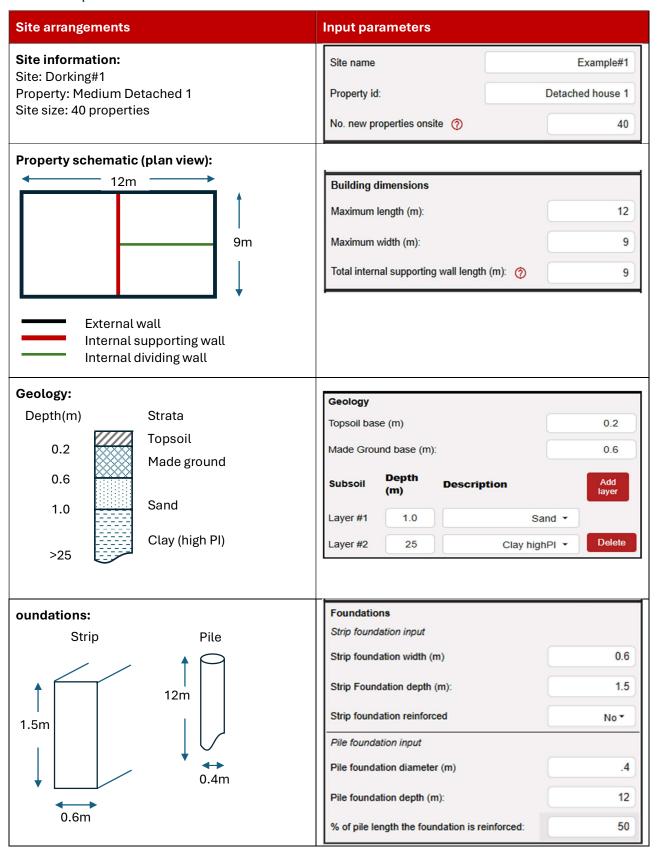




# E1 – Simple detached house







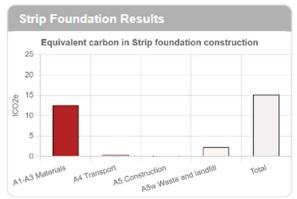
## E1 – Screen Results: Simple detached house

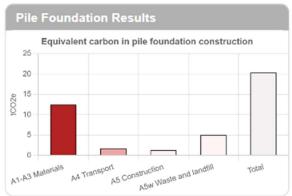
# **Optimum Foundation**

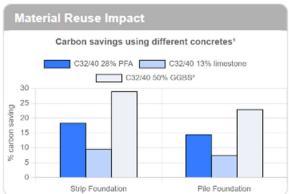
Metric	Value
Optimum foundation to save carbon	Strip
Carbon saved	5.2 tCO <sub>2</sub> e
Percent saving	25.5%
Depth of strip when pile foundation becomes optimum	2.2m

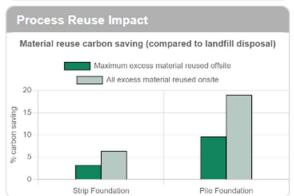
## Foundation Comparison

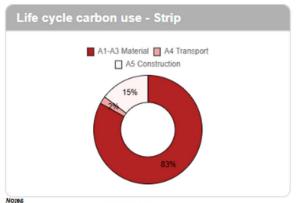
RESULTS tCO2e	Strip	Pile
A1 - A3 (materials)	13	12
A4 (transport)	0	2
A5 (Construction inc. reuse and waste)	2	6
Total	15	20

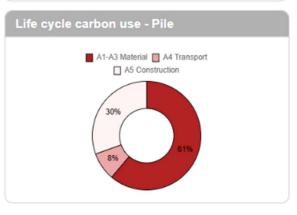












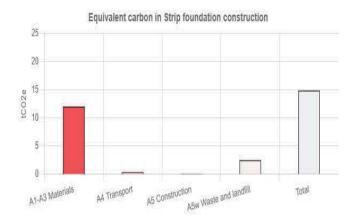
- Concrete saving is compared to C32/40 25% GGBS
   Adding more GGBS or PFA may only improve carbon emissions within the project (not globally) this is included as indicative of potential concrete savings

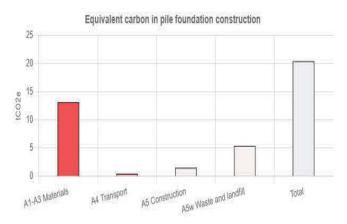
Site Name: Example #1

Property ID: Detached house 1

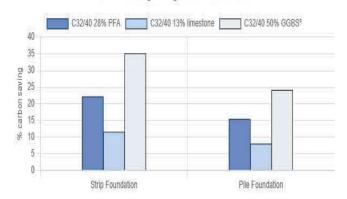
Building	Size	Strip		Pile	
Length (m)	12	Width (m)	0.6	Diameter (m)	.4
Width (m)	9	Depth (m)	1.5	Depth (m)	12
Internal wall length (m)	9	Reinforced	No	pile reinforced (%)	50

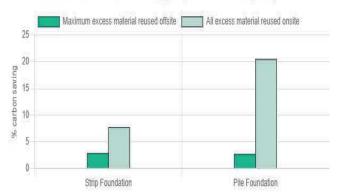
User entered data





#### Carbon savings using different concretes<sup>1</sup>





Description	Result	Unit
Strip results	15	tCO2e
Pile results	20	tCO2e
Optimum foundation for lower carbon emissions	Strip	
Embodied carbon saved	5.6	tCO2e
Embodied carbon saved	27.3	%
Depth of strip where pile foundation more carbon efficient	2.1	m

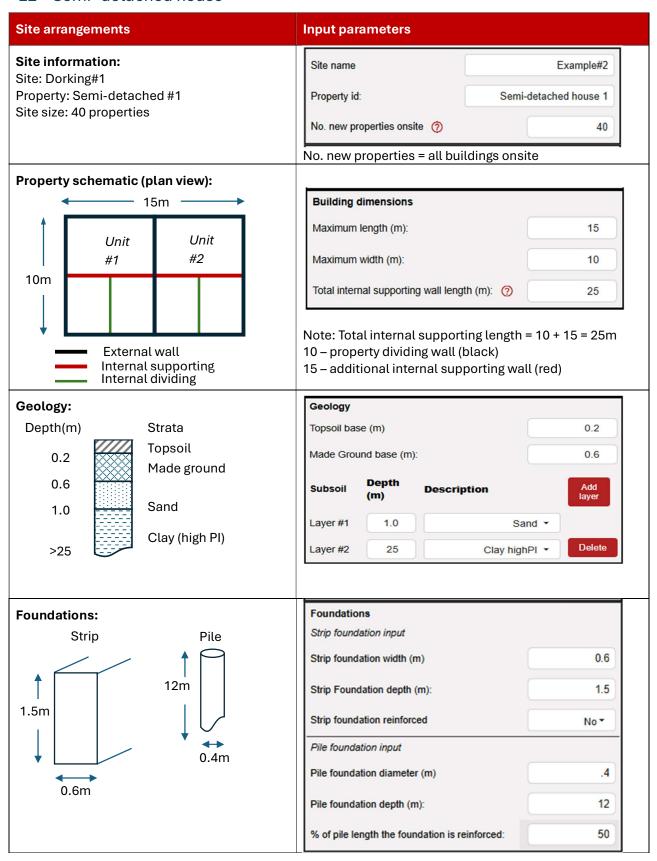








#### E2 - Semi -detached house

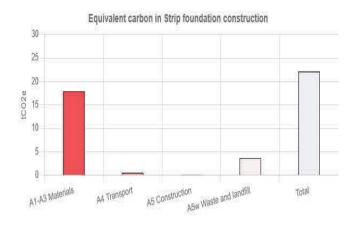


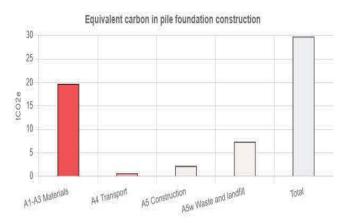
Site Name: Example #2

Property ID: Semi-detached house 1

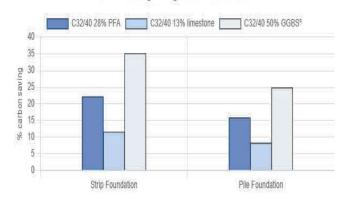
Building	Size	Strip		Pile	
Length (m)	15	Width (m)	0.6	Diameter (m)	.4
Width (m)	10	Depth (m)	1.5	Depth (m)	12
Internal wall length (m)	25	Reinforced	No	pile reinforced (%)	50

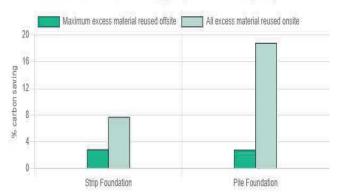
User entered data





#### Carbon savings using different concretes<sup>1</sup>





Description	Result	Unit
Strip results	22	tCO2e
Pile results	30	tCO2e
Optimum foundation for lower carbon emissions	Strip	
Embodied carbon saved	7.6	tCO2e
Embodied carbon saved	25.7	%
Depth of strip where pile foundation more carbon efficient	2.1	m

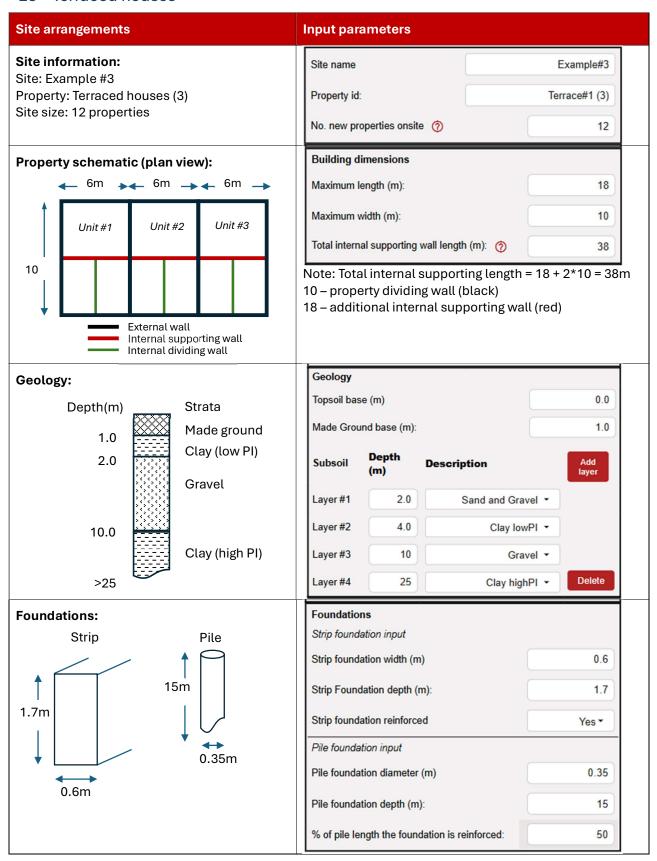








#### E3 - Terraced houses

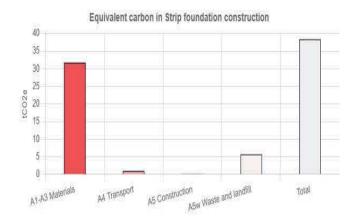


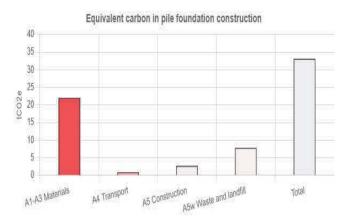
Site Name: Example #3

Property ID: Terrace #3 (3)

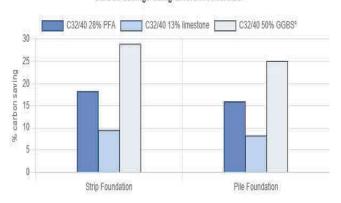
Building	Size	Strip		Pile	
Length (m)	18	Width (m)	0.6	Diameter (m)	0.35
Width (m)	10	Depth (m)	1.7	Depth (m)	15
Internal wall length (m)	38	Reinforced	Yes	pile reinforced (%)	50

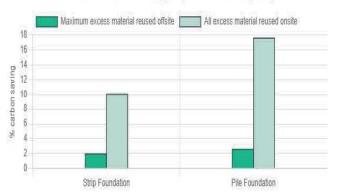
User entered data





#### Carbon savings using different concretes<sup>1</sup>





Description	Result	Unit
Strip results	38	tCO2e
Pile results	33	tCO2e
Optimum foundation for lower carbon emissions	Piled	
Embodied carbon saved	5.2	tCO2e
Embodied carbon saved	13.7	%
Depth of strip where pile foundation more carbon efficient	1.5	m

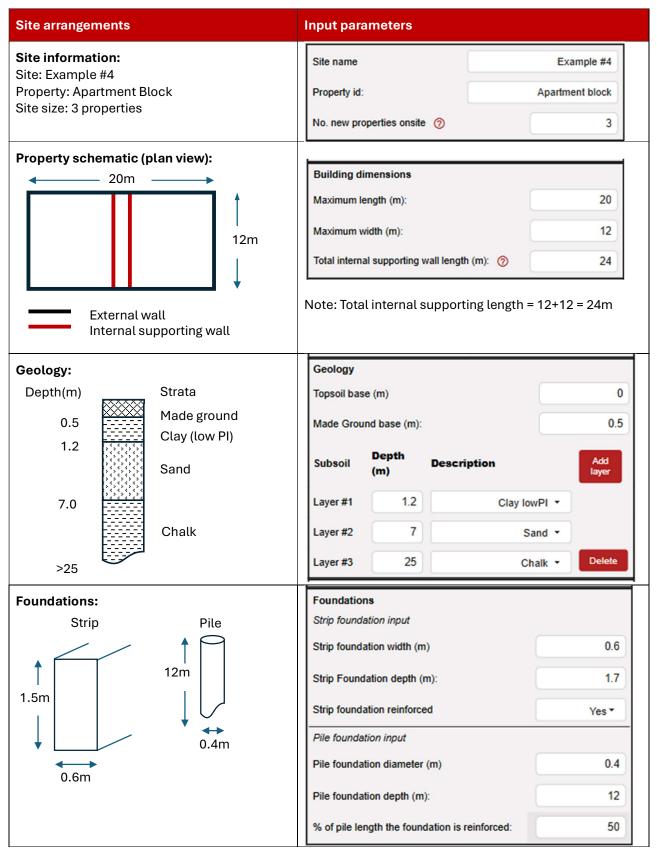








## E4 – Apartment block

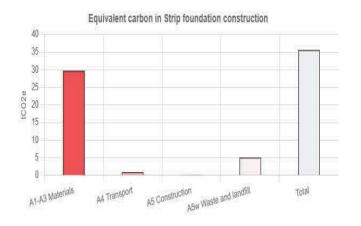


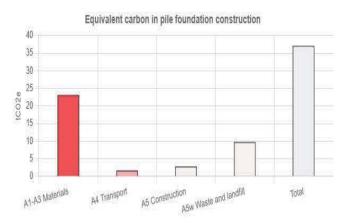
Site Name: Example #4

Property ID: Apartment block

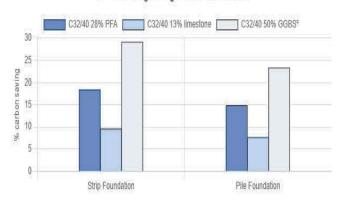
Building	Size	Strip		Pile	
Length (m)	20	Width (m)	0.6	Diameter (m)	0.4
Width (m)	12	Depth (m)	1.7	Depth (m)	12
Internal wall length (m)	24	Reinforced	Yes	pile reinforced (%)	50

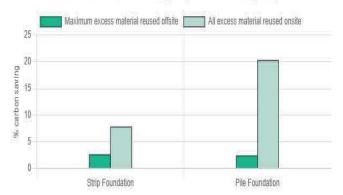
User entered data





#### Carbon savings using different concretes<sup>1</sup>





Description	Result	Unit
Strip results	36	tCO2e
Pile results	37	tCO2e
Optimum foundation for lower carbon emissions	Strip	
Embodied carbon saved	1.5	tCO2e
Embodied carbon saved	4.1	%
Depth of strip where pile foundation more carbon efficient	1.8	m



