

8a Fawley Road  
Ground Movement Assessment

### Titles

Job No.: 134910  
 Job Title: 8a Fawley Road  
 Sub-title: Ground Movement Assessment  
 Calculation Heading:  
 Initials: RT  
 Checker:  
 Date Saved: 03 Jan 2020  
 Date Checked:  
 Notes:  
 File Name: 02 ST loading (undrained) - TJ.pdd  
 File Path: \\Lonsrvr05.london.fairhurst.local\users\A\_PROJ\134910\_Fawley Road\Geotech\09 Ground Movement Assessment\Data\FDisp

### History

Date	Time	By	Notes
25-Oct-2019	14:05	rturner	New
25-Oct-2019	17:01	rturner	
03-Jan-2020	10:27	rturner	
03-Jan-2020	11:08	rturner	
03-Jan-2020	11:16	rturner	
13-Jan-2020	10:36	tjanusz	
13-Jan-2020	11:35	tjanusz	
13-Jan-2020	11:41	tjanusz	
13-Jan-2020	12:10	tjanusz	
13-Jan-2020	12:18	tjanusz	
13-Jan-2020	14:29	tjanusz	
14-Jan-2020	12:08	tjanusz	
06-Aug-2020	19:59	tjanusz	Open

### Analysis Options

#### General

Global Poisson's ratio: 0.20  
 Maximum allowable ratio between values of E: 1.5  
 Horizontal rigid boundary level: -25.00 [m OD]  
 Displacements at load centroids: Yes  
 GSA piled raft data: No

#### Elastic

Elastic: Yes  
 Analysis: Boussinesq  
 Stiffness for horizontal displacement calculations: Weighted average  
 Using legacy heave correction factor: No

#### Consolidation

Consolidation: No

### Soil Profiles BH1 & BH2

Layer ref.	Name	Level at top	Number of intermediate displacement levels	Youngs Modulus : Top	Youngs Modulus : Btm.	Poissons ratio	Non-linear curve
1	London Clay weathered	0.0	44	38000.	56000.	0.45000	None
2	London Clay	-11.000	28	56000.	56000.	0.45000	None

### Soil Zones

Zone	Name	X min [m]	X max [m]	Y min [m]	Y max [m]	Profile
1	1	-10.000	50.000	-10.000	40.000	BH1 & BH2

### Rectangular Load Data

Load ref.	Name	Orientation of Plane	Centre (Global) : x	Centre (Global) : y	Centre (Global) : z	Position : Angle of local x from [Degrees]	Position : Width x or y	Position : Length y	Value : Normal (local z)	Value : Tangential (local x)	Value : Tangential (local y)
1	Slab + Pedestrian	Horizontal	19.73333	16.42006	0.00000	0.0	1.7310	9.6755	13.750	0.0	0.0
2	Lightwell #1	Horizontal	24.46608	18.80826	0.00000	0.0	1.5693	2.9027	8.7500	0.0	0.0
3	Lightwell #2	Horizontal	24.51209	13.64956	0.00000	0.0	1.7133	2.7375	8.7500	0.0	0.0
4	Internal Wall #1	Horizontal	18.46844	19.32271	0.00000	0.0	1.3499	3.7758	35.400	0.0	0.0
5	Internal Wall #2	Horizontal	18.47256	14.55398	0.00000	0.0	1.4336	5.7664	56.660	0.0	0.0
6	Spreader Beam #1	Horizontal	17.12537	18.75811	0.00000	0.0	1.4956	3.9764	61.880	0.0	0.0
7	Spreader Beam #2	Horizontal	20.72256	16.78540	0.00000	0.0	4.5053	1.3991	37.130	0.0	0.0
8	Internal Pad	Horizontal	19.41416	13.45398	0.00000	0.0	1.1788	1.1947	65.970	0.0	0.0
9	No.6 Party Wall	Horizontal	19.27552	20.94631	0.00000	0.0	7.8348	0.92507	135.98	0.0	0.0
10	Rear Wall	Horizontal	16.14513	16.66549	0.00000	0.0	0.84248	9.5575	99.260	0.0	0.0
11	No.10 Side Ext Wall	Horizontal	19.82655	11.97876	0.00000	0.0	8.3482	1.0619	115.00	0.0	0.0
12	Front Ext Wall	Horizontal	22.63599	16.09439	0.00000	0.0	0.99115	2.8507	115.00	0.0	0.0

### Displacement Grids

Name	Extrusion Direction	X1	Y1	Z1	X2	Y2	Z2	Intervals Along Line [No.]	Extrusion Distance [m]	Extrusion Intervals Along [No.]	Calculate	Detailed Results
Grid 1	Global Y	-13.30614	-11.48477	0.00000	51.45379	-	0.00000	100	53.17398	100	Yes	Yes

### Warnings

- (1) The displacement location of Grid 1 at (-13.306, -11.485, 0.000)m lies wide of all soil zones. The first soil profile will be used. There are more displacement locations for which this warning applies. Only one is detailed here.
- (2) The load at (19.733, 16.420, 0.000)m lies wide of all soil zones. Displacements at its centre have been requested. The first soil profile will be used.