000	-90.0000	7.5000	15.0000
2	11.50000	-13.25000	-90.0000	3.5000	9.0000
3	9.50000	-2.00000	-90.0000	4.0000	17.0000

Load 4 : Pavilion (Edge 1 optimal)

1	3.53052	-30.88353	30.651	1.0634	7.7207
2	4.05044	-29.67497	30.651	1.0634	9.2700
3	4.57037	-28.46640	30.651	1.0634	10.819
4	5.09029	-27.25784	30.651	1.0634	12.369
5	5.61022	-26.04928	30.651	2.2676	12.278
6	6.13015	-24.84072	30.651	2.2676	10.547
7	6.65008	-23.63216	30.651	2.2676	8.8163
8	7.17001	-22.42360	30.651	4.5882	8.0040
9	7.69000	-21.21504	30.651	0.063725	6.0437
10	8.21000	-20.00648	30.651	0.063725	4.1146

Load 5 : L-Shaped RC Underpin for East Extension (Edge 2 optimal)

1	27.00000	22.50000	-90.0000	1.0000	6.0000
2	24.50000	21.00000	-90.0000	2.0000	1.0000

Load 6 : RC Underpin of Wall 30 (Edge 1 optimal)

1	20.75000	19.50000	-180.00	7.5000	1.0000
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Load 7 : RC Underpin between Wall 27 & 29 (Edge 1 optimal)

1	16.00000	13.50000	-90.0000	3.0000	1.0000
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Load 8 : RC Underpin of Wall 31 (Edge 2 optimal)

1	24.00000	14.50000	0.0	1.0000	9.0000
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Displacement Data

Ref.	Type	Name	Direction of Extrusion	First point X Y Z (level)	Second point X Y Z (level)	No. of intrvl across extrusion/line	Extrusion Depth	No. of intrvl along extrusion	Calculate	Show Detailed results
1	Line	Line 1	N/A	0.00000 0.00000 113.50000	8.00000 0.00000 113.50000	8	N/A	N/A	No	N/A
2	Line	Line 2	N/A	16.00000 0.00000 113.50000	16.00000 5.00000 113.50000	5	N/A	N/A	No	N/A
3	Line	Line 3	N/A	8.00000 0.00000 113.50000	5.00000 5.00000 113.50000	5	N/A	N/A	No	N/A
4	Line	Line 4	N/A	8.00000 0.00000 113.50000	16.00000 5.00000 113.50000	8	N/A	N/A	No	N/A
5	Line	Line 5	N/A	16.00000 5.00000 113.50000	18.50000 6.50000 113.50000	2	N/A	N/A	No	N/A
6	Line	Line 6	N/A	18.50000 6.50000 113.50000	18.50000 12.00000 113.50000	5	N/A	N/A	No	N/A
7	Line	Line 7	N/A	6.50000 12.00000 113.50000	18.50000 12.00000 113.50000	6	N/A	N/A	No	N/A
8	Line	Line 8	N/A	6.50000 6.50000 113.50000	6.50000 12.00000 113.50000	5	N/A	N/A	No	N/A
9	Line	Line 9	N/A	4.00000 9.00000 113.50000	6.50000 9.00000 113.50000	2	N/A	N/A	No	N/A
10	Line	Line 10	N/A	6.50000 6.50000 113.50000</						



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Name	X [m]	Location Y [m]	Z[Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
Wall 30								
RC Underpin	16.00000	13.50000	113.85000	0.018806	113.37	0.0	0.0	0.0
RC Underpin of	24.00000	14.50000	113.85000	0.020069	113.37	0.0	0.0	0.0
Wall 31								
Pad 6	19.00000	13.00000	113.85000	0.018843	113.37	0.0	0.0	0.0
Pad 1 - A	24.00000	4.00000	113.85000	0.0091955	113.43	0.0	0.0	0.0
Pad 2 - A	25.00000	2.00000	113.85000	0.0054679	113.43	0.0	0.0	0.0
Pad 2 - B	29.00000	2.00000	113.85000	0.010736	113.43	0.0	0.0	0.0
Pad 5 - A	0.50000	112.60000	112.60000	-0.023937	112.34	0.0	0.0	0.0
Pad 5 - B	3.00000	-4.00000	112.60000	-0.056944	112.34	0.0	0.0	0.0
Pad 5 - C	3.00000	-7.50000	112.60000	-0.11849	112.34	0.0	0.0	0.0
Pad 5 - D	-11.50000	112.60000	112.60000	-0.25660	112.34	0.0	0.0	0.0
Pad 5 - E	7.00000	-15.00000	112.60000	-0.64159	112.34	0.0	0.0	0.0
Pad 5 - F	10.00000	-15.00000	112.60000	-0.67317	112.34	0.0	0.0	0.0
Pad 5 - G	16.00000	-15.00000	112.60000	-0.52881	112.34	0.0	0.0	0.0
Pad 4 - A	17.00000	112.60000	112.60000	-0.023837	112.34	0.0	0.0	0.0
Pad 4 - B	17.00000	-4.00000	112.60000	-0.052901	112.34	0.0	0.0	0.0
Pad 4 - C	17.00000	-7.50000	112.60000	-0.11074	112.34	0.0	0.0	0.0
Pad 4 - D	17.00000	112.60000	112.60000	-0.23977	112.34	0.0	0.0	0.0
Pad 3 - A	7.00000	-4.00000	112.60000	-0.066707	112.34	0.0	0.0	0.0
Pad 3 - B	7.00000	-7.50000	112.60000	-0.13989	112.34	0.0	0.0	0.0
Pad 3 - C	11.00000	-4.00000	112.60000	-0.30548	112.34	0.0	0.0	0.0
Pad 1 - B	30.00000	21.50000	113.85000	0.019828	113.37	0.0	0.0	0.0
Pad 1 - C	30.00000	16.00000	113.85000	0.020470	113.37	0.0	0.0	0.0
Pad 1 - D	30.00000	11.50000	113.85000	0.019382	113.37	0.0	0.0	0.0
Pad 1 - E	30.00000	4.00000	113.85000	0.014720	113.43	0.0	0.0	0.0
Line 39	-5.50000	-10.00000	113.00000	-0.082202	112.75	0.0	0.0	0.0
	-4.95000	-11.95000	112.90000	-0.12198	112.61	0.0	0.0	0.0
	-4.40000	-13.90000	112.80000	-0.17776	112.52	0.0	0.0	0.0
	-3.85000	-15.85000	112.70000	-0.25705	112.43	0.0	0.0	0.0
	-3.30000	-17.80000	112.60000	-0.37100	112.34	0.0	0.0	0.0
	-2.75000	-19.75000	112.50000	-0.51481	112.25	0.0	0.0	0.0
	-2.20000	-21.70000	112.40000	-0.76263	112.16	0.0	0.0	0.0
	-1.65000	-23.65000	112.30000	-1.0481	112.07	0.0	0.0	0.0
	-1.10000	-25.60000	112.20000	-1.34895	111.93	0.0	0.0	0.0
	-0.55000	-27.55000	112.10000	-1.6036	111.84	0.0	0.0	0.0
	0.00000	-29.50000	112.00000	-1.86858	111.75	0.0	0.0	0.0
	0.55000	-31.45000	111.90000	-2.15284	111.66	0.0	0.0	0.0
	1.00000	-33.40000	111.80000	-2.45507	111.57	0.0	0.0	0.0
	1.55000	-35.35000	111.70000	-2.76777	111.48	0.0	0.0	0.0
	2.10000	-37.30000	111.60000	-3.09246	111.39	0.0	0.0	0.0
	2.65000	-39.25000	111.50000	-3.42500	111.30	0.0	0.0	0.0
	3.20000	-41.20000	111.40000	-3.76422	111.21	0.0	0.0	0.0
	3.75000	-43.15000	111.30000	-4.10703	111.12	0.0	0.0	0.0
	4.30000	-45.10000	111.20000	-4.45343	111.03	0.0	0.0	0.0
	4.85000	-47.05000	111.10000	-4.80343	110.94	0.0	0.0	0.0
	5.40000	-49.00000	111.00000	-5.15703	110.85	0.0	0.0	0.0
	-20.00000	-26.49500	114.00000	-0.011878	113.75	0.0	0.0	0.0
	-18.00000	-26.49500	114.00000	-0.018110	113.75	0.0	0.0	0.0
	-16.00000	-26.49500	114.00000	-0.025903	113.75	0.0	0.0	0.0
	-14.00000	-26.49500	114.00000	-0.034880	113.75	0.0	0.0	0.0
	-12.00000	-26.49500	114.00000	-0.045119	113.75	0.0	0.0	0.0
	-10.00000	-26.49500	114.00000	-0.056816	113.75	0.0	0.0	0.0
	-8.00000	-26.49500	114.00000	-0.070252	113.75	0.0	0.0	0.0
	-6.00000	-26.49500	114.00000	-0.085333	113.75	0.0	0.0	0.0
	-4.00000	-26.49500	114.00000	-0.11311	113.75	0.0	0.0	0.0
	-2.00000	-26.49500	114.00000	-0.13949	113.75	0.0	0.0	0.0
	0.00000	-26.49500	114.00000	-0.17169	113.75	0.0	0.0	0.0
	2.00000	-26.49500	114.00000	-0.21130	113.75	0.0	0.0	0.0
	4.00000	-26.49500	114.00000	-0.26046	113.75	0.0	0.0	0.0
	6.00000	-26.49500	114.00000	-0.32216	113.75	0.0	0.0	0.0
	8.00000	-26.49500	114.00000	-0.40053	113.75	0.0	0.0	0.0
	10.00000	-26.49500	114.00000	-0.50154	113.75	0.0	0.0	0.0
	12.00000	-26.49500	114.00000	-0.63407	113.75	0.0	0.0	0.0
	14.00000	-26.49500	114.00000	-0.81177	113.75	0.0	0.0	0.0
	16.00000	-26.49500	114.00000	-1.0570	113.75	0.0	0.0	0.0
	18.00000	-26.49500	114.00000	-1.4095	113.75	0.0	0.0	0.0
	20.00000	-26.49500	114.00000	-1.8509	113.75	0.0	0.0	0.0
	22.00000	-26.49500	114.00000	-2.3826	113.75	0.0	0.0	0.0
	24.00000	-26.49500	114.00000	-3.0052	113.75	0.0	0.0	0.0
	26.00000	-26.49500	114.00000	-3.7184	113.75	0.0	0.0	0.0
	28.00000	-26.49500	114.00000	-4.5223	113.75	0.0	0.0	0.0
	30.00000	-26.49500	114.00000	-5.4168	113.75	0.0	0.0	0.0
	32.00000	-26.49500	114.00000	-6.4012	113.75	0.0	0.0	0.0
	34.00000	-26.49500	114.00000	-7.4749	113.75	0.0	0.0	0.0
	36.00000	-26.49500	114.00000	-8.6372	113.75	0.0	0.0	0.0
	38.00000	-26.49500	114.00000	-9.8877	113.75	0.0	0.0	0.0
	40.00000	-26.49500	114.00000	-11.3262	113.75	0.0	0.0	0.0
	42.00000	-26.49500	114.00000	-12.9527	113.75	0.0	0.0	0.0
	44.00000	-26.49500	114.00000	-14.7672	113.75	0.0	0.0	0.0
	46.00000	-26.49500	114.00000	-16.7707	113.75	0.0	0.0	0.0
	48.00000	-26.49500	114.00000	-18.9642	113.75	0.0	0.0	0.0
	50.00000	-26.49500	114.00000	-21.3477	113.75	0.0	0.0	0.0
	52.00000	-26.49500	114.00000	-23.9212	113.75	0.0	0.0	0.0
	54.00000	-26.49500	114.00000	-26.6847	113.75	0.0	0.0	0.0
	56.00000	-26.49500	114.00000	-29.6382	113.75	0.0	0.0	0.0
	58.00000	-26.49500	114.00000	-32.7817	113.75	0.0	0.0	0.0
	60.00000	-26.49500	114.00000	-36.1152	113.75	0.0	0.0	0.0
	62.00000	-26.49500	114.00000	-39.7387	113.75	0.0	0.0	0.0
	64.00000	-26.49500	114.00000	-43.6522	113.75	0.0	0.0	0.0
	66.00000	-26.49500	114.00000	-47.8557	113.75	0.0	0.0	0.0
	68.00000	-26.49500	114.00000	-52.3492	113.75	0.0	0.0	0.0
	70.00000	-26.49500	114.00000	-57.1327	113.75	0.0	0.0	0.0
	72.00000	-26.49500	114.00000	-62.2062	113.75	0.0	0.0	0.0
	74.00000	-26.49500	114.00000	-67.5697	113.75	0.0	0.0	0.0
	76.00000	-26.49500	114.00000	-73.2232	113.75	0.0	0.0	0.0
	78.00000	-26.49500	114.00000	-79.1667	113.75	0.0	0.0	0.0
	80.00000	-26.49500	114.00000	-85.3902	113.75	0.0	0.0	0.0
	82.00000	-26.49500	114.00000	-91.8937	113.75	0.0	0.0	0.0
	84.00000	-26.49500	114.00000	-98.6772	113.75	0.0	0.0	0.0
	86.00000	-26.49500	114.00000	-105.7407	113.75	0.0	0.0	0.0
	88.00000	-26.49500	114.00000	-113.0842	113.75	0.0	0.0	0.0
	90.00000	-26.49500	114.00000	-120.7077	113.75	0.0	0.0	0.0
	92.00000	-26.49500	114.00000	-128.6112	113.75	0.0	0.0	0.0
	94.00000	-26.49500	114.00000	-136.7947	113.75	0.0	0.0	0.0
	96.00000	-26.49500	114.00000	-145.2582	113.75	0.0	0.0	0.0
	98.00000	-26.49500	114.00000	-154.0017	113.75	0.0	0.0	0.0
	100.00000	-26.49500	114.00000	-163.0252	113.75	0.0	0.0	0.0
	102.00000	-26.49500	114.00000	-172.3387	113.75	0.0	0.0	0.0
	104.00000	-26.49500	114.00000	-181.9422	113.75	0.0	0.0	0.0
	106.00000	-26.49500	114.00000	-191.8357	113.75	0.0	0.0	0.0
	108.00000	-26.49500	114.00000	-202.0192	113.75	0.0	0.0	0.0
	110.00000	-26.49500	114.00000	-212.4927	113.75	0.0	0.0	0.0
	112.00000	-26.49500	114.00000	-223.2562	113.75	0.0	0.0	0.0
	114.00000	-26.49500	114.00000	-234.3097	113.75	0.0	0.0	0.0
	116.00000	-26.49500	114.00000	-245.6532	113.75	0.0	0.0	0.0
	118.00000	-26.49500	114.00000	-257.2867	113.75	0.0	0.0	0.0
	120.00000	-26.49500	114.00000	-269.2002	113.75	0.0	0.0	0.0
	122.00000	-26.49500	114.00000	-281.3937	113.75	0.0	0.0	0.0
	124.00000	-26.49500	114.00000	-293.8672	113.75	0.0	0.0	0.0
	126.00000	-26.49500	114.00000	-306.6207	113.75	0.0	0.0	0.0
	128.00000	-26.49500	114.00000	-319.6542	113.75	0.0	0.0	0.0
	130.00000	-26.49500	114.00000	-332.9677	113.75	0.0	0.0	0.0
	132.00000	-26.49500	114.00000	-346.5612	113.75	0.0	0.0	



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Drng. Ref.		
Made by	Date	Checked
MP		

Name	Location		Displacement Z [mm]	Stresses			
	X [m]	Y [m]		Calc Level [kN/m ²]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
49.00000	-24.43313	114.00000	0.017798	113.75	0.0	0.0	0.0
50.00000	-24.43313	114.00000	0.018536	113.75	0.0	0.0	0.0
20.00000	-23.40219	114.00000	-0.010735	113.75	0.0	0.0	0.0
19.00000	-23.40219	114.00000	-0.016194	113.75	0.0	0.0	0.0
18.00000	-23.40219	114.00000	-0.024198	113.75	0.0	0.0	0.0
17.00000	-23.40219	114.00000	-0.032789	113.75	0.0	0.0	0.0
16.00000	-23.40219	114.00000	-0.042944	113.75	0.0	0.0	0.0
15.00000	-23.40219	114.00000	-0.054890	113.75	0.0	0.0	0.0
14.00000	-23.40219	114.00000	-0.069290	113.75	0.0	0.0	0.0
13.00000	-23.40219	114.00000	-0.086372	113.75	0.0	0.0	0.0
12.00000	-23.40219	114.00000	-0.106866	113.75	0.0	0.0	0.0
11.00000	-23.40219	114.00000	-0.131156	113.75	0.0	0.0	0.0
10.00000	-23.40219	114.00000	-0.161522	113.75	0.0	0.0	0.0
9.00000	-23.40219	114.00000	-0.19814	113.75	0.0	0.0	0.0
8.00000	-23.40219	114.00000	-0.24325	113.75	0.0	0.0	0.0
7.00000	-23.40219	114.00000	-0.29936	113.75	0.0	0.0	0.0
6.00000	-23.40219	114.00000	-0.36992	113.75	0.0	0.0	0.0
5.00000	-23.40219	114.00000	-0.45982	113.75	0.0	0.0	0.0
4.00000	-23.40219	114.00000	-0.57618	113.75	0.0	0.0	0.0
3.00000	-23.40219	114.00000	-0.72978	113.75	0.0	0.0	0.0
2.00000	-23.40219	114.00000	-0.92803	113.75	0.0	0.0	0.0
1.00000	-23.40219	114.00000	-1.2315	113.75	0.0	0.0	0.0
0.00000	-23.40219	114.00000	-1.6721	113.75	0.0	0.0	0.0
1.00000	-23.40219	114.00000	-2.1467	113.75	0.0	0.0	0.0
2.00000	-23.40219	114.00000	-2.6505	113.75	0.0	0.0	0.0
3.00000	-23.40219	114.00000	-3.1933	113.75	0.0	0.0	0.0
4.00000	-23.40219	114.00000	-3.7751	113.75	0.0	0.0	0.0
5.00000	-23.40219	114.00000	-4.3959	113.75	0.0	0.0	0.0
6.00000	-23.40219	114.00000	-5.0557	113.75	0.0	0.0	0.0
7.00000	-23.40219	114.00000	-5.7545	113.75	0.0	0.0	0.0
8.00000	-23.40219	114.00000	-6.4923	113.75	0.0	0.0	0.0
9.00000	-23.40219	114.00000	-7.2691	113.75	0.0	0.0	0.0
10.00000	-23.40219	114.00000	-8.0849	113.75	0.0	0.0	0.0
11.00000	-23.40219	114.00000	-8.9397	113.75	0.0	0.0	0.0
12.00000	-23.40219	114.00000	-9.8335	113.75	0.0	0.0	0.0
13.00000	-23.40219	114.00000	-10.7663	113.75	0.0	0.0	0.0
14.00000	-23.40219	114.00000	-11.7381	113.75	0.0	0.0	0.0
15.00000	-23.40219	114.00000	-12.7499	113.75	0.0	0.0	0.0
16.00000	-23.40219	114.00000	-13.7917	113.75	0.0	0.0	0.0
17.00000	-23.40219	114.00000	-14.8635	113.75	0.0	0.0	0.0
18.00000	-23.40219	114.00000	-15.9653	113.75	0.0	0.0	0.0
19.00000	-23.40219	114.00000	-17.0971	113.75	0.0	0.0	0.0
20.00000	-23.40219	114.00000	-18.2589	113.75	0.0	0.0	0.0
21.00000	-23.40219	114.00000	-19.4507	113.75	0.0	0.0	0.0
22.00000	-23.40219	114.00000	-20.6725	113.75	0.0	0.0	0.0
23.00000	-23.40219	114.00000	-21.9243	113.75	0.0	0.0	0.0
24.00000	-23.40219	114.00000	-23.2061	113.75	0.0	0.0	0.0
25.00000	-23.40219	114.00000	-24.5179	113.75	0.0	0.0	0.0
26.00000	-23.40219	114.00000	-25.8597	113.75	0.0	0.0	0.0
27.00000	-23.40219	114.00000	-27.2315	113.75	0.0	0.0	0.0
28.00000	-23.40219	114.00000	-28.6333	113.75	0.0	0.0	0.0
29.00000	-23.40219	114.00000	-30.0651	113.75	0.0	0.0	0.0
30.00000	-23.40219	114.00000	-31.5269	113.75	0.0	0.0	0.0
31.00000	-23.40219	114.00000	-33.0187	113.75	0.0	0.0	0.0
32.00000	-23.40219	114.00000	-34.5405	113.75	0.0	0.0	0.0
33.00000	-23.40219	114.00000	-36.0923	113.75	0.0	0.0	0.0
34.00000	-23.40219	114.00000	-37.6741	113.75	0.0	0.0	0.0
35.00000	-23.40219	114.00000	-39.2859	113.75	0.0	0.0	0.0
36.00000	-23.40219	114.00000	-40.9277	113.75	0.0	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Drng. Ref.		
Made by	Date	Checked
MP		

Name	Location		Displacement Z [mm]	Stresses			
	X [m]	Y [m]		Calc Level [kN/m ²]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
37.00000	-22.37125	114.00000	-0.016763	113.75	0.0	0.0	0.0
38.00000	-22.37125	114.00000	-0.010579	113.75	0.0	0.0	0.0
39.00000	-22.37125	114.00000	-0.0053344	113.75	0.0	0.0	0.0
40.00000	-22.37125	114.00000	-885.74656	113.75	0.0	0.0	0.0
41.00000	-22.37125	114.00000	0.0028868	113.75	0.0	0.0	0.0
42.00000	-22.37125	114.00000	0.0060826	113.75	0.0	0.0	0.0
43.00000	-22.37125	114.00000	0.0087849	113.75	0.0	0.0	0.0
44.00000	-22.37125	114.00000	0.011064	113.75	0.0	0.0	0.0
45.00000	-22.37125	114.00000	0.012978	113.75	0.0	0.0	0.0
46.00000	-22.37125	114.00000	0.014578	113.75	0.0	0.0	0.0
47.00000	-22.37125	114.00000	0.015907	113.75	0.0	0.0	0.0
48.00000	-22.37125	114.00000	0.017002	113.75	0.0	0.0	0.0
49.00000	-22.37125	114.00000	0.017893	113.75	0.0	0.0	0.0
50.00000	-22.37125	114.00000	0.018608	113.75	0.0	0.0	0.0
20.00000	-21.34031	114.00000	-0.0089655	113.75	0.0	0.0	0.0
19.00000	-21.34031	114.00000	-0.014762	113.75	0.0	0.0	0.0
18.00000	-21.34031	114.00000	-0.021569	113.75	0.0	0.0	0.0
17.00000	-21.34031	114.00000	-0.029570	113.75	0.0	0.0	0.0
16.00000	-21.34031	114.00000	-0.038990	113.75	0.0	0.0	0.0
15.00000	-21.34031	114.00000	-0.050100	113.75	0.0	0.0	0.0
14.00000	-21.34031	114.00000	-0.063239	113.75	0.0	0.0	0.0
13.00000	-21.34031	114.00000	-0.078826	113.75	0.0	0.0	0.0
12.00000	-21.34031	114.00000	-0.097384	113.75	0.0	0.0	0.0
11.00000	-21.34031	114.00000	-0.11958	113.75	0.0	0.0	0.0
10.00000	-21.34031	114.00000	-0.14624	113.75	0.0	0.0	0.0
9.00000	-21.34031	114.00000	-0.17847	113.75	0.0	0.0	0.0
8.00000	-21.34031	114.00000	-0.21767	113.75	0.0	0.0	0.0
7.00000	-21.34031	114.00000	-0.26569	113.75	0.0	0.0	0.0
6.00000	-21.34031	114.00000	-0.32501	113.75	0.0	0.0	0.0
5.00000	-21.34031	114.00000	-0.39899	113.75	0.0	0.0	0.0
4.00000	-21.34031	114.00000	-0.49230	113.75	0.0	0.0	0.0
3.00000	-21.34031	114.00000	-0.61163	113.75	0.0	0.0	0.0
2.00000	-21.34031	114.00000	-0.76703	113.75	0.0	0.0	0.0
1.00000	-21.34031	114.00000	-0.97469	113.75	0.0	0.0	0.0
0.00000	-21.34031	114.00000	-1.2638	113.75	0.0	0.0	0.0
1.00000	-21.34031	114.00000	-1.6961	113.75	0.0	0.0	0.0
2.00000	-21.34031	114.00000	-2.2721	113.75	0.0	0.0	0.0
3.00000	-21.34031	114.00000	-3.0457	113.75	0.0	0.0	0.0
4.00000	-21.34031	114.00000	-4.0263	113.75	0.0	0.0	0.0
5.00000	-21.34031	114.00000	-5.3249	113.75	0.0	0.0	0.0
6.00000	-21.34031	114.00000	-6.9547	113.75	0.0	0.0	0.0
7.00000	-21.34031	114.00000	-9.0470	113.75	0.0	0.0	0.0
8.00000	-21.34031	114.00000	-11.8896	113.75	0.0	0.0	0.0
9.00000	-21.34031	114.00000	-15.6916	113.75	0.0	0.0	0.0
10.00000	-21.34031	114.00000	-20.6525	113.75	0.0	0.0	0.0
11.00000	-21.34031	114.00000	-27.0770	113.75	0.0	0.0	0.0
12.00000	-21.34031	114.00000	-35.3908	113.75	0.0	0.0	0.0
13.00000	-21.34031	114.00000	-46.2066	113.75	0.0	0.0	0.0
14.00000	-21.34031	114.00000	-60.1370	113.75	0.0	0.0	0.0
15.00000	-21.34031	114.00000	-77.8655	113.75	0.0	0.0	0.0
16.00000	-21.34031	114.00000	-100.2017	113.75	0.0	0.0	0.0
17.00000	-21.34031	114.00000	-127.8385	113.75	0.0	0.0	0.0
18.00000	-21.34031	114.00000	-161.4825	113.75	0.0	0.0	0.0
19.00000	-21.34031	114.00000	-203.0421	113.75	0.0	0.0	0.0
20.00000	-21.34031	114.00000	-254.4271	113.75	0.0	0.0	0.0
21.00000	-21.34031	114.00000	-317.6597	113.75	0.0	0.0	0.0
22.00000	-21.34031	114.00000	-395.7537	113.75	0.0	0.0	0.0
23.00000	-21.34031	114.00000	-492.7231	113.75	0.0	0.0	0.0
24.00000	-21.34031	114.00000	-613.5819	113.75	0.0	0.0	0.0
25.00000	-21.34031	114.00000	-763.3459	113.75	0.0	0.0	0.0
26.00000	-21.34031	114.00000	-948.0209	113.75	0.0	0.0	0.0
27.00000	-21.34031	114.00000	-1173.6149	113.75	0.0	0.0	0.0
28.00000	-21.34031	114.00000	-1445.2377	113.75	0.0	0.0	0.0
29.00000	-21.34031	114.00000	-1768.9082	113.75	0.0	0.0	0.0
30.00000	-21.34031	114.00000	-2150.6469	113.75	0.0	0.0	0.0
31.00000	-21.34031	114.00000	-2605.4759	113.75	0		

Job No. Sheet No. Rev.
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Made by Date Checked
MP

Table with columns: Name, X [m], Y [m], Z [Level] [m], Displacement [mm], Calc Level [m], Vert Stress [kN/m²], Sum Princ [kN/m²], Vert Strain [-]. Contains numerical data for various points in the structure.

Job No. Sheet No. Rev.
J17268
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Table with columns: Name, X [m], Y [m], Z [Level] [m], Displacement [mm], Calc Level [m], Vert Stress [kN/m²], Sum Princ [kN/m²], Vert Strain [-]. Contains numerical data for various points in the structure.



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Job No.	Sheet No.	Rev.
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Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
	1.00000	-16.18563	114.00000	-0.53760	113.75	0.0	0.0	0.0
	2.00000	-16.18563	114.00000	-0.60182	113.75	0.0	0.0	0.0
	3.00000	-16.18563	114.00000	-0.66357	113.75	0.0	0.0	0.0
	4.00000	-16.18563	114.00000	-0.71974	113.75	0.0	0.0	0.0
	5.00000	-16.18563	114.00000	-0.76795	113.75	0.0	0.0	0.0
	6.00000	-16.18563	114.00000	-0.80732	113.75	0.0	0.0	0.0
	7.00000	-16.18563	114.00000	-0.83792	113.75	0.0	0.0	0.0
	8.00000	-16.18563	114.00000	-0.86042	113.75	0.0	0.0	0.0
	9.00000	-16.18563	114.00000	-0.87552	113.75	0.0	0.0	0.0
	10.00000	-16.18563	114.00000	-0.88345	113.75	0.0	0.0	0.0
	11.00000	-16.18563	114.00000	-0.88348	113.75	0.0	0.0	0.0
	12.00000	-16.18563	114.00000	-0.87364	113.75	0.0	0.0	0.0
	13.00000	-16.18563	114.00000	-0.85085	113.75	0.0	0.0	0.0
	14.00000	-16.18563	114.00000	-0.81214	113.75	0.0	0.0	0.0
	15.00000	-16.18563	114.00000	-0.75699	113.75	0.0	0.0	0.0
	16.00000	-16.18563	114.00000	-0.68905	113.75	0.0	0.0	0.0
	17.00000	-16.18563	114.00000	-0.61470	113.75	0.0	0.0	0.0
	18.00000	-16.18563	114.00000	-0.53996	113.75	0.0	0.0	0.0
	19.00000	-16.18563	114.00000	-0.46895	113.75	0.0	0.0	0.0
	20.00000	-16.18563	114.00000	-0.40388	113.75	0.0	0.0	0.0
	21.00000	-16.18563	114.00000	-0.34665	113.75	0.0	0.0	0.0
	22.00000	-16.18563	114.00000	-0.29435	113.75	0.0	0.0	0.0
	23.00000	-16.18563	114.00000	-0.24693	113.75	0.0	0.0	0.0
	24.00000	-16.18563	114.00000	-0.21092	113.75	0.0	0.0	0.0
	25.00000	-16.18563	114.00000	-0.17758	113.75	0.0	0.0	0.0
	26.00000	-16.18563	114.00000	-0.14692	113.75	0.0	0.0	0.0
	27.00000	-16.18563	114.00000	-0.11943	113.75	0.0	0.0	0.0
	28.00000	-16.18563	114.00000	-0.10327	113.75	0.0	0.0	0.0
	29.00000	-16.18563	114.00000	-0.085209	113.75	0.0	0.0	0.0
	30.00000	-16.18563	114.00000	-0.069717	113.75	0.0	0.0	0.0
	31.00000	-16.18563	114.00000	-0.056424	113.75	0.0	0.0	0.0
	32.00000	-16.18563	114.00000	-0.045009	113.75	0.0	0.0	0.0
	33.00000	-16.18563	114.00000	-0.035201	113.75	0.0	0.0	0.0
	34.00000	-16.18563	114.00000	0.026770	113.75	0.0	0.0	0.0
	35.00000	-16.18563	114.00000	-0.019520	113.75	0.0	0.0	0.0
	36.00000	-16.18563	114.00000	-0.013285	113.75	0.0	0.0	0.0
	37.00000	-16.18563	114.00000	-0.0079237	113.75	0.0	0.0	0.0
	38.00000	-16.18563	114.00000	-0.0033170	113.75	0.0	0.0	0.0
	39.00000	-16.18563	114.00000	637.56E-6	113.75	0.0	0.0	0.0
	40.00000	-16.18563	114.00000	0.0040273	113.75	0.0	0.0	0.0
	41.00000	-16.18563	114.00000	0.0068269	113.75	0.0	0.0	0.0
	42.00000	-16.18563	114.00000	0.0094007	113.75	0.0	0.0	0.0
	43.00000	-16.18563	114.00000	0.011504	113.75	0.0	0.0	0.0
	44.00000	-16.18563	114.00000	0.013285	113.75	0.0	0.0	0.0
	45.00000	-16.18563	114.00000	0.014783	113.75	0.0	0.0	0.0
	46.00000	-16.18563	114.00000	0.016037	113.75	0.0	0.0	0.0
	47.00000	-16.18563	114.00000	0.017078	113.75	0.0	0.0	0.0
	48.00000	-16.18563	114.00000	0.017927	113.75	0.0	0.0	0.0
	49.00000	-16.18563	114.00000	0.018614	113.75	0.0	0.0	0.0
	50.00000	-16.18563	114.00000	0.019158	113.75	0.0	0.0	0.0
	-20.00000	-15.15469	114.00000	-547.26E-6	113.75	0.0	0.0	0.0
	-19.00000	-15.15469	114.00000	-0.0045921	113.75	0.0	0.0	0.0
	-18.00000	-15.15469	114.00000	-0.0097023	113.75	0.0	0.0	0.0
	-17.00000	-15.15469	114.00000	-0.014674	113.75	0.0	0.0	0.0
	-16.00000	-15.15469	114.00000	-0.020908	113.75	0.0	0.0	0.0
	-15.00000	-15.15469	114.00000	-0.028094	113.75	0.0	0.0	0.0
	-14.00000	-15.15469	114.00000	-0.036374	113.75	0.0	0.0	0.0
	-13.00000	-15.15469	114.00000	-0.045907	113.75	0.0	0.0	0.0
	-12.00000	-15.15469	114.00000	-0.056879	113.75	0.0	0.0	0.0
	-11.00000	-15.15469	114.00000	-0.069500	113.75	0.0	0.0	0.0
	-10.00000	-15.15469	114.00000	-0.084009	113.75	0.0	0.0	0.0
	-9.00000	-15.15469	114.00000	-0.10067	113.75	0.0	0.0	0.0
	-8.00000	-15.15469	114.00000	-0.11979	113.75	0.0	0.0	0.0
	-7.00000	-15.15469	114.00000	-0.14168	113.75	0.0	0.0	0.0
	-6.00000	-15.15469	114.00000	-0.16663	113.75	0.0	0.0	0.0
	-5.00000	-15.15469	114.00000	-0.19500	113.75	0.0	0.0	0.0
	-4.00000	-15.15469	114.00000	-0.22703	113.75	0.0	0.0	0.0
	-3.00000	-15.15469	114.00000	-0.26288	113.75	0.0	0.0	0.0
	-2.00000	-15.15469	114.00000	-0.30252	113.75	0.0	0.0	0.0
	-1.00000	-15.15469	114.00000	-0.34564	113.75	0.0	0.0	0.0
	0.00000	-15.15469	114.00000	-0.39151	113.75	0.0	0.0	0.0
	1.00000	-15.15469	114.00000	-0.43895	113.75	0.0	0.0	0.0
	2.00000	-15.15469	114.00000	-0.48834	113.75	0.0	0.0	0.0
	3.00000	-15.15469	114.00000	-0.53178	113.75	0.0	0.0	0.0
	4.00000	-15.15469	114.00000	-0.57341	113.75	0.0	0.0	0.0
	5.00000	-15.15469	114.00000	-0.60978	113.75	0.0	0.0	0.0
	6.00000	-15.15469	114.00000	-0.64000	113.75	0.0	0.0	0.0
	7.00000	-15.15469	114.00000	-0.66385	113.75	0.0	0.0	0.0
	8.00000	-15.15469	114.00000	-0.68127	113.75	0.0	0.0	0.0
	9.00000	-15.15469	114.00000	-0.69236	113.75	0.0	0.0	0.0
	10.00000	-15.15469	114.00000	-0.69698	113.75	0.0	0.0	0.0
	11.00000	-15.15469	114.00000	-0.69458	113.75	0.0	0.0	0.0
	12.00000	-15.15469	114.00000	-0.68411	113.75	0.0	0.0	0.0
	13.00000	-15.15469	114.00000	-0.66433	113.75	0.0	0.0	0.0
	14.00000	-15.15469	114.00000	-0.63435	113.75	0.0	0.0	0.0
	15.00000	-15.15469	114.00000	-0.59454	113.75	0.0	0.0	0.0
	16.00000	-15.15469	114.00000	-0.54689	113.75	0.0	0.0	0.0
	17.00000	-15.15469	114.00000	-0.49454	113.75	0.0	0.0	0.0
	18.00000	-15.15469	114.00000	-0.44080	113.75	0.0	0.0	0.0
	19.00000	-15.15469	114.00000	-0.38323	113.75	0.0	0.0	0.0
	20.00000	-15.15469	114.00000	-0.33892	113.75	0.0	0.0	0.0
	21.00000	-15.15469	114.00000	-0.29556	113.75	0.0	0.0	0.0
	22.00000	-15.15469	114.00000	-0.25268	113.75	0.0	0.0	0.0
	23.00000	-15.15469	114.00000	-0.21631	113.75	0.0	0.0	0.0
	24.00000	-15.15469	114.00000	-0.18425	113.75	0.0	0.0	0.0
	25.00000	-15.15469	114.00000	-0.15618	113.75	0.0	0.0	0.0
	26.00000	-15.15469	114.00000	-0.13172	113.75	0.0	0.0	0.0
	27.00000	-15.15469	114.00000	-0.11047	113.75	0.0	0.0	0.0
	28.00000	-15.15469	114.00000	-0.092045	113.75	0.0	0.0	0.0
	29.00000	-15.15469	114.00000	-0.076091	113.75	0.0	0.0	0.0
	30.00000	-15.15469	114.00000	-0.062288	113.75	0.0	0.0	0.0
	31.00000	-15.15469	114.00000	-0.050351	113.75	0.0	0.0	0.0
	32.00000	-15.15469	114.00000	-0.040030	113.75	0.0	0.0	0.0
	33.00000	-15.15469	114.00000	-0.031109	113.75	0.0	0.0	0.0
	34.00000	-15.15469	114.00000	-0.023398	113.75	0.0	0.0	0.0
	35.00000	-15.15469	114.00000	-0.01736	113.75	0.0	0.0	0.0
	36.00000	-15.15469	114.00000	0.010983	113.75	0.0	0.0	0.0
	37.00000	-15.15469	114.00000	-0.0060186	113.75	0.0	0.0	0.0
	38.00000	-15.15469	114.00000	-0.0017394	113.75	0.0	0.0	0.0
	39.00000	-15.15469	114.00000	0.0018439	113.75	0.0	0.0	0.0
	40.00000	-15.15469	114.00000	0.0051083	113.75	0.0	0.0	0.0
	41.00000	-15.15469	114.00000	0.0078203	113.75	0.0	0.0	0.0
	42.00000	-15.15469	114.00000	0.010123	113.75	0.0	0.0	0.0
	43.00000	-15.15469	114.00000	0.012110	113.75	0.0	0.0	0.0
	44.00000	-15.15469	114.00000	0.013780	113.75	0.0	0.0	0.0
	45.00000	-15.15469	114.00000	0.015187	113.75	0.0	0.0	0.0
	46.00000	-15.15469	114.00000	0.016363	113.75	0.0	0.0	0.0
	47.00000	-15.15469	114.00000	0.017336	113.75	0.0	0.0	0.0
	48.00000	-15.15469	114.00000	0.018133	113.75	0.0	0.0	0.0
	49.00000	-15.15469	114.00000	0.018774	113.75	0.0	0.0	0.0
	50.00000	-15.15469	114.00000	0.019279	113.75	0.0	0.0	0.0
	-20.00000	-14.12375	114.00000	0.0010588	113.75	0.0	0.0	0.0
	-19.00000	-14.12375	114.00000	-0.0026678	113.75	0.0	0.0	0.0
	-18.00000	-14.12375	114.00000	-0.0069656	113.75			



Channing Junior School, Highgate High Street, N6 5JR
 Short-Term Heave / Settlement
 Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
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Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
48.00000	-13.09281	114.00000	0.018559	113.75	0.0	0.0	0.0	0.0
49.00000	-13.09281	114.00000	0.019103	113.75	0.0	0.0	0.0	0.0
50.00000	-13.09281	114.00000	0.019526	113.75	0.0	0.0	0.0	0.0
-20.00000	-12.06188	114.00000	0.0042451	113.75	0.0	0.0	0.0	0.0
-19.00000	-12.06188	114.00000	0.0011343	113.75	0.0	0.0	0.0	0.0
-18.00000	-12.06188	114.00000	-0.0024328	113.75	0.0	0.0	0.0	0.0
-17.00000	-12.06188	114.00000	-0.0085119	113.75	0.0	0.0	0.0	0.0
-16.00000	-12.06188	114.00000	-0.011165	113.75	0.0	0.0	0.0	0.0
-15.00000	-12.06188	114.00000	-0.016460	113.75	0.0	0.0	0.0	0.0
-14.00000	-12.06188	114.00000	-0.022472	113.75	0.0	0.0	0.0	0.0
-13.00000	-12.06188	114.00000	-0.029282	113.75	0.0	0.0	0.0	0.0
-12.00000	-12.06188	114.00000	-0.036978	113.75	0.0	0.0	0.0	0.0
-11.00000	-12.06188	114.00000	-0.045652	113.75	0.0	0.0	0.0	0.0
-10.00000	-12.06188	114.00000	-0.055401	113.75	0.0	0.0	0.0	0.0
-9.00000	-12.06188	114.00000	-0.066319	113.75	0.0	0.0	0.0	0.0
-8.00000	-12.06188	114.00000	-0.078498	113.75	0.0	0.0	0.0	0.0
-7.00000	-12.06188	114.00000	-0.092019	113.75	0.0	0.0	0.0	0.0
-6.00000	-12.06188	114.00000	-0.10694	113.75	0.0	0.0	0.0	0.0
-5.00000	-12.06188	114.00000	-0.12329	113.75	0.0	0.0	0.0	0.0
-4.00000	-12.06188	114.00000	-0.14104	113.75	0.0	0.0	0.0	0.0
-3.00000	-12.06188	114.00000	-0.16012	113.75	0.0	0.0	0.0	0.0
-2.00000	-12.06188	114.00000	-0.18034	113.75	0.0	0.0	0.0	0.0
-1.00000	-12.06188	114.00000	-0.20145	113.75	0.0	0.0	0.0	0.0
0.00000	-12.06188	114.00000	-0.22308	113.75	0.0	0.0	0.0	0.0
1.00000	-12.06188	114.00000	-0.24476	113.75	0.0	0.0	0.0	0.0
2.00000	-12.06188	114.00000	-0.26594	113.75	0.0	0.0	0.0	0.0
3.00000	-12.06188	114.00000	-0.28607	113.75	0.0	0.0	0.0	0.0
4.00000	-12.06188	114.00000	-0.30456	113.75	0.0	0.0	0.0	0.0
5.00000	-12.06188	114.00000	-0.32091	113.75	0.0	0.0	0.0	0.0
6.00000	-12.06188	114.00000	-0.33470	113.75	0.0	0.0	0.0	0.0
7.00000	-12.06188	114.00000	-0.34559	113.75	0.0	0.0	0.0	0.0
8.00000	-12.06188	114.00000	-0.35335	113.75	0.0	0.0	0.0	0.0
9.00000	-12.06188	114.00000	-0.35776	113.75	0.0	0.0	0.0	0.0
10.00000	-12.06188	114.00000	-0.35887	113.75	0.0	0.0	0.0	0.0
11.00000	-12.06188	114.00000	-0.35594	113.75	0.0	0.0	0.0	0.0
12.00000	-12.06188	114.00000	-0.34948	113.75	0.0	0.0	0.0	0.0
13.00000	-12.06188	114.00000	-0.33928	113.75	0.0	0.0	0.0	0.0
14.00000	-12.06188	114.00000	-0.32550	113.75	0.0	0.0	0.0	0.0
15.00000	-12.06188	114.00000	-0.30849	113.75	0.0	0.0	0.0	0.0
16.00000	-12.06188	114.00000	-0.28882	113.75	0.0	0.0	0.0	0.0
17.00000	-12.06188	114.00000	-0.26720	113.75	0.0	0.0	0.0	0.0
18.00000	-12.06188	114.00000	-0.24442	113.75	0.0	0.0	0.0	0.0
19.00000	-12.06188	114.00000	-0.22125	113.75	0.0	0.0	0.0	0.0
20.00000	-12.06188	114.00000	-0.19834	113.75	0.0	0.0	0.0	0.0
21.00000	-12.06188	114.00000	-0.17622	113.75	0.0	0.0	0.0	0.0
22.00000	-12.06188	114.00000	-0.15527	113.75	0.0	0.0	0.0	0.0
23.00000	-12.06188	114.00000	-0.13573	113.75	0.0	0.0	0.0	0.0
24.00000	-12.06188	114.00000	-0.11773	113.75	0.0	0.0	0.0	0.0
25.00000	-12.06188	114.00000	-0.10132	113.75	0.0	0.0	0.0	0.0
26.00000	-12.06188	114.00000	-0.086478	113.75	0.0	0.0	0.0	0.0
27.00000	-12.06188	114.00000	-0.073128	113.75	0.0	0.0	0.0	0.0
28.00000	-12.06188	114.00000	-0.061205	113.75	0.0	0.0	0.0	0.0
29.00000	-12.06188	114.00000	-0.050585	113.75	0.0	0.0	0.0	0.0
30.00000	-12.06188	114.00000	-0.041163	113.75	0.0	0.0	0.0	0.0
31.00000	-12.06188	114.00000	-0.032829	113.75	0.0	0.0	0.0	0.0
32.00000	-12.06188	114.00000	-0.025477	113.75	0.0	0.0	0.0	0.0
33.00000	-12.06188	114.00000	-0.019007	113.75	0.0	0.0	0.0	0.0
34.00000	-12.06188	114.00000	-0.013324	113.75	0.0	0.0	0.0	0.0
35.00000	-12.06188	114.00000	-0.0083440	113.75	0.0	0.0	0.0	0.0
36.00000	-12.06188	114.00000	-0.0039931	113.75	0.0	0.0	0.0	0.0
37.00000	-12.06188	114.00000	-0.000344	113.75	0.0	0.0	0.0	0.0
38.00000	-12.06188	114.00000	0.0031165	113.75	0.0	0.0	0.0	0.0
39.00000	-12.06188	114.00000	0.0059896	113.75	0.0	0.0	0.0	0.0
40.00000	-12.06188	114.00000	0.0084674	113.75	0.0	0.0	0.0	0.0
41.00000	-12.06188	114.00000	0.010606	113.75	0.0	0.0	0.0	0.0
42.00000	-12.06188	114.00000	0.012441	113.75	0.0	0.0	0.0	0.0
43.00000	-12.06188	114.00000	0.014006	113.75	0.0	0.0	0.0	0.0
44.00000	-12.06188	114.00000	0.015334	113.75	0.0	0.0	0.0	0.0
45.00000	-12.06188	114.00000	0.016452	113.75	0.0	0.0	0.0	0.0
46.00000	-12.06188	114.00000	0.017363	113.75	0.0	0.0	0.0	0.0
47.00000	-12.06188	114.00000	0.018150	113.75	0.0	0.0	0.0	0.0
48.00000	-12.06188	114.00000	0.018772	113.75	0.0	0.0	0.0	0.0
49.00000	-12.06188	114.00000	0.019266	113.75	0.0	0.0	0.0	0.0
50.00000	-12.06188	114.00000	0.019647	113.75	0.0	0.0	0.0	0.0
-20.00000	-11.03094	114.00000	0.0057900	113.75	0.0	0.0	0.0	0.0
-19.00000	-11.03094	114.00000	0.0029707	113.75	0.0	0.0	0.0	0.0
-18.00000	-11.03094	114.00000	-0.001488	113.75	0.0	0.0	0.0	0.0
-17.00000	-11.03094	114.00000	-0.0039289	113.75	0.0	0.0	0.0	0.0
-16.00000	-11.03094	114.00000	-0.0081063	113.75	0.0	0.0	0.0	0.0
-15.00000	-11.03094	114.00000	-0.014841	113.75	0.0	0.0	0.0	0.0
-14.00000	-11.03094	114.00000	-0.024222	113.75	0.0	0.0	0.0	0.0
-13.00000	-11.03094	114.00000	-0.036998	113.75	0.0	0.0	0.0	0.0
-12.00000	-11.03094	114.00000	-0.053094	113.75	0.0	0.0	0.0	0.0
-11.00000	-11.03094	114.00000	-0.073588	113.75	0.0	0.0	0.0	0.0
-10.00000	-11.03094	114.00000	-0.098476	113.75	0.0	0.0	0.0	0.0
-9.00000	-11.03094	114.00000	-0.128790	113.75	0.0	0.0	0.0	0.0
-8.00000	-11.03094	114.00000	-0.164530	113.75	0.0	0.0	0.0	0.0
-7.00000	-11.03094	114.00000	-0.205690	113.75	0.0	0.0	0.0	0.0
-6.00000	-11.03094	114.00000	-0.253270	113.75	0.0	0.0	0.0	0.0
-5.00000	-11.03094	114.00000	-0.307380	113.75	0.0	0.0	0.0	0.0
-4.00000	-11.03094	114.00000	-0.368010	113.75	0.0	0.0	0.0	0.0
-3.00000	-11.03094	114.00000	-0.435240	113.75	0.0	0.0	0.0	0.0
-2.00000	-11.03094	114.00000	-0.509070	113.75	0.0	0.0	0.0	0.0
-1.00000	-11.03094	114.00000	-0.589490	113.75	0.0	0.0	0.0	0.0
0.00000	-11.03094	114.00000	-0.676600	113.75	0.0	0.0	0.0	0.0
1.00000	-11.03094	114.00000	-0.770500	113.75	0.0	0.0	0.0	0.0
2.00000	-11.03094	114.00000	-0.871290	113.75	0.0	0.0	0.0	0.0
3.00000	-11.03094	114.00000	-0.979960	113.75	0.0	0.0	0.0	0.0
4.00000	-11.03094	114.00000	-1.097500	113.75	0.0	0.0	0.0	0.0
5.00000	-11.03094	114.00000	-1.223900	113.75	0.0	0.0	0.0	0.0
6.00000	-11.03094	114.00000	-1.359200	113.75	0.0	0.0	0.0	0.0
7.00000	-11.03094	114.00000	-1.503500	113.75	0.0	0.0	0.0	0.0
8.00000	-11.03094	114.00000	-1.656800	113.75	0.0	0.0	0.0	0.0
9.00000	-11.03094	114.00000	-1.819100	113.75	0.0	0.0	0.0	0.0
10.00000	-11.03094	114.00000	-1.990400	113.75	0.0	0.0	0.0	0.0
11.00000	-11.03094	114.00000	-2.170700	113.75	0.0	0.0	0.0	0.0
12.00000	-11.03094	114.00000	-2.360000	113.75	0.0	0.0	0.0	0.0
13.00000	-11.03094	114.00000	-2.558300	113.75	0.0	0.0	0.0	0.0
14.00000	-11.03094	114.00000	-2.765600	113.75	0.0	0.0	0.0	0.0
15.00000	-11.03094	114.00000	-2.981900	113.75	0.0	0.0	0.0	0.0
16.00000	-11.03094	114.00000	-3.207200	113.75	0.0	0.0	0.0	0.0
17.00000	-11.03094	114.00000	-3.441500	113.75	0.0	0.0	0.0	0.0
18.00000	-11.03094	114.00000	-3.684800	113.75	0.0	0.0	0.0	0.0
19.00000	-11.03094	114.00000	-3.937100	113.75	0.0	0.0	0.0	0.0
20.00000	-11.03094	114.00000	-4.198400	113.75	0.0	0.0	0.0	0.0
21.00000	-11.03094	114.00000	-4.468700	113.75	0.0	0.0	0.0	0.0
22.00000	-11.03094	114.00000	-4.748000	113.75	0.0	0.0	0.0	0.0
23.00000	-11.03094	114.00000	-5.036300	113.75	0.0	0.0	0.0	0.0
24.00000	-11.03094	114.00000	-5.333600	113.75	0.0	0.0	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Name	X	Location	Y	Z[Level]	Z	Calc Level	Vert Stress	Sum Princ	Vert Strain
[m]	[m]	[mOD]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[-]
-2.00360	-33.49562	114.00000	-0.63361	113.75	0.0	0.0	0.0	0.0	0.0
-1.00380	-33.49562	114.00000	-0.77878	113.75	0.0	0.0	0.0	0.0	0.0
-0.00400	-33.49562	114.00000	-0.96267	113.75	0.0	0.0	0.0	0.0	0.0
0.99580	-33.49562	114.00000	-1.19194	113.75	0.0	0.0	0.0	0.0	0.0
1.99560	-33.49562	114.00000	-1.43131	113.75	0.0	0.0	0.0	0.0	0.0
2.99540	-33.49562	114.00000	-1.95666	113.75	0.0	0.0	0.0	0.0	0.0
3.99520	-33.49562	114.00000	-2.7034	113.75	0.0	0.0	0.0	0.0	0.0
4.99500	-33.49562	114.00000	-4.0879	113.75	0.0	0.0	0.0	0.0	0.0
-20.00000	-32.49625	114.00000	-0.0085942	113.75	0.0	0.0	0.0	0.0	0.0
-19.00020	-32.49625	114.00000	-0.014300	113.75	0.0	0.0	0.0	0.0	0.0
-18.00040	-32.49625	114.00000	-0.0209953	113.75	0.0	0.0	0.0	0.0	0.0
-17.00060	-32.49625	114.00000	-0.028858	113.75	0.0	0.0	0.0	0.0	0.0
-16.00080	-32.49625	114.00000	-0.038103	113.75	0.0	0.0	0.0	0.0	0.0
-15.00100	-32.49625	114.00000	-0.048994	113.75	0.0	0.0	0.0	0.0	0.0
-14.00120	-32.49625	114.00000	-0.061853	113.75	0.0	0.0	0.0	0.0	0.0
-13.00140	-32.49625	114.00000	-0.077080	113.75	0.0	0.0	0.0	0.0	0.0
-12.00160	-32.49625	114.00000	-0.095171	113.75	0.0	0.0	0.0	0.0	0.0
-11.00180	-32.49625	114.00000	-0.11675	113.75	0.0	0.0	0.0	0.0	0.0
-10.00200	-32.49625	114.00000	-0.14260	113.75	0.0	0.0	0.0	0.0	0.0
-9.00220	-32.49625	114.00000	-0.17372	113.75	0.0	0.0	0.0	0.0	0.0
-8.00240	-32.49625	114.00000	-0.21143	113.75	0.0	0.0	0.0	0.0	0.0
-7.00260	-32.49625	114.00000	-0.25731	113.75	0.0	0.0	0.0	0.0	0.0
-6.00280	-32.49625	114.00000	-0.31361	113.75	0.0	0.0	0.0	0.0	0.0
-5.00300	-32.49625	114.00000	-0.38130	113.75	0.0	0.0	0.0	0.0	0.0
-4.00320	-32.49625	114.00000	-0.46988	113.75	0.0	0.0	0.0	0.0	0.0
-3.00340	-32.49625	114.00000	-0.57991	113.75	0.0	0.0	0.0	0.0	0.0
-2.00360	-32.49625	114.00000	-0.71749	113.75	0.0	0.0	0.0	0.0	0.0
-1.00380	-32.49625	114.00000	-0.89585	113.75	0.0	0.0	0.0	0.0	0.0
-0.00400	-32.49625	114.00000	-1.1292	113.75	0.0	0.0	0.0	0.0	0.0
0.99580	-32.49625	114.00000	-1.4421	113.75	0.0	0.0	0.0	0.0	0.0
1.99560	-32.49625	114.00000	-1.8812	113.75	0.0	0.0	0.0	0.0	0.0
2.99540	-32.49625	114.00000	-2.5676	113.75	0.0	0.0	0.0	0.0	0.0
3.99520	-32.49625	114.00000	-4.0694	113.75	0.0	0.0	0.0	0.0	0.0
4.99500	-32.49625	114.00000	-5.8099	113.75	0.0	0.0	0.0	0.0	0.0
-20.00000	-31.49687	114.00000	-0.0095961	113.75	0.0	0.0	0.0	0.0	0.0
-19.00020	-31.49687	114.00000	-0.015520	113.75	0.0	0.0	0.0	0.0	0.0
-18.00040	-31.49687	114.00000	-0.022464	113.75	0.0	0.0	0.0	0.0	0.0
-17.00060	-31.49687	114.00000	-0.030678	113.75	0.0	0.0	0.0	0.0	0.0
-16.00080	-31.49687	114.00000	-0.040336	113.75	0.0	0.0	0.0	0.0	0.0
-15.00100	-31.49687	114.00000	-0.051744	113.75	0.0	0.0	0.0	0.0	0.0
-14.00120	-31.49687	114.00000	-0.065254	113.75	0.0	0.0	0.0	0.0	0.0
-13.00140	-31.49687	114.00000	-0.081310	113.75	0.0	0.0	0.0	0.0	0.0
-12.00160	-31.49687	114.00000	-0.10046	113.75	0.0	0.0	0.0	0.0	0.0
-11.00180	-31.49687	114.00000	-0.12241	113.75	0.0	0.0	0.0	0.0	0.0
-10.00200	-31.49687	114.00000	-0.15105	113.75	0.0	0.0	0.0	0.0	0.0
-9.00220	-31.49687	114.00000	-0.18454	113.75	0.0	0.0	0.0	0.0	0.0
-8.00240	-31.49687	114.00000	-0.22338	113.75	0.0	0.0	0.0	0.0	0.0
-7.00260	-31.49687	114.00000	-0.27554	113.75	0.0	0.0	0.0	0.0	0.0
-6.00280	-31.49687	114.00000	-0.33767	113.75	0.0	0.0	0.0	0.0	0.0
-5.00300	-31.49687	114.00000	-0.41535	113.75	0.0	0.0	0.0	0.0	0.0
-4.00320	-31.49687	114.00000	-0.51393	113.75	0.0	0.0	0.0	0.0	0.0
-3.00340	-31.49687	114.00000	-0.63910	113.75	0.0	0.0	0.0	0.0	0.0
-2.00360	-31.49687	114.00000	-0.80215	113.75	0.0	0.0	0.0	0.0	0.0
-1.00380	-31.49687	114.00000	-1.01777	113.75	0.0	0.0	0.0	0.0	0.0
-0.00400	-31.49687	114.00000	-1.3092	113.75	0.0	0.0	0.0	0.0	0.0
0.99580	-31.49687	114.00000	-1.7175	113.75	0.0	0.0	0.0	0.0	0.0
1.99560	-31.49687	114.00000	-2.28281	113.75	0.0	0.0	0.0	0.0	0.0
2.99540	-31.49687	114.00000	-3.4156	113.75	0.0	0.0	0.0	0.0	0.0
3.99520	-31.49687	114.00000	-5.1136	113.75	0.0	0.0	0.0	0.0	0.0
4.99500	-31.49687	114.00000	-7.8018	113.75	0.0	0.0	0.0	0.0	0.0
-20.00000	-30.49750	114.00000	-0.010435	113.75	0.0	0.0	0.0	0.0	0.0
-19.00020	-30.49750	114.00000	-0.016543	113.75	0.0	0.0	0.0	0.0	0.0
-18.00040	-30.49750	114.00000	-0.023734	113.75	0.0	0.0	0.0	0.0	0.0
-17.00060	-30.49750	114.00000	-0.032210	113.75	0.0	0.0	0.0	0.0	0.0
-16.00080	-30.49750	114.00000	-0.042221	113.75	0.0	0.0	0.0	0.0	0.0
-15.00100	-30.49750	114.00000	-0.054071	113.75	0.0	0.0	0.0	0.0	0.0
-14.00120	-30.49750	114.00000	-0.068144	113.75	0.0	0.0	0.0	0.0	0.0
-13.00140	-30.49750	114.00000	-0.084916	113.75	0.0	0.0	0.0	0.0	0.0
-12.00160	-30.49750	114.00000	-0.10499	113.75	0.0	0.0	0.0	0.0	0.0
-11.00180	-30.49750	114.00000	-0.12814	113.75	0.0	0.0	0.0	0.0	0.0
-10.00200	-30.49750	114.00000	-0.15836	113.75	0.0	0.0	0.0	0.0	0.0
-9.00220	-30.49750	114.00000	-0.19395	113.75	0.0	0.0	0.0	0.0	0.0
-8.00240	-30.49750	114.00000	-0.23766	113.75	0.0	0.0	0.0	0.0	0.0
-7.00260	-30.49750	114.00000	-0.29165	113.75	0.0	0.0	0.0	0.0	0.0
-6.00280	-30.49750	114.00000	-0.35915	113.75	0.0	0.0	0.0	0.0	0.0
-5.00300	-30.49750	114.00000	-0.44442	113.75	0.0	0.0	0.0	0.0	0.0
-4.00320	-30.49750	114.00000	-0.55354	113.75	0.0	0.0	0.0	0.0	0.0
-3.00340	-30.49750	114.00000	-0.69536	113.75	0.0	0.0	0.0	0.0	0.0
-2.00360	-30.49750	114.00000	-0.88330	113.75	0.0	0.0	0.0	0.0	0.0
-1.00380	-30.49750	114.00000	-1.1287	113.75	0.0	0.0	0.0	0.0	0.0
-0.00400	-30.49750	114.00000	-1.4977	113.75	0.0	0.0	0.0	0.0	0.0
0.99580	-30.49750	114.00000	-2.0285	113.75	0.0	0.0	0.0	0.0	0.0
1.99560	-30.49750	114.00000	-2.80997	113.75	0.0	0.0	0.0	0.0	0.0
2.99540	-30.49750	114.00000	-4.7014	113.75	0.0	0.0	0.0	0.0	0.0
3.99520	-30.49750	114.00000	-7.7223	113.75	0.0	0.0	0.0	0.0	0.0
4.99500	-30.49750	114.00000	-12.3082	113.75	0.0	0.0	0.0	0.0	0.0
-20.00000	-29.49812	114.00000	-0.011094	113.75	0.0	0.0	0.0	0.0	0.0
-19.00020	-29.49812	114.00000	-0.017349	113.75	0.0	0.0	0.0	0.0	0.0
-18.00040	-29.49812	114.00000	-0.024720	113.75	0.0	0.0	0.0	0.0	0.0
-17.00060	-29.49812	114.00000	-0.033421	113.75	0.0	0.0	0.0	0.0	0.0
-16.00080	-29.49812	114.00000	-0.043712	113.75	0.0	0.0	0.0	0.0	0.0
-15.00100	-29.49812	114.00000	-0.055918	113.75	0.0	0.0	0.0	0.0	0.0
-14.00120	-29.49812	114.00000	-0.070442	113.75	0.0	0.0	0.0	0.0	0.0
-13.00140	-29.49812	114.00000	-0.087793	113.75	0.0	0.0	0.0	0.0	0.0
-12.00160	-29.49812	114.00000	-0.10862	113.75	0.0	0.0	0.0	0.0	0.0
-11.00180	-29.49812	114.00000	-0.13375	113.75	0.0	0.0	0.0	0.0	0.0
-10.00200	-29.49812	114.00000	-0.16427	113.75	0.0	0.0	0.0	0.0	0.0
-9.00220	-29.49812	114.00000	-0.20160	113.75	0.0	0.0	0.0	0.0	0.0
-8.00240	-29.49812	114.00000	-0.24765	113.75	0.0	0.0	0.0	0.0	0.0
-7.00260	-29.49812	114.00000	-0.30493	113.75	0.0	0.0	0.0	0.0	0.0
-6.00280	-29.49812	114.00000	-0.37701	113.75	0.0	0.0	0.0	0.0	0.0
-5.00300	-29.49812	114.00000	-0.46885	113.75	0.0	0.0	0.0	0.0	0.0
-4.00320	-29.49812	114.00000	-0.58762	113.75	0.0	0.0	0.0	0.0	0.0
-3.00340	-29.49812	114.00000	-0.74410	113.75	0.0	0.0	0.0	0.0	0.0
-2.00360	-29.49812	114.00000	-0.95259	113.75	0.0	0.0	0.0	0.0	0.0
-1.00380	-29.49812	114.00000	-1.2502	113.75	0.0	0.0	0.0	0.0	0.0
-0.00400	-29.49812	114.00000	-1.6840	113.75	0.0	0.0	0.0	0.0	0.0
0.99580	-29.49812	114.00000	-2.3813	113.75	0.0	0.0	0.0	0.0	0.0
1.99560	-29.49812	114.00000	-3.7596	113.75	0.0	0.0	0.0	0.0	0.0
2.99540	-29.49812	114.00000	-5.4299	113.75	0.0	0.0	0.0	0.0	0.0
3.99520	-29.49812	114.00000	-8.2118	113.75					



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Table with 3 columns: Job No., Sheet No., Rev., Drg. Ref., Made by MP, Date, Checked

Main data table with columns: Name, Location (X, Y, Z), Displacement (Z), Calc Level, Vert Stress, Sum Princ, Vert Strain



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Table with 3 columns: Job No., Sheet No., Rev., Drg. Ref., Made by MP, Date, Checked

Main data table with columns: Name, Location (X, Y, Z), Displacement (Z), Calc Level, Vert Stress, Sum Princ, Vert Strain



