

Mr Craig Brown
Forrest
The Yard
Dodd Lane
Westhoughton
Bolton
BL5 3NU

CHANDOS REMEDICATION

21st April 2017

Dear Craig,

RE: Proposed Works to the New Mills Quarry Face

Chandos Remediation understands that a development of 37 houses is planned for the former Quarry site at Marsh Lane, New Mills. The site is an existing quarry that has undergone partial infilling with quarry spoil. The former quarry face is exposed as a gritstone edge forming the eastern boundary of the site; in places the quarry face is obscured by overburden. Where the rock face coincides with proposed buildings and gardens it will be cut back in accordance with the site cross sections plan (Drawing 216-332-S-003 Rev P3, AJP) attached.

Geology

A detailed geotechnical assessment of the bedrock has not been undertaken. However, where the rock face is exposed, it generally exhibits a subvertical face formed by moderate to thickly bedded gritstone. The gritstone bedding appears horizontal or gently dipping and is competent with no evidence of significant fractures or fissures that would lead to instability within the medium to long term.



Photograph 1 Rock Face exposure in the Southeast corner of the site showing massive gritstone beds.



Photograph 2 Rock Face exposure in the Southeast corner of the site showing massive gritstone overlain by thinner beds above (overhanging).

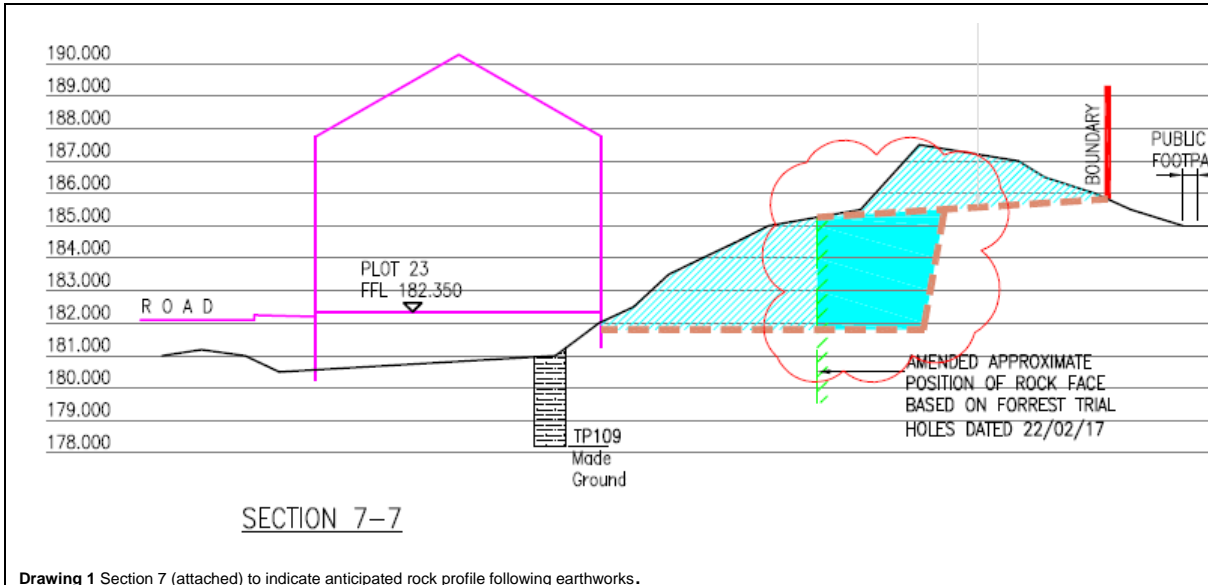
Proposed works

It is proposed to remove the overburden (quarry spoil) and solid rock from the building and garden areas in accordance with the sections plan attached (Section 7 example below). The rock face would be cut back to an angle of approximately 75° - 80° similar to the existing rock face geometry. It is anticipated that the resulting rock face would be between 3.0 - 3.5m high at the site boundary.

Maintenance

The rock will be cut back to an angle of approximately 75° - 80° and any loose or overhanging material will be removed. At this stage, due to the competent nature of the gritstone bedding, a short - medium term maintenance plan is not considered necessary. However an assessment of the exposed face will be undertaken once the works are complete to confirm what maintenance (if any) might be required in the long term. The proposed quarry faced will be fenced at the crest of the face to prevent falls.

Typical Quarry Face Profile following Earthworks



Concluding Remarks

We trust this meets with your initial requirements but should you require further information please don't hesitate to call.

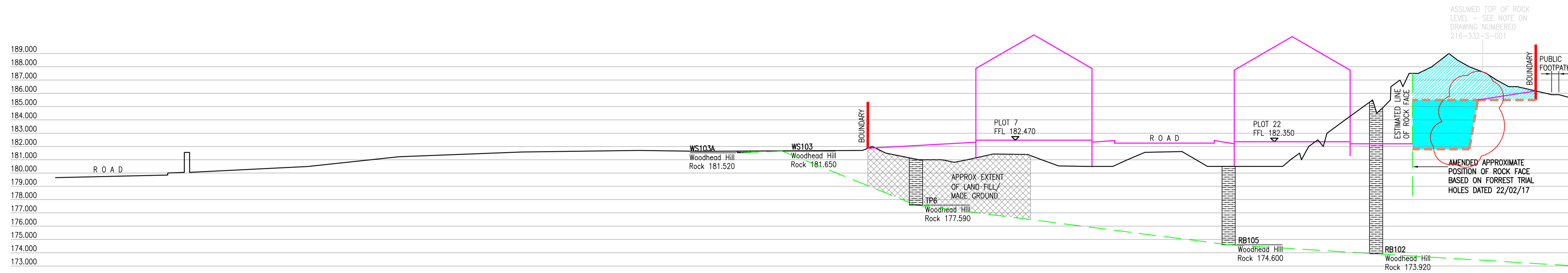
Yours sincerely
For and on behalf of Chandos Remediation

Richard Horsnell

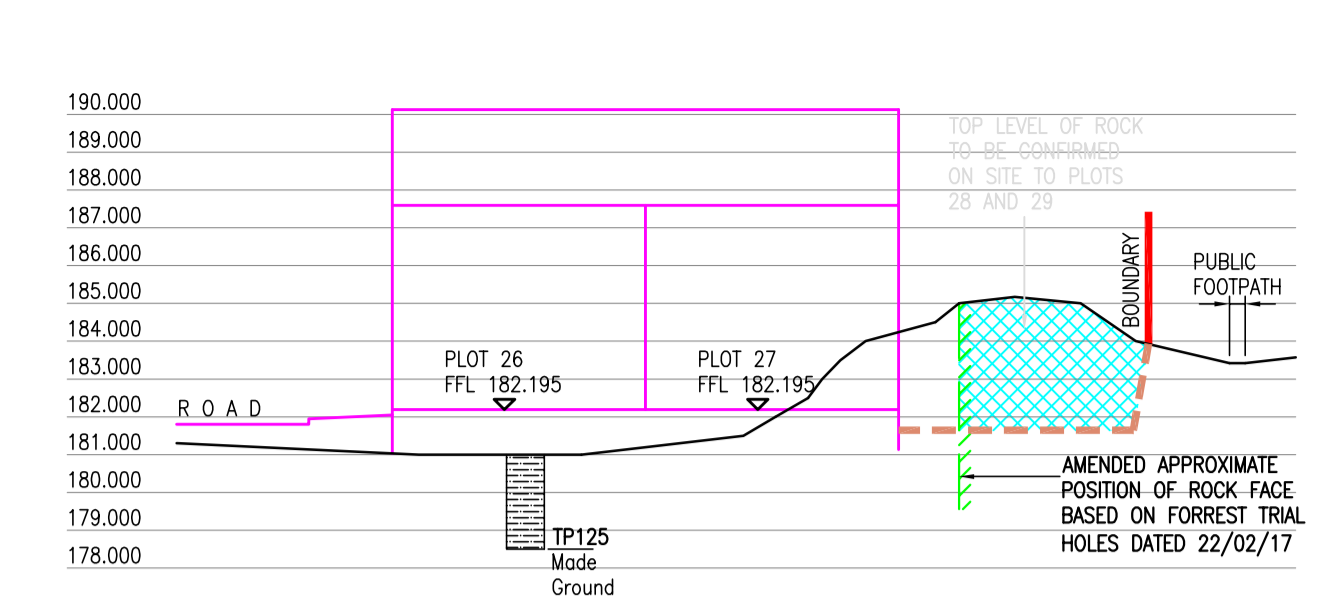
**Richard Horsnell BSc MSc CGeol FGS
Director**

Enclosed

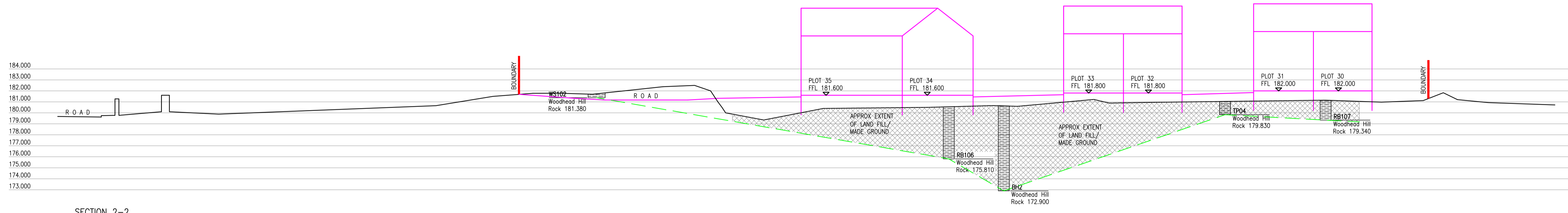
Site Cross Sections Drawing 216-332-S-003 Rev P3, AJP
Foundation Zoning Plan (showing sections) 216-331 S-001 Rev P3, AJP.



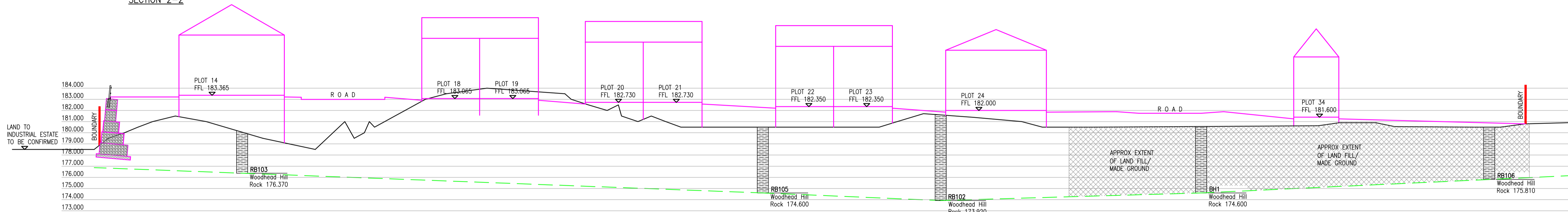
SECTION 1-1



SECTION 8-8



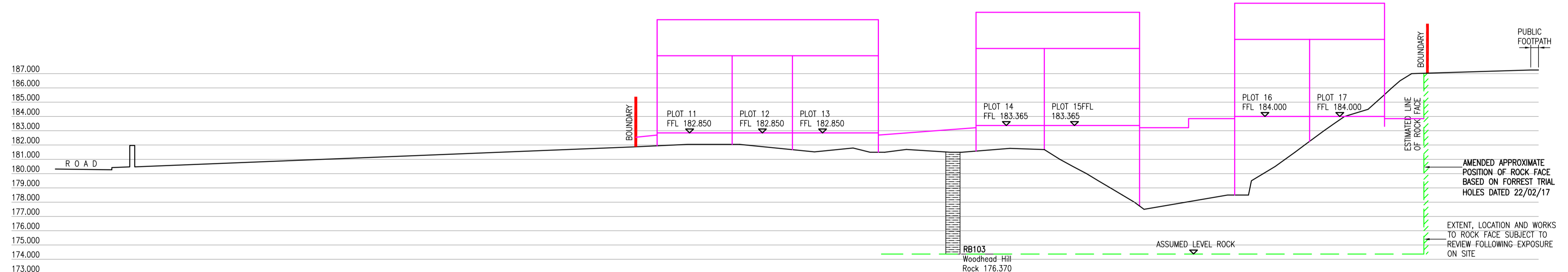
SECTION 2-2



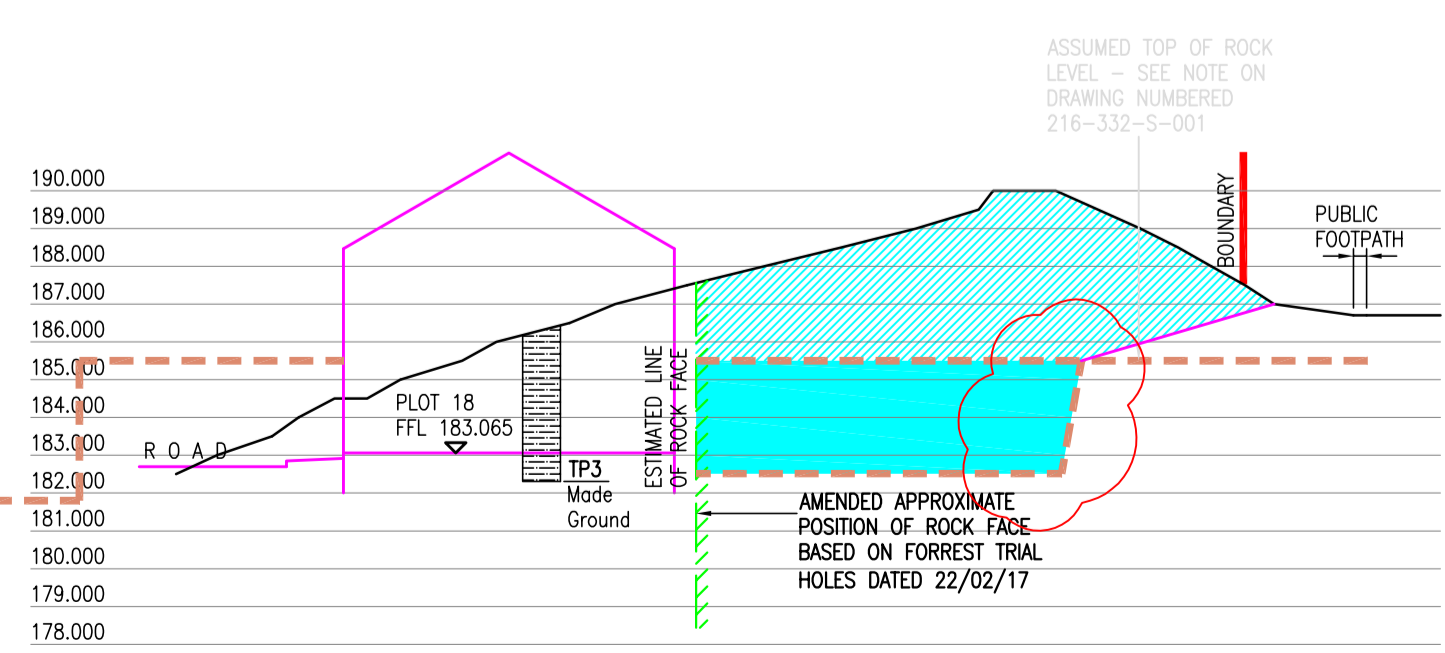
SECTION 3-3

— PROPOSED LEVELS
— EXISTING LEVELS
— ROCK LEVELS

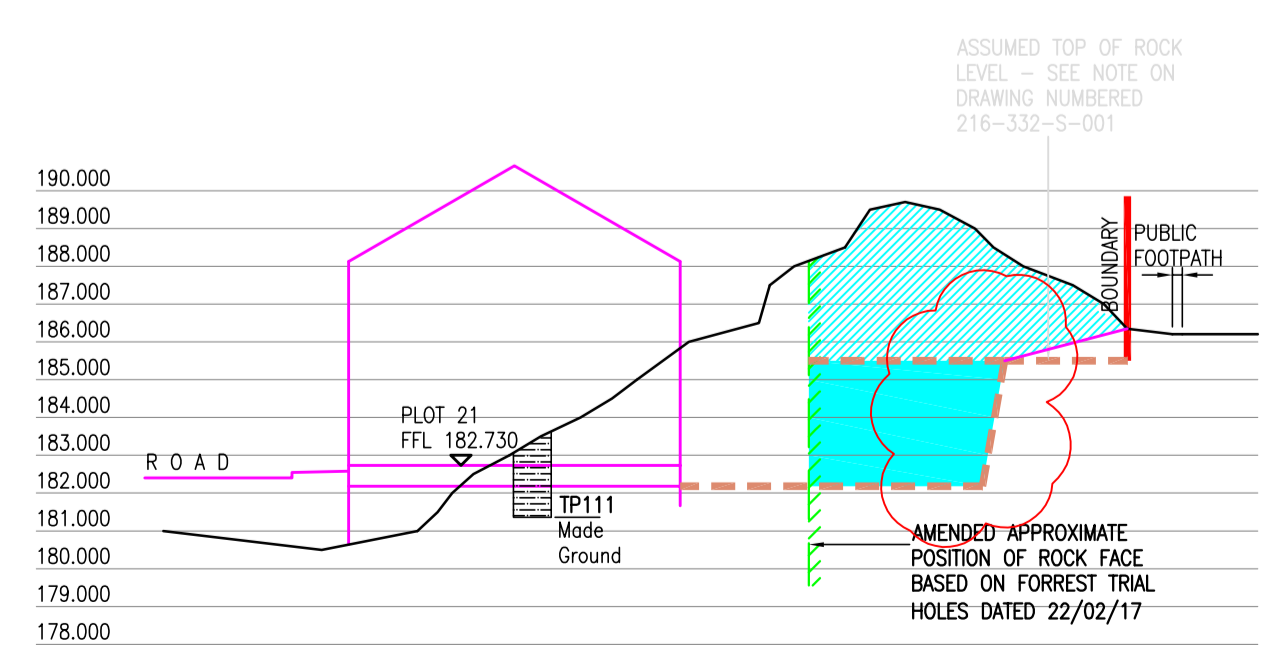
ESTIMATED LOOSE SOIL, GRANULAR FILL TO BE REMOVED BASED ON FORREST TRIAL HOLES DATED 22/02/17
 ESTIMATED ROCK REMOVAL BASED ON TOP LEVEL OF ROCK AND FORREST TRIAL HOLES DATED 22/02/17



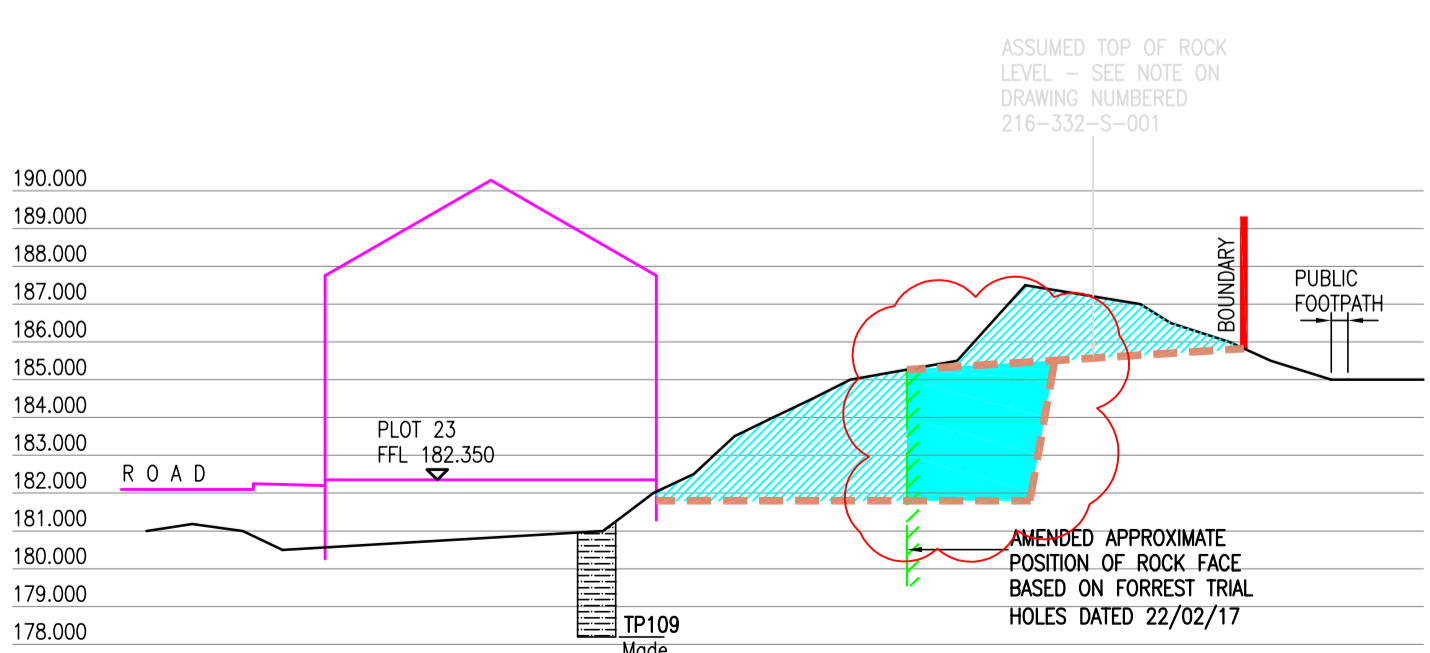
SECTION 4-4



SECTION 5-5



SECTION 6-6

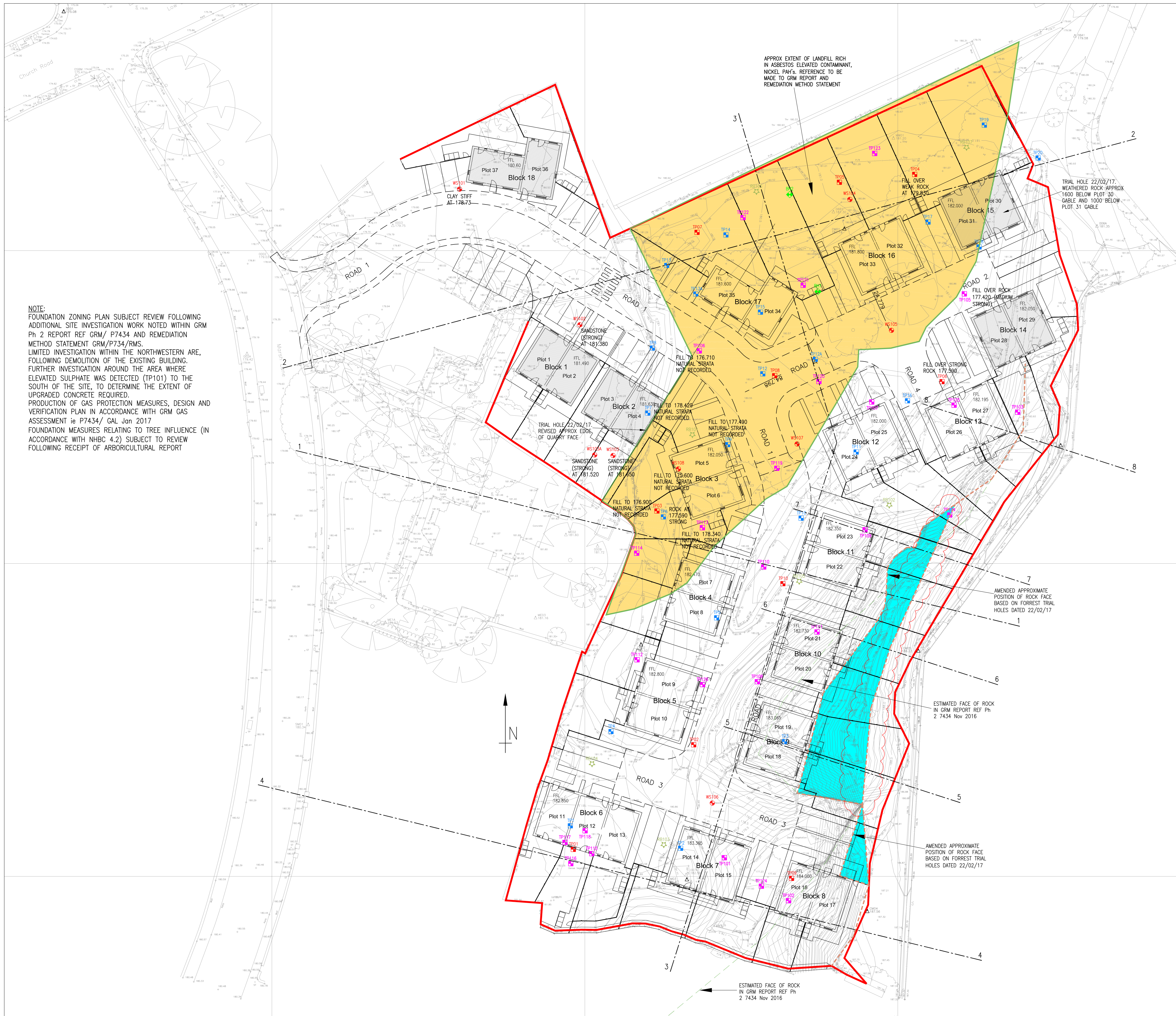


SECTION 7-7

REV	DATE	DESCRIPTION	BY	CHK	APP
P3	29/03/17	AMENDED WHERE CLOUDED	DAP	JLS	JLS
P2	03/03/17	AMENDED WHERE CLOUDED	DAP	JLS	JLS
P1	01/03/17	ROCK FACE AMENDED WHERE CLOUDED	DAP	JLS	JLS

DRAWING STATUS:		PRELIMINARY	
CLIENT:			
ARCHITECT:		BOWKER SADLER	
PROJECT:		MARSH LANE NEW MILLS	
TITLE:		SITE CROSS SECTIONS	
STATUS:	PROJECT NUMBER:	DRAWING No:	REV:
	216-332	S-003	P3
SCALE: @A1	DESIGNED:	DRAWN:	CHECKED:
1:200	DAP	DAP	JLS
	APPROVED:	JLS	DATE:
			02/02/17

alan johnston partnership LLP			
CONSULTING STRUCTURAL & CIVIL ENGINEERS			
1 Dale Street,	Tel: 0151 227 1462		
Liverpool L2 2ET	Fax: 0151 225 1187	E-Mail: Mail@aljsstructeng.com	



NOTE:
 FOUNDATION ZONING PLAN SUBJECT REVIEW FOLLOWING
 ADDITIONAL SITE INVESTIGATION WORK NOTED WITHIN GRM
 Ph 2 REPORT REF GRM/ P7434 AND REMEDIATION
 METHOD STATEMENT GRM/P734/RMS.
 LIMITED INVESTIGATION WITHIN THE NORTHWESTERN ARE,
 FOLLOWING DEMOLITION OF THE EXISTING BUILDING.
 FURTHER INVESTIGATION AROUND THE AREA WHERE
 ELEVATED SULPHATE WAS DETECTED (TP101) TO THE
 SOUTH OF THE SITE, TO DETERMINE THE EXTENT OF
 UPGRADED CONCRETE REQUIRED.
 PRODUCTION OF GAS PROTECTION MEASURES, DESIGN AND
 VERIFICATION PLAN IN ACCORDANCE WITH GRM GAS
 ASSESSMENT ie P7434/ GAL Jan 2017
 FOUNDATION MEASURES RELATING TO TREE INFLUENCE (IN
 ACCORDANCE WITH NHBC 4.2) SUBJECT TO REVIEW
 FOLLOWING RECEIPT OF ARBORICULTURAL REPORT

APPROX EXTENT OF LANDFILL RICH
 IN ASBESTOS ELEVATED CONTAMINANT,
 NICKEL PAH's. REFERENCE TO BE
 MADE TO GRM REPORT AND
 REMEDIATION METHOD STATEMENT

TRIAL HOLE 22/02/17.
 WEATHERED ROCK APPROX
 1600 BELOW PLOT 30
 GABLE AND 1000' BELOW
 PLOT 31 GABLE

AMENDED APPROXIMATE
 POSITION OF ROCK FACE
 BASED ON FORREST TRIAL
 HOLES DATED 22/02/17

ESTIMATED FACE OF ROCK
 IN GRM REPORT REF Ph
 2 7434 Nov 2016

AMENDED APPROXIMATE
 POSITION OF ROCK FACE
 BASED ON FORREST TRIAL
 HOLES DATED 22/02/17

ESTIMATED FACE OF ROCK
 IN GRM REPORT REF Ph
 2 7434 Nov 2016

- LEGEND**
- DENOTES PLOTS WITH TRENCH FILL/ STRIP FOUNDATIONS
 - DENOTES REMAINDER OF PLOTS TO BE PILED SUBJECT TO REVIEW OF ROCK FACE DURING SITE STRIP/ REMEDIATION WORKS
 - APPROX EXTENT OF LANDFILL MADE GROUND
 - ESTIMATED REMOVAL OF ROCK BASED ON FORREST TRIAL HOLES DATED 22/02/17. ASSUMED TOP OF ROCK LEVEL BETWEEN 185.500 AND 186.500 SUBJECT TO REVIEW ON SITE FOLLOWING EXPOSURE OF ROCK. ROCK TO BE REMOVED DOWN TO DEPTH NO LESS THAN 750mm BELOW PROPOSED FLOOR LEVEL TO ADJACENT PROPERTIES
 - SITE BOUNDARY
 - APPROX VERTICAL ROCK FACE TO GRM REPORT
 - APPROX VERTICAL ROCK FACE TO BASED ON FORREST TRIAL HOLES
 - TP107 DENOTES TRIAL HOLE
 - RB1 DENOTES ROTARY BORE HOLE
 - WS101 DENOTES WINDOW SAMPLE
 - BH2 DENOTES BORE HOLE

FOR ALL TRIAL HOLES, ROTARY BORE HOLES, WINDOW SAMPLES, BORE HOLES REFER TO GRM SITE INVESTIGATION REPORT REF:
 Ph 1 P7934 Oct 2016
 Ph 2 7434 Nov 2016.
 SITE REMEDIATION WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH GRM REMEDIATION METHOD STATEMENT GRM/P7434/RMS Nov 2016

FOR SITE CROSS SECTIONS REFER TO DRAWING NUMBERED 216-332-S-003

REV	DATE	DESCRIPTION	BY	CHK	APP
P3	29/03/17	AMENDED WHERE CLOUDED	DAP	JLS	JLS
P2	05/03/17	AMENDED WHERE CLOUDED	DAP	JLS	JLS
P1	17/02/17	ROCK FACE AMENDED WHERE CLOUDED	DAP	JLS	JLS

DRAWING STATUS: **PRELIMINARY**

CLIENT:

ARCHITECT: **BOWKER SADLER**

PROJECT: **MARSH LANE NEW MILLS**

TITLE: **FOUNDATION ZONING PLAN**

STATUS	PROJECT NUMBER	DRAWING No.	REV
	216-332	S-001	P3

SCALE 1:1000	DESIGNED	DRAWN	CHECKED	APPROVED	DATE
	DAP	DAP	JLS	JLS	29/01/17