

Shaun O'Brien
CRT Property Investments Ltd
Waterside Park
Valley Way
Wombwell
Barnsley
S73 0BB

PR/AJK/ECM/38885/002

BY EMAIL ONLY

03 December 2015

Dear Mr O'Brien,

Washington Road, Goldthorpe

We write to report on further investigation works undertaken to determine the possibility of shallow coal mining affecting the above site. Eastwood & Partners produced a Geotechnical and Geoenvironmental Site Investigation Report, referenced 38885/001 Issue 1, which considered that two coal seams (the Highgate and Shafton) may be present at shallow depth below the site and may have been worked in the past. A borehole investigation was recommended to determine either the depth to the seams, or confirm that there is at least the required thickness of competent cover above any workings.

The Geotechnical and Geoenvironmental Site Investigation Report indicated that the Highgate coal seam is expected to be present below the site at around 10 m below ground level (bgl) and is recorded as around 0.45 m thick. The Shafton coal is also expected to be present at around 35 m bgl according to the geological map however from investigations carried out on a site around 750 m east of this site, the seam was found from between 12 and 19 m depth, around 1.8 m thick and was worked.

The investigation carried out on 16 November 2015 comprised four boreholes (BH1 to BH4) all drilled to a depth of 24 m bgl. A plan showing the location of the boreholes and copies of the borehole logs are included with this report.

In all of the boreholes, an intact coal seam was encountered between 16.1 m bgl and 17.1 m bgl. The thickness of the coal seam encountered was 0.3 m in all of the holes and is therefore considered to be the Highgate coal seam. None of the holes recorded voids, broken strata or any loss of returns. This indicates the coal seam has not been worked below the site.

Also at:- Principle House, 121-123 Fleet Road, Fleet, Hampshire, GU51 3PD Tel: 01252 360580 Fax: 01252 360581

Directors: P Richardson BSc, CEng, MICE, MStructE S D Preston BEng, CEng, FICE, FStructE N J Baines BSc, CEng, MICE, MCIWEM
M J Yates BSc(Eng), ACGI, CEng, MICE, FStructE S R Ellis BEng, CEng, MStructE, AMICE K R Pursall BEng, CEng, MStructE
C A Topliss BSc, CEng, CSci, CGeol, SiLC, AMICE, FGS S J English BEng, CEng, MStructE A R Priest BEng
Senior Associates: K Newsome BSc, CEng, MICE, MStructE S J Mitchell BSc, MSc, CEng, MEI, MCIBSE, MASHRAE A Allison BEng
A Jones BEng, CEng, MICE, MStructE M Young MA, CEng, MICE, MStructE C A Wood BSc, CEng, MStructE, AMICE
Associates: K Edwards MSc, FGS A J Kerslake BEng A G Marshall BEng, CEng, MStructE C Hodge EngTech, TMICE
P A Harrison BEng, CEng, MStructE M P Chappell BEng, IEng, AMStructE P H Halberstadt MEng, ACGI, CEng, MICE
Consultants: G M Seaman BSc, CEng, FICE, FStructE J M Wood BSc, CEng, MICE, FStructE

The Shafton Coal seam was not encountered within any of the boreholes. It is considered it may be present below the site at more than 24 m bgl as the Highgate seam was encountered at a greater depth than originally anticipated.

In order for there to be no significant risk to developments from voids caused by old mining migrating to the surface, it is generally accepted that there should be ten times the worked seam thickness of competent ground above the workings and below the proposed foundation level. In this case, at least 18 m of competent ground would be required above the Shafton seam.

Based on the depth and thickness of the Highgate seam below the site, it is considered that there is sufficient depth of competent strata above any potential workings within the Shafton coal seam. Therefore precautions against the effects of shallow mining are not considered necessary. Based on the recorded thickness of the seam (1.8 m) from the investigation 750 m away, there is sufficient cover (more than 10 times the seam thickness) above any possible workings within the Shafton coal seam for there to be no significant risk to developments directly above.