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by MP	Date	Checked

Name	Location X [m]	Location Y [m]	Displacement Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	13.00000	-27.50000	112.00000	-6.6149	111.75	0.0	0.0	0.0
	14.00000	-27.50000	112.00000	-6.1817	111.75	0.0	0.0	0.0
	15.00000	-27.50000	112.00000	-5.5973	111.75	0.0	0.0	0.0
	16.00000	-27.50000	112.00000	-4.7695	111.75	0.0	0.0	0.0
	17.00000	-27.50000	112.00000	-3.4001	111.75	0.0	0.0	0.0
	18.00000	-27.50000	112.00000	-2.2952	111.75	0.0	0.0	0.0
	19.00000	-27.50000	112.00000	-1.5783	111.75	0.0	0.0	0.0
	20.00000	-27.50000	112.00000	-1.1364	111.75	0.0	0.0	0.0
	21.00000	-27.50000	112.00000	-0.85149	111.75	0.0	0.0	0.0
	22.00000	-27.50000	112.00000	-0.65484	111.75	0.0	0.0	0.0
	23.00000	-27.50000	112.00000	-0.51292	111.75	0.0	0.0	0.0
	24.00000	-27.50000	112.00000	-0.40627	111.75	0.0	0.0	0.0
	25.00000	-27.50000	112.00000	-0.32493	111.75	0.0	0.0	0.0
	26.00000	-27.50000	112.00000	-0.26155	111.75	0.0	0.0	0.0
	27.00000	-27.50000	112.00000	-0.21142	111.75	0.0	0.0	0.0
	28.00000	-27.50000	112.00000	-0.17128	111.75	0.0	0.0	0.0
	29.00000	-27.50000	112.00000	-0.13879	111.75	0.0	0.0	0.0
	30.00000	-27.50000	112.00000	-0.11228	111.75	0.0	0.0	0.0
	31.00000	-27.50000	112.00000	-0.090461	111.75	0.0	0.0	0.0
	32.00000	-27.50000	112.00000	-0.072397	111.75	0.0	0.0	0.0
	33.00000	-27.50000	112.00000	-0.057956	111.75	0.0	0.0	0.0
	34.00000	-27.50000	112.00000	-0.044772	111.75	0.0	0.0	0.0
	35.00000	-27.50000	112.00000	-0.034023	111.75	0.0	0.0	0.0
	36.00000	-27.50000	112.00000	-0.025297	111.75	0.0	0.0	0.0
	37.00000	-27.50000	112.00000	-0.017774	111.75	0.0	0.0	0.0
	38.00000	-27.50000	112.00000	-0.011408	111.75	0.0	0.0	0.0
	39.00000	-27.50000	112.00000	-0.006152	111.75	0.0	0.0	0.0
	40.00000	-27.50000	112.00000	-0.0014437	111.75	0.0	0.0	0.0
	41.00000	-27.50000	112.00000	0.0024306	111.75	0.0	0.0	0.0
	42.00000	-27.50000	112.00000	0.0057109	111.75	0.0	0.0	0.0
	43.00000	-27.50000	112.00000	0.0084834	111.75	0.0	0.0	0.0
	44.00000	-27.50000	112.00000	0.010821	111.75	0.0	0.0	0.0
	45.00000	-27.50000	112.00000	0.012785	111.75	0.0	0.0	0.0
	46.00000	-27.50000	112.00000	0.014246	111.75	0.0	0.0	0.0
	47.00000	-27.50000	112.00000	0.015789	111.75	0.0	0.0	0.0
	48.00000	-27.50000	112.00000	0.016912	111.75	0.0	0.0	0.0
	49.00000	-27.50000	112.00000	0.017827	111.75	0.0	0.0	0.0
	50.00000	-27.50000	112.00000	0.018562	111.75	0.0	0.0	0.0
	5.00000	-26.50000	112.00000	-7.0468	111.75	0.0	0.0	0.0
	6.00000	-26.50000	112.00000	-7.2906	111.75	0.0	0.0	0.0
	7.00000	-26.50000	112.00000	-7.4328	111.75	0.0	0.0	0.0
	8.00000	-26.50000	112.00000	-7.4969	111.75	0.0	0.0	0.0
	9.00000	-26.50000	112.00000	-7.4963	111.75	0.0	0.0	0.0
	10.00000	-26.50000	112.00000	-7.4371	111.75	0.0	0.0	0.0
	11.00000	-26.50000	112.00000	-7.3198	111.75	0.0	0.0	0.0
	12.00000	-26.50000	112.00000	-7.1396	111.75	0.0	0.0	0.0
	13.00000	-26.50000	112.00000	-6.8868	111.75	0.0	0.0	0.0
	14.00000	-26.50000	112.00000	-6.5458	111.75	0.0	0.0	0.0
	15.00000	-26.50000	112.00000	-6.0930	111.75	0.0	0.0	0.0
	16.00000	-26.50000	112.00000	-5.4885	111.75	0.0	0.0	0.0
	17.00000	-26.50000	112.00000	-4.6545	111.75	0.0	0.0	0.0
	18.00000	-26.50000	112.00000	-3.4059	111.75	0.0	0.0	0.0
	19.00000	-26.50000	112.00000	-1.8224	111.75	0.0	0.0	0.0
	20.00000	-26.50000	112.00000	-1.2294	111.75	0.0	0.0	0.0
	21.00000	-26.50000	112.00000	-0.9011	111.75	0.0	0.0	0.0
	22.00000	-26.50000	112.00000	-0.68367	111.75	0.0	0.0	0.0
	23.00000	-26.50000	112.00000	-0.52028	111.75	0.0	0.0	0.0
	24.00000	-26.50000	112.00000	-0.41850	111.75	0.0	0.0	0.0
	25.00000	-26.50000	112.00000	-0.33337	111.75	0.0	0.0	0.0
	26.00000	-26.50000	112.00000	-0.26753	111.75	0.0	0.0	0.0
	27.00000	-26.50000	112.00000	-0.21575	111.75	0.0	0.0	0.0
	28.00000	-26.50000	112.00000	-0.17447	111.75	0.0	0.0	0.0
	29.00000	-26.50000	112.00000	-0.14119	111.75	0.0	0.0	0.0
	30.00000	-26.50000	112.00000	-0.11410	111.75	0.0	0.0	0.0
	31.00000	-26.50000	112.00000	-0.091862	111.75	0.0	0.0	0.0
	32.00000	-26.50000	112.00000	-0.074846	111.75	0.0	0.0	0.0
	33.00000	-26.50000	112.00000	-0.062213	111.75	0.0	0.0	0.0
	34.00000	-26.50000	112.00000	-0.045448	111.75	0.0	0.0	0.0
	35.00000	-26.50000	112.00000	-0.034742	111.75	0.0	0.0	0.0
	36.00000	-26.50000	112.00000	-0.025730	111.75	0.0	0.0	0.0
	37.00000	-26.50000	112.00000	-0.018124	111.75	0.0	0.0	0.0
	38.00000	-26.50000	112.00000	-0.011692	111.75	0.0	0.0	0.0
	39.00000	-26.50000	112.00000	-0.0062460	111.75	0.0	0.0	0.0
	40.00000	-26.50000	112.00000	-0.0016323	111.75	0.0	0.0	0.0
	41.00000	-26.50000	112.00000	0.0022760	111.75	0.0	0.0	0.0
	42.00000	-26.50000	112.00000	0.0055840	111.75	0.0	0.0	0.0
	43.00000	-26.50000	112.00000	0.0083792	111.75	0.0	0.0	0.0
	44.00000	-26.50000	112.00000	0.010735	111.75	0.0	0.0	0.0
	45.00000	-26.50000	112.00000	0.012714	111.75	0.0	0.0	0.0
	46.00000	-26.50000	112.00000	0.014268	111.75	0.0	0.0	0.0
	47.00000	-26.50000	112.00000	0.015741	111.75	0.0	0.0	0.0
	48.00000	-26.50000	112.00000	0.016873	111.75	0.0	0.0	0.0
	49.00000	-26.50000	112.00000	0.017798	111.75	0.0	0.0	0.0
	50.00000	-26.50000	112.00000	0.018536	111.75	0.0	0.0	0.0
Grid 9	-20.00000	-50.00000	112.00000	0.014885	111.75	0.0	0.0	0.0
	-19.00000	-50.00000	112.00000	0.013725	111.75	0.0	0.0	0.0
	-18.00000	-50.00000	112.00000	0.012414	111.75	0.0	0.0	0.0
	-17.00000	-50.00000	112.00000	0.010943	111.75	0.0	0.0	0.0
	-16.00000	-50.00000	112.00000	0.0093019	111.75	0.0	0.0	0.0
	-15.00000	-50.00000	112.00000	0.0074834	111.75	0.0	0.0	0.0
	-14.00000	-50.00000	112.00000	0.0054798	111.75	0.0	0.0	0.0
	-13.00000	-50.00000	112.00000	0.0032854	111.75	0.0	0.0	0.0
	-12.00000	-50.00000	112.00000	896.21E-6	111.75	0.0	0.0	0.0
	-11.00000	-50.00000	112.00000	-0.0016890	111.75	0.0	0.0	0.0
	-10.00000	-50.00000	112.00000	-0.0044682	111.75	0.0	0.0	0.0
	-9.00000	-50.00000	112.00000	-0.0074358	111.75	0.0	0.0	0.0
	-8.00000	-50.00000	112.00000	-0.0105881	111.75	0.0	0.0	0.0
	-7.00000	-50.00000	112.00000	-0.013888	111.75	0.0	0.0	0.0
	-6.00000	-50.00000	112.00000	-0.017336	111.75	0.0	0.0	0.0
	-5.00000	-50.00000	112.00000	-0.020994	111.75	0.0	0.0	0.0
	-4.00000	-50.00000	112.00000	-0.024527	111.75	0.0	0.0	0.0
	-3.00000	-50.00000	112.00000	-0.028192	111.75	0.0	0.0	0.0
	-2.00000	-50.00000	112.00000	-0.031839	111.75	0.0	0.0	0.0
	-1.00000	-50.00000	112.00000	-0.035409	111.75	0.0	0.0	0.0
	0.00000	-50.00000	112.00000	-0.038841	111.75	0.0	0.0	0.0
	1.00000	-50.00000	112.00000	-0.042070	111.75	0.0	0.0	0.0
	2.00000	-50.00000	112.00000	-0.045028	111.75	0.0	0.0	0.0
	3.00000	-50.00000	112.00000	-0.047650	111.75	0.0	0.0	0.0
	4.00000	-50.00000	112.00000	-0.049877	111.75	0.0	0.0	0.0
	5.00000	-50.00000	112.00000	-0.051656	111.75	0.0	0.0	0.0
	6.00000	-50.00000	112.00000	-0.052947	111.75	0.0	0.0	0.0
	7.00000	-50.00000	112.00000	-0.053720	111.75	0.0	0.0	0.0
	8.00000	-50.00000	112.00000	-0.053962	111.75	0.0	0.0	0.0
	9.00000	-50.00000	112.00000	-0.053672	111.75	0.0	0.0	0.0
	10.00000	-50.00000	112.00000	-0.052865	111.75	0.0	0.0	0.0
	11.00000	-50.00000	112.00000	-0.051568	111.75	0.0	0.0	0.0
	12.00000	-50.00000	112.00000	-0.049819	111.75	0.0	0.0	0.0
	13.00000	-50.00000	112.00000	-0.047664	111.75	0.0	0.0	0.0
	14.00000	-50.00000	112.00000	-0.045156	111.75	0.0	0.0	0.0
	15.00000	-50.00000	112.00000	-0.042349	111.75	0.0	0.0	0.0
	16.00000	-50.00000	112.00000	-0.039302	111.75	0.0	0.0	0.0
	17.00000	-50.00000	112.00000	-0.036071	111.75	0.0	0.0	0.0
	18.00000	-50.00000	112.00000	-0.032710	111.75	0.0	0.0	0.0
	19.00000	-50.00000	112.00000	-0.029272	111.75	0.0	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Name	Location X [m]	Location Y [m]	Displacement Z[Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
14.00000	-47.93333	112.00000	-0.072324	111.75	0.0	0.0	0.0	
15.00000	-47.93333	112.00000	-0.068027	111.75	0.0	0.0	0.0	
16.00000	-47.93333	112.00000	-0.063408	111.75	0.0	0.0	0.0	
17.00000	-47.93333	112.00000	-0.058560	111.75	0.0	0.0	0.0	
18.00000	-47.93333	112.00000	-0.053567	111.75	0.0	0.0	0.0	
19.00000	-47.93333	112.00000	-0.048500	111.75	0.0	0.0	0.0	
20.00000	-47.93333	112.00000	-0.043450	111.75	0.0	0.0	0.0	
21.00000	-47.93333	112.00000	-0.038456	111.75	0.0	0.0	0.0	
22.00000	-47.93333	112.00000	-0.033575	111.75	0.0	0.0	0.0	
23.00000	-47.93333	112.00000	-0.028852	111.75	0.0	0.0	0.0	
24.00000	-47.93333	112.00000	-0.024319	111.75	0.0	0.0	0.0	
25.00000	-47.93333	112.00000	-0.020002	111.75	0.0	0.0	0.0	
26.00000	-47.93333	112.00000	-0.015921	111.75	0.0	0.0	0.0	
27.00000	-47.93333	112.00000	-0.012089	111.75	0.0	0.0	0.0	
28.00000	-47.93333	112.00000	-0.0085118	111.75	0.0	0.0	0.0	
29.00000	-47.93333	112.00000	-0.0051927	111.75	0.0	0.0	0.0	
30.00000	-47.93333	112.00000	-0.0021299	111.75	0.0	0.0	0.0	
31.00000	-47.93333	112.00000	681.258-6	111.75	0.0	0.0	0.0	
32.00000	-47.93333	112.00000	0.0032480	111.75	0.0	0.0	0.0	
33.00000	-47.93333	112.00000	0.0055796	111.75	0.0	0.0	0.0	
34.00000	-47.93333	112.00000	0.0076867	111.75	0.0	0.0	0.0	
35.00000	-47.93333	112.00000	0.0095808	111.75	0.0	0.0	0.0	
36.00000	-47.93333	112.00000	0.011274	111.75	0.0	0.0	0.0	
37.00000	-47.93333	112.00000	0.012870	111.75	0.0	0.0	0.0	
38.00000	-47.93333	112.00000	0.014110	111.75	0.0	0.0	0.0	
39.00000	-47.93333	112.00000	0.015277	111.75	0.0	0.0	0.0	
40.00000	-47.93333	112.00000	0.016293	111.75	0.0	0.0	0.0	
41.00000	-47.93333	112.00000	0.017170	111.75	0.0	0.0	0.0	
42.00000	-47.93333	112.00000	0.017919	111.75	0.0	0.0	0.0	
43.00000	-47.93333	112.00000	0.018551	111.75	0.0	0.0	0.0	
44.00000	-47.93333	112.00000	0.019077	111.75	0.0	0.0	0.0	
45.00000	-47.93333	112.00000	0.019505	111.75	0.0	0.0	0.0	
46.00000	-47.93333	112.00000	0.019844	111.75	0.0	0.0	0.0	
47.00000	-47.93333	112.00000	0.020100	111.75	0.0	0.0	0.0	
48.00000	-47.93333	112.00000	0.020291	111.75	0.0	0.0	0.0	
49.00000	-47.93333	112.00000	0.020414	111.75	0.0	0.0	0.0	
50.00000	-47.93333	112.00000	0.020478	111.75	0.0	0.0	0.0	
-20.00000	-46.90000	112.00000	0.011665	111.75	0.0	0.0	0.0	
-19.00000	-46.90000	112.00000	0.0093359	111.75	0.0	0.0	0.0	
-18.00000	-46.90000	112.00000	0.0079768	111.75	0.0	0.0	0.0	
-17.00000	-46.90000	112.00000	0.0067684	111.75	0.0	0.0	0.0	
-16.00000	-46.90000	112.00000	0.0052912	111.75	0.0	0.0	0.0	
-15.00000	-46.90000	112.00000	525.568-6	111.75	0.0	0.0	0.0	
-14.00000	-46.90000	112.00000	-0.0025478	111.75	0.0	0.0	0.0	
-13.00000	-46.90000	112.00000	-0.0059472	111.75	0.0	0.0	0.0	
-12.00000	-46.90000	112.00000	-0.0096889	111.75	0.0	0.0	0.0	
-11.00000	-46.90000	112.00000	-0.013787	111.75	0.0	0.0	0.0	
-10.00000	-46.90000	112.00000	-0.018250	111.75	0.0	0.0	0.0	
-9.00000	-46.90000	112.00000	-0.023083	111.75	0.0	0.0	0.0	
-8.00000	-46.90000	112.00000	-0.028283	111.75	0.0	0.0	0.0	
-7.00000	-46.90000	112.00000	-0.033837	111.75	0.0	0.0	0.0	
-6.00000	-46.90000	112.00000	-0.039721	111.75	0.0	0.0	0.0	
-5.00000	-46.90000	112.00000	-0.045897	111.75	0.0	0.0	0.0	
-4.00000	-46.90000	112.00000	-0.052312	111.75	0.0	0.0	0.0	
-3.00000	-46.90000	112.00000	-0.058893	111.75	0.0	0.0	0.0	
-2.00000	-46.90000	112.00000	-0.065550	111.75	0.0	0.0	0.0	
-1.00000	-46.90000	112.00000	-0.072324	111.75	0.0	0.0	0.0	
0.00000	-46.90000	112.00000	-0.078632	111.75	0.0	0.0	0.0	
1.00000	-46.90000	112.00000	-0.084786	111.75	0.0	0.0	0.0	
2.00000	-46.90000	112.00000	-0.090483	111.75	0.0	0.0	0.0	
3.00000	-46.90000	112.00000	-0.095570	111.75	0.0	0.0	0.0	
4.00000	-46.90000	112.00000	-0.099903	111.75	0.0	0.0	0.0	
5.00000	-46.90000	112.00000	-0.103335	111.75	0.0	0.0	0.0	
6.00000	-46.90000	112.00000	-0.105842	111.75	0.0	0.0	0.0	
7.00000	-46.90000	112.00000	-0.107255	111.75	0.0	0.0	0.0	
8.00000	-46.90000	112.00000	-0.107599	111.75	0.0	0.0	0.0	
9.00000	-46.90000	112.00000	-0.106889	111.75	0.0	0.0	0.0	
10.00000	-46.90000	112.00000	-0.10514	111.75	0.0	0.0	0.0	
11.00000	-46.90000	112.00000	-0.10246	111.75	0.0	0.0	0.0	
12.00000	-46.90000	112.00000	-0.098933	111.75	0.0	0.0	0.0	
13.00000	-46.90000	112.00000	-0.094674	111.75	0.0	0.0	0.0	
14.00000	-46.90000	112.00000	-0.089906	111.75	0.0	0.0	0.0	
15.00000	-46.90000	112.00000	-0.084651	111.75	0.0	0.0	0.0	
16.00000	-46.90000	112.00000	0.078733	111.75	0.0	0.0	0.0	
17.00000	-46.90000	112.00000	-0.072766	111.75	0.0	0.0	0.0	
18.00000	-46.90000	112.00000	-0.066656	111.75	0.0	0.0	0.0	
19.00000	-46.90000	112.00000	-0.060495	111.75	0.0	0.0	0.0	
20.00000	-46.90000	112.00000	-0.054379	111.75	0.0	0.0	0.0	
21.00000	-46.90000	112.00000	-0.048366	111.75	0.0	0.0	0.0	
22.00000	-46.90000	112.00000	0.044251	111.75	0.0	0.0	0.0	
23.00000	-46.90000	112.00000	-0.036891	111.75	0.0	0.0	0.0	
24.00000	-46.90000	112.00000	-0.031514	111.75	0.0	0.0	0.0	
25.00000	-46.90000	112.00000	-0.026417	111.75	0.0	0.0	0.0	
26.00000	-46.90000	112.00000	-0.021620	111.75	0.0	0.0	0.0	
27.00000	-46.90000	112.00000	-0.017133	111.75	0.0	0.0	0.0	
28.00000	-46.90000	112.00000	-0.012963	111.75	0.0	0.0	0.0	
29.00000	-46.90000	112.00000	-0.0091970	111.75	0.0	0.0	0.0	
30.00000	-46.90000	112.00000	-0.0055616	111.75	0.0	0.0	0.0	
31.00000	-46.90000	112.00000	-0.0023180	111.75	0.0	0.0	0.0	
32.00000	-46.90000	112.00000	635.008-6	111.75	0.0	0.0	0.0	
33.00000	-46.90000	112.00000	0.0033103	111.75	0.0	0.0	0.0	
34.00000	-46.90000	112.00000	0.0057225	111.75	0.0	0.0	0.0	
35.00000	-46.90000	112.00000	0.0078668	111.75	0.0	0.0	0.0	
36.00000	-46.90000	112.00000	0.0098189	111.75	0.0	0.0	0.0	
37.00000	-46.90000	112.00000	0.011535	111.75	0.0	0.0	0.0	
38.00000	-46.90000	112.00000	0.013049	111.75	0.0	0.0	0.0	
39.00000	-46.90000	112.00000	0.014379	111.75	0.0	0.0	0.0	
40.00000	-46.90000	112.00000	0.015537	111.75	0.0	0.0	0.0	
41.00000	-46.90000	112.00000	0.016539	111.75	0.0	0.0	0.0	
42.00000	-46.90000	112.00000	0.017396	111.75	0.0	0.0	0.0	
43.00000	-46.90000	112.00000	0.018123	111.75	0.0	0.0	0.0	
44.00000	-46.90000	112.00000	0.018731	111.75	0.0	0.0	0.0	
45.00000	-46.90000	112.00000	0.019231	111.75	0.0	0.0	0.0	
46.00000	-46.90000	112.00000	0.019632	111.75	0.0	0.0	0.0	
47.00000	-46.90000	112.00000	0.019946	111.75	0.0	0.0	0.0	
48.00000	-46.90000	112.00000	0.020179	111.75	0.0	0.0	0.0	
49.00000	-46.90000	112.00000	0.020341	111.75	0.0	0.0	0.0	
50.00000	-46.90000	112.00000	0.020439	111.75	0.0	0.0	0.0	
-20.00000	-45.86667	112.00000	0.010415	111.75	0.0	0.0	0.0	
-19.00000	-45.86667	112.00000	0.0084623	111.75	0.0	0.0	0.0	
-18.00000	-45.86667	112.00000	0.0062459	111.75	0.0	0.0	0.0	
-17.00000	-45.86667	112.00000	0.0037420	111.75	0.0	0.0	0.0	
-16.00000	-45.86667	112.00000	925.838-6	111.75	0.0	0.0	0.0	
-15.00000	-45.86667	112.00000	-0.0022286	111.75	0.0	0.0	0.0	
-14.00000	-45.86667	112.00000	-0.0057462	111.75	0.0	0.0	0.0	
-13.00000	-45.86667	112.00000	-0.0096526	111.75	0.0	0.0	0.0	
-12.00000	-45.86667	112.00000	-0.013972	111.75	0.0	0.0	0.0	
-11.00000	-45.86667	112.00000	-0.018724	111.75	0.0	0.0	0.0	
-10.00000	-45.86667	112.00000	-0.023929	111.75	0.0	0.0	0.0	
-9.00000	-45.86667	112.00000	-0.029596	111.75	0.0	0.0	0.0	
-8.00000	-45.86667	112.00000	-0.035731	111.75	0.0	0.0	0.0	
-7.00000	-45.86667	112.00000	-0.042325	111.75	0.0	0.0	0.0	
-6.00000	-45.86667	112.00000	-0.049359	111.75	0.0	0.0	0.0	
-5.00000	-45.86667	112.00000	-0.056794	111.75	0.0	0.0	0.0	
-4.00000	-45.86667	112.00000	-0.064572	111.75	0.0	0.0	0.0	
-3.00000	-45.86667	112.00000	-0.072610	111.75	0.0	0.0	0.0	
-2.00000	-45.86667	112.00000	-0.080800	111.75	0.0	0.0	0.0	
-1.00000	-45.86667	112.00000	-0.089005	111.75	0.0	0.0	0.0	
0.00000	-45.86667	112.00000						



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
MP		

Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
-10.00000	-43.80000	112.00000	-0.037108	111.75	0.0	0.0	0.0	
-9.00000	-43.80000	112.00000	-0.044856	111.75	0.0	0.0	0.0	
-8.00000	-43.80000	112.00000	-0.053359	111.75	0.0	0.0	0.0	
-7.00000	-43.80000	112.00000	-0.062636	111.75	0.0	0.0	0.0	
-6.00000	-43.80000	112.00000	-0.072687	111.75	0.0	0.0	0.0	
-5.00000	-43.80000	112.00000	-0.083489	111.75	0.0	0.0	0.0	
-4.00000	-43.80000	112.00000	-0.094986	111.75	0.0	0.0	0.0	
-3.00000	-43.80000	112.00000	-0.107078	111.75	0.0	0.0	0.0	
-2.00000	-43.80000	112.00000	-0.11963	111.75	0.0	0.0	0.0	
-1.00000	-43.80000	112.00000	-0.13242	111.75	0.0	0.0	0.0	
0.00000	-43.80000	112.00000	-0.14519	111.75	0.0	0.0	0.0	
1.00000	-43.80000	112.00000	-0.15763	111.75	0.0	0.0	0.0	
2.00000	-43.80000	112.00000	-0.16934	111.75	0.0	0.0	0.0	
3.00000	-43.80000	112.00000	-0.17933	111.75	0.0	0.0	0.0	
4.00000	-43.80000	112.00000	-0.18899	111.75	0.0	0.0	0.0	
5.00000	-43.80000	112.00000	-0.19617	111.75	0.0	0.0	0.0	
6.00000	-43.80000	112.00000	-0.20119	111.75	0.0	0.0	0.0	
7.00000	-43.80000	112.00000	-0.20387	111.75	0.0	0.0	0.0	
8.00000	-43.80000	112.00000	-0.20416	111.75	0.0	0.0	0.0	
9.00000	-43.80000	112.00000	-0.20214	111.75	0.0	0.0	0.0	
10.00000	-43.80000	112.00000	-0.19798	111.75	0.0	0.0	0.0	
11.00000	-43.80000	112.00000	-0.19192	111.75	0.0	0.0	0.0	
12.00000	-43.80000	112.00000	-0.18425	111.75	0.0	0.0	0.0	
13.00000	-43.80000	112.00000	-0.17528	111.75	0.0	0.0	0.0	
14.00000	-43.80000	112.00000	-0.16530	111.75	0.0	0.0	0.0	
15.00000	-43.80000	112.00000	-0.15460	111.75	0.0	0.0	0.0	
16.00000	-43.80000	112.00000	-0.14345	111.75	0.0	0.0	0.0	
17.00000	-43.80000	112.00000	-0.13207	111.75	0.0	0.0	0.0	
18.00000	-43.80000	112.00000	-0.12066	111.75	0.0	0.0	0.0	
19.00000	-43.80000	112.00000	-0.10941	111.75	0.0	0.0	0.0	
20.00000	-43.80000	112.00000	-0.09843	111.75	0.0	0.0	0.0	
21.00000	-43.80000	112.00000	-0.08785	111.75	0.0	0.0	0.0	
22.00000	-43.80000	112.00000	-0.07756	111.75	0.0	0.0	0.0	
23.00000	-43.80000	112.00000	-0.06757	111.75	0.0	0.0	0.0	
24.00000	-43.80000	112.00000	-0.05728	111.75	0.0	0.0	0.0	
25.00000	-43.80000	112.00000	-0.05082	111.75	0.0	0.0	0.0	
26.00000	-43.80000	112.00000	-0.04311	111.75	0.0	0.0	0.0	
27.00000	-43.80000	112.00000	-0.03568	111.75	0.0	0.0	0.0	
28.00000	-43.80000	112.00000	-0.02942	111.75	0.0	0.0	0.0	
29.00000	-43.80000	112.00000	-0.02345	111.75	0.0	0.0	0.0	
30.00000	-43.80000	112.00000	-0.01834	111.75	0.0	0.0	0.0	
31.00000	-43.80000	112.00000	-0.01313	111.75	0.0	0.0	0.0	
32.00000	-43.80000	112.00000	-0.00870	111.75	0.0	0.0	0.0	
33.00000	-43.80000	112.00000	-0.00412	111.75	0.0	0.0	0.0	
34.00000	-43.80000	112.00000	-0.00124	111.75	0.0	0.0	0.0	
35.00000	-43.80000	112.00000	0.00192	111.75	0.0	0.0	0.0	
36.00000	-43.80000	112.00000	0.00417	111.75	0.0	0.0	0.0	
37.00000	-43.80000	112.00000	0.00718	111.75	0.0	0.0	0.0	
38.00000	-43.80000	112.00000	0.00952	111.75	0.0	0.0	0.0	
39.00000	-43.80000	112.00000	0.01125	111.75	0.0	0.0	0.0	
40.00000	-43.80000	112.00000	0.01240	111.75	0.0	0.0	0.0	
41.00000	-43.80000	112.00000	0.01335	111.75	0.0	0.0	0.0	
42.00000	-43.80000	112.00000	0.01565	111.75	0.0	0.0	0.0	
43.00000	-43.80000	112.00000	0.01614	111.75	0.0	0.0	0.0	
44.00000	-43.80000	112.00000	0.01750	111.75	0.0	0.0	0.0	
45.00000	-43.80000	112.00000	0.01824	111.75	0.0	0.0	0.0	
46.00000	-43.80000	112.00000	0.01850	111.75	0.0	0.0	0.0	
47.00000	-43.80000	112.00000	0.01932	111.75	0.0	0.0	0.0	
48.00000	-43.80000	112.00000	0.01972	111.75	0.0	0.0	0.0	
49.00000	-43.80000	112.00000	0.02023	111.75	0.0	0.0	0.0	
50.00000	-43.80000	112.00000	0.02033	111.75	0.0	0.0	0.0	
-20.00000	-42.76667	112.00000	0.0062023	111.75	0.0	0.0	0.0	
-19.00000	-42.76667	112.00000	0.0034772	111.75	0.0	0.0	0.0	
-18.00000	-42.76667	112.00000	362.368-6	111.75	0.0	0.0	0.0	
-17.00000	-42.76667	112.00000	-0.0031844	111.75	0.0	0.0	0.0	
-16.00000	-42.76667	112.00000	-0.0072130	111.75	0.0	0.0	0.0	
-15.00000	-42.76667	112.00000	0.0117758	111.75	0.0	0.0	0.0	
-14.00000	-42.76667	112.00000	-0.016926	111.75	0.0	0.0	0.0	
-13.00000	-42.76667	112.00000	-0.022725	111.75	0.0	0.0	0.0	
-12.00000	-42.76667	112.00000	0.028227	111.75	0.0	0.0	0.0	
-11.00000	-42.76667	112.00000	-0.036524	111.75	0.0	0.0	0.0	
-10.00000	-42.76667	112.00000	-0.044650	111.75	0.0	0.0	0.0	
-9.00000	-42.76667	112.00000	-0.053679	111.75	0.0	0.0	0.0	
-8.00000	-42.76667	112.00000	0.063664	111.75	0.0	0.0	0.0	
-7.00000	-42.76667	112.00000	-0.074648	111.75	0.0	0.0	0.0	
-6.00000	-42.76667	112.00000	-0.086557	111.75	0.0	0.0	0.0	
-5.00000	-42.76667	112.00000	-0.099488	111.75	0.0	0.0	0.0	
-4.00000	-42.76667	112.00000	-0.11370	111.75	0.0	0.0	0.0	
-3.00000	-42.76667	112.00000	-0.12860	111.75	0.0	0.0	0.0	
-2.00000	-42.76667	112.00000	-0.14422	111.75	0.0	0.0	0.0	
-1.00000	-42.76667	112.00000	-0.16034	111.75	0.0	0.0	0.0	
0.00000	-42.76667	112.00000	-0.17660	111.75	0.0	0.0	0.0	
1.00000	-42.76667	112.00000	-0.19250	111.75	0.0	0.0	0.0	
2.00000	-42.76667	112.00000	-0.20779	111.75	0.0	0.0	0.0	
3.00000	-42.76667	112.00000	-0.22162	111.75	0.0	0.0	0.0	
4.00000	-42.76667	112.00000	-0.23500	111.75	0.0	0.0	0.0	
5.00000	-42.76667	112.00000	-0.24287	111.75	0.0	0.0	0.0	
6.00000	-42.76667	112.00000	-0.24934	111.75	0.0	0.0	0.0	
7.00000	-42.76667	112.00000	-0.25265	111.75	0.0	0.0	0.0	
8.00000	-42.76667	112.00000	-0.25273	111.75	0.0	0.0	0.0	
9.00000	-42.76667	112.00000	-0.24981	111.75	0.0	0.0	0.0	
10.00000	-42.76667	112.00000	-0.24407	111.75	0.0	0.0	0.0	
11.00000	-42.76667	112.00000	-0.23592	111.75	0.0	0.0	0.0	
12.00000	-42.76667	112.00000	-0.22578	111.75	0.0	0.0	0.0	
13.00000	-42.76667	112.00000	-0.21407	111.75	0.0	0.0	0.0	
14.00000	-42.76667	112.00000	-0.20121	111.75	0.0	0.0	0.0	
15.00000	-42.76667	112.00000	-0.18797	111.75	0.0	0.0	0.0	
16.00000	-42.76667	112.00000	-0.17349	111.75	0.0	0.0	0.0	
17.00000	-42.76667	112.00000	-0.15926	111.75	0.0	0.0	0.0	
18.00000	-42.76667	112.00000	-0.14513	111.75	0.0	0.0	0.0	
19.00000	-42.76667	112.00000	-0.13128	111.75	0.0	0.0	0.0	
20.00000	-42.76667	112.00000	-0.11790	111.75	0.0	0.0	0.0	
21.00000	-42.76667	112.00000	-0.10509	111.75	0.0	0.0	0.0	
22.00000	-42.76667	112.00000	-0.092945	111.75	0.0	0.0	0.0	
23.00000	-42.76667	112.00000	-0.081534	111.75	0.0	0.0	0.0	
24.00000	-42.76667	112.00000	-0.070990	111.75	0.0	0.0	0.0	
25.00000	-42.76667	112.00000	-0.061029	111.75	0.0	0.0	0.0	
26.00000	-42.76667	112.00000	-0.051947	111.75	0.0	0.0	0.0	
27.00000	-42.76667	112.00000	-0.043630	111.75	0.0	0.0	0.0	
28.00000	-42.76667	112.00000	0.036345	111.75	0.0	0.0	0.0	
29.00000	-42.76667	112.00000	-0.029173	111.75	0.0	0.0	0.0	
30.00000	-42.76667	112.00000	-0.022960	111.75	0.0	0.0	0.0	
31.00000	-42.76667	112.00000	0.012668	111.75	0.0	0.0	0.0	
32.00000	-42.76667	112.00000	-0.012355	111.75	0.0	0.0	0.0	
33.00000	-42.76667	112.00000	-0.0078751	111.75	0.0	0.0	0.0	
34.00000	-42.76667	112.00000	-0.0038661	111.75	0.0	0.0	0.0	
35.00000	-42.76667	112.00000	-346.218-6	111.75	0.0	0.0	0.0	
36.00000	-42.76667	112.00000	0.0027841	111.75	0.0	0.0	0.0	
37.00000	-42.76667	112.00000	0.0055420	111.75	0.0	0.0	0.0	
38.00000	-42.76667	112.00000	0.0078629	111.75	0.0	0.0	0.0	
39.00000	-42.76667	112.00000	0.010078	111.75	0.0	0.0	0.0	
40.00000	-42.76667	112.00000	0.011917	111.75	0.0	0.0	0.0	
41.00000	-42.76667	112.00000	0.013909	111.75	0.0	0.0	0.0	
42.00000	-42.76667	112.00000	0.014878	111.75	0.0	0.0	0.0	
43.00000	-42.76667	112.00000	0.016046	111.75	0.0	0.0	0.0	
44.00000	-42.76667	112.00000	0.017033	111.75	0.0	0.0	0.0	
45.00000	-42.76667	112.00000	0.017863	111.75	0.0	0.0	0.0	
46.00000	-42.76667	112.00000	0.018548	111.75	0.0	0.0	0.0	
47.00000	-42.76667	112.00000	0.019104	111.75	0.0	0.0	0.0	



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
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Drg. Ref.		
MP	Date	Checked

Name	Location		Displacement		Stresses			
	X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
37.00000	-40.70000	112.00000	0.0020183	111.75	0.0	0.0	0.0	0.0
38.00000	-40.70000	112.00000	0.0049887	111.75	0.0	0.0	0.0	0.0
39.00000	-40.70000	112.00000	0.0075744	111.75	0.0	0.0	0.0	0.0
40.00000	-40.70000	112.00000	0.0098168	111.75	0.0	0.0	0.0	0.0
41.00000	-40.70000	112.00000	0.0117653	111.75	0.0	0.0	0.0	0.0
42.00000	-40.70000	112.00000	0.013416	111.75	0.0	0.0	0.0	0.0
43.00000	-40.70000	112.00000	0.014837	111.75	0.0	0.0	0.0	0.0
44.00000	-40.70000	112.00000	0.016041	111.75	0.0	0.0	0.0	0.0
45.00000	-40.70000	112.00000	0.017054	111.75	0.0	0.0	0.0	0.0
46.00000	-40.70000	112.00000	0.017896	111.75	0.0	0.0	0.0	0.0
47.00000	-40.70000	112.00000	0.018587	111.75	0.0	0.0	0.0	0.0
48.00000	-40.70000	112.00000	0.019143	111.75	0.0	0.0	0.0	0.0
49.00000	-40.70000	112.00000	0.019582	111.75	0.0	0.0	0.0	0.0
50.00000	-40.70000	112.00000	0.019915	111.75	0.0	0.0	0.0	0.0
-20.00000	-39.66667	112.00000	0.0015041	111.75	0.0	0.0	0.0	0.0
-19.00000	-39.66667	112.00000	-0.0021208	111.75	0.0	0.0	0.0	0.0
-18.00000	-39.66667	112.00000	-0.0062980	111.75	0.0	0.0	0.0	0.0
-17.00000	-39.66667	112.00000	-0.011102	111.75	0.0	0.0	0.0	0.0
-16.00000	-39.66667	112.00000	-0.016619	111.75	0.0	0.0	0.0	0.0
-15.00000	-39.66667	112.00000	-0.022945	111.75	0.0	0.0	0.0	0.0
-14.00000	-39.66667	112.00000	-0.030189	111.75	0.0	0.0	0.0	0.0
-13.00000	-39.66667	112.00000	-0.038475	111.75	0.0	0.0	0.0	0.0
-12.00000	-39.66667	112.00000	-0.047942	111.75	0.0	0.0	0.0	0.0
-11.00000	-39.66667	112.00000	-0.058744	111.75	0.0	0.0	0.0	0.0
-10.00000	-39.66667	112.00000	-0.071054	111.75	0.0	0.0	0.0	0.0
-9.00000	-39.66667	112.00000	-0.085058	111.75	0.0	0.0	0.0	0.0
-8.00000	-39.66667	112.00000	-0.100996	111.75	0.0	0.0	0.0	0.0
-7.00000	-39.66667	112.00000	-0.11896	111.75	0.0	0.0	0.0	0.0
-6.00000	-39.66667	112.00000	-0.13926	111.75	0.0	0.0	0.0	0.0
-5.00000	-39.66667	112.00000	-0.16207	111.75	0.0	0.0	0.0	0.0
-4.00000	-39.66667	112.00000	-0.18753	111.75	0.0	0.0	0.0	0.0
-3.00000	-39.66667	112.00000	-0.21572	111.75	0.0	0.0	0.0	0.0
-2.00000	-39.66667	112.00000	-0.24660	111.75	0.0	0.0	0.0	0.0
-1.00000	-39.66667	112.00000	-0.27994	111.75	0.0	0.0	0.0	0.0
0.00000	-39.66667	112.00000	-0.31525	111.75	0.0	0.0	0.0	0.0
1.00000	-39.66667	112.00000	-0.35166	111.75	0.0	0.0	0.0	0.0
2.00000	-39.66667	112.00000	-0.38783	111.75	0.0	0.0	0.0	0.0
3.00000	-39.66667	112.00000	-0.42193	111.75	0.0	0.0	0.0	0.0
4.00000	-39.66667	112.00000	-0.45175	111.75	0.0	0.0	0.0	0.0
5.00000	-39.66667	112.00000	-0.47504	111.75	0.0	0.0	0.0	0.0
6.00000	-39.66667	112.00000	-0.49004	111.75	0.0	0.0	0.0	0.0
7.00000	-39.66667	112.00000	-0.49601	111.75	0.0	0.0	0.0	0.0
8.00000	-39.66667	112.00000	-0.49312	111.75	0.0	0.0	0.0	0.0
9.00000	-39.66667	112.00000	-0.48246	111.75	0.0	0.0	0.0	0.0
10.00000	-39.66667	112.00000	-0.46544	111.75	0.0	0.0	0.0	0.0
11.00000	-39.66667	112.00000	-0.44358	111.75	0.0	0.0	0.0	0.0
12.00000	-39.66667	112.00000	-0.41827	111.75	0.0	0.0	0.0	0.0
13.00000	-39.66667	112.00000	-0.39069	111.75	0.0	0.0	0.0	0.0
14.00000	-39.66667	112.00000	-0.36183	111.75	0.0	0.0	0.0	0.0
15.00000	-39.66667	112.00000	-0.33248	111.75	0.0	0.0	0.0	0.0
16.00000	-39.66667	112.00000	-0.30329	111.75	0.0	0.0	0.0	0.0
17.00000	-39.66667	112.00000	-0.27475	111.75	0.0	0.0	0.0	0.0
18.00000	-39.66667	112.00000	-0.24725	111.75	0.0	0.0	0.0	0.0
19.00000	-39.66667	112.00000	-0.22107	111.75	0.0	0.0	0.0	0.0
20.00000	-39.66667	112.00000	-0.19642	111.75	0.0	0.0	0.0	0.0
21.00000	-39.66667	112.00000	-0.17344	111.75	0.0	0.0	0.0	0.0
22.00000	-39.66667	112.00000	-0.15219	111.75	0.0	0.0	0.0	0.0
23.00000	-39.66667	112.00000	-0.13269	111.75	0.0	0.0	0.0	0.0
24.00000	-39.66667	112.00000	-0.11492	111.75	0.0	0.0	0.0	0.0
25.00000	-39.66667	112.00000	-0.09815	111.75	0.0	0.0	0.0	0.0
26.00000	-39.66667	112.00000	-0.084303	111.75	0.0	0.0	0.0	0.0
27.00000	-39.66667	112.00000	-0.07281	111.75	0.0	0.0	0.0	0.0
28.00000	-39.66667	112.00000	-0.063444	111.75	0.0	0.0	0.0	0.0
29.00000	-39.66667	112.00000	-0.056278	111.75	0.0	0.0	0.0	0.0
30.00000	-39.66667	112.00000	-0.049072	111.75	0.0	0.0	0.0	0.0
31.00000	-39.66667	112.00000	-0.043119	111.75	0.0	0.0	0.0	0.0
32.00000	-39.66667	112.00000	-0.037416	111.75	0.0	0.0	0.0	0.0
33.00000	-39.66667	112.00000	-0.032366	111.75	0.0	0.0	0.0	0.0
34.00000	-39.66667	112.00000	-0.027817	111.75	0.0	0.0	0.0	0.0
35.00000	-39.66667	112.00000	-0.023792	111.75	0.0	0.0	0.0	0.0
36.00000	-39.66667	112.00000	-0.0203572	111.75	0.0	0.0	0.0	0.0
37.00000	-39.66667	112.00000	161.79E-6	111.75	0.0	0.0	0.0	0.0
38.00000	-39.66667	112.00000	0.0034275	111.75	0.0	0.0	0.0	0.0
39.00000	-39.66667	112.00000	0.008247	111.75	0.0	0.0	0.0	0.0
40.00000	-39.66667	112.00000	0.0087205	111.75	0.0	0.0	0.0	0.0
41.00000	-39.66667	112.00000	0.010338	111.75	0.0	0.0	0.0	0.0
42.00000	-39.66667	112.00000	0.012156	111.75	0.0	0.0	0.0	0.0
43.00000	-39.66667	112.00000	0.014207	111.75	0.0	0.0	0.0	0.0
44.00000	-39.66667	112.00000	0.016523	111.75	0.0	0.0	0.0	0.0
45.00000	-39.66667	112.00000	0.019131	111.75	0.0	0.0	0.0	0.0
46.00000	-39.66667	112.00000	0.021754	111.75	0.0	0.0	0.0	0.0
47.00000	-39.66667	112.00000	0.025133	111.75	0.0	0.0	0.0	0.0
48.00000	-39.66667	112.00000	0.028929	111.75	0.0	0.0	0.0	0.0
49.00000	-39.66667	112.00000	0.034117	111.75	0.0	0.0	0.0	0.0
50.00000	-39.66667	112.00000	0.040192	111.75	0.0	0.0	0.0	0.0
-20.00000	-38.63333	112.00000	-101.66E-6	111.75	0.0	0.0	0.0	0.0
-19.00000	-38.63333	112.00000	-0.0040440	111.75	0.0	0.0	0.0	0.0
-18.00000	-38.63333	112.00000	-0.0086001	111.75	0.0	0.0	0.0	0.0
-17.00000	-38.63333	112.00000	-0.013858	111.75	0.0	0.0	0.0	0.0
-16.00000	-38.63333	112.00000	-0.019910	111.75	0.0	0.0	0.0	0.0
-15.00000	-38.63333	112.00000	-0.026896	111.75	0.0	0.0	0.0	0.0
-14.00000	-38.63333	112.00000	-0.034927	111.75	0.0	0.0	0.0	0.0
-13.00000	-38.63333	112.00000	-0.044163	111.75	0.0	0.0	0.0	0.0
-12.00000	-38.63333	112.00000	-0.054779	111.75	0.0	0.0	0.0	0.0
-11.00000	-38.63333	112.00000	-0.066977	111.75	0.0	0.0	0.0	0.0
-10.00000	-38.63333	112.00000	-0.080982	111.75	0.0	0.0	0.0	0.0
-9.00000	-38.63333	112.00000	-0.097049	111.75	0.0	0.0	0.0	0.0
-8.00000	-38.63333	112.00000	-0.11546	111.75	0.0	0.0	0.0	0.0
-7.00000	-38.63333	112.00000	-0.13653	111.75	0.0	0.0	0.0	0.0
-6.00000	-38.63333	112.00000	-0.16059	111.75	0.0	0.0	0.0	0.0
-5.00000	-38.63333	112.00000	-0.18796	111.75	0.0	0.0	0.0	0.0
-4.00000	-38.63333	112.00000	-0.21896	111.75	0.0	0.0	0.0	0.0
-3.00000	-38.63333	112.00000	-0.25386	111.75	0.0	0.0	0.0	0.0
-2.00000	-38.63333	112.00000	-0.29280	111.75	0.0	0.0	0.0	0.0
-1.00000	-38.63333	112.00000	-0.33571	111.75	0.0	0.0	0.0	0.0
0.00000	-38.63333	112.00000	-0.38219	111.75	0.0	0.0	0.0	0.0
1.00000	-38.63333	112.00000	-0.43130	111.75	0.0	0.0	0.0	0.0
2.00000	-38.63333	112.00000	-0.48134	111.75	0.0	0.0	0.0	0.0
3.00000	-38.63333	112.00000	-0.52962	111.75	0.0	0.0	0.0	0.0
4.00000	-38.63333	112.00000	-0.57424	111.75	0.0	0.0	0.0	0.0
5.00000	-38.63333	112.00000	-0.60586	111.75	0.0	0.0	0.0	0.0
6.00000	-38.63333	112.00000	-0.62647	111.75	0.0	0.0	0.0	0.0
7.00000	-38.63333	112.00000	-0.63309	111.75	0.0	0.0	0.0	0.0
8.00000	-38.63333	112.00000	-0.62652	111.75	0.0	0.0	0.0	0.0
9.00000	-38.63333	112.00000	-0.60911	111.75	0.0	0.0	0.0	0.0
10.00000	-38.63333	112.00000	-0.58340	111.75	0.0	0.0	0.0	0.0
11.00000	-38.63333	112.00000	-0.55199	111.75	0.0	0.0	0.0	0.0
12.00000	-38.63333	112.00000	-0.51673	111.75	0.0	0.0	0.0	0.0
13.00000	-38.63333	112.00000	-0.47928	111.75	0.0	0.0	0.0	0.0
14.0								



Channing Junior School, Highgate High Street, N6 5JR
Short-Term Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by MP	Date	Checked

Name	Location X [m]	Location Y [m]	Displacement Z [Level] [m]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
13.00000	-36.56667	112.00000	-0.72911	111.75	0.0	0.0	0.0	0.0
14.00000	-36.56667	112.00000	-0.65975	111.75	0.0	0.0	0.0	0.0
15.00000	-36.56667	112.00000	-0.59305	111.75	0.0	0.0	0.0	0.0
16.00000	-36.56667	112.00000	-0.52970	111.75	0.0	0.0	0.0	0.0
17.00000	-36.56667	112.00000	-0.47022	111.75	0.0	0.0	0.0	0.0
18.00000	-36.56667	112.00000	-0.41492	111.75	0.0	0.0	0.0	0.0
19.00000	-36.56667	112.00000	-0.36404	111.75	0.0	0.0	0.0	0.0
20.00000	-36.56667	112.00000	-0.31764	111.75	0.0	0.0	0.0	0.0
21.00000	-36.56667	112.00000	-0.27571	111.75	0.0	0.0	0.0	0.0
22.00000	-36.56667	112.00000	-0.23812	111.75	0.0	0.0	0.0	0.0
23.00000	-36.56667	112.00000	-0.20465	111.75	0.0	0.0	0.0	0.0
24.00000	-36.56667	112.00000	-0.17504	111.75	0.0	0.0	0.0	0.0
25.00000	-36.56667	112.00000	-0.14896	111.75	0.0	0.0	0.0	0.0
26.00000	-36.56667	112.00000	-0.12659	111.75	0.0	0.0	0.0	0.0
27.00000	-36.56667	112.00000	-0.10608	111.75	0.0	0.0	0.0	0.0
28.00000	-36.56667	112.00000	-0.088632	111.75	0.0	0.0	0.0	0.0
29.00000	-36.56667	112.00000	-0.073433	111.75	0.0	0.0	0.0	0.0
30.00000	-36.56667	112.00000	-0.060122	111.75	0.0	0.0	0.0	0.0
31.00000	-36.56667	112.00000	-0.048723	111.75	0.0	0.0	0.0	0.0
32.00000	-36.56667	112.00000	-0.038747	111.75	0.0	0.0	0.0	0.0
33.00000	-36.56667	112.00000	-0.030090	111.75	0.0	0.0	0.0	0.0
34.00000	-36.56667	112.00000	-0.022582	111.75	0.0	0.0	0.0	0.0
35.00000	-36.56667	112.00000	-0.016076	111.75	0.0	0.0	0.0	0.0
36.00000	-36.56667	112.00000	0.010444	111.75	0.0	0.0	0.0	0.0
37.00000	-36.56667	112.00000	-0.0055719	111.75	0.0	0.0	0.0	0.0
38.00000	-36.56667	112.00000	-0.0013643	111.75	0.0	0.0	0.0	0.0
39.00000	-36.56667	112.00000	0.0022634	111.75	0.0	0.0	0.0	0.0
40.00000	-36.56667	112.00000	0.0053845	111.75	0.0	0.0	0.0	0.0
41.00000	-36.56667	112.00000	0.0080625	111.75	0.0	0.0	0.0	0.0
42.00000	-36.56667	112.00000	0.010353	111.75	0.0	0.0	0.0	0.0
43.00000	-36.56667	112.00000	0.012304	111.75	0.0	0.0	0.0	0.0
44.00000	-36.56667	112.00000	0.013958	111.75	0.0	0.0	0.0	0.0
45.00000	-36.56667	112.00000	0.015351	111.75	0.0	0.0	0.0	0.0
46.00000	-36.56667	112.00000	0.016415	111.75	0.0	0.0	0.0	0.0
47.00000	-36.56667	112.00000	0.017479	111.75	0.0	0.0	0.0	0.0
48.00000	-36.56667	112.00000	0.018268	111.75	0.0	0.0	0.0	0.0
49.00000	-36.56667	112.00000	0.018902	111.75	0.0	0.0	0.0	0.0
50.00000	-36.56667	112.00000	0.019401	111.75	0.0	0.0	0.0	0.0
-20.00000	-35.53333	112.00000	-0.0047549	111.75	0.0	0.0	0.0	0.0
-19.00000	-35.53333	112.00000	-0.0094662	111.75	0.0	0.0	0.0	0.0
-18.00000	-35.53333	112.00000	-0.015346	111.75	0.0	0.0	0.0	0.0
-17.00000	-35.53333	112.00000	-0.021988	111.75	0.0	0.0	0.0	0.0
-16.00000	-35.53333	112.00000	-0.029728	111.75	0.0	0.0	0.0	0.0
-15.00000	-35.53333	112.00000	-0.038752	111.75	0.0	0.0	0.0	0.0
-14.00000	-35.53333	112.00000	-0.049284	111.75	0.0	0.0	0.0	0.0
-13.00000	-35.53333	112.00000	-0.061591	111.75	0.0	0.0	0.0	0.0
-12.00000	-35.53333	112.00000	-0.075993	111.75	0.0	0.0	0.0	0.0
-11.00000	-35.53333	112.00000	-0.092877	111.75	0.0	0.0	0.0	0.0
-10.00000	-35.53333	112.00000	-0.11271	111.75	0.0	0.0	0.0	0.0
-9.00000	-35.53333	112.00000	-0.13606	111.75	0.0	0.0	0.0	0.0
-8.00000	-35.53333	112.00000	-0.16360	111.75	0.0	0.0	0.0	0.0
-7.00000	-35.53333	112.00000	-0.19616	111.75	0.0	0.0	0.0	0.0
-6.00000	-35.53333	112.00000	-0.23475	111.75	0.0	0.0	0.0	0.0
-5.00000	-35.53333	112.00000	-0.28055	111.75	0.0	0.0	0.0	0.0
-4.00000	-35.53333	112.00000	-0.33500	111.75	0.0	0.0	0.0	0.0
-3.00000	-35.53333	112.00000	-0.39977	111.75	0.0	0.0	0.0	0.0
-2.00000	-35.53333	112.00000	-0.47683	111.75	0.0	0.0	0.0	0.0
-1.00000	-35.53333	112.00000	-0.56835	111.75	0.0	0.0	0.0	0.0
0.00000	-35.53333	112.00000	-0.67681	111.75	0.0	0.0	0.0	0.0
1.00000	-35.53333	112.00000	-0.80474	111.75	0.0	0.0	0.0	0.0
2.00000	-35.53333	112.00000	-0.95432	111.75	0.0	0.0	0.0	0.0
3.00000	-35.53333	112.00000	-1.1259	111.75	0.0	0.0	0.0	0.0
4.00000	-35.53333	112.00000	-1.3318	111.75	0.0	0.0	0.0	0.0
5.00000	-35.53333	112.00000	-1.4723	111.75	0.0	0.0	0.0	0.0
6.00000	-35.53333	112.00000	-1.5306	111.75	0.0	0.0	0.0	0.0
7.00000	-35.53333	112.00000	-1.4953	111.75	0.0	0.0	0.0	0.0
8.00000	-35.53333	112.00000	-1.4159	111.75	0.0	0.0	0.0	0.0
9.00000	-35.53333	112.00000	-1.3180	111.75	0.0	0.0	0.0	0.0
10.00000	-35.53333	112.00000	-1.2134	111.75	0.0	0.0	0.0	0.0
11.00000	-35.53333	112.00000	-1.1081	111.75	0.0	0.0	0.0	0.0
12.00000	-35.53333	112.00000	-1.0050	111.75	0.0	0.0	0.0	0.0
13.00000	-35.53333	112.00000	-0.90584	111.75	0.0	0.0	0.0	0.0
14.00000	-35.53333	112.00000	-0.81156	111.75	0.0	0.0	0.0	0.0
15.00000	-35.53333	112.00000	-0.72279	111.75	0.0	0.0	0.0	0.0
16.00000	-35.53333	112.00000	-0.63992	111.75	0.0	0.0	0.0	0.0
17.00000	-35.53333	112.00000	-0.56320	111.75	0.0	0.0	0.0	0.0
18.00000	-35.53333	112.00000	-0.49289	111.75	0.0	0.0	0.0	0.0
19.00000	-35.53333	112.00000	-0.42884	111.75	0.0	0.0	0.0	0.0
20.00000	-35.53333	112.00000	-0.37120	111.75	0.0	0.0	0.0	0.0
21.00000	-35.53333	112.00000	-0.31974	111.75	0.0	0.0	0.0	0.0
22.00000	-35.53333	112.00000	-0.27417	111.75	0.0	0.0	0.0	0.0
23.00000	-35.53333	112.00000	-0.23408	111.75	0.0	0.0	0.0	0.0
24.00000	-35.53333	112.00000	-0.19902	111.75	0.0	0.0	0.0	0.0
25.00000	-35.53333	112.00000	-0.16850	111.75	0.0	0.0	0.0	0.0
26.00000	-35.53333	112.00000	-0.14201	111.75	0.0	0.0	0.0	0.0
27.00000	-35.53333	112.00000	-0.11907	111.75	0.0	0.0	0.0	0.0
28.00000	-35.53333	112.00000	-0.098249	111.75	0.0	0.0	0.0	0.0
29.00000	-35.53333	112.00000	-0.082128	111.75	0.0	0.0	0.0	0.0
30.00000	-35.53333	112.00000	-0.067949	111.75	0.0	0.0	0.0	0.0
31.00000	-35.53333	112.00000	-0.054593	111.75	0.0	0.0	0.0	0.0
32.00000	-35.53333	112.00000	-0.043586	111.75	0.0	0.0	0.0	0.0
33.00000	-35.53333	112.00000	-0.034687	111.75	0.0	0.0	0.0	0.0
34.00000	-35.53333	112.00000	-0.028589	111.75	0.0	0.0	0.0	0.0
35.00000	-35.53333	112.00000	-0.018817	111.75	0.0	0.0	0.0	0.0
36.00000	-35.53333	112.00000	-0.012717	111.75	0.0	0.0	0.0	0.0
37.00000	-35.53333	112.00000	-0.0074601	111.75	0.0	0.0	0.0	0.0
38.00000	-35.53333	112.00000	-0.0029328	111.75	0.0	0.0	0.0	0.0
39.00000	-35.53333	112.00000	960.56E-6	111.75	0.0	0.0	0.0	0.0
40.00000	-35.53333	112.00000	0.0043030	111.75	0.0	0.0	0.0	0.0
41.00000	-35.53333	112.00000	0.0071659	111.75	0.0	0.0	0.0	0.0
42.00000	-35.53333	112.00000	0.0096110	111.75	0.0	0.0	0.0	0.0
43.00000	-35.53333	112.00000	0.011692	111.75	0.0	0.0	0.0	0.0
44.00000	-35.53333	112.00000	0.013454	111.75	0.0	0.0	0.0	0.0
45.00000	-35.53333	112.00000	0.014939	111.75	0.0	0.0	0.0	0.0
46.00000	-35.53333	112.00000	0.016180	111.75	0.0	0.0	0.0	0.0
47.00000	-35.53333	112.00000	0.017209	111.75	0.0	0.0	0.0	0.0
48.00000	-35.53333	112.00000	0.018052	111.75	0.0	0.0	0.0	0.0
49.00000	-35.53333	112.00000	0.018733	111.75	0.0	0.0	0.0	0.0
50.00000	-35.53333	112.00000	0.019271	111.75	0.0	0.0	0.0	0.0
-20.00000	-34.50000	112.00000	-0.0861790	111.75	0.0	0.0	0.0	0.0
-19.00000	-34.50000	112.00000	-0.011362	111.75	0.0	0.0	0.0	0.0
-18.00000	-34.50000	112.00000	-0.017425	111.75	0.0	0.0	0.0	0.0
-17.00000	-34.50000	112.00000	-0.024509	111.75	0.0	0.0	0.0	0.0
-16.00000	-34.50000	112.00000	-0.032793	111.75	0.0	0.0	0.0	0.0
-15.00000	-34.50000	112.00000	-0.042488	111.75	0.0	0.0	0.0	0.0
-14.00000	-34.50000	112.00000	-0.053852	111.75	0.0	0.0	0.0	0.0
-13.00000	-34.50000	112.00000	-0.067195	111.75	0.0	0.0	0.0	0.0
-12.00000	-34.50000	112.00000	-0.082898	111.75	0.0	0.0	0.0	0.0
-11.00000	-34.50000	112.00000	-0.101442	111.75	0.0	0.0	0.0	0.0
-10.00000	-34.50000	112.00000	-0.12334	111.75	0.0	0.0	0.0	0.0
-9.00000	-34.50000	112.00000	-0.14935	111.7				



Ground Movement Plot

Site Channing Junior School, Highgate High Street, N6 5JR

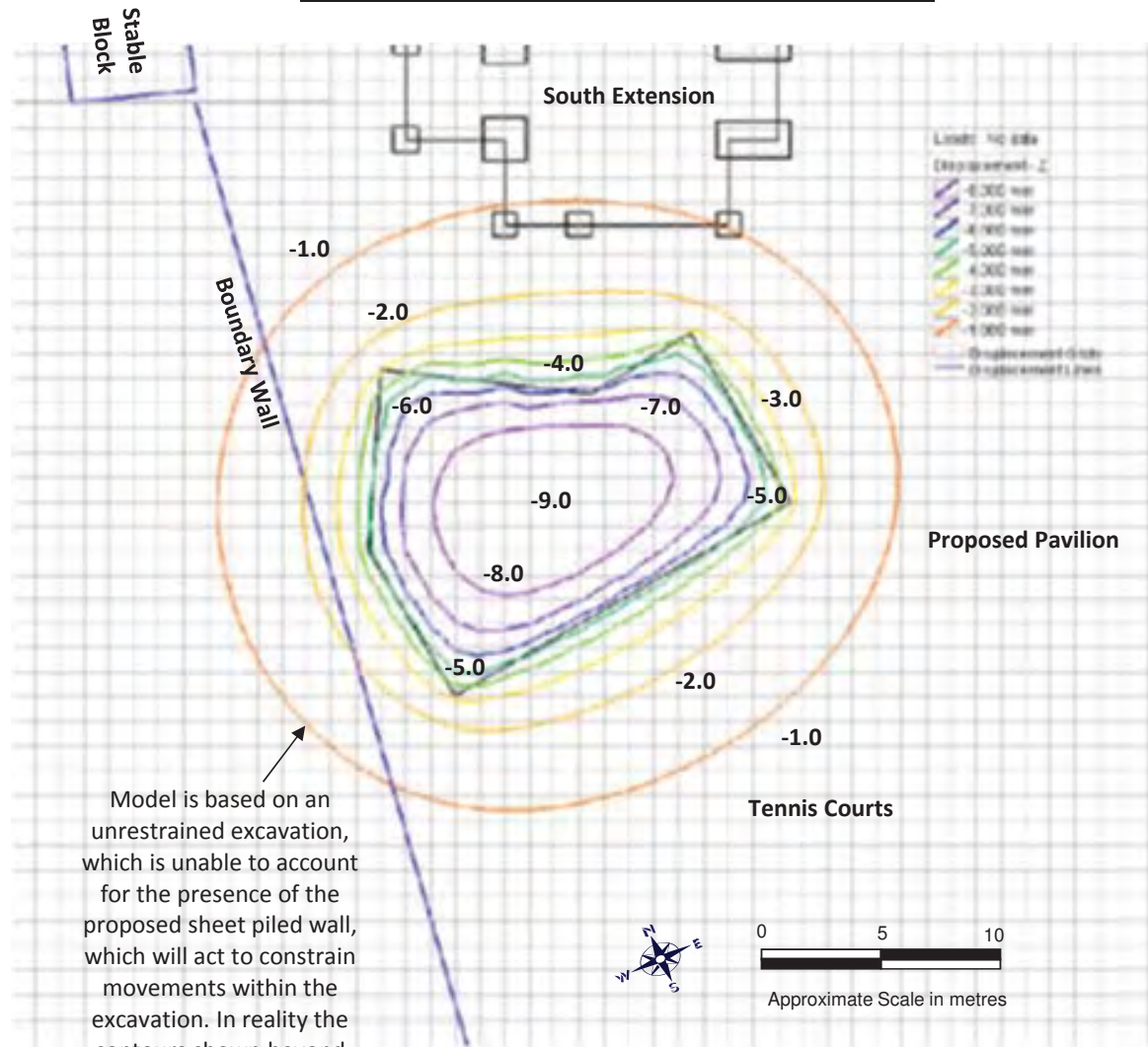
Client Channing Junior School

Engineer Heyne Tillett Steel

Job Number
J17268

Sheet
1/1

Figure 8 - Total Heave / Settlement - Pavilion Only (inc Raft)



Model is based on an unrestrained excavation, which is unable to account for the presence of the proposed sheet piled wall, which will act to constrain movements within the excavation. In reality the contours shown beyond the extent of the excavation will not be fully realised and are therefore ignored in subsequent assessment of damage to nearby structures.



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
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Drg. Ref.		
Made by	Date	Checked
MP		

Notes

Refer to Figure 8 for contour output

Analysis Options

Analysis: Boussinesq
 Global Poisson's ratio: 0.20
 Maximum allowable ratio between values of E: 1.5
 Horizontal rigid boundary level: 60.00 [m OD]
 Displacements at load centroids: Yes

Soil Profiles Soil Profile 1

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m²]	Poissons ratio	Non-linear curve
1	117.00	1	10000	0.20000	None
2	115.00	5	40000	0.20000	None
3	110.00	8	25000	0.20000	None
4	102.00	12	39375	0.20000	None
5	90.000	15	79875	0.20000	None

Soil Profiles Soil Profile 2

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m²]	Poissons ratio	Non-linear curve
1	114.00	1	10000	0.20000	None
2	113.00	5	40000	0.20000	None
3	110.00	8	25000	0.20000	None
4	102.00	12	39375	0.20000	None
5	90.000	15	79875	0.20000	None

Soil Profiles Soil Profile 3

Layer	Level at top [mOD]	Number of intermediate displacement levels	Youngs Modulus [kN/m²]	Poissons ratio	Non-linear curve
1	112.00	1	10000	0.20000	None
2	111.00	5	40000	0.20000	None
3	110.00	8	25000	0.20000	None
4	102.00	12	39375	0.20000	None
5	90.000	15	79875	0.20000	None

Soil Zones

Zone	Name	X coordinates min [m]	X coordinates max [m]	Y coordinates min [m]	Y coordinates max [m]	Profile
1	Soil Zone 1	-20.00000	0.00000	-10.00000	40.00000	Soil Profile 1
2	Soil Zone 2	0.00000	31.00000	5.00000	40.00000	Soil Profile 1
3	Soil Zone 3	31.00000	50.00000	20.00000	40.00000	Soil Profile 1
4	Soil Zone 4	0.00000	31.00000	-10.00000	5.00000	Soil Profile 2
5	Soil Zone 5	31.00000	50.00000	-10.00000	20.00000	Soil Profile 2
6	Soil Zone 6	-20.00000	50.00000	-26.50000	-10.00000	Soil Profile 2
7	Soil Zone 7	-20.00000	5.00000	-34.50000	-26.50000	Soil Profile 2
8	Soil Zone 8	5.00000	50.00000	-34.50000	-26.50000	Soil Profile 3
9	Soil Zone 9	-20.00000	50.00000	-50.00000	-34.50000	Soil Profile 3

Load Data

Load ref.	Name	Shape	Orientation of Plane	Centre of load (Global) X [m]	Centre of load (Global) Y [m]	Centre of load (Global) Z (level) [m]	Load position Angle of local x from local x [Degrees]	Width x or Radius [m]	Length y [m]	Polygon Coordinates [m]	Rectangle tolerance [m]	Number of rectangles	Normal Load value [kN/m²]	Tangential Load value (Local x) [kN/m²]	Tangential Load value (Local y) [kN/m²]
1	East Extension	Polygonal	Horizontal	N/A	N/A	114.00000	N/A	N/A	N/A	(24,23) (24,20) (17,20) (17,15) (15.5,15) (15.5,12) (18.5,12) (18.5,10) (30,10) (30,23)	10.000	4	0.0	N/A	N/A
2	East Extension	Polygonal	Horizontal	N/A	N/A	114.00000	N/A	N/A	N/A	(24,10) (24,4) (25,2) (29,2) (30,4) (30,10)	10.000	2	0.0	N/A	N/A
3	South Extension	Polygonal	Horizontal	N/A	N/A	113.00000	N/A	N/A	N/A	(17,0) (18,0) (18,-11.5) (16,-11.5) (16,-15) (7,-15) (7,-11.5) (3,-11.5) (3,-4) (1,-4)	10.000	3	0.0	N/A	N/A
4	Pavilion	Polygonal	Horizontal	N/A	N/A	110.50000	N/A	N/A	N/A	(2,-21) (10.5,-22) (14.5,-19.5) (18.5,-26.5) (5,-34.5) (1.5,-28.5)	5.00000	10	-35.000	N/A	N/A
5	L-Shaped RC Underpin for East Extension	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	N/A	N/A	(30,23) (30,22) (25,22) (25,20) (24,20) (24,23)	10.000	2	0.0	N/A	N/A
6	RC Underpin of Wall 30	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	N/A	N/A	(24.5,20) (17,20) (17,19) (24.5,19)	10.000	1	0.0	N/A	N/A
7	RC Underpin between Wall 27 & 29	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	N/A	N/A	(15.5,15) (15.5,12) (16.5,12) (16.5,15)	10.000	1	0.0	N/A	N/A
8	RC Underpin of Wall 31	Polygonal	Horizontal	N/A	N/A	113.85000	N/A	N/A	N/A	(23.5,19) (24.5,19) (24.5,10) (23.5,10)	10.000	1	0.0	N/A	N/A
9	Pad 6	Rectangular	Horizontal	19.00000	13.00000	113.85000	0.0	2.5000	2.5000	N/A	N/A	1	0.0	0.0	0.0
10	Pad 1 - A	Rectangular	Horizontal	24.00000	4.00000	113.85000	0.0	1.5000	1.5000	N/A	N/A	1	0.0	0.0	0.0
11	Pad 2 - A	Rectangular	Horizontal	25.00000	2.00000	113.85000	0.0	0.75000	0.75000	N/A	N/A	1	0.0	0.0	0.0
12	Pad 2 - B	Rectangular	Horizontal	29.00000	2.00000	113.85000	0.0	0.75000	0.75000	N/A	N/A	1	0.0	0.0	0.0
13	Pad 5 - A	Rectangular	Horizontal	7.00000	-0.50000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	0.0	0.0	0.0
14	Pad 5 - B	Rectangular	Horizontal	3.00000	-4.00000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	0.0	0.0	0.0
15	Pad 5 - C	Rectangular	Horizontal	3.00000	-7.50000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	0.0	0.0	0.0
16	Pad 5 - D	Rectangular	Horizontal	3.00000	-11.50000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	0.0	0.0	0.0
17	Pad 5 - E	Rectangular	Horizontal	7.00000	-15.00000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	0.0	0.0	0.0
18	Pad 5 - F	Rectangular	Horizontal	10.00000	-15.00000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	0.0	0.0	0.0
19	Pad 5 - G	Rectangular	Horizontal	16.00000	-15.00000	112.60000	0.0	1.0000	1.0000	N/A	N/A	1	0.0	0.0	0.0
20	Pad 4 - A	Rectangular	Horizontal	17.00000	-1.00000	112.60000	0.0	3.0000	1.5000	N/A	N/A	1	0.0	0.0	0.0
21	Pad 4 - B	Rectangular	Horizontal	17.00000	-4.00000	112.60000	0.0	3.0000	1.5000	N/A	N/A	1	0.0	0.0	0.0
22	Pad 4 - C	Rectangular	Horizontal	17.00000	-7.50000	112.60000	0.0	3.0000	1.5000	N/A	N/A	1	0.0	0.0	0.0
23	Pad 4 - D	Rectangular	Horizontal	17.00000	-11.50000	112.60000	0.0	3.0000	1.5000	N/A	N/A	1	0.0	0.0	0.0
24	Pad 3 - A	Rectangular	Horizontal	7.00000	-4.00000	112.60000	0.0	1.7500	1.7500	N/A	N/A	1	0.0	0.0	0.0
25	Pad 3 - B	Rectangular	Horizontal	7.00000	-7.50000	112.60000	0.0	1.7500	1.7500	N/A	N/A	1	0.0	0.0	0.0
26	Pad 3 - C	Rectangular	Horizontal	7.00000	-11.50000	112.60000	0.0	1.7500	1.7500	N/A	N/A	1	0.0	0.0	0.0
27	Pad 1 - B	Rectangular	Horizontal	30.00000	21.50000	113.85000	0.0	1.5000	1.5000	N/A	N/A	1	0.0	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR

Total Heave / Settlement

Pavilion Only (inc Raft)

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Dr. Ref.		
Made by	Date	Checked
MP		

Load ref.	Name	Shape	Orientation of Plane	Centre of load (Global) X Y Z (level)	Load position Angle of local x or Radius	Width x or Length y	Polygon Coordinates	Rectangle of tolerance rectangles	Number of	Normal (local z)	Tangential (local x)	Load value (local y)
28	Pad 1 - C	Rectangular	Horizontal	30.00000 16.00000 113.85000	0.0	1.5000 1.5000 N/A		N/A	1	0.0	0.0	0.0
29	Pad 1 - D	Rectangular	Horizontal	30.00000 16.00000 113.85000	0.0	1.5000 1.5000 N/A		N/A	1	0.0	0.0	0.0
30	Pad 1 - E	Rectangular	Horizontal	30.00000 4.00000 113.85000	0.0	1.5000 1.5000 N/A		N/A	1	0.0	0.0	0.0

Polygonal Loads' Rectangles

No. Centre of load X Y Z (level) Angle of local x from global X (degrees) Width x [m] Depth y [m]

Load ref.	Name	Shape	Orientation of Plane	Centre of load (Global) X Y Z (level)	Load position Angle of local x or Radius	Width x or Length y	Polygon Coordinates	Rectangle of tolerance rectangles	Number of	Normal (local z)	Tangential (local x)	Load value (local y)
1	East Extension	Edge 1 optimal		21.50000 -90.000 3.0000 6.0000								
2	South Extension	Edge 1 optimal		17.50000 -90.000 5.0000 13.0000								
3	East Extension	Edge 1 optimal		13.50000 -90.000 3.0000 14.5000								
4	East Extension	Edge 1 optimal		11.00000 -90.000 2.0000 11.5000								
5	East Extension	Edge 1 optimal		10.50000 -7.50000 -90.000 7.5000 15.0000								
6	East Extension	Edge 1 optimal		11.50000 -13.25000 -90.000 3.5000 9.0000								
7	East Extension	Edge 1 optimal		9.50000 -2.00000 -90.000 4.0000 17.0000								
8	East Extension	Edge 1 optimal		3.50052 -30.88353 30.651 1.0634 7.7207								
9	East Extension	Edge 1 optimal		4.05044 -29.67497 30.651 1.0634 9.2700								
10	East Extension	Edge 1 optimal		4.57937 -28.46640 30.651 1.0634 10.8139								
11	East Extension	Edge 1 optimal		5.09029 -27.25784 30.651 1.0634 12.3669								
12	East Extension	Edge 1 optimal		5.54628 -26.44788 30.651 2.2676 12.278								
13	East Extension	Edge 1 optimal		6.03932 -26.03655 30.651 2.2676 10.547								
14	East Extension	Edge 1 optimal		7.113037 -25.62921 30.651 2.2676 8.8153								
15	East Extension	Edge 1 optimal		8.1448617 -24.22666 30.651 4.5882 8.0040								
16	East Extension	Edge 1 optimal		9.1595946 -22.15034 30.651 0.063725 6.0437								
17	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
18	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
19	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
20	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
21	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
22	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
23	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
24	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
25	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
26	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
27	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
28	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
29	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
30	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
31	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
32	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
33	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
34	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
35	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
36	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
37	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
38	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
39	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
40	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
41	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
42	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
43	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
44	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
45	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
46	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
47	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								
48	East Extension	Edge 1 optimal		10.149849 -20.38145 30.651 0.063725 6.0437								

Displacement Data

Ref.	Type	Name	Direction of Extrusion	First point X Y Z (level)	Second point X Y Z (level)	No. of intrvl across extrusion/line	Extrusion Depth [m]	No. of intrvl along extrusion	Show Calculate Detailed results
1	Line	Line 1	N/A	0.00000 0.00000 113.50000	8.00000 0.00000 113.50000	8	N/A	N/A	No N/A
2	Line	Line 2	N/A	16.00000 0.00000 113.50000	16.00000 5.00000 113.50000	5	N/A	N/A	No N/A
3	Line	Line 3	N/A	8.00000 0.00000 113.50000	8.00000 0.00000 113.50000	8	N/A	N/A	No N/A
4	Line	Line 4	N/A	8.00000 5.00000 113.50000	16.00000 5.00000 113.50000	8	N/A	N/A	No N/A
5	Line	Line 5	N/A	16.00000 5.00000 113.50000	18.50000 6.50000 113.50000	2	N/A	N/A	No N/A
6	Line	Line 6	N/A	18.50000 6.50000 113.50000	18.50000 12.00000 113.50000	5	N/A	N/A	No N/A
7	Line	Line 7	N/A	6.50000 12.00000 113.50000	18.50000 12.00000 113.50000	6	N/A	N/A	No N/A
8	Line	Line 8	N/A	6.50000 6.50000 113.50000	6.50000 12.00000 113.50000	5	N/A	N/A	No N/A
9	Line	Line 9	N/A	4.00000 9.00000 113.50000	6.50000 9.00000 113.50000	2	N/A	N/A	No N/A
10	Line	Line 10	N/A	4.00000 13.00000 113.50000	4.00000 8.00000 113.50000	4	N/A	N/A	No N/A
11	Line	Line 11	N/A	4.00000 6.50000 113.50000	15.50000 6.50000 113.50000	5	N/A	N/A	No N/A
12	Line	Line 12	N/A	15.50000 6.50000 113.50000	15.50000 12.00000 113.50000	5	N/A	N/A	No N/A
13	Line	Line 13	N/A	8.00000 8.00000 113.50000	8.00000 13.00000 113.50000	5	N/A	N/A	No N/A
14	Line	Line 14	N/A	0.00000 0.00000 113.50000	0.00000 8.00000 113.50000	8	N/A	N/A	No N/A
15	Line	Line 15	N/A	18.50000 6.50000 113.50000	20.00000 3.50000 113.50000	1	N/A	N/A	No N/A
16	Line	Line 16	N/A	20.00000 5.50000 113.50000	23.00000 5.50000 113.50000	3	N/A	N/A	No N/A
17	Line	Line 17	N/A	23.00000 6.50000 113.50000	24.00000 6.50000 113.50000	1	N/A	N/A	No N/A
18	Line	Line 18	N/A	24.00000 6.50000 113.50000	24.00000 10.00000 113.50000	3	N/A	N/A	No N/A
19	Line	Line 19	N/A	18.50000 10.00000 113.50000	24.00000 10.00000 113.50000	5	N/A	N/A	No N/A
20	Line	Line 20	N/A	11.00000 12.00000 114.00000	11.00000 15.00000 114.00000	3	N/A	N/A	No N/A
21	Line	Line 21	N/A	11.00000 15.00000 114.00000	10.00000 16.00000 114.00000	1	N/A	N/A	No N/A
22	Line	Line 22	N/A	10.00000 16.00000 114.00000	9.00000 16.00000 114.00000	1	N/A	N/A	No N/A
23	Line	Line 23	N/A	9.00000 16.00000 114.00000	9.00000 17.50000 114.00000	1	N/A	N/A	No N/A
24	Line	Line 24	N/A	9.00000 17.50000 114.00000	10.00000 17.50000 114.00000	1	N/A	N/A	No N/A
25	Line	Line 25	N/A	10.00000 17.50000 114.00000	11.00000 18.50000 114.00000	1	N/A	N/A	No N/A
26	Line	Line 26	N/A	11.00000 18.50000 114.00000	11.00000 20.00000 114.00000	1	N/A	N/A	No N/A
27	Line	Line 27	N/A	11.00000 20.00000 114.00000	20.00000 20.00000 114.00000	6	N/A	N/A	No N/A
28	Line	Line 28	N/A	17.00000 15.00000 114.00000	17.00000 20.00000 114.00000	5	N/A	N/A	No N/A
29	Line	Line 29	N/A	11.00000 15.00000 114.00000	17.00000 15.00000 114.00000	6	N/A	N/A	No N/A
30	Line	Line 30	N/A	17.00000 20.00000 114.00000	24.00000 20.00000 114.00000	7	N/A	N/A	No N/A
31	Line	Line 31	N/A	24.00000 10.00000 116.00000	24.00000 20.00000 116.00000	10	N/A	N/A	No N/A
32	Line	Line 32	N/A	14.00000 22.00000 114.50000	20.00000 26.00000 114.50000	18	N/A	N/A	No N/A
33	Line	Line 33	N/A	-4.00000 20.00000 114.50000	12.00000 21.75000 114.50000	8	N/A	N/A	No N/A
34	Line	Line 34	N/A	-14.00000 18.75000 114.50000	-8.00000 19.50000 114.50000	6	N/A	N/A	No N/A
35	Line	Line 35	N/A	-14.00000 18.00000 116.00000	-9.00000 18.50000 116.00000	5	N/A	N/A	No N/A
36	Line	Line 36	N/A	-9.00000 18.50000 116.00000	-5.50000 -9.50000 116.00000	14	N/A	N/A	No N/A
37	Line	Line 37	N/A	-10.50000 -9.99500 116.00000	-5.50000 -9.50000 116.00000	5	N/A	N/A	No N/A
38	Line	Line 38	N/A	-14.00000 18.00000 116.00000	-10.50000 -9.99500 116.00000	14	N/A	N/A	No N/A
39	Line	Line 39	N/A	-5.50000 -10.00000 113.00000	5.50000 -9.99500 111.00000	20	N/A	N/A	Yes No
40	Grid	Grid 1	Global X	-9.99500 117.00000	N/A 40.00000 117.00000	50	19.99500	N/A	No N/A
41	Grid	Grid 2	Global X	0.00000 5.00500 117.00000	N/A 40.00000 117.00000	35	30.99500	N/A	No N/A
42	Grid	Grid 3	Global X	31.00000 20.00500 117.00000	N/A 40.00000 117.00000	20	19.00000	N/A	No N/A
43	Grid	Grid 4	Global X	0.00000 -10.00000 114.00000	N/A 30.00000 114.00000	15	31.00000	N/A	No N/A
44	Grid	Grid 5	Global X	30.00000 -10.00000 114.00000	N/A 20.00000 114.00000	20	20.00000	N/A	No N/A
45	Grid	Grid 6	Global X	-20.00000 -26.49500 114.00000	N/A -10.00000 114.00000	16	70.00000	N/A	Yes No
46	Grid	Grid 7	Global X	-20.00000 -34.49500 114.00000	N/A -26.50000 114.00000	8	24.99500	N/A	Yes No
47	Grid	Grid 8	Global X	0.00000 -34.50000 112.00000	N/A -26.50000 112.00000	8	45.00000	N/A	Yes No
48	Grid	Grid 9	Global X	-20.00000 -50.00000 112.00000	N/A -34.50000 112.00000	15	70.00000	N/A	Yes No

RESULTS FOR GRIDS

Analysis: Boussinesq
Global Poisson's ratio: 0.20
Horizontal rigid boundary level: 60.00 [m OD]
The maximum displacement difference between the Boussinesq method (-8.9398mm) and the Mindlin method (-6.4332mm) occurs at point X = 8.00000m, Y = -26.49500m, level = 114.0000m, and is 2.5065mm.



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Name	Location		Displacement		Stresses			
	X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
-10.00000	-25.46406	114.00000	-0.43149	113.75	0.0	0.0	0.0	0.0
-9.00000	-25.46406	114.00000	-0.49583	113.75	0.0	0.0	0.0	0.0
-8.00000	-25.46406	114.00000	-0.57282	113.75	0.0	0.0	0.0	0.0
-7.00000	-25.46406	114.00000	-0.66589	113.75	0.0	0.0	0.0	0.0
-6.00000	-25.46406	114.00000	-0.77870	113.75	0.0	0.0	0.0	0.0
-5.00000	-25.46406	114.00000	-0.92080	113.75	0.0	0.0	0.0	0.0
-4.00000	-25.46406	114.00000	-1.09877	113.75	0.0	0.0	0.0	0.0
-3.00000	-25.46406	114.00000	-1.32777	113.75	0.0	0.0	0.0	0.0
-2.00000	-25.46406	114.00000	-1.6310	113.75	0.0	0.0	0.0	0.0
-1.00000	-25.46406	114.00000	-2.0488	113.75	0.0	0.0	0.0	0.0
0.00000	-25.46406	114.00000	-2.6217	113.75	0.0	0.0	0.0	0.0
1.00000	-25.46406	114.00000	-3.6758	113.75	0.0	0.0	0.0	0.0
2.00000	-25.46406	114.00000	-5.5674	113.75	0.0	0.0	0.0	0.0
3.00000	-25.46406	114.00000	-7.1230	113.75	0.0	0.0	0.0	0.0
4.00000	-25.46406	114.00000	-8.7441	113.75	0.0	0.0	0.0	0.0
5.00000	-25.46406	114.00000	-10.5297	113.75	0.0	0.0	0.0	0.0
6.00000	-25.46406	114.00000	-12.4757	113.75	0.0	0.0	0.0	0.0
7.00000	-25.46406	114.00000	-14.5891	113.75	0.0	0.0	0.0	0.0
8.00000	-25.46406	114.00000	-16.8732	113.75	0.0	0.0	0.0	0.0
9.00000	-25.46406	114.00000	-19.3391	113.75	0.0	0.0	0.0	0.0
10.00000	-25.46406	114.00000	-21.9869	113.75	0.0	0.0	0.0	0.0
11.00000	-25.46406	114.00000	-24.8168	113.75	0.0	0.0	0.0	0.0
12.00000	-25.46406	114.00000	-27.8297	113.75	0.0	0.0	0.0	0.0
13.00000	-25.46406	114.00000	-31.0256	113.75	0.0	0.0	0.0	0.0
14.00000	-25.46406	114.00000	-34.4045	113.75	0.0	0.0	0.0	0.0
15.00000	-25.46406	114.00000	-38.9674	113.75	0.0	0.0	0.0	0.0
16.00000	-25.46406	114.00000	-43.7253	113.75	0.0	0.0	0.0	0.0
17.00000	-25.46406	114.00000	-48.6892	113.75	0.0	0.0	0.0	0.0
18.00000	-25.46406	114.00000	-53.8601	113.75	0.0	0.0	0.0	0.0
19.00000	-25.46406	114.00000	-59.2380	113.75	0.0	0.0	0.0	0.0
20.00000	-25.46406	114.00000	-64.8239	113.75	0.0	0.0	0.0	0.0
21.00000	-25.46406	114.00000	-70.6178	113.75	0.0	0.0	0.0	0.0
22.00000	-25.46406	114.00000	-76.6207	113.75	0.0	0.0	0.0	0.0
23.00000	-25.46406	114.00000	-82.8326	113.75	0.0	0.0	0.0	0.0
24.00000	-25.46406	114.00000	-89.2545	113.75	0.0	0.0	0.0	0.0
25.00000	-25.46406	114.00000	-95.8864	113.75	0.0	0.0	0.0	0.0
26.00000	-25.46406	114.00000	-102.7283	113.75	0.0	0.0	0.0	0.0
27.00000	-25.46406	114.00000	-109.7802	113.75	0.0	0.0	0.0	0.0
28.00000	-25.46406	114.00000	-117.0421	113.75	0.0	0.0	0.0	0.0
29.00000	-25.46406	114.00000	-124.5140	113.75	0.0	0.0	0.0	0.0
30.00000	-25.46406	114.00000	-132.1959	113.75	0.0	0.0	0.0	0.0
31.00000	-25.46406	114.00000	-140.0878	113.75	0.0	0.0	0.0	0.0
32.00000	-25.46406	114.00000	-148.1897	113.75	0.0	0.0	0.0	0.0
33.00000	-25.46406	114.00000	-156.5016	113.75	0.0	0.0	0.0	0.0
34.00000	-25.46406	114.00000	-165.0235	113.75	0.0	0.0	0.0	0.0
35.00000	-25.46406	114.00000	-173.7554	113.75	0.0	0.0	0.0	0.0
36.00000	-25.46406	114.00000	-182.6973	113.75	0.0	0.0	0.0	0.0
37.00000	-25.46406	114.00000	-191.8492	113.75	0.0	0.0	0.0	0.0
38.00000	-25.46406	114.00000	-201.2111	113.75	0.0	0.0	0.0	0.0
39.00000	-25.46406	114.00000	-210.7830	113.75	0.0	0.0	0.0	0.0
40.00000	-25.46406	114.00000	-220.5649	113.75	0.0	0.0	0.0	0.0
41.00000	-25.46406	114.00000	-230.5568	113.75	0.0	0.0	0.0	0.0
42.00000	-25.46406	114.00000	-240.7587	113.75	0.0	0.0	0.0	0.0
43.00000	-25.46406	114.00000	-251.1706	113.75	0.0	0.0	0.0	0.0
44.00000	-25.46406	114.00000	-261.7925	113.75	0.0	0.0	0.0	0.0
45.00000	-25.46406	114.00000	-272.6244	113.75	0.0	0.0	0.0	0.0
46.00000	-25.46406	114.00000	-283.6663	113.75	0.0	0.0	0.0	0.0
47.00000	-25.46406	114.00000	-294.9182	113.75	0.0	0.0	0.0	0.0
48.00000	-25.46406	114.00000	-306.3801	113.75	0.0	0.0	0.0	0.0



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Name	Location		Displacement		Stresses			
	X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
49.00000	-24.43313	114.00000	-0.040281	113.75	0.0	0.0	0.0	0.0
50.00000	-24.43313	114.00000	-0.036343	113.75	0.0	0.0	0.0	0.0
-20.00000	-23.40219	114.00000	-0.12706	113.75	0.0	0.0	0.0	0.0
-19.00000	-23.40219	114.00000	-0.141716	113.75	0.0	0.0	0.0	0.0
-18.00000	-23.40219	114.00000	-0.158319	113.75	0.0	0.0	0.0	0.0
-17.00000	-23.40219	114.00000	-0.17727	113.75	0.0	0.0	0.0	0.0
-16.00000	-23.40219	114.00000	-0.19876	113.75	0.0	0.0	0.0	0.0
-15.00000	-23.40219	114.00000	-0.22333	113.75	0.0	0.0	0.0	0.0
-14.00000	-23.40219	114.00000	-0.25152	113.75	0.0	0.0	0.0	0.0
-13.00000	-23.40219	114.00000	-0.28401	113.75	0.0	0.0	0.0	0.0
-12.00000	-23.40219	114.00000	-0.32165	113.75	0.0	0.0	0.0	0.0
-11.00000	-23.40219	114.00000	-0.36549	113.75	0.0	0.0	0.0	0.0
-10.00000	-23.40219	114.00000	-0.41686	113.75	0.0	0.0	0.0	0.0
-9.00000	-23.40219	114.00000	-0.47570	113.75	0.0	0.0	0.0	0.0
-8.00000	-23.40219	114.00000	-0.54961	113.75	0.0	0.0	0.0	0.0
-7.00000	-23.40219	114.00000	-0.63614	113.75	0.0	0.0	0.0	0.0
-6.00000	-23.40219	114.00000	-0.74105	113.75	0.0	0.0	0.0	0.0
-5.00000	-23.40219	114.00000	-0.86982	113.75	0.0	0.0	0.0	0.0
-4.00000	-23.40219	114.00000	-1.0302	113.75	0.0	0.0	0.0	0.0
-3.00000	-23.40219	114.00000	-1.2340	113.75	0.0	0.0	0.0	0.0
-2.00000	-23.40219	114.00000	-1.4996	113.75	0.0	0.0	0.0	0.0
-1.00000	-23.40219	114.00000	-1.8595	113.75	0.0	0.0	0.0	0.0
0.00000	-23.40219	114.00000	-2.3794	113.75	0.0	0.0	0.0	0.0
1.00000	-23.40219	114.00000	-3.1225	113.75	0.0	0.0	0.0	0.0
2.00000	-23.40219	114.00000	-4.0842	113.75	0.0	0.0	0.0	0.0
3.00000	-23.40219	114.00000	-5.3079	113.75	0.0	0.0	0.0	0.0
4.00000	-23.40219	114.00000	-6.7486	113.75	0.0	0.0	0.0	0.0
5.00000	-23.40219	114.00000	-8.4571	113.75	0.0	0.0	0.0	0.0
6.00000	-23.40219	114.00000	-10.4016	113.75	0.0	0.0	0.0	0.0
7.00000	-23.40219	114.00000	-12.5391	113.75	0.0	0.0	0.0	0.0
8.00000	-23.40219	114.00000	-14.9406	113.75	0.0	0.0	0.0	0.0
9.00000	-23.40219	114.00000	-17.6571	113.75	0.0	0.0	0.0	0.0
10.00000	-23.40219	114.00000	-20.7396	113.75	0.0	0.0	0.0	0.0
11.00000	-23.40219	114.00000	-24.1401	113.75	0.0	0.0	0.0	0.0
12.00000	-23.40219	114.00000	-27.9086	113.75	0.0	0.0	0.0	0.0
13.00000	-23.40219	114.00000	-32.0971	113.75	0.0	0.0	0.0	0.0
14.00000	-23.40219	114.00000	-36.6686	113.75	0.0	0.0	0.0	0.0
15.00000	-23.40219	114.00000	-41.6871	113.75	0.0	0.0	0.0	0.0
16.00000	-23.40219	114.00000	-47.2146	113.75	0.0	0.0	0.0	0.0
17.00000	-23.40219	114.00000	-53.3141	113.75	0.0	0.0	0.0	0.0
18.00000	-23.40219	114.00000	-60.0486	113.75	0.0	0.0	0.0	0.0
19.00000	-23.40219	114.00000	-67.4841	113.75	0.0	0.0	0.0	0.0
20.00000	-23.40219	114.00000	-75.6846	113.75	0.0	0.0	0.0	0.0
21.00000	-23.40219	114.00000	-84.7191	113.75	0.0	0.0	0.0	0.0
22.00000	-23.40219	114.00000	-94.6546	113.75	0.0	0.0	0.0	0.0
23.00000	-23.40219	114.00000	-105.5541	113.75	0.0	0.0	0.0	0.0
24.00000	-23.40219	114.00000	-117.4896	113.75	0.0	0.0	0.0	0.0
25.00000	-23.40219	114.00000	-130.5301	113.75	0.0	0.0	0.0	0.0
26.00000	-23.40219	114.00000	-144.7306	113.75	0.0	0.0	0.0	0.0
27.00000	-23.40219	114.00000	-160.1541	113.75	0.0	0.0	0.0	0.0
28.00000	-23.40219	114.00000	-176.8546	113.75	0.0	0.0	0.0	0.0
29.00000	-23.40219	114.00000	-194.8891	113.75	0.0	0.0	0.0	0.0
30.00000	-23.40219	114.00000	-214.3146	113.75	0.0	0.0	0.0	0.0
31.00000	-23.40219	114.00000	-235.1891	113.75	0.0	0.0	0.0	0.0
32.00000	-23.40219	114.00000	-257.5846	113.75	0.0	0		



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Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
37.00000	-22.37125	114.00000	-0.14030	113.75	0.0	0.0	0.0	
38.00000	-22.37125	114.00000	-0.12568	113.75	0.0	0.0	0.0	
39.00000	-22.37125	114.00000	-0.11273	113.75	0.0	0.0	0.0	
40.00000	-22.37125	114.00000	-0.10124	113.75	0.0	0.0	0.0	
41.00000	-22.37125	114.00000	-0.09102	113.75	0.0	0.0	0.0	
42.00000	-22.37125	114.00000	-0.08195	113.75	0.0	0.0	0.0	
43.00000	-22.37125	114.00000	-0.07376	113.75	0.0	0.0	0.0	
44.00000	-22.37125	114.00000	-0.06646	113.75	0.0	0.0	0.0	
45.00000	-22.37125	114.00000	-0.05992	113.75	0.0	0.0	0.0	
46.00000	-22.37125	114.00000	-0.05405	113.75	0.0	0.0	0.0	
47.00000	-22.37125	114.00000	-0.04877	113.75	0.0	0.0	0.0	
48.00000	-22.37125	114.00000	-0.04401	113.75	0.0	0.0	0.0	
49.00000	-22.37125	114.00000	-0.03972	113.75	0.0	0.0	0.0	
50.00000	-22.37125	114.00000	-0.03585	113.75	0.0	0.0	0.0	
-20.00000	-21.34031	114.00000	-0.12279	113.75	0.0	0.0	0.0	
-19.00000	-21.34031	114.00000	-0.13677	113.75	0.0	0.0	0.0	
-18.00000	-21.34031	114.00000	-0.15233	113.75	0.0	0.0	0.0	
-17.00000	-21.34031	114.00000	-0.17035	113.75	0.0	0.0	0.0	
-16.00000	-21.34031	114.00000	-0.19056	113.75	0.0	0.0	0.0	
-15.00000	-21.34031	114.00000	-0.21356	113.75	0.0	0.0	0.0	
-14.00000	-21.34031	114.00000	-0.23980	113.75	0.0	0.0	0.0	
-13.00000	-21.34031	114.00000	-0.26988	113.75	0.0	0.0	0.0	
-12.00000	-21.34031	114.00000	-0.30449	113.75	0.0	0.0	0.0	
-11.00000	-21.34031	114.00000	-0.34440	113.75	0.0	0.0	0.0	
-10.00000	-21.34031	114.00000	-0.39097	113.75	0.0	0.0	0.0	
-9.00000	-21.34031	114.00000	-0.44525	113.75	0.0	0.0	0.0	
-8.00000	-21.34031	114.00000	-0.50905	113.75	0.0	0.0	0.0	
-7.00000	-21.34031	114.00000	-0.58455	113.75	0.0	0.0	0.0	
-6.00000	-21.34031	114.00000	-0.67458	113.75	0.0	0.0	0.0	
-5.00000	-21.34031	114.00000	-0.78289	113.75	0.0	0.0	0.0	
-4.00000	-21.34031	114.00000	-0.91460	113.75	0.0	0.0	0.0	
-3.00000	-21.34031	114.00000	-1.0769	113.75	0.0	0.0	0.0	
-2.00000	-21.34031	114.00000	-1.2803	113.75	0.0	0.0	0.0	
-1.00000	-21.34031	114.00000	-1.5420	113.75	0.0	0.0	0.0	
0.00000	-21.34031	114.00000	-1.8925	113.75	0.0	0.0	0.0	
1.00000	-21.34031	114.00000	-2.3970	113.75	0.0	0.0	0.0	
2.00000	-21.34031	114.00000	-3.1604	113.75	0.0	0.0	0.0	
3.00000	-21.34031	114.00000	-4.2366	113.75	0.0	0.0	0.0	
4.00000	-21.34031	114.00000	-5.2487	113.75	0.0	0.0	0.0	
5.00000	-21.34031	114.00000	-6.1864	113.75	0.0	0.0	0.0	
6.00000	-21.34031	114.00000	-7.0880	113.75	0.0	0.0	0.0	
7.00000	-21.34031	114.00000	-7.9382	113.75	0.0	0.0	0.0	
8.00000	-21.34031	114.00000	-8.7280	113.75	0.0	0.0	0.0	
9.00000	-21.34031	114.00000	-9.4533	113.75	0.0	0.0	0.0	
10.00000	-21.34031	114.00000	-10.1188	113.75	0.0	0.0	0.0	
11.00000	-21.34031	114.00000	-10.7308	113.75	0.0	0.0	0.0	
12.00000	-21.34031	114.00000	-11.2929	113.75	0.0	0.0	0.0	
13.00000	-21.34031	114.00000	-11.8130	113.75	0.0	0.0	0.0	
14.00000	-21.34031	114.00000	-12.2910	113.75	0.0	0.0	0.0	
15.00000	-21.34031	114.00000	-12.7262	113.75	0.0	0.0	0.0	
16.00000	-21.34031	114.00000	-13.1282	113.75	0.0	0.0	0.0	
17.00000	-21.34031	114.00000	-13.4962	113.75	0.0	0.0	0.0	
18.00000	-21.34031	114.00000	-13.8300	113.75	0.0	0.0	0.0	
19.00000	-21.34031	114.00000	-14.1300	113.75	0.0	0.0	0.0	
20.00000	-21.34031	114.00000	-14.3975	113.75	0.0	0.0	0.0	
21.00000	-21.34031	114.00000	-14.6325	113.75	0.0	0.0	0.0	
22.00000	-21.34031	114.00000	-14.8350	113.75	0.0	0.0	0.0	
23.00000	-21.34031	114.00000	-15.0050	113.75	0.0	0.0	0.0	
24.00000	-21.34031	114.00000	-15.1425	113.75	0.0	0.0	0.0	
25.00000	-21.34031	114.00000	-15.2475	113.75	0.0	0.0	0.0	
26.00000	-21.34031	114.00000	-15.3200	113.75	0.0	0.0	0.0	
27.00000	-21.34031	114.00000	-15.3600	113.75	0.0	0.0	0.0	
28.00000	-21.34031	114.00000	-15.3675	113.75	0.0	0.0	0.0	
29.00000	-21.34031	114.00000	-15.3420	113.75	0.0	0.0	0.0	
30.00000	-21.34031	114.00000	-15.2840	113.75	0.0	0.0	0.0	
31.00000	-21.34031	114.00000	-15.1930	113.75	0.0	0.0	0.0	
32.00000	-21.34031	114.00000	-15.0690	113.75	0.0	0.0	0.0	
33.00000	-21.34031	114.00000	-14.9130	113.75	0.0	0.0	0.0	
34.00000	-21.34031	114.00000	-14.7250	113.75	0.0	0.0	0.0	
35.00000	-21.34031	114.00000	-14.5050	113.75	0.0	0.0	0.0	
36.00000	-21.34031	114.00000	-14.2530	113.75	0.0	0.0	0.0	
37.00000	-21.34031	114.00000	-13.9690	113.75	0.0	0.0	0.0	
38.00000	-21.34031	114.00000	-13.6530	113.75	0.0	0.0	0.0	
39.00000	-21.34031	114.00000	-13.3050	113.75	0.0	0.0	0.0	
40.00000	-21.34031	114.00000	-12.9260	113.75	0.0	0.0	0.0	
41.00000	-21.34031	114.00000	-12.5160	113.75	0.0	0.0	0.0	
42.00000	-21.34031	114.00000	-12.0760	113.75	0.0	0.0	0.0	
43.00000	-21.34031	114.00000	-11.6160	113.75	0.0	0.0	0.0	
44.00000	-21.34031	114.00000	-11.1360	113.75	0.0	0.0	0.0	
45.00000	-21.34031	114.00000	-10.6360	113.75	0.0	0.0	0.0	
46.00000	-21.34031	114.00000	-10.1160	113.75	0.0	0.0	0.0	
47.00000	-21.34031	114.00000	-9.5760	113.75	0.0	0.0	0.0	
48.00000	-21.34031	114.00000	-9.0160	113.75	0.0	0.0	0.0	
49.00000	-21.34031	114.00000	-8.4360	113.75	0.0	0.0	0.0	
50.00000	-21.34031	114.00000	-7.8360	113.75	0.0	0.0	0.0	
-20.00000	-20.30938	114.00000	-0.12002	113.75	0.0	0.0	0.0	
-19.00000	-20.30938	114.00000	-0.13353	113.75	0.0	0.0	0.0	
-18.00000	-20.30938	114.00000	-0.14873	113.75	0.0	0.0	0.0	
-17.00000	-20.30938	114.00000	-0.16589	113.75	0.0	0.0	0.0	
-16.00000	-20.30938	114.00000	-0.18529	113.75	0.0	0.0	0.0	
-15.00000	-20.30938	114.00000	-0.20729	113.75	0.0	0.0	0.0	
-14.00000	-20.30938	114.00000	-0.23232	113.75	0.0	0.0	0.0	
-13.00000	-20.30938	114.00000	-0.26090	113.75	0.0	0.0	0.0	
-12.00000	-20.30938	114.00000	-0.29365	113.75	0.0	0.0	0.0	
-11.00000	-20.30938	114.00000	-0.33131	113.75	0.0	0.0	0.0	
-10.00000	-20.30938	114.00000	-0.37481	113.75	0.0	0.0	0.0	
-9.00000	-20.30938	114.00000	-0.42530	113.75	0.0	0.0	0.0	
-8.00000	-20.30938	114.00000	-0.48418	113.75	0.0	0.0	0.0	
-7.00000	-20.30938	114.00000	-0.55223	113.75	0.0	0.0	0.0	
-6.00000	-20.30938	114.00000	-0.63069	113.75	0.0	0.0	0.0	
-5.00000	-20.30938	114.00000	-0.72143	113.75	0.0	0.0	0.0	
-4.00000	-20.30938	114.00000	-0.82616	113.75	0.0	0.0	0.0	
-3.00000	-20.30938	114.00000	-0.94680	113.75	0.0	0.0	0.0	
-2.00000	-20.30938	114.00000	-1.0840	113.75	0.0	0.0	0.0	
-1.00000	-20.30938	114.00000	-1.2370	113.75	0.0	0.0	0.0	
0.00000	-20.30938	114.00000	-1.6295	113.75	0.0	0.0	0.0	
1.00000	-20.30938	114.00000	-1.9589	113.75	0.0	0.0	0.0	
2.00000	-20.30938	114.00000	-2.3587	113.75	0.0	0.0	0.0	
3.00000	-20.30938	114.00000	-2.8031	113.75	0.0	0.0	0.0	
4.00000	-20.30938	114.00000	-3.2913	113.75	0.0	0.0	0.0	
5.00000	-20.30938	114.00000	-3.8176	113.75	0.0	0.0	0.0	
6.00000	-20.30938	114.00000	-4.3780	113.75	0.0	0.0	0.0	
7.00000	-20.30938	114.00000	-4.9757	113.75	0.0	0.0	0.0	
8.00000	-20.30938	114.00000	-5.6192	113.75	0.0	0.0	0.0	
9.00000	-20.30938	114.00000	-6.3093	113.75	0.0	0.0	0.0	
10.00000	-20.30938	114.00000	-7.0450	113.75	0.0	0.0	0.0	
11.00000	-20.30938	114.00000	-7.8277	113.75	0.0	0.0	0.0	
12.00000	-20.30938	114.00000	-8.6594	113.75	0.0	0.0	0.0	
13.00000	-20.30938	114.00000	-9.5411	113.75	0.0	0.0	0.0	
14.00000	-20.30938	114.00000	-10.4749	113.75	0.0	0.0	0.0	
15.00000	-20.30938	114.00000	-11.4628	113.75	0.0	0.0	0.0	
16.00000	-20.30938	114.00000	-12.5070	113.75	0.0	0.0	0.0	
17.00000	-20.30938	114.00000	-13.6107	113.75	0.0	0.0	0.0	
18.00000	-20.30938	114.00000	-14.7770	113.75	0.0	0.0	0.0	
19.00000	-20.30938	114.00000	-16.0093	113.75	0.0	0.0	0.0	
20.00000	-20.30938	114.00000	-17.3114	113.75	0.0	0.0	0.0	
21.00000	-20.30938	114.00000	-18.6870	113.75	0.0	0.0	0.0	
22.00000	-20.30938	114.00000	-20.1397	113.75	0.0	0.0	0.0	
23.00000	-20.30938	114.00000	-21.6733	113.75	0.0	0.0	0.0	
24.00000	-20.30938	114.00000	-23.2918	113.75	0.0	0.0	0.0	



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
	13.00000	-18.24750	114.00000	-2.1975	113.75	0.0	0.0	0.0
	14.00000	-18.24750	114.00000	-2.1267	113.75	0.0	0.0	0.0
	15.00000	-18.24750	114.00000	-1.9695	113.75	0.0	0.0	0.0
	16.00000	-18.24750	114.00000	-1.7549	113.75	0.0	0.0	0.0
	17.00000	-18.24750	114.00000	-1.4371	113.75	0.0	0.0	0.0
	18.00000	-18.24750	114.00000	-1.3382	113.75	0.0	0.0	0.0
	19.00000	-18.24750	114.00000	-1.1629	113.75	0.0	0.0	0.0
	20.00000	-18.24750	114.00000	-1.0104	113.75	0.0	0.0	0.0
	21.00000	-18.24750	114.00000	-0.87887	113.75	0.0	0.0	0.0
	22.00000	-18.24750	114.00000	-0.76576	113.75	0.0	0.0	0.0
	23.00000	-18.24750	114.00000	-0.66868	113.75	0.0	0.0	0.0
	24.00000	-18.24750	114.00000	-0.58534	113.75	0.0	0.0	0.0
	25.00000	-18.24750	114.00000	-0.51373	113.75	0.0	0.0	0.0
	26.00000	-18.24750	114.00000	-0.45208	113.75	0.0	0.0	0.0
	27.00000	-18.24750	114.00000	-0.39886	113.75	0.0	0.0	0.0
	28.00000	-18.24750	114.00000	-0.35280	113.75	0.0	0.0	0.0
	29.00000	-18.24750	114.00000	-0.31280	113.75	0.0	0.0	0.0
	30.00000	-18.24750	114.00000	-0.27795	113.75	0.0	0.0	0.0
	31.00000	-18.24750	114.00000	-0.24751	113.75	0.0	0.0	0.0
	32.00000	-18.24750	114.00000	-0.22028	113.75	0.0	0.0	0.0
	33.00000	-18.24750	114.00000	-0.19736	113.75	0.0	0.0	0.0
	34.00000	-18.24750	114.00000	-0.17667	113.75	0.0	0.0	0.0
	35.00000	-18.24750	114.00000	-0.15838	113.75	0.0	0.0	0.0
	36.00000	-18.24750	114.00000	-0.14218	113.75	0.0	0.0	0.0
	37.00000	-18.24750	114.00000	-0.12778	113.75	0.0	0.0	0.0
	38.00000	-18.24750	114.00000	-0.11496	113.75	0.0	0.0	0.0
	39.00000	-18.24750	114.00000	-0.10353	113.75	0.0	0.0	0.0
	40.00000	-18.24750	114.00000	-0.09310	113.75	0.0	0.0	0.0
	41.00000	-18.24750	114.00000	-0.08416	113.75	0.0	0.0	0.0
	42.00000	-18.24750	114.00000	-0.07594	113.75	0.0	0.0	0.0
	43.00000	-18.24750	114.00000	-0.06894	113.75	0.0	0.0	0.0
	44.00000	-18.24750	114.00000	-0.06195	113.75	0.0	0.0	0.0
	45.00000	-18.24750	114.00000	-0.05598	113.75	0.0	0.0	0.0
	46.00000	-18.24750	114.00000	0.05003	113.75	0.0	0.0	0.0
	47.00000	-18.24750	114.00000	-0.04574	113.75	0.0	0.0	0.0
	48.00000	-18.24750	114.00000	-0.04135	113.75	0.0	0.0	0.0
	49.00000	-18.24750	114.00000	-0.03781	113.75	0.0	0.0	0.0
	50.00000	-18.24750	114.00000	-0.03378	113.75	0.0	0.0	0.0
	-20.00000	-17.21656	114.00000	-0.10953	113.75	0.0	0.0	0.0
	-19.00000	-17.21656	114.00000	-0.12147	113.75	0.0	0.0	0.0
	-18.00000	-17.21656	114.00000	-0.13468	113.75	0.0	0.0	0.0
	-17.00000	-17.21656	114.00000	-0.14945	113.75	0.0	0.0	0.0
	-16.00000	-17.21656	114.00000	-0.16599	113.75	0.0	0.0	0.0
	-15.00000	-17.21656	114.00000	-0.18453	113.75	0.0	0.0	0.0
	-14.00000	-17.21656	114.00000	-0.20540	113.75	0.0	0.0	0.0
	-13.00000	-17.21656	114.00000	-0.22888	113.75	0.0	0.0	0.0
	-12.00000	-17.21656	114.00000	-0.25536	113.75	0.0	0.0	0.0
	-11.00000	-17.21656	114.00000	-0.28528	113.75	0.0	0.0	0.0
	-10.00000	-17.21656	114.00000	-0.31914	113.75	0.0	0.0	0.0
	-9.00000	-17.21656	114.00000	-0.35754	113.75	0.0	0.0	0.0
	-8.00000	-17.21656	114.00000	-0.40114	113.75	0.0	0.0	0.0
	-7.00000	-17.21656	114.00000	-0.45069	113.75	0.0	0.0	0.0
	-6.00000	-17.21656	114.00000	-0.50705	113.75	0.0	0.0	0.0
	-5.00000	-17.21656	114.00000	-0.57110	113.75	0.0	0.0	0.0
	-4.00000	-17.21656	114.00000	-0.64380	113.75	0.0	0.0	0.0
	-3.00000	-17.21656	114.00000	-0.72599	113.75	0.0	0.0	0.0
	-2.00000	-17.21656	114.00000	-0.81829	113.75	0.0	0.0	0.0
	-1.00000	-17.21656	114.00000	-0.92076	113.75	0.0	0.0	0.0
	0.00000	-17.21656	114.00000	-1.0324	113.75	0.0	0.0	0.0
	1.00000	-17.21656	114.00000	-1.1507	113.75	0.0	0.0	0.0
	2.00000	-17.21656	114.00000	-1.2708	113.75	0.0	0.0	0.0
	3.00000	-17.21656	114.00000	-1.3861	113.75	0.0	0.0	0.0
	4.00000	-17.21656	114.00000	-1.4896	113.75	0.0	0.0	0.0
	5.00000	-17.21656	114.00000	-1.5766	113.75	0.0	0.0	0.0
	6.00000	-17.21656	114.00000	-1.6456	113.75	0.0	0.0	0.0
	7.00000	-17.21656	114.00000	-1.6980	113.75	0.0	0.0	0.0
	8.00000	-17.21656	114.00000	-1.7357	113.75	0.0	0.0	0.0
	9.00000	-17.21656	114.00000	-1.7610	113.75	0.0	0.0	0.0
	10.00000	-17.21656	114.00000	-1.7751	113.75	0.0	0.0	0.0
	11.00000	-17.21656	114.00000	-1.7778	113.75	0.0	0.0	0.0
	12.00000	-17.21656	114.00000	-1.7646	113.75	0.0	0.0	0.0
	13.00000	-17.21656	114.00000	-1.7292	113.75	0.0	0.0	0.0
	14.00000	-17.21656	114.00000	-1.6615	113.75	0.0	0.0	0.0
	15.00000	-17.21656	114.00000	-1.5566	113.75	0.0	0.0	0.0
	16.00000	-17.21656	114.00000	-1.4239	113.75	0.0	0.0	0.0
	17.00000	-17.21656	114.00000	-1.2808	113.75	0.0	0.0	0.0
	18.00000	-17.21656	114.00000	-1.1405	113.75	0.0	0.0	0.0
	19.00000	-17.21656	114.00000	-1.0098	113.75	0.0	0.0	0.0
	20.00000	-17.21656	114.00000	-0.89138	113.75	0.0	0.0	0.0
	21.00000	-17.21656	114.00000	-0.78580	113.75	0.0	0.0	0.0
	22.00000	-17.21656	114.00000	-0.69259	113.75	0.0	0.0	0.0
	23.00000	-17.21656	114.00000	-0.61079	113.75	0.0	0.0	0.0
	24.00000	-17.21656	114.00000	-0.53924	113.75	0.0	0.0	0.0
	25.00000	-17.21656	114.00000	-0.47677	113.75	0.0	0.0	0.0
	26.00000	-17.21656	114.00000	-0.42224	113.75	0.0	0.0	0.0
	27.00000	-17.21656	114.00000	-0.37461	113.75	0.0	0.0	0.0
	28.00000	-17.21656	114.00000	-0.33295	113.75	0.0	0.0	0.0
	29.00000	-17.21656	114.00000	-0.29645	113.75	0.0	0.0	0.0
	30.00000	-17.21656	114.00000	-0.26441	113.75	0.0	0.0	0.0
	31.00000	-17.21656	114.00000	-0.23622	113.75	0.0	0.0	0.0
	32.00000	-17.21656	114.00000	-0.21136	113.75	0.0	0.0	0.0
	33.00000	-17.21656	114.00000	-0.18939	113.75	0.0	0.0	0.0
	34.00000	-17.21656	114.00000	-0.16992	113.75	0.0	0.0	0.0
	35.00000	-17.21656	114.00000	-0.15265	113.75	0.0	0.0	0.0
	36.00000	-17.21656	114.00000	-0.13728	113.75	0.0	0.0	0.0
	37.00000	-17.21656	114.00000	-0.12359	113.75	0.0	0.0	0.0
	38.00000	-17.21656	114.00000	-0.11136	113.75	0.0	0.0	0.0
	39.00000	-17.21656	114.00000	-0.10042	113.75	0.0	0.0	0.0
	40.00000	-17.21656	114.00000	-0.090619	113.75	0.0	0.0	0.0
	41.00000	-17.21656	114.00000	-0.081928	113.75	0.0	0.0	0.0
	42.00000	-17.21656	114.00000	-0.073923	113.75	0.0	0.0	0.0
	43.00000	-17.21656	114.00000	-0.066813	113.75	0.0	0.0	0.0
	44.00000	-17.21656	114.00000	-0.060407	113.75	0.0	0.0	0.0
	45.00000	-17.21656	114.00000	-0.054629	113.75	0.0	0.0	0.0
	46.00000	-17.21656	114.00000	-0.049412	113.75	0.0	0.0	0.0
	47.00000	-17.21656	114.00000	-0.044697	113.75	0.0	0.0	0.0
	48.00000	-17.21656	114.00000	-0.040431	113.75	0.0	0.0	0.0
	49.00000	-17.21656	114.00000	-0.036568	113.75	0.0	0.0	0.0
	50.00000	-17.21656	114.00000	-0.033068	113.75	0.0	0.0	0.0
	-20.00000	-16.18563	114.00000	-0.10565	113.75	0.0	0.0	0.0
	-19.00000	-16.18563	114.00000	-0.11686	113.75	0.0	0.0	0.0
	-18.00000	-16.18563	114.00000	-0.12935	113.75	0.0	0.0	0.0
	-17.00000	-16.18563	114.00000	-0.14329	113.75	0.0	0.0	0.0
	-16.00000	-16.18563	114.00000	-0.15877	113.75	0.0	0.0	0.0
	-15.00000	-16.18563	114.00000	-0.17611	113.75	0.0	0.0	0.0
	-14.00000	-16.18563	114.00000	-0.19550	113.75	0.0	0.0	0.0
	-13.00000	-16.18563	114.00000	-0.21721	113.75	0.0	0.0	0.0
	-12.00000	-16.18563	114.00000	-0.24157	113.75	0.0	0.0	0.0
	-11.00000	-16.18563	114.00000	-0.26890	113.75	0.0	0.0	0.0
	-10.00000	-16.18563	114.00000	-0.29963	113.75	0.0	0.0	0.0
	-9.00000	-16.18563	114.00000	-0.33417	113.75	0.0	0.0	0.0
	-8.00000	-16.18563	114.00000	-0.37303	113.75	0.0	0.0	0.0
	-7.00000	-16.18563	114.00000	-0.41673	113.75	0.0	0.0	0.0
	-6.00000	-16.18563	114.00000	-0.46582	113.75	0.0	0.0	0.0
	-5.00000	-16.18563	114.00000	-0.52085	113.75	0.0</		



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by MP	Date	Checked

Name	Location	Displacement	Stresses	Vert Strain			
X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
-11.00000	-14.12375	114.00000	-0.23631	113.75	0.0	0.0	0.0
-10.00000	-14.12375	114.00000	-0.26121	113.75	0.0	0.0	0.0
-9.00000	-14.12375	114.00000	-0.28876	113.75	0.0	0.0	0.0
-8.00000	-14.12375	114.00000	-0.31920	113.75	0.0	0.0	0.0
-7.00000	-14.12375	114.00000	-0.35274	113.75	0.0	0.0	0.0
-6.00000	-14.12375	114.00000	-0.38959	113.75	0.0	0.0	0.0
-5.00000	-14.12375	114.00000	-0.42987	113.75	0.0	0.0	0.0
-4.00000	-14.12375	114.00000	-0.47364	113.75	0.0	0.0	0.0
-3.00000	-14.12375	114.00000	-0.52080	113.75	0.0	0.0	0.0
-2.00000	-14.12375	114.00000	-0.57102	113.75	0.0	0.0	0.0
-1.00000	-14.12375	114.00000	-0.62375	113.75	0.0	0.0	0.0
0.00000	-14.12375	114.00000	-0.67809	113.75	0.0	0.0	0.0
1.00000	-14.12375	114.00000	-0.73283	113.75	0.0	0.0	0.0
2.00000	-14.12375	114.00000	-0.78847	113.75	0.0	0.0	0.0
3.00000	-14.12375	114.00000	-0.83736	113.75	0.0	0.0	0.0
4.00000	-14.12375	114.00000	-0.88391	113.75	0.0	0.0	0.0
5.00000	-14.12375	114.00000	-0.92476	113.75	0.0	0.0	0.0
6.00000	-14.12375	114.00000	-0.95889	113.75	0.0	0.0	0.0
7.00000	-14.12375	114.00000	-0.98566	113.75	0.0	0.0	0.0
8.00000	-14.12375	114.00000	-1.0047	113.75	0.0	0.0	0.0
9.00000	-14.12375	114.00000	-1.0156	113.75	0.0	0.0	0.0
10.00000	-14.12375	114.00000	-1.0183	113.75	0.0	0.0	0.0
11.00000	-14.12375	114.00000	-1.0121	113.75	0.0	0.0	0.0
12.00000	-14.12375	114.00000	-0.99659	113.75	0.0	0.0	0.0
13.00000	-14.12375	114.00000	-0.97157	113.75	0.0	0.0	0.0
14.00000	-14.12375	114.00000	-0.93678	113.75	0.0	0.0	0.0
15.00000	-14.12375	114.00000	-0.89304	113.75	0.0	0.0	0.0
16.00000	-14.12375	114.00000	-0.84199	113.75	0.0	0.0	0.0
17.00000	-14.12375	114.00000	-0.78589	113.75	0.0	0.0	0.0
18.00000	-14.12375	114.00000	-0.72718	113.75	0.0	0.0	0.0
19.00000	-14.12375	114.00000	-0.66800	113.75	0.0	0.0	0.0
20.00000	-14.12375	114.00000	-0.61037	113.75	0.0	0.0	0.0
21.00000	-14.12375	114.00000	-0.55525	113.75	0.0	0.0	0.0
22.00000	-14.12375	114.00000	-0.50351	113.75	0.0	0.0	0.0
23.00000	-14.12375	114.00000	-0.45555	113.75	0.0	0.0	0.0
24.00000	-14.12375	114.00000	-0.41152	113.75	0.0	0.0	0.0
25.00000	-14.12375	114.00000	-0.37139	113.75	0.0	0.0	0.0
26.00000	-14.12375	114.00000	-0.33499	113.75	0.0	0.0	0.0
27.00000	-14.12375	114.00000	-0.30209	113.75	0.0	0.0	0.0
28.00000	-14.12375	114.00000	-0.27244	113.75	0.0	0.0	0.0
29.00000	-14.12375	114.00000	-0.24579	113.75	0.0	0.0	0.0
30.00000	-14.12375	114.00000	-0.22175	113.75	0.0	0.0	0.0
31.00000	-14.12375	114.00000	-0.20019	113.75	0.0	0.0	0.0
32.00000	-14.12375	114.00000	-0.18080	113.75	0.0	0.0	0.0
33.00000	-14.12375	114.00000	-0.16338	113.75	0.0	0.0	0.0
34.00000	-14.12375	114.00000	-0.14771	113.75	0.0	0.0	0.0
35.00000	-14.12375	114.00000	-0.13361	113.75	0.0	0.0	0.0
36.00000	-14.12375	114.00000	-0.12091	113.75	0.0	0.0	0.0
37.00000	-14.12375	114.00000	-0.10946	113.75	0.0	0.0	0.0
38.00000	-14.12375	114.00000	-0.99142	113.75	0.0	0.0	0.0
39.00000	-14.12375	114.00000	-0.89824	113.75	0.0	0.0	0.0
40.00000	-14.12375	114.00000	-0.81406	113.75	0.0	0.0	0.0
41.00000	-14.12375	114.00000	-0.73796	113.75	0.0	0.0	0.0
42.00000	-14.12375	114.00000	-0.66909	113.75	0.0	0.0	0.0
43.00000	-14.12375	114.00000	-0.60674	113.75	0.0	0.0	0.0
44.00000	-14.12375	114.00000	-0.55023	113.75	0.0	0.0	0.0
45.00000	-14.12375	114.00000	-0.49898	113.75	0.0	0.0	0.0
46.00000	-14.12375	114.00000	-0.45248	113.75	0.0	0.0	0.0
47.00000	-14.12375	114.00000	-0.41026	113.75	0.0	0.0	0.0
48.00000	-14.12375	114.00000	-0.37190	113.75	0.0	0.0	0.0
49.00000	-14.12375	114.00000	-0.33702	113.75	0.0	0.0	0.0
50.00000	-14.12375	114.00000	-0.30530	113.75	0.0	0.0	0.0
-20.00000	-13.09281	114.00000	-0.99220	113.75	0.0	0.0	0.0
-19.00000	-13.09281	114.00000	-0.10214	113.75	0.0	0.0	0.0
-18.00000	-13.09281	114.00000	-0.11240	113.75	0.0	0.0	0.0
-17.00000	-13.09281	114.00000	-0.12372	113.75	0.0	0.0	0.0
-16.00000	-13.09281	114.00000	-0.13619	113.75	0.0	0.0	0.0
-15.00000	-13.09281	114.00000	-0.14994	113.75	0.0	0.0	0.0
-14.00000	-13.09281	114.00000	-0.16510	113.75	0.0	0.0	0.0
-13.00000	-13.09281	114.00000	-0.18161	113.75	0.0	0.0	0.0
-12.00000	-13.09281	114.00000	-0.20022	113.75	0.0	0.0	0.0
-11.00000	-13.09281	114.00000	-0.22049	113.75	0.0	0.0	0.0
-10.00000	-13.09281	114.00000	-0.24278	113.75	0.0	0.0	0.0
-9.00000	-13.09281	114.00000	-0.26728	113.75	0.0	0.0	0.0
-8.00000	-13.09281	114.00000	-0.29406	113.75	0.0	0.0	0.0
-7.00000	-13.09281	114.00000	-0.32334	113.75	0.0	0.0	0.0
-6.00000	-13.09281	114.00000	-0.35517	113.75	0.0	0.0	0.0
-5.00000	-13.09281	114.00000	-0.38961	113.75	0.0	0.0	0.0
-4.00000	-13.09281	114.00000	-0.42659	113.75	0.0	0.0	0.0
-3.00000	-13.09281	114.00000	-0.46594	113.75	0.0	0.0	0.0
-2.00000	-13.09281	114.00000	-0.50735	113.75	0.0	0.0	0.0
-1.00000	-13.09281	114.00000	-0.55030	113.75	0.0	0.0	0.0
0.00000	-13.09281	114.00000	-0.59404	113.75	0.0	0.0	0.0
1.00000	-13.09281	114.00000	-0.63773	113.75	0.0	0.0	0.0
2.00000	-13.09281	114.00000	-0.68023	113.75	0.0	0.0	0.0
3.00000	-13.09281	114.00000	-0.72040	113.75	0.0	0.0	0.0
4.00000	-13.09281	114.00000	-0.75712	113.75	0.0	0.0	0.0
5.00000	-13.09281	114.00000	-0.78939	113.75	0.0	0.0	0.0
6.00000	-13.09281	114.00000	-0.81641	113.75	0.0	0.0	0.0
7.00000	-13.09281	114.00000	-0.83759	113.75	0.0	0.0	0.0
8.00000	-13.09281	114.00000	-0.85249	113.75	0.0	0.0	0.0
9.00000	-13.09281	114.00000	-0.86080	113.75	0.0	0.0	0.0
10.00000	-13.09281	114.00000	-0.86223	113.75	0.0	0.0	0.0
11.00000	-13.09281	114.00000	-0.85653	113.75	0.0	0.0	0.0
12.00000	-13.09281	114.00000	-0.84347	113.75	0.0	0.0	0.0
13.00000	-13.09281	114.00000	-0.82300	113.75	0.0	0.0	0.0
14.00000	-13.09281	114.00000	-0.79534	113.75	0.0	0.0	0.0
15.00000	-13.09281	114.00000	-0.76118	113.75	0.0	0.0	0.0
16.00000	-13.09281	114.00000	-0.72160	113.75	0.0	0.0	0.0
17.00000	-13.09281	114.00000	-0.67800	113.75	0.0	0.0	0.0
18.00000	-13.09281	114.00000	-0.63220	113.75	0.0	0.0	0.0
19.00000	-13.09281	114.00000	-0.58548	113.75	0.0	0.0	0.0
20.00000	-13.09281	114.00000	-0.53921	113.75	0.0	0.0	0.0
21.00000	-13.09281	114.00000	-0.49436	113.75	0.0	0.0	0.0
22.00000	-13.09281	114.00000	-0.45165	113.75	0.0	0.0	0.0
23.00000	-13.09281	114.00000	-0.41151	113.75	0.0	0.0	0.0
24.00000	-13.09281	114.00000	-0.37418	113.75	0.0	0.0	0.0
25.00000	-13.09281	114.00000	-0.33972	113.75	0.0	0.0	0.0
26.00000	-13.09281	114.00000	-0.30813	113.75	0.0	0.0	0.0
27.00000	-13.09281	114.00000	-0.27928	113.75	0.0	0.0	0.0
28.00000	-13.09281	114.00000	-0.25304	113.75	0.0	0.0	0.0
29.00000	-13.09281	114.00000	-0.22921	113.75	0.0	0.0	0.0
30.00000	-13.09281	114.00000	-0.20763	113.75	0.0	0.0	0.0
31.00000	-13.09281	114.00000	-0.18809	113.75	0.0	0.0	0.0
32.00000	-13.09281	114.00000	-0.17042	113.75	0.0	0.0	0.0
33.00000	-13.09281	114.00000	-0.15445	113.75	0.0	0.0	0.0
34.00000	-13.09281	114.00000	-0.14000	113.75	0.0	0.0	0.0
35.00000	-13.09281	114.00000	-0.12694	113.75	0.0	0.0	0.0
36.00000	-13.09281	114.00000	-0.11513	113.75	0.0	0.0	0.0
37.00000	-13.09281	114.00000	-0.10445	113.75	0.0	0.0	0.0
38.00000	-13.09281	114.00000	-0.094774	113.75	0.0	0.0	0.0
39.00000	-13.09281	114.00000	-0.086104	113.75	0.0	0.0	0.0
40.00000	-13.09281	114.00000	-0.078076	113.75	0.0	0.0	0.0
41.00000	-13.09281	114.00000	-0.070879	113.75	0.0	0.0	0.0
42.00000	-13.09281	114.00000	-0.064350	113.75	0.0	0.0	0.0
43.00000	-13.09281	114.00000	-0.058424	113.75	0.0	0.0	0.0
44.00000	-13.09281	114.00000	-0.053042	113.75	0.0	0.0	0.0
45.00000	-13.09281	114.00000	-0.048152	113.75	0.0	0.0	0.0
46.00000	-13.09281	114.00000	-0.043708	113.75	0.0	0.0	0.0
47.00000	-13.09281	114.00000	-0.039663	113.75	0.0	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
MP		

Name	Location		Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
	X [m]	Y [m]					
	36.00000	-11.03094	114.00000	-0.10350	113.75	0.0	0.0
	37.00000	-11.03094	114.00000	-0.094280	113.75	0.0	0.0
	38.00000	-11.03094	114.00000	-0.085876	113.75	0.0	0.0
	39.00000	-11.03094	114.00000	-0.078214	113.75	0.0	0.0
	40.00000	-11.03094	114.00000	-0.071227	113.75	0.0	0.0
	41.00000	-11.03094	114.00000	-0.064856	113.75	0.0	0.0
	42.00000	-11.03094	114.00000	-0.059046	113.75	0.0	0.0
	43.00000	-11.03094	114.00000	-0.053746	113.75	0.0	0.0
	44.00000	-11.03094	114.00000	-0.048911	113.75	0.0	0.0
	45.00000	-11.03094	114.00000	-0.044498	113.75	0.0	0.0
	46.00000	-11.03094	114.00000	-0.040471	113.75	0.0	0.0
	47.00000	-11.03094	114.00000	-0.036795	113.75	0.0	0.0
	48.00000	-11.03094	114.00000	-0.033437	113.75	0.0	0.0
	49.00000	-11.03094	114.00000	-0.030371	113.75	0.0	0.0
	50.00000	-11.03094	114.00000	-0.027570	113.75	0.0	0.0
	-20.00000	-10.00000	114.00000	-0.079581	113.75	0.0	0.0
	-19.00000	-10.00000	114.00000	-0.087088	113.75	0.0	0.0
	-18.00000	-10.00000	114.00000	-0.095274	113.75	0.0	0.0
	-17.00000	-10.00000	114.00000	-0.104200	113.75	0.0	0.0
	-16.00000	-10.00000	114.00000	-0.11391	113.75	0.0	0.0
	-15.00000	-10.00000	114.00000	-0.12448	113.75	0.0	0.0
	-14.00000	-10.00000	114.00000	-0.13597	113.75	0.0	0.0
	-13.00000	-10.00000	114.00000	-0.14844	113.75	0.0	0.0
	-12.00000	-10.00000	114.00000	-0.16198	113.75	0.0	0.0
	-11.00000	-10.00000	114.00000	-0.17657	113.75	0.0	0.0
	-10.00000	-10.00000	114.00000	-0.19234	113.75	0.0	0.0
	-9.00000	-10.00000	114.00000	-0.20928	113.75	0.0	0.0
	-8.00000	-10.00000	114.00000	-0.22744	113.75	0.0	0.0
	-7.00000	-10.00000	114.00000	-0.24679	113.75	0.0	0.0
	-6.00000	-10.00000	114.00000	-0.26731	113.75	0.0	0.0
	-5.00000	-10.00000	114.00000	-0.28892	113.75	0.0	0.0
	-4.00000	-10.00000	114.00000	-0.31150	113.75	0.0	0.0
	-3.00000	-10.00000	114.00000	-0.33487	113.75	0.0	0.0
	-2.00000	-10.00000	114.00000	-0.35870	113.75	0.0	0.0
	-1.00000	-10.00000	114.00000	-0.38295	113.75	0.0	0.0
	0.00000	-10.00000	114.00000	-0.40698	113.75	0.0	0.0
	1.00000	-10.00000	114.00000	-0.43046	113.75	0.0	0.0
	2.00000	-10.00000	114.00000	-0.45293	113.75	0.0	0.0
	3.00000	-10.00000	114.00000	-0.47391	113.75	0.0	0.0
	4.00000	-10.00000	114.00000	-0.49294	113.75	0.0	0.0
	5.00000	-10.00000	114.00000	-0.50958	113.75	0.0	0.0
	6.00000	-10.00000	114.00000	-0.52344	113.75	0.0	0.0
	7.00000	-10.00000	114.00000	-0.53419	113.75	0.0	0.0
	8.00000	-10.00000	114.00000	-0.54156	113.75	0.0	0.0
	9.00000	-10.00000	114.00000	-0.54537	113.75	0.0	0.0
	10.00000	-10.00000	114.00000	-0.54547	113.75	0.0	0.0
	11.00000	-10.00000	114.00000	-0.54182	113.75	0.0	0.0
	12.00000	-10.00000	114.00000	-0.53443	113.75	0.0	0.0
	13.00000	-10.00000	114.00000	-0.52342	113.75	0.0	0.0
	14.00000	-10.00000	114.00000	-0.50902	113.75	0.0	0.0
	15.00000	-10.00000	114.00000	-0.49157	113.75	0.0	0.0
	16.00000	-10.00000	114.00000	-0.47150	113.75	0.0	0.0
	17.00000	-10.00000	114.00000	-0.44934	113.75	0.0	0.0
	18.00000	-10.00000	114.00000	-0.42564	113.75	0.0	0.0
	19.00000	-10.00000	114.00000	-0.40098	113.75	0.0	0.0
	20.00000	-10.00000	114.00000	-0.37588	113.75	0.0	0.0
	21.00000	-10.00000	114.00000	-0.35082	113.75	0.0	0.0
	22.00000	-10.00000	114.00000	-0.32618	113.75	0.0	0.0
	23.00000	-10.00000	114.00000	-0.30229	113.75	0.0	0.0
	24.00000	-10.00000	114.00000	-0.27937	113.75	0.0	0.0
	25.00000	-10.00000	114.00000	-0.25759	113.75	0.0	0.0
	26.00000	-10.00000	114.00000	-0.23704	113.75	0.0	0.0
	27.00000	-10.00000	114.00000	-0.21778	113.75	0.0	0.0
	28.00000	-10.00000	114.00000	-0.19982	113.75	0.0	0.0
	29.00000	-10.00000	114.00000	-0.18314	113.75	0.0	0.0
	30.00000	-10.00000	114.00000	-0.16770	113.75	0.0	0.0
	31.00000	-10.00000	114.00000	-0.15349	113.75	0.0	0.0
	32.00000	-10.00000	114.00000	-0.14033	113.75	0.0	0.0
	33.00000	-10.00000	114.00000	-0.12827	113.75	0.0	0.0
	34.00000	-10.00000	114.00000	-0.11720	113.75	0.0	0.0
	35.00000	-10.00000	114.00000	-0.10704	113.75	0.0	0.0
	36.00000	-10.00000	114.00000	-0.097741	113.75	0.0	0.0
	37.00000	-10.00000	114.00000	-0.089222	113.75	0.0	0.0
	38.00000	-10.00000	114.00000	-0.081426	113.75	0.0	0.0
	39.00000	-10.00000	114.00000	-0.074293	113.75	0.0	0.0
	40.00000	-10.00000	114.00000	-0.067769	113.75	0.0	0.0
	41.00000	-10.00000	114.00000	-0.061802	113.75	0.0	0.0
	42.00000	-10.00000	114.00000	-0.056346	113.75	0.0	0.0
	43.00000	-10.00000	114.00000	-0.051356	113.75	0.0	0.0
	44.00000	-10.00000	114.00000	-0.046793	113.75	0.0	0.0
	45.00000	-10.00000	114.00000	-0.042620	113.75	0.0	0.0
	46.00000	-10.00000	114.00000	-0.038803	113.75	0.0	0.0
	47.00000	-10.00000	114.00000	-0.035312	113.75	0.0	0.0
	48.00000	-10.00000	114.00000	-0.032118	113.75	0.0	0.0
	49.00000	-10.00000	114.00000	-0.029196	113.75	0.0	0.0
	50.00000	-10.00000	114.00000	-0.026523	113.75	0.0	0.0
Grid 7	-20.00000	-34.49500	114.00000	-0.11588	113.75	0.0	0.0
	-19.00020	-34.49500	114.00000	-0.12837	113.75	0.0	0.0
	-18.00040	-34.49500	114.00000	-0.14272	113.75	0.0	0.0
	-17.00060	-34.49500	114.00000	-0.15886	113.75	0.0	0.0
	-16.00080	-34.49500	114.00000	-0.17703	113.75	0.0	0.0
	-15.00100	-34.49500	114.00000	-0.19755	113.75	0.0	0.0
	-14.00120	-34.49500	114.00000	-0.22078	113.75	0.0	0.0
	-13.00140	-34.49500	114.00000	-0.24715	113.75	0.0	0.0
	-12.00160	-34.49500	114.00000	-0.27717	113.75	0.0	0.0
	-11.00180	-34.49500	114.00000	-0.31144	113.75	0.0	0.0
	-10.00200	-34.49500	114.00000	-0.35069	113.75	0.0	0.0
	-9.00220	-34.49500	114.00000	-0.39580	113.75	0.0	0.0
	-8.00240	-34.49500	114.00000	-0.44781	113.75	0.0	0.0
	-7.00260	-34.49500	114.00000	-0.50801	113.75	0.0	0.0
	-6.00280	-34.49500	114.00000	-0.57791	113.75	0.0	0.0
	-5.00300	-34.49500	114.00000	-0.65939	113.75	0.0	0.0
	-4.00320	-34.49500	114.00000	-0.75468	113.75	0.0	0.0
	-3.00340	-34.49500	114.00000	-0.86652	113.75	0.0	0.0
	-2.00360	-34.49500	114.00000	-0.99819	113.75	0.0	0.0
	-1.00380	-34.49500	114.00000	-1.1538	113.75	0.0	0.0
	-0.00400	-34.49500	114.00000	-1.3384	113.75	0.0	0.0
	0.99580	-34.49500	114.00000	-1.5589	113.75	0.0	0.0
	1.99560	-34.49500	114.00000	-1.8252	113.75	0.0	0.0
	2.99540	-34.49500	114.00000	-2.1544	113.75	0.0	0.0
	3.99520	-34.49500	114.00000	-2.5832	113.75	0.0	0.0
	4.99500	-34.49500	114.00000	-3.1207	113.75	0.0	0.0
	-20.00000	-33.49562	114.00000	-0.11877	113.75	0.0	0.0
	-19.00020	-33.49562	114.00000	-0.13208	113.75	0.0	0.0
	-18.00040	-33.49562	114.00000	-0.14705	113.75	0.0	0.0
	-17.00060	-33.49562	114.00000	-0.16393	113.75	0.0	0.0
	-16.00080	-33.49562	114.00000	-0.18299	113.75	0.0	0.0
	-15.00100	-33.49562	114.00000	-0.20459	113.75	0.0	0.0
	-14.00120	-33.49562	114.00000	-0.22913	113.75	0.0	0.0
	-13.00140	-33.49562	114.00000	-0.25719	113.75	0.0	0.0
	-12.00160	-33.49562	114.00000	-0.28910	113.75	0.0	0.0
	-11.00180	-33.49562	114.00000	-0.32582	113.75	0.0	0.0
	-10.00200	-33.49562	114.00000	-0.36813	113.75	0.0	0.0
	-9.00220	-33.49562	114.00000	-0.41710	113.75	0.0	0.0
	-8.00240	-33.49562	114.00000	-0.47401	113.75	0.0	0.0
	-7.00260	-33.49562	114.00000	-0.54046	113.75	0.0	0.0
	-6.00280	-33.49562	114.00000	-0.61846	113.75	0.0	0.0
	-5.00300	-33.49562	114.00000	-0.71049	113.75	0.0	0.0
	-4.00320	-33.49562	114.00000	-0.81969	113.75	0.0	0.0
	-3.00340	-33.49562	114.00000	-0.95006	113.75	0.0	0.0



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Pavilion Only (inc Raft)

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MP		



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Pavilion Only (inc Raft)