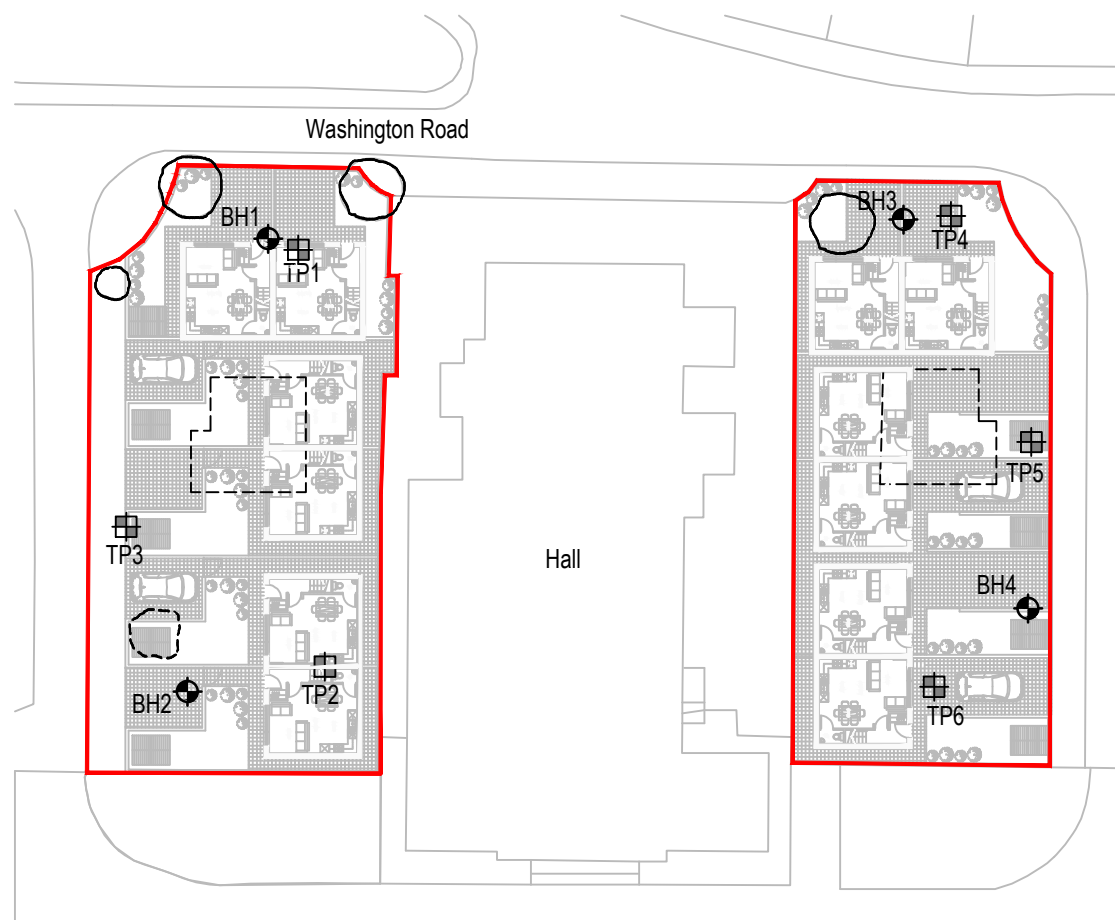
The site is therefore not considered to be at risk from shallow mining. Therefore no drilling, grouting or special foundation precautions should be required.

Yours sincerely,



Phil Richardson

Enc. 38885/001B – Washington Road, Goldthorpe, Exploratory Hole Location Plan
Borehole Logs, BH1 to BH4



Key:

-  - Site boundary.
-  - Position of proposed houses.
-  - Position of existing houses to be demolished.
-  - Approximate position of trial pit, excavated by Eastwood & Partners on 20.08.15.
-  - Approximate position of trees.
-  - Approximate position of removed tree.
-  - Approximate position of borehole drilled on behalf of Eastwood & Partners on 16.11.15.