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Name	Location			Displacement			Stresses				
	X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]			
-2.00360	-28.49875	114.00000	-1.59500	113.75	0.0	0.0	0.0	0.0			
-1.00380	-28.49875	114.00000	-1.99500	113.75	0.0	0.0	0.0	0.0			
-0.00400	-28.49875	114.00000	-2.58588	113.75	0.0	0.0	0.0	0.0			
0.99580	-28.49875	114.00000	-3.62778	113.75	0.0	0.0	0.0	0.0			
1.99560	-28.49875	114.00000	-5.74665	113.75	0.0	0.0	0.0	0.0			
2.99540	-28.49875	114.00000	-6.99100	113.75	0.0	0.0	0.0	0.0			
3.99520	-28.49875	114.00000	-7.74150	113.75	0.0	0.0	0.0	0.0			
4.99500	-28.49875	114.00000	-8.22070	113.75	0.0	0.0	0.0	0.0			
-20.00000	-27.49938	114.00000	-0.12959	113.75	0.0	0.0	0.0	0.0			
-19.00020	-27.49938	114.00000	-0.14472	113.75	0.0	0.0	0.0	0.0			
-18.00040	-27.49938	114.00000	-0.16189	113.75	0.0	0.0	0.0	0.0			
-17.00060	-27.49938	114.00000	-0.18140	113.75	0.0	0.0	0.0	0.0			
-16.00080	-27.49938	114.00000	-0.20368	113.75	0.0	0.0	0.0	0.0			
-15.00100	-27.49938	114.00000	-0.22921	113.75	0.0	0.0	0.0	0.0			
-14.00120	-27.49938	114.00000	-0.25859	113.75	0.0	0.0	0.0	0.0			
-13.00140	-27.49938	114.00000	-0.29257	113.75	0.0	0.0	0.0	0.0			
-12.00160	-27.49938	114.00000	-0.33209	113.75	0.0	0.0	0.0	0.0			
-11.00180	-27.49938	114.00000	-0.37832	113.75	0.0	0.0	0.0	0.0			
-10.00200	-27.49938	114.00000	-0.43276	113.75	0.0	0.0	0.0	0.0			
-9.00220	-27.49938	114.00000	-0.49738	113.75	0.0	0.0	0.0	0.0			
-8.00240	-27.49938	114.00000	-0.57473	113.75	0.0	0.0	0.0	0.0			
-7.00260	-27.49938	114.00000	-0.66825	113.75	0.0	0.0	0.0	0.0			
-6.00280	-27.49938	114.00000	-0.78261	113.75	0.0	0.0	0.0	0.0			
-5.00300	-27.49938	114.00000	-0.92437	113.75	0.0	0.0	0.0	0.0			
-4.00320	-27.49938	114.00000	-1.10311	113.75	0.0	0.0	0.0	0.0			
-3.00340	-27.49938	114.00000	-1.33311	113.75	0.0	0.0	0.0	0.0			
-2.00360	-27.49938	114.00000	-1.64381	113.75	0.0	0.0	0.0	0.0			
-1.00380	-27.49938	114.00000	-2.06000	113.75	0.0	0.0	0.0	0.0			
-0.00400	-27.49938	114.00000	-2.68866	113.75	0.0	0.0	0.0	0.0			
0.99580	-27.49938	114.00000	-3.78773	113.75	0.0	0.0	0.0	0.0			
1.99560	-27.49938	114.00000	-5.88200	113.75	0.0	0.0	0.0	0.0			
2.99540	-27.49938	114.00000	-7.18449	113.75	0.0	0.0	0.0	0.0			
3.99520	-27.49938	114.00000	-7.99056	113.75	0.0	0.0	0.0	0.0			
4.99500	-27.49938	114.00000	-8.33676	113.75	0.0	0.0	0.0	0.0			
-20.00000	-26.50000	114.00000	-0.12974	113.75	0.0	0.0	0.0	0.0			
-19.00020	-26.50000	114.00000	-0.14491	113.75	0.0	0.0	0.0	0.0			
-18.00040	-26.50000	114.00000	-0.16210	113.75	0.0	0.0	0.0	0.0			
-17.00060	-26.50000	114.00000	-0.18165	113.75	0.0	0.0	0.0	0.0			
-16.00080	-26.50000	114.00000	-0.20398	113.75	0.0	0.0	0.0	0.0			
-15.00100	-26.50000	114.00000	-0.22956	113.75	0.0	0.0	0.0	0.0			
-14.00120	-26.50000	114.00000	-0.25902	113.75	0.0	0.0	0.0	0.0			
-13.00140	-26.50000	114.00000	-0.29309	113.75	0.0	0.0	0.0	0.0			
-12.00160	-26.50000	114.00000	-0.33272	113.75	0.0	0.0	0.0	0.0			
-11.00180	-26.50000	114.00000	-0.37811	113.75	0.0	0.0	0.0	0.0			
-10.00200	-26.50000	114.00000	-0.43376	113.75	0.0	0.0	0.0	0.0			
-9.00220	-26.50000	114.00000	-0.49865	113.75	0.0	0.0	0.0	0.0			
-8.00240	-26.50000	114.00000	-0.57638	113.75	0.0	0.0	0.0	0.0			
-7.00260	-26.50000	114.00000	-0.67042	113.75	0.0	0.0	0.0	0.0			
-6.00280	-26.50000	114.00000	-0.78554	113.75	0.0	0.0	0.0	0.0			
-5.00300	-26.50000	114.00000	-0.92842	113.75	0.0	0.0	0.0	0.0			
-4.00320	-26.50000	114.00000	-1.09880	113.75	0.0	0.0	0.0	0.0			
-3.00340	-26.50000	114.00000	-1.34144	113.75	0.0	0.0	0.0	0.0			
-2.00360	-26.50000	114.00000	-1.65002	113.75	0.0	0.0	0.0	0.0			
-1.00380	-26.50000	114.00000	-2.07722	113.75	0.0	0.0	0.0	0.0			
-0.00400	-26.50000	114.00000	-2.70844	113.75	0.0	0.0	0.0	0.0			
0.99580	-26.50000	114.00000	-3.78444	113.75	0.0	0.0	0.0	0.0			
1.99560	-26.50000	114.00000	-5.85720	113.75	0.0	0.0	0.0	0.0			
2.99540	-26.50000	114.00000	-7.22050	113.75	0.0	0.0	0.0	0.0			
3.99520	-26.50000	114.00000	-7.93778	113.75	0.0	0.0	0.0	0.0			
4.99500	-26.50000	114.00000	-8.33676	113.75	0.0	0.0	0.0	0.0			
Grid 8	5.00000	-34.50000	112.00000	-3.1848	111.75	0.0	0.0	0.0			
6.00000	-34.50000	112.00000	-3.1701	111.75	0.0	0.0	0.0	0.0			
7.00000	-34.50000	112.00000	-2.9496	111.75	0.0	0.0	0.0	0.0			
8.00000	-34.50000	112.00000	-2.7504	111.75	0.0	0.0	0.0	0.0			
9.00000	-34.50000	112.00000	-2.5209	111.75	0.0	0.0	0.0	0.0			
10.00000	-34.50000	112.00000	-2.2314	111.75	0.0	0.0	0.0	0.0			
11.00000	-34.50000	112.00000	-2.1234	111.75	0.0	0.0	0.0	0.0			
12.00000	-34.50000	112.00000	-1.9507	111.75	0.0	0.0	0.0	0.0			
13.00000	-34.50000	112.00000	-1.7790	111.75	0.0	0.0	0.0	0.0			
14.00000	-34.50000	112.00000	-1.6162	111.75	0.0	0.0	0.0	0.0			
15.00000	-34.50000	112.00000	-1.4626	111.75	0.0	0.0	0.0	0.0			
16.00000	-34.50000	112.00000	-1.3184	111.75	0.0	0.0	0.0	0.0			
17.00000	-34.50000	112.00000	-1.1838	111.75	0.0	0.0	0.0	0.0			
18.00000	-34.50000	112.00000	-1.0594	111.75	0.0	0.0	0.0	0.0			
19.00000	-34.50000	112.00000	-0.94516	111.75	0.0	0.0	0.0	0.0			
20.00000	-34.50000	112.00000	-0.84135	111.75	0.0	0.0	0.0	0.0			
21.00000	-34.50000	112.00000	-0.74775	111.75	0.0	0.0	0.0	0.0			
22.00000	-34.50000	112.00000	-0.66399	111.75	0.0	0.0	0.0	0.0			
23.00000	-34.50000	112.00000	-0.58945	111.75	0.0	0.0	0.0	0.0			
24.00000	-34.50000	112.00000	-0.52341	111.75	0.0	0.0	0.0	0.0			
25.00000	-34.50000	112.00000	-0.46511	111.75	0.0	0.0	0.0	0.0			
26.00000	-34.50000	112.00000	-0.41368	111.75	0.0	0.0	0.0	0.0			
27.00000	-34.50000	112.00000	-0.36834	111.75	0.0	0.0	0.0	0.0			
28.00000	-34.50000	112.00000	-0.32842	111.75	0.0	0.0	0.0	0.0			
29.00000	-34.50000	112.00000	-0.29320	111.75	0.0	0.0	0.0	0.0			
30.00000	-34.50000	112.00000	-0.26210	111.75	0.0	0.0	0.0	0.0			
31.00000	-34.50000	112.00000	-0.23463	111.75	0.0	0.0	0.0	0.0			
32.00000	-34.50000	112.00000	-0.21027	111.75	0.0	0.0	0.0	0.0			
33.00000	-34.50000	112.00000	-0.18867	111.75	0.0	0.0	0.0	0.0			
34.00000	-34.50000	112.00000	-0.16949	111.75	0.0	0.0	0.0	0.0			
35.00000	-34.50000	112.00000	-0.15242	111.75	0.0	0.0	0.0	0.0			
36.00000	-34.50000	112.00000	-0.13719	111.75	0.0	0.0	0.0	0.0			
37.00000	-34.50000	112.00000	-0.12360	111.75	0.0	0.0	0.0	0.0			
38.00000	-34.50000	112.00000	-0.11144	111.75	0.0	0.0	0.0	0.0			
39.00000	-34.50000	112.00000	-0.10055	111.75	0.0	0.0	0.0	0.0			
40.00000	-34.50000	112.00000	-0.09073	111.75	0.0	0.0	0.0	0.0			
41.00000	-34.50000	112.00000	-0.08200	111.75	0.0	0.0	0.0	0.0			
42.00000	-34.50000	112.00000	-0.07414	111.75	0.0	0.0	0.0	0.0			
43.00000	-34.50000	112.00000	-0.06700	111.75	0.0	0.0	0.0	0.0			
44.00000	-34.50000	112.00000	-0.06059	111.75	0.0	0.0	0.0	0.0			
45.00000	-34.50000	112.00000	-0.054816	111.75	0.0	0.0	0.0	0.0			
46.00000	-34.50000	112.00000	-0.049591	111.75	0.0	0.0	0.0	0.0			
47.00000	-34.50000	112.00000	-0.044867	111.75	0.0	0.0	0.0	0.0			
48.00000	-34.50000	112.00000	-0.040591	111.75	0.0	0.0	0.0	0.0			
49.00000	-34.50000	112.00000	-0.036718	111.75	0.0	0.0	0.0	0.0			
50.00000	-34.50000	112.00000	-0.033207	111.75	0.0	0.0	0.0	0.0			
5.00000	-33.50000	112.00000									



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Name	Location		Displacement		Stresses			
	X [m]	Y [m]	Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
21.00000	-30.50000	112.00000	-1.0974	111.75	0.0	0.0	0.0	0.0
22.00000	-30.50000	112.00000	-0.93564	111.75	0.0	0.0	0.0	0.0
23.00000	-30.50000	112.00000	-0.80167	111.75	0.0	0.0	0.0	0.0
24.00000	-30.50000	112.00000	-0.69038	111.75	0.0	0.0	0.0	0.0
25.00000	-30.50000	112.00000	-0.59746	111.75	0.0	0.0	0.0	0.0
26.00000	-30.50000	112.00000	-0.51944	111.75	0.0	0.0	0.0	0.0
27.00000	-30.50000	112.00000	-0.45353	111.75	0.0	0.0	0.0	0.0
28.00000	-30.50000	112.00000	-0.39753	111.75	0.0	0.0	0.0	0.0
29.00000	-30.50000	112.00000	-0.34967	111.75	0.0	0.0	0.0	0.0
30.00000	-30.50000	112.00000	-0.30857	111.75	0.0	0.0	0.0	0.0
31.00000	-30.50000	112.00000	-0.27308	111.75	0.0	0.0	0.0	0.0
32.00000	-30.50000	112.00000	-0.24231	111.75	0.0	0.0	0.0	0.0
33.00000	-30.50000	112.00000	-0.21551	111.75	0.0	0.0	0.0	0.0
34.00000	-30.50000	112.00000	-0.19208	111.75	0.0	0.0	0.0	0.0
35.00000	-30.50000	112.00000	-0.17152	111.75	0.0	0.0	0.0	0.0
36.00000	-30.50000	112.00000	-0.15343	111.75	0.0	0.0	0.0	0.0
37.00000	-30.50000	112.00000	-0.13745	111.75	0.0	0.0	0.0	0.0
38.00000	-30.50000	112.00000	-0.12330	111.75	0.0	0.0	0.0	0.0
39.00000	-30.50000	112.00000	-0.11074	111.75	0.0	0.0	0.0	0.0
40.00000	-30.50000	112.00000	-0.099565	111.75	0.0	0.0	0.0	0.0
41.00000	-30.50000	112.00000	-0.089602	111.75	0.0	0.0	0.0	0.0
42.00000	-30.50000	112.00000	-0.080700	111.75	0.0	0.0	0.0	0.0
43.00000	-30.50000	112.00000	-0.072732	111.75	0.0	0.0	0.0	0.0
44.00000	-30.50000	112.00000	-0.065659	111.75	0.0	0.0	0.0	0.0
45.00000	-30.50000	112.00000	-0.059174	111.75	0.0	0.0	0.0	0.0
46.00000	-30.50000	112.00000	-0.053407	111.75	0.0	0.0	0.0	0.0
47.00000	-30.50000	112.00000	-0.048213	111.75	0.0	0.0	0.0	0.0
48.00000	-30.50000	112.00000	-0.043532	111.75	0.0	0.0	0.0	0.0
49.00000	-30.50000	112.00000	-0.039306	111.75	0.0	0.0	0.0	0.0
50.00000	-30.50000	112.00000	-0.035489	111.75	0.0	0.0	0.0	0.0
5.00000	-29.50000	112.00000	-7.94659	111.75	0.0	0.0	0.0	0.0
6.00000	-29.50000	112.00000	-8.2462	111.75	0.0	0.0	0.0	0.0
7.00000	-29.50000	112.00000	-8.5391	111.75	0.0	0.0	0.0	0.0
8.00000	-29.50000	112.00000	-8.8337	111.75	0.0	0.0	0.0	0.0
9.00000	-29.50000	112.00000	-9.1294	111.75	0.0	0.0	0.0	0.0
10.00000	-29.50000	112.00000	-9.4264	111.75	0.0	0.0	0.0	0.0
11.00000	-29.50000	112.00000	-9.7246	111.75	0.0	0.0	0.0	0.0
12.00000	-29.50000	112.00000	-10.0241	111.75	0.0	0.0	0.0	0.0
13.00000	-29.50000	112.00000	-10.3249	111.75	0.0	0.0	0.0	0.0
14.00000	-29.50000	112.00000	-10.6270	111.75	0.0	0.0	0.0	0.0
15.00000	-29.50000	112.00000	-10.9304	111.75	0.0	0.0	0.0	0.0
16.00000	-29.50000	112.00000	-11.2352	111.75	0.0	0.0	0.0	0.0
17.00000	-29.50000	112.00000	-11.5414	111.75	0.0	0.0	0.0	0.0
18.00000	-29.50000	112.00000	-11.8491	111.75	0.0	0.0	0.0	0.0
19.00000	-29.50000	112.00000	-12.1582	111.75	0.0	0.0	0.0	0.0
20.00000	-29.50000	112.00000	-12.4688	111.75	0.0	0.0	0.0	0.0
21.00000	-29.50000	112.00000	-12.7808	111.75	0.0	0.0	0.0	0.0
22.00000	-29.50000	112.00000	-13.0943	111.75	0.0	0.0	0.0	0.0
23.00000	-29.50000	112.00000	-13.4093	111.75	0.0	0.0	0.0	0.0
24.00000	-29.50000	112.00000	-13.7258	111.75	0.0	0.0	0.0	0.0
25.00000	-29.50000	112.00000	-14.0438	111.75	0.0	0.0	0.0	0.0
26.00000	-29.50000	112.00000	-14.3633	111.75	0.0	0.0	0.0	0.0
27.00000	-29.50000	112.00000	-14.6843	111.75	0.0	0.0	0.0	0.0
28.00000	-29.50000	112.00000	-15.0068	111.75	0.0	0.0	0.0	0.0
29.00000	-29.50000	112.00000	-15.3308	111.75	0.0	0.0	0.0	0.0
30.00000	-29.50000	112.00000	-15.6563	111.75	0.0	0.0	0.0	0.0
31.00000	-29.50000	112.00000	-15.9833	111.75	0.0	0.0	0.0	0.0
32.00000	-29.50000	112.00000	-16.3118	111.75	0.0	0.0	0.0	0.0
33.00000	-29.50000	112.00000	-16.6418	111.75	0.0	0.0	0.0	0.0
34.00000	-29.50000	112.00000	-16.9733	111.75	0.0	0.0	0.0	0.0
35.00000	-29.50000	112.00000	-17.3063	111.75	0.0	0.0	0.0	0.0
36.00000	-29.50000	112.00000	-17.6408	111.75	0.0	0.0	0.0	0.0
37.00000	-29.50000	112.00000	-17.9768	111.75	0.0	0.0	0.0	0.0
38.00000	-29.50000	112.00000	-18.3143	111.75	0.0	0.0	0.0	0.0
39.00000	-29.50000	112.00000	-18.6533	111.75	0.0	0.0	0.0	0.0
40.00000	-29.50000	112.00000	-18.9938	111.75	0.0	0.0	0.0	0.0
41.00000	-29.50000	112.00000	-19.3358	111.75	0.0	0.0	0.0	0.0
42.00000	-29.50000	112.00000	-19.6793	111.75	0.0	0.0	0.0	0.0
43.00000	-29.50000	112.00000	-20.0243	111.75	0.0	0.0	0.0	0.0
44.00000	-29.50000	112.00000	-20.3708	111.75	0.0	0.0	0.0	0.0
45.00000	-29.50000	112.00000	-20.7188	111.75	0.0	0.0	0.0	0.0
46.00000	-29.50000	112.00000	-21.0683	111.75	0.0	0.0	0.0	0.0
47.00000	-29.50000	112.00000	-21.4193	111.75	0.0	0.0	0.0	0.0
48.00000	-29.50000	112.00000	-21.7718	111.75	0.0	0.0	0.0	0.0
49.00000	-29.50000	112.00000	-22.1258	111.75	0.0	0.0	0.0	0.0
50.00000	-29.50000	112.00000	-22.4813	111.75	0.0	0.0	0.0	0.0
5.00000	-28.50000	112.00000	-8.2223	111.75	0.0	0.0	0.0	0.0
6.00000	-28.50000	112.00000	-8.5164	111.75	0.0	0.0	0.0	0.0
7.00000	-28.50000	112.00000	-8.8109	111.75	0.0	0.0	0.0	0.0
8.00000	-28.50000	112.00000	-9.1059	111.75	0.0	0.0	0.0	0.0
9.00000	-28.50000	112.00000	-9.4014	111.75	0.0	0.0	0.0	0.0
10.00000	-28.50000	112.00000	-9.6974	111.75	0.0	0.0	0.0	0.0
11.00000	-28.50000	112.00000	-9.9939	111.75	0.0	0.0	0.0	0.0
12.00000	-28.50000	112.00000	-10.2909	111.75	0.0	0.0	0.0	0.0
13.00000	-28.50000	112.00000	-10.5884	111.75	0.0	0.0	0.0	0.0
14.00000	-28.50000	112.00000	-10.8864	111.75	0.0	0.0	0.0	0.0
15.00000	-28.50000	112.00000	-11.1849	111.75	0.0	0.0	0.0	0.0
16.00000	-28.50000	112.00000	-11.4839	111.75	0.0	0.0	0.0	0.0
17.00000	-28.50000	112.00000	-11.7834	111.75	0.0	0.0	0.0	0.0
18.00000	-28.50000	112.00000	-12.0834	111.75	0.0	0.0	0.0	0.0
19.00000	-28.50000	112.00000	-12.3839	111.75	0.0	0.0	0.0	0.0
20.00000	-28.50000	112.00000	-12.6849	111.75	0.0	0.0	0.0	0.0
21.00000	-28.50000	112.00000	-12.9864	111.75	0.0	0.0	0.0	0.0
22.00000	-28.50000	112.00000	-13.2884	111.75	0.0	0.0	0.0	0.0
23.00000	-28.50000	112.00000	-13.5909	111.75	0.0	0.0	0.0	0.0
24.00000	-28.50000	112.00000	-13.8939	111.75	0.0	0.0	0.0	0.0
25.00000	-28.50000	112.00000	-14.1974	111.75	0.0	0.0	0.0	0.0
26.00000	-28.50000	112.00000	-14.5014	111.75	0.0	0.0	0.0	0.0
27.00000	-28.50000	112.00000	-14.8059	111.75	0.0	0.0	0.0	0.0
28.00000	-28.50000	112.00000	-15.1109	111.75	0.0	0.0	0.0	0.0
29.00000	-28.50000	112.00000	-15.4164	111.75	0.0	0.0	0.0	0.0
30.00000	-28.50000	112.00000	-15.7224	111.75	0.0	0.0	0.0	0.0
31.00000	-28.50000	112.00000	-16.0289	111.75	0.0	0.0	0.0	0.0
32.00000	-28.50000	112.00000	-16.3359	111.75	0.0	0.0	0.0	0.0
33.00000	-28.50000	112.00000	-16.6434	111.75	0.0	0.0	0.0	0.0
34.00000	-28.50000	112.00000	-16.9514	111.75	0.0	0.0	0.0	0.0
35.00000	-28.50000	112.00000	-17.2609	111.75	0.0	0.0	0.0	0.0
36.00000	-28.50000	112.00000	-17.5709	111.75	0.0	0.0	0.0	0.0
37.00000	-28.50000	112.00000	-17.8814	111.75	0.0	0.0	0.0	0.0
38.00000	-28.50000	112.00000	-18.1924	111.75	0.0	0.0	0.0	0.0
39.00000	-28.50000	112.00000	-18.5039	111.75	0.0	0.0	0.0	0.0
40.00000	-28.50000	112.00000	-18.8159	111.75	0.0	0.0	0.0	0.0
41.00000	-28.50000	112.00000	-19.1284	111.75	0.0	0.0	0.0	0.0
42.00000	-28.50000	112.00000	-19.4414	111.75	0.0	0.0	0.0	0.0
43.00000	-28.50000	112.00000	-19.7549	111.75	0.0	0.0	0.0	0.0
44.00000	-28.50000	112.00000	-20.0689	111.75	0.0	0.0	0.0	0.0
45.00000	-28.50000	112.00000	-20.3834	111.75	0.0	0.0	0.0	0.0
46.00000	-28.50000	112.00000	-20.6984	111.75	0.0	0.0	0.0	0.0
47.00000	-28.50000	112.00000	-21.0139	111.75	0.0	0.0	0.0	0.0
48.00000	-28.50000	112.00000	-21.3299	111.75	0.0	0.0	0.0	0.0
49.00000	-28.50000	112.00000	-21.6464	111.75	0.0	0.0	0.0	0.0
50.00000</								



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date	Checked

Name	X [m]	Location Y [mOD]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
26.00000	-50.00000	112.00000	-0.11820	111.75	0.0	0.0	0.0	0.0
27.00000	-50.00000	112.00000	-0.11101	111.75	0.0	0.0	0.0	0.0
28.00000	-50.00000	112.00000	-0.10406	111.75	0.0	0.0	0.0	0.0
29.00000	-50.00000	112.00000	-0.09787	111.75	0.0	0.0	0.0	0.0
30.00000	-50.00000	112.00000	-0.09092	111.75	0.0	0.0	0.0	0.0
31.00000	-50.00000	112.00000	-0.08489	111.75	0.0	0.0	0.0	0.0
32.00000	-50.00000	112.00000	-0.079085	111.75	0.0	0.0	0.0	0.0
33.00000	-50.00000	112.00000	-0.07350	111.75	0.0	0.0	0.0	0.0
34.00000	-50.00000	112.00000	-0.068372	111.75	0.0	0.0	0.0	0.0
35.00000	-50.00000	112.00000	-0.063458	111.75	0.0	0.0	0.0	0.0
36.00000	-50.00000	112.00000	-0.058830	111.75	0.0	0.0	0.0	0.0
37.00000	-50.00000	112.00000	-0.054481	111.75	0.0	0.0	0.0	0.0
38.00000	-50.00000	112.00000	-0.050400	111.75	0.0	0.0	0.0	0.0
39.00000	-50.00000	112.00000	-0.046578	111.75	0.0	0.0	0.0	0.0
40.00000	-50.00000	112.00000	-0.043002	111.75	0.0	0.0	0.0	0.0
41.00000	-50.00000	112.00000	-0.039662	111.75	0.0	0.0	0.0	0.0
42.00000	-50.00000	112.00000	-0.036546	111.75	0.0	0.0	0.0	0.0
43.00000	-50.00000	112.00000	-0.033642	111.75	0.0	0.0	0.0	0.0
44.00000	-50.00000	112.00000	-0.030937	111.75	0.0	0.0	0.0	0.0
45.00000	-50.00000	112.00000	-0.028421	111.75	0.0	0.0	0.0	0.0
46.00000	-50.00000	112.00000	-0.026083	111.75	0.0	0.0	0.0	0.0
47.00000	-50.00000	112.00000	-0.023911	111.75	0.0	0.0	0.0	0.0
48.00000	-50.00000	112.00000	-0.021895	111.75	0.0	0.0	0.0	0.0
49.00000	-50.00000	112.00000	-0.020203	111.75	0.0	0.0	0.0	0.0
50.00000	-50.00000	112.00000	-0.018291	111.75	0.0	0.0	0.0	0.0
-20.00000	-48.96667	112.00000	-0.057094	111.75	0.0	0.0	0.0	0.0
-19.00000	-48.96667	112.00000	-0.061885	111.75	0.0	0.0	0.0	0.0
-18.00000	-48.96667	112.00000	-0.067017	111.75	0.0	0.0	0.0	0.0
-17.00000	-48.96667	112.00000	-0.072503	111.75	0.0	0.0	0.0	0.0
-16.00000	-48.96667	112.00000	-0.078360	111.75	0.0	0.0	0.0	0.0
-15.00000	-48.96667	112.00000	-0.084597	111.75	0.0	0.0	0.0	0.0
-14.00000	-48.96667	112.00000	-0.091224	111.75	0.0	0.0	0.0	0.0
-13.00000	-48.96667	112.00000	-0.098246	111.75	0.0	0.0	0.0	0.0
-12.00000	-48.96667	112.00000	-0.105660	111.75	0.0	0.0	0.0	0.0
-11.00000	-48.96667	112.00000	-0.11347	111.75	0.0	0.0	0.0	0.0
-10.00000	-48.96667	112.00000	-0.12166	111.75	0.0	0.0	0.0	0.0
-9.00000	-48.96667	112.00000	-0.130230	111.75	0.0	0.0	0.0	0.0
-8.00000	-48.96667	112.00000	-0.13907	111.75	0.0	0.0	0.0	0.0
-7.00000	-48.96667	112.00000	-0.14822	111.75	0.0	0.0	0.0	0.0
-6.00000	-48.96667	112.00000	-0.15760	111.75	0.0	0.0	0.0	0.0
-5.00000	-48.96667	112.00000	-0.16714	111.75	0.0	0.0	0.0	0.0
-4.00000	-48.96667	112.00000	-0.17675	111.75	0.0	0.0	0.0	0.0
-3.00000	-48.96667	112.00000	-0.18633	111.75	0.0	0.0	0.0	0.0
-2.00000	-48.96667	112.00000	-0.19576	111.75	0.0	0.0	0.0	0.0
-1.00000	-48.96667	112.00000	-0.20492	111.75	0.0	0.0	0.0	0.0
0.00000	-48.96667	112.00000	-0.21367	111.75	0.0	0.0	0.0	0.0
1.00000	-48.96667	112.00000	-0.22186	111.75	0.0	0.0	0.0	0.0
2.00000	-48.96667	112.00000	-0.22933	111.75	0.0	0.0	0.0	0.0
3.00000	-48.96667	112.00000	-0.23595	111.75	0.0	0.0	0.0	0.0
4.00000	-48.96667	112.00000	-0.24158	111.75	0.0	0.0	0.0	0.0
5.00000	-48.96667	112.00000	-0.24610	111.75	0.0	0.0	0.0	0.0
6.00000	-48.96667	112.00000	-0.24943	111.75	0.0	0.0	0.0	0.0
7.00000	-48.96667	112.00000	-0.25148	111.75	0.0	0.0	0.0	0.0
8.00000	-48.96667	112.00000	-0.25224	111.75	0.0	0.0	0.0	0.0
9.00000	-48.96667	112.00000	-0.25170	111.75	0.0	0.0	0.0	0.0
10.00000	-48.96667	112.00000	-0.24989	111.75	0.0	0.0	0.0	0.0
11.00000	-48.96667	112.00000	-0.24687	111.75	0.0	0.0	0.0	0.0
12.00000	-48.96667	112.00000	-0.24271	111.75	0.0	0.0	0.0	0.0
13.00000	-48.96667	112.00000	-0.23753	111.75	0.0	0.0	0.0	0.0
14.00000	-48.96667	112.00000	-0.23143	111.75	0.0	0.0	0.0	0.0
15.00000	-48.96667	112.00000	-0.22454	111.75	0.0	0.0	0.0	0.0
16.00000	-48.96667	112.00000	-0.21698	111.75	0.0	0.0	0.0	0.0
17.00000	-48.96667	112.00000	-0.20888	111.75	0.0	0.0	0.0	0.0
18.00000	-48.96667	112.00000	-0.20037	111.75	0.0	0.0	0.0	0.0
19.00000	-48.96667	112.00000	-0.19156	111.75	0.0	0.0	0.0	0.0
20.00000	-48.96667	112.00000	-0.18256	111.75	0.0	0.0	0.0	0.0
21.00000	-48.96667	112.00000	-0.17346	111.75	0.0	0.0	0.0	0.0
22.00000	-48.96667	112.00000	-0.16437	111.75	0.0	0.0	0.0	0.0
23.00000	-48.96667	112.00000	-0.15535	111.75	0.0	0.0	0.0	0.0
24.00000	-48.96667	112.00000	-0.14648	111.75	0.0	0.0	0.0	0.0
25.00000	-48.96667	112.00000	-0.13780	111.75	0.0	0.0	0.0	0.0
26.00000	-48.96667	112.00000	-0.12937	111.75	0.0	0.0	0.0	0.0
27.00000	-48.96667	112.00000	-0.12123	111.75	0.0	0.0	0.0	0.0
28.00000	-48.96667	112.00000	-0.11339	111.75	0.0	0.0	0.0	0.0
29.00000	-48.96667	112.00000	-0.10588	111.75	0.0	0.0	0.0	0.0
30.00000	-48.96667	112.00000	-0.098724	111.75	0.0	0.0	0.0	0.0
31.00000	-48.96667	112.00000	-0.091915	111.75	0.0	0.0	0.0	0.0
32.00000	-48.96667	112.00000	-0.085461	111.75	0.0	0.0	0.0	0.0
33.00000	-48.96667	112.00000	-0.079361	111.75	0.0	0.0	0.0	0.0
34.00000	-48.96667	112.00000	-0.073610	111.75	0.0	0.0	0.0	0.0
35.00000	-48.96667	112.00000	-0.068199	111.75	0.0	0.0	0.0	0.0
36.00000	-48.96667	112.00000	-0.063120	111.75	0.0	0.0	0.0	0.0
37.00000	-48.96667	112.00000	-0.058360	111.75	0.0	0.0	0.0	0.0
38.00000	-48.96667	112.00000	-0.053906	111.75	0.0	0.0	0.0	0.0
39.00000	-48.96667	112.00000	-0.049746	111.75	0.0	0.0	0.0	0.0
40.00000	-48.96667	112.00000	-0.045864	111.75	0.0	0.0	0.0	0.0
41.00000	-48.96667	112.00000	-0.042247	111.75	0.0	0.0	0.0	0.0
42.00000	-48.96667	112.00000	-0.038881	111.75	0.0	0.0	0.0	0.0
43.00000	-48.96667	112.00000	-0.035750	111.75	0.0	0.0	0.0	0.0
44.00000	-48.96667	112.00000	-0.032841	111.75	0.0	0.0	0.0	0.0
45.00000	-48.96667	112.00000	-0.030140	111.75	0.0	0.0	0.0	0.0
46.00000	-48.96667	112.00000	-0.027635	111.75	0.0	0.0	0.0	0.0
47.00000	-48.96667	112.00000	-0.025312	111.75	0.0	0.0	0.0	0.0
48.00000	-48.96667	112.00000	-0.023160	111.75	0.0	0.0	0.0	0.0
49.00000	-48.96667	112.00000	-0.021167	111.75	0.0	0.0	0.0	0.0
50.00000	-48.96667	112.00000	-0.019323	111.75	0.0	0.0	0.0	0.0
-20.00000	-47.93333	112.00000	-0.060955	111.75	0.0	0.0	0.0	0.0
-19.00000	-47.93333	112.00000	-0.066183	111.75	0.0	0.0	0.0	0.0
-18.00000	-47.93333	112.00000	-0.071801	111.75	0.0	0.0	0.0	0.0
-17.00000	-47.93333	112.00000	-0.077828	111.75	0.0	0.0	0.0	0.0
-16.00000	-47.93333	112.00000	-0.084284	111.75	0.0	0.0	0.0	0.0
-15.00000	-47.93333	112.00000	-0.091186	111.75	0.0	0.0	0.0	0.0
-14.00000	-47.93333	112.00000	-0.098548	111.75	0.0	0.0	0.0	0.0
-13.00000	-47.93333	112.00000	-0.10638	111.75	0.0	0.0	0.0	0.0
-12.00000	-47.93333	112.00000	-0.11469	111.75	0.0	0.0	0.0	0.0
-11.00000	-47.93333	112.00000	-0.12348	111.75	0.0	0.0	0.0	0.0
-10.00000	-47.93333	112.00000	-0.13274	111.75	0.0	0.0	0.0	0.0
-9.00000	-47.93333	112.00000	-0.14245	111.75	0.0	0.0	0.0	0.0
-8.00000	-47.93333	112.00000	-0.15258	111.75	0.0	0.0	0.0	0.0
-7.00000	-47.93333	112.00000	-0.16309	111.75	0.0	0.0	0.0	0.0
-6.00000	-47.93333	112.00000	-0.17392	111.75	0.0	0.0	0.0	0.0
-5.00000	-47.93333	112.00000	-0.18499	111.75	0.0	0.0	0.0	0.0
-4.00000	-47.93333	112.00000	-0.19620	111.75	0.0	0.0	0.0	0.0
-3.00000	-47.93333	112.00000	-0.20744	111.75	0.0	0.0	0.0	0.0
-2.00000	-47.93333	112.00000	-0.21857	111.75	0.0	0.0	0.0	0.0
-1.00000	-47.93333	112.00000	-0.22943	111.75	0.0	0.0	0.0	0.0
0.00000	-47.93333	112.00000	-0.23984	111.75	0.0	0.0	0.0	0.0
1.00000	-47.93333	112.00000	-0.24963	111.75	0.0	0.0	0.0	0.0
2.00000	-47.93333	112.00000	-0.25859	111.75	0.0	0.0	0.0	0.0
3.00000	-47.93333	112.00000	-0.2665					



Channing Junior School, Highgate High Street, N6 5JR

Total Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
MP		

Name	Location X [m]	Location Y [m]	Displacement Z [Level] [mOD]	Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
2.00000	-45.86667	112.00000	-0.33138	111.75	0.0	0.0	0.0	0.0
3.00000	-45.86667	112.00000	-0.34312	111.75	0.0	0.0	0.0	0.0
4.00000	-45.86667	112.00000	-0.35312	111.75	0.0	0.0	0.0	0.0
5.00000	-45.86667	112.00000	-0.36114	111.75	0.0	0.0	0.0	0.0
6.00000	-45.86667	112.00000	-0.36699	111.75	0.0	0.0	0.0	0.0
7.00000	-45.86667	112.00000	-0.37041	111.75	0.0	0.0	0.0	0.0
8.00000	-45.86667	112.00000	-0.37146	111.75	0.0	0.0	0.0	0.0
9.00000	-45.86667	112.00000	-0.37013	111.75	0.0	0.0	0.0	0.0
10.00000	-45.86667	112.00000	-0.36647	111.75	0.0	0.0	0.0	0.0
11.00000	-45.86667	112.00000	-0.36067	111.75	0.0	0.0	0.0	0.0
12.00000	-45.86667	112.00000	-0.35294	111.75	0.0	0.0	0.0	0.0
13.00000	-45.86667	112.00000	-0.34350	111.75	0.0	0.0	0.0	0.0
14.00000	-45.86667	112.00000	-0.33261	111.75	0.0	0.0	0.0	0.0
15.00000	-45.86667	112.00000	-0.32053	111.75	0.0	0.0	0.0	0.0
16.00000	-45.86667	112.00000	-0.30750	111.75	0.0	0.0	0.0	0.0
17.00000	-45.86667	112.00000	-0.29378	111.75	0.0	0.0	0.0	0.0
18.00000	-45.86667	112.00000	-0.27960	111.75	0.0	0.0	0.0	0.0
19.00000	-45.86667	112.00000	-0.26513	111.75	0.0	0.0	0.0	0.0
20.00000	-45.86667	112.00000	-0.25062	111.75	0.0	0.0	0.0	0.0
21.00000	-45.86667	112.00000	-0.23618	111.75	0.0	0.0	0.0	0.0
22.00000	-45.86667	112.00000	-0.22195	111.75	0.0	0.0	0.0	0.0
23.00000	-45.86667	112.00000	-0.20805	111.75	0.0	0.0	0.0	0.0
24.00000	-45.86667	112.00000	-0.19456	111.75	0.0	0.0	0.0	0.0
25.00000	-45.86667	112.00000	-0.18157	111.75	0.0	0.0	0.0	0.0
26.00000	-45.86667	112.00000	-0.16913	111.75	0.0	0.0	0.0	0.0
27.00000	-45.86667	112.00000	-0.15726	111.75	0.0	0.0	0.0	0.0
28.00000	-45.86667	112.00000	-0.14599	111.75	0.0	0.0	0.0	0.0
29.00000	-45.86667	112.00000	-0.13534	111.75	0.0	0.0	0.0	0.0
30.00000	-45.86667	112.00000	-0.12530	111.75	0.0	0.0	0.0	0.0
31.00000	-45.86667	112.00000	-0.11587	111.75	0.0	0.0	0.0	0.0
32.00000	-45.86667	112.00000	-0.10704	111.75	0.0	0.0	0.0	0.0
33.00000	-45.86667	112.00000	-0.09878	111.75	0.0	0.0	0.0	0.0
34.00000	-45.86667	112.00000	-0.091076	111.75	0.0	0.0	0.0	0.0
35.00000	-45.86667	112.00000	-0.08390	111.75	0.0	0.0	0.0	0.0
36.00000	-45.86667	112.00000	-0.077234	111.75	0.0	0.0	0.0	0.0
37.00000	-45.86667	112.00000	-0.071043	111.75	0.0	0.0	0.0	0.0
38.00000	-45.86667	112.00000	-0.065302	111.75	0.0	0.0	0.0	0.0
39.00000	-45.86667	112.00000	-0.059984	111.75	0.0	0.0	0.0	0.0
40.00000	-45.86667	112.00000	-0.055063	111.75	0.0	0.0	0.0	0.0
41.00000	-45.86667	112.00000	-0.050512	111.75	0.0	0.0	0.0	0.0
42.00000	-45.86667	112.00000	-0.046308	111.75	0.0	0.0	0.0	0.0
43.00000	-45.86667	112.00000	-0.042425	111.75	0.0	0.0	0.0	0.0
44.00000	-45.86667	112.00000	-0.038841	111.75	0.0	0.0	0.0	0.0
45.00000	-45.86667	112.00000	-0.035535	111.75	0.0	0.0	0.0	0.0
46.00000	-45.86667	112.00000	-0.032486	111.75	0.0	0.0	0.0	0.0
47.00000	-45.86667	112.00000	-0.029676	111.75	0.0	0.0	0.0	0.0
48.00000	-45.86667	112.00000	-0.027086	111.75	0.0	0.0	0.0	0.0
49.00000	-45.86667	112.00000	-0.024701	111.75	0.0	0.0	0.0	0.0
50.00000	-45.86667	112.00000	-0.022504	111.75	0.0	0.0	0.0	0.0
-1.00000	-44.83333	112.00000	-0.07332	111.75	0.0	0.0	0.0	0.0
-2.00000	-44.83333	112.00000	-0.08046	111.75	0.0	0.0	0.0	0.0
-3.00000	-44.83333	112.00000	-0.087349	111.75	0.0	0.0	0.0	0.0
-4.00000	-44.83333	112.00000	-0.092529	111.75	0.0	0.0	0.0	0.0
-5.00000	-44.83333	112.00000	-0.10383	111.75	0.0	0.0	0.0	0.0
-6.00000	-44.83333	112.00000	-0.11310	111.75	0.0	0.0	0.0	0.0
-7.00000	-44.83333	112.00000	-0.12132	111.75	0.0	0.0	0.0	0.0
-8.00000	-44.83333	112.00000	-0.12932	111.75	0.0	0.0	0.0	0.0
-9.00000	-44.83333	112.00000	-0.13557	111.75	0.0	0.0	0.0	0.0
-10.00000	-44.83333	112.00000	-0.14557	111.75	0.0	0.0	0.0	0.0
-11.00000	-44.83333	112.00000	-0.15806	111.75	0.0	0.0	0.0	0.0
-12.00000	-44.83333	112.00000	-0.17143	111.75	0.0	0.0	0.0	0.0
-13.00000	-44.83333	112.00000	-0.18570	111.75	0.0	0.0	0.0	0.0
-14.00000	-44.83333	112.00000	-0.20085	111.75	0.0	0.0	0.0	0.0
-15.00000	-44.83333	112.00000	-0.21686	111.75	0.0	0.0	0.0	0.0
-16.00000	-44.83333	112.00000	-0.23369	111.75	0.0	0.0	0.0	0.0
-17.00000	-44.83333	112.00000	-0.25121	111.75	0.0	0.0	0.0	0.0
-18.00000	-44.83333	112.00000	-0.26934	111.75	0.0	0.0	0.0	0.0
-19.00000	-44.83333	112.00000	-0.28789	111.75	0.0	0.0	0.0	0.0
-20.00000	-44.83333	112.00000	-0.30660	111.75	0.0	0.0	0.0	0.0
-21.00000	-44.83333	112.00000	-0.32522	111.75	0.0	0.0	0.0	0.0
-22.00000	-44.83333	112.00000	-0.34241	111.75	0.0	0.0	0.0	0.0
-23.00000	-44.83333	112.00000	-0.36077	111.75	0.0	0.0	0.0	0.0
-24.00000	-44.83333	112.00000	-0.37688	111.75	0.0	0.0	0.0	0.0
-25.00000	-44.83333	112.00000	-0.39132	111.75	0.0	0.0	0.0	0.0
-26.00000	-44.83333	112.00000	-0.40365	111.75	0.0	0.0	0.0	0.0
-27.00000	-44.83333	112.00000	-0.41351	111.75	0.0	0.0	0.0	0.0
-28.00000	-44.83333	112.00000	-0.42061	111.75	0.0	0.0	0.0	0.0
-29.00000	-44.83333	112.00000	-0.42478	111.75	0.0	0.0	0.0	0.0
-30.00000	-44.83333	112.00000	-0.42587	111.75	0.0	0.0	0.0	0.0
-31.00000	-44.83333	112.00000	-0.42400	111.75	0.0	0.0	0.0	0.0
-32.00000	-44.83333	112.00000	-0.41923	111.75	0.0	0.0	0.0	0.0
-33.00000	-44.83333	112.00000	-0.41195	111.75	0.0	0.0	0.0	0.0
-34.00000	-44.83333	112.00000	-0.40227	111.75	0.0	0.0	0.0	0.0
-35.00000	-44.83333	112.00000	-0.39057	111.75	0.0	0.0	0.0	0.0
-36.00000	-44.83333	112.00000	-0.37718	111.75	0.0	0.0	0.0	0.0
-37.00000	-44.83333	112.00000	-0.36244	111.75	0.0	0.0	0.0	0.0
-38.00000	-44.83333	112.00000	-0.34667	111.75	0.0	0.0	0.0	0.0
-39.00000	-44.83333	112.00000	-0.33017	111.75	0.0	0.0	0.0	0.0
-40.00000	-44.83333	112.00000	-0.31322	111.75	0.0	0.0	0.0	0.0
-41.00000	-44.83333	112.00000	-0.29608	111.75	0.0	0.0	0.0	0.0
-42.00000	-44.83333	112.00000	-0.27894	111.75	0.0	0.0	0.0	0.0
-43.00000	-44.83333	112.00000	-0.26201	111.75	0.0	0.0	0.0	0.0
-44.00000	-44.83333	112.00000	-0.24542	111.75	0.0	0.0	0.0	0.0
-45.00000	-44.83333	112.00000	-0.22931	111.75	0.0	0.0	0.0	0.0
-46.00000	-44.83333	112.00000	-0.21378	111.75	0.0	0.0	0.0	0.0
-47.00000	-44.83333	112.00000	-0.19889	111.75	0.0	0.0	0.0	0.0
-48.00000	-44.83333	112.00000	-0.18470	111.75	0.0	0.0	0.0	0.0
-49.00000	-44.83333	112.00000	-0.17124	111.75	0.0	0.0	0.0	0.0
-50.00000	-44.83333	112.00000	-0.15852	111.75	0.0	0.0	0.0	0.0
-51.00000	-44.83333	112.00000	-0.14656	111.75	0.0	0.0	0.0	0.0
-52.00000	-44.83333	112.00000	-0.13534	111.75	0.0	0.0	0.0	0.0
-53.00000	-44.83333	112.00000	-0.12484	111.75	0.0	0.0	0.0	0.0
-54.00000	-44.83333	112.00000	-0.11505	111.75	0.0	0.0	0.0	0.0
-55.00000	-44.83333	112.00000	-0.10594	111.75	0.0	0.0	0.0	0.0
-56.00000	-44.83333	112.00000	-0.09746	111.75	0.0	0.0	0.0	0.0
-57.00000	-44.83333	112.00000	-0.08960	111.75	0.0	0.0	0.0	0.0
-58.00000	-44.83333	112.00000	-0.08236	111.75	0.0	0.0	0.0	0.0
-59.00000	-44.83333	112.00000	-0.07589	111.75	0.0	0.0	0.0	0.0
-60.00000	-44.83333	112.00000	-0.06936	111.75	0.0	0.0	0.0	0.0
-61.00000	-44.83333	112.00000	-0.06361	111.75	0.0	0.0	0.0	0.0
-62.00000	-44.83333	112.00000	-0.05830	111.75	0.0	0.0	0.0	0.0
-63.00000	-44.83333	112.00000	-0.05340	111.75	0.0	0.0	0.0	0.0
-64.00000	-44.83333	112.00000	-0.04897	111.75	0.0	0.0	0.0	0.0
-65.00000	-44.83333	112.00000	-0.04474	111.75	0.0	0.0	0.0	0.0
-66.00000	-44.83333	112.00000	-0.04091	111.75	0.0	0.0	0.0	0.0
-67.00000	-44.83333	112.00000	-0.03730	111.75	0.0	0.0	0.0	0.0
-68.00000	-44.83333	112.00000	-0.03414	111.75	0.0	0.0	0.0	0.0
-69.00000	-44.83333	112.00000	-0.03116	111.75	0.0	0.0	0.0	0.0
-70.00000	-44.83333	112.00000	-0.02841	111.75	0.0	0.0	0.0	



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
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MP		

Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]	Vert Strain [-]
49.00000	-42.76667	112.00000	112.00000	-0.028288	111.75	0.0	0.0	0.0
50.00000	-42.76667	112.00000	112.00000	-0.025717	111.75	0.0	0.0	0.0
-20.00000	-41.73333	112.00000	112.00000	-0.086529	111.75	0.0	0.0	0.0
-19.00000	-41.73333	112.00000	112.00000	-0.094985	111.75	0.0	0.0	0.0
-18.00000	-41.73333	112.00000	112.00000	-0.104825	111.75	0.0	0.0	0.0
-17.00000	-41.73333	112.00000	112.00000	-0.114443	111.75	0.0	0.0	0.0
-16.00000	-41.73333	112.00000	112.00000	-0.125559	111.75	0.0	0.0	0.0
-15.00000	-41.73333	112.00000	112.00000	-0.137822	111.75	0.0	0.0	0.0
-14.00000	-41.73333	112.00000	112.00000	-0.151222	111.75	0.0	0.0	0.0
-13.00000	-41.73333	112.00000	112.00000	-0.165900	111.75	0.0	0.0	0.0
-12.00000	-41.73333	112.00000	112.00000	-0.181964	111.75	0.0	0.0	0.0
-11.00000	-41.73333	112.00000	112.00000	-0.199511	111.75	0.0	0.0	0.0
-10.00000	-41.73333	112.00000	112.00000	-0.218655	111.75	0.0	0.0	0.0
-9.00000	-41.73333	112.00000	112.00000	-0.239499	111.75	0.0	0.0	0.0
-8.00000	-41.73333	112.00000	112.00000	-0.262122	111.75	0.0	0.0	0.0
-7.00000	-41.73333	112.00000	112.00000	-0.286588	111.75	0.0	0.0	0.0
-6.00000	-41.73333	112.00000	112.00000	-0.312993	111.75	0.0	0.0	0.0
-5.00000	-41.73333	112.00000	112.00000	-0.341133	111.75	0.0	0.0	0.0
-4.00000	-41.73333	112.00000	112.00000	-0.371110	111.75	0.0	0.0	0.0
-3.00000	-41.73333	112.00000	112.00000	-0.402625	111.75	0.0	0.0	0.0
-2.00000	-41.73333	112.00000	112.00000	-0.435448	111.75	0.0	0.0	0.0
-1.00000	-41.73333	112.00000	112.00000	-0.469133	111.75	0.0	0.0	0.0
0.00000	-41.73333	112.00000	112.00000	-0.502966	111.75	0.0	0.0	0.0
1.00000	-41.73333	112.00000	112.00000	-0.536156	111.75	0.0	0.0	0.0
2.00000	-41.73333	112.00000	112.00000	-0.567699	111.75	0.0	0.0	0.0
3.00000	-41.73333	112.00000	112.00000	-0.596443	111.75	0.0	0.0	0.0
4.00000	-41.73333	112.00000	112.00000	-0.622188	111.75	0.0	0.0	0.0
5.00000	-41.73333	112.00000	112.00000	-0.644083	111.75	0.0	0.0	0.0
6.00000	-41.73333	112.00000	112.00000	-0.654544	111.75	0.0	0.0	0.0
7.00000	-41.73333	112.00000	112.00000	-0.661800	111.75	0.0	0.0	0.0
8.00000	-41.73333	112.00000	112.00000	-0.665253	111.75	0.0	0.0	0.0
9.00000	-41.73333	112.00000	112.00000	-0.657000	111.75	0.0	0.0	0.0
10.00000	-41.73333	112.00000	112.00000	-0.645800	111.75	0.0	0.0	0.0
11.00000	-41.73333	112.00000	112.00000	-0.629670	111.75	0.0	0.0	0.0
12.00000	-41.73333	112.00000	112.00000	-0.609433	111.75	0.0	0.0	0.0
13.00000	-41.73333	112.00000	112.00000	-0.585900	111.75	0.0	0.0	0.0
14.00000	-41.73333	112.00000	112.00000	-0.559967	111.75	0.0	0.0	0.0
15.00000	-41.73333	112.00000	112.00000	-0.532007	111.75	0.0	0.0	0.0
16.00000	-41.73333	112.00000	112.00000	-0.503144	111.75	0.0	0.0	0.0
17.00000	-41.73333	112.00000	112.00000	-0.473655	111.75	0.0	0.0	0.0
18.00000	-41.73333	112.00000	112.00000	-0.444008	111.75	0.0	0.0	0.0
19.00000	-41.73333	112.00000	112.00000	-0.414833	111.75	0.0	0.0	0.0
20.00000	-41.73333	112.00000	112.00000	-0.386224	111.75	0.0	0.0	0.0
21.00000	-41.73333	112.00000	112.00000	-0.358558	111.75	0.0	0.0	0.0
22.00000	-41.73333	112.00000	112.00000	-0.332003	111.75	0.0	0.0	0.0
23.00000	-41.73333	112.00000	112.00000	-0.306766	111.75	0.0	0.0	0.0
24.00000	-41.73333	112.00000	112.00000	-0.282889	111.75	0.0	0.0	0.0
25.00000	-41.73333	112.00000	112.00000	-0.260377	111.75	0.0	0.0	0.0
26.00000	-41.73333	112.00000	112.00000	-0.239320	111.75	0.0	0.0	0.0
27.00000	-41.73333	112.00000	112.00000	-0.219700	111.75	0.0	0.0	0.0
28.00000	-41.73333	112.00000	112.00000	-0.201447	111.75	0.0	0.0	0.0
29.00000	-41.73333	112.00000	112.00000	-0.184660	111.75	0.0	0.0	0.0
30.00000	-41.73333	112.00000	112.00000	-0.169001	111.75	0.0	0.0	0.0
31.00000	-41.73333	112.00000	112.00000	-0.154464	111.75	0.0	0.0	0.0
32.00000	-41.73333	112.00000	112.00000	-0.141422	111.75	0.0	0.0	0.0
33.00000	-41.73333	112.00000	112.00000	-0.129277	111.75	0.0	0.0	0.0
34.00000	-41.73333	112.00000	112.00000	-0.118133	111.75	0.0	0.0	0.0
35.00000	-41.73333	112.00000	112.00000	-0.107900	111.75	0.0	0.0	0.0
36.00000	-41.73333	112.00000	112.00000	-0.098537	111.75	0.0	0.0	0.0
37.00000	-41.73333	112.00000	112.00000	-0.089965	111.75	0.0	0.0	0.0
38.00000	-41.73333	112.00000	112.00000	-0.082109	111.75	0.0	0.0	0.0
39.00000	-41.73333	112.00000	112.00000	-0.074925	111.75	0.0	0.0	0.0
40.00000	-41.73333	112.00000	112.00000	-0.068353	111.75	0.0	0.0	0.0
41.00000	-41.73333	112.00000	112.00000	-0.062344	111.75	0.0	0.0	0.0
42.00000	-41.73333	112.00000	112.00000	-0.056842	111.75	0.0	0.0	0.0
43.00000	-41.73333	112.00000	112.00000	-0.051812	111.75	0.0	0.0	0.0
44.00000	-41.73333	112.00000	112.00000	-0.047213	111.75	0.0	0.0	0.0
45.00000	-41.73333	112.00000	112.00000	-0.043005	111.75	0.0	0.0	0.0
46.00000	-41.73333	112.00000	112.00000	-0.039156	111.75	0.0	0.0	0.0
47.00000	-41.73333	112.00000	112.00000	-0.035635	111.75	0.0	0.0	0.0
48.00000	-41.73333	112.00000	112.00000	-0.032414	111.75	0.0	0.0	0.0
49.00000	-41.73333	112.00000	112.00000	-0.029467	111.75	0.0	0.0	0.0
50.00000	-41.73333	112.00000	112.00000	-0.026769	111.75	0.0	0.0	0.0
-40.00000	-40.70000	112.00000	112.00000	-0.090984	111.75	0.0	0.0	0.0
-19.00000	-40.70000	112.00000	112.00000	-0.100066	111.75	0.0	0.0	0.0
-18.00000	-40.70000	112.00000	112.00000	-0.110055	111.75	0.0	0.0	0.0
-17.00000	-40.70000	112.00000	112.00000	-0.121058	111.75	0.0	0.0	0.0
-16.00000	-40.70000	112.00000	112.00000	-0.133116	111.75	0.0	0.0	0.0
-15.00000	-40.70000	112.00000	112.00000	-0.146500	111.75	0.0	0.0	0.0
-14.00000	-40.70000	112.00000	112.00000	-0.161118	111.75	0.0	0.0	0.0
-13.00000	-40.70000	112.00000	112.00000	-0.177355	111.75	0.0	0.0	0.0
-12.00000	-40.70000	112.00000	112.00000	-0.195144	111.75	0.0	0.0	0.0
-11.00000	-40.70000	112.00000	112.00000	-0.214471	111.75	0.0	0.0	0.0
-10.00000	-40.70000	112.00000	112.00000	-0.235199	111.75	0.0	0.0	0.0
-9.00000	-40.70000	112.00000	112.00000	-0.257976	111.75	0.0	0.0	0.0
-8.00000	-40.70000	112.00000	112.00000	-0.283555	111.75	0.0	0.0	0.0
-7.00000	-40.70000	112.00000	112.00000	-0.311869	111.75	0.0	0.0	0.0
-6.00000	-40.70000	112.00000	112.00000	-0.342428	111.75	0.0	0.0	0.0
-5.00000	-40.70000	112.00000	112.00000	-0.375737	111.75	0.0	0.0	0.0
-4.00000	-40.70000	112.00000	112.00000	-0.411993	111.75	0.0	0.0	0.0
-3.00000	-40.70000	112.00000	112.00000	-0.450822	111.75	0.0	0.0	0.0
-2.00000	-40.70000	112.00000	112.00000	-0.492075	111.75	0.0	0.0	0.0
-1.00000	-40.70000	112.00000	112.00000	-0.532224	111.75	0.0	0.0	0.0
0.00000	-40.70000	112.00000	112.00000	-0.574544	111.75	0.0	0.0	0.0
1.00000	-40.70000	112.00000	112.00000	-0.616660	111.75	0.0	0.0	0.0
2.00000	-40.70000	112.00000	112.00000	-0.657008	111.75	0.0	0.0	0.0
3.00000	-40.70000	112.00000	112.00000	-0.694932	111.75	0.0	0.0	0.0
4.00000	-40.70000	112.00000	112.00000	-0.726555	111.75	0.0	0.0	0.0
5.00000	-40.70000	112.00000	112.00000	-0.752066	111.75	0.0	0.0	0.0
6.00000	-40.70000	112.00000	112.00000	-0.769533	111.75	0.0	0.0	0.0
7.00000	-40.70000	112.00000	112.00000	-0.778255	111.75	0.0	0.0	0.0
8.00000	-40.70000	112.00000	112.00000	-0.778119	111.75	0.0	0.0	0.0
9.00000	-40.70000	112.00000	112.00000	-0.769992	111.75	0.0	0.0	0.0
10.00000	-40.70000	112.00000	112.00000	-0.754400	111.75	0.0	0.0	0.0
11.00000	-40.70000	112.00000	112.00000	-0.732728	111.75	0.0	0.0	0.0
12.00000	-40.70000	112.00000	112.00000	-0.705266	111.75	0.0	0.0	0.0
13.00000	-40.70000	112.00000	112.00000	-0.671597	111.75	0.0	0.0	0.0
14.00000	-40.70000	112.00000	112.00000	-0.642977	111.75	0.0	0.0	0.0
15.00000	-40.70000	112.00000	112.00000	-0.609177	111.75	0.0	0.0	0.0
16.00000	-40.70000	112.00000	112.00000	-0.571236	111.75	0.0	0.0	0.0
17.00000	-40.70000	112.00000	112.00000	-0.536244	111.75	0.0	0.0	0.0
18.00000	-40.70000	112.00000	112.00000	-0.500353	111.75			



Channing Junior School, Highgate High Street, N6 5JR
Total Heave / Settlement
Pavilion Only (inc Raft)

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
MP		

Name	X [m]	Location Y [m]	Z [Level] [mOD]	Displacement Z [mm]	Calc Level [mOD]	Vert Stress [kN/m²]	Sum Princ [kN/m²]	Vert Strain [-]
25.00000	-38.63333	112.00000	-0.33774	111.75	0.0	0.0	0.0	
26.00000	-38.63333	112.00000	-0.30659	111.75	0.0	0.0	0.0	
27.00000	-38.63333	112.00000	-0.27817	111.75	0.0	0.0	0.0	
28.00000	-38.63333	112.00000	-0.25228	111.75	0.0	0.0	0.0	
29.00000	-38.63333	112.00000	-0.22876	111.75	0.0	0.0	0.0	
30.00000	-38.63333	112.00000	-0.20742	111.75	0.0	0.0	0.0	
31.00000	-38.63333	112.00000	-0.18808	111.75	0.0	0.0	0.0	
32.00000	-38.63333	112.00000	-0.17055	111.75	0.0	0.0	0.0	
33.00000	-38.63333	112.00000	-0.15468	111.75	0.0	0.0	0.0	
34.00000	-38.63333	112.00000	-0.14031	111.75	0.0	0.0	0.0	
35.00000	-38.63333	112.00000	-0.12731	111.75	0.0	0.0	0.0	
36.00000	-38.63333	112.00000	-0.11552	111.75	0.0	0.0	0.0	
37.00000	-38.63333	112.00000	-0.10485	111.75	0.0	0.0	0.0	
38.00000	-38.63333	112.00000	-0.095194	111.75	0.0	0.0	0.0	
39.00000	-38.63333	112.00000	-0.086419	111.75	0.0	0.0	0.0	
40.00000	-38.63333	112.00000	-0.078470	111.75	0.0	0.0	0.0	
41.00000	-38.63333	112.00000	-0.071258	111.75	0.0	0.0	0.0	
42.00000	-38.63333	112.00000	-0.064711	111.75	0.0	0.0	0.0	
43.00000	-38.63333	112.00000	-0.058766	111.75	0.0	0.0	0.0	
44.00000	-38.63333	112.00000	-0.053363	111.75	0.0	0.0	0.0	
45.00000	-38.63333	112.00000	-0.048452	111.75	0.0	0.0	0.0	
46.00000	-38.63333	112.00000	-0.043986	111.75	0.0	0.0	0.0	
47.00000	-38.63333	112.00000	-0.039922	111.75	0.0	0.0	0.0	
48.00000	-38.63333	112.00000	-0.036223	111.75	0.0	0.0	0.0	
49.00000	-38.63333	112.00000	-0.032853	111.75	0.0	0.0	0.0	
50.00000	-38.63333	112.00000	-0.029784	111.75	0.0	0.0	0.0	
51.00000	-37.60000	112.00000	-0.14031	111.75	0.0	0.0	0.0	
52.00000	-37.60000	112.00000	-0.11499	111.75	0.0	0.0	0.0	
53.00000	-37.60000	112.00000	-0.12720	111.75	0.0	0.0	0.0	
54.00000	-37.60000	112.00000	-0.14080	111.75	0.0	0.0	0.0	
55.00000	-37.60000	112.00000	-0.15597	111.75	0.0	0.0	0.0	
56.00000	-37.60000	112.00000	-0.17285	111.75	0.0	0.0	0.0	
57.00000	-37.60000	112.00000	-0.19174	111.75	0.0	0.0	0.0	
58.00000	-37.60000	112.00000	-0.21287	111.75	0.0	0.0	0.0	
59.00000	-37.60000	112.00000	-0.23652	111.75	0.0	0.0	0.0	
60.00000	-37.60000	112.00000	-0.26304	111.75	0.0	0.0	0.0	
61.00000	-37.60000	112.00000	-0.29279	111.75	0.0	0.0	0.0	
62.00000	-37.60000	112.00000	-0.32620	111.75	0.0	0.0	0.0	
63.00000	-37.60000	112.00000	-0.36372	111.75	0.0	0.0	0.0	
64.00000	-37.60000	112.00000	-0.40586	111.75	0.0	0.0	0.0	
65.00000	-37.60000	112.00000	-0.45316	111.75	0.0	0.0	0.0	
66.00000	-37.60000	112.00000	-0.50617	111.75	0.0	0.0	0.0	
67.00000	-37.60000	112.00000	-0.56544	111.75	0.0	0.0	0.0	
68.00000	-37.60000	112.00000	-0.63148	111.75	0.0	0.0	0.0	
69.00000	-37.60000	112.00000	-0.70451	111.75	0.0	0.0	0.0	
70.00000	-37.60000	112.00000	-0.78470	111.75	0.0	0.0	0.0	
71.00000	-37.60000	112.00000	-0.87159	111.75	0.0	0.0	0.0	
72.00000	-37.60000	112.00000	-0.96393	111.75	0.0	0.0	0.0	
73.00000	-37.60000	112.00000	-1.0592	111.75	0.0	0.0	0.0	
74.00000	-37.60000	112.00000	-1.1528	111.75	0.0	0.0	0.0	
75.00000	-37.60000	112.00000	-1.2374	111.75	0.0	0.0	0.0	
76.00000	-37.60000	112.00000	-1.3039	111.75	0.0	0.0	0.0	
77.00000	-37.60000	112.00000	-1.3441	111.75	0.0	0.0	0.0	
78.00000	-37.60000	112.00000	-1.3556	111.75	0.0	0.0	0.0	
79.00000	-37.60000	112.00000	-1.3417	111.75	0.0	0.0	0.0	
80.00000	-37.60000	112.00000	-1.2997	111.75	0.0	0.0	0.0	
81.00000	-37.60000	112.00000	-1.2015	111.75	0.0	0.0	0.0	
82.00000	-37.60000	112.00000	-1.1367	111.75	0.0	0.0	0.0	
83.00000	-37.60000	112.00000	-1.0679	111.75	0.0	0.0	0.0	
84.00000	-37.60000	112.00000	-0.99731	111.75	0.0	0.0	0.0	
85.00000	-37.60000	112.00000	-0.92633	111.75	0.0	0.0	0.0	
86.00000	-37.60000	112.00000	-0.85625	111.75	0.0	0.0	0.0	
87.00000	-37.60000	112.00000	-0.78603	111.75	0.0	0.0	0.0	
88.00000	-37.60000	112.00000	-0.72246	111.75	0.0	0.0	0.0	
89.00000	-37.60000	112.00000	-0.66610	111.75	0.0	0.0	0.0	
90.00000	-37.60000	112.00000	-0.60738	111.75	0.0	0.0	0.0	
91.00000	-37.60000	112.00000	-0.54655	111.75	0.0	0.0	0.0	
92.00000	-37.60000	112.00000	-0.49376	111.75	0.0	0.0	0.0	
93.00000	-37.60000	112.00000	-0.44900	111.75	0.0	0.0	0.0	
94.00000	-37.60000	112.00000	-0.40620	111.75	0.0	0.0	0.0	
95.00000	-37.60000	112.00000	-0.36719	111.75	0.0	0.0	0.0	
96.00000	-37.60000	112.00000	-0.33177	111.75	0.0	0.0	0.0	
97.00000	-37.60000	112.00000	-0.30000	111.75	0.0	0.0	0.0	
98.00000	-37.60000	112.00000	-0.27072	111.75	0.0	0.0	0.0	
99.00000	-37.60000	112.00000	-0.24456	111.75	0.0	0.0	0.0	
100.00000	-37.60000	112.00000	-0.22098	111.75	0.0	0.0	0.0	
101.00000	-37.60000	112.00000	-0.19973	111.75	0.0	0.0	0.0	
102.00000	-37.60000	112.00000	-0.18059	111.75	0.0	0.0	0.0	
103.00000	-37.60000	112.00000	-0.16335	111.75	0.0	0.0	0.0	
104.00000	-37.60000	112.00000	-0.14781	111.75	0.0	0.0	0.0	
105.00000	-37.60000	112.00000	-0.13380	111.75	0.0	0.0	0.0	
106.00000	-37.60000	112.00000	-0.12114	111.75	0.0	0.0	0.0	
107.00000	-37.60000	112.00000	-0.10976	111.75	0.0	0.0	0.0	
108.00000	-37.60000	112.00000	-0.099460	111.75	0.0	0.0	0.0	
109.00000	-37.60000	112.00000	-0.090154	111.75	0.0	0.0	0.0	
110.00000	-37.60000	112.00000	-0.081788	111.75	0.0	0.0	0.0	
111.00000	-37.60000	112.00000	-0.074122	111.75	0.0	0.0	0.0	
112.00000	-37.60000	112.00000	-0.067225	111.75	0.0	0.0	0.0	
113.00000	-37.60000	112.00000	-0.060976	111.75	0.0	0.0	0.0	
114.00000	-37.60000	112.00000	-0.055310	111.75	0.0	0.0	0.0	
115.00000	-37.60000	112.00000	-0.050169	111.75	0.0	0.0	0.0	
116.00000	-37.60000	112.00000	-0.045502	111.75	0.0	0.0	0.0	
117.00000	-37.60000	112.00000	-0.041263	111.75	0.0	0.0	0.0	
118.00000	-37.60000	112.00000	-0.037409	111.75	0.0	0.0	0.0	
119.00000	-37.60000	112.00000	-0.033906	111.75	0.0	0.0	0.0	
120.00000	-37.60000	112.00000	-0.030718	111.75	0.0	0.0	0.0	
121.00000	-36.56667	112.00000	-0.10809	111.75	0.0	0.0	0.0	
122.00000	-36.56667	112.00000	-0.11970	111.75	0.0	0.0	0.0	
123.00000	-36.56667	112.00000	-0.13265	111.75	0.0	0.0	0.0	
124.00000	-36.56667	112.00000	-0.14711	111.75	0.0	0.0	0.0	
125.00000	-36.56667	112.00000	-0.16329	111.75	0.0	0.0	0.0	
126.00000	-36.56667	112.00000	-0.18143	111.75	0.0	0.0	0.0	
127.00000	-36.56667	112.00000	-0.20178	111.75	0.0	0.0	0.0	
128.00000	-36.56667	112.00000	-0.22466	111.75	0.0	0.0	0.0	
129.00000	-36.56667	112.00000	-0.25042	111.75	0.0	0.0	0.0	
130.00000	-36.56667	112.00000	-0.27949	111.75	0.0	0.0	0.0	
131.00000	-36.56667	112.00000	-0.31234	111.75	0.0	0.0	0.0	
132.00000	-36.56667	112.00000	-0.34951	111.75	0.0	0.0	0.0	
133.00000	-36.56667	112.00000	-0.39163	111.75	0.0	0.0	0.0	
134.00000	-36.56667	112.00000	-0.43942	111.75	0.0	0.0	0.0	
135.00000	-36.56667	112.00000	-0.49367	111.75	0.0	0.0	0.0	
136.00000	-36.56667	112.00000	-0.55278	111.75	0.0	0.0	0.0	
137.00000	-36.56667	112.00000	-0.62516	111.75	0.0	0.0	0.0	
138.00000	-36.56667	112.00000	-0.70432	111.75	0.0	0.0	0.0	
139.00000	-36.56667	112.00000	-0.79165	111.75	0.0	0.0	0.0	
140.00000	-36.56667	112.00000	-0.88407	111.75	0.0	0.0	0.0	
141.00000	-36.56667	112.00000	-1.0059	111.75	0.0	0.0	0.0	
142.00000	-36.56667	112.00000	-1.1288	111.75	0.0	0.0	0.0	
143.00000	-36.56667	112.00000	-1.2610	111.75	0.0	0.0	0.0	
144.00000	-36.56667	112.00000	-1.3976	111.75	0.0	0.0	0.0	
145.00000	-36.56667	112.00000	-1.5275	111.75	0.0	0.0	0.0	
146.00000	-36.56667	112.00000	-1.6308	111.75	0.0	0.0	0.0	
147.00000	-36.56667	112.00000	-1.6861	111.75	0.0	0.0	0.0	
148.00000	-36.56667	112.00000	-1.6910	111.75	0.0	0.0	0.0	
149.00000	-36.56667	112.00000	-1.6375	111.75	0.0	0.0	0.0	
150.00000	-36.56667	112.00000	-1.5986	111.75	0.0	0.0	0.0	
151.00000	-36.56667	112.00000	-1.5238	111.75	0.0	0.0	0.0	
152.00000	-36.56667	112.00000	-1.4393	111.75	0.0	0.0	0.0	
153.00000	-36.56667	112.00000	-1.3495	111.75	0.0	0.0	0.0	

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
MP		

Name	Location		Displacement Z [mm]	Stresses		
	X [m]	Y [m]		Calc Level [mOD]	Vert Stress [kN/m ²]	Sum Princ [kN/m ²]
1.00000	-34.50000	112.00000	-1.5587	111.75	0.0	0.0
2.00000	-34.50000	112.00000	-1.8249	111.75	0.0	0.0
3.00000	-34.50000	112.00000	-2.1540	111.75	0.0	0.0
4.00000	-34.50000	112.00000	-2.5832	111.75	0.0	0.0
5.00000	-34.50000	112.00000	-3.1848	111.75	0.0	0.0
6.00000	-34.50000	112.00000	-3.1701	111.75	0.0	0.0
7.00000	-34.50000	112.00000	-2.9496	111.75	0.0	0.0
8.00000	-34.50000	112.00000	-2.7304	111.75	0.0	0.0
9.00000	-34.50000	112.00000	-2.5209	111.75	0.0	0.0
10.00000	-34.50000	112.00000	-2.3214	111.75	0.0	0.0
11.00000	-34.50000	112.00000	-2.1314	111.75	0.0	0.0
12.00000	-34.50000	112.00000	-1.9507	111.75	0.0	0.0
13.00000	-34.50000	112.00000	-1.7790	111.75	0.0	0.0
14.00000	-34.50000	112.00000	-1.6162	111.75	0.0	0.0
15.00000	-34.50000	112.00000	-1.4626	111.75	0.0	0.0
16.00000	-34.50000	112.00000	-1.3184	111.75	0.0	0.0
17.00000	-34.50000	112.00000	-1.1838	111.75	0.0	0.0
18.00000	-34.50000	112.00000	-1.0594	111.75	0.0	0.0
19.00000	-34.50000	112.00000	-0.94516	111.75	0.0	0.0
20.00000	-34.50000	112.00000	-0.84135	111.75	0.0	0.0
21.00000	-34.50000	112.00000	-0.74775	111.75	0.0	0.0
22.00000	-34.50000	112.00000	-0.66399	111.75	0.0	0.0
23.00000	-34.50000	112.00000	-0.58945	111.75	0.0	0.0
24.00000	-34.50000	112.00000	-0.52343	111.75	0.0	0.0
25.00000	-34.50000	112.00000	-0.46511	111.75	0.0	0.0
26.00000	-34.50000	112.00000	-0.41368	111.75	0.0	0.0
27.00000	-34.50000	112.00000	-0.36936	111.75	0.0	0.0
28.00000	-34.50000	112.00000	-0.32942	111.75	0.0	0.0
29.00000	-34.50000	112.00000	-0.29320	111.75	0.0	0.0
30.00000	-34.50000	112.00000	-0.26210	111.75	0.0	0.0
31.00000	-34.50000	112.00000	-0.23461	111.75	0.0	0.0
32.00000	-34.50000	112.00000	-0.21027	111.75	0.0	0.0
33.00000	-34.50000	112.00000	-0.18867	111.75	0.0	0.0
34.00000	-34.50000	112.00000	-0.16949	111.75	0.0	0.0
35.00000	-34.50000	112.00000	-0.15242	111.75	0.0	0.0
36.00000	-34.50000	112.00000	-0.13719	111.75	0.0	0.0
37.00000	-34.50000	112.00000	-0.12360	111.75	0.0	0.0
38.00000	-34.50000	112.00000	-0.11144	111.75	0.0	0.0
39.00000	-34.50000	112.00000	-0.10055	111.75	0.0	0.0
40.00000	-34.50000	112.00000	-0.090783	111.75	0.0	0.0
41.00000	-34.50000	112.00000	-0.082007	111.75	0.0	0.0
42.00000	-34.50000	112.00000	-0.074114	111.75	0.0	0.0
43.00000	-34.50000	112.00000	-0.067007	111.75	0.0	0.0
44.00000	-34.50000	112.00000	-0.060599	111.75	0.0	0.0
45.00000	-34.50000	112.00000	-0.054816	111.75	0.0	0.0
46.00000	-34.50000	112.00000	-0.049591	111.75	0.0	0.0
47.00000	-34.50000	112.00000	-0.044867	111.75	0.0	0.0
48.00000	-34.50000	112.00000	-0.040591	111.75	0.0	0.0
49.00000	-34.50000	112.00000	-0.036718	111.75	0.0	0.0
50.00000	-34.50000	112.00000	-0.033207	111.75	0.0	0.0

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Figure 9A - RC Retaining Wall - Vertical Movements due to Installation

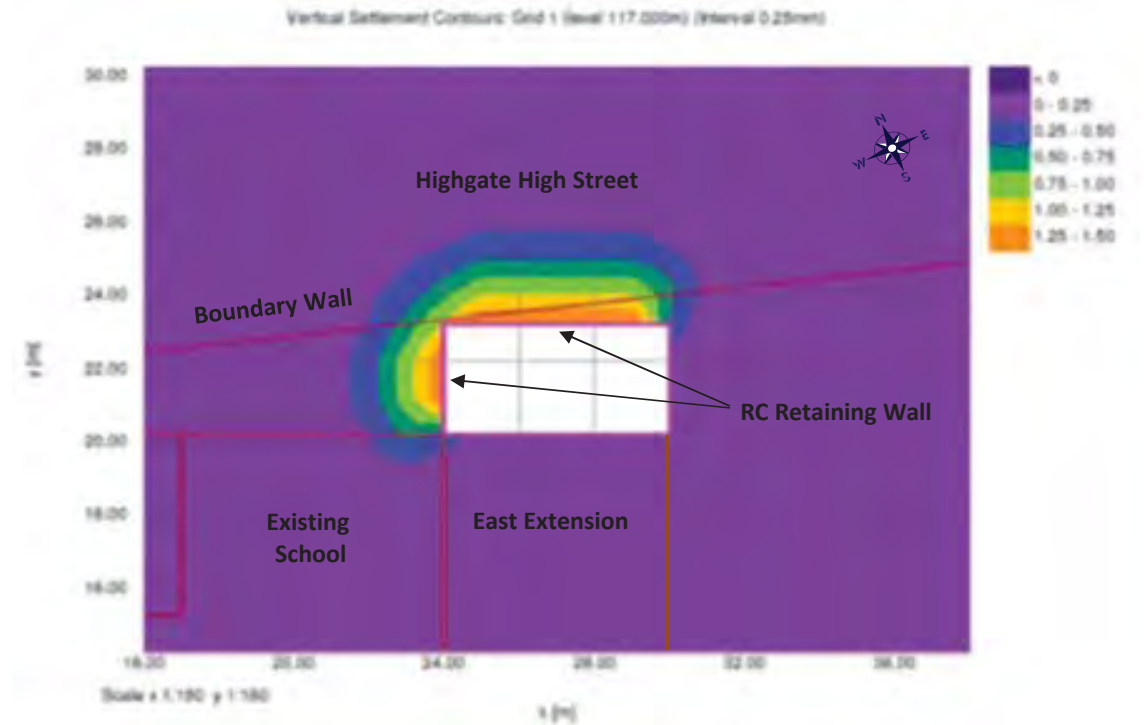
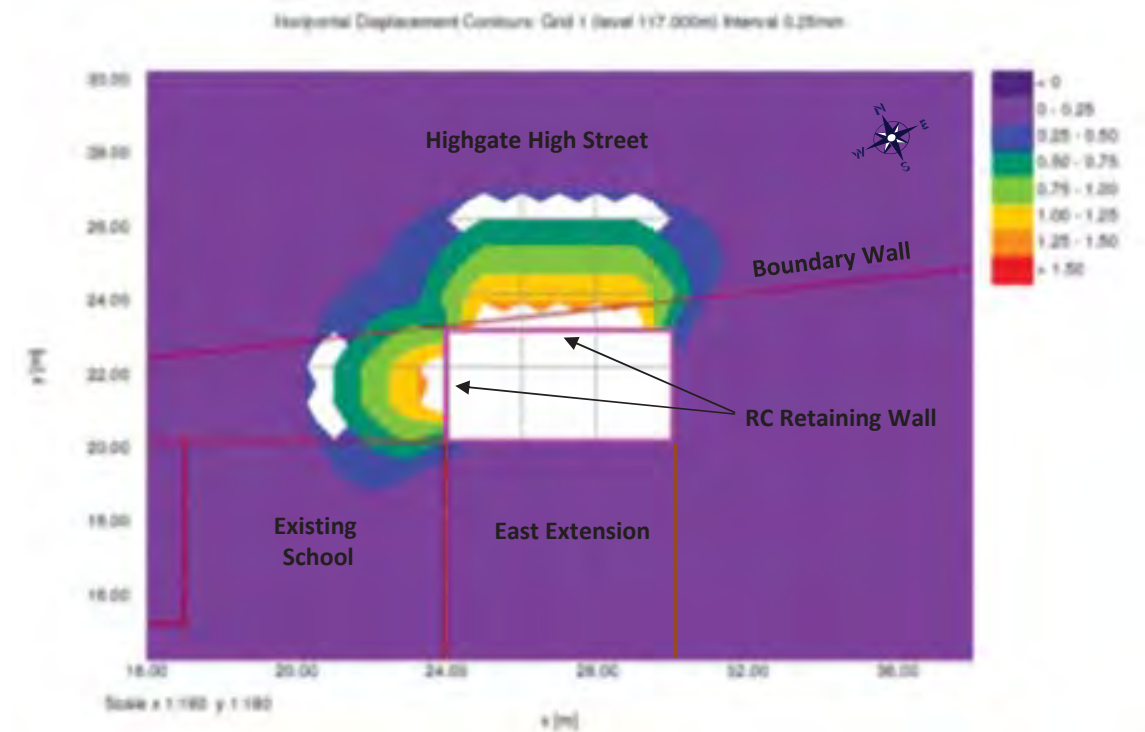


Figure 9B - RC Retaining Wall - Horizontal Movements due to Installation





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Ground Movement Plot

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Figure 10A - RC Retaining Wall - Horizontal Movements due to Excavation

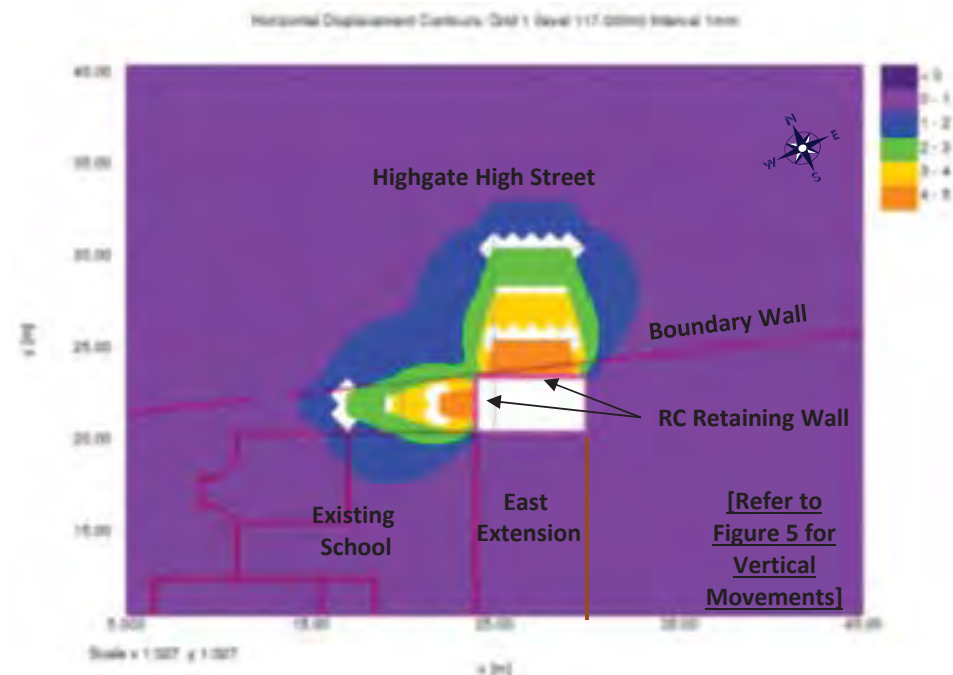
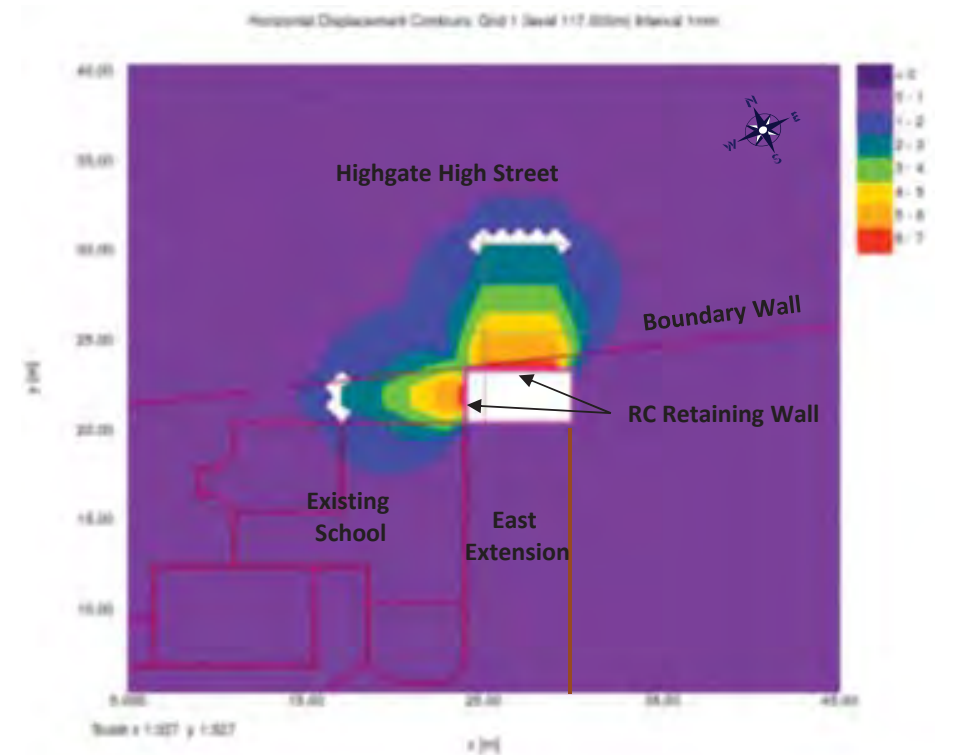


Figure 10B - RC Retaining Wall - Combined Horizontal Movements



Channing Junior School, Highgate High Street, N6 5JR

Ground Movement & Damage Assessment

Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
	Date 07-Dec-2017	Checked

Problem Type

Problem Type : Tunnelling and Embedded Wall Excavations

Displacement Data

Type	Name	Direction of extrusion	Point/Line/Line for extrusion			No. of intervals across extrusion/line	Extrusion depth [m]	No. of intervals along extrusion	Calculate	Surface type for tunnels
			First point X [m] Y [m] Z (level) [m]	Second point X [m] Y [m] Z (level) [m]						
Line	Line 1	-	0.05000 0.00000 113.50000	15.95000 0.00000 113.50000	8	-	-	Yes	Surface	
Line	Line 2	-	16.00000 0.00000 113.50000	16.00000 5.00000 113.50000	5	-	-	Yes	Surface	
Line	Line 3	-	8.00000 0.10000 113.50000	8.00000 5.00000 113.50000	5	-	-	Yes	Surface	
Line	Line 4	-	8.05000 5.00000 113.50000	8.95000 5.00000 113.50000	8	-	-	Yes	Surface	
Line	Line 5	-	16.05000 5.00000 113.50000	16.45000 5.00000 113.50000	2	-	-	Yes	Surface	
Line	Line 6	-	18.50000 6.55000 113.50000	18.50000 11.95000 113.50000	5	-	-	Yes	Surface	
Line	Line 7	-	6.55000 12.00000 113.50000	18.45000 12.00000 113.50000	6	-	-	Yes	Surface	
Line	Line 8	-	6.50000 6.55000 113.50000	6.50000 12.00000 113.50000	5	-	-	Yes	Surface	
Line	Line 9	-	4.00000 9.00000 113.50000	6.45000 9.00000 113.50000	2	-	-	Yes	Surface	
Line	Line 10	-	4.00000 6.55000 113.50000	4.00000 8.95000 113.50000	2	-	-	Yes	Surface	
Line	Line 11	-	4.00000 6.50000 113.50000	15.50000 6.50000 113.50000	5	-	-	Yes	Surface	
Line	Line 12	-	15.50000 6.55000 113.50000	15.50000 11.95000 113.50000	5	-	-	Yes	Surface	
Line	Line 13	-	0.05000 8.00000 113.50000	3.95000 8.00000 113.50000	4	-	-	Yes	Surface	
Line	Line 14	-	0.00000 0.00000 113.50000	0.00000 8.00000 113.50000	8	-	-	Yes	Surface	
Line	Line 15	-	18.50000 6.50000 113.50000	19.95000 6.50000 113.50000	1	-	-	Yes	Surface	
Line	Line 16	-	20.00000 5.50000 113.50000	22.95000 5.50000 113.50000	3	-	-	Yes	Surface	
Line	Line 17	-	23.00000 5.50000 113.50000	24.00000 6.45000 113.50000	1	-	-	Yes	Surface	
Line	Line 18	-	24.00000 6.50000 113.50000	24.00000 9.95000 113.50000	5	-	-	Yes	Surface	
Line	Line 19	-	18.55000 10.00000 113.50000	24.00000 10.00000 113.50000	5	-	-	Yes	Surface	
Line	Line 20	-	11.00000 12.05000 116.00000	11.00000 14.95000 116.00000	3	-	-	Yes	Surface	
Line	Line 21	-	11.00000 15.00000 114.00000	10.00000 16.00000 114.00000	1	-	-	Yes	Surface	
Line	Line 22	-	10.00000 16.00000 114.00000	9.00000 16.00000 114.00000	1	-	-	Yes	Surface	
Line	Line 23	-	9.00000 16.00000 114.00000	9.00000 17.50000 114.00000	1	-	-	Yes	Surface	
Line	Line 24	-	9.00000 17.50000 114.00000	10.00000 17.50000 114.00000	1	-	-	Yes	Surface	
Line	Line 25	-	10.00000 17.50000 114.00000	11.00000 18.50000 114.00000	1	-	-	Yes	Surface	
Line	Line 26	-	11.00000 18.50000 114.00000	11.00000 20.00000 114.00000	1	-	-	Yes	Surface	
Line	Line 27	-	11.05000 20.00000 114.00000	16.95000 20.00000 114.00000	6	-	-	Yes	Surface	
Line	Line 28	-	17.00000 15.00000 114.00000	17.00000 20.00000 114.00000	5	-	-	Yes	Surface	
Line	Line 29	-	11.05000 15.00000 114.00000	16.95000 15.00000 114.00000	6	-	-	Yes	Surface	
Line	Line 30	-	17.05000 20.00000 116.00000	23.95000 20.00000 116.00000	7	-	-	Yes	Surface	
Line	Line 31	-	24.00000 16.00000 114.00000	24.00000 20.00000 116.00000	5	-	-	Yes	Surface	
Line	Line 32	-	14.00000 22.00000 114.50000	50.00000 26.00000 114.50000	18	-	-	Yes	Surface	
Line	Line 33	-	-4.00000 20.00000 114.50000	12.00000 21.75000 114.50000	8	-	-	Yes	Surface	
Line	Line 34	-	-4.00000 18.75000 114.50000	-8.00000 19.50000 114.50000	6	-	-	Yes	Surface	
Line	Line 35	-	-14.00000 18.00000 116.00000	-9.00000 18.50000 116.00000	5	-	-	Yes	Surface	
Line	Line 36	-	-9.00000 18.50000 116.00000	-5.50000 -9.50000 116.00000	14	-	-	Yes	Surface	
Line	Line 37	-	-10.50000 -9.95000 116.00000	-5.50000 -9.50000 116.00000	5	-	-	Yes	Surface	
Line	Line 38	-	-14.00000 18.00000 116.00000	-10.50000 -9.95000 116.00000	14	-	-	Yes	Surface	
Grid	Grid 1	Global X	-4.00000 0.00000 117.00000	-40.00000 117.00000	40	54.00000	54	Yes	Surface	

Imported Displacements

The following data points and displacements were found in the import file .

Ref.	X [m]	Y [m]	Z [m]	X [mm]	Y [mm]	Z [mm]
1	23.81856	15.81773	114.00000	0.00000	0.00000	3.04522
2	27.00000	6.14493	114.00000	0.00000	0.00000	-3.29364
3	10.12783	-6.72288	111.00000	0.00000	0.00000	-3.85556
4	8.88752	-26.39877	110.50000	0.00000	0.00000	-0.10408
5	26.37500	22.12500	113.85000	0.00000	0.00000	-1.61315
6	20.75000	19.50000	113.85000	0.00000	0.00000	1.78450
7	16.00000	13.50000	113.85000	0.00000	0.00000	-1.69990
8	24.00000	14.50000	113.85000	0.00000	0.00000	2.62115
9	19.00000	13.00000	113.85000	0.00000	0.00000	4.22822
10	24.00000	4.00000	113.85000	0.00000	0.00000	6.22852
11	25.00000	2.00000	113.85000	0.00000	0.00000	3.46276
12	29.00000	2.00000	113.85000	0.00000	0.00000	3.48314
13	7.00000	-0.50000	112.60000	0.00000	0.00000	0.13881
14	3.00000	-4.00000	112.60000	0.00000	0.00000	0.32871
15	3.00000	-7.50000	112.60000	0.00000	0.00000	0.99307
16	3.00000	-11.50000	112.60000	0.00000	0.00000	1.78653
17	7.00000	-15.00000	112.60000	0.00000	0.00000	2.83906
18	10.00000	-15.00000	112.60000	0.00000	0.00000	0.95533
19	16.00000	-15.00000	112.60000	0.00000	0.00000	1.74501
20	17.00000	-4.00000	112.60000	0.00000	0.00000	1.97448
21	17.00000	-4.00000	112.60000	0.00000	0.00000	1.71116
22	17.00000	-7.50000	112.60000	0.00000	0.00000	1.47485
23	17.00000	-11.50000	112.60000	0.00000	0.00000	2.10367
24	7.00000	-4.00000	112.60000	0.00000	0.00000	0.98424
25	7.00000	-7.50000	112.60000	0.00000	0.00000	1.14809
26	7.00000	-11.50000	112.60000	0.00000	0.00000	1.99208
27	30.00000	21.50000	113.85000	0.00000	0.00000	0.72189
28	30.00000	16.00000	113.85000	0.00000	0.00000	-1.16193
29	30.00000	10.00000	113.85000	0.00000	0.00000	-0.20369
30	30.00000	4.00000	113.85000	0.00000	0.00000	6.27198
31	0.05000	0.00000	113.50000	0.00000	0.00000	-0.88419 1.26
32	2.03750	0.00000	113.50000	0.00000	0.00000	-1.71691 1.26
33	4.02500	0.00000	113.50000	0.00000	0.00000	-1.95927 1.26
34	6.01250	0.00000	113.50000	0.00000	0.00000	-1.89285 1.26
35	8.00000	0.00000	113.50000	0.00000	0.00000	-1.72706 1.26
36	9.98750	0.00000	113.50000	0.00000	0.00000	-2.33244 1.26
37	11.97500	0.00000	113.50000	0.00000	0.00000	-2.32549 1.26
38	13.96250	0.00000	113.50000	0.00000	0.00000	-1.81252 1.26
39	15.95000	0.00000	113.50000	0.00000	0.00000	-2.0117 1.26
40	16.00000	0.00000	113.50000	0.00000	0.00000	-0.15959 1.26
41	16.00000	1.00000	113.50000	0.00000	0.00000	-0.44178 1.26
42	16.00000	2.00000	113.50000	0.00000	0.00000	-0.52810 1.26
43	16.00000	3.00000	113.50000	0.00000	0.00000	-0.55226 1.26
44	16.00000	4.00000	113.50000	0.00000	0.00000	-0.55576 1.26
45	16.00000	5.00000	113.50000	0.00000	0.00000	-0.55317 1.26
46	8.00000	0.10000	113.50000	0.00000	0.00000	-1.62334 1.26
47	8.00000	1.00000	113.50000	0.00000	0.00000	-1.23990 1.26
48	8.00000	2.00000	113.50000	0.00000	0.00000	-1.01717 1.26
49	8.00000	3.00000	113.50000	0.00000	0.00000	-0.84203 1.26
50	8.00000	4.00000	113.50000	0.00000	0.00000	-0.70591 1.26
51	8.00000	5.00000	113.50000	0.00000	0.00000	-0.60035 1.26
52	8.05000	5.00000	113.50000	0.00000	0.00000	-0.60116 1.26
53	9.03750	5.00000	113.50000	0.00000	0.00000	-0.61512 1.26
54	10.02500	5.00000	113.50000	0.00000	0.00000	-0.62354 1.26
55	11.01250	5.00000	113.50000	0.00000	0.00000	-0.62451 1.26
56	12.00000	5.00000	113.50000	0.00000	0.00000	-0.61728 1.26
57	12.98750	5.00000	113.50000	0.00000	0.00000	-0.60283 1.26
58	13.97500	5.00000	113.50000	0.00000	0.00000	-0.58462 1.26
59	14.96250	5.00000	113.50000	0.00000	0.00000	-0.56563 1.26
60	15.95000	5.00000	113.50000	0.00000	0.00000	-0.55351 1.26
61	16.05000	5.00000	113.50000	0.00000	0.00000	-0.55286 1.26
62	17.25000	5.75000	113.50000	0.00000	0.00000	-0.58348 1.26
63	18.45000	6.50000	113.50000	0.00000	0.00000	-0.69020 1.26



Channing Junior School, Highgate High Street, N6 5JR

Ground Movement & Damage Assessment

Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Ref.	Coordinates			Displacements		
	x [m]	y [m]	z [m]	x [mm]	y [mm]	z [mm]
64	18.50000	6.55000	113.50000	0.00000	0.00000	-0.69813
65	18.50000	7.63000	113.50000	0.00000	0.00000	-0.78329
66	18.50000	8.71000	113.50000	0.00000	0.00000	-0.88425
67	18.50000	9.79000	113.50000	0.00000	0.00000	-1.06111
68	18.50000	10.87000	113.50000	0.00000	0.00000	-0.77149
69	18.50000	11.95000	113.50000	0.00000	0.00000	2.15789
70	6.55000	12.00000	113.50000	0.00000	0.00000	-0.26006
71	8.53333	12.00000	113.50000	0.00000	0.00000	-0.28156
72	10.51667	12.00000	113.50000	0.00000	0.00000	-0.29244
73	12.50000	12.00000	113.50000	0.00000	0.00000	-0.26174
74	14.48333	12.00000	113.50000	0.00000	0.00000	-0.04593
75	16.46667	12.00000	113.50000	0.00000	0.00000	0.38418
76	18.45000	12.00000	113.50000	0.00000	0.00000	2.30650
77	6.50000	6.50000	113.50000	0.00000	0.00000	-0.45791
78	6.50000	7.64000	113.50000	0.00000	0.00000	-0.39793
79	6.50000	8.73000	113.50000	0.00000	0.00000	-0.35078
80	6.50000	9.82000	113.50000	0.00000	0.00000	-0.31335
81	6.50000	10.91000	113.50000	0.00000	0.00000	-0.28346
82	6.50000	12.00000	113.50000	0.00000	0.00000	-0.25947
83	4.00000	9.00000	113.50000	0.00000	0.00000	-0.30393
84	5.22500	9.00000	113.50000	0.00000	0.00000	-0.32285
85	6.45000	9.00000	113.50000	0.00000	0.00000	-0.34004
86	4.00000	6.55000	113.50000	0.00000	0.00000	-0.43006
87	4.00000	7.75000	113.50000	0.00000	0.00000	-0.35102
88	4.00000	8.95000	113.50000	0.00000	0.00000	-0.30559
89	4.00000	6.50000	113.50000	0.00000	0.00000	-0.41289
90	2.30000	6.50000	113.50000	0.00000	0.00000	-0.45770
91	8.60000	6.50000	113.50000	0.00000	0.00000	-0.49039
92	10.90000	6.50000	113.50000	0.00000	0.00000	-0.50704
93	13.20000	6.50000	113.50000	0.00000	0.00000	-0.51004
94	15.50000	6.50000	113.50000	0.00000	0.00000	-0.53322
95	15.50000	6.55000	113.50000	0.00000	0.00000	-0.53216
96	15.50000	7.63000	113.50000	0.00000	0.00000	-0.50266
97	15.50000	8.71000	113.50000	0.00000	0.00000	-0.44873
98	15.50000	9.79000	113.50000	0.00000	0.00000	-0.34577
99	15.50000	10.87000	113.50000	0.00000	0.00000	-0.15009
100	15.50000	11.95000	113.50000	0.00000	0.00000	0.42435
101	0.05000	8.00000	113.50000	0.00000	0.00000	-0.26144
102	1.02500	8.00000	113.50000	0.00000	0.00000	-0.28192
103	2.00000	8.00000	113.50000	0.00000	0.00000	-0.30203
104	2.97500	8.00000	113.50000	0.00000	0.00000	-0.32139
105	3.95000	8.00000	113.50000	0.00000	0.00000	-0.33968
106	0.00000	0.00000	113.50000	0.00000	0.00000	-0.87034
107	0.00000	1.00000	113.50000	0.00000	0.00000	-0.72133
108	0.00000	2.00000	113.50000	0.00000	0.00000	-0.60298
109	0.00000	3.00000	113.50000	0.00000	0.00000	-0.50697
110	0.00000	4.00000	113.50000	0.00000	0.00000	-0.43281
111	0.00000	5.00000	113.50000	0.00000	0.00000	-0.37476
112	0.00000	6.00000	113.50000	0.00000	0.00000	-0.32894
113	0.00000	7.00000	113.50000	0.00000	0.00000	-0.29136
114	0.00000	8.00000	113.50000	0.00000	0.00000	-0.26039
115	0.00000	6.50000	113.50000	0.00000	0.00000	-0.65438
116	19.95000	5.50000	113.50000	0.00000	0.00000	-0.69623
117	20.00000	5.50000	113.50000	0.00000	0.00000	-0.69902
118	20.98333	5.50000	113.50000	0.00000	0.00000	-0.75425
119	21.96667	5.50000	113.50000	0.00000	0.00000	-0.80852
120	22.95000	5.50000	113.50000	0.00000	0.00000	-0.86884
121	23.00000	5.50000	113.50000	0.00000	0.00000	-0.89436
122	24.00000	6.45000	113.50000	0.00000	0.00000	-1.99123
123	24.00000	6.50000	113.50000	0.00000	0.00000	-2.01279
124	24.00000	7.65000	113.50000	0.00000	0.00000	-2.34363
125	24.00000	8.80000	113.50000	0.00000	0.00000	-2.34993
126	24.00000	9.95000	113.50000	0.00000	0.00000	-0.82392
127	18.55000	10.00000	113.50000	0.00000	0.00000	-1.14109
128	19.64000	10.00000	113.50000	0.00000	0.00000	-1.88543
129	20.73000	10.00000	113.50000	0.00000	0.00000	-2.37952
130	21.82000	10.00000	113.50000	0.00000	0.00000	-2.54513
131	22.91000	10.00000	113.50000	0.00000	0.00000	-2.02430
132	24.00000	10.00000	113.50000	0.00000	0.00000	-0.67446
133	11.00000	12.05000	116.00000	0.00000	0.00000	-0.28908
134	11.00000	13.01667	116.00000	0.00000	0.00000	-0.27751
135	11.00000	13.98333	116.00000	0.00000	0.00000	-0.27528
136	11.00000	14.95000	116.00000	0.00000	0.00000	-0.27947
137	11.00000	15.00000	116.00000	0.00000	0.00000	-0.28004
138	10.00000	16.00000	114.00000	0.00000	0.00000	-0.26187
139	10.00000	16.00000	114.00000	0.00000	0.00000	-0.26187
140	9.00000	16.00000	114.00000	0.00000	0.00000	-0.24205
141	9.00000	16.00000	114.00000	0.00000	0.00000	-0.24205
142	9.00000	17.50000	114.00000	0.00000	0.00000	-0.23050
143	9.00000	17.50000	114.00000	0.00000	0.00000	-0.23050
144	10.00000	17.50000	114.00000	0.00000	0.00000	-0.25425
145	10.00000	17.50000	114.00000	0.00000	0.00000	-0.25425
146	11.00000	18.50000	114.00000	0.00000	0.00000	-0.27557
147	11.00000	18.50000	114.00000	0.00000	0.00000	-0.27557
148	11.00000	20.00000	114.00000	0.00000	0.00000	-0.25091
149	11.00000	20.00000	114.00000	0.00000	0.00000	-0.25234
150	12.03333	20.00000	114.00000	0.00000	0.00000	-0.28951
151	13.01667	20.00000	114.00000	0.00000	0.00000	-0.32045
152	14.00000	20.00000	114.00000	0.00000	0.00000	-0.36015
153	14.98333	20.00000	114.00000	0.00000	0.00000	-0.38737
154	15.96667	20.00000	114.00000	0.00000	0.00000	-0.33703
155	16.95000	20.00000	114.00000	0.00000	0.00000	0.30957
156	17.00000	15.00000	114.00000	0.00000	0.00000	-1.98477
157	17.00000	16.00000	114.00000	0.00000	0.00000	-2.41991
158	17.00000	17.00000	114.00000	0.00000	0.00000	-2.53231
159	17.00000	18.00000	114.00000	0.00000	0.00000	-2.09558
160	17.00000	19.00000	114.00000	0.00000	0.00000	-0.36361
161	17.00000	20.00000	114.00000	0.00000	0.00000	0.46541
162	11.05000	15.00000	114.00000	0.00000	0.00000	-0.28079
163	12.03333	15.00000	114.00000	0.00000	0.00000	-0.29436
164	13.01667	15.00000	114.00000	0.00000	0.00000	-0.30276
165	14.00000	15.00000	114.00000	0.00000	0.00000	-0.29570
166	14.98333	15.00000	114.00000	0.00000	0.00000	-0.23259
167	15.96667	15.00000	114.00000	0.00000	0.00000	0.31534
168	16.95000	15.00000	114.00000	0.00000	0.00000	-1.89134
169	17.05000	20.00000	116.00000	0.00000	0.00000	0.85517
170	18.03571	20.00000	116.00000	0.00000	0.00000	1.37965
171	19.02143	20.00000	116.00000	0.00000	0.00000	1.45369
172	20.00714	20.00000	116.00000	0.00000	0.00000	1.47408
173	20.99286	20.00000	116.00000	0.00000	0.00000	1.51076
174	21.97857	20.00000	116.00000	0.00000	0.00000	1.56887
175	22.96429	20.00000	116.00000	0.00000	0.00000	1.56577
176	23.95000	20.00000	116.00000	0.00000	0.00000	1.01289
177	24.00000	10.05000	116.00000	0.00000	0.00000	1.51624
178	24.00000	12.04000	116.00000	0.00000	0.00000	3.38708
179	24.00000	14.03000	116.00000	0.00000	0.00000	3.42850
180	24.00000	16.02000	116.00000	0.00000	0.00000	3.54082
181	24.00000	18.01000	116.00000	0.00000	0.00000	3.96708



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Ground Movement & Damage Assessment

Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Ref.	Coordinates			Displacements		
	x [m]	y [m]	z [m]	x [mm]	y [mm]	z [mm]
182	24.00000	20.00000	116.00000	0.00000	0.00000	1.08457
183	14.00000	22.00000	114.50000	0.00000	0.00000	-0.26371
184	16.00000	22.22222	114.50000	0.00000	0.00000	-0.24236
185	18.00000	22.44444	114.50000	0.00000	0.00000	-0.19057
186	20.00000	22.66667	114.50000	0.00000	0.00000	-0.20644
187	22.00000	22.88889	114.50000	0.00000	0.00000	-0.30619
188	24.00000	23.11111	114.50000	0.00000	0.00000	-0.35498
189	26.00000	23.33333	114.50000	0.00000	0.00000	-0.72592
190	28.00000	23.55556	114.50000	0.00000	0.00000	-0.76945



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Dr. Ref.		
Made by	Date	Checked
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Ref.	Coordinates			Displacements		
	x [m]	y [m]	z [m]	x [mm]	y [mm]	z [mm]
Curve Name:	No horizontal ground movement					
Coordinates:	[Distance from wall / wall depth or max. excavation depth (x), Depth / wall depth or max. excavation depth (y), Horizontal movement / wall depth or max. excavation depth (z) (N)] [0.000,0.000,0.000][1.000,0.000,0.000][0.000,1.000,0.000][1.000,1.000,0.000]					
Curve Fitting Method:	Polynomial					
x Order:	0					
y Order:	0					
Polynomial: z =	-2147483648.E+2147483647					
Coeff. of Determination:						
Curve Name:	Installation of planar diaphragm wall in stiff clay (CIRIA 580 Fig. 2.9(a))					
Coordinates:	[Distance from wall / wall depth or max. excavation depth (x), Depth / wall depth or max. excavation depth (y), Horizontal movement / wall depth or max. excavation depth (z) (N)] [0.000,0.000,0.050][1.500,0.000,0.000]					
Curve Fitting Method:	Polynomial					
x Order:	1					
y Order:	0					
Polynomial: z =	-3.33E-2x + 5.00E-2					
Coeff. of Determination:	1.00					
Curve Name:	Curve for 5 mm of horizontal settlement due to excavation in front of new RC retaining wall (adapted from CIRIA 580 Fig. 2.11(a))					
Coordinates:	[Distance from wall / wall depth or max. excavation depth (x), Depth / wall depth or max. excavation depth (y), Horizontal movement / wall depth or max. excavation depth (z) (N)] [0.000,0.000,0.160][4.000,0.000,0.000]					
Curve Fitting Method:	Polynomial					
x Order:	1					
y Order:	0					
Polynomial: z =	-4.00E-2x + 1.60E-1					
Coeff. of Determination:	1.00					

Excavation Name:		Excavation Phase	
Surface level [m]:	117.00	Contribution:	Positive
Enabled:	Yes	Surface movement curves which are selected are applied between surface and [m]:	114.00

Corner	x	y	Base Level	Stiffened	Previous Side	Next Side
	[m]	[m]	[m]	Yes	d	pl p2*
1	24.000	23.000	114.00	Yes	0.0	67.000 25.000
2	24.000	23.000	114.00	Yes	0.0	67.000 25.000
3	30.000	23.000	114.00	Yes	0.0	67.000 25.000
4	30.000	20.000	114.00	Yes	0.0	67.000 25.000

Side	Corner 1		Corner 2		Ground Movement Curve	
	x	y	x	y	Vertical	Horizontal
1	24.000	20.000	24.000	23.000	No vertical ground movement	Curve for 5 mm of horizontal settlement due to excavation in front of new RC retaining wall (adapted from CIRIA 580 Fig. 2.11(a))
2	24.000	23.000	30.000	23.000	No vertical ground movement	Curve for 5 mm of horizontal settlement due to excavation in front of new RC retaining wall (adapted from CIRIA 580 Fig. 2.11(a))
3	30.000	23.000	30.000	20.000	No vertical ground movement	No horizontal ground movement
4	30.000	20.000	24.000	20.000	No vertical ground movement	No horizontal ground movement

Excavation Name:		Installation Phase	
Surface level [m]:	117.00	Contribution:	Positive
Enabled:	Yes	Surface movement curves which are selected are applied between surface and [m]:	114.00

Corner	x	y	Base Level	Stiffened	Previous Side	Next Side
	[m]	[m]	[m]	Yes	d	pl p2*
1	24.000	20.000	114.00	Yes	0.0	67.000 25.000
2	24.000	23.000	114.00	Yes	0.0	67.000 25.000
3	30.000	23.000	114.00	Yes	0.0	67.000 25.000
4	30.000	20.000	114.00	Yes	0.0	67.000 25.000

Side	Corner 1		Corner 2		Ground Movement Curve	
	x	y	x	y	Vertical	Horizontal
1	24.000	20.000	24.000	23.000	Installation of planar diaphragm wall in stiff clay (CIRIA 580 Fig. 2.9(b))	Installation of planar diaphragm wall in stiff clay (CIRIA 580 Fig. 2.9(a))
2	24.000	23.000	30.000	23.000	Installation of planar diaphragm wall in stiff clay (CIRIA 580 Fig. 2.9(b))	Installation of planar diaphragm wall in stiff clay (CIRIA 580 Fig. 2.9(a))
3	30.000	23.000	30.000	20.000	No vertical ground movement	No horizontal ground movement
4	30.000	20.000	24.000	20.000	No vertical ground movement	No horizontal ground movement

Damage Category Strains				
Name	0 (Negligible)	1 (Very Slight)	2 (Slight)	3 (Moderate)
Burland Strain Limits	1 (Very Slight)	2 (Slight)	3 (Moderate)	4 (Severe)
	0.0	500.00E-6	750.00E-6	0.0015000

Specific Structures - Geometry										
Structure Name	Sub-Structure Name	Displacement Line	Start Distance Along Line	End Distance Along Line	Vertical Offsets from Line for Vertical Movement	Vertical Displacement Limit	Damage Category	Strains	Poisson's Ratio	E/G
Existing School Sub 2	Line 2	0.00000	5.00000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 3	Line 3	0.00000	4.90000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 4	Line 4	0.00000	7.89900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 5	Line 5	0.00000	2.83000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 6	Line 6	0.00000	5.39900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		



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Structure Name	Sub-Structure Name	Displacement Line	Start Distance Along Line	End Distance Along Line	Vertical Offsets from Line for Vertical Movement	Vertical Displacement Limit	Damage Category	Strains	Poisson's Ratio	E/G
Existing School Sub 8	Line 8	0.00000	5.45000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 9	Line 9	0.00000	2.45000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 10	Line 10	0.00000	2.39900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 11	Line 11	0.00000	11.30000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 12	Line 12	0.00000	5.39900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 13	Line 13	0.00000	3.90000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 14	Line 14	0.00000	8.00000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 15	Line 15	0.00000	1.76100	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 16	Line 16	0.00000	2.94900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 17	Line 17	0.00000	1.37900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 18	Line 18	0.00000	3.44900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 19	Line 19	0.00000	5.44900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 20	Line 20	0.00000	2.89900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 21	Line 21	0.00000	1.41400	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 22	Line 22	0.00000	1.00000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 23	Line 23	0.00000	1.50000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 24	Line 24	0.00000	8.00000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 25	Line 25	0.00000	1.40000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 26	Line 26	0.00000	1.50000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 27	Line 27	0.00000	5.89900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 28	Line 28	0.00000	5.00000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 29	Line 29	0.00000	5.89900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 30	Line 30	0.00000	6.89900	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Existing School Sub 31	Line 31	0.00000	9.50000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Boundary Wall Sub 32	Line 32	0.00000	36.22000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Boundary Wall Sub 33	Line 33	0.00000	16.00000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Boundary Wall Sub 34	Line 34	0.00000	6.00000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Stable Block Sub 35	Line 35	0.00000	5.00000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Stable Block Sub 36	Line 36	0.00000	28.20000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Stable Block Sub 37	Line 37	0.00000	5.00000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		
Stable Block Sub 38	Line 38	0.00000	28.20000	0.0	0.10000	Burland Strain Limits	0.20000	2.6000		

Specific Structures - Bending Parameters									
Structure Name	Sub-Structure Name	Height	Default Properties	Hogging		Sagging		Distance of Beam in Tension	Distance of Beam in Tension
				2nd Moment of Area (per unit width)	Distance of Bending Strain from N.A.	2nd Moment of Area (per unit width)	Distance of Bending Strain from N.A.		
Existing School Sub 1		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 2		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 3		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 4		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 5		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 6		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 7		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 8		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 9		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 10		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 11		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 12		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 13		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 14		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 15		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 16		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 17		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 18		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 19		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 20		7.0000	Yes	114.33	7.0000	7.0000	28.583	3.5000	3.5000
Existing School Sub 21		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 22		10.000	Yes	333.33	10.000	10.000	83.333	5.0000	5.0000
Existing School Sub 23		10.000	Yes	333.33	10.000				



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Type/No.	Coordinates	Displacements	Angle of Line
Name	Dist.	x y z	Horizontal Horizontal to x Axis displacement displacement
2.9400	8.00000	3.04000 113.50000	0.0 0.0 -0.84203 0.0 90.000 *
3.9200	8.00000	4.02000 113.50000	0.0 0.0 -0.70581 0.0 0.0 90.000 *
4.9000	8.00000	5.00000 113.50000	0.0 0.0 -0.60035 0.0 0.0 90.000 *
Line 4	Line 4	8.05000 5.00000 113.50000	0.0 0.0 -0.60116 0.0 0.0 0.0 *
0.98750	9.03750	5.00000 113.50000	0.0 0.0 -0.61512 0.0 0.0 0.0 *
1.9750	10.02500	5.00000 113.50000	0.0 0.0 -0.62354 0.0 0.0 0.0 *
2.9625	11.01250	5.00000 113.50000	0.0 0.0 -0.62451 0.0 0.0 0.0 *
3.9500	12.00000	5.00000 113.50000	0.0 0.0 -0.63728 0.0 0.0 0.0 *
4.9375	12.98750	5.00000 113.50000	0.0 0.0 -0.60283 0.0 0.0 0.0 *
5.9250	13.97500	5.00000 113.50000	0.0 0.0 -0.58402 0.0 0.0 0.0 *
6.9125	14.96250	5.00000 113.50000	0.0 0.0 -0.56563 0.0 0.0 0.0 *
7.9000	15.95000	5.00000 113.50000	0.0 0.0 -0.55351 0.0 0.0 0.0 *
Line 5	Line 5	16.05000 5.00000 113.50000	0.0 0.0 -0.55286 0.0 0.0 32.005 *
1.4131	17.25000	6.50000 113.50000	0.0 0.0 -0.58348 0.0 0.0 32.005 *
2.8302	18.45000	6.50000 113.50000	0.0 0.0 -0.69020 0.0 0.0 32.005 *
Line 6	Line 6	18.50000 6.55000 113.50000	0.0 0.0 -0.69813 0.0 0.0 90.000 *
1.0800	18.50000	7.63000 113.50000	0.0 0.0 -0.78329 0.0 0.0 90.000 *
2.1600	18.50000	8.71000 113.50000	0.0 0.0 -0.88425 0.0 0.0 90.000 *
3.2400	18.50000	9.79000 113.50000	0.0 0.0 -1.06111 0.0 0.0 90.000 *
4.3200	18.50000	10.87000 113.50000	0.0 0.0 -0.77149 0.0 0.0 90.000 *
5.4000	18.50000	11.95000 113.50000	0.0 0.0 -2.15719 0.0 0.0 90.000 *
Line 7	Line 7	6.55000 12.00000 113.50000	0.0 0.0 -0.26006 0.0 0.0 0.0 *
1.9833	8.53333	12.00000 113.50000	0.0 0.0 -0.28156 0.0 0.0 0.0 *
3.9667	10.51667	12.00000 113.50000	0.0 0.0 -0.29244 0.0 0.0 0.0 *
5.9500	12.50000	12.00000 113.50000	0.0 0.0 -0.26174 0.0 0.0 0.0 *
7.9333	14.48333	12.00000 113.50000	0.0 0.0 -0.045925 0.0 0.0 0.0 *
9.9167	16.46667	12.00000 113.50000	0.0 0.0 -0.39418 0.0 0.0 0.0 *
11.9000	18.45000	12.00000 113.50000	0.0 0.0 -0.3065 0.0 0.0 0.0 *
Line 8	Line 8	6.50000 6.55000 113.50000	0.0 0.0 -0.45791 0.0 0.0 90.000 *
1.0900	6.50000	7.64000 113.50000	0.0 0.0 -0.39793 0.0 0.0 90.000 *
2.1800	6.50000	8.73000 113.50000	0.0 0.0 -0.35078 0.0 0.0 90.000 *
3.2700	6.50000	9.82000 113.50000	0.0 0.0 -0.31335 0.0 0.0 90.000 *
4.3600	6.50000	10.91000 113.50000	0.0 0.0 -0.28346 0.0 0.0 90.000 *
5.4500	6.50000	12.00000 113.50000	0.0 0.0 -0.25947 0.0 0.0 90.000 *
Line 9	Line 9	4.00000 9.00000 113.50000	0.0 0.0 -0.30393 0.0 0.0 0.0 *
1.2250	5.22500	9.00000 113.50000	0.0 0.0 -0.32285 0.0 0.0 0.0 *
2.4500	6.45000	9.00000 113.50000	0.0 0.0 -0.34004 0.0 0.0 0.0 *
Line 10	Line 10	4.00000 6.55000 113.50000	0.0 0.0 -0.41006 0.0 0.0 90.000 *
1.2000	4.00000	7.75000 113.50000	0.0 0.0 -0.35102 0.0 0.0 90.000 *
2.4000	4.00000	8.95000 113.50000	0.0 0.0 -0.30559 0.0 0.0 90.000 *
Line 11	Line 11	4.00000 6.50000 113.50000	0.0 0.0 -0.4126 0.0 0.0 0.0 *
2.3000	6.30000	6.50000 113.50000	0.0 0.0 -0.45770 0.0 0.0 0.0 *
4.6000	6.60000	6.50000 113.50000	0.0 0.0 -0.49039 0.0 0.0 0.0 *
6.9000	10.90000	6.50000 113.50000	0.0 0.0 -0.50704 0.0 0.0 0.0 *
9.2000	13.20000	6.50000 113.50000	0.0 0.0 -0.51004 0.0 0.0 0.0 *
Line 12	Line 12	15.50000 6.50000 113.50000	0.0 0.0 -0.53222 0.0 0.0 0.0 *
1.0800	15.50000	7.63000 113.50000	0.0 0.0 -0.52126 0.0 0.0 90.000 *
2.1600	15.50000	8.71000 113.50000	0.0 0.0 -0.44873 0.0 0.0 90.000 *
3.2400	15.50000	9.79000 113.50000	0.0 0.0 -0.34577 0.0 0.0 90.000 *
4.3200	15.50000	10.87000 113.50000	0.0 0.0 -0.15009 0.0 0.0 90.000 *
5.4000	15.50000	11.95000 113.50000	0.0 0.0 -0.42435 0.0 0.0 90.000 *
Line 13	Line 13	0.05000 8.00000 113.50000	0.0 0.0 -0.26144 0.0 0.0 0.0 *
0.97500	0.97500	8.00000 113.50000	0.0 0.0 -0.28182 0.0 0.0 0.0 *
1.9500	2.95000	8.00000 113.50000	0.0 0.0 -0.30203 0.0 0.0 0.0 *
2.9250	4.92500	8.00000 113.50000	0.0 0.0 -0.32139 0.0 0.0 0.0 *
3.9000	6.90000	8.00000 113.50000	0.0 0.0 -0.33968 0.0 0.0 0.0 *
Line 14	Line 14	0.00000 0.00000 113.50000	0.0 0.0 -0.87034 0.0 0.0 90.000 *
1.0000	0.00000	1.00000 113.50000	0.0 0.0 -0.72633 0.0 0.0 90.000 *
2.0000	0.00000	2.00000 113.50000	0.0 0.0 -0.60228 0.0 0.0 90.000 *
3.0000	0.00000	3.00000 113.50000	0.0 0.0 -0.50697 0.0 0.0 90.000 *
4.0000	0.00000	4.00000 113.50000	0.0 0.0 -0.43281 0.0 0.0 90.000 *
5.0000	0.00000	5.00000 113.50000	0.0 0.0 -0.37476 0.0 0.0 90.000 *
6.0000	0.00000	6.00000 113.50000	0.0 0.0 -0.32899 0.0 0.0 90.000 *
7.0000	0.00000	7.00000 113.50000	0.0 0.0 -0.29136 0.0 0.0 90.000 *
8.0000	0.00000	8.00000 113.50000	0.0 0.0 -0.26039 0.0 0.0 90.000 *
Line 15	Line 15	18.50000 15.50000 113.50000	0.0 0.0 -0.69438 0.0 0.0 325.41 *
1.7614	19.95000	5.50000 113.50000	0.0 0.0 -0.69623 0.0 0.0 325.41 *
Line 16	Line 16	20.00000 5.50000 113.50000	0.0 0.0 -0.69902 0.0 0.0 0.0 *
0.98233	20.98233	5.50000 113.50000	0.0 0.0 -0.75425 0.0 0.0 0.0 *
1.9647	21.96467	5.50000 113.50000	0.0 0.0 -0.80852 0.0 0.0 0.0 *
2.9500	22.95000	5.50000 113.50000	0.0 0.0 -0.86884 0.0 0.0 0.0 *
Line 17	Line 17	23.00000 5.50000 113.50000	0.0 0.0 -0.89436 0.0 0.0 43.533 *
1.9793	24.00000	6.50000 113.50000	0.0 0.0 -1.9912 0.0 0.0 13.533 *
Line 18	Line 18	24.00000 6.50000 113.50000	0.0 0.0 -2.0128 0.0 0.0 90.000 *
1.1500	24.00000	7.65000 113.50000	0.0 0.0 -2.3436 0.0 0.0 90.000 *
2.3000	24.00000	8.80000 113.50000	0.0 0.0 -2.34949 0.0 0.0 90.000 *
3.4500	24.00000	9.95000 113.50000	0.0 0.0 -0.82392 0.0 0.0 90.000 *
Line 19	Line 19	18.50000 10.00000 113.50000	0.0 0.0 -1.1411 0.0 0.0 0.0 *
1.0900	18.64000	10.00000 113.50000	0.0 0.0 -1.8854 0.0 0.0 0.0 *
2.1800	20.73000	10.00000 113.50000	0.0 0.0 -2.3795 0.0 0.0 0.0 *
3.2700	21.82000	10.00000 113.50000	0.0 0.0 -2.5451 0.0 0.0 0.0 *
4.3600	22.91000	10.00000 113.50000	0.0 0.0 -2.0243 0.0 0.0 0.0 *
5.4500	24.00000	10.00000 113.50000	0.0 0.0 -0.67446 0.0 0.0 0.0 *
Line 20	Line 20	11.00000 12.05000 116.00000	0.0 0.0 -0.28908 0.0 0.0 90.000 *
0.96667	11.00000	13.01667 116.00000	0.0 0.0 -0.27751 0.0 0.0 90.000 *
1.9333	11.00000	13.98333 116.00000	0.0 0.0 -0.27528 0.0 0.0 90.000 *
2.9000	11.00000	14.95000 116.00000	0.0 0.0 -0.27947 0.0 0.0 90.000 *
Line 21	Line 21	11.00000 15.00000 114.00000	0.0 0.0 -0.28004 0.0 0.0 135.000 *
1.4142	10.00000	16.00000 114.00000	0.0 0.0 -0.52375 0.0 0.0 180.000 *
Line 22	Line 22	10.00000 16.00000 114.00000	0.0 0.0 -0.52375 0.0 0.0 180.000 *
1.0000	9.00000	16.00000 114.00000	0.0 0.0 -0.48411 0.0 0.0 180.000 *
Line 23	Line 23	9.00000 16.00000 114.00000	0.0 0.0 -0.48411 0.0 0.0 90.000 *
1.5000	9.00000	17.50000 114.00000	0.0 0.0 -0.46101 0.0 0.0 0.0 *
Line 24	Line 24	9.00000 17.50000 114.00000	0.0 0.0 -0.46101 0.0 0.0 0.0 *
1.0000	10.00000	17.50000 114.00000	0.0 0.0 -0.50850 0.0 0.0 45.000 *
Line 25	Line 25	10.00000 17.50000 114.00000	0.0 0.0 -0.50850 0.0 0.0 45.000 *
1.4142	11.00000	18.50000 114.00000	0.0 0.0 -0.55114 0.0 0.0 90.000 *
Line 26	Line 26	11.00000 18.50000 114.00000	0.0 0.0 -0.55114 0.0 0.0 90.000 *
1.5000	11.00000	20.00000 114.00000	0.0 0.0 -0.25091 0.0 0.0 90.000 *
Line 27	Line 27	11.05000 20.00000 114.00000	0.0 0.0 -0.25234 0.0 0.0 0.0 *
0.98333	12.03333	20.00000 114.00000	0.0 0.0 -0.28351 0.0 0.0 0.0 *
1.9667	13.01667	20.00000 114.00000	0.0 0.0 -0.32045 0.0 0.0 0.0 *
2.9500	14.00000	20.00000 114.00000	0.0 0.0 -0.36015 0.0 0.0 0.0 *
3.9333	14.98333	20.00000 114.00000	0.0 0.0 -0.38737 0.0 0.0 0.0 *
4.9167	15.96667	20.00000 114.00000	0.0 0.0 -0.33703 0.0 0.0 0.0 *
5.9000	16.95000	20.00000 114.00000	0.0 0.0 -0.30957 0.0 0.0 0.0 *
Line 28	Line 28	17.00000 15.00000 114.00000	0.0 0.0 -1.9848 0.0 0.0 90.000 *
1.0000	17.00000	16.00000 114.00000	0.0 0.0 -2.4199 0.0 0.0 90.000 *
2.0000	17.00000	17.00000 114.00000	0.0 0.0 -2.532 0.0 0.0 90.000 *
3.0000	17.00000	18.00000 114.00000	0.0 0.0 -2.0956 0.0 0.0 90.000 *
4.0000	17.00000	19.00000 114.00000	0.0 0.0 -0.36361 0.0 0.0 90.000 *
5.0000	17.00000	20.00000 114.00000	0.0 0.0 -0.46541 0.0 0.0 90.000 *
Line 29	Line 29	11.05000 15.00000 114.00000	0.0 0.0 -0.28079 0.0 0.0 0.0 *
0.98333	12.03333	15.00000 114.00000	0.0 0.0 -0.29436 0.0 0.0 0.0 *
1.9667	13.01667	15.00000 114.00000	0.0 0.0 -0.30276 0.0 0.0 0.0 *
2.9500	14.00000	15.00000 114.00000	0.0 0.0 -0.29570 0.0 0.0 0.0 *
3.9333	14.98333	15.00000 114.00000	0.0 0.0 -0.23259 0.0 0.0 0.0 *
4.9167	15.96667	15.00000 114.00000	0.0 0.0 -0.31534 0.0 0.0 0.0 *
5.9000	16.95000	15.00000 114.00000	0.0 0.0 -0.8913 0.0 0.0 0.0 *
Line 30	Line 30	17.05000 20.00000 116.00000	1.3534 0.0 0.0 0.0 *
0.98571	18.03571	20.00000 116.00000	1.6176 0.0 0.0 0.0 *
1.9714	19.02143	20.00000 116.00000	1.8817 0.0 0.0 0.0 *
2.9571	20.00714	20.00000 116.00000	2.2592 0.0 0.0 0.0 *
3.9429	20.99286	20.00000 116.00000	2.7435 0.0 0.0 0.0 *
4.9286	21.97857	20.00000 116.00000	3.2278 0.0 0.0 0.0 *
5.9143	22.96429	20.00000 116.00000	3.7121 0.0 0.0 0.0 *
6.9000	23.95000	20.00000 116.00000	4.1964 0.0 0.0 0.0 *
Line 31	Line 31	24.00000 10.00000 116.00000	0.0 0.0 -0.16162 0.0 90.000 *
1.9900	24.00000	12.04000 116.00000	0.0 0.0 -0.3871 0.0 90.000 *



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement & Damage Assessment
Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drp. Ref.		
Made by		
Date	Checked	
07-Dec-2017		

Type/No.	Coordinates	Displacements	Angle of Line
Name	Dist.	x y z	Horizontal Horizontal to x Axis displacement displacement
3.9800	24.00000	14.03000 116.00000	0.0 0.0 3.4285 0.0 0.0 90.000 *
5.9700	24.00000	16.02000 116.00000	0.0 0.0 3.5408 0.0 0.0 90.000 *
7.9600	24.00000	18.01000 116.00000	0.0 0.0 3.9671 0.0 0.0 90.000 *
Line 32	Line 32	14.00000 22.00000 114.50000	0.0 0.0 -0.26371 0.79511 -0.08345 0.0 0.0 90.000 *
9.9500	24.00000		



Channing Junior School, Highgate High Street, N6 5JR
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Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates	Displacements	Angle of Line
Name	Dist.	x y z	Horizontal Horizontal to x Axis
			displacement displacement
15.00000	10.00000	117.00000	0.0
16.00000	10.00000	117.00000	0.0
17.00000	10.00000	117.00000	0.0
18.00000	10.00000	117.00000	0.023264
19.00000	10.00000	117.00000	0.048387
20.00000	10.00000	117.00000	0.059575
21.00000	10.00000	117.00000	0.057879
22.00000	10.00000	117.00000	0.045289
23.00000	10.00000	117.00000	0.024747
24.00000	10.00000	117.00000	0.0
25.00000	10.00000	117.00000	0.0
26.00000	10.00000	117.00000	0.0
27.00000	10.00000	117.00000	0.0
28.00000	10.00000	117.00000	0.0
29.00000	10.00000	117.00000	0.0
30.00000	10.00000	117.00000	0.0
31.00000	10.00000	117.00000	0.0
32.00000	10.00000	117.00000	0.0
33.00000	10.00000	117.00000	0.0
34.00000	10.00000	117.00000	0.0
35.00000	10.00000	117.00000	0.0
36.00000	10.00000	117.00000	0.0
37.00000	10.00000	117.00000	0.0
38.00000	10.00000	117.00000	0.0
39.00000	10.00000	117.00000	0.0
40.00000	10.00000	117.00000	0.0
41.00000	10.00000	117.00000	0.0
42.00000	10.00000	117.00000	0.0
43.00000	10.00000	117.00000	0.0
44.00000	10.00000	117.00000	0.0
45.00000	10.00000	117.00000	0.0
46.00000	10.00000	117.00000	0.0
47.00000	10.00000	117.00000	0.0
48.00000	10.00000	117.00000	0.0
49.00000	10.00000	117.00000	0.0
50.00000	10.00000	117.00000	0.0
-4.00000	11.00000	117.00000	0.0
-3.00000	11.00000	117.00000	0.0
-2.00000	11.00000	117.00000	0.0
-1.00000	11.00000	117.00000	0.0
0.00000	11.00000	117.00000	0.0
1.00000	11.00000	117.00000	0.0
2.00000	11.00000	117.00000	0.0
3.00000	11.00000	117.00000	0.0
4.00000	11.00000	117.00000	0.0
5.00000	11.00000	117.00000	0.0
6.00000	11.00000	117.00000	0.0
7.00000	11.00000	117.00000	0.0
8.00000	11.00000	117.00000	0.0
9.00000	11.00000	117.00000	0.0
10.00000	11.00000	117.00000	0.0
11.00000	11.00000	117.00000	0.0
12.00000	11.00000	117.00000	0.0
13.00000	11.00000	117.00000	0.0
14.00000	11.00000	117.00000	0.0
15.00000	11.00000	117.00000	0.0
16.00000	11.00000	117.00000	0.0
17.00000	11.00000	117.00000	0.050352
18.00000	11.00000	117.00000	0.088593
19.00000	11.00000	117.00000	0.110064
20.00000	11.00000	117.00000	0.114555
21.00000	11.00000	117.00000	0.10296
22.00000	11.00000	117.00000	0.077413
23.00000	11.00000	117.00000	0.044488
24.00000	11.00000	117.00000	0.0
25.00000	11.00000	117.00000	0.0
26.00000	11.00000	117.00000	0.0
27.00000	11.00000	117.00000	0.0
28.00000	11.00000	117.00000	0.0
29.00000	11.00000	117.00000	0.0
30.00000	11.00000	117.00000	0.0
31.00000	11.00000	117.00000	0.0
32.00000	11.00000	117.00000	0.0
33.00000	11.00000	117.00000	0.0
34.00000	11.00000	117.00000	0.0
35.00000	11.00000	117.00000	0.0
36.00000	11.00000	117.00000	0.0
37.00000	11.00000	117.00000	0.0
38.00000	11.00000	117.00000	0.0
39.00000	11.00000	117.00000	0.0
40.00000	11.00000	117.00000	0.0
41.00000	11.00000	117.00000	0.0
42.00000	11.00000	117.00000	0.0
43.00000	11.00000	117.00000	0.0
44.00000	11.00000	117.00000	0.0
45.00000	11.00000	117.00000	0.0
46.00000	11.00000	117.00000	0.0
47.00000	11.00000	117.00000	0.0
48.00000	11.00000	117.00000	0.0
49.00000	11.00000	117.00000	0.0
50.00000	11.00000	117.00000	0.0
-4.00000	12.00000	117.00000	0.0
-3.00000	12.00000	117.00000	0.0
-2.00000	12.00000	117.00000	0.0
-1.00000	12.00000	117.00000	0.0
0.00000	12.00000	117.00000	0.0
1.00000	12.00000	117.00000	0.0
2.00000	12.00000	117.00000	0.0
3.00000	12.00000	117.00000	0.0
4.00000	12.00000	117.00000	0.0
5.00000	12.00000	117.00000	0.0
6.00000	12.00000	117.00000	0.0
7.00000	12.00000	117.00000	0.0
8.00000	12.00000	117.00000	0.0
9.00000	12.00000	117.00000	0.0
10.00000	12.00000	117.00000	0.0
11.00000	12.00000	117.00000	0.0
12.00000	12.00000	117.00000	0.0
13.00000	12.00000	117.00000	0.0
14.00000	12.00000	117.00000	0.0
15.00000	12.00000	117.00000	0.0
16.00000	12.00000	117.00000	0.068629
17.00000	12.00000	117.00000	0.125277
18.00000	12.00000	117.00000	0.16387
19.00000	12.00000	117.00000	0.18250
20.00000	12.00000	117.00000	0.18029
21.00000	12.00000	117.00000	0.15787
22.00000	12.00000	117.00000	0.11709
23.00000	12.00000	117.00000	0.062348
24.00000	12.00000	117.00000	0.0
25.00000	12.00000	117.00000	0.0
26.00000	12.00000	117.00000	0.0
27.00000	12.00000	117.00000	0.0
28.00000	12.00000	117.00000	0.0
29.00000	12.00000	117.00000	0.0
30.00000	12.00000	117.00000	0.0
31.00000	12.00000	117.00000	0.0
32.00000	12.00000	117.00000	0.0
33.00000	12.00000	117.00000	0.0
34.00000	12.00000	117.00000	0.0



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement & Damage Assessment
Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
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Dr. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates	Displacements	Angle of Line
Name	Dist.	x y z	Horizontal Horizontal to x Axis
			displacement displacement
35.00000	12.00000	117.00000	0.0
36.00000	12.00000	117.00000	0.0
37.00000	12.00000	117.00000	0.0
38.00000	12.00000	117.00000	0.0
39.00000	12.00000	117.00000	0.0
40.00000	12.00000	117.00000	0.0
41.00000	12.00000	117.00000	0.0
42.00000	12.00000	117.00000	0.0
43.00000	12.00000	117.00000	0.0
44.00000	12.00000	117.00000	0.0
45.00000	12.00000	117.00000	0.0
46.00000	12.00000	117.00000	0.0
47.00000	12.00000	117.00000	0.0
48.00000	12.00000	117.00000	0.0
49.00000	12.00000	117.00000	0.0
50.00000	12.00000	117.00000	0.0
-4.00000	13.00000	117.00000	0.0
-3.00000	13.00000	117.00000	0.0
-2.00000	13.00000	117.00000	0.0
-1.00000	13.00000	117.00000	0.0
0.00000	13.00000	117.00000	0.0
1.00000	13.00000	117.00000	0.0
2.00000	13.00000	117.00000	0.0
3.00000	13.00000	117.00000	0.0
4.00000	13.00000	117.00000	0.0
5.00000	13.00000	117.00000	0.0
6.00000	13.00000	117.00000	0.0
7.00000	13.00000	117.00000	0.0
8.00000	13.00000	117.00000	0.0
9.00000	13.00000	117.00000	0.0
10.00000	13.00000	117.00000	0.0
11.00000	13.00000	117.00000	0.0
12.00000	13.00000	117.00000	0.0
13.00000	13.00000	117.00000	0.0
14.00000	13.00000	117.00000	0.0
15.00000	13.00000	117.00000	0.075738
16.00000	13.00000	117.00000	0.115649
17.00000	13.00000	117.00000	0.21005
18.00000	13.00000	117.00000	0.25087
19.00000	13.00000	117.00000	0.26832
20.00000	13.00000	117.00000	0.26028
21.00000	13.00000	117.00000	0.22602
22.00000	13.00000	117.00000	0.16725
23.00000	13.00000	117.00000	0.089050
24.00000	13.00000	117.00000	0.0
25.00000	13.00000	117.00000	0.0
26.00000	13.00000	117.00000	0.0
27.00000	13.00000	117.00000	0.0
28.00000	13.00000	117.00000	0.0
29.00000	13.00000	117.00000	0.0
30.00000	13.00000	117.00000	0.0
31.00000	13.00000	117.00000	0.0
32.00000	13.00000	117.00000	0.0
33.00000	13.00000	117.00000	0.0
34.00000	13.00000	117.00000	0.0
35.00000	13.00000	117.00000	0.0
36.00000	13.00000	117.00000	0.0
37.00000	13.00000	117.00000	0.0
38.00000	13.00000	117.00000	0.0
39.00000	13.00000	117.00000	0.0
40.00000	13.00000	117.00000	0.0
41.00000	13.00000	117.00000	0.0
42.00000	13.00000	117.00000	0.0
43.00000	13.00000	117.00000	0.0
44.00000	13.00000	117.00000	0.0
45.00000	13.00000	117.00000	0.0
46.00000	13.00000	117.00000	0.0
47.00000	13.00000	117.00000	0.0
48.00000	13.00000	117.00000	0.0
49.00000	13.00000	117.00000	0.0
50.00000	13.00000	117.00000	0.0
-4.00000	14.00000	117.00000	0.0
-3.00000	14.00000	117.00000	0.0
-2.00000	14.00000	117.00000	0.0
-1.00000	14.00000	117.00000	0.0
0.00000	14.00000	117.00000	0.0
1.00000	14.00000	117.00000	0.0
2.00000	14.00000	117.00000	0.0
3.00000	14.00000	117.00000	0.0
4.00000	14.00000	117.00000	0.0
5.00000	14.00000	117.00000	0.0
6.00000	14.00000	117.00000	0.0
7.00000	14.00000	117.00000	



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement & Damage Assessment
Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates	Displacements	Angle of Line
Name	Dist.	x y z	Horizontal Horizontal to x Axis
			displacement displacement
0.00000	15.00000	117.00000	0.0
1.00000	15.00000	117.00000	0.0
2.00000	15.00000	117.00000	0.0
3.00000	15.00000	117.00000	0.0
4.00000	15.00000	117.00000	0.0
5.00000	15.00000	117.00000	0.0
6.00000	15.00000	117.00000	0.0
7.00000	15.00000	117.00000	0.0
8.00000	15.00000	117.00000	0.0
9.00000	15.00000	117.00000	0.0
10.00000	15.00000	117.00000	0.0
11.00000	15.00000	117.00000	0.0
12.00000	15.00000	117.00000	0.0
13.00000	15.00000	117.00000	0.0
14.00000	15.00000	117.00000	0.13838
15.00000	15.00000	117.00000	0.27190
16.00000	15.00000	117.00000	0.36109
17.00000	15.00000	117.00000	0.45979
18.00000	15.00000	117.00000	0.50022
19.00000	15.00000	117.00000	0.49289
20.00000	15.00000	117.00000	0.45083
21.00000	15.00000	117.00000	0.42448
22.00000	15.00000	117.00000	0.32047
23.00000	15.00000	117.00000	0.17344
24.00000	15.00000	117.00000	0.0
25.00000	15.00000	117.00000	0.0
26.00000	15.00000	117.00000	0.0
27.00000	15.00000	117.00000	0.0
28.00000	15.00000	117.00000	0.0
29.00000	15.00000	117.00000	0.0
30.00000	15.00000	117.00000	0.0
31.00000	15.00000	117.00000	0.0
32.00000	15.00000	117.00000	0.0
33.00000	15.00000	117.00000	0.0
34.00000	15.00000	117.00000	0.0
35.00000	15.00000	117.00000	0.0
36.00000	15.00000	117.00000	0.0
37.00000	15.00000	117.00000	0.0
38.00000	15.00000	117.00000	0.0
39.00000	15.00000	117.00000	0.0
40.00000	15.00000	117.00000	0.0
41.00000	15.00000	117.00000	0.0
42.00000	15.00000	117.00000	0.0
43.00000	15.00000	117.00000	0.0
44.00000	15.00000	117.00000	0.0
45.00000	15.00000	117.00000	0.0
46.00000	15.00000	117.00000	0.0
47.00000	15.00000	117.00000	0.0
48.00000	15.00000	117.00000	0.0
49.00000	15.00000	117.00000	0.0
50.00000	15.00000	117.00000	0.0
-4.00000	16.00000	117.00000	0.0
-3.00000	16.00000	117.00000	0.0
-2.00000	16.00000	117.00000	0.0
-1.00000	16.00000	117.00000	0.0
0.00000	16.00000	117.00000	0.0
1.00000	16.00000	117.00000	0.0
2.00000	16.00000	117.00000	0.0
3.00000	16.00000	117.00000	0.0
4.00000	16.00000	117.00000	0.0
5.00000	16.00000	117.00000	0.0
6.00000	16.00000	117.00000	0.0
7.00000	16.00000	117.00000	0.0
8.00000	16.00000	117.00000	0.0
9.00000	16.00000	117.00000	0.0
10.00000	16.00000	117.00000	0.0
11.00000	16.00000	117.00000	0.0
12.00000	16.00000	117.00000	0.0
13.00000	16.00000	117.00000	0.057110
14.00000	16.00000	117.00000	0.22947
15.00000	16.00000	117.00000	0.38407
16.00000	16.00000	117.00000	0.51588
17.00000	16.00000	117.00000	0.61804
18.00000	16.00000	117.00000	0.69109
19.00000	16.00000	117.00000	0.69217
20.00000	16.00000	117.00000	0.63431
21.00000	16.00000	117.00000	0.57353
22.00000	16.00000	117.00000	0.44577
23.00000	16.00000	117.00000	0.25549
24.00000	16.00000	117.00000	0.0
25.00000	16.00000	117.00000	0.0
26.00000	16.00000	117.00000	0.0
27.00000	16.00000	117.00000	0.0
28.00000	16.00000	117.00000	0.0
29.00000	16.00000	117.00000	0.0
30.00000	16.00000	117.00000	0.0
31.00000	16.00000	117.00000	0.0
32.00000	16.00000	117.00000	0.0
33.00000	16.00000	117.00000	0.0
34.00000	16.00000	117.00000	0.0
35.00000	16.00000	117.00000	0.0
36.00000	16.00000	117.00000	0.0
37.00000	16.00000	117.00000	0.0
38.00000	16.00000	117.00000	0.0
39.00000	16.00000	117.00000	0.0
40.00000	16.00000	117.00000	0.0
41.00000	16.00000	117.00000	0.0
42.00000	16.00000	117.00000	0.0
43.00000	16.00000	117.00000	0.0
44.00000	16.00000	117.00000	0.0
45.00000	16.00000	117.00000	0.0
46.00000	16.00000	117.00000	0.0
47.00000	16.00000	117.00000	0.0
48.00000	16.00000	117.00000	0.0
49.00000	16.00000	117.00000	0.0
50.00000	16.00000	117.00000	0.0
-4.00000	17.00000	117.00000	0.0
-3.00000	17.00000	117.00000	0.0
-2.00000	17.00000	117.00000	0.0
-1.00000	17.00000	117.00000	0.0
0.00000	17.00000	117.00000	0.0
1.00000	17.00000	117.00000	0.0
2.00000	17.00000	117.00000	0.0
3.00000	17.00000	117.00000	0.0
4.00000	17.00000	117.00000	0.0
5.00000	17.00000	117.00000	0.0
6.00000	17.00000	117.00000	0.0
7.00000	17.00000	117.00000	0.0
8.00000	17.00000	117.00000	0.0
9.00000	17.00000	117.00000	0.0
10.00000	17.00000	117.00000	0.0
11.00000	17.00000	117.00000	0.0
12.00000	17.00000	117.00000	0.0
13.00000	17.00000	117.00000	0.12626
14.00000	17.00000	117.00000	0.32076
15.00000	17.00000	117.00000	0.50056
16.00000	17.00000	117.00000	0.66098
17.00000	17.00000	117.00000	0.79526
18.00000	17.00000	117.00000	0.89338
19.00000	17.00000	117.00000	0.94018



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement & Damage Assessment
Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates	Displacements	Angle of Line
Name	Dist.	x y z	Horizontal Horizontal to x Axis
			displacement displacement
20.00000	17.00000	117.00000	0.91247
21.00000	17.00000	117.00000	0.79718
22.00000	17.00000	117.00000	0.68427
23.00000	17.00000	117.00000	0.40772
24.00000	17.00000	117.00000	0.0
25.00000	17.00000	117.00000	0.0
26.00000	17.00000	117.00000	0.0
27.00000	17.00000	117.00000	0.0
28.00000	17.00000	117.00000	0.0
29.00000	17.00000	117.00000	0.0
30.00000	17.00000	117.00000	0.0
31.00000	17.00000	117.00000	0.0
32.00000	17.00000	117.00000	0.0
33.00000	17.00000	117.00000	0.0
34.00000	17.00000	117.00000	0.0
35.00000	17.00000	117.00000	0.0
36.00000	17.00000	117.00000	0.0
37.00000	17.00000	117.00000	0.0
38.00000	17.00000	117.00000	0.0
39.00000	17.00000	117.00000	0.0
40.00000	17.00000	117.00000	0.0
41.00000	17.00000	117.00000	0.0
42.00000	17.00000	117.00000	0.0
43.00000	17.00000	117.00000	0.0
44.00000	17.00000	117.00000	0.0
45.00000	17.00000	117.00000	0.0
46.00000	17.00000	117.00000	0.0
47.00000	17.00000	117.00000	0.0
48.00000	17.00000	117.00000	0.0
49.00000	17.00000	117.00000	0.0
50.00000	17.00000	117.00000	0.0
-4.00000	18.00000	117.00000	0.0
-3.00000	18.00000	117.00000	0.0
-2.00000	18.00000	117.00000	0.0
-1.00000	18.00000	117.00000	0.0
0.00000	18.00000	117.00000	0.0
1.00000	18.00000	117.00000	0.0
2.00000	18.00000	117.00000	0.0
3.00000	18.00000	117.00000	0.0
4.00000	18.00000	117.00000	0.0
5.00000	18.00000	117.00000	0.0
6.00000	18.00000	117.00000	0.0
7.00000	18.00000	117.00000	0.0
8.00000	18.00000	117.00000	0.0
9.00000	18.00000	117.00000	0.0
10.00000	18.00000	117.00000	0.0
11.00000	18.00000	117.00000	0.0
12.00000	18.00000	117.00000	0.0
13.00000	18.00000	117.00000	0.18814
14.00000	18.00000	117.00000	0.40684
15.00000	18.00000	117.00000	0.61511
16.00000	18.00000	117.00000	0.80931
17.00000	18.00000	117.00000	0.98396
18.00000	18.00000	117.00000	1.13894
19.00000	18.00000	117.00000	1.2344
20.00000	18.00000	117.00000	1.2748
21.00000	18.00000	117.00000	1.2999
22.00000	18.00000	117.00000	1.0565
23.00000	18.00000	117.00000	0.68777
24.00000	18.00000	117.00000	0.0
25.00000	18.00000	117.00000	0.0
26.00000	18.00000	117.00000	0.0
27.00000	18.00000	117.00000	0.0
28.00000	18.00000	117.00000	0.0
29.00000	18.00000	117.00000	0.0
30.00000	18.00000	117.00000	0.0
31.00000	18.00000	117.00000	0.0
32.00000	18.00000	117.00000	0.0
33.00000	18.00000	117.00000	0.0
34.00000	18.00000	117.00000	0.0
35.00000	18.00000	117.00000	0.0
36.00000	18.00000	117.00000	0.0
37.00000	18.00000	117.00000	0.0
38.00000	18.00000	117.00000	0.0
39.00000	18.00000	117.00000	0.0
40.00000	18.00000	117.00000	0.0
41.00000	18.00000	117.00000	0.0
42.00000	18.00000	117.00000	0.0
43.00000	18.00000	117.00000	0.0
44.00000	18.00000	117.00000	0.0
45.00000	18.00000	117.00000	0.0
46.00000	18.00000	117.00000	0.0



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement & Damage Assessment
Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates	Displacements	Angle of Line		
Name	Dist.	x y z	Horizontal Horizontal to x Axis		
			displacement displacement		
40.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
41.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
42.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
43.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
44.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
45.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
46.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
47.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
48.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
49.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
50.00000	19.00000	117.00000	0.0 0.0 0.0	-	-
-4.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
-3.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
-2.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
-1.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
0.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
1.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
2.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
3.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
4.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
5.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
6.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
7.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
8.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
9.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
10.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
11.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
12.00000	20.00000	117.00000	0.0 0.0 0.0	-	-
13.00000	20.00000	117.00000	0.26800 0.0 0.0	-	-
14.00000	20.00000	117.00000	0.53600 0.0 0.0	-	-
15.00000	20.00000	117.00000	0.80400 0.0 0.0	-	-
16.00000	20.00000	117.00000	1.07200 0.0 0.0	-	-
17.00000	20.00000	117.00000	1.34000 0.0 0.0	-	-
18.00000	20.00000	117.00000	1.60800 0.0 0.0	-	-
19.00000	20.00000	117.00000	1.87600 0.0 0.0	-	-
20.00000	20.00000	117.00000	2.25577 0.0 0.016786	-	-
21.00000	20.00000	117.00000	2.74700 0.0 0.079178	-	-
22.00000	20.00000	117.00000	3.23833 0.0 0.25793	-	-
23.00000	20.00000	117.00000	3.7297 0.0 0.58149	-	-
24.00000	20.00000	117.00000	4.221105 0.0 0.50237	-	-
25.00000	20.00000	117.00000	4.7125 0.0 0.0	-	-
26.00000	20.00000	117.00000	5.2040 0.0 0.0	-	-
27.00000	20.00000	117.00000	5.6955 0.0 0.0	-	-
28.00000	20.00000	117.00000	6.1870 0.0 0.0	-	-
29.00000	20.00000	117.00000	6.6785 0.0 0.0	-	-
30.00000	20.00000	117.00000	7.1700 0.0 0.0	-	-
31.00000	20.00000	117.00000	7.6615 0.0 0.0	-	-
32.00000	20.00000	117.00000	8.1530 0.0 0.0	-	-
33.00000	20.00000	117.00000	8.6445 0.0 0.0	-	-
34.00000	20.00000	117.00000	9.1360 0.0 0.0	-	-
35.00000	20.00000	117.00000	9.6275 0.0 0.0	-	-
36.00000	20.00000	117.00000	10.1190 0.0 0.0	-	-
37.00000	20.00000	117.00000	10.6105 0.0 0.0	-	-
38.00000	20.00000	117.00000	11.1020 0.0 0.0	-	-
39.00000	20.00000	117.00000	11.5935 0.0 0.0	-	-
40.00000	20.00000	117.00000	12.0850 0.0 0.0	-	-
41.00000	20.00000	117.00000	12.5765 0.0 0.0	-	-
42.00000	20.00000	117.00000	13.0680 0.0 0.0	-	-
43.00000	20.00000	117.00000	13.5595 0.0 0.0	-	-
44.00000	20.00000	117.00000	14.0510 0.0 0.0	-	-
45.00000	20.00000	117.00000	14.5425 0.0 0.0	-	-
46.00000	20.00000	117.00000	15.0340 0.0 0.0	-	-
47.00000	20.00000	117.00000	15.5255 0.0 0.0	-	-
48.00000	20.00000	117.00000	16.0170 0.0 0.0	-	-
49.00000	20.00000	117.00000	16.5085 0.0 0.0	-	-
50.00000	20.00000	117.00000	17.0000 0.0 0.0	-	-
-4.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
-3.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
-2.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
-1.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
0.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
1.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
2.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
3.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
4.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
5.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
6.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
7.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
8.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
9.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
10.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
11.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
12.00000	21.00000	117.00000	0.0 0.0 0.0	-	-
13.00000	21.00000	117.00000	0.40000 0.0 0.0	-	-
14.00000	21.00000	117.00000	0.80000 0.0 0.0	-	-
15.00000	21.00000	117.00000	1.20000 0.0 0.0	-	-
16.00000	21.00000	117.00000	1.60000 0.0 0.0	-	-
17.00000	21.00000	117.00000	2.00000 0.0 0.0	-	-
18.00000	21.00000	117.00000	2.40000 0.0 0.0	-	-
19.00000	21.00000	117.00000	2.80000 0.0 0.0	-	-
20.00000	21.00000	117.00000	3.20000 0.0 0.025054	-	-
21.00000	21.00000	117.00000	3.60000 0.0 0.11818	-	-
22.00000	21.00000	117.00000	4.00000 0.0 0.38497	-	-
23.00000	21.00000	117.00000	4.40000 0.0 0.86790	-	-
24.00000	21.00000	117.00000	4.80000 0.0 1.4996	-	-
25.00000	21.00000	117.00000	5.20000 0.0	Point lies within an excavation.	-
26.00000	21.00000	117.00000	5.60000 0.0	Point lies within an excavation.	-
27.00000	21.00000	117.00000	6.00000 0.0	Point lies within an excavation.	-
28.00000	21.00000	117.00000	6.40000 0.0	Point lies within an excavation.	-
29.00000	21.00000	117.00000	6.80000 0.0	Point lies within an excavation.	-
30.00000	21.00000	117.00000	7.20000 0.0	Point lies within an excavation.	-
31.00000	21.00000	117.00000	7.60000 0.0 0.0	-	-
32.00000	21.00000	117.00000	8.00000 0.0 0.0	-	-
33.00000	21.00000	117.00000	8.40000 0.0 0.0	-	-
34.00000	21.00000	117.00000	8.80000 0.0 0.0	-	-
35.00000	21.00000	117.00000	9.20000 0.0 0.0	-	-
36.00000	21.00000	117.00000	9.60000 0.0 0.0	-	-
37.00000	21.00000	117.00000	10.00000 0.0 0.0	-	-
38.00000	21.00000	117.00000	10.40000 0.0 0.0	-	-
39.00000	21.00000	117.00000	10.80000 0.0 0.0	-	-
40.00000	21.00000	117.00000	11.20000 0.0 0.0	-	-
41.00000	21.00000	117.00000	11.60000 0.0 0.0	-	-
42.00000	21.00000	117.00000	12.00000 0.0 0.0	-	-
43.00000	21.00000	117.00000	12.40000 0.0 0.0	-	-
44.00000	21.00000	117.00000	12.80000 0.0 0.0	-	-
45.00000	21.00000	117.00000	13.20000 0.0 0.0	-	-
46.00000	21.00000	117.00000	13.60000 0.0 0.0	-	-
47.00000	21.00000	117.00000	14.00000 0.0 0.0	-	-
48.00000	21.00000	117.00000	14.40000 0.0 0.0	-	-
49.00000	21.00000	117.00000	14.80000 0.0 0.0	-	-
50.00000	21.00000	117.00000	15.20000 0.0 0.0	-	-
-4.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
-3.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
-2.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
-1.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
0.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
1.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
2.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
3.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
4.00000	22.00000	117.00000	0.0 0.0 0.0	-	-



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement & Damage Assessment
Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates	Displacements	Angle of Line		
Name	Dist.	x y z	Horizontal Horizontal to x Axis		
			displacement displacement		
5.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
6.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
7.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
8.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
9.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
10.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
11.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
12.00000	22.00000	117.00000	0.0 0.0 0.0	-	-
13.00000	22.00000	117.00000	0.40000 0.0 0.0	-	-
14.00000	22.00000	117.00000	0.80000 0.0 0.0	-	-
15.00000	22.00000	117.00000	1.20000 0.0 0.0	-	-
16.00000	22.00000	117.00000	1.60000 0.0 0.0	-	-
17.00000	22.00000	117.00000	2.00000 0.0 0.0	-	-
18.00000	22.00000	117.00000	2.40000 0.0 0.0	-	-
19.00000	22.00000	117.00000	2.80000 0.0 0.0	-	-
20.00000	22.00000	117.00000	3.20000 0.0 0.025054	-	-
21.00000	22.00000	117.00000	3.60000 0.0 0.11818	-	-
22.00000	22.00000	117.00000	4.00000 0.0 0.38497	-	-
23.00000	22.00000	117.00000	4.40000 0.0 0.86790	-	-
24.00000	22.00000	117.00000	4.80000 0.0 1.4996	-	-
25.00000	22.00000	117.00000	5.20000 0.0	Point lies within an excavation.	-
26.00000	22.00000	117.00000	5.60000 0.0	Point lies within an excavation.	-
27.00000	22.00000	117.00000	6.00000 0.0	Point lies within an excavation.	-
28.00000	22.00000	117.00000	6.40000 0.0	Point lies within an excavation.	-
29.00000	22.00000				



Channing Junior School, Highgate High Street, N6 5JR
 Ground Movement & Damage Assessment
 Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates			Displacements			Angle of Line			
Name	Dist.	x	y	z	x	y	z	Horizontal displacement	Horizontal displacement	to x Axis
25.00000	24.00000	117.00000	0.0	-5.5667	0.86790					
26.00000	24.00000	117.00000	0.0	-5.5667	0.86790					
27.00000	24.00000	117.00000	0.0	-5.5667	0.86790					
28.00000	24.00000	117.00000	0.0	-5.5667	0.86790					
29.00000	24.00000	117.00000	0.0	-5.5667	0.86790					
30.00000	24.00000	117.00000	0.0	-3.7297	0.58149					
31.00000	24.00000	117.00000	0.0	-1.3157	0.16087					
32.00000	24.00000	117.00000	0.0	-0.68777	0.044612					
33.00000	24.00000	117.00000	0.0	-0.40772	0.0096211					
34.00000	24.00000	117.00000	0.0	-0.25549	0.0015069					
35.00000	24.00000	117.00000	0.0	-0.17344	0.0					
36.00000	24.00000	117.00000	0.0	-0.12442	0.0					
37.00000	24.00000	117.00000	0.0	-0.089050	0.0					
38.00000	24.00000	117.00000	0.0	-0.062348	0.0					
39.00000	24.00000	117.00000	0.0	-0.041488	0.0					
40.00000	24.00000	117.00000	0.0	-0.024747	0.0					
41.00000	24.00000	117.00000	0.0	-0.011020	0.0					
42.00000	24.00000	117.00000	0.0	0.0	0.0					
43.00000	24.00000	117.00000	0.0	0.0	0.0					
44.00000	24.00000	117.00000	0.0	0.0	0.0					
45.00000	24.00000	117.00000	0.0	0.0	0.0					
46.00000	24.00000	117.00000	0.0	0.0	0.0					
47.00000	24.00000	117.00000	0.0	0.0	0.0					
48.00000	24.00000	117.00000	0.0	0.0	0.0					
49.00000	24.00000	117.00000	0.0	0.0	0.0					
50.00000	24.00000	117.00000	0.0	0.0	0.0					
51.00000	24.00000	117.00000	0.0	0.0	0.0					
52.00000	24.00000	117.00000	0.0	0.0	0.0					
53.00000	24.00000	117.00000	0.0	0.0	0.0					
54.00000	24.00000	117.00000	0.0	0.0	0.0					
55.00000	24.00000	117.00000	0.0	0.0	0.0					
56.00000	24.00000	117.00000	0.0	0.0	0.0					
57.00000	24.00000	117.00000	0.0	0.0	0.0					
58.00000	24.00000	117.00000	0.0	0.0	0.0					
59.00000	24.00000	117.00000	0.0	0.0	0.0					
60.00000	24.00000	117.00000	0.0	0.0	0.0					
61.00000	24.00000	117.00000	0.0	0.0	0.0					
62.00000	24.00000	117.00000	0.0	0.0	0.0					
63.00000	24.00000	117.00000	0.0	0.0	0.0					
64.00000	24.00000	117.00000	0.0	0.0	0.0					
65.00000	24.00000	117.00000	0.0	0.0	0.0					
66.00000	24.00000	117.00000	0.0	0.0	0.0					
67.00000	24.00000	117.00000	0.0	0.0	0.0					
68.00000	24.00000	117.00000	0.0	0.0	0.0					
69.00000	24.00000	117.00000	0.0	0.0	0.0					
70.00000	24.00000	117.00000	0.0	0.0	0.0					
71.00000	24.00000	117.00000	0.0	0.0	0.0					
72.00000	24.00000	117.00000	0.0	0.0	0.0					
73.00000	24.00000	117.00000	0.0	0.0	0.0					
74.00000	24.00000	117.00000	0.0	0.0	0.0					
75.00000	24.00000	117.00000	0.0	0.0	0.0					
76.00000	24.00000	117.00000	0.0	0.0	0.0					
77.00000	24.00000	117.00000	0.0	0.0	0.0					
78.00000	24.00000	117.00000	0.0	0.0	0.0					
79.00000	24.00000	117.00000	0.0	0.0	0.0					
80.00000	24.00000	117.00000	0.0	0.0	0.0					
81.00000	24.00000	117.00000	0.0	0.0	0.0					
82.00000	24.00000	117.00000	0.0	0.0	0.0					
83.00000	24.00000	117.00000	0.0	0.0	0.0					
84.00000	24.00000	117.00000	0.0	0.0	0.0					
85.00000	24.00000	117.00000	0.0	0.0	0.0					
86.00000	24.00000	117.00000	0.0	0.0	0.0					
87.00000	24.00000	117.00000	0.0	0.0	0.0					
88.00000	24.00000	117.00000	0.0	0.0	0.0					
89.00000	24.00000	117.00000	0.0	0.0	0.0					
90.00000	24.00000	117.00000	0.0	0.0	0.0					
91.00000	24.00000	117.00000	0.0	0.0	0.0					
92.00000	24.00000	117.00000	0.0	0.0	0.0					
93.00000	24.00000	117.00000	0.0	0.0	0.0					
94.00000	24.00000	117.00000	0.0	0.0	0.0					
95.00000	24.00000	117.00000	0.0	0.0	0.0					
96.00000	24.00000	117.00000	0.0	0.0	0.0					
97.00000	24.00000	117.00000	0.0	0.0	0.0					
98.00000	24.00000	117.00000	0.0	0.0	0.0					
99.00000	24.00000	117.00000	0.0	0.0	0.0					
100.00000	24.00000	117.00000	0.0	0.0	0.0					



Channing Junior School, Highgate High Street, N6 5JR
 Ground Movement & Damage Assessment
 Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates			Displacements			Angle of Line			
Name	Dist.	x	y	z	x	y	z	Horizontal displacement	Horizontal displacement	to x Axis
45.00000	26.00000	117.00000	0.0	0.0	0.0					
46.00000	26.00000	117.00000	0.0	0.0	0.0					
47.00000	26.00000	117.00000	0.0	0.0	0.0					
48.00000	26.00000	117.00000	0.0	0.0	0.0					
49.00000	26.00000	117.00000	0.0	0.0	0.0					
50.00000	26.00000	117.00000	0.0	0.0	0.0					
51.00000	26.00000	117.00000	0.0	0.0	0.0					
52.00000	26.00000	117.00000	0.0	0.0	0.0					
53.00000	26.00000	117.00000	0.0	0.0	0.0					
54.00000	26.00000	117.00000	0.0	0.0	0.0					
55.00000	26.00000	117.00000	0.0	0.0	0.0					
56.00000	26.00000	117.00000	0.0	0.0	0.0					
57.00000	26.00000	117.00000	0.0	0.0	0.0					
58.00000	26.00000	117.00000	0.0	0.0	0.0					
59.00000	26.00000	117.00000	0.0	0.0	0.0					
60.00000	26.00000	117.00000	0.0	0.0	0.0					
61.00000	26.00000	117.00000	0.0	0.0	0.0					
62.00000	26.00000	117.00000	0.0	0.0	0.0					
63.00000	26.00000	117.00000	0.0	0.0	0.0					
64.00000	26.00000	117.00000	0.0	0.0	0.0					
65.00000	26.00000	117.00000	0.0	0.0	0.0					
66.00000	26.00000	117.00000	0.0	0.0	0.0					
67.00000	26.00000	117.00000	0.0	0.0	0.0					
68.00000	26.00000	117.00000	0.0	0.0	0.0					
69.00000	26.00000	117.00000	0.0	0.0	0.0					
70.00000	26.00000	117.00000	0.0	0.0	0.0					
71.00000	26.00000	117.00000	0.0	0.0	0.0					
72.00000	26.00000	117.00000	0.0	0.0	0.0					
73.00000	26.00000	117.00000	0.0	0.0	0.0					
74.00000	26.00000	117.00000	0.0	0.0	0.0					
75.00000	26.00000	117.00000	0.0	0.0	0.0					
76.00000	26.00000	117.00000	0.0	0.0	0.0					
77.00000	26.00000	117.00000	0.0	0.0	0.0					
78.00000	26.00000	117.00000	0.0	0.0	0.0					
79.00000	26.00000	117.00000	0.0	0.0	0.0					
80.00000	26.00000	117.00000	0.0	0.0	0.0					
81.00000	26.00000	117.00000	0.0	0.0	0.0					
82.00000	26.00000	117.00000	0.0	0.0	0.0					
83.00000	26.00000	117.00000	0.0	0.0	0.0					
84.00000	26.00000	117.00000	0.0	0.0	0.0					
85.00000	26.00000	117.00000	0.0	0.0	0.0					
86.00000	26.00000	117.00000	0.0	0.0	0.0					
87.00000	26.00000	117.00000	0.0	0.0	0.0					
88.00000	26.00000	117.00000	0.0	0.0	0.0					
89.00000	26.00000	117.00000	0.0	0.0	0.0					
90.00000	26.00000	117.00000	0.0	0.0	0.0					
91.00000	26.00000	117.00000	0.0	0.0	0.0					
92.00000	26.00000	117.00000	0.0	0.0	0.0					
93.00000	26.00000	117.00000	0.0	0.0	0.0					
94.00000	26.00000	117.00000	0.0	0.0	0.0					



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement & Damage Assessment
Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates			Displacements			Angle of Line			
Name	Dist.	x	y	z	x	y	z	Horizontal displacement	Horizontal displacement	to x Axis
10.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
11.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
12.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
13.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
14.00000	29.00000	117.00000	0.051527	-0.023264	0.0	0.0	0.0	-	-	-
15.00000	29.00000	117.00000	0.16830	-0.088593	0.0	0.0	0.0	-	-	-
16.00000	29.00000	117.00000	0.26070	-0.16387	0.0	0.0	0.0	-	-	-
17.00000	29.00000	117.00000	0.35271	-0.25087	0.0	0.0	0.0	-	-	-
18.00000	29.00000	117.00000	0.35147	-0.35147	0.0	0.0	0.0	-	-	-
19.00000	29.00000	117.00000	0.37061	-0.50022	0.0	0.0	0.0	-	-	-
20.00000	29.00000	117.00000	0.35853	-0.68109	0.0	0.0	0.0	-	-	-
21.00000	29.00000	117.00000	0.31239	-0.89338	0.0	0.0	0.0	-	-	-
22.00000	29.00000	117.00000	0.23250	-1.1304	0.0	0.0	0.0	-	-	-
23.00000	29.00000	117.00000	0.12442	-1.3768	0.0	0.0	0.0	-	-	-
24.00000	29.00000	117.00000	0.0	-1.6080	0.0	0.0	0.0	-	-	-
25.00000	29.00000	117.00000	0.0	-2.4000	0.0	0.0	0.0	-	-	-
26.00000	29.00000	117.00000	0.0	-2.4000	0.0	0.0	0.0	-	-	-
27.00000	29.00000	117.00000	0.0	-2.4000	0.0	0.0	0.0	-	-	-
28.00000	29.00000	117.00000	0.0	-2.4000	0.0	0.0	0.0	-	-	-
29.00000	29.00000	117.00000	0.0	-2.4000	0.0	0.0	0.0	-	-	-
30.00000	29.00000	117.00000	0.0	-1.6080	0.0	0.0	0.0	-	-	-
31.00000	29.00000	117.00000	0.0	-1.3768	0.0	0.0	0.0	-	-	-
32.00000	29.00000	117.00000	0.0	-1.1304	0.0	0.0	0.0	-	-	-
33.00000	29.00000	117.00000	0.0	-0.89338	0.0	0.0	0.0	-	-	-
34.00000	29.00000	117.00000	0.0	-0.68109	0.0	0.0	0.0	-	-	-
35.00000	29.00000	117.00000	0.0	-0.50022	0.0	0.0	0.0	-	-	-
36.00000	29.00000	117.00000	0.0	-0.35147	0.0	0.0	0.0	-	-	-
37.00000	29.00000	117.00000	0.0	-0.25087	0.0	0.0	0.0	-	-	-
38.00000	29.00000	117.00000	0.0	-0.16387	0.0	0.0	0.0	-	-	-
39.00000	29.00000	117.00000	0.0	-0.088593	0.0	0.0	0.0	-	-	-
40.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
41.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
42.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
43.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
44.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
45.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
46.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
47.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
48.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
49.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
50.00000	29.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
-4.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
-3.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
-2.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
-1.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
0.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
1.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
2.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
3.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
4.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
5.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
6.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
7.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
8.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
9.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
10.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
11.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
12.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
13.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
14.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
15.00000	30.00000	117.00000	0.075738	-0.050352	0.0	0.0	0.0	-	-	-
16.00000	30.00000	117.00000	0.15649	-0.12537	0.0	0.0	0.0	-	-	-
17.00000	30.00000	117.00000	0.21005	-0.21005	0.0	0.0	0.0	-	-	-
18.00000	30.00000	117.00000	0.25087	-0.32371	0.0	0.0	0.0	-	-	-
19.00000	30.00000	117.00000	0.26832	-0.45979	0.0	0.0	0.0	-	-	-
20.00000	30.00000	117.00000	0.26028	-0.61804	0.0	0.0	0.0	-	-	-
21.00000	30.00000	117.00000	0.22602	-0.79526	0.0	0.0	0.0	-	-	-
22.00000	30.00000	117.00000	0.16725	-0.98396	0.0	0.0	0.0	-	-	-
23.00000	30.00000	117.00000	0.089050	-1.1713	0.0	0.0	0.0	-	-	-
24.00000	30.00000	117.00000	0.0	-1.3400	0.0	0.0	0.0	-	-	-
25.00000	30.00000	117.00000	0.0	-2.0000	0.0	0.0	0.0	-	-	-
26.00000	30.00000	117.00000	0.0	-2.0000	0.0	0.0	0.0	-	-	-
27.00000	30.00000	117.00000	0.0	-2.0000	0.0	0.0	0.0	-	-	-
28.00000	30.00000	117.00000	0.0	-2.0000	0.0	0.0	0.0	-	-	-
29.00000	30.00000	117.00000	0.0	-2.0000	0.0	0.0	0.0	-	-	-
30.00000	30.00000	117.00000	0.0	-1.3400	0.0	0.0	0.0	-	-	-
31.00000	30.00000	117.00000	0.0	-1.1713	0.0	0.0	0.0	-	-	-
32.00000	30.00000	117.00000	0.0	-0.98396	0.0	0.0	0.0	-	-	-
33.00000	30.00000	117.00000	0.0	-0.79526	0.0	0.0	0.0	-	-	-
34.00000	30.00000	117.00000	0.0	-0.61804	0.0	0.0	0.0	-	-	-
35.00000	30.00000	117.00000	0.0	-0.45979	0.0	0.0	0.0	-	-	-
36.00000	30.00000	117.00000	0.0	-0.32371	0.0	0.0	0.0	-	-	-
37.00000	30.00000	117.00000	0.0	-0.21005	0.0	0.0	0.0	-	-	-
38.00000	30.00000	117.00000	0.0	-0.12537	0.0	0.0	0.0	-	-	-
39.00000	30.00000	117.00000	0.0	-0.050352	0.0	0.0	0.0	-	-	-
40.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
41.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
42.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
43.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
44.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
45.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
46.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
47.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
48.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
49.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
50.00000	30.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
-4.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
-3.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
-2.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
-1.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
0.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
1.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
2.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
3.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
4.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
5.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
6.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
7.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
8.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
9.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
10.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
11.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
12.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
13.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
14.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
15.00000	31.00000	117.00000	0.0	0.0	0.0	0.0	0.0	-	-	-
16.00000	31.00000	117.00000	0.068629	-0.068629	0.0</					



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement & Damage Assessment
Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
	07-Dec-2017	

Type/No.	Coordinates	Displacements			Angle of Line to x Axis		
		x	y	z			
Name	Dist.	x	y	z	Horizontal displacement	Horizontal displacement	Horizontal displacement
35.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
36.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
37.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
38.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
39.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
40.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
41.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
42.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
43.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
44.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
45.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
46.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
47.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
48.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
49.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
50.00000	38.00000	117.00000	0.0	0.0	0.0	-	-
4.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
5.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
6.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
7.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
8.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
9.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
10.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
11.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
12.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
13.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
14.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
15.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
16.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
17.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
18.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
19.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
20.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
21.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
22.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
23.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
24.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
25.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
26.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
27.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
28.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
29.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
30.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
31.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
32.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
33.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
34.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
35.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
36.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
37.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
38.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
39.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
40.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
41.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
42.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
43.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
44.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
45.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
46.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
47.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
48.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
49.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
50.00000	39.00000	117.00000	0.0	0.0	0.0	-	-
4.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
5.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
6.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
7.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
8.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
9.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
10.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
11.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
12.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
13.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
14.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
15.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
16.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
17.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
18.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
19.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
20.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
21.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
22.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
23.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
24.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
25.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
26.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
27.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
28.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
29.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
30.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
31.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
32.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
33.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
34.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
35.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
36.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
37.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
38.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
39.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
40.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
41.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
42.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
43.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
44.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
45.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
46.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
47.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
48.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
49.00000	40.00000	117.00000	0.0	0.0	0.0	-	-
50.00000	40.00000	117.00000	0.0	0.0	0.0	-	-

* Result includes imported displacement(s).

Specific Building Damage Results - Horizontal Displacements



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement & Damage Assessment
Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

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Type/No.	Coordinates	Displacements			Angle of Line to x Axis		
		x	y	z			
Name	Dist.	x	y	z	Horizontal displacement	Horizontal displacement	Horizontal displacement
Structure: Existing School Sub-structure: Sub 1							
Dist.	x	y	z	x	y	z	Horizontal displacement
							Horizontal displacement
							Horizontal displacement
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	0.05000	0.00000	113.50000	0.0	0.0	0.0	0.0 d
1.9875	2.03750	0.00000	113.50000	0.0	0.0	0.0	0.0 d
3.9750	4.02500	0.00000	113.50000	0.0	0.0	0.0	0.0 d
5.9625	6.01250	0.00000	113.50000	0.0	0.0	0.0	0.0 d
7.9500	8.00000	0.00000	113.50000	0.0	0.0	0.0	0.0 d
9.9375	9.98750	0.00000	113.50000	0.0	0.0	0.0	0.0 d
11.925	11.97500	0.00000	113.50000	0.0	0.0	0.0	0.0 d
13.9125	13.96250	0.00000	113.50000	0.0	0.0	0.0	0.0 d
15.9000	15.95000	0.00000	113.50000	0.0	0.0	0.0	0.0 d
d - Displacements include imported displacements.							
Structure: Existing School Sub-structure: Sub 2							
Dist.	x	y	z	x	y	z	Horizontal displacement
							Horizontal displacement
							Horizontal displacement
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	16.00000	0.00000	113.50000	0.0	0.0	0.0	0.0 d
1.0000	16.00000	2.00000	113.50000	0.0	0.0	0.0	0.0 d
2.0000	16.00000	4.00000	113.50000	0.0	0.0	0.0	0.0 d
3.0000	16.00000	6.00000	113.50000	0.0	0.0	0.0	0.0 d
4.0000	16.00000	8.00000	113.50000	0.0	0.0	0.0	0.0 d
5.0000	16.00000	10.00000	113.50000	0.0	0.0	0.0	0.0 d
d - Displacements include imported displacements.							
Structure: Existing School Sub-structure: Sub 3							
Dist.	x	y	z	x	y	z	Horizontal displacement
							Horizontal displacement
							Horizontal displacement
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	8.00000	0.10000	113.50000	0.0	0.0	0.0	0.0 d
0.98000	8.00000	1.08000	113.50000	0.0	0.0	0.0	



Channing Junior School, Highgate High Street, N6 5JR

Ground Movement & Damage Assessment

Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

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x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	6.50000	6.55000	113.50000	0.0	0.0	0.0 d
1.0900	6.50000	7.64000	113.50000	0.0	0.0	0.0 d
2.1800	6.50000	8.73000	113.50000	0.0	0.0	0.0 d
3.2700	6.50000	9.82000	113.50000	0.0	0.0	0.0 d
4.3600	6.50000	10.91000	113.50000	0.0	0.0	0.0 d
5.4500	6.50000	12.00000	113.50000	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 9

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	4.00000	9.00000	113.50000	0.0	0.0	0.0	0.0 d
1.2250	5.22500	9.00000	113.50000	0.0	0.0	0.0	0.0 d
2.4500	6.45000	9.00000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 10

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	4.00000	6.55000	113.50000	0.0	0.0	0.0	0.0 d
1.2000	4.00000	7.75000	113.50000	0.0	0.0	0.0	0.0 d
2.4000	4.00000	8.95000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 11

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	4.00000	6.50000	113.50000	0.0	0.0	0.0	0.0 d
2.3000	6.30000	6.50000	113.50000	0.0	0.0	0.0	0.0 d
4.6000	8.60000	6.50000	113.50000	0.0	0.0	0.0	0.0 d
6.9000	10.90000	6.50000	113.50000	0.0	0.0	0.0	0.0 d
9.2000	13.20000	6.50000	113.50000	0.0	0.0	0.0	0.0 d
11.5000	15.50000	6.50000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 12

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	15.50000	6.55000	113.50000	0.0	0.0	0.0	0.0 d
1.0800	15.50000	7.63000	113.50000	0.0	0.0	0.0	0.0 d
2.1600	15.50000	8.71000	113.50000	0.0	0.0	0.0	0.0 d
3.2400	15.50000	9.79000	113.50000	0.0	0.0	0.0	0.0 d
4.3200	15.50000	10.87000	113.50000	0.0	0.0	0.0	0.0 d
5.4000	15.50000	11.95000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 13

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	0.05000	8.00000	113.50000	0.0	0.0	0.0	0.0 d
0.97500	1.02500	8.00000	113.50000	0.0	0.0	0.0	0.0 d
1.9500	2.00000	8.00000	113.50000	0.0	0.0	0.0	0.0 d
2.9250	2.97500	8.00000	113.50000	0.0	0.0	0.0	0.0 d
3.9000	3.95000	8.00000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 14

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	0.00000	0.00000	113.50000	0.0	0.0	0.0	0.0 d
1.0000	0.00000	1.00000	113.50000	0.0	0.0	0.0	0.0 d
2.0000	0.00000	2.00000	113.50000	0.0	0.0	0.0	0.0 d
3.0000	0.00000	3.00000	113.50000	0.0	0.0	0.0	0.0 d
4.0000	0.00000	4.00000	113.50000	0.0	0.0	0.0	0.0 d
5.0000	0.00000	5.00000	113.50000	0.0	0.0	0.0	0.0 d
6.0000	0.00000	6.00000	113.50000	0.0	0.0	0.0	0.0 d
7.0000	0.00000	7.00000	113.50000	0.0	0.0	0.0	0.0 d
8.0000	0.00000	8.00000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 15

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	18.50000	6.50000	113.50000	0.0	0.0	0.0	0.0 d
1.7614	19.95000	6.50000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 16



Channing Junior School, Highgate High Street, N6 5JR

Ground Movement & Damage Assessment

Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

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Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	20.00000	5.50000	113.50000	0.0	0.0	0.0	0.0 d
0.98333	20.98333	5.50000	113.50000	0.0	0.0	0.0	0.0 d
1.96667	21.96667	5.50000	113.50000	0.0	0.0	0.0	0.0 d
2.95000	22.95000	5.50000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 17

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	23.00000	5.50000	113.50000	0.0	0.0	0.0	0.0 d
1.37923	24.00000	6.45000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 18

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	24.00000	6.50000	113.50000	0.0	0.0	0.0	0.0 d
1.1500	24.00000	7.65000	113.50000	0.0	0.0	0.0	0.0 d
2.3000	24.00000	8.80000	113.50000	0.0	0.0	0.0	0.0 d
3.4500	24.00000	9.95000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 19

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	18.55000	10.00000	113.50000	0.0	0.0	0.0	0.0 d
1.0900	19.64000	10.00000	113.50000	0.0	0.0	0.0	0.0 d
2.1800	20.73000	10.00000	113.50000	0.0	0.0	0.0	0.0 d
3.2700	21.82000	10.00000	113.50000	0.0	0.0	0.0	0.0 d
4.3600	22.91000	10.00000	113.50000	0.0	0.0	0.0	0.0 d
5.4500	24.00000	10.00000	113.50000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 20

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	11.00000	12.05000	116.00000	0.0	0.0	0.0	0.0 d
0.96667	11.00000	13.01667	116.00000	0.0	0.0	0.0	0.0 d
1.9333	11.00000	13.98333	116.00000	0.0	0.0	0.0	0.0 d
2.9000	11.00000	14.95000	116.00000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 21

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	11.00000	15.00000	114.00000	0.0	0.0	0.0	0.0 d
1.4142	10.00000	16.00000	114.00000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 22

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	10.00000	16.00000	114.00000	0.0	0.0	0.0	0.0 d
1.0000	9.00000	16.00000	114.00000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 23

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	9.00000	16.00000	114.00000	0.0	0.0	0.0	0.0 d
1.5000	9.00000	17.50000	114.00000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 24

Dist.	x	y	z	x	y	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]	[mm]
0.0	9.00000	17.50000	114.00000	0.0	0.0	0.0	0.0 d
1.0000	10.00000	17.50000	114.00000	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 25



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Ground Movement & Damage Assessment

Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

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Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	10.00000	17.50000	114.00000	0.0	0.0	0.0	0.0	0.0 d
1.4142	11.00000	18.50000	114.00000	0.0	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 26

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	11.00000	18.50000	114.00000	0.0	0.0	0.0	0.0	0.0 d
1.5000	11.00000	20.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 27

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	11.05000	20.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
0.98333	12.03333	20.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
1.9667	13.01667	20.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
2.9500	14.00000	20.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
3.9333	14.98333	20.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
4.9167	15.96667	20.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
5.9000	16.95000	20.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 28

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	17.00000	15.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
1.0000	17.00000	16.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
2.0000	17.00000	17.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
3.0000	17.00000	18.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
4.0000	17.00000	19.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
5.0000	17.00000	20.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 29

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	11.05000	15.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
0.98333	12.03333	15.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
1.9667	13.01667	15.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
2.9500	14.00000	15.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
3.9333	14.98333	15.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
4.9167	15.96667	15.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d
5.9000	16.95000	15.00000	114.00000	0.0	0.0	0.0	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 30

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	17.05000	20.00000	116.00000	1.3534	0.0	1.3534	0.0	0.0 d
0.98571	18.03571	20.00000	116.00000	1.6176	0.0	1.6176	0.0	0.0 d
1.9714	19.02143	20.00000	116.00000	1.8817	0.0	1.8817	0.0	0.0 d
2.9571	20.00714	20.00000	116.00000	2.2592	0.0	2.2592	0.0	0.0 d
3.9429	20.99286	20.00000	116.00000	2.7435	0.0	2.7435	0.0	0.0 d
4.9286	21.97857	20.00000	116.00000	3.2278	0.0	3.2278	0.0	0.0 d
5.9143	22.96429	20.00000	116.00000	3.7121	0.0	3.7121	0.0	0.0 d
6.9000	23.95000	20.00000	116.00000	4.1964	0.0	4.1964	0.0	0.0 d

Structure: Existing School | Sub-structure: Sub 31

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	24.00000	10.50000	116.00000	0.0	0.0	0.0	0.0	0.0 d
1.9900	24.00000	12.04000	116.00000	0.0	0.0	0.0	0.0	0.0 d
3.9800	24.00000	14.03000	116.00000	0.0	0.0	0.0	0.0	0.0 d
5.9700	24.00000	16.02000	116.00000	0.0	0.0	0.0	0.0	0.0 d
7.9600	24.00000	18.01000	116.00000	0.0	0.0	0.0	0.0	0.0 d
9.9500	24.00000	20.00000	116.00000	2.1105	0.0	0.0	-2.1105	d

Structure: Existing School | Sub-structure: Sub 32

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	14.00000	22.00000	114.50000	0.80000	0.0	0.79511	-0.088345	d
2.0123	16.00000	22.22222	114.50000	1.46000	0.0	1.3902	-0.17669	d
4.0246	18.00000	22.44444	114.50000	2.4000	0.0	2.3853	-0.26504	d
6.0369	20.00000	22.66667	114.50000	3.3667	0.0	3.3461	-0.37179	d
8.0492	22.00000	22.88889	114.50000	4.8333	0.0	4.8038	-0.53375	d
10.062	24.00000	23.11111	114.50000	6.0	0.0	-4.1664	-0.46010	d



Channing Junior School, Highgate High Street, N6 5JR

Ground Movement & Damage Assessment

Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

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Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
12.074	26.00000	23.33333	114.50000	0.0	0.0	-6.0556	-6.0556	d
14.086	28.00000	23.55556	114.50000	0.0	0.0	-5.8926	-5.8926	d
16.098	30.00000	23.77778	114.50000	0.0	0.0	-5.7296	-5.7296	d
18.111	32.00000	24.00000	114.50000	0.0	0.0	-5.5666	-5.5666	d
20.123	34.00000	24.22222	114.50000	0.0	0.0	-5.4036	-5.4036	d
22.135	36.00000	24.44444	114.50000	0.0	0.0	-5.2406	-5.2406	d
24.148	38.00000	24.66667	114.50000	0.0	0.0	-5.0776	-5.0776	d
26.160	40.00000	24.88889	114.50000	0.0	0.0	-4.9146	-4.9146	d
28.172	42.00000	25.11111	114.50000	0.0	0.0	-4.7516	-4.7516	d
30.185	44.00000	25.33333	114.50000	0.0	0.0	-4.5886	-4.5886	d
32.197	46.00000	25.55556	114.50000	0.0	0.0	-4.4256	-4.4256	d
34.209	48.00000	25.77778	114.50000	0.0	0.0	-4.2626	-4.2626	d
36.222	50.00000	26.00000	114.50000	0.0	0.0	-4.0996	-4.0996	d

Structure: Boundary Wall | Sub-structure: Sub 33

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	-4.00000	20.00000	114.50000	0.0	0.0	0.0	0.0	0.0 d
2.0119	-2.00000	20.21875	114.50000	0.0	0.0	0.0	0.0	0.0 d
4.0239	0.00000	20.43750	114.50000	0.0	0.0	0.0	0.0	0.0 d
6.0358	2.00000	20.65625	114.50000	0.0	0.0	0.0	0.0	0.0 d
8.0477	4.00000	20.87500	114.50000	0.0	0.0	0.0	0.0	0.0 d
10.060	6.00000	21.09375	114.50000	0.0	0.0	0.0	0.0	0.0 d
12.072	8.00000	21.31250	114.50000	0.0	0.0	0.0	0.0	0.0 d
14.083	10.00000	21.53125	114.50000	0.0	0.0	0.0	0.0	0.0 d
16.095	12.00000	21.75000	114.50000	0.0	0.0	0.0	0.0	0.0 d

Structure: Boundary Wall | Sub-structure: Sub 34

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	-14.00000	18.75000	114.50000	0.0	0.0	0.0	0.0	0.0 d
1.0078	-13.00000	18.87500	114.50000	0.0	0.0	0.0	0.0	0.0 d
2.0156	-12.00000	19.00000	114.50000	0.0	0.0	0.0	0.0	0.0 d
3.0233	-11.00000	19.12500	114.50000	0.0	0.0	0.0	0.0	0.0 d
4.0311	-10.00000	19.25000	114.50000	0.0	0.0	0.0	0.0	0.0 d
5.0389	-9.00000	19.37500	114.50000	0.0	0.0	0.0	0.0	0.0 d
6.0467	-8.00000	19.50000	114.50000	0.0	0.0	0.0	0.0	0.0 d

Structure: Stable Block | Sub-structure: Sub 35

Dist.	x	y	z	x	y	Displacements	Horizontal displacement along the Line	Horizontal displacement perpendicular to Line
	[m]	[m]	[m]	[m]	[m]	[mm]	[mm]	[mm]
0.0	-14.00000	18.00000	116.00000	0.0	0.0	0.0	0.0	0.0 d
1.0050	-13.00000	18.10000	116.00000	0.0	0.0	0.0	0.0	0.0 d
2.0100	-12.00000	18.20000	116.00000	0.0	0.0	0.0	0.0	0.0 d
3.0150	-11.00000	18.30000	116.00000	0.0	0.0	0.0	0.0	0.0 d
4.0200	-10.00000	18.40000	116.00000	0.0	0.0	0.0	0.0	0.0 d
5.0249	-9.00000	18.50000	116.00000	0.0	0.0	0.0	0.0	0.0 d

Structure: Stable



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Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the	Horizontal displacement perpendicular
12.091	-12.50000	6.00214	116.00000	0.0	0.0
14.106	-12.25000	4.00250	116.00000	0.0	0.0
16.122	-12.00000	2.00286	116.00000	0.0	0.0
18.137	-11.75000	0.00321	116.00000	0.0	0.0
20.152	-11.50000	-1.99643	116.00000	0.0	0.0
22.167	-11.25000	-3.99607	116.00000	0.0	0.0
24.183	-11.00000	-5.99571	116.00000	0.0	0.0
26.198	-10.75000	-7.99536	116.00000	0.0	0.0
28.213	-10.50000	-9.99500	116.00000	0.0	0.0

Specific Building Damage Results - Vertical Displacements

Structure: Existing School | Sub-structure: Sub 1

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	0.05000	0.00000	113.50000	-0.88419 d
1.9875	2.03750	0.00000	113.50000	-1.7169 d
3.9750	4.02500	0.00000	113.50000	-1.9593 d
5.9625	6.01250	0.00000	113.50000	-1.5929 d
7.9500	8.00000	0.00000	113.50000	-1.7271 d
9.9375	9.98750	0.00000	113.50000	-2.3324 d
11.9250	11.97500	0.00000	113.50000	-2.3255 d
13.9125	13.96250	0.00000	113.50000	-1.8125 d
15.9000	15.95000	0.00000	113.50000	-0.20117 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 2

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	16.00000	0.00000	113.50000	-0.15959 d
1.0000	16.00000	1.00000	113.50000	-0.44178 d
2.0000	16.00000	2.00000	113.50000	-0.52810 d
3.0000	16.00000	3.00000	113.50000	-0.35224 d
4.0000	16.00000	4.00000	113.50000	-0.55576 d
5.0000	16.00000	5.00000	113.50000	-0.55317 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 3

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	8.00000	0.10000	113.50000	-1.6233 d
0.98000	8.00000	1.08000	113.50000	-1.2239 d
1.96000	8.00000	2.06000	113.50000	-1.0172 d
2.94000	8.00000	3.04000	113.50000	-0.84203 d
3.92000	8.00000	4.02000	113.50000	-0.70581 d
4.90000	8.00000	5.00000	113.50000	-0.60035 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 4

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	8.05000	5.00000	113.50000	-0.60116 d
0.98750	9.03750	5.00000	113.50000	-0.61512 d
1.97500	10.02500	5.00000	113.50000	-0.62334 d
2.96250	11.01250	5.00000	113.50000	-0.62451 d
3.95000	12.00000	5.00000	113.50000	-0.61728 d
4.93750	12.98750	5.00000	113.50000	-0.60283 d
5.92500	13.97500	5.00000	113.50000	-0.58402 d
6.91250	14.96250	5.00000	113.50000	-0.56563 d
7.90000	15.95000	5.00000	113.50000	-0.55351 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 5

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	16.05000	5.00000	113.50000	-0.55286 d
1.4151	17.25000	5.75000	113.50000	-0.58348 d
2.8302	18.45000	6.50000	113.50000	-0.69020 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 6

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	18.50000	6.55000	113.50000	-0.69813 d
1.08000	18.50000	7.63000	113.50000	-0.78329 d
2.16000	18.50000	8.71000	113.50000	-0.88425 d
3.24000	18.50000	9.79000	113.50000	-1.0611 d
4.32000	18.50000	10.87000	113.50000	-0.77149 d
5.40000	18.50000	11.95000	113.50000	-2.1579 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 7

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	6.55000	12.00000	113.50000	-0.26006 d
1.9833	8.53333	12.00000	113.50000	-0.28136 d
3.9667	10.51667	12.00000	113.50000	-0.29244 d
5.9500	12.50000	12.00000	113.50000	-0.26174 d
7.9333	14.48333	12.00000	113.50000	-0.045925 d
9.9167	16.46667	12.00000	113.50000	0.38418 d
11.9000	18.45000	12.00000	113.50000	2.3065 d



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Dist.	Coordinates			Displacements	
	x	y	z	Horizontal displacement along the	Horizontal displacement perpendicular
0.0	6.50000	6.55000	113.50000	-0.45791 d	
1.0900	6.50000	7.64000	113.50000	-0.39793 d	
2.1800	6.50000	8.73000	113.50000	-0.35078 d	
3.2700	6.50000	9.82000	113.50000	-0.31335 d	
4.3600	6.50000	10.91000	113.50000	-0.28346 d	
5.4500	6.50000	12.00000	113.50000	-0.25947 d	

Specific Building Damage Results - Vertical Displacements

Structure: Existing School | Sub-structure: Sub 8

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	4.00000	9.00000	113.50000	-0.30393 d
1.2325	5.23250	9.00000	113.50000	-0.32285 d
2.4500	6.45000	9.00000	113.50000	-0.34004 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 9

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	4.00000	6.55000	113.50000	-0.41006 d
1.2000	4.00000	7.75000	113.50000	-0.35102 d
2.4000	4.00000	8.95000	113.50000	-0.30359 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 10

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	4.00000	6.55000	113.50000	-0.41006 d
1.2000	4.00000	7.75000	113.50000	-0.35102 d
2.4000	4.00000	8.95000	113.50000	-0.30359 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 11

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	4.00000	6.50000	113.50000	-0.41289 d
2.3000	6.30000	6.50000	113.50000	-0.45770 d
4.6000	8.60000	6.50000	113.50000	-0.49039 d
6.9000	10.90000	6.50000	113.50000	-0.50704 d
9.2000	13.20000	6.50000	113.50000	-0.51004 d
11.5000	15.50000	6.50000	113.50000	-0.53322 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 12

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	15.50000	6.55000	113.50000	-0.53216 d
1.0800	15.50000	7.63000	113.50000	-0.50266 d
2.1600	15.50000	8.71000	113.50000	-0.44873 d
3.2400	15.50000	9.79000	113.50000	-0.34577 d
4.3200	15.50000	10.87000	113.50000	-0.15009 d
5.4000	15.50000	11.95000	113.50000	0.42435 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 13

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	0.05000	8.00000	113.50000	-0.26144 d
0.97500	1.02500	8.00000	113.50000	-0.28192 d
1.9500	2.00000	8.00000	113.50000	-0.30203 d
2.9250	2.97500	8.00000	113.50000	-0.32139 d
3.9000	3.95000	8.00000	113.50000	-0.33968 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 14

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	0.00000	0.00000	113.50000	-0.87034 d
1.0000	0.00000	1.00000	113.50000	-0.72633 d
2.0000	0.00000	2.00000	113.50000	-0.60298 d
3.0000	0.00000	3.00000	113.50000	-0.50597 d
4.0000	0.00000	4.00000	113.50000	-0.43281 d
5.0000	0.00000	5.00000	113.50000	-0.37476 d
6.0000	0.00000	6.00000	113.50000	-0.32894 d
7.0000	0.00000	7.00000	113.50000	-0.29136 d
8.0000	0.00000	8.00000	113.50000	-0.26039 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 15

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	18.50000	6.50000	113.50000	-0.69438 d
1.7614	19.95000	5.50000	113.50000	-0.68623 d

d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 16

Dist.	Coordinates			Displacements
[m]	x	y	z	z
[m]	[m]	[m]	[m]	[mm]
Vertical Offset 1				
0.0	6.55000	12.00000	113.50000	-0.26006 d
1.9833	8.53333	12.00000	113.50000	-0.28136 d
3.9667	10.51667	12.00000	113.50000	-0.29244 d
5.9500	12.50000	12.00000	113.50000	-0.26174 d
7.9333	14.48333	12.00000	113.50000	-0.045925 d
9.9167	16.46667	12.00000	113.50000	0.38418 d
11.9000	18.45000	12.00000	113.50000	2.3065 d



Channing Junior School, Highgate High Street, N6 5JR

Ground Movement & Damage Assessment

Imported P-Disp displacements (Vertical) + Horizontal movements on new RC Retaining Wall

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Vertical Offset 1
 0.0 20.00000 5.50000 113.50000 -0.69902 d
 0.98333 20.98333 5.50000 113.50000 -0.75425 d
 1.9667 21.96667 5.50000 113.50000 -0.80952 d
 2.9500 22.95000 5.50000 113.50000 -0.88684 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 17

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 23.00000 5.50000 113.50000 -0.89436 d
 1.3793 24.00000 5.50000 113.50000 -1.09912 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 18

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 24.00000 6.50000 113.50000 -2.0128 d
 1.1500 24.00000 7.65000 113.50000 -2.3436 d
 2.3000 24.00000 8.80000 113.50000 -2.3499 d
 3.4500 24.00000 9.95000 113.50000 -0.82392 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 19

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 19.55000 10.00000 113.50000 -1.1411 d
 1.0900 19.64000 10.00000 113.50000 -1.8854 d
 2.1800 20.73000 10.00000 113.50000 -2.3795 d
 3.2700 21.82000 10.00000 113.50000 -2.5451 d
 4.3600 22.91000 10.00000 113.50000 -2.0243 d
 5.4500 24.00000 10.00000 113.50000 -0.67446 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 20

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 11.00000 12.05000 116.00000 -0.28908 d
 0.96667 11.00000 13.01667 116.00000 -0.27751 d
 1.9333 11.00000 13.98333 116.00000 -0.27528 d
 2.9000 11.00000 14.95000 116.00000 -0.27947 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 21

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 11.00000 15.00000 114.00000 -0.28004 d
 1.4142 10.00000 16.00000 114.00000 -0.52375 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 22

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 10.00000 16.00000 114.00000 -0.52375 d
 1.0000 9.00000 16.00000 114.00000 -0.48411 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 23

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 9.00000 16.00000 114.00000 -0.48411 d
 1.5000 9.00000 17.50000 114.00000 -0.46101 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 24

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 9.00000 17.50000 114.00000 -0.46101 d
 1.0000 10.00000 17.50000 114.00000 -0.50850 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 25

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 10.00000 17.50000 114.00000 -0.50850 d
 1.4142 11.00000 18.50000 114.00000 -0.55114 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 26

Dist.	Coordinates			Displacements
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[m]	x	y	z	z
	[m]	[m]	[m]	[mm]

Vertical Offset 1
 0.0 11.00000 18.50000 114.00000 -0.55114 d
 1.5000 11.00000 20.00000 114.00000 -0.25091 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 27

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 11.05000 20.00000 114.00000 -0.25234 d
 0.98333 12.03333 20.00000 114.00000 -0.28351 d
 1.9667 13.01667 20.00000 114.00000 -0.32045 d
 2.9500 14.00000 20.00000 114.00000 -0.36015 d
 3.9333 14.98333 20.00000 114.00000 -0.38737 d
 4.9167 15.96667 20.00000 114.00000 -0.33703 d
 5.9000 16.95000 20.00000 114.00000 0.30957 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 28

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 17.00000 15.00000 114.00000 -1.9848 d
 1.0000 17.00000 16.00000 114.00000 -2.4199 d
 2.0000 17.00000 17.00000 114.00000 -2.5323 d
 3.0000 17.00000 18.00000 114.00000 -2.0956 d
 4.0000 17.00000 19.00000 114.00000 -0.36361 d
 5.0000 17.00000 20.00000 114.00000 0.46541 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 29

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 11.05000 15.00000 114.00000 -0.28079 d
 0.98333 12.03333 15.00000 114.00000 -0.29436 d
 1.9667 13.01667 15.00000 114.00000 -0.30276 d
 2.9500 14.00000 15.00000 114.00000 -0.29570 d
 3.9333 14.98333 15.00000 114.00000 -0.23259 d
 4.9167 15.96667 15.00000 114.00000 0.31534 d
 5.9000 16.95000 15.00000 114.00000 -1.8913 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 30

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 17.05000 20.00000 116.00000 0.85517 d
 0.98571 18.03571 20.00000 116.00000 1.3757 d
 1.9714 19.02143 20.00000 116.00000 1.4537 d
 2.9571 20.00714 20.00000 116.00000 1.4911 d
 3.9429 20.99286 20.00000 116.00000 1.5892 d
 4.9286 21.97857 20.00000 116.00000 1.8214 d
 5.9143 22.96429 20.00000 116.00000 2.1335 d
 6.9000 23.95000 20.00000 116.00000 1.9956 d
 d - Displacements include imported displacements.

Structure: Existing School | Sub-structure: Sub 31

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 24.00000 10.05000 116.00000 1.5162 d
 1.9800 24.00000 12.04000 116.00000 3.3871 d
 3.9800 24.00000 14.03000 116.00000 3.4285 d
 5.9700 24.00000 16.02000 116.00000 3.5408 d
 7.9600 24.00000 18.01000 116.00000 3.9671 d
 9.9500 24.00000 20.00000 116.00000 1.5869 d
 d - Displacements include imported displacements.

Structure: Boundary Wall | Sub-structure: Sub 32

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1
 0.0 14.00000 22.00000 114.50000 -0.26371 d
 2.0123 16.00000 22.22222 114.50000 -0.24236 d
 4.0246 18.00000 22.44444 114.50000 -0.19057 d
 6.0369 20.00000 22.66667 114.50000 -0.18138 d
 8.0492 22.00000 22.88889 114.50000 0.078780 d
 10.062 24.00000 23.11111 114.50000 0.60087 d
 12.074 26.00000 23.33333 114.50000 0.55527 d
 14.086 28.00000 23.55556 114.50000 0.36883 d
 16.098 30.00000 23.77778 114.50000 0.17149 d
 18.111 32.00000 24.00000 114.50000 -0.42147 d
 20.123 34.00000 24.22222 114.50000 -0.41011 d
 22.135 36.00000 24.44444 114.50000 -0.33561 d
 24.148 38.00000 24.66667 114.50000 -0.26593 d
 26.160 40.00000 24.88889 114.50000 -0.21152 d
 28.172 42.00000 25.11111 114.50000 -0.16817 d
 30.185 44.00000 25.33333 114.50000 -0.13448 d
 32.197 46.00000 25.55556 114.50000 -0.10808 d
 34.209 48.00000 25.77778 114.50000 -0.087357 d
 36.222 50.00000 26.00000 114.50000 -0.070942 d
 d - Displacements include imported displacements.

Structure: Boundary Wall | Sub-structure: Sub 33

Dist.	Coordinates			Displacements
[m]	x	y	z	[mm]
	[m]	[m]	[m]	

Vertical Offset 1



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Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Structure: Existing School Sub-structure: Sub 12											
0.0	1	0.0	7.6602	Hogging	265.11E-6	0.0	255.53E-6	0.0	19.481E-6	366230.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 13											
0.0	1	0.0	5.3990	Hogging	0.0071710	0.0	0.0070395	0.0	-531.89E-6	2589.3	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 14											
0.0	1	0.0	3.9000	Hogging	37.651E-6	0.0	37.301E-6	0.0	21.003E-6	830120.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 15											
0.0	1	0.0	8.0000	Sagging	0.0016812	0.0	0.0017774	0.0	-144.01E-6	41240.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 16											
0.0	1	0.0	1.7610	None	0.0	0.0	0.0	0.0	1.0484E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 17											
0.0	1	0.0	0.56771	Hogging	583.90E-6	0.0	575.53E-6	0.0	56.170E-6	133840.	0 (Negligible)
0.0	2	0.56771	2.3813	Sagging	0.0016812	0.0	0.0017774	0.0	-144.01E-6	41240.	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 18											
0.0	1	0.0	1.3790	Hogging	0.0	0.0	0.0	0.0	795.23E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 19											
0.0	1	0.0	3.4490	Hogging	0.032729	0.0	0.032482	0.0	-0.0013270	720.73	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 20											
0.0	1	0.0	5.4490	Hogging	0.030794	0.0	0.030219	0.0	-0.0012384	1373.4	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 21											
0.0	1	0.0	3.2070	Hogging	713.48E-6	0.0	708.78E-6	0.0	-64.175E-6	6327.7	0 (Negligible)
0.0	2	3.2070	2.6920	Sagging	0.059856	0.0	0.058764	0.0	0.0022441	271.17	1 (Very Slight)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 22											
0.0	1	0.0	1.4140	Hogging	0.0	0.0	0.0	0.0	172.33E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 23											
0.0	1	0.0	1.0000	None	0.0	0.0	0.0	0.0	-39.639E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 24											
0.0	1	0.0	1.5000	None	0.0	0.0	0.0	0.0	-15.400E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 25											
0.0	1	0.0	1.0000	None	0.0	0.0	0.0	0.0	47.492E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 26											
0.0	1	0.0	1.4000	None	0.0	0.0	0.0	0.0	30.150E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 27											
0.0	1	0.0	1.9117	Sagging	146.18E-6	0.0	144.80E-6	0.0	37.561E-6	148460.	0 (Negligible)
0.0	2	1.9117	3.9873	Hogging	0.012259	0.0	0.012135	0.0	-657.56E-6	1331.4	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 28											
0.0	1	0.0	3.6127	Hogging	0.029686	0.0	0.029439	0.0	-0.0017320	1474.5	0 (Negligible)
0.0	2	3.6127	1.3873	Sagging	0.018077	0.0	0.017988	0.0	-0.0017320	688.48	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 29											
0.0	1	0.0	3.2070	Hogging	713.48E-6	0.0	708.78E-6	0.0	-64.175E-6	6327.7	0 (Negligible)
0.0	2	3.2070	2.6920	Sagging	0.059856	0.0	0.058764	0.0	0.0022441	271.17	1 (Very Slight)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 30											



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Vertical Movement Calculations	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement Curve	Max Gradient of Vertical Displacement Curve	Min Radius of Curvature	Damage Category
Structure: Existing School Sub-structure: Sub 21											
0.0	1	0.0	1.4140	Hogging	0.0	0.0	0.0	0.0	172.33E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 22											
0.0	1	0.0	1.0000	None	0.0	0.0	0.0	0.0	-39.639E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 23											
0.0	1	0.0	1.5000	None	0.0	0.0	0.0	0.0	-15.400E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 24											
0.0	1	0.0	1.0000	None	0.0	0.0	0.0	0.0	47.492E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 25											
0.0	1	0.0	1.4000	None	0.0	0.0	0.0	0.0	30.150E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 26											
0.0	1	0.0	1.5000	None	0.0	0.0	0.0	0.0	-200.15E-6	-	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 27											
0.0	1	0.0	1.9117	Sagging	146.18E-6	0.0	144.80E-6	0.0	37.561E-6	148460.	0 (Negligible)
0.0	2	1.9117	3.9873	Hogging	0.012259	0.0	0.012135	0.0	-657.56E-6	1331.4	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 28											
0.0	1	0.0	3.6127	Hogging	0.029686	0.0	0.029439	0.0	-0.0017320	1474.5	0 (Negligible)
0.0	2	3.6127	1.3873	Sagging	0.018077	0.0	0.017988	0.0	-0.0017320	688.48	0 (Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 29											
0.0	1	0.0	3.2070	Hogging	713.48E-6	0.0	708.78E-6	0.0	-64.175E-6	6327.7	0 (Negligible)
0.0	2	3.2070	2.6920	Sagging	0.059856	0.0	0.058764	0.0	0.0022441	271.17	1 (Very Slight)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 30											



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Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
0.0	1	0.0	2.6448	Sagging	0.010866	0.029726	0.035819	-382.76E-6	-527.89E-6	1790.6	(Negligible)
	2	2.6448	2.0111	Hogging	0.0034426	0.047450	0.048206	-491.09E-6	-235.51E-6	9542.7	(Negligible)
	3	4.6559	2.2431	Sagging	0.010690	0.049133	0.054268	-491.09E-6	-316.45E-6	1669.3	(Very Slight)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 31											
0.0	1	0.0	9.9500	Sagging	0.024021	0.0	0.034603	0.0	0.0011961	1104.2	(Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Boundary Wall Sub-structure: Sub 32											
0.0	1	0.0	8.3896	Hogging	0.0027014	0.037168	0.040336	0.0026227	-260.13E-6	22589.	(Negligible)
	2	8.3896	8.0794	Sagging	0.0056343	-0.052891	0.010728	0.0026227	294.62E-6	15993.	(Negligible)
	3	16.469	6.5972	Hogging	0.0059292	0.0052194	0.011096	-172.90E-6	294.62E-6	18528.	(Negligible)
	4	23.066	9.1307	Sagging	286.86E-6	169.97E-6	605.57E-6	-4.1272E-6	-34.133E-6	345050.	(Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Boundary Wall Sub-structure: Sub 33											
0.0	1	6.0358	9.9642	Sagging	160.14E-6	0.0	241.65E-6	0.0	17.833E-6	693370.	(Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Boundary Wall Sub-structure: Sub 34											
0.0	All settlements are less than the Settlement Trough Limit Sensitivity.										
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Stable Block Sub-structure: Sub 35											
0.0	1	5.0000	0.0	None	0.0	0.0	0.0	0.0	62.223E-6	13625.	(Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Stable Block Sub-structure: Sub 36											
0.0	1	0.0	15.092	Sagging	380.42E-6	0.0	575.67E-6	0.0	-24.743E-6	54476.	(Negligible)
	2	15.092	7.5213	Hogging	173.23E-6	0.0	161.33E-6	0.0	12.076E-6	365000.	(Negligible)
	3	22.613	5.5869	Sagging	0.0020951	0.0	0.0022113	0.0	87.106E-6	16857.	(Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Stable Block Sub-structure: Sub 37											
0.0	1	0.0	5.0000	Sagging	0.0035949	0.0	0.0034934	0.0	218.68E-6	4021.7	(Negligible)
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Stable Block Sub-structure: Sub 38											
0.0	1	16.122	6.2698	Hogging	46.355E-6	0.0	44.096E-6	0.0	4.2314E-6	1.3646E+6	(Negligible)
	2	22.391	5.8085	Sagging	0.0011453	0.0	0.0012426	0.0	49.846E-6	30999.	(Negligible)



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Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature	Damage Category
Tensile horizontal strains are +ve, compressive horizontal strains are -ve.											
Structure: Existing School Sub-structure: Sub 1											
0.0	1	0.0	-810.74E-6		0.015960	0.0	-810.74E-6	2.3323	0.015452	3168.3	18296.0 (Negligible)
Structure: Existing School Sub-structure: Sub 2											
0.0	1	0.0	282.19E-6		0.0042169	0.0	282.19E-6	0.55573	0.0041504	4361.0	-0 (Negligible)
Structure: Existing School Sub-structure: Sub 3											
0.0	1	0.0	-391.26E-6		0.0040086	0.0	-391.26E-6	1.6233	0.0037762	5082.1	0 (Negligible)
Structure: Existing School Sub-structure: Sub 4											
0.0	1	0.0	-19.041E-6		530.10E-6	0.0	-19.041E-6	0.62447	519.03E-6	125760.	125830.0 (Negligible)
Structure: Existing School Sub-structure: Sub 5											
0.0	1	0.0	75.412E-6		0.0013307	0.0	75.412E-6	0.69018	0.0013039	26317.	0 (Negligible)
Structure: Existing School Sub-structure: Sub 6											
0.0	1	0.0	-0.0027124		0.052970	0.0	-0.0027124	2.1552	0.052431	366.29	38133.1 (Very Slight)
Structure: Existing School Sub-structure: Sub 7											
0.0	1	0.0	-969.24E-6		0.012575	0.0	-969.24E-6	2.3055	0.011529	2170.8	-0 (Negligible)
Structure: Existing School Sub-structure: Sub 8											
0.0	1	0.0	-55.028E-6		508.43E-6	0.0	-55.028E-6	0.45791	472.46E-6	87354.	0 (Negligible)
Structure: Existing School Sub-structure: Sub 9											
0.0	1	0.0	15.448E-6		35.095E-6	0.0	15.448E-6	0.34004	34.940E-6	863810.	-0 (Negligible)
Structure: Existing School Sub-structure: Sub 10											
0.0	1	0.0	-49.197E-6		280.66E-6	0.0	-49.197E-6	0.41006	276.55E-6	105810.	0 (Negligible)



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Vertical Offset from Line for Vertical	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Curvature (Hogging)	Min Curvature (Sagging)	Damage Category
Structure: Existing School Sub-structure: Sub 11										
0.0	0.0	0.0	19.481E-6	0.53322	255.53E-6	0.0	19.481E-6	366230.	184620.	0 (Negligible)
Structure: Existing School Sub-structure: Sub 12										
0.0	0.0071710	0.0	-531.89E-6	0.53216	0.0070395	0.0	-531.89E-6	2589.3		0 (Negligible)
Structure: Existing School Sub-structure: Sub 13										
0.0	37.651E-6	0.0	21.003E-6	0.33968	37.301E-6	0.0	21.003E-6	830120.		0 (Negligible)
Structure: Existing School Sub-structure: Sub 14										
0.0	0.0016812	0.0	-144.01E-6	0.87034	0.0017774	0.0	-144.01E-6		41240.	0 (Negligible)
Structure: Existing School Sub-structure: Sub 15										
0.0	0.0	0.0	1.0484E-6	0.69623	0.0	0.0	1.0484E-6			0 (Negligible)
Structure: Existing School Sub-structure: Sub 16										
0.0	583.90E-6	0.0	79.641E-6	0.88676	575.53E-6	0.0	79.641E-6	133840.	31899.	0 (Negligible)
Structure: Existing School Sub-structure: Sub 17										
0.0	0.0	0.0	795.23E-6	1.9910	0.0	0.0	795.23E-6			0 (Negligible)
Structure: Existing School Sub-structure: Sub 18										
0.0	0.032729	0.0	-0.0013270	2.3499	0.032482	0.0	-0.0013270	720.73		0 (Negligible)
Structure: Existing School Sub-structure: Sub 19										
0.0	0.030794	0.0	-0.0012384	2.5417	0.030219	0.0	-0.0012384	1373.4		0 (Negligible)
Structure: Existing School Sub-structure: Sub 20										
0.0	288.48E-6	0.0	-11.971E-6	0.28908	276.34E-6	0.0	-11.971E-6		92825.	0 (Negligible)
Structure: Existing School Sub-structure: Sub 21										



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Line for Vertical Movement	Strain	Strain	Horizontal Displacement	Displacement Curve	Curvature (Hogging)	Curvature (Sagging)	Damage Category
Structure: Existing School Sub-structure: Sub 22							
0.0	0.0	0.0	172.33E-6	0.52371	0.0	0.0	172.33E-6 (Negligible)
Structure: Existing School Sub-structure: Sub 23							
0.0	0.0	0.0	-39.639E-6	0.52375	0.0	0.0	-39.639E-6 (Negligible)
Structure: Existing School Sub-structure: Sub 24							
0.0	0.0	0.0	-15.400E-6	0.48411	0.0	0.0	-15.400E-6 (Negligible)
Structure: Existing School Sub-structure: Sub 25							
0.0	0.0	0.0	47.492E-6	0.50850	0.0	0.0	47.492E-6 (Negligible)
Structure: Existing School Sub-structure: Sub 26							
0.0	0.0	0.0	30.150E-6	0.55071	0.0	0.0	30.150E-6 (Negligible)
Structure: Existing School Sub-structure: Sub 27							
0.0	0.0	0.0	-200.15E-6	0.55114	0.0	0.0	-200.15E-6 (Negligible)
Structure: Existing School Sub-structure: Sub 28							
0.0	0.012259	0.0	-657.56E-6	0.38715	0.012135	0.0	-657.56E-6 (Negligible)
Structure: Existing School Sub-structure: Sub 29							
0.0	0.029686	0.0	-0.0017320	2.5292	0.029439	0.0	-0.0017320 (Negligible)
Structure: Existing School Sub-structure: Sub 30							
0.0	0.059856	0.0	0.0022441	1.8891	0.058764	0.0	0.0022441 (Very Slight)
Structure: Existing School Sub-structure: Sub 31							
0.0	0.010866	0.049133	-527.89E-6	2.1320	0.054268	-491.09E-6	-527.89E-6 (Very Slight)
Structure: Existing School Sub-structure: Sub 32							



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Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient of Horizontal Displacement	Max Gradient of Vertical Displacement	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
0.0	0.024021	0.0	0.0011961	3.9628	0.034603	0.0	0.0011961	-	1104.2	0 (Negligible)
Structure: Boundary Wall Sub-structure: Sub 32										
0.0	0.0059292	-0.052891	294.62E-6	0.59984	0.040336	0.0026227	294.62E-6	18528.	15993.0	0 (Negligible)
Structure: Boundary Wall Sub-structure: Sub 33										
0.0	160.14E-6	0.0	17.833E-6	0.23608	241.65E-6	0.0	17.833E-6	-	693370.0	0 (Negligible)
Structure: Boundary Wall Sub-structure: Sub 34										
0.0										
Structure: Stable Block Sub-structure: Sub 35										
0.0	0.0	0.0	62.223E-6	0.11553	0.0	0.0	62.223E-6	-	-	0 (Negligible)
Structure: Stable Block Sub-structure: Sub 36										
0.0	0.0020991	0.0	87.106E-6	0.39103	0.0022113	0.0	87.106E-6	365000.	16857.0	0 (Negligible)
Structure: Stable Block Sub-structure: Sub 37										
0.0	0.0035949	0.0	218.68E-6	0.38724	0.0034934	0.0	218.68E-6	-	4021.7	0 (Negligible)
Structure: Stable Block Sub-structure: Sub 38										
0.0	0.0011453	0.0	49.846E-6	0.21209	0.0012426	0.0	49.846E-6	1.3646E+6	30999.0	0 (Negligible)

Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Existing School	Max Slope	Sub 6		2.13955	5.3990	Hogging	0.0027124	2.1552	0.052431	366.29	-	1 (Very Slight)
	Max Settlement	Sub 31		1	0.0	Sagging	0.0011961	3.9628	0.034603	-	1104.2	0 (Negligible)
	Max Tensile Strain	Sub 29		2.3.2070	5.8990	Sagging	0.0022441	1.8891	0.058764	-	271.17	1 (Very Slight)
	Min Radius of Curvature (Hogging)	Sub 6		2.13955	5.3990	Hogging	0.0027124	2.1552	0.052431	366.29	-	1 (Very Slight)
Boundary Wall	Max Slope	Sub 32		2.8.3896	16.469	Sagging	294.62E-6	0.59984	0.010728	-	15993.0	0 (Negligible)
	Max Settlement	Sub 32		2.8.3896	16.469	Sagging	294.62E-6	0.59984	0.010728	-	15993.0	0 (Negligible)
	Max Tensile Strain	Sub 32		1	0.0	Hogging	260.13E-6	0.26371	0.040336	22589.	-	0 (Negligible)
	Min Radius of Curvature (Hogging)	Sub 32		3.16.469	23.066	Hogging	294.62E-6	0.42134	0.011096	18528.	-	0 (Negligible)
Stable Block	Max Slope	Sub 37		1	0.0	Sagging	218.68E-6	0.38724	0.0034934	-	4021.7	0 (Negligible)
	Max Settlement	Sub 36		3.22.613	28.200	Sagging	87.106E-6	0.39103	0.0022113	-	16857.0	0 (Negligible)
	Max Tensile Strain	Sub 37		1	0.0	Sagging	218.68E-6	0.38724	0.0034934	-	4021.7	0 (Negligible)
	Min Radius of Curvature (Hogging)	Sub 36		2.15.092	22.613	Hogging	12.076E-6	0.23599	161.33E-6	365000.	-	0 (Negligible)



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Ground Movement Plot

Site	Channing Junior School, Highgate High Street, N6 5JR	Job Number	J17268
Client	Channing Junior School	Sheet	1/1
Engineer	Heyne Tillett Steel		

Figure 11A - Pavilion- Vertical Movements due to Installation of Sheet Piled Wall

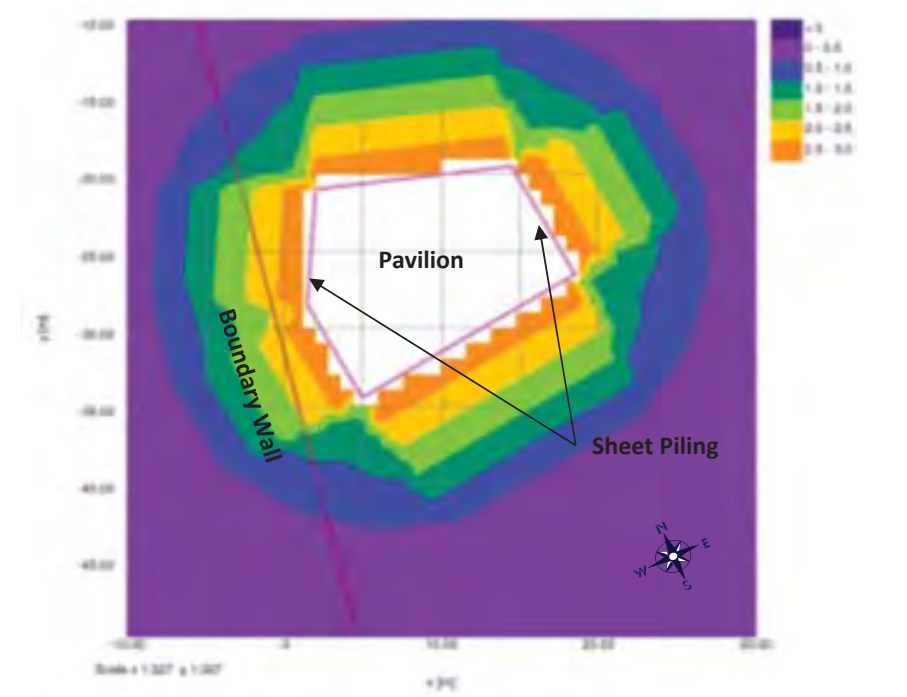
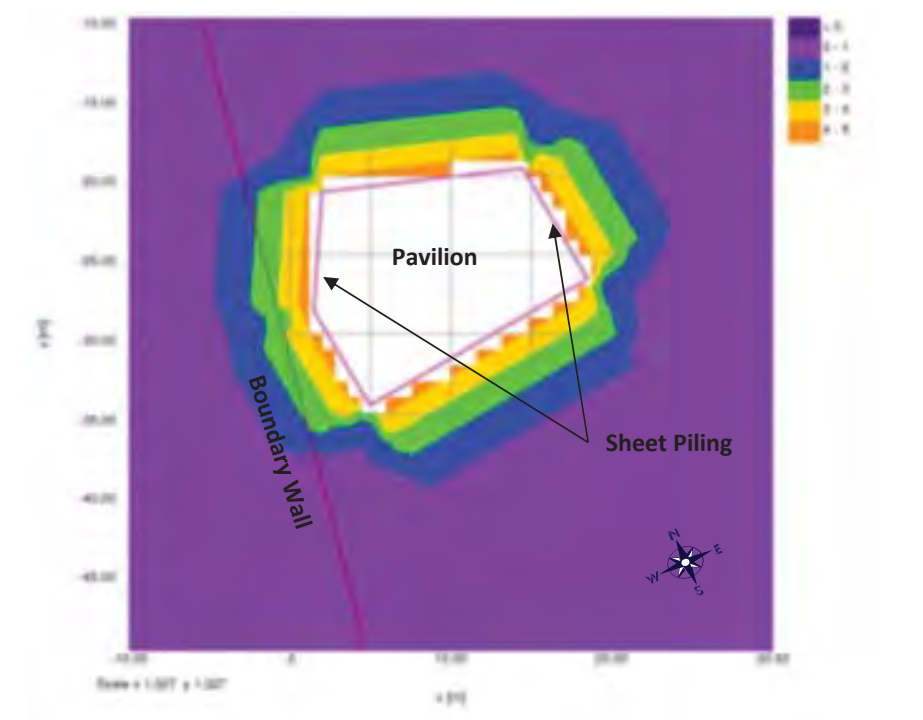


Figure 11B - Pavilion - Horizontal Movements due to Installation of Sheet Piled Wall



Site Channing Junior School, Highgate High Street, N6 5JR

Client Channing Junior School

Engineer Heyne Tillett Steel

Job Number
J17268

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1/1

Figure 12A - Pavilion- Vertical Movements due to Excavation

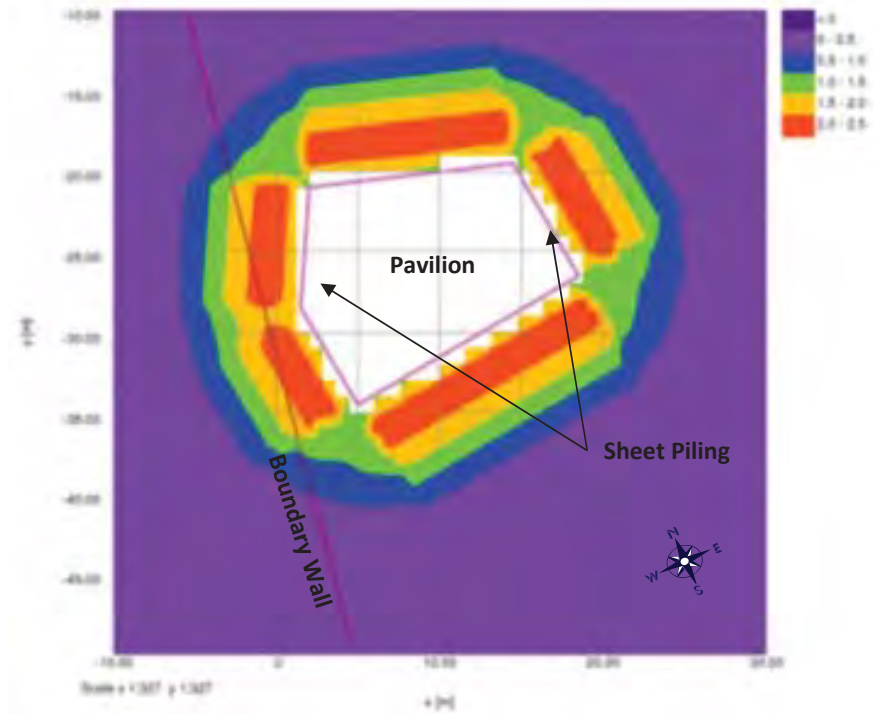
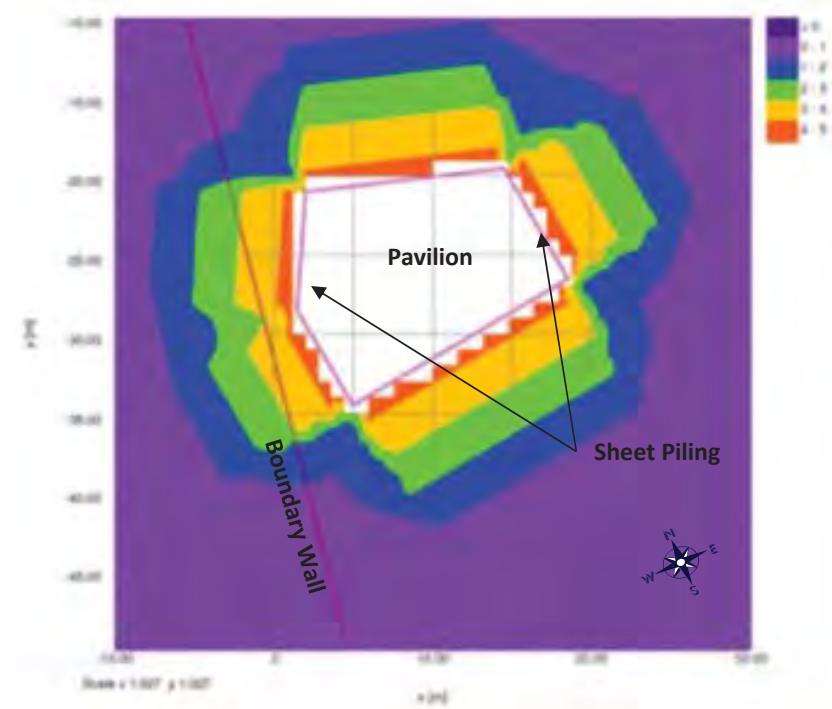


Figure 12B - Pavilion - Horizontal Movements due to Excavation



Site Channing Junior School, Highgate High Street, N6 5JR

Client Channing Junior School

Engineer Heyne Tillett Steel

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Figure 13A - Pavilion- Combined Vertical Movements

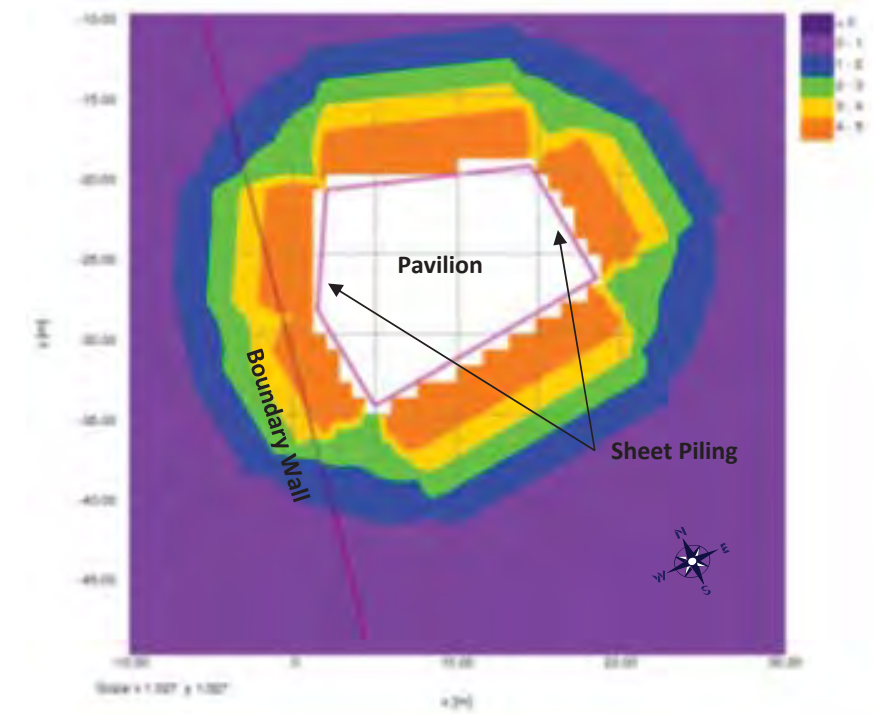
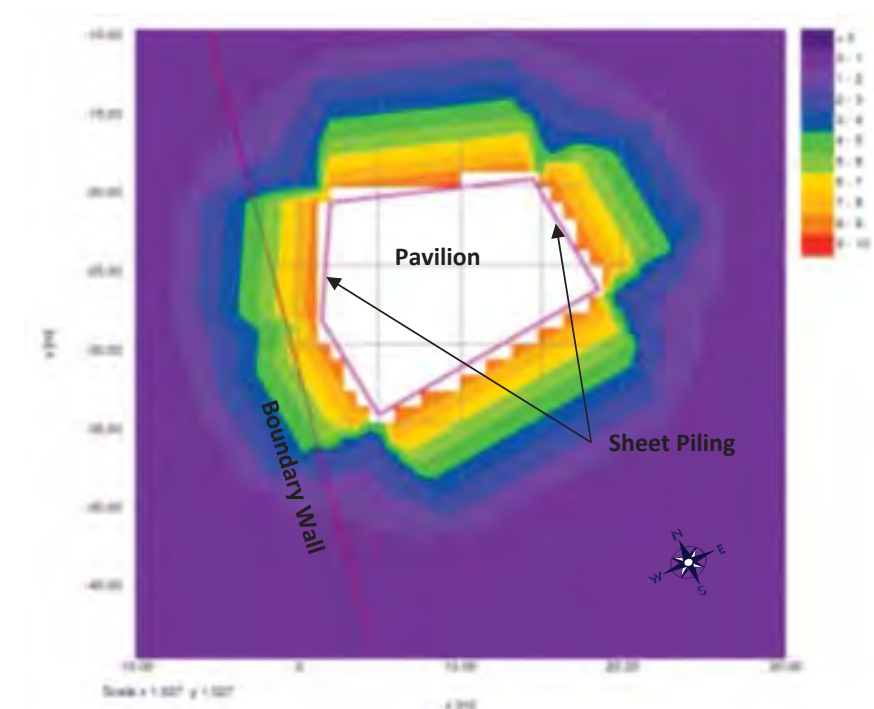


Figure 13B - Pavilion - Combined Horizontal Movements





Channing Junior School, Highgate High Street, N6 5JR
Ground Movement and Damage Assessment
Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

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Problem Type
Problem Type : Tunnelling and Embedded Wall Excavations

Type	Name	Direction of extrusion	Point/Line/Line for extrusion	No. of intervals across extrusion/line	Extrusion depth	No. of intervals along extrusion	Calculate Surface type for tunnels
Grid	Grid 1	Global X	First point X Y Z (level) Second point X Y Z (level)		[m]		Yes Surface
Line	Line 39	-	-5.50000 -10.00000 113.00000 4.50000 -49.00000 113.00000	40	40.00000	50	Yes Surface

Vertical Ground Movement Curves (Excavations)

Curve Name: Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(b))
Coordinates: [Distance from wall / wall depth or max. excavation depth (x), Depth / wall depth or max. excavation depth (y), Settlement / wall depth or max. excavation depth (z) (s)]
[0.000,0.000,0.050][2.000,0.000,0.000]

Curve Fitting Method: Polynomial
x Order: 1
y Order: 0
Polynomial: z = -2.5E-2x + 5.0E-2
Coef. of Determination: 1.0

Curve Name: Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(b))
Coordinates: [Distance from wall / wall depth or max. excavation depth (x), Depth / wall depth or max. excavation depth (y), Settlement / wall depth or max. excavation depth (z) (s)]
[0.000,0.000,0.039][0.100,0.000,0.049][0.200,0.000,0.056][0.300,0.000,0.062][0.400,0.000,0.067][0.500,0.000,0.070][0.600,0.000,0.072][0.700,0.000,0.073][0.800,0.000,0.073][0.900,0.000,0.072][1.000,0.000,0.070][1.100,0.000,0.068][1.200,0.000,0.065][1.300,0.000,0.061][1.400,0.000,0.058][1.500,0.000,0.054][1.600,0.000,0.050][1.700,0.000,0.046][1.800,0.000,0.042][1.900,0.000,0.038][2.000,0.000,0.034][2.100,0.000,0.030][2.200,0.000,0.027][2.300,0.000,0.023][2.400,0.000,0.020][2.500,0.000,0.017][2.600,0.000,0.014][2.700,0.000,0.012][2.800,0.000,0.010][2.900,0.000,0.008][3.000,0.000,0.007][3.100,0.000,0.005][3.200,0.000,0.004][3.300,0.000,0.004][3.400,0.000,0.003][3.500,0.000,0.002][3.600,0.000,0.002][3.700,0.000,0.002][3.800,0.000,0.001][3.900,0.000,0.001][4.000,0.000,0.000]

Curve Fitting Method: Polynomial
x Order: 4
y Order: 0
Polynomial: z = -2.6455E-3x⁴ + 2.8495E-2x³ - 1.0051E-1x² + 1.0569E-1x + 3.8990E-2
Coef. of Determination: 9.9991E-1

Horizontal Ground Movement Curves (Excavations)

Curve Name: Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(a))
Coordinates: [Distance from wall / wall depth or max. excavation depth (x), Depth / wall depth or max. excavation depth (y), Horizontal movement / wall depth or max. excavation depth (z) (s)]
[0.000,0.000,0.081][0.050,0.000,0.076][0.100,0.000,0.072][0.150,0.000,0.067][0.200,0.000,0.063][0.250,0.000,0.059][0.300,0.000,0.056][0.350,0.000,0.052][0.400,0.000,0.049][0.450,0.000,0.045][0.500,0.000,0.043][0.550,0.000,0.040][0.600,0.000,0.037][0.650,0.000,0.034][0.700,0.000,0.032][0.750,0.000,0.029][0.800,0.000,0.027][0.850,0.000,0.024][0.900,0.000,0.022][0.950,0.000,0.020][1.000,0.000,0.018][1.050,0.000,0.016][1.100,0.000,0.014][1.150,0.000,0.012][1.200,0.000,0.011][1.250,0.000,0.009][1.300,0.000,0.007][1.350,0.000,0.005][1.400,0.000,0.004][1.450,0.000,0.002][1.500,0.000,0.000]

Curve Fitting Method: Polynomial
x Order: 3
y Order: 0
Polynomial: z = -1.0610E-2x³ + 4.4203E-2x² - 9.6358E-2x + 8.0901E-2
Coef. of Determination: 1.0000

Curve Name: Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(a))
Coordinates: [Distance from wall / wall depth or max. excavation depth (x), Depth / wall depth or max. excavation depth (y), Horizontal movement / wall depth or max. excavation depth (z) (s)]
[0.000,0.000,0.150][4.000,0.000,0.000]

Curve Fitting Method: Polynomial
x Order: 1
y Order: 0
Polynomial: z = -3.75E-2x + 1.50E-1
Coef. of Determination: 1.00

Polygonal Excavations

Excavation Name: Pavilion - Sheet Pile Installation
Surface level [m]: 114.00
Contribution: Positive
Enabled: Yes
Surface movement curves which are selected are applied between surface and [m]: 108.00

Corner	x	y	Base Level	Stiffened	Previous Side	Next Side
	[m]	[m]	[m]	Yes	d p1 p2*	d p1 p2*
1	2.0000	-21.0000	108.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000
2	14.5000	-19.5000	108.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000
3	18.5000	-26.5000	108.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000
4	5.0000	-34.5000	108.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000
5	1.5000	-28.5000	108.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000

Side	Corner 1	Corner 2	Vertical	Ground Movement Curve
1	2.0000 -21.0000	14.5000 -19.5000	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(b))	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(a))
2	14.5000 -19.5000	18.5000 -26.5000	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(b))	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(a))
3	18.5000 -26.5000	5.0000 -34.5000	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(b))	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(a))



Channing Junior School, Highgate High Street, N6 5JR
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Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

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Side	Corner 1	Corner 2	Vertical	Ground Movement Curve
4	5.0000 -34.5000	1.5000 -28.5000	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(b))	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(a))
5	1.5000 -28.5000	2.0000 -21.0000	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(b))	Installation of secant bored pile wall in stiff clay (CIRIA 580 Fig. 2.8(a))

Excavation Name: Pavilion - Excavation Phase
Surface level [m]: 114.00
Contribution: Positive
Enabled: Yes
Surface movement curves which are selected are applied between surface and [m]: 111.00

Corner	x	y	Base Level	Stiffened	Previous Side	Next Side
	[m]	[m]	[m]	Yes	d p1 p2*	d p1 p2*
1	2.0000	-21.0000	111.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000
2	14.5000	-19.5000	111.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000
3	18.5000	-26.5000	111.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000
4	5.0000	-34.5000	111.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000
5	1.5000	-28.5000	111.00	Yes	0.0 67.000 25.000	0.0 67.000 25.000

Side	Corner 1	Corner 2	Vertical	Ground Movement Curve
1	2.0000 -21.0000	14.5000 -19.5000	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(b))	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(a))
2	14.5000 -19.5000	18.5000 -26.5000	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(b))	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(a))
3	18.5000 -26.5000	5.0000 -34.5000	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(b))	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(a))
4	5.0000 -34.5000	1.5000 -28.5000	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(b))	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(a))
5	1.5000 -28.5000	2.0000 -21.0000	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(b))	Excavation in front of high stiffness wall in stiff clay (CIRIA 580 Fig. 2.11(a))

Damage Category Strains

Name	0 (Negligible)	1 (Very Slight)	2 (Slight)	3 (Moderate)
Burland Strain Limits	0.0	500.00E-6	750.00E-6	0.0015000

Specific Structures - Geometry

Structure Name	Sub-Structure Name	Displacement Line	Start Distance Along Line	End Distance Along Line	Vertical Offsets from Line for Vertical Movement Calculations	Vertical Displacement Limit Sensitivity	Damage Category Strains	Poisson's Ratio	E/G
Boundary Wall	Sub 39	Line 39	[m]	[m]	[m]	[mm]	0.10000 Burland Strain Limits	0.20000	2.6000

Specific Structures - Bending Parameters

Structure Name	Sub-Structure Name	Height	Default Properties	Hogging	Sagging
Boundary Wall	Sub 39	3.0000	Yes	2nd Moment of Area (per unit width) [m ⁴]	Distance of Area of Bending from Edge of Beam in Tension [m]
				9.0000	3.0000
				3.0000	2.2500
				3.0000	2.2500
				1.5000	1.5000

Building Segment Combinations

Structure Name	Sub-Structure Name	Vertical Offset from Line for Vertical Movement Calculations	Segment Start	Length	Curvature Combined
No structures have segments combined.					

Utility Strain Calculation Options

Neglect beneficial contribution of axial strains : No

Displacement and Strain Results

Type/No.	Coordinates	Displacements	Angle of Line
Name	Dist. x y z	x y z	Horizontal displacement along Line perpendicular to Line
Grid 1	[m]	[mm]	[*]
Grid 1	-10.00000 -10.00000 114.00000	0.0 0.0 0.0	-
	-9.20000 -10.00000 114.00000	0.0 0.0 0.0	-
	-8.40000 -10.00000 114.00000	0.0 0.0 0.0	-
	-7.60000 -10.00000 114.00000	0.0 0.0 0.0	-
	-6.80000 -10.00000 114.00000	0.0 0.0 0.0	-
	-6.00000 -10.00000 114.00000	0.0 0.0 0.0	-
	-5.20000 -10.00000 114.00000	0.0 0.0 0.0	-
	-4.40000 -10.00000 114.00000	0.0 0.0 0.0	-
	-3.60000 -10.00000 114.00000	0.0 0.0 0.0	-
	-2.80000 -10.00000 114.00000	0.0 0.0 0.0	-
	-2.00000 -10.00000 114.00000	0.017711 -0.063004 0.063518	-
	-1.20000 -10.00000 114.00000	0.028220 -0.12396 0.11539	-
	-0.40000 -10.00000 114.00000	0.032206 -0.18007 0.15770	-
	0.40000 -10.00000 114.00000	0.052439 -0.43699 0.35355	-
	1.20000 -10.00000 114.00000	0.043922 -0.36601 0.29880	-
	2.00000 -10.00000 114.00000	0.048180 -0.40150 0.32616	-
	2.80000 -10.00000 114.00000	0.052439 -0.43699 0.35355	-
	3.60000 -10.00000 114.00000	0.056698 -0.47248 0.38101	-
	4.40000 -10.00000 114.00000	0.060956 -0.50797 0.40860	-
	5.20000 -10.00000 114.00000	0.065215 -0.54346 0.43637	-
	6.00000 -10.00000 114.00000	0.069474 -0.57895 0.46419	-
	6.80000 -10.00000 114.00000	0.073732 -0.61444 0.49268	-
	7.60000 -10.00000 114.00000	0.077991 -0.64993 0.52131	-



Channing Junior School, Highgate High Street, N6 5JR
 Ground Movement and Damage Assessment
 Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
MP	Date 07-Dec-2017	Checked

Type/No.	Coordinates	Displacements	Angle of Line	
Name	Dist.	x y z	Horizontal Horizontal to x Axis displacement displacement	
8.40000	-10.00000	114.00000	0.082250 -0.68541 0.55033	-
9.20000	-10.00000	114.00000	0.086508 -0.72090 0.57975	-
10.00000	-10.00000	114.00000	0.090767 -0.75639 0.60964	-
10.80000	-10.00000	114.00000	0.095026 -0.79188 0.64003	-
11.60000	-10.00000	114.00000	0.099284 -0.82737 0.67097	-
12.40000	-10.00000	114.00000	0.10354 -0.86286 0.70247	-
13.20000	-10.00000	114.00000	0.10780 -0.89835 0.73459	-
14.00000	-10.00000	114.00000	0.049200 -0.66814 0.56202	-
14.80000	-10.00000	114.00000	0.0056926 -0.63253 0.55027	-
15.60000	-10.00000	114.00000	-0.036862 -0.58086 0.52224	-
16.40000	-10.00000	114.00000	-0.074462 -0.51889 0.48019	-
17.20000	-10.00000	114.00000	-0.10353 -0.44438 0.42700	-
18.00000	-10.00000	114.00000	-0.12112 -0.36675 0.36564	-
18.80000	-10.00000	114.00000	-0.12507 -0.28696 0.29864	-
19.60000	-10.00000	114.00000	-0.11597 -0.21130 0.23179	-
20.40000	-10.00000	114.00000	-0.091660 -0.13871 0.16230	-
21.20000	-10.00000	114.00000	-0.047972 -0.062368 0.079565	-
22.00000	-10.00000	114.00000	0.0 0.0 0.0	-
22.80000	-10.00000	114.00000	0.0 0.0 0.0	-
23.60000	-10.00000	114.00000	0.0 0.0 0.0	-
24.40000	-10.00000	114.00000	0.0 0.0 0.0	-
25.20000	-10.00000	114.00000	0.0 0.0 0.0	-
26.00000	-10.00000	114.00000	0.0 0.0 0.0	-
26.80000	-10.00000	114.00000	0.0 0.0 0.0	-
27.60000	-10.00000	114.00000	0.0 0.0 0.0	-
28.40000	-10.00000	114.00000	0.0 0.0 0.0	-
29.20000	-10.00000	114.00000	0.0 0.0 0.0	-
30.00000	-10.00000	114.00000	0.0 0.0 0.0	-
-10.00000	-11.00000	114.00000	0.0 0.0 0.0	-
-9.20000	-11.00000	114.00000	0.0 0.0 0.0	-
-8.40000	-11.00000	114.00000	0.0 0.0 0.0	-
-7.60000	-11.00000	114.00000	0.0 0.0 0.0	-
-6.80000	-11.00000	114.00000	0.0 0.0 0.0	-
-6.00000	-11.00000	114.00000	0.0 0.0 0.0	-
-5.20000	-11.00000	114.00000	0.0 0.0 0.0	-
-4.40000	-11.00000	114.00000	0.111103 -0.020966 0.026768	-
-3.60000	-11.00000	114.00000	-0.043064 -0.095703 0.105599	-
-2.80000	-11.00000	114.00000	0.065498 -0.17386 0.17683	-
-2.00000	-11.00000	114.00000	0.078568 -0.25374 0.24123	-
-1.20000	-11.00000	114.00000	0.082763 -0.33308 0.29945	-
-0.40000	-11.00000	114.00000	0.078951 -0.40948 0.35045	-
0.40000	-11.00000	114.00000	0.068397 -0.47821 0.39242	-
1.20000	-11.00000	114.00000	0.088283 -0.53569 0.59215	-
2.00000	-11.00000	114.00000	0.092542 -0.57118 0.62224	-
2.80000	-11.00000	114.00000	0.096800 -0.60667 0.65286	-
3.60000	-11.00000	114.00000	0.10106 -0.64216 0.68402	-
4.40000	-11.00000	114.00000	0.10532 -0.67765 0.71578	-
5.20000	-11.00000	114.00000	0.10958 -0.71314 0.74816	-
6.00000	-11.00000	114.00000	0.11383 -0.74862 0.78119	-
6.80000	-11.00000	114.00000	0.11809 -0.78411 0.81490	-
7.60000	-11.00000	114.00000	0.12235 -0.81960 0.84933	-
8.40000	-11.00000	114.00000	0.12661 -0.85509 0.88448	-
9.20000	-11.00000	114.00000	0.13087 -0.89058 0.92040	-
10.00000	-11.00000	114.00000	0.13513 -0.92607 0.95709	-
10.80000	-11.00000	114.00000	0.14451 -1.00433 0.99458	-
11.60000	-11.00000	114.00000	0.15277 -1.07231 1.03229	-
12.40000	-11.00000	114.00000	0.16103 -1.14029 1.07020	-
13.20000	-11.00000	114.00000	0.16925 -1.20836 1.10820	-
14.00000	-11.00000	114.00000	0.183054 -1.0635 0.84905	-
14.80000	-11.00000	114.00000	0.0059782 -1.00113 0.82863	-
15.60000	-11.00000	114.00000	-0.068698 -0.90462 0.78568	-
16.40000	-11.00000	114.00000	-0.13152 -0.78256 0.72387	-
17.20000	-11.00000	114.00000	-0.17420 -0.64378 0.64795	-
18.00000	-11.00000	114.00000	-0.20326 -0.52990 0.56298	-
18.80000	-11.00000	114.00000	-0.21946 -0.43296 0.47433	-
19.60000	-11.00000	114.00000	-0.22559 -0.35631 0.40361	-
20.40000	-11.00000	114.00000	-0.20813 -0.27564 0.32457	-
21.20000	-11.00000	114.00000	-0.16740 -0.19199 0.23779	-
22.00000	-11.00000	114.00000	-0.10438 -0.10616 0.14110	-
22.80000	-11.00000	114.00000	-0.020446 -0.018782 0.026683	-
23.60000	-11.00000	114.00000	0.0 0.0 0.0	-
24.40000	-11.00000	114.00000	0.0 0.0 0.0	-
25.20000	-11.00000	114.00000	0.0 0.0 0.0	-
26.00000	-11.00000	114.00000	0.0 0.0 0.0	-
26.80000	-11.00000	114.00000	0.0 0.0 0.0	-
27.60000	-11.00000	114.00000	0.0 0.0 0.0	-
28.40000	-11.00000	114.00000	0.0 0.0 0.0	-
29.20000	-11.00000	114.00000	0.0 0.0 0.0	-
30.00000	-11.00000	114.00000	0.0 0.0 0.0	-
-10.00000	-12.00000	114.00000	0.0 0.0 0.0	-
-9.20000	-12.00000	114.00000	0.0 0.0 0.0	-
-8.40000	-12.00000	114.00000	0.0 0.0 0.0	-
-7.60000	-12.00000	114.00000	0.0 0.0 0.0	-
-6.80000	-12.00000	114.00000	0.0 0.0 0.0	-
-6.00000	-12.00000	114.00000	0.0 0.0 0.0	-
-5.20000	-12.00000	114.00000	0.047531 -0.067057 0.088679	-
-4.40000	-12.00000	114.00000	0.089194 -0.14716 0.17503	-
-3.60000	-12.00000	114.00000	0.11987 -0.23443 0.25744	-
-2.80000	-12.00000	114.00000	0.13932 -0.32791 0.33823	-
-2.00000	-12.00000	114.00000	0.14745 -0.42946 0.41749	-
-1.20000	-12.00000	114.00000	0.14467 -0.52617 0.49351	-
-0.40000	-12.00000	114.00000	0.13186 -0.62526 0.56325	-
0.40000	-12.00000	114.00000	0.11051 -0.71909 0.62289	-
1.20000	-12.00000	114.00000	0.13264 -1.1054 0.93559	-
2.00000	-12.00000	114.00000	0.13969 -1.1641 0.97261	-
2.80000	-12.00000	114.00000	0.14795 -1.2329 1.0104	-
3.60000	-12.00000	114.00000	0.15620 -1.3017 1.0483	-
4.40000	-12.00000	114.00000	0.16445 -1.3704 1.0862	-
5.20000	-12.00000	114.00000	0.17269 -1.4391 1.1239	-
6.00000	-12.00000	114.00000	0.18092 -1.5077 1.1617	-
6.80000	-12.00000	114.00000	0.18915 -1.5763 1.2122	-
7.60000	-12.00000	114.00000	0.19738 -1.6448 1.2551	-
8.40000	-12.00000	114.00000	0.20561 -1.7134 1.2989	-
9.20000	-12.00000	114.00000	0.21385 -1.7821 1.3436	-
10.00000	-12.00000	114.00000	0.22209 -1.8507 1.3892	-
10.80000	-12.00000	114.00000	0.23033 -1.9194 1.4356	-
11.60000	-12.00000	114.00000	0.23857 -1.9882 1.4830	-
12.40000	-12.00000	114.00000	0.24681 -2.0571 1.5312	-
13.20000	-12.00000	114.00000	0.25505 -2.1261 1.5803	-
14.00000	-12.00000	114.00000	0.13333 -1.8933 -2.064	-
14.80000	-12.00000	114.00000	0.0031374 -1.4857 1.1730	-
15.60000	-12.00000	114.00000	-0.12332 -1.3396 1.1085	-
16.40000	-12.00000	114.00000	-0.23290 -1.1680 0.9189	-
17.20000	-12.00000	114.00000	-0.31468 -0.98293 0.91124	-
18.00000	-12.00000	114.00000	-0.36087 -0.79439 0.79300	-
18.80000	-12.00000	114.00000	-0.37908 -0.63418 0.69659	-
19.60000	-12.00000	114.00000	-0.36139 -0.49029 0.60371	-
20.40000	-12.00000	114.00000	-0.34890 -0.40104 0.50287	-
21.20000	-12.00000	114.00000	-0.30856 -0.30987 0.39813	-
22.00000	-12.00000	114.00000	0.24234 -0.21754 0.29041	-
22.80000	-12.00000	114.00000	-0.15253 -0.12454 0.17680	-
23.60000	-12.00000	114.00000	-0.041474 -0.031228 0.049564	-
24.40000	-12.00000	114.00000	0.0 0.0 0.0	-
25.20000	-12.00000	114.00000	0.0 0.0 0.0	-
26.00000	-12.00000	114.00000	0.0 0.0 0.0	-
26.80000	-12.00000	114.00000	0.0 0.0 0.0	-
27.60000	-12.00000	114.00000	0.0 0.0 0.0	-
28.40000	-12.00000	114.00000	0.0 0.0 0.0	-
29.20000	-12.00000	114.00000	0.0 0.0 0.0	-
30.00000	-12.00000	114.00000	0.0 0.0 0.0	-



Channing Junior School, Highgate High Street, N6 5JR
 Ground Movement and Damage Assessment
 Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
MP	Date 07-Dec-2017	Checked

Type/No.	Coordinates	Displacements	Angle of Line	
Name	Dist.	x y z	Horizontal Horizontal to x Axis displacement displacement	
-10.00000	-13.00000	114.00000	0.0 0.0 0.0	-
-9.20000	-13.00000	114.00000	0.0 0.0 0.0	-
-8.40000	-13.00000	114.00000	0.0 0.0 0.0	-
-7.60000	-13.00000	114.00000	0.0 0.0 0.0	-
-6.80000	-13.00000	114.00000	0.0130933 -0.011996 0.021035	-
-6.00000	-13.00000	114.00000	0.078134 -0.080239 0.12038	-
-5.20000	-13.00000	114.00000	0.13282 -0.15900 0.21428	-
-4.40000	-13.00000	114.00000	0.17985 -0.24808 0.30867	-
-3.60000	-13.00000	114.00000	0.20626 -0.34750 0.40691	-
-2.80000	-13.00000	114.00000	0.22332 -0.45672 0.50963	-
-2.00000	-13.00000	114.00000	0.23063 -0.58467 0.61510	-
-1.20000	-13.00000	114.00000	0.23933 -0.72792 0.71960	-
-0.40000	-13.00000	114.00000	0.22518 -0.96196 0.81790	-
0.40000	-13.00000	114.00000	0.19126 -1.1428 0.90391	-
1.20000	-13.00000	114.00000	0.21728 -1.8107 1.3625	-
2.00000	-13.00000	114.00000	0.22552 -1.8793 1.4084	-
2.80000	-13.00000	114.00000	0.23377 -1.9481 1.4553	-
3.60000	-13.00000	114.00000	0.24203 -2.0169 1.5030	-
4.40000	-13.00000	114.00000	0.25030 -2.0858 1.5516	-
5.20000	-13.00000	114.00000	0.25858 -2.1549 1.6010	-
6.00000	-13.00000	114.00000	0.26688 -2.2240 1.6513	-
6.80000	-13.00000	114.00000	0.27519 -2.2933 1.7024	-
7.60000	-13.00000	114.00000	0.28353 -2.3627 1.7544	-
8.40000	-13.00000	114.00000	0.29188 -2.4323 1.8072	-
9.20000	-13.00000			



Channing Junior School, Highgate High Street, N6 5JR
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MP	07-Dec-2017	

Type/No.	Coordinates			Displacements			Angle of Line
Name	Dist.	x	y	x	y	z	to x Axis
				Horizontal displacement		Horizontal displacement	
12.40000	-15.00000	114.00000	0.52054	-4.3378	3.3588	-	-
13.20000	-15.00000	114.00000	0.53011	-4.4176	3.4208	-	-
14.00000	-15.00000	114.00000	0.38491	-3.3722	2.6189	-	-
14.80000	-15.00000	114.00000	-0.060581	-2.9960	2.4934	-	-
15.60000	-15.00000	114.00000	-0.48276	-2.4574	2.3090	-	-
16.40000	-15.00000	114.00000	-0.83749	-2.1108	2.0853	-	-
17.20000	-15.00000	114.00000	-1.1333	-1.7900	1.9367	-	-
18.00000	-15.00000	114.00000	-1.3380	-1.5573	1.8161	-	-
18.80000	-15.00000	114.00000	-1.4168	-1.3295	1.6436	-	-
19.60000	-15.00000	114.00000	-1.3886	-1.1097	1.4373	-	-
20.40000	-15.00000	114.00000	-1.2726	-0.89834	1.2156	-	-
21.20000	-15.00000	114.00000	-1.0851	-0.69398	0.99451	-	-
22.00000	-15.00000	114.00000	-0.83772	-0.49454	0.78580	-	-
22.80000	-15.00000	114.00000	-0.53282	-0.29237	0.58238	-	-
23.60000	-15.00000	114.00000	-0.60767	-0.34724	0.55814	-	-
24.40000	-15.00000	114.00000	-0.38152	-0.21801	0.35300	-	-
25.20000	-15.00000	114.00000	-0.15536	-0.088779	0.15143	-	-
26.00000	-15.00000	114.00000	0.0	0.0	0.0	-	-
26.80000	-15.00000	114.00000	0.0	0.0	0.0	-	-
27.60000	-15.00000	114.00000	0.0	0.0	0.0	-	-
28.40000	-15.00000	114.00000	0.0	0.0	0.0	-	-
29.20000	-15.00000	114.00000	0.0	0.0	0.0	-	-
30.00000	-15.00000	114.00000	0.0	0.0	0.0	-	-
-10.00000	-16.00000	114.00000	0.0	0.0	0.0	-	-
-9.20000	-16.00000	114.00000	0.0	0.0	0.0	-	-
-8.40000	-16.00000	114.00000	0.084567	-0.031846	0.091743	-	-
-7.60000	-16.00000	114.00000	0.20789	-0.086403	0.21945	-	-
-6.80000	-16.00000	114.00000	0.31745	-0.14729	0.34372	-	-
-6.00000	-16.00000	114.00000	0.41056	-0.21568	0.47457	-	-
-5.20000	-16.00000	114.00000	0.51720	-0.31307	0.61618	-	-
-4.40000	-16.00000	114.00000	0.64705	-0.46147	0.76730	-	-
-3.60000	-16.00000	114.00000	0.72818	-0.63070	0.92191	-	-
-2.80000	-16.00000	114.00000	0.78204	-0.85292	1.1097	-	-
-2.00000	-16.00000	114.00000	0.80954	-1.1421	1.3341	-	-
-1.20000	-16.00000	114.00000	0.78760	-1.4873	1.5661	-	-
-0.40000	-16.00000	114.00000	0.71073	-1.8865	1.7956	-	-
0.40000	-16.00000	114.00000	0.57817	-2.3269	2.0099	-	-
1.20000	-16.00000	114.00000	0.39758	-2.7798	2.1943	-	-
2.00000	-16.00000	114.00000	0.49611	-4.1343	3.1975	-	-
2.80000	-16.00000	114.00000	0.50551	-4.2126	3.2601	-	-
3.60000	-16.00000	114.00000	0.53498	-4.2915	3.2925	-	-
4.40000	-16.00000	114.00000	0.52452	-4.3710	3.3847	-	-
5.20000	-16.00000	114.00000	0.53412	-4.4510	3.4465	-	-
6.00000	-16.00000	114.00000	0.54380	-4.5317	3.5078	-	-
6.80000	-16.00000	114.00000	0.55355	-4.6129	3.5687	-	-
7.60000	-16.00000	114.00000	0.56338	-4.6948	3.6290	-	-
8.40000	-16.00000	114.00000	0.57328	-4.7774	3.6887	-	-
9.20000	-16.00000	114.00000	0.58327	-4.8606	3.7476	-	-
10.00000	-16.00000	114.00000	0.59333	-4.9444	3.8057	-	-
10.80000	-16.00000	114.00000	0.60348	-5.0290	3.8630	-	-
11.60000	-16.00000	114.00000	0.61371	-5.1142	3.9193	-	-
12.40000	-16.00000	114.00000	0.62403	-5.2002	3.9745	-	-
13.20000	-16.00000	114.00000	0.63443	-5.2869	4.0286	-	-
14.00000	-16.00000	114.00000	0.64493	-5.3744	4.0815	-	-
14.80000	-16.00000	114.00000	-0.12948	-3.5318	2.9047	-	-
15.60000	-16.00000	114.00000	-0.76852	-2.8810	2.6533	-	-
16.40000	-16.00000	114.00000	-1.2880	-2.2327	2.4238	-	-
17.20000	-16.00000	114.00000	-1.7185	-2.0183	2.3740	-	-
18.00000	-16.00000	114.00000	-1.9368	-1.7386	2.2333	-	-
18.80000	-16.00000	114.00000	-1.4783	-1.9843	2.0227	-	-
19.60000	-16.00000	114.00000	-1.9034	-1.2371	1.7679	-	-
20.40000	-16.00000	114.00000	-1.7276	-1.0121	1.4937	-	-
21.20000	-16.00000	114.00000	-1.8895	-3.0797	1.6052	-	-
22.00000	-16.00000	114.00000	-1.4512	-0.82925	1.2544	-	-
22.80000	-16.00000	114.00000	-1.0135	-0.57916	0.96986	-	-
23.60000	-16.00000	114.00000	-0.76921	-0.43955	0.71757	-	-
24.40000	-16.00000	114.00000	-0.54206	-0.31032	0.49790	-	-
25.20000	-16.00000	114.00000	-0.31690	-0.18109	0.29601	-	-
26.00000	-16.00000	114.00000	-0.090748	-0.051856	0.091212	-	-
26.80000	-16.00000	114.00000	0.0	0.0	0.0	-	-
27.60000	-16.00000	114.00000	0.0	0.0	0.0	-	-
28.40000	-16.00000	114.00000	0.0	0.0	0.0	-	-
29.20000	-16.00000	114.00000	0.0	0.0	0.0	-	-
30.00000	-16.00000	114.00000	0.0	0.0	0.0	-	-
-10.00000	-17.00000	114.00000	0.0	0.0	0.0	-	-
-9.20000	-17.00000	114.00000	0.022087	-0.0058904	0.024223	-	-
-8.40000	-17.00000	114.00000	0.17229	0.048923	0.16914	-	-
-7.60000	-17.00000	114.00000	0.31210	-0.099133	0.30480	-	-
-6.80000	-17.00000	114.00000	0.43928	-0.15460	0.44676	-	-
-6.00000	-17.00000	114.00000	0.56085	-0.22153	0.60401	-	-
-5.20000	-17.00000	114.00000	0.76616	-0.34543	0.77929	-	-
-4.40000	-17.00000	114.00000	0.93053	-0.48884	0.96932	-	-
-3.60000	-17.00000	114.00000	1.0455	-0.65783	1.1653	-	-
-2.80000	-17.00000	114.00000	1.0984	-0.85963	1.3537	-	-
-2.00000	-17.00000	114.00000	1.0948	-1.1242	1.5488	-	-
-1.20000	-17.00000	114.00000	1.0779	-1.5207	1.8216	-	-
-0.40000	-17.00000	114.00000	0.98428	-2.0130	2.0971	-	-
0.40000	-17.00000	114.00000	0.80403	-2.5966	2.3637	-	-
1.20000	-17.00000	114.00000	0.54182	-3.2376	2.6057	-	-
2.00000	-17.00000	114.00000	0.59755	-4.9790	3.8297	-	-
2.80000	-17.00000	114.00000	0.60773	-5.0644	3.8866	-	-
3.60000	-17.00000	114.00000	0.61800	-5.1500	3.9424	-	-
4.40000	-17.00000	114.00000	0.62835	-5.2363	3.9972	-	-
5.20000	-17.00000	114.00000	0.63879	-5.3233	4.0508	-	-
6.00000	-17.00000	114.00000	0.64933	-5.4111	4.1031	-	-
6.80000	-17.00000	114.00000	0.65996	-5.4996	4.1541	-	-
7.60000	-17.00000	114.00000	0.67068	-5.5890	4.2036	-	-
8.40000	-17.00000	114.00000	0.68149	-5.6791	4.2515	-	-
9.20000	-17.00000	114.00000	0.69241	-5.7701	4.2978	-	-
10.00000	-17.00000	114.00000	0.70342	-5.8619	4.3424	-	-
10.80000	-17.00000	114.00000	0.71454	-5.9545	4.3851	-	-
11.60000	-17.00000	114.00000	0.72576	-6.0480	4.4259	-	-
12.40000	-17.00000	114.00000	0.73709	-6.1424	4.4645	-	-
13.20000	-17.00000	114.00000	0.74852	-6.2377	4.5011	-	-
14.00000	-17.00000	114.00000	0.76006	-6.3338	4.5353	-	-
14.80000	-17.00000	114.00000	-0.27310	-4.0581	3.1908	-	-
15.60000	-17.00000	114.00000	-1.2765	-3.0480	2.8505	-	-
16.40000	-17.00000	114.00000	-2.1214	-2.5333	2.8583	-	-
17.20000	-17.00000	114.00000	-2.5939	-2.1656	2.8190	-	-
18.00000	-17.00000	114.00000	-2.7508	-1.8433	2.6549	-	-
18.80000	-17.00000	114.00000	-2.6984	-1.5596	2.4009	-	-
19.60000	-17.00000	114.00000	-3.1229	-1.7845	2.7341	-	-
20.40000	-17.00000	114.00000	-2.6570	-1.5182	2.2904	-	-
21.20000	-17.00000	114.00000	-2.2057	-1.2604	1.8764	-	-
22.00000	-17.00000	114.00000	-1.7639	-1.0079	1.5031	-	-
22.80000	-17.00000	114.00000	-1.3263	-0.75789	1.1756	-	-
23.60000	-17.00000	114.00000	-0.93075	-0.53186	0.89378	-	-
24.40000	-17.00000	114.00000	-0.70459	-0.40263	0.65204	-	-
25.20000	-17.00000	114.00000	-0.47844	-0.27339	0.43925	-	-
26.00000	-17.00000	114.00000	-0.25229	-0.14416	0.23882	-	-
26.80000	-17.00000	114.00000	-0.026133	-0.014933	0.028680	-	-
27.60000	-17.00000	114.00000	0.0	0.0	0.0	-	-
28.40000	-17.00000	114.00000	0.0	0.0	0.0	-	-
29.20000	-17.00000	114.00000	0.0	0.0	0.0	-	-
30.00000	-17.00000	114.00000	0.0	0.0	0.0	-	-
-10.00000	-18.00000	114.00000	0.0	0.0	0.0	-	-
-9.20000	-18.00000	114.00000	0.090574	-0.017831	0.086559	-	-
-8.40000	-18.00000	114.00000	0.25806	-0.054786	0.23473	-	-
-7.60000	-18.00000	114.00000	0.41705	-0.096258	0.38265	-	-
-6.80000	-18.00000	114.00000	0.56551	-0.14331	0.54559	-	-



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement and Damage Assessment
Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement and Damage Assessment
Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
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MP	07-Dec-2017	

Type/No.	Coordinates			Displacements			Angle of Line
Name	Dist.	x	y	x	y	z	Horizontal displacement
16.40000	-20.00000	114.00000	-6.6113	-3.7779	4.7255	-	-
17.20000	-20.00000	114.00000	-5.9429	-3.3959	4.6618	-	-
18.00000	-20.00000	114.00000	-5.3207	-3.0404	4.4411	-	-
18.80000	-20.00000	114.00000	-4.7396	-2.7083	4.11083	-	-
19.60000	-20.00000	114.00000	-4.1983	-2.3968	3.7023	-	-
20.40000	-20.00000	114.00000	-3.6798	-2.1028	3.2565	-	-
21.20000	-20.00000	114.00000	-3.1910	-1.8234	2.7990	-	-
22.00000	-20.00000	114.00000	-2.7226	-1.5558	2.3323	-	-
22.80000	-20.00000	114.00000	-2.2695	-1.2969	1.9333	-	-
23.60000	-20.00000	114.00000	-1.8266	-1.0438	1.5537	-	-
24.40000	-20.00000	114.00000	-1.3887	-0.79357	1.2195	-	-
25.20000	-20.00000	114.00000	-0.96306	-0.55032	0.93140	-	-
26.00000	-20.00000	114.00000	-0.73690	-0.42109	0.68449	-	-
26.80000	-20.00000	114.00000	-0.51075	-0.29186	0.46485	-	-
27.60000	-20.00000	114.00000	-0.28459	-0.16263	0.26747	-	-
28.40000	-20.00000	114.00000	-0.058440	-0.03394	0.060277	-	-
29.20000	-20.00000	114.00000	0.0	0.0	0.0	-	-
30.00000	-20.00000	114.00000	0.0	0.0	0.0	-	-
-10.00000	-21.00000	114.00000	0.0099447	-662.98E-6	0.011277	-	-
-9.20000	-21.00000	114.00000	0.30862	-0.020574	0.25326	-	-
-8.40000	-21.00000	114.00000	0.60729	-0.040486	0.48457	-	-
-7.60000	-21.00000	114.00000	0.90596	-0.060397	0.73748	-	-
-6.80000	-21.00000	114.00000	1.2826	-0.085506	1.0347	-	-
-6.00000	-21.00000	114.00000	1.8602	-0.121401	1.3894	-	-
-5.20000	-21.00000	114.00000	2.4417	-0.16278	1.8052	-	-
-4.40000	-21.00000	114.00000	3.0362	-0.20241	2.2762	-	-
-3.60000	-21.00000	114.00000	3.64525	-0.24350	2.7869	-	-
-2.80000	-21.00000	114.00000	4.2597	-0.28665	3.3123	-	-
-2.00000	-21.00000	114.00000	4.8867	-0.33245	3.8179	-	-
-1.20000	-21.00000	114.00000	5.5225	-0.38150	4.2995	-	-
-0.40000	-21.00000	114.00000	6.1611	-0.43441	4.7584	-	-
0.40000	-21.00000	114.00000	7.3765	-0.49177	4.7265	-	-
1.20000	-21.00000	114.00000	8.3126	-0.55417	4.6161	-	-
2.00000	-21.00000	114.00000	9.0444	-0.62113	4.5776	-	-
2.80000	-21.00000	114.00000	9.5966	-0.69259	4.5156	-	-
3.60000	-21.00000	114.00000	10.0599	-0.76859	4.4299	-	-
4.40000	-21.00000	114.00000	10.4452	-0.84904	4.3214	-	-
5.20000	-21.00000	114.00000	10.7635	-0.93395	4.1918	-	-
6.00000	-21.00000	114.00000	11.0258	-1.02232	4.0421	-	-
6.80000	-21.00000	114.00000	11.2431	-1.11415	3.8753	-	-
7.60000	-21.00000	114.00000	11.4174	-1.20946	3.6944	-	-
8.40000	-21.00000	114.00000	11.5507	-1.30825	3.5015	-	-
9.20000	-21.00000	114.00000	11.6450	-1.41052	3.3000	-	-
10.00000	-21.00000	114.00000	11.7023	-1.51627	3.0939	-	-
10.80000	-21.00000	114.00000	11.7256	-1.62550	2.8872	-	-
11.60000	-21.00000	114.00000	11.7159	-1.73821	2.6840	-	-
12.40000	-21.00000	114.00000	11.6742	-1.85440	2.4883	-	-
13.20000	-21.00000	114.00000	11.6035	-1.97407	2.3041	-	-
14.00000	-21.00000	114.00000	11.5078	-2.09722	2.1354	-	-
14.80000	-21.00000	114.00000	11.3901	-2.22385	1.9861	-	-
15.60000	-21.00000	114.00000	11.2554	-2.35396	1.8502	-	-
16.40000	-21.00000	114.00000	11.1077	-2.48755	1.7317	-	-
17.20000	-21.00000	114.00000	10.9500	-2.62462	1.6247	-	-
18.00000	-21.00000	114.00000	10.7773	-2.76517	1.5332	-	-
18.80000	-21.00000	114.00000	10.5946	-2.90930	1.4593	-	-
19.60000	-21.00000	114.00000	10.4059	-3.05701	1.3960	-	-
20.40000	-21.00000	114.00000	10.2152	-3.20830	1.3453	-	-
21.20000	-21.00000	114.00000	10.0255	-3.36317	1.3082	-	-
22.00000	-21.00000	114.00000	9.8400	-3.52162	1.2847	-	-
22.80000	-21.00000	114.00000	9.6623	-3.68365	1.2728	-	-
23.60000	-21.00000	114.00000	9.5056	-3.84926	1.2715	-	-
24.40000	-21.00000	114.00000	9.3729	-4.01845	1.2807	-	-
25.20000	-21.00000	114.00000	9.2682	-4.19122	1.2904	-	-
26.00000	-21.00000	114.00000	9.1955	-4.36757	1.3006	-	-
26.80000	-21.00000	114.00000	9.1478	-4.54760	1.3113	-	-
27.60000	-21.00000	114.00000	9.1181	-4.73131	1.3225	-	-
28.40000	-21.00000	114.00000	9.1004	-4.91870	1.3341	-	-
29.20000	-21.00000	114.00000	9.0987	-5.11077	1.3461	-	-
30.00000	-21.00000	114.00000	9.1070	-5.30752	1.3585	-	-
-10.00000	-22.00000	114.00000	0.034834	-0.002223	0.02267	-	-
-9.20000	-22.00000	114.00000	0.33351	-0.022234	0.27243	-	-
-8.40000	-22.00000	114.00000	0.63218	-0.042145	0.50445	-	-
-7.60000	-22.00000	114.00000	0.93085	-0.062057	0.76033	-	-
-6.80000	-22.00000	114.00000	1.22952	-0.081970	1.04159	-	-
-6.00000	-22.00000	114.00000	1.52819	-0.101882	1.34217	-	-
-5.20000	-22.00000	114.00000	1.82686	-0.121794	1.64575	-	-
-4.40000	-22.00000	114.00000	2.12553	-0.141706	1.95233	-	-
-3.60000	-22.00000	114.00000	2.42420	-0.161618	2.26191	-	-
-2.80000	-22.00000	114.00000	2.72287	-0.181530	2.57449	-	-
-2.00000	-22.00000	114.00000	3.02154	-0.201442	2.88907	-	-
-1.20000	-22.00000	114.00000	3.32021	-0.221354	3.20565	-	-
-0.40000	-22.00000	114.00000	3.61888	-0.241266	3.52423	-	-
0.40000	-22.00000	114.00000	3.91755	-0.261178	3.84481	-	-
1.20000	-22.00000	114.00000	4.21622	-0.281090	4.16739	-	-
2.00000	-22.00000	114.00000	4.51489	-0.301002	4.49207	-	-
2.80000	-22.00000	114.00000	4.81356	-0.320914	4.81875	-	-
3.60000	-22.00000	114.00000	5.11223	-0.340826	5.14743	-	-
4.40000	-22.00000	114.00000	5.41090	-0.360738	5.47811	-	-
5.20000	-22.00000	114.00000	5.70957	-0.380650	5.81179	-	-
6.00000	-22.00000	114.00000	6.00824	-0.400562	6.14847	-	-
6.80000	-22.00000	114.00000	6.30691	-0.420474	6.48915	-	-
7.60000	-22.00000	114.00000	6.60558	-0.440386	6.83383	-	-
8.40000	-22.00000	114.00000	6.90425	-0.460298	7.18251	-	-
9.20000	-22.00000	114.00000	7.20292	-0.480210	7.53519	-	-
10.00000	-22.00000	114.00000	7.50159	-0.500122	7.89187	-	-
10.80000	-22.00000	114.00000	7.80026	-0.520034	8.25255	-	-
11.60000	-22.00000	114.00000	8.09893	-0.540046	8.61723	-	-
12.40000	-22.00000	114.00000	8.39760	-0.560058	8.98591	-	-
13.20000	-22.00000	114.00000	8.69627	-0.580070	9.35859	-	-
14.00000	-22.00000	114.00000	8.99494	-0.600082	9.73527	-	-
14.80000	-22.00000	114.00000	9.29361	-0.620094	10.11595	-	-
15.60000	-22.00000	114.00000	9.59228	-0.640106	10.49963	-	-
16.40000	-22.00000	114.00000	9.89095	-0.660118	10.88631	-	-
17.20000	-22.00000	114.00000	10.18962	-0.680130	11.27599	-	-
18.00000	-22.00000	114.00000	10.48829	-0.700142	11.66867	-	-
18.80000	-22.00000	114.00000	10.78696	-0.720154	12.06435	-	-
19.60000	-22.00000	114.00000	11.08563	-0.740166	12.46303	-	-
20.40000	-22.00000	114.00000	11.38430	-0.760178	12.86471	-	-
21.20000	-22.00000	114.00000	11.68297	-0.780190	13.26939	-	-
22.00000	-22.00000	114.00000	11.98164	-0.800202	13.67707	-	-
22.80000	-22.00000	114.00000	12.28031	-0.820214	14.08775	-	-
23.60000	-22.00000	114.00000	12.57898	-0.840226	14.50143	-	-
24.40000	-22.00000	114.00000	12.87765	-0.860238	14.91811	-	-
25.20000	-22.00000	114.00000	13.17632	-0.880250	15.33779	-	-
26.00000	-22.00000	114.00000	13.47499	-0.900262	15.76047	-	-
26.80000	-22.00000	114.00000	13.77366	-0.920274	16.18615	-	-
27.60000	-22.00000	114.00000	14.07233	-0.940286	16.61483	-	-
28.40000	-22.00000	114.00000	14.37100	-0.960298	17.04651	-	-
29.20000	-22.00000	114.00000	14.66967	-0.980310	17.48119	-	-
30.00000	-22.00000	114.00000	14.96834	-1.000322	17.91887	-	-
-10.00000	-25.00000	114.00000	0.059723	-0.0039816	0.054005	-	-
-9.20000	-25.00000	114.00000	0.35840	-0.023893	0.29156	-	-
-8.40000	-25.00000	114.00000	0.65707	-0.043805	0.52449	-	-
-7.60000	-25.00000	114.00000	0.95574	-0.063717	0.78346	-	-
-6.80000	-25.00000	114.00000	1.25441	-0.083629	1.06896	-	-
-6.00000	-25.00000	114.00000	1.55308	-0.103541	1.38146	-	-
-5.20000	-25.00000	114.00000	1.85175	-0.123453	1.71196	-	-
-4.40000	-25.00000	114.00000	2.15042	-0.143365	2.06046	-	-
-3.60000	-25.00000	114.00000	2.44909	-0.163277	2.42796	-	-
-2.80000	-25.00000	114.00000	2.74776	-0.183189	2.81446	-	-
-2.00000	-25.00000	114.00000	3.04643	-0.203101	3.21996	-	-
-1.20000	-25.00000	114.00000	3.3451				



Channing Junior School, Highgate High Street, N6 5JR
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Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
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Made by	Date	Checked
MP	07-Dec-2017	

Type/No.	Coordinates			Displacements			Angle of Line		
Name	Dist.	x	y	x	y	z	Horizontal displacement	Horizontal displacement	to x Axis
20.40000	-25.00000	114.00000	-5.6709	-3.2405	4.5833	-	-	-	-
21.20000	-25.00000	114.00000	-3.3901	-1.9109	2.8906	-	-	-	-
22.00000	-25.00000	114.00000	-2.8385	-1.4014	2.5468	-	-	-	-
22.80000	-25.00000	114.00000	-2.3834	-1.0526	2.1955	-	-	-	-
23.60000	-25.00000	114.00000	-1.9917	-0.80006	1.8472	-	-	-	-
24.40000	-25.00000	114.00000	-1.6431	-0.60839	1.5146	-	-	-	-
25.20000	-25.00000	114.00000	-1.3242	-0.45580	1.2093	-	-	-	-
26.00000	-25.00000	114.00000	-1.0254	-0.33241	0.93929	-	-	-	-
26.80000	-25.00000	114.00000	-0.73909	-0.22674	0.70818	-	-	-	-
27.60000	-25.00000	114.00000	-0.49607	-0.14488	0.51494	-	-	-	-
28.40000	-25.00000	114.00000	-0.35198	-0.098254	0.35350	-	-	-	-
29.20000	-25.00000	114.00000	-0.21023	-0.056445	0.21267	-	-	-	-
30.00000	-25.00000	114.00000	-0.070364	-0.018218	0.075999	-	-	-	-
-10.00000	-26.00000	114.00000	0.13439	-0.0089594	0.11566	-	-	-	-
-9.20000	-26.00000	114.00000	0.43306	-0.028871	0.34887	-	-	-	-
-8.40000	-26.00000	114.00000	0.73174	-0.048782	0.58580	-	-	-	-
-7.60000	-26.00000	114.00000	1.0304	-0.068694	0.85496	-	-	-	-
-6.80000	-26.00000	114.00000	1.5234	-0.10156	1.1753	-	-	-	-
-6.00000	-26.00000	114.00000	2.1015	-0.14010	1.5554	-	-	-	-
-5.20000	-26.00000	114.00000	2.6873	-0.17916	1.9954	-	-	-	-
-4.40000	-26.00000	114.00000	3.2898	-0.21932	2.4854	-	-	-	-
-3.60000	-26.00000	114.00000	3.9179	-0.26119	3.0058	-	-	-	-
-2.80000	-26.00000	114.00000	4.5806	-0.30537	3.5277	-	-	-	-
-2.00000	-26.00000	114.00000	5.2859	-0.35246	4.0325	-	-	-	-
-1.20000	-26.00000	114.00000	6.0457	-0.40304	4.4121	-	-	-	-
-0.40000	-26.00000	114.00000	6.8660	-0.45773	4.6690	-	-	-	-
0.40000	-26.00000	114.00000	7.7568	-0.51712	4.7158	-	-	-	-
1.20000	-26.00000	114.00000	8.7271	-0.58181	4.4759	-	-	-	-
2.00000	-26.00000	114.00000				Point lies within an excavation.			
2.80000	-26.00000	114.00000				Point lies within an excavation.			
3.60000	-26.00000	114.00000				Point lies within an excavation.			
4.40000	-26.00000	114.00000				Point lies within an excavation.			
5.20000	-26.00000	114.00000				Point lies within an excavation.			
6.00000	-26.00000	114.00000				Point lies within an excavation.			
6.80000	-26.00000	114.00000				Point lies within an excavation.			
7.60000	-26.00000	114.00000				Point lies within an excavation.			
8.40000	-26.00000	114.00000				Point lies within an excavation.			
9.20000	-26.00000	114.00000				Point lies within an excavation.			
10.00000	-26.00000	114.00000				Point lies within an excavation.			
10.80000	-26.00000	114.00000				Point lies within an excavation.			
11.60000	-26.00000	114.00000				Point lies within an excavation.			
12.40000	-26.00000	114.00000				Point lies within an excavation.			
13.20000	-26.00000	114.00000				Point lies within an excavation.			
14.00000	-26.00000	114.00000				Point lies within an excavation.			
14.80000	-26.00000	114.00000				Point lies within an excavation.			
15.60000	-26.00000	114.00000				Point lies within an excavation.			
16.40000	-26.00000	114.00000				Point lies within an excavation.			
17.20000	-26.00000	114.00000				Point lies within an excavation.			
18.00000	-26.00000	114.00000				Point lies within an excavation.			
18.80000	-26.00000	114.00000	-7.5468	-4.3124	4.4975	-	-	-	-
19.60000	-26.00000	114.00000	-4.3620	-2.2213	3.0768	-	-	-	-
20.40000	-26.00000	114.00000	-3.5275	-1.3316	2.8905	-	-	-	-
21.20000	-26.00000	114.00000	-2.9774	-0.92554	2.6781	-	-	-	-
22.00000	-26.00000	114.00000	-2.5426	-0.68925	2.4146	-	-	-	-
22.80000	-26.00000	114.00000	-2.1711	-0.53135	2.1149	-	-	-	-
23.60000	-26.00000	114.00000	-1.8403	-0.41597	1.7999	-	-	-	-
24.40000	-26.00000	114.00000	-1.5376	-0.32608	1.4887	-	-	-	-
25.20000	-26.00000	114.00000	-1.2545	-0.25248	1.1968	-	-	-	-
26.00000	-26.00000	114.00000	-0.98456	-0.18965	0.93478	-	-	-	-
26.80000	-26.00000	114.00000	-0.72212	-0.13402	0.70934	-	-	-	-
27.60000	-26.00000	114.00000	-0.47982	-0.086241	0.51794	-	-	-	-
28.40000	-26.00000	114.00000	-0.34596	-0.060471	0.35879	-	-	-	-
29.20000	-26.00000	114.00000	-0.21297	-0.036325	0.22077	-	-	-	-
30.00000	-26.00000	114.00000	-0.08676	-0.013466	0.08403	-	-	-	-
-10.00000	-27.00000	114.00000	0.15928	-0.010619	0.13599	-	-	-	-
-9.20000	-27.00000	114.00000	0.45795	-0.030530	0.36801	-	-	-	-
-8.40000	-27.00000	114.00000	0.75663	-0.050442	0.60668	-	-	-	-
-7.60000	-27.00000	114.00000	1.0553	-0.070353	0.87950	-	-	-	-
-6.80000	-27.00000	114.00000	1.5715	-0.10476	1.2044	-	-	-	-
-6.00000	-27.00000	114.00000	2.1499	-0.14323	1.5939	-	-	-	-
-5.20000	-27.00000	114.00000	2.7368	-0.18245	2.0346	-	-	-	-
-4.40000	-27.00000	114.00000	3.3410	-0.22274	2.5279	-	-	-	-
-3.60000	-27.00000	114.00000	3.9717	-0.26478	3.0497	-	-	-	-
-2.80000	-27.00000	114.00000	4.6377	-0.30919	3.5701	-	-	-	-
-2.00000	-27.00000	114.00000	5.3480	-0.35653	4.0498	-	-	-	-
-1.20000	-27.00000	114.00000	6.1116	-0.40744	4.4399	-	-	-	-
-0.40000	-27.00000	114.00000	6.9374	-0.46249	4.6819	-	-	-	-
0.40000	-27.00000	114.00000	7.8345	-0.52230	4.7079	-	-	-	-
1.20000	-27.00000	114.00000	8.8118	-0.58745	4.4404	-	-	-	-
2.00000	-27.00000	114.00000				Point lies within an excavation.			
2.80000	-27.00000	114.00000				Point lies within an excavation.			
3.60000	-27.00000	114.00000				Point lies within an excavation.			
4.40000	-27.00000	114.00000				Point lies within an excavation.			
5.20000	-27.00000	114.00000				Point lies within an excavation.			
6.00000	-27.00000	114.00000				Point lies within an excavation.			
6.80000	-27.00000	114.00000				Point lies within an excavation.			
7.60000	-27.00000	114.00000				Point lies within an excavation.			
8.40000	-27.00000	114.00000				Point lies within an excavation.			
9.20000	-27.00000	114.00000				Point lies within an excavation.			
10.00000	-27.00000	114.00000				Point lies within an excavation.			
10.80000	-27.00000	114.00000				Point lies within an excavation.			
11.60000	-27.00000	114.00000				Point lies within an excavation.			
12.40000	-27.00000	114.00000				Point lies within an excavation.			
13.20000	-27.00000	114.00000				Point lies within an excavation.			
14.00000	-27.00000	114.00000				Point lies within an excavation.			
14.80000	-27.00000	114.00000				Point lies within an excavation.			
15.60000	-27.00000	114.00000				Point lies within an excavation.			
16.40000	-27.00000	114.00000				Point lies within an excavation.			
17.20000	-27.00000	114.00000				Point lies within an excavation.			
18.00000	-27.00000	114.00000	-4.6503	7.8474	4.3010	-	-	-	-
18.80000	-27.00000	114.00000	-2.9516	4.9510	3.0464	-	-	-	-
19.60000	-27.00000	114.00000	-2.7198	1.5476	2.5499	-	-	-	-
20.40000	-27.00000	114.00000	-2.4232	0.63849	2.3583	-	-	-	-
21.20000	-27.00000	114.00000	-2.2894	0.31315	2.3247	-	-	-	-
22.00000	-27.00000	114.00000	-2.0751	0.15234	2.1639	-	-	-	-
22.80000	-27.00000	114.00000	-1.8398	0.064992	1.9340	-	-	-	-
23.60000	-27.00000	114.00000	-1.6004	0.015908	1.6890	-	-	-	-
24.40000	-27.00000	114.00000	-1.3627	-0.011445	1.3947	-	-	-	-
25.20000	-27.00000	114.00000	-1.1279	-0.024540	1.1299	-	-	-	-
26.00000	-27.00000	114.00000	-0.8928	-0.02824	0.86797	-	-	-	-
26.80000	-27.00000	114.00000	-0.66268	-0.026999	0.67620	-	-	-	-
27.60000	-27.00000	114.00000	-0.44366	-0.021135	0.49646	-	-	-	-
28.40000	-27.00000	114.00000	-0.32191	-0.017184	0.34509	-	-	-	-
29.20000	-27.00000	114.00000	-0.19924	-0.011603	0.21295	-	-	-	-
30.00000	-27.00000	114.00000	-0.075825	-0.0047314	0.085487	-	-	-	-
-10.00000	-28.00000	114.00000	0.15847	-0.0073185	0.13486	-	-	-	-
-9.20000	-28.00000	114.00000	0.41800	-0.020517	0.33663	-	-	-	-
-8.40000	-28.00000	114.00000	0.67844	-0.035579	0.54683	-	-	-	-
-7.60000	-28.00000	114.00000	0.94000	-0.052991	0.78894	-	-	-	-
-6.80000	-28.00000	114.00000	1.4130	-0.086248	1.0782	-	-	-	-
-6.00000	-28.00000	114.00000	1.9237	-0.12825	1.4217	-	-	-	-
-5.20000	-28.00000	114.00000	2.7864	-0.18576	2.0740	-	-	-	-
-4.40000	-28.00000	114.00000	3.3925	-0.22616	2.5707	-	-	-	-
-3.60000	-28.00000	114.00000	4.0257	-0.26838	3.0936	-	-	-	-
-2.80000	-28.00000	114.00000	4.6950	-0.31300	3.6123	-	-	-	-
-2.00000	-28.00000	114.00000	5.4094	-0.36063	4.0865	-	-	-	-
-1.20000	-28.00000	114.00000	6.1779	-0.41186	4.4666	-	-	-	-
-0.40000	-28.00000	114.00000	7.0093	-0.46729	4.6933	-	-	-	-
0.40									



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement and Damage Assessment
Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
MP	07-Dec-2017	

Type/No.	Coordinates	Displacements	Angle of Line			
Name	Dist.	x y z	Horizontal Horizontal to x Axis			
		x y z	displacement displacement			
24.40000	-30.00000	114.00000	-0.93047 0.71368 1.1244	-	-	-
25.20000	-30.00000	114.00000	-0.75296 0.50342 0.88662	-	-	-
26.00000	-30.00000	114.00000	-0.57272 0.33629 0.68037	-	-	-
26.80000	-30.00000	114.00000	-0.38950 0.20214 0.50583	-	-	-
27.60000	-30.00000	114.00000	-0.20907 0.13514 0.38952	-	-	-
28.40000	-30.00000	114.00000	-0.19540 0.08042 0.23419	-	-	-
29.20000	-30.00000	114.00000	-0.09674 0.03569 0.11868	-	-	-
30.00000	-30.00000	114.00000	0.0 0.0 0.0	-	-	-
-10.00000	-31.00000	114.00000	0.066057 0.04236 0.062327	-	-	-
-9.20000	-31.00000	114.00000	0.28651 0.06690 0.24902	-	-	-
-8.40000	-31.00000	114.00000	0.50635 0.12883 0.42529	-	-	-
-7.60000	-31.00000	114.00000	0.72538 0.20222 0.64396	-	-	-
-6.80000	-31.00000	114.00000	1.0318 0.31724 0.89076	-	-	-
-6.00000	-31.00000	114.00000	1.4495 0.45929 1.1847	-	-	-
-5.20000	-31.00000	114.00000	1.8662 0.71508 1.5283	-	-	-
-4.40000	-31.00000	114.00000	2.2858 0.99280 1.9176	-	-	-
-3.60000	-31.00000	114.00000	2.7109 1.3520 2.3433	-	-	-
-2.80000	-31.00000	114.00000	3.1414 1.8272 2.7915	-	-	-
-2.00000	-31.00000	114.00000	4.0951 2.3888 3.6380	-	-	-
-1.20000	-31.00000	114.00000	4.6298 2.7007 4.0499	-	-	-
-0.40000	-31.00000	114.00000	5.1391 3.0232 4.3948	-	-	-
0.40000	-31.00000	114.00000	5.8080 3.3880 4.6351	-	-	-
1.20000	-31.00000	114.00000	6.4616 3.7693 4.7282	-	-	-
2.00000	-31.00000	114.00000	7.1649 4.1795 4.6256	-	-	-
2.80000	-31.00000	114.00000	7.9229 4.6217 4.2739	-	-	-
3.60000	-31.00000	114.00000		Point lies within an excavation.	-	-
4.40000	-31.00000	114.00000		Point lies within an excavation.	-	-
5.20000	-31.00000	114.00000		Point lies within an excavation.	-	-
6.00000	-31.00000	114.00000		Point lies within an excavation.	-	-
6.80000	-31.00000	114.00000		Point lies within an excavation.	-	-
7.60000	-31.00000	114.00000		Point lies within an excavation.	-	-
8.40000	-31.00000	114.00000		Point lies within an excavation.	-	-
9.20000	-31.00000	114.00000		Point lies within an excavation.	-	-
10.00000	-31.00000	114.00000		Point lies within an excavation.	-	-
10.80000	-31.00000	114.00000		Point lies within an excavation.	-	-
11.60000	-31.00000	114.00000	-4.5320 7.6478 4.4146	-	-	-
12.40000	-31.00000	114.00000	-4.2702 7.2059 4.6036	-	-	-
13.20000	-31.00000	114.00000	-4.0197 6.7832 4.7040	-	-	-
14.00000	-31.00000	114.00000	-3.7800 6.3787 4.7272	-	-	-
14.80000	-31.00000	114.00000	-3.5504 5.9912 4.6838	-	-	-
15.60000	-31.00000	114.00000	-3.3303 5.6198 4.5840	-	-	-
16.40000	-31.00000	114.00000	-3.1191 5.2635 4.4370	-	-	-
17.20000	-31.00000	114.00000	-2.9162 4.9211 4.2517	-	-	-
18.00000	-31.00000	114.00000	-2.7210 4.5917 4.0362	-	-	-
18.80000	-31.00000	114.00000	-2.5329 4.2742 3.7978	-	-	-
19.60000	-31.00000	114.00000	-2.3512 3.9676 3.5435	-	-	-
20.40000	-31.00000	114.00000	-2.1754 3.6709 3.2792	-	-	-
21.20000	-31.00000	114.00000	-2.0050 3.3948 3.0150	-	-	-
22.00000	-31.00000	114.00000	-1.8399 3.1399 2.7515	-	-	-
22.80000	-31.00000	114.00000	-1.6794 2.8954 2.4891	-	-	-
23.60000	-31.00000	114.00000	-1.5228 2.6604 2.2282	-	-	-
24.40000	-31.00000	114.00000	-1.3704 2.4349 1.9689	-	-	-
25.20000	-31.00000	114.00000	-1.2226 2.2184 1.7104	-	-	-
26.00000	-31.00000	114.00000	-1.0791 2.0109 1.4634	-	-	-
26.80000	-31.00000	114.00000	-0.94247 1.8124 1.2262	-	-	-
27.60000	-31.00000	114.00000	-0.78579 1.6248 0.9908	-	-	-
28.40000	-31.00000	114.00000	-0.62272 1.4480 0.77738	-	-	-
29.20000	-31.00000	114.00000	-0.45368 1.2821 0.59360	-	-	-
30.00000	-31.00000	114.00000	-0.33249 1.1269 0.43695	-	-	-
27.60000	-31.00000	114.00000	-0.24032 0.15099 0.30308	-	-	-
28.40000	-31.00000	114.00000	-0.14641 0.082308 0.18390	-	-	-
29.20000	-31.00000	114.00000	-0.051060 0.026410 0.067391	-	-	-
30.00000	-31.00000	114.00000	0.0 0.0 0.0	-	-	-
-10.00000	-32.00000	114.00000	0.0 0.0 0.0	-	-	-
-9.20000	-32.00000	114.00000	0.21010 0.070406 0.19015	-	-	-
-8.40000	-32.00000	114.00000	0.42459 0.15407 0.37384	-	-	-
-7.60000	-32.00000	114.00000	0.63722 0.25166 0.57150	-	-	-
-6.80000	-32.00000	114.00000	0.84753 0.36639 0.80023	-	-	-
-6.00000	-32.00000	114.00000	1.2473 0.59409 1.0704	-	-	-
-5.20000	-32.00000	114.00000	1.6415 0.86789 1.3860	-	-	-
-4.40000	-32.00000	114.00000	2.3210 1.3533 2.1905	-	-	-
-3.60000	-32.00000	114.00000	2.7713 1.6166 2.4120	-	-	-
-2.80000	-32.00000	114.00000	3.2373 1.8884 2.8590	-	-	-
-2.00000	-32.00000	114.00000	3.7241 2.1724 3.3140	-	-	-
-1.20000	-32.00000	114.00000	4.2368 2.4715 3.7542	-	-	-
-0.40000	-32.00000	114.00000	4.7804 2.7886 4.1514	-	-	-
0.40000	-32.00000	114.00000	5.3599 3.1266 4.4719	-	-	-
1.20000	-32.00000	114.00000	5.9804 3.4886 4.7668	-	-	-
2.00000	-32.00000	114.00000	6.6470 3.8774 4.7218	-	-	-
2.80000	-32.00000	114.00000	7.3646 4.2960 4.5573	-	-	-
3.60000	-32.00000	114.00000		Point lies within an excavation.	-	-
4.40000	-32.00000	114.00000		Point lies within an excavation.	-	-
5.20000	-32.00000	114.00000		Point lies within an excavation.	-	-
6.00000	-32.00000	114.00000		Point lies within an excavation.	-	-
6.80000	-32.00000	114.00000		Point lies within an excavation.	-	-
7.60000	-32.00000	114.00000		Point lies within an excavation.	-	-
8.40000	-32.00000	114.00000		Point lies within an excavation.	-	-
9.20000	-32.00000	114.00000		Point lies within an excavation.	-	-
10.00000	-32.00000	114.00000		Point lies within an excavation.	-	-
10.80000	-32.00000	114.00000	-4.2422 7.1588 4.6186	-	-	-
11.60000	-32.00000	114.00000	-3.9930 6.7381 4.7101	-	-	-
12.40000	-32.00000	114.00000	-3.7544 6.3355 4.7255	-	-	-
13.20000	-32.00000	114.00000	-3.5258 5.9498 4.6755	-	-	-
14.00000	-32.00000	114.00000	-3.3067 5.5801 4.5700	-	-	-
14.80000	-32.00000	114.00000	-3.0965 5.2253 4.4185	-	-	-
15.60000	-32.00000	114.00000	-2.8945 4.8844 4.2295	-	-	-
16.40000	-32.00000	114.00000	-2.7001 4.5564 4.0111	-	-	-
17.20000	-32.00000	114.00000	-2.5127 4.2402 3.7707	-	-	-
18.00000	-32.00000	114.00000	-2.3317 3.9347 3.5149	-	-	-
18.80000	-32.00000	114.00000	-2.1565 3.6390 3.2500	-	-	-
19.60000	-32.00000	114.00000	-1.9864 3.3521 2.9812	-	-	-
20.40000	-32.00000	114.00000	-1.8209 3.0728 2.7133	-	-	-
21.20000	-32.00000	114.00000	-1.6594 2.8002 2.4505	-	-	-
22.00000	-32.00000	114.00000	-1.5015 2.5456 2.1923	-	-	-
22.80000	-32.00000	114.00000	-0.89341 1.2949 1.2393	-	-	-
23.60000	-32.00000	114.00000	-0.76316 0.98770 1.0244	-	-	-
24.40000	-32.00000	114.00000	-0.62223 0.72199 0.82514	-	-	-
25.20000	-32.00000	114.00000	-0.47209 0.49322 0.64625	-	-	-
26.00000	-32.00000	114.00000	-0.34996 0.33063 0.48946	-	-	-
26.80000	-32.00000	114.00000	-0.26509 0.22741 0.35313	-	-	-
27.60000	-32.00000	114.00000	-0.17750 0.13880 0.23204	-	-	-
28.40000	-32.00000	114.00000	-0.087675 0.062722 0.11721	-	-	-
29.20000	-32.00000	114.00000	0.0 0.0 0.0	-	-	-
30.00000	-32.00000	114.00000	0.0 0.0 0.0	-	-	-
-10.00000	-33.00000	114.00000	0.0 0.0 0.0	-	-	-
-9.20000	-33.00000	114.00000	0.11110 0.047905 0.10663	-	-	-
-8.40000	-33.00000	114.00000	0.21877 0.14813 0.28974	-	-	-
-7.60000	-33.00000	114.00000	0.52366 0.26329 0.47529	-	-	-
-6.80000	-33.00000	114.00000	0.72511 0.39646 0.68160	-	-	-
-6.00000	-33.00000	114.00000	1.1321 0.6041 1.0489	-	-	-
-5.20000	-33.00000	114.00000	1.5650 0.91289 1.3547	-	-	-
-4.40000	-33.00000	114.00000	1.9998 1.1665 1.7064	-	-	-
-3.60000	-33.00000	114.00000	2.4417 1.4243 2.1014	-	-	-
-2.80000	-33.00000	114.00000	2.8957 1.6892 2.5312	-	-	-
-2.00000	-33.00000	114.00000	3.3669 1.9640 2.9823	-	-	-
-1.20000	-33.00000	114.00000	3.8602 2.2518 3.4358	-	-	-
-0.40000	-33.00000	114.00000	4.3808 2.5554 3.8973	-	-	-
0.40000	-33.00000	114.00000	4.9336 2.8779 4.2473	-	-	-
1.20000	-33.00000	114.00000	5.5237 3.2222 4.5405	-	-	-
2.00000	-33.00000	114.00000	6.1562 3.5911 4.7068	-	-	-
2.80000	-33.00000	114.00000	6.8361 3.9877 4.7002	-	-	-
3.60000	-33.00000	114.00000	7.5684 4.4149 4.6696	-	-	-
4.40000	-33.00000	114.00000		Point lies within an excavation.	-	-
5.20000	-33.00000	114.00000		Point lies within an excavation.	-	-



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement and Damage Assessment
Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
MP	07-Dec-2017	

Type/No.	Coordinates	Displacements	Angle of Line			
Name	Dist.	x y z	Horizontal Horizontal to x Axis			
		x y z	displacement displacement			
6.00000	-33.00000	114.00000		Point lies within an excavation.	-	-
6.80000	-33.00000	114.00000		Point lies within an excavation.	-	-
7.60000	-33.00000					



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement and Damage Assessment
Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
Drg. Ref.		
Made by MP	Date 07-Dec-2017	Checked

Type/No.	Coordinates			Displacements			Angle of Line	
Name	Dist.	x	y	z	x	y	Horizontal displacement	Horizontal displacement
28.40000	-35.00000	114.00000	0.0	0.0	0.0	0.0	-	-
29.20000	-35.00000	114.00000	0.0	0.0	0.0	0.0	-	-
30.00000	-35.00000	114.00000	0.0	0.0	0.0	0.0	-	-
-10.00000	-36.00000	114.00000	0.0	0.0	0.0	0.0	-	-
-9.20000	-36.00000	114.00000	0.0	0.0	0.0	0.0	-	-
-8.40000	-36.00000	114.00000	0.0	0.0	0.0	0.0	-	-
-7.60000	-36.00000	114.00000	0.11680	0.068132	0.11629	-	-	-
-6.80000	-36.00000	114.00000	0.34063	0.19870	0.31848	-	-	-
-6.00000	-36.00000	114.00000	0.56447	0.32927	0.52042	-	-	-
-5.20000	-36.00000	114.00000	0.78830	0.45984	0.74171	-	-	-
-4.40000	-36.00000	114.00000	1.0508	0.61297	0.95655	-	-	-
-3.60000	-36.00000	114.00000	1.4838	0.86555	1.2938	-	-	-
-2.80000	-36.00000	114.00000	1.9179	1.1188	1.6370	-	-	-
-2.00000	-36.00000	114.00000	2.3581	1.3755	2.0243	-	-	-
-1.20000	-36.00000	114.00000	2.8094	1.6388	2.4485	-	-	-
-0.40000	-36.00000	114.00000	3.2770	1.9116	2.8969	-	-	-
0.40000	-36.00000	114.00000	3.7658	2.1967	3.3516	-	-	-
1.20000	-36.00000	114.00000	4.2808	2.4972	3.7894	-	-	-
2.00000	-36.00000	114.00000	4.8272	2.8159	4.1815	-	-	-
2.80000	-36.00000	114.00000	5.3327	3.1048	4.5283	-	-	-
3.60000	-36.00000	114.00000	5.7969	3.3525	4.8235	-	-	-
4.40000	-36.00000	114.00000	6.2270	3.5598	5.0700	-	-	-
5.20000	-36.00000	114.00000	6.6233	3.7324	5.2725	-	-	-
6.00000	-36.00000	114.00000	6.9857	3.8707	5.4359	-	-	-
6.80000	-36.00000	114.00000	7.3142	3.9747	5.5652	-	-	-
7.60000	-36.00000	114.00000	7.6087	4.0542	5.6684	-	-	-
8.40000	-36.00000	114.00000	7.8682	4.1102	5.7484	-	-	-
9.20000	-36.00000	114.00000	8.0927	4.1442	5.8000	-	-	-
10.00000	-36.00000	114.00000	8.2822	4.1572	5.8284	-	-	-
10.80000	-36.00000	114.00000	8.4367	4.1592	5.8398	-	-	-
11.60000	-36.00000	114.00000	8.5562	4.1502	5.8342	-	-	-
12.40000	-36.00000	114.00000	8.6407	4.1302	5.8126	-	-	-
13.20000	-36.00000	114.00000	8.6902	4.0992	5.7770	-	-	-
14.00000	-36.00000	114.00000	8.7047	4.0572	5.7284	-	-	-
14.80000	-36.00000	114.00000	8.6842	4.0052	5.6678	-	-	-
15.60000	-36.00000	114.00000	8.6287	3.9432	5.5962	-	-	-
16.40000	-36.00000	114.00000	8.5392	3.8722	5.5146	-	-	-
17.20000	-36.00000	114.00000	8.4157	3.7932	5.4230	-	-	-
18.00000	-36.00000	114.00000	8.2592	3.7072	5.3214	-	-	-
18.80000	-36.00000	114.00000	8.0707	3.6152	5.2108	-	-	-
19.60000	-36.00000	114.00000	7.8502	3.5182	5.0912	-	-	-
20.40000	-36.00000	114.00000	7.6077	3.4172	4.9636	-	-	-
21.20000	-36.00000	114.00000	7.3442	3.3132	4.8290	-	-	-
22.00000	-36.00000	114.00000	7.0607	3.2072	4.6874	-	-	-
22.80000	-36.00000	114.00000	6.7582	3.1002	4.5398	-	-	-
23.60000	-36.00000	114.00000	6.4367	2.9922	4.3872	-	-	-
24.40000	-36.00000	114.00000	6.0972	2.8842	4.2306	-	-	-
25.20000	-36.00000	114.00000	5.7407	2.7762	4.0700	-	-	-
26.00000	-36.00000	114.00000	5.3682	2.6682	3.9064	-	-	-
26.80000	-36.00000	114.00000	4.9807	2.5602	3.7408	-	-	-
27.60000	-36.00000	114.00000	4.5782	2.4522	3.5742	-	-	-
28.40000	-36.00000	114.00000	4.1607	2.3442	3.4076	-	-	-
29.20000	-36.00000	114.00000	3.7282	2.2362	3.2410	-	-	-
30.00000	-36.00000	114.00000	3.2807	2.1282	3.0744	-	-	-
-10.00000	-37.00000	114.00000	0.0	0.0	0.0	-	-	-
-9.20000	-37.00000	114.00000	0.0	0.0	0.0	-	-	-
-8.40000	-37.00000	114.00000	0.0	0.0	0.0	-	-	-
-7.60000	-37.00000	114.00000	0.0	0.0	0.0	-	-	-
-6.80000	-37.00000	114.00000	0.17742	0.10349	0.17240	-	-	-
-6.00000	-37.00000	114.00000	0.23408	0.14025	0.23228	-	-	-
-5.20000	-37.00000	114.00000	0.62509	0.36463	0.57775	-	-	-
-4.40000	-37.00000	114.00000	0.84892	0.49520	0.80694	-	-	-
-3.60000	-37.00000	114.00000	1.16683	0.68148	1.0726	-	-	-
-2.80000	-37.00000	114.00000	1.6010	0.93394	1.3822	-	-	-
-2.00000	-37.00000	114.00000	2.0363	1.1878	1.7378	-	-	-
-1.20000	-37.00000	114.00000	2.4790	1.4461	2.1360	-	-	-
-0.40000	-37.00000	114.00000	2.9242	1.7114	2.5682	-	-	-
0.40000	-37.00000	114.00000	3.4070	1.9874	3.0203	-	-	-
1.20000	-37.00000	114.00000	3.8497	2.2738	3.4925	-	-	-
2.00000	-37.00000	114.00000	4.3007	2.5702	3.9847	-	-	-
2.80000	-37.00000	114.00000	4.7592	2.8766	4.4970	-	-	-
3.60000	-37.00000	114.00000	5.2242	3.1930	5.0292	-	-	-
4.40000	-37.00000	114.00000	5.6957	3.5194	5.5814	-	-	-
5.20000	-37.00000	114.00000	6.1732	3.8558	6.1536	-	-	-
6.00000	-37.00000	114.00000	6.6567	4.2022	6.7458	-	-	-
6.80000	-37.00000	114.00000	7.1462	4.5586	7.3580	-	-	-
7.60000	-37.00000	114.00000	7.6417	4.9250	7.9902	-	-	-
8.40000	-37.00000	114.00000	8.1432	5.3014	8.6424	-	-	-
9.20000	-37.00000	114.00000	8.6517	5.6878	9.3146	-	-	-
10.00000	-37.00000	114.00000	9.1662	6.0842	10.0068	-	-	-
10.80000	-37.00000	114.00000	9.6867	6.4906	10.7190	-	-	-
11.60000	-37.00000	114.00000	10.2132	6.9070	11.4512	-	-	-
12.40000	-37.00000	114.00000	10.7457	7.3334	12.2034	-	-	-
13.20000	-37.00000	114.00000	11.2842	7.7798	12.9756	-	-	-
14.00000	-37.00000	114.00000	11.8287	8.2462	13.7678	-	-	-
14.80000	-37.00000	114.00000	12.3792	8.7326	14.5800	-	-	-
15.60000	-37.00000	114.00000	12.9357	9.2390	15.4122	-	-	-
16.40000	-37.00000	114.00000	13.4982	9.7654	16.2644	-	-	-
17.20000	-37.00000	114.00000	14.0667	10.3118	17.1366	-	-	-
18.00000	-37.00000	114.00000	14.6412	10.8782	18.0288	-	-	-
18.80000	-37.00000	114.00000	15.2217	11.4646	18.9410	-	-	-
19.60000	-37.00000	114.00000	15.8082	12.0710	19.8732	-	-	-
20.40000	-37.00000	114.00000	16.4007	12.6974	20.8254	-	-	-
21.20000	-37.00000	114.00000	17.0002	13.3438	21.7976	-	-	-
22.00000	-37.00000	114.00000	17.6067	14.0102	22.7898	-	-	-
22.80000	-37.00000	114.00000	18.2292	14.6966	23.8020	-	-	-
23.60000	-37.00000	114.00000	18.8677	15.4030	24.8342	-	-	-
24.40000	-37.00000	114.00000	19.5222	16.1294	25.8864	-	-	-
25.20000	-37.00000	114.00000	20.1927	16.8758	26.9586	-	-	-
26.00000	-37.00000	114.00000	20.8792	17.6422	28.0508	-	-	-
26.80000	-37.00000	114.00000	21.5817	18.4286	29.1630	-	-	-
27.60000	-37.00000	114.00000	22.2992	19.2350	30.2952	-	-	-
28.40000	-37.00000	114.00000	23.0317	20.0614	31.4474	-	-	-
29.20000	-37.00000	114.00000	23.7792	20.9078	32.6196	-	-	-
30.00000	-37.00000	114.00000	24.5417	21.7742	33.8118	-	-	-
-10.00000	-38.00000	114.00000	0.0	0.0	0.0	-	-	-
-9.20000	-38.00000	114.00000	0.0	0.0	0.0	-	-	-
-8.40000	-38.00000	114.00000	0.0	0.0	0.0	-	-	-
-7.60000	-38.00000	114.00000	0.0	0.0	0.0	-	-	-
-6.80000	-38.00000	114.00000	0.014207	0.0082875	0.016904	-	-	-
-6.00000	-38.00000	114.00000	0.23804	0.13886	0.22722	-	-	-
-5.20000	-38.00000	114.00000	0.46188	0.26943	0.42652	-	-	-
-4.40000	-38.00000	114.00000	0.68571	0.40000	0.62685	-	-	-
-3.60000	-38.00000	114.00000	0.90954	0.53057	0.87489	-	-	-
-2.80000	-38.00000	114.00000	1.2855	0.74988	1.1520	-	-	-
-2.00000	-38.00000	114.00000	1.7185	1.0204	1.4740	-	-	-
-1.20000	-38.00000	114.00000	2.1552	1.2572	1.8417	-	-	-
-0.40000	-38.00000	114.00000	2.6444	1.5109	2.2554	-	-	-
0.40000	-38.00000	114.00000	3.1853	1.7813	2.7076	-	-	-
1.20000	-38.00000	114.00000	3.7689	2.0777	3.1998	-	-	-
2.00000	-38.00000	114.00000	4.3940	2.3991	3.7320	-	-	-
2.80000	-38.00000	114.00000	5.0605	2.7455	4.3042	-	-	-
3.60000	-38.00000	114.00000	5.7680	3.1169	4.9164	-	-	-
4.40000	-38.00000	114.00000	6.5155	3.5133	5.5686	-	-	-
5.20000	-38.00000	114.00000	7.3030	3.9347	6.2608	-	-	-
6.00000	-38.00000	114.00000	8.1305	4.3811	6.9930	-	-	-
6.80000	-38.00000	114.00000	9.0080	4.8525	7.7652	-	-	-
7.60000	-38.00000	114.00000	9.9355	5.3489	8.5774	-	-	-
8.40000	-38.00000	114.00000	10.9130	5.8703	9.4296	-	-	-
9.20000	-38.00							



Channing Junior School, Highgate High Street, N6 5JR
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Job No.	Sheet No.	Rev.
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Made by	Date	Checked
MP	07-Dec-2017	

Type/No.	Coordinates			Displacements			Angle of Line
Name	Dist.	x	y	x	y	z	Horizontal displacement
-8.40000	-41.00000	114.00000	0.0	0.0	0.0	0.0	-
-7.60000	-41.00000	114.00000	0.0	0.0	0.0	0.0	-
-6.80000	-41.00000	114.00000	0.0	0.0	0.0	0.0	-
-6.00000	-41.00000	114.00000	0.0	0.0	0.0	0.0	-
-5.20000	-41.00000	114.00000	0.0	0.0	0.0	0.0	-
-4.40000	-41.00000	114.00000	0.11329	0.072109	0.11673	-	-
-3.60000	-41.00000	114.00000	0.22987	0.15400	0.23534	-	-
-2.80000	-41.00000	114.00000	0.32761	0.23326	0.34854	-	-
-2.00000	-41.00000	114.00000	0.40373	0.30937	0.46265	-	-
-1.20000	-41.00000	114.00000	0.45802	0.38400	0.57906	-	-
-0.40000	-41.00000	114.00000	0.54888	0.51866	0.83508	-	-
0.40000	-41.00000	114.00000	0.58619	0.63481	0.80493	-	-
1.20000	-41.00000	114.00000	0.56683	0.74235	0.90100	-	-
2.00000	-41.00000	114.00000	0.48960	0.83530	0.97533	-	-
2.80000	-41.00000	114.00000	0.35701	0.91094	1.02111	-	-
3.60000	-41.00000	114.00000	0.18617	1.00111	1.07211	-	-
4.40000	-41.00000	114.00000	770.208E-6	1.13800	1.16588	-	-
5.20000	-41.00000	114.00000	-0.19615	1.25229	1.23181	-	-
6.00000	-41.00000	114.00000	-0.38428	1.33444	1.26333	-	-
6.80000	-41.00000	114.00000	-0.54444	1.37332	1.25622	-	-
7.60000	-41.00000	114.00000	-0.66174	1.36255	1.21010	-	-
8.40000	-41.00000	114.00000	-0.72713	1.30337	1.12891	-	-
9.20000	-41.00000	114.00000	-1.04428	1.75997	1.51281	-	-
10.00000	-41.00000	114.00000	-0.89178	1.50459	1.31400	-	-
10.80000	-41.00000	114.00000	-0.74107	1.25061	1.13141	-	-
11.60000	-41.00000	114.00000	-0.59003	0.99568	0.96450	-	-
12.40000	-41.00000	114.00000	-0.43926	0.81220	0.81220	-	-
13.20000	-41.00000	114.00000	-0.42589	0.71868	0.67279	-	-
14.00000	-41.00000	114.00000	-0.34792	0.58711	0.54390	-	-
14.80000	-41.00000	114.00000	-0.26995	0.45554	0.42248	-	-
15.60000	-41.00000	114.00000	-0.19198	0.32398	0.30488	-	-
16.40000	-41.00000	114.00000	-0.11401	0.19239	0.18675	-	-
17.20000	-41.00000	114.00000	-0.03604	0.060817	0.063117	-	-
18.00000	-41.00000	114.00000	0.0	0.0	0.0	-	-
18.80000	-41.00000	114.00000	0.0	0.0	0.0	-	-
19.60000	-41.00000	114.00000	0.0	0.0	0.0	-	-
20.40000	-41.00000	114.00000	0.0	0.0	0.0	-	-
21.20000	-41.00000	114.00000	0.0	0.0	0.0	-	-
22.00000	-41.00000	114.00000	0.0	0.0	0.0	-	-
22.80000	-41.00000	114.00000	0.0	0.0	0.0	-	-
23.60000	-41.00000	114.00000	0.0	0.0	0.0	-	-
24.40000	-41.00000	114.00000	0.0	0.0	0.0	-	-
25.20000	-41.00000	114.00000	0.0	0.0	0.0	-	-
26.00000	-41.00000	114.00000	0.0	0.0	0.0	-	-
26.80000	-41.00000	114.00000	0.0	0.0	0.0	-	-
27.60000	-41.00000	114.00000	0.0	0.0	0.0	-	-
28.40000	-41.00000	114.00000	0.0	0.0	0.0	-	-
29.20000	-41.00000	114.00000	0.0	0.0	0.0	-	-
30.00000	-41.00000	114.00000	0.0	0.0	0.0	-	-
-10.00000	-42.00000	114.00000	0.0	0.0	0.0	-	-
-9.20000	-42.00000	114.00000	0.0	0.0	0.0	-	-
-8.40000	-42.00000	114.00000	0.0	0.0	0.0	-	-
-7.60000	-42.00000	114.00000	0.0	0.0	0.0	-	-
-6.80000	-42.00000	114.00000	0.0	0.0	0.0	-	-
-6.00000	-42.00000	114.00000	0.0	0.0	0.0	-	-
-5.20000	-42.00000	114.00000	0.0	0.0	0.0	-	-
-4.40000	-42.00000	114.00000	0.0	0.0	0.0	-	-
-3.60000	-42.00000	114.00000	0.10143	0.074426	0.11565	-	-
-2.80000	-42.00000	114.00000	0.18975	0.14909	0.21878	-	-
-2.00000	-42.00000	114.00000	0.22225	0.25829	0.31425	-	-
-1.20000	-42.00000	114.00000	0.30500	0.28731	0.40605	-	-
-0.40000	-42.00000	114.00000	0.32802	0.34954	0.49444	-	-
0.40000	-42.00000	114.00000	0.34540	0.43044	0.57681	-	-
1.20000	-42.00000	114.00000	0.34414	0.52653	0.64981	-	-
2.00000	-42.00000	114.00000	0.29880	0.60852	0.70544	-	-
2.80000	-42.00000	114.00000	0.21353	0.67376	0.74222	-	-
3.60000	-42.00000	114.00000	0.10704	0.76381	0.80274	-	-
4.40000	-42.00000	114.00000	-0.013998	0.85993	0.86740	-	-
5.20000	-42.00000	114.00000	-0.14204	0.93604	0.91071	-	-
6.00000	-42.00000	114.00000	-0.26361	1.01234	0.92834	-	-
6.80000	-42.00000	114.00000	-0.36577	0.99899	0.91807	-	-
7.60000	-42.00000	114.00000	-0.43779	0.97500	0.88026	-	-
8.40000	-42.00000	114.00000	-0.47198	0.91023	0.81778	-	-
9.20000	-42.00000	114.00000	-0.46385	0.80425	0.73541	-	-
10.00000	-42.00000	114.00000	-0.57330	0.96744	0.94716	-	-
10.80000	-42.00000	114.00000	-0.49533	0.83587	0.79637	-	-
11.60000	-42.00000	114.00000	-0.41736	0.70429	0.65923	-	-
12.40000	-42.00000	114.00000	-0.33939	0.57272	0.53031	-	-
13.20000	-42.00000	114.00000	-0.26142	0.44115	0.40951	-	-
14.00000	-42.00000	114.00000	-0.18345	0.30957	0.29206	-	-
14.80000	-42.00000	114.00000	-0.10548	0.17800	0.17359	-	-
15.60000	-42.00000	114.00000	-0.027512	0.046426	0.049028	-	-
16.40000	-42.00000	114.00000	0.0	0.0	0.0	-	-
17.20000	-42.00000	114.00000	0.0	0.0	0.0	-	-
18.00000	-42.00000	114.00000	0.0	0.0	0.0	-	-
18.80000	-42.00000	114.00000	0.0	0.0	0.0	-	-
19.60000	-42.00000	114.00000	0.0	0.0	0.0	-	-
20.40000	-42.00000	114.00000	0.0	0.0	0.0	-	-
21.20000	-42.00000	114.00000	0.0	0.0	0.0	-	-
22.00000	-42.00000	114.00000	0.0	0.0	0.0	-	-
22.80000	-42.00000	114.00000	0.0	0.0	0.0	-	-
23.60000	-42.00000	114.00000	0.0	0.0	0.0	-	-
24.40000	-42.00000	114.00000	0.0	0.0	0.0	-	-
25.20000	-42.00000	114.00000	0.0	0.0	0.0	-	-
26.00000	-42.00000	114.00000	0.0	0.0	0.0	-	-
26.80000	-42.00000	114.00000	0.0	0.0	0.0	-	-
27.60000	-42.00000	114.00000	0.0	0.0	0.0	-	-
28.40000	-42.00000	114.00000	0.0	0.0	0.0	-	-
29.20000	-42.00000	114.00000	0.0	0.0	0.0	-	-
30.00000	-42.00000	114.00000	0.0	0.0	0.0	-	-
-10.00000	-43.00000	114.00000	0.0	0.0	0.0	-	-
-9.20000	-43.00000	114.00000	0.0	0.0	0.0	-	-
-8.40000	-43.00000	114.00000	0.0	0.0	0.0	-	-
-7.60000	-43.00000	114.00000	0.0	0.0	0.0	-	-
-6.80000	-43.00000	114.00000	0.0	0.0	0.0	-	-
-6.00000	-43.00000	114.00000	0.0	0.0	0.0	-	-
-5.20000	-43.00000	114.00000	0.0	0.0	0.0	-	-
-4.40000	-43.00000	114.00000	0.0	0.0	0.0	-	-
-3.60000	-43.00000	114.00000	0.0	0.0	0.0	-	-
-2.80000	-43.00000	114.00000	0.067866	0.058653	0.088799	-	-
-2.00000	-43.00000	114.00000	0.13246	0.12518	0.17759	-	-
-1.20000	-43.00000	114.00000	0.17801	0.18742	0.25276	-	-
-0.40000	-43.00000	114.00000	0.20350	0.24873	0.32629	-	-
0.40000	-43.00000	114.00000	0.20836	0.29641	0.38944	-	-
1.20000	-43.00000	114.00000	0.19276	0.34169	0.44362	-	-
2.00000	-43.00000	114.00000	0.15784	0.37981	0.46633	-	-
2.80000	-43.00000	114.00000	0.11285	0.43681	0.51530	-	-
3.60000	-43.00000	114.00000	0.054699	0.51524	0.57077	-	-
4.40000	-43.00000	114.00000	-0.018871	0.58066	0.61412	-	-
5.20000	-43.00000	114.00000	-0.092910	0.62756	0.64171	-	-
6.00000	-43.00000	114.00000	-0.16384	0.65056	0.65086	-	-
6.80000	-43.00000	114.00000	-0.22038	0.64496	0.64035	-	-
7.60000	-43.00000	114.00000	-0.26441	0.60716	0.61056	-	-
8.40000	-43.00000	114.00000	-0.27339	0.56334	0.56341	-	-
9.20000	-43.00000	114.00000	-0.28226	0.52075	0.50181	-	-
10.00000	-43.00000	114.00000	-0.27130	0.45943	0.42900	-	-
10.80000	-43.00000	114.00000	-0.33086	0.55833	0.51681	-	-
11.60000	-43.00000	114.00000	-0.25289	0.42676	0.39657	-	-
12.40000	-43.00000	114.00000	-0.17492	0.29513	0.27924	-	-
13.20000	-43.00000	114.00000	-0.096953	0.16361	0.16036	-	-



Channing Junior School, Highgate High Street, N6 5JR
 Ground Movement and Damage Assessment
 Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by	Date	Checked
MP	07-Dec-2017	

Type/No.	Coordinates			Displacements			Angle of Line
Name	Dist.	x	y	x	y	z	Horizontal displacement
14.80000	-43.00000	114.00000	-0.018984	0.032035	0.034798	-	-
14.80000	-43.00000	114.00000	0.0	0.0	0.0	-	



Channing Junior School, Highgate High Street, N6 5JR
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Job No.	Sheet No.	Rev.
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MP	07-Dec-2017	

Type/No.	Coordinates			Displacements			Angle of Line
Name	Dist.	x	y	x	y	z	to x Axis
				Horizontal displacement		Horizontal displacement	
-4.40000	-46.00000	114.00000	0.0	0.0	0.0	0.0	-
-3.60000	-46.00000	114.00000	0.0	0.0	0.0	0.0	-
-2.80000	-46.00000	114.00000	0.0	0.0	0.0	0.0	-
-2.00000	-46.00000	114.00000	0.0	0.0	0.0	0.0	-
-1.20000	-46.00000	114.00000	0.0	0.0	0.0	0.0	-
-0.40000	-46.00000	114.00000	0.0	0.0	0.0	0.0	-
0.40000	-46.00000	114.00000	0.0	0.0	0.0	0.0	-
1.20000	-46.00000	114.00000	0.0	0.0	0.0	0.0	-
2.00000	-46.00000	114.00000	0.0038388	0.014660	0.019857	-	-
2.80000	-46.00000	114.00000	0.0057817	0.039217	0.048685	-	-
3.60000	-46.00000	114.00000	0.0024992	0.058992	0.069891	-	-
4.40000	-46.00000	114.00000	-0.0038881	0.072559	0.083097	-	-
5.20000	-46.00000	114.00000	-0.011050	0.078500	0.087692	-	-
6.00000	-46.00000	114.00000	-0.015572	0.075464	0.082936	-	-
6.80000	-46.00000	114.00000	-0.018086	0.062243	0.067994	-	-
7.60000	-46.00000	114.00000	-0.013402	0.037834	0.041866	-	-
8.40000	-46.00000	114.00000	-610.97E-6	0.0014859	0.0031772	-	-
9.20000	-46.00000	114.00000	0.0	0.0	0.0	-	-
10.00000	-46.00000	114.00000	0.0	0.0	0.0	-	-
10.80000	-46.00000	114.00000	0.0	0.0	0.0	-	-
11.60000	-46.00000	114.00000	0.0	0.0	0.0	-	-
12.40000	-46.00000	114.00000	0.0	0.0	0.0	-	-
13.20000	-46.00000	114.00000	0.0	0.0	0.0	-	-
14.00000	-46.00000	114.00000	0.0	0.0	0.0	-	-
14.80000	-46.00000	114.00000	0.0	0.0	0.0	-	-
15.60000	-46.00000	114.00000	0.0	0.0	0.0	-	-
16.40000	-46.00000	114.00000	0.0	0.0	0.0	-	-
17.20000	-46.00000	114.00000	0.0	0.0	0.0	-	-
18.00000	-46.00000	114.00000	0.0	0.0	0.0	-	-
18.80000	-46.00000	114.00000	0.0	0.0	0.0	-	-
19.60000	-46.00000	114.00000	0.0	0.0	0.0	-	-
20.40000	-46.00000	114.00000	0.0	0.0	0.0	-	-
21.20000	-46.00000	114.00000	0.0	0.0	0.0	-	-
22.00000	-46.00000	114.00000	0.0	0.0	0.0	-	-
22.80000	-46.00000	114.00000	0.0	0.0	0.0	-	-
23.60000	-46.00000	114.00000	0.0	0.0	0.0	-	-
24.40000	-46.00000	114.00000	0.0	0.0	0.0	-	-
25.20000	-46.00000	114.00000	0.0	0.0	0.0	-	-
26.00000	-46.00000	114.00000	0.0	0.0	0.0	-	-
26.80000	-46.00000	114.00000	0.0	0.0	0.0	-	-
27.60000	-46.00000	114.00000	0.0	0.0	0.0	-	-
28.40000	-46.00000	114.00000	0.0	0.0	0.0	-	-
29.20000	-46.00000	114.00000	0.0	0.0	0.0	-	-
30.00000	-46.00000	114.00000	0.0	0.0	0.0	-	-
-10.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-9.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-8.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-7.60000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-6.80000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-6.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-5.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-4.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-3.60000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-2.80000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-2.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-1.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-0.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
0.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
1.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
2.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
2.80000	-47.00000	114.00000	0.0	0.0	0.0	-	-
3.60000	-47.00000	114.00000	0.0	0.0	0.0	-	-
4.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
5.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
6.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
6.80000	-47.00000	114.00000	0.0	0.0	0.0	-	-
7.60000	-47.00000	114.00000	0.0	0.0	0.0	-	-
8.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
9.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
10.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
10.80000	-47.00000	114.00000	0.0	0.0	0.0	-	-
11.60000	-47.00000	114.00000	0.0	0.0	0.0	-	-
12.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
13.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
14.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
14.80000	-47.00000	114.00000	0.0	0.0	0.0	-	-
15.60000	-47.00000	114.00000	0.0	0.0	0.0	-	-
16.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
17.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
18.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
18.80000	-47.00000	114.00000	0.0	0.0	0.0	-	-
19.60000	-47.00000	114.00000	0.0	0.0	0.0	-	-
20.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
21.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
22.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
22.80000	-47.00000	114.00000	0.0	0.0	0.0	-	-
23.60000	-47.00000	114.00000	0.0	0.0	0.0	-	-
24.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
25.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
26.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
26.80000	-47.00000	114.00000	0.0	0.0	0.0	-	-
27.60000	-47.00000	114.00000	0.0	0.0	0.0	-	-
28.40000	-47.00000	114.00000	0.0	0.0	0.0	-	-
29.20000	-47.00000	114.00000	0.0	0.0	0.0	-	-
30.00000	-47.00000	114.00000	0.0	0.0	0.0	-	-
-10.00000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-9.20000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-8.40000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-7.60000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-6.80000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-6.00000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-5.20000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-4.40000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-3.60000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-2.80000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-2.00000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-1.20000	-48.00000	114.00000	0.0	0.0	0.0	-	-
-0.40000	-48.00000	114.00000	0.0	0.0	0.0	-	-
0.40000	-48.00000	114.00000	0.0	0.0	0.0	-	-
1.20000	-48.00000	114.00000	0.0	0.0	0.0	-	-
2.00000	-48.00000	114.00000	0.0	0.0	0.0	-	-
2.80000	-48.00000	114.00000	0.0	0.0	0.0	-	-
3.60000	-48.00000	114.00000	0.0	0.0	0.0	-	-
4.40000	-48.00000	114.00000	0.0	0.0	0.0	-	-
5.20000	-48.00000	114.00000	0.0	0.0	0.0	-	-
6.00000	-48.00000	114.00000	0.0	0.0	0.0	-	-
6.80000	-48.00000	114.00000	0.0	0.0	0.0	-	-
7.60000	-48.00000	114.00000	0.0	0.0	0.0	-	-
8.40000	-48.00000	114.00000	0.0	0.0	0.0	-	-
9.20000	-48.00000	114.00000	0.0	0.0	0.0	-	-
10.00000	-48.00000	114.00000	0.0	0.0	0.0	-	-
10.80000	-48.00000	114.00000	0.0	0.0	0.0	-	-
11.60000	-48.00000	114.00000	0.0	0.0	0.0	-	-
12.40000	-48.00000	114.00000	0.0	0.0	0.0	-	-
13.20000	-48.00000	114.00000	0.0	0.0	0.0	-	-
14.00000	-48.00000	114.00000	0.0	0.0	0.0	-	-
14.80000	-48.00000	114.00000	0.0	0.0	0.0	-	-
15.60000	-48.00000	114.00000	0.0	0.0	0.0	-	-
16.40000	-48.00000	114.00000	0.0	0.0	0.0	-	-
17.20000	-48.00000	114.00000	0.0	0.0	0.0	-	-



Channing Junior School, Highgate High Street, N6 5JR
 Ground Movement and Damage Assessment
 Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
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Type/No.	Coordinates			Displacements			Angle of Line
Name	Dist.	x	y	x	y	z	to x Axis
				Horizontal displacement		Horizontal displacement	
18.00000	-48.00000	114.00000	0.0	0.0	0.0	0.0	-
18.80000	-48.00000	114.00000	0.0	0.0	0.0	0.0	-
19.60000	-48.00000	114.00000	0.0	0.0	0.0	0.0	-
20.40000	-48.00000	114.00000	0.0	0.0	0.0	0.0	-
21.20000	-48.00000	114.00000	0.0	0.0	0.0	0.0	-
22.00000	-48.00000	114.00000	0.0	0.0	0.0	0.0	-
22.80000	-48.00000	114.00000	0.0	0.0	0.0	0.0	-
23.60000	-48.00000	114.00000	0.0	0.0	0.0	0.0	-
24.40000	-48.00000	114.00000	0.0	0.0	0.0	0.0	-
25.20000	-48.00000	114.					



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement and Damage Assessment
Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
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Made by MP	Date 07-Dec-2017	Checked

Type/No.	Coordinates			Displacements			Angle of Line to x Axis
Name	Dist.	x	y	z	x	y	z
		Horizontal displacement			Horizontal displacement		
24.157	0.50000	-33.40000	113.00000	4.8390	2.8227	4.1890	-1.5324
26.170	1.00000	-35.35000	113.00000	4.4003	2.5668	3.8823	-1.3935
28.183	1.50000	-37.30000	113.00000	2.2180	1.5386	2.2319	-0.93951
30.196	2.00000	-39.25000	113.00000	1.0167	1.2299	1.5611	-0.93883
32.209	2.50000	-41.20000	113.00000	0.37562	0.83803	0.94819	-0.71847
34.222	3.00000	-43.15000	113.00000	0.089423	0.42197	0.50122	-0.38654
36.235	3.50000	-45.10000	113.00000	0.012913	0.18115	0.20276	-0.17227
38.249	4.00000	-47.05000	113.00000	0.0	0.0	0.0	0.0
40.262	4.50000	-49.00000	113.00000	0.0	0.0	0.0	0.0

Specific Building Damage Results - Horizontal Displacements

Structure: Boundary Wall | Sub-structure: Sub 39

Dist.	Coordinates			Displacements			Horizontal displacement along the line	Horizontal displacement perpendicular to line
x	y	z	x	y	z	[mm]	[mm]	
0.0	-5.00000	-10.00000	113.00000	0.0	0.0	0.0	0.0	
2.0131	-5.00000	-11.95000	113.00000	0.54854	-0.081003	0.092069	0.033016	
4.0262	-4.50000	-13.90000	113.00000	0.25737	-0.30068	0.35518	0.17462	
6.0392	-4.00000	-15.85000	113.00000	0.65365	-0.53412	0.67974	0.50051	
8.0523	-3.50000	-17.80000	113.00000	1.3609	-0.65105	0.96867	1.1566	
10.0653	-3.00000	-19.75000	113.00000	2.4278	-0.44631	1.0354	2.2410	
12.078	-2.50000	-21.70000	113.00000	4.5920	-0.30613	1.4371	4.3721	
14.092	-2.00000	-23.65000	113.00000	5.1447	-0.34298	1.6100	4.8983	
16.105	-1.50000	-25.60000	113.00000	5.7289	-0.38193	1.7929	5.4545	
18.118	-1.00000	-27.55000	113.00000	6.3490	-0.42327	1.9869	6.0449	
20.131	-0.50000	-29.50000	113.00000	5.0597	2.5700	-1.2328	5.5395	
22.144	0.00000	-31.45000	113.00000	5.3008	3.0921	-1.6787	5.9027	
24.157	0.50000	-33.40000	113.00000	4.8390	2.8227	-1.5324	5.3885	
26.170	1.00000	-35.35000	113.00000	4.4003	2.5668	-1.3935	4.9000	
28.183	1.50000	-37.30000	113.00000	2.2180	1.5386	-0.93951	2.5307	
30.196	2.00000	-39.25000	113.00000	1.0167	1.2299	-0.93883	1.2903	
32.209	2.50000	-41.20000	113.00000	0.37562	0.83803	-0.71847	0.57200	
34.222	3.00000	-43.15000	113.00000	0.089423	0.42197	-0.38654	0.19143	
36.235	3.50000	-45.10000	113.00000	0.012913	0.18115	-0.17227	0.057503	
38.249	4.00000	-47.05000	113.00000	0.0	0.0	0.0	0.0	
40.262	4.50000	-49.00000	113.00000	0.0	0.0	0.0	0.0	

Specific Building Damage Results - Vertical Displacements

Structure: Boundary Wall | Sub-structure: Sub 39

Dist.	Coordinates			Displacements		
x	y	z	x	y	z	
0.0	-5.00000	-10.00000	113.00000	0.0	0.0	
2.0131	-5.00000	-11.95000	113.00000	0.10406	0.41445	
4.0262	-4.50000	-13.90000	113.00000	0.31274	1.3957	
6.0392	-4.00000	-15.85000	113.00000	0.81274	2.0600	
8.0523	-3.50000	-17.80000	113.00000	1.3957	2.0600	
10.0653	-3.00000	-19.75000	113.00000	2.0600	3.4362	
12.078	-2.50000	-21.70000	113.00000	3.4362	3.9226	
14.092	-2.00000	-23.65000	113.00000	4.2627	4.5298	
16.105	-1.50000	-25.60000	113.00000	4.2627	4.5298	
18.118	-1.00000	-27.55000	113.00000	4.5298	3.9857	
20.131	-0.50000	-29.50000	113.00000	3.9857	4.4446	
22.144	0.00000	-31.45000	113.00000	4.4446	4.1890	
24.157	0.50000	-33.40000	113.00000	4.1890	3.8823	
26.170	1.00000	-35.35000	113.00000	3.8823	2.2319	
28.183	1.50000	-37.30000	113.00000	2.2319	1.5611	
30.196	2.00000	-39.25000	113.00000	1.5611	0.94819	
32.209	2.50000	-41.20000	113.00000	0.94819	0.50122	
34.222	3.00000	-43.15000	113.00000	0.50122	0.20276	
36.235	3.50000	-45.10000	113.00000	0.20276	0.0	
38.249	4.00000	-47.05000	113.00000	0.0	0.0	
40.262	4.50000	-49.00000	113.00000	0.0	0.0	

Specific Building Damage Results - All Segments

Structure: Boundary Wall | Sub-structure: Sub 39

Vertical Offset from Line for Vertical Movement	Segment	Start	Length	Curvature	Deflection Ratio	Average Horizontal Strain	Max Tensile Strain	Max Gradient Horizontal Displacement Curve	Max Gradient Curvature	Min of Vertical Displacement	Min Radius of Curvature	Damage Category
0.0	1	2.0131	8.6627	Hogging	0.0047135	0.012295	0.019118	-199.51E-6	-733.15E-6	13994.	(Negligible)	
	2	10.676	8.6283	Sagging	0.0087104	-0.012374	0.0029821	0.0016020	-733.15E-6	11518.	(Negligible)	
	3	19.304	1.8406	Hogging	0.012218	-0.084037	0.018200	0.0016020	270.71E-6	33928.	(Negligible)	
	4	21.145	6.4810	Sagging	0.013054	0.0060507	0.025801	-225.46E-6	819.68E-6	7506.5	(Negligible)	
	5	27.626	8.6097	Hogging	0.0048337	0.010371	0.017355	-225.46E-6	819.68E-6	12999.	(Negligible)	

Tensile horizontal strains are +ve, compressive horizontal strains are -ve.

Specific Building Damage Results - Critical Values for All Segments within Each Sub-Structure

Structure: Boundary Wall | Sub-structure: Sub 39

Vertical Offset from Line for Vertical Movement	Deflection Ratio	Average Horizontal Strain	Max Slope	Max Settlement	Max Tensile Strain	Max Gradient Horizontal Displacement Curve	Max Gradient Curvature	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
0.0	0.013054	-0.084037	819.68E-6	4.5250	0.025801	0.0016020	819.68E-6	12999.	7506.5	(Negligible)

Specific Building Damage Results - Critical Segments within Each Structure

Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Boundary Wall	Max Slope	Sub 39		4	21.145	27.626	Sagging	819.68E-6	4.4408	0.025801	7506.5	0 (Negligible)



Channing Junior School, Highgate High Street, N6 5JR
Ground Movement and Damage Assessment
Vertical & Horizontal Movements on Sheet piling for Pavilion Structure

Job No.	Sheet No.	Rev.
J17268		
Dr. Ref.		
Made by MP	Date 07-Dec-2017	Checked

Structure Name	Parameter	Critical Sub-Structure	Critical Segment	Start	End	Curvature	Max Slope	Max Settlement	Max Tensile Strain	Min Radius of Curvature (Hogging)	Min Radius of Curvature (Sagging)	Damage Category
Max Settlement	Sub 39		2	10.676	19.304	Sagging	733.15E-6	4.5250	0.0029821	-	11518.	0 (Negligible)
Max Tensile Strain	Sub 39		4	21.145	27.626	Sagging	819.68E-6	4.4408	0.025801	-	7506.5	0 (Negligible)
Min Radius of Curvature (Hogging)	Sub 39		5	27.626	36.235	Hogging	819.68E-6	2.6888	0.017355	12999.	-	0 (Negligible)
Min Radius of Curvature (Sagging)	Sub 39		4	21.145	27.626	Sagging	819.68E-6	4.4408	0.025801	-	7506.5	0 (Negligible)

Geotechnical & Environmental Associates (GEA) is an engineer-led and client-focused independent specialist providing a complete range of geotechnical and contaminated land investigation, analytical and consultancy services to the property and construction industries.

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where information can be found on all of the services that we offer.



Appendix E

Below Ground Drainage CCTV Survey Report - Spaflow

**CHANNING SCHOOL
HIGHGATE HILL
LONDON- N6 5HF**

**REPORT ON THE LOCATION, TRACING, MAPPING &
CCTV SURVEY OF THE DRAINAGE**

BY



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FOR

**HEYNE TILLET STEEL
4 PEAR TREE COURT
LONDON - EC1R 0DS**

ON BEHALF OF:

CHANNING SCHOOL

NOVEMBER 2017

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1.0	DESCRIPTION OF THE PREMISES
2.0	EXTENT AND METHOD OF THE SURVEY
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1.0 DESCRIPTION OF THE PREMISES

The premises comprise a school on a self contained site.

The building faces Highgate Hill.

The area of interest for this survey is the drainage over the whole site.

At the time of survey the premises were unoccupied during school holidays.

2.0 EXTENT AND METHOD OF THE SURVEY

The extent and method of the survey was as requested by Ms. Siún O'Brien of Heyne Tillett Steel by an email dated 06/10/2017 and as shown in the Spaflow Limited email proposal dated 10/10/2017.

Confirmation to proceed with the survey was given by email from Ms. Siún O'Brien of Heyne Tillett Steel on 10/10/2017 with purchase order No. TBA.

The purpose of the survey is to record the installation in its current form, to provide information to the Consulting Engineers, to assist them with their proposals for the redevelopment of the existing property.

The survey comprised the following:-

To locate, trace, map and CCTV survey, the drainage below ground level and basement level, over the whole site.

Outfalls to the public sewer are included.

The survey was carried out on the 23 & 24/10/2017.

3.0 LIMITATIONS OF THE SURVEY

The scope of the survey was limited to that shown in section 2.0 or otherwise referred to in the text.

No drain cleaning was done, except for local cleaning of interceptor traps, no level checks, flow checks, [apart from route checking tests], leakage tests or other tests were carried out.

Some parts of the system could not be surveyed due to debris or concealment.

As the upper floors were not part of the survey we could not always confirm for certain whether pipes from above received only rainwater or foul drainage, in such cases they were designated as stacks

The work was carried out on days of dry weather.

No responsibility can be accepted for any deficiencies, events or circumstances which may occur and which due to the foregoing circumstances were not identified during the survey.

4.0 HEALTH AND SAFETY

The work was carried out in accordance with the requirements of the Spaflow Method Statement and Health and Safety Procedures Document, and in accordance with the requirements of the client.

No events or incidents occurred during the survey.

No particular findings, which could have an immediate or reasonably foreseeable effect on health and safety were noted.

5.0 INFORMATION UTILISED

The following drawing was provided in digital form.

DRAWING NO:	NOT SHOWN	PART OF AN UNTITLED SITE TOPOGRAPHICAL DWG.
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6.0 RECORD DRAWINGS PRODUCED

The following survey record drawings were produced on CAD based on the survey drawing referred to above.

DRAWING NO:	PH01	Record of Tracing, Mapping & CCTV Survey of Drainage – External drainage layout
	PH02	Record of Tracing, Mapping & CCTV Survey of Drainage - Ground Floor Layout
	PH03	Record of Tracing, Mapping & CCTV Survey of Drainage - Basement Layout

7.0 DESCRIPTION OF THE SYSTEM

There are 2 No. individual drainage systems at the school; each has its own outfall to a public sewer.

We have designated them as System 1 and System 2.

7.1 System 1

This system commences at ground floor level in the Fairseat Building at a manhole MH3 located in a male toilet.

MH3 receives, at its head a 100 Ø CI connection from a 100 Ø CI soil vent pipe [SVP] which receives a WC connection.

MH3 also receives 5 No. branch connections, including:-

110 Ø UPVC from a 100 Ø channel outlet.

A 42 Ø UPVC waste pipe [WP] from 2 No. WBs discharges to the channel, as does another 42 Ø UPVC WP from 2 No. WBs.

100 Ø clay [B] from a 100 Ø drain point [DP] and [stub stack - assumed] which receives a WP from a sink. On route the run receives a blind, branch connection from a 100 Ø DP [assumed] 2 No. WCs connect to the assumed DP [all boxed in].

100 Ø clay [C] from an assumed 100 Ø stack from above, 2 No. WCs connect to the stack.

100 Ø clay [D] from what appears to be a 100 Ø clay drain, receiving a 54 Ø UPVC pipe broken into it which receives a 54 Ø UPVC pumped discharge pipe from a pumping station in the basement

At a toilet, near a classroom there is a small pump station, which receives a 110 Ø UPVC soil float at low level. 3 No. WCs connect to this float, as does a 42 Ø UPVC WP from 2 No. WBs and a 42 Ø UPVC WP from 3 No. sinks.

The 54 Ø UPVC pumped discharge pipe rises from the pumping station at low level to high level and offsets to pass through the wall at high level and connect to Branch [D] to MH3.

The final branch is 100 Ø clay [E] from a 100 Ø stack from above. A 42 Ø UPVC sink WP connects to the stack.

The 100 Ø clay outlet from MH3 runs to branch [A] into MH2. On route to MH2, the 100 Ø outlet from an external drainage channel connects blind to the drain run.

In the same vicinity, a 42 Ø UPVC outlet [assumed] below debris and WP from a light-well offsets and discharges over external stairs to drain.

MH2 is located in a paved area at the entrance and receives, at its head a 100 Ø clay connection from an untraced source.

MH2 also receives 6 No. further branch connections, including:-

100 Ø clay [B][via a bend] from a 100 Ø CI SVP from above.

100 Ø clay [C] via an internal high level discharge, from an open top back inlet gully [OTBIG2], OTBIG2 receives 2 No. connections, including:-

From a 100 Ø CI rainwater pipe [RWP] and 100 Ø clay from a channel outlet. On route to OTBIG2 this branch receives a blind, branch connection from an OTBIG. A 68 Ø UPVC RWP from above discharges over the gully

100 Ø [D] from a DP in a staff kitchen. The 100 Ø DP receives a 42 Ø UPVC WP at low level from 2 No. WBs and a sink.

On route to MH2, the run receives 3 No. blind, branch connections, including:-

The first is from a 42 Ø shower outlet to a 100 Ø clay [DP].

The second is from a 42 Ø UPVC basin WP to a 100 Ø clay DP.

The third is from a 110 Ø stub stack which receives connections from 3 No. WCs.

100 Ø clay [E] from an OTBIG, a 75 Ø UPVC RWP from above connects to the OTBIG. On route the branch receives a 100 Ø blind, branch connection from MH4.

MH4 is located in the paved yard and receives, at its head a 100 Ø clay connection from OTBIG3. The gully receives a branch connection from an untraced source [due to debris]. On route to MH4 the run receives a blind, branch connection from a 100 Ø CI vent pipe [VP] which changes to 110 Ø UPVC at mid level.

MH4 receives one branch connection, 100 Ø clay [A] from a 110 Ø UPVC soil pipe [SP] which drops from above, offsets at high level and drops in a toilet near a stairwell, it receives a connection from a WC and offsets below the floor. On route to MH4, the run receives a blind, branch connection from an assumed 110 Ø UPVC DP. A 36 Ø UPVC basin WP is assumed to connect to this DP.

The 100 Ø clay outlet from MH4 runs to the blind, branch connection on the Branch [E] to MH2 as previously described.

The next branch to MH2 is 100 Ø clay [F] from a sealed pipe.

The final branch to MH2 is 100 Ø clay [G] from a sealed pipe.

The 150 Ø clay outlet from MH2 runs to the head of MH1.

MH1 is located near the boundary wall of the school and receives 2 No. branches, including:-

100 Ø clay [A] from an assumed OTBIG below decking in light-well [A] via OTBIG1. A 110 Ø UPVC RWP from above drops from above, offsets at low level and drops to below ground and is assumed to connect to the OTBIG below the decking.

A 42 Ø UPVC WP drops from above from a sink at a classroom and drops to below the decking adjacent to the 110 Ø UPVC RWP and is assumed to connect to the OTBIG below the decking

A 50 Ø CI WP drops from above adjacent to the 110 Ø UPVC RWP and is assumed to connect to the OTBIG below the decking.

On route to MH1, the 100 Ø clay outlet [A] from the assumed OTBIG connects to OTBIG1.

OTBIG1 receives 2 No. connections, including:-

82 Ø UPVC [A] from a RWP which drops from above, connects to 75 Ø CI at low level, which drops to below ground and to OTBIG1.

A 100 Ø CI RWP from above drops to below ground and connects to OTBIG1.

A 42 Ø galvanised mild steel pumped discharge pipe from a pumping station PS1

At a Boiler Room in the basement, a small pumping station, below the floor [PS1] receives a connection from an OTG at a stairwell' also an assumed gully at light-well [C].

The 42 Ø galvanised pumped discharge pipe rises from the pumping station, offsets at low level, rises to high level, offsets through the wall to light-well [B] and is assumed to connect to OTBIG1.

The 100 Ø outlet from OTBIG1 connects at [A] to MH1 as previously described.

The other branch to MH1 is 100 Ø [VC] [B] from an open top gully.