B	Boreholes added.	RH		26.11.15
A	First Issue.			

Eastwood & Partners
CONSULTING ENGINEERS
St. Andrew's House
23 Kingfield Road
Sheffield S11 9AS
Tel 0114 255 4554
Fax 0114 255 4330



WASHINGTON ROAD GOLDTHORPE
THE COALFIELDS REGENERATION TRUST
EXPLORATORY HOLES PLAN

CHECKED		SCALE AT A4		DRAWING STATUS	
EM		1:500		INFORMATION	
DRAWN		DATE		DRAWING NUMBER	
SA		03.09.15		38885/001	
				REV	
				B	

[illegible]

Continued next sheet



[illegible]

Project Name
 Washington Road

Project No.
 38885

Co-ords: -

Hole Type
 Rotary

Location: Goldthorpe

Level: -

Scale
 1:75

Client: The Coalfields Regeneration Trust

Dates: 16/11/2015

Logged By
 Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.10			TOPSOIL	
								CLAY	
					0.80			Brown MUDSTONE	1
									2
									3
					3.40			Grey MUDSTONE	4
									5
									6
									7
									8
									9
									10
									11
									12
									13
									14
			Type	Results					

Continued next sheet

Remarks:



Project Name
 Washington Road

Project No.
 38885

Co-ords: -

Hole Type
 Rotary

Location: Goldthorpe

Level: -

Scale
 1:75

Client: The Coalfields Regeneration Trust

Dates: 16/11/2015

Logged By
 Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					16.10			Grey MUDSTONE	16
					16.40			COAL	
								Brown MUDSTONE	17
									18
									19
									20
									21
									22
									23
					24.00			End of Borehole at 24.00 m	24
									25
									26
									27
									28
									29

Remarks:

Project Name
 Washington Road

Project No.
 38885

Co-ords: -

Hole Type
 Rotary

Location: Goldthorpe

Level: -

Scale
 1:75

Client: The Coalfields Regeneration Trust

Dates: 16/11/2015

Logged By
 Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.10			TOPSOIL	
								CLAY	
					0.80			Brown MUDSTONE	1
									2
									3
					3.70			Grey MUDSTONE	4
									5
									6
									7
									8
									9
									10
									11
									12
									13
									14
		Type	Results						

Continued next sheet

Remarks:



Project Name
Washington Road

Project No.
38885

Co-ords: -

Hole Type
Rotary

Location: Goldthorpe

Level: -

Scale
1:75

Client: The Coalfields Regeneration Trust

Dates: 16/11/2015

Logged By
Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
								Grey MUDSTONE	16
					16.80				
					17.10			COAL	17
								Grey MUDSTONE	18
									19
									20
									21
									22
									23
					24.00			End of Borehole at 24.00 m	24
									25
									26
									27
									28
									29

Remarks:

Project Name
Washington Road

Project No.
38885

Co-ords: -

Hole Type
Rotary

Location: Goldthorpe

Level: -

Scale
1:75

Client: The Coalfields Regeneration Trust

Dates: 16/11/2015

Logged By
Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.10			TOPSOIL	
								CLAY	
					0.80			Brown MUDSTONE	1
									2
									3
					3.60			Grey MUDSTONE	4
									5
									6
									7
									8
									9
									10
									11
									12
									13
									14
			Type	Results					

Continued next sheet

Remarks:

Project Name
 Washington Road

Project No.
 38885

Co-ords: -

Hole Type
 Rotary

Location: Goldthorpe

Level: -

Scale
 1:75

Client: The Coalfields Regeneration Trust

Dates: 16/11/2015

Logged By
 Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					16.40			Grey MUDSTONE	16
					16.70			COAL	17
								Grey MUDSTONE	18
									19
									20
									21
									22
									23
					24.00			End of Borehole at 24.00 m	24
									25
									26
									27
									28
									29

Remarks: