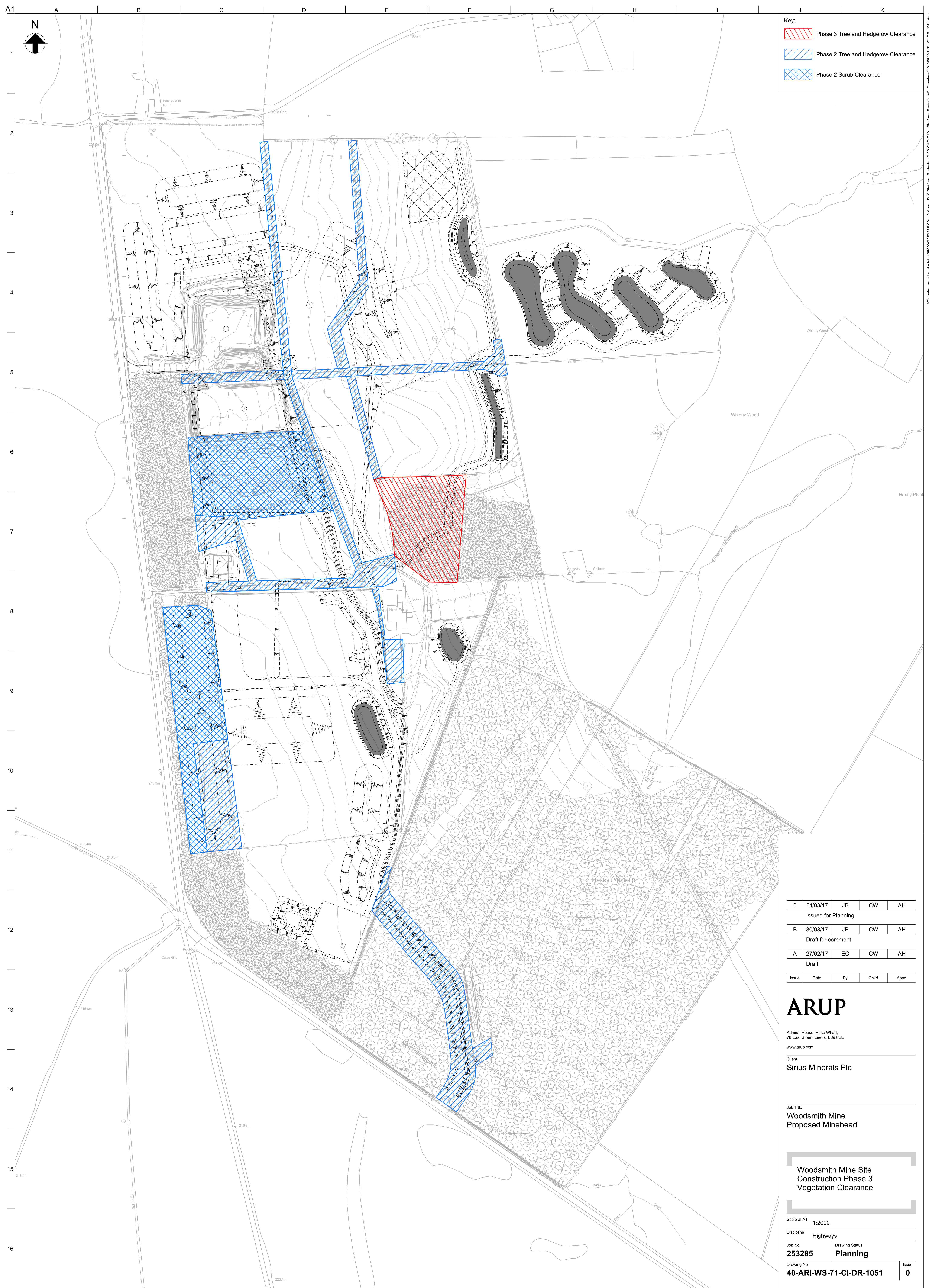


## **APPENDIX 2**

### **DESIGN DRAWING**





Key:

	Phase 3 Tree and Hedgerow Clearance
	Phase 2 Tree and Hedgerow Clearance
	Phase 2 Scrub Clearance

0	31/03/17	JB	CW	AH
Issued for Planning				
B	30/03/17	JB	CW	AH
Draft for comment				
A	27/02/17	EC	CW	AH
Draft				
Issue	Date	By	Chkd	Appd

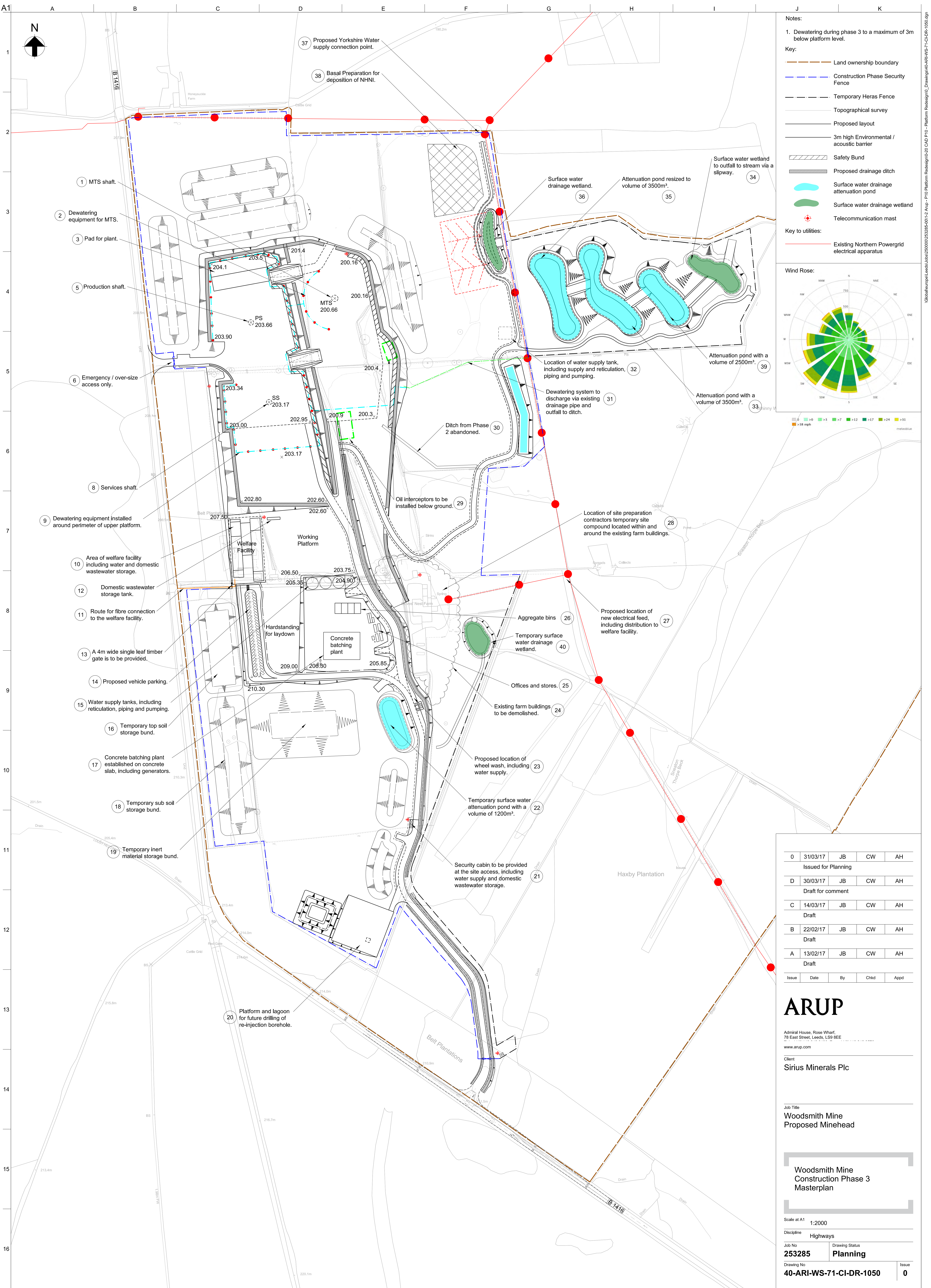
**ARUP**  
 Admiral House, Rose Wharf,  
 76 East Street, Leeds, LS9 8EE  
 www.arup.com  
 Client  
**Sirius Minerals Plc**

Job Title  
**Woodsmith Mine  
 Proposed Minehead**

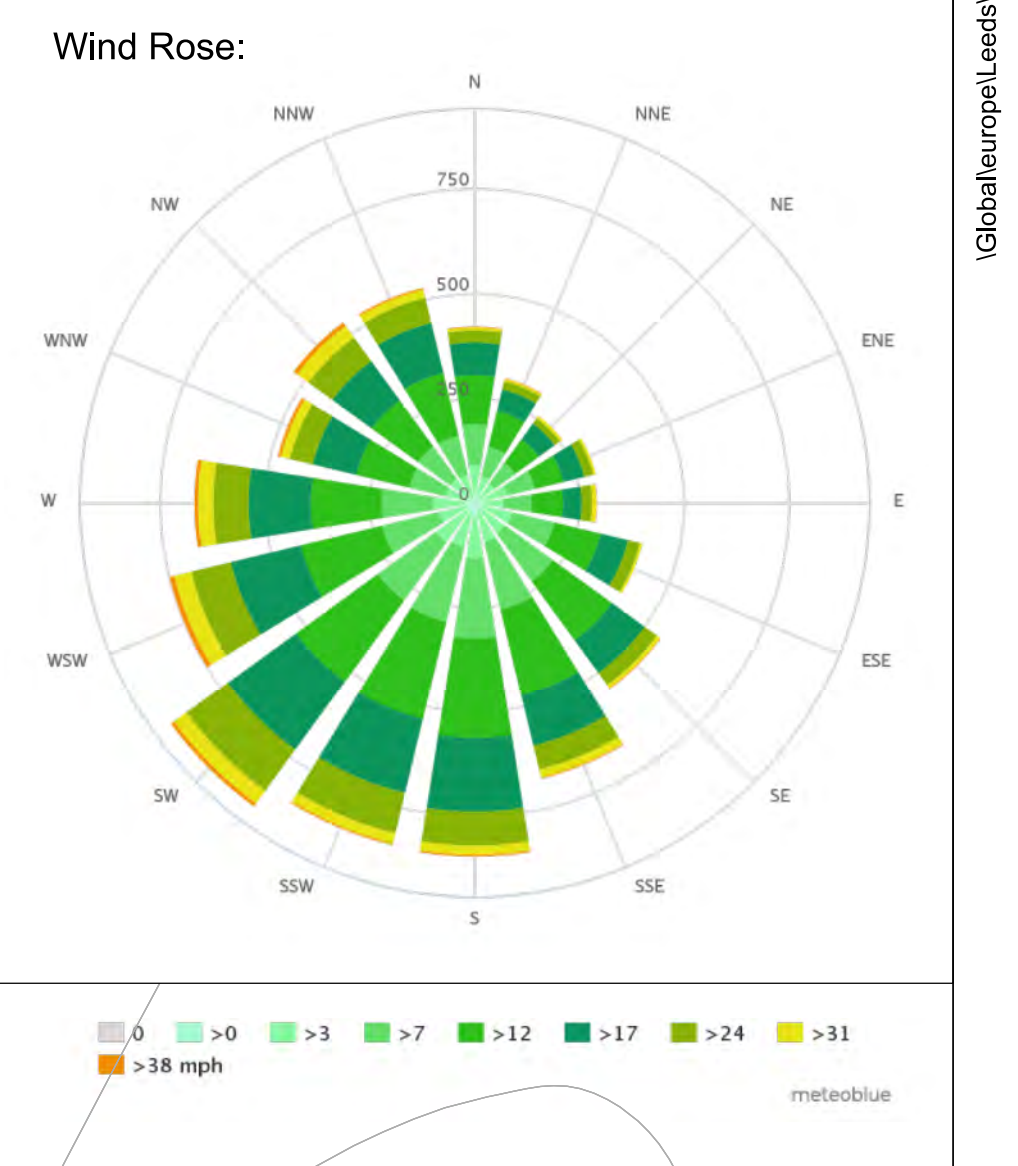
**Woodsmith Mine Site  
 Construction Phase 3  
 Vegetation Clearance**

Scale at A1	1:2000
Discipline	Highways
Job No	253285
Drawing Status	Planning
Drawing No	40-ARI-WS-71-CI-DR-1051
Issue	0





- Notes:
- Dewatering during phase 3 to a maximum of 3m below platform level.
- Key:
- Land ownership boundary
  - Construction Phase Security Fence
  - Temporary Heras Fence
  - Topographical survey
  - Proposed layout
  - 3m high Environmental / acoustic barrier
  - Safety Bund
  - Proposed drainage ditch
  - Surface water drainage attenuation pond
  - Surface water drainage wetland
  - Telecommunication mast
- Key to utilities:
- Existing Northern Powergrid electrical apparatus



0	31/03/17	JB	CW	AH
Issued for Planning				
D	30/03/17	JB	CW	AH
Draft for comment				
C	14/03/17	JB	CW	AH
Draft				
B	22/02/17	JB	CW	AH
Draft				
A	13/02/17	JB	CW	AH
Draft				
Issue	Date	By	Chkd	Appd

**ARUP**  
 Admiral House, Rose Wharf,  
 75 East Street, Leeds, LS9 8EE  
 www.arup.com

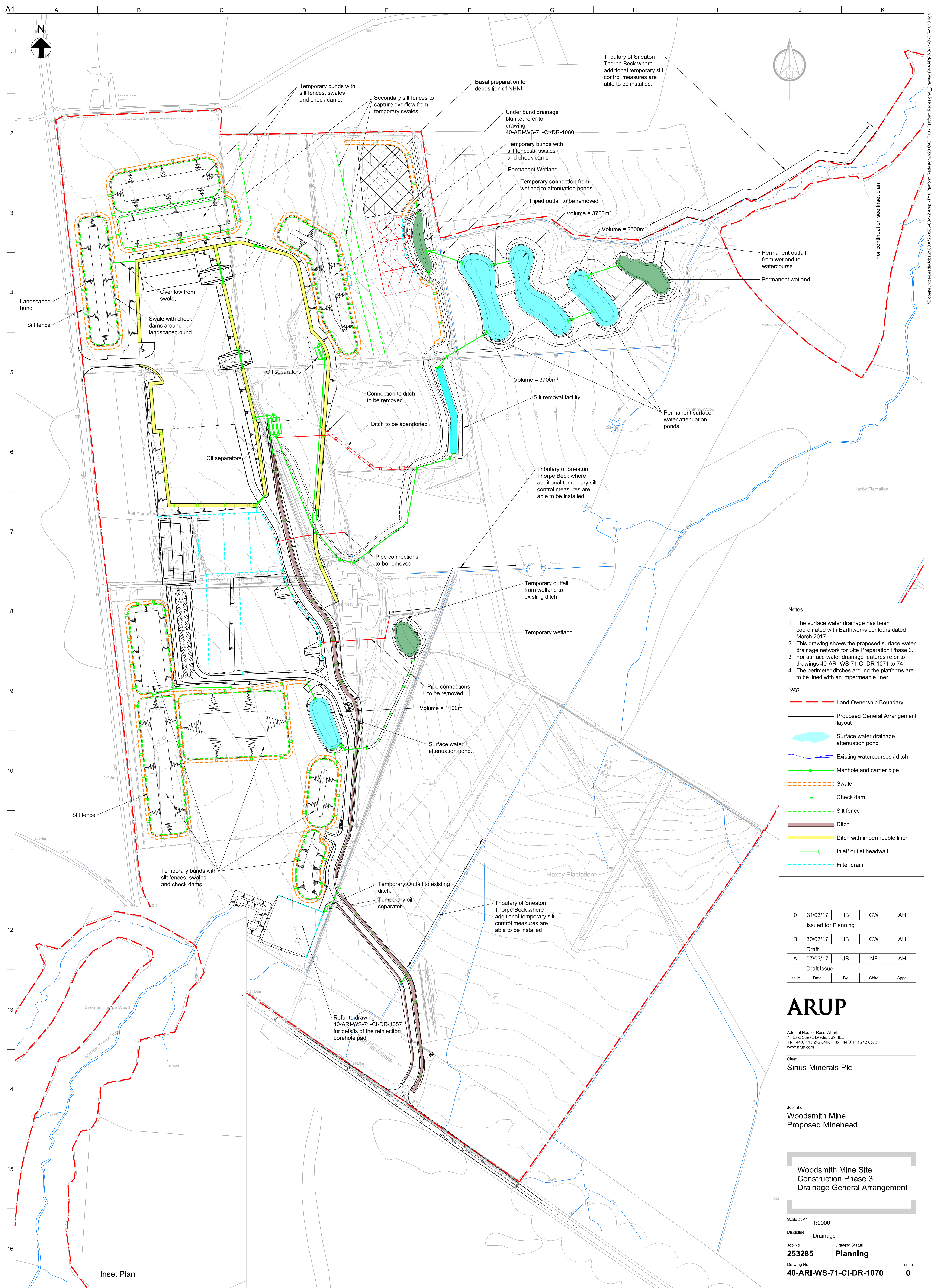
Client  
**Sirius Minerals Plc**

Job Title  
**Woodsmith Mine  
 Proposed Minehead**

**Woodsmith Mine  
 Construction Phase 3  
 Masterplan**

Scale at A1 1:2000  
 Discipline Highways  
 Job No 253285  
 Drawing Status Planning  
 Drawing No 40-ARI-WS-71-CI-DR-1050  
 Issue 0





Inset Plan

- Notes:
- The surface water drainage has been coordinated with Earthworks contours dated March 2017.
  - This drawing shows the proposed surface water drainage network for Site Preparation Phase 3.
  - For surface water drainage features refer to drawings 40-ARI-WS-71-CI-DR-1071 to 74.
  - The perimeter ditches around the platforms are to be lined with an impermeable liner.

- Key:
- Land Ownership Boundary
  - Proposed General Arrangement layout
  - Surface water drainage attenuation pond
  - Existing watercourses / ditch
  - Manhole and carrier pipe
  - Swale
  - Check dam
  - Silt fence
  - Ditch
  - Ditch with impermeable liner
  - Inlet/ outlet headwall
  - Filter drain

0	31/03/17	JB	CW	AH
Issued for Planning				
B	30/03/17	JB	CW	AH
Draft				
A	07/03/17	JB	NF	AH
Draft issue				
Issue	Date	By	Chkd	Appd

**ARUP**  
 Admiral House, Rose Wharf,  
 70 East Street, Leeds, LS9 9EE  
 Tel +44(0)113 242 8498 Fax +44(0)113 242 8573  
 www.arup.com

Client  
**Sirius Minerals Plc**

Job Title  
**Woodsmith Mine  
 Proposed Minehead**

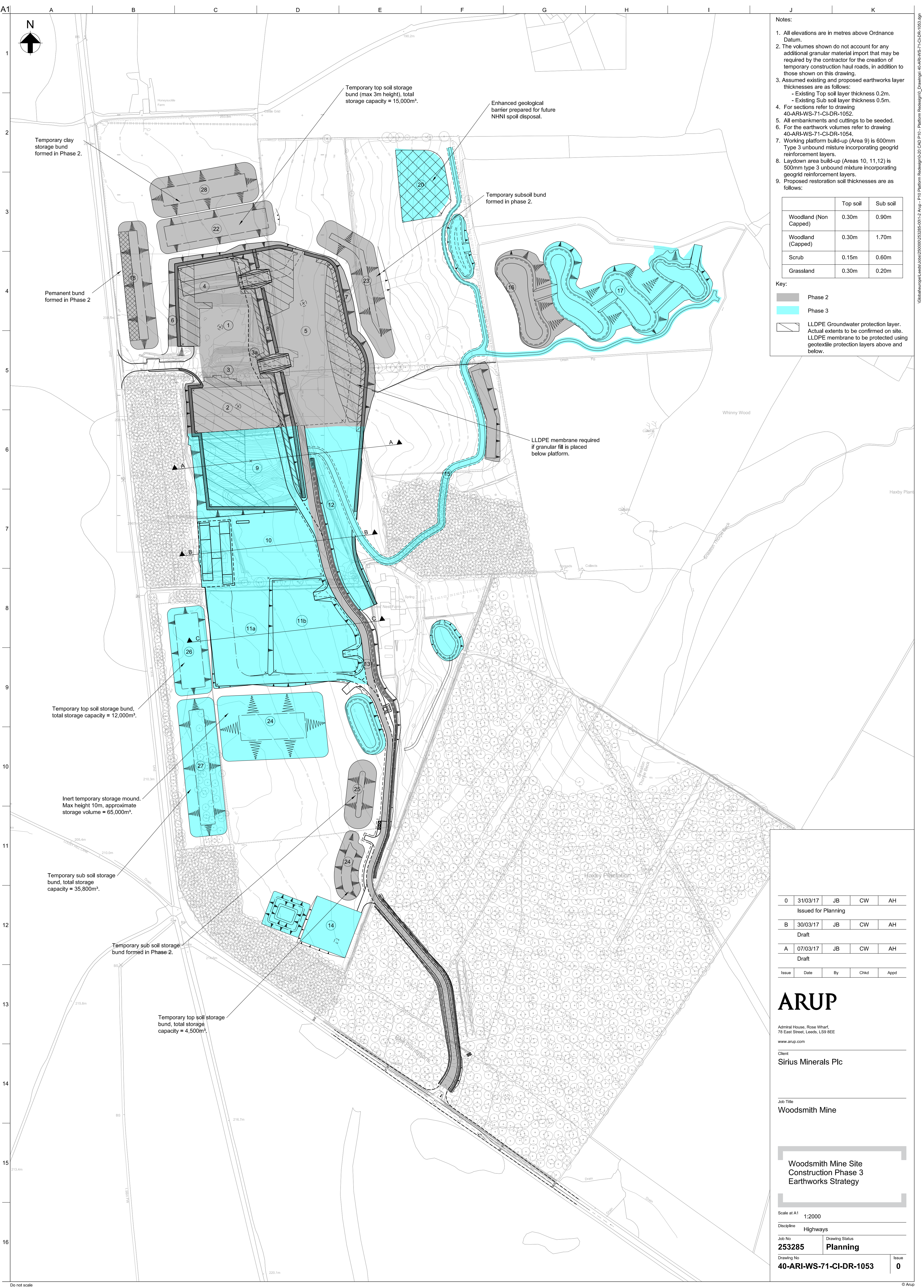
**Woodsmith Mine Site  
 Construction Phase 3  
 Drainage General Arrangement**

Scale at A1 1:2000

Discipline **Drainage**

Job No <b>253285</b>	Drawing Status <b>Planning</b>
Drawing No <b>40-ARI-WS-71-CI-DR-1070</b>	Issue <b>0</b>





- Notes:
- All elevations are in metres above Ordnance Datum.
  - The volumes shown do not account for any additional granular material import that may be required by the contractor for the creation of temporary construction haul roads, in addition to those shown on this drawing.
  - Assumed existing and proposed earthworks layer thicknesses are as follows:
    - Existing Top soil layer thickness 0.2m.
    - Existing Sub soil layer thickness 0.5m.
  - For sections refer to drawing 40-ARI-WS-71-CI-DR-1052.
  - All embankments and cuttings to be seeded.
  - For the earthwork volumes refer to drawing 40-ARI-WS-71-CI-DR-1054.
  - Working platform build-up (Area 9) is 600mm Type 3 unbound mixture incorporating geogrid reinforcement layers.
  - Laydown area build-up (Areas 10, 11, 12) is 500mm type 3 unbound mixture incorporating geogrid reinforcement layers.
  - Proposed restoration soil thicknesses are as follows:

	Top soil	Sub soil
Woodland (Non Capped)	0.30m	0.90m
Woodland (Capped)	0.30m	1.70m
Scrub	0.15m	0.60m
Grassland	0.30m	0.20m

- Key:
- Phase 2
  - Phase 3
  - LLDPE Groundwater protection layer. Actual extents to be confirmed on site. LLDPE membrane to be protected using geotextile protection layers above and below.

0	31/03/17	JB	CW	AH
Issued for Planning				
B	30/03/17	JB	CW	AH
Draft				
A	07/03/17	JB	CW	AH
Draft				
Issue	Date	By	Chkd	Appd

**ARUP**  
 Admiral House, Rose Wharf,  
 78 East Street, Leeds, LS9 8EE  
 www.arup.com

Client  
**Sirius Minerals Plc**

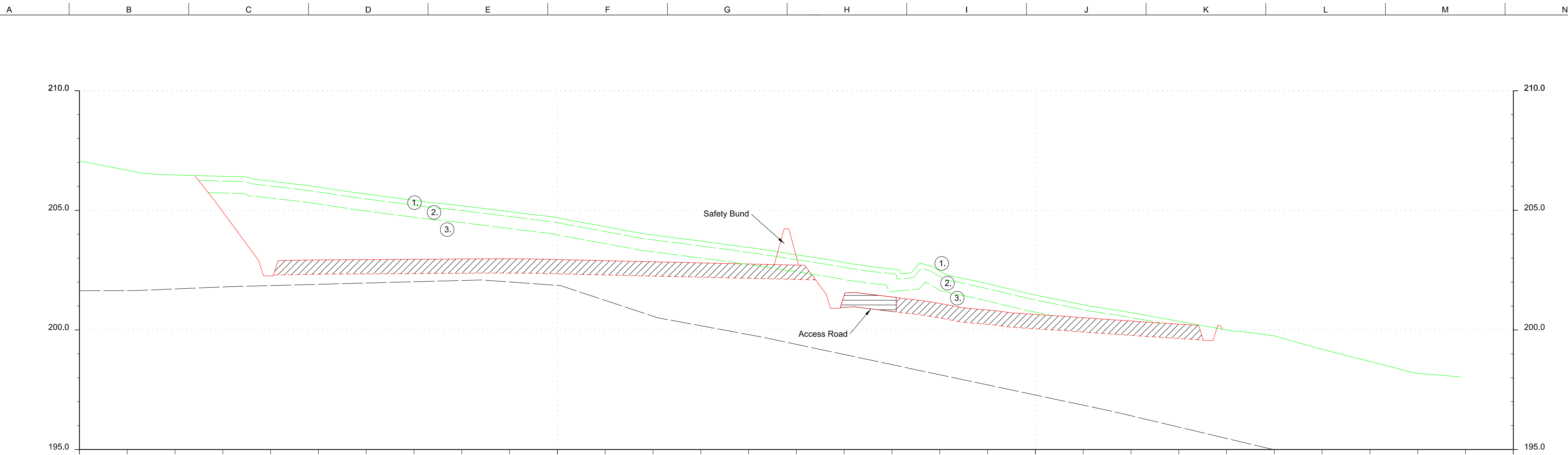
Job Title  
**Woodsmith Mine**

**Woodsmith Mine Site  
 Construction Phase 3  
 Earthworks Strategy**

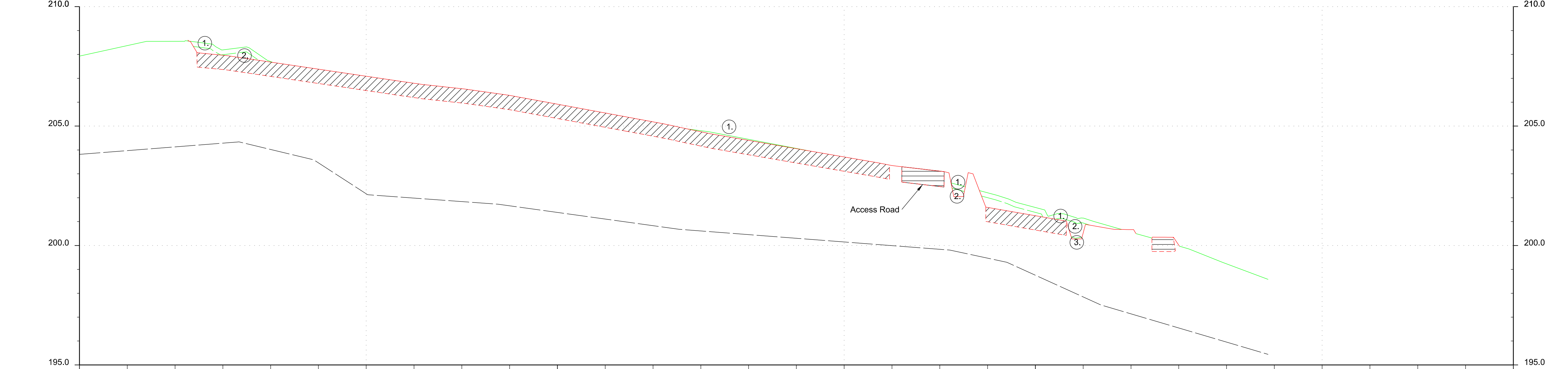
Scale at A1 1:2000  
 Discipline Highways  
 Job No 253285 Drawing Status Planning  
 Drawing No 40-ARI-WS-71-CI-DR-1053 Issue 0



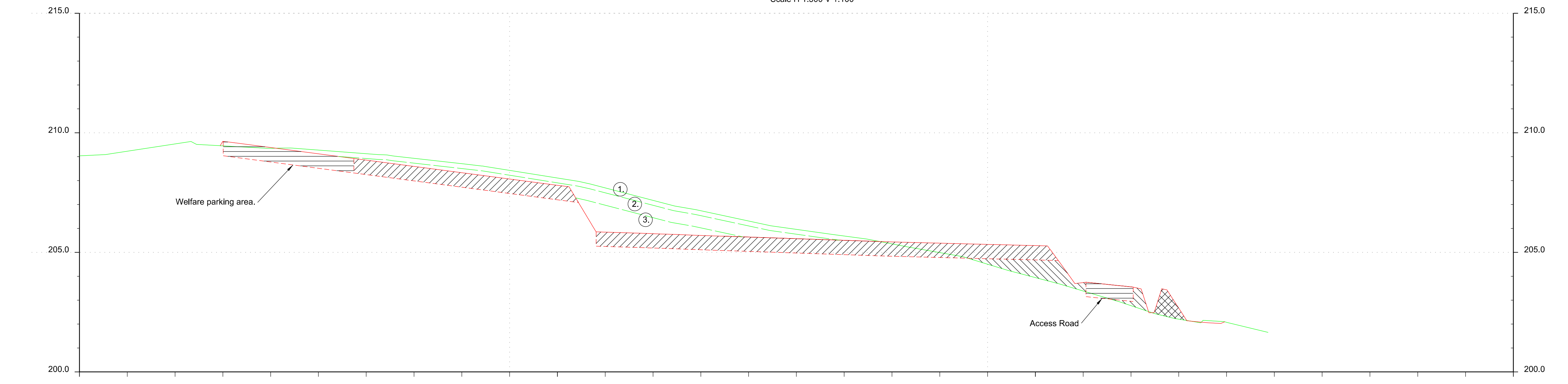
A1  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11



**Section A-A**  
Scale H 1:500 V 1:100



**Section B-B**  
Scale H 1:500 V 1:100



**Section C-C**  
Scale H 1:500 V 1:100

- Notes:
- All levels are in metres unless stated otherwise.
  - For section location refer to drawing 40-ARI-WS-71-CI-DR-1053.

- Key:
- Existing ground profile
  - Proposed platform profile
  - Approximate level of rockhead
  - Base of new platform construction

- Key to assumed platform pavement construction depths and details:
- 1 Top Soil Cut
  - 2 Sub-Soils Cut
  - 3 Superficial Soils Cut
  - Platform Construction (Import)
  - Class 1A Fill (Import)
  - Superficial Soils / Clay
  - Road construction

0	31/03/17	JB	CW	AH
Issued for Planning				
B	30/03/17	JB	CW	AG
Draft for comment				
A	07/03/17	JB	CW	AH
Draft				
Issue	Date	By	Chkd	Appd

**ARUP**  
Admiral House, Rose Wharf,  
79 East Street, Leeds, LS9 8EE  
www.arup.com

Client  
**Sirius Minerals Plc**

Job Title  
**Woodsmith Mine**

**Woodsmith Mine Site  
Construction Phase 3  
Sections**

Scale at A1  
1:500  
Discipline  
Highways  
Job No  
**253285**  
Drawing No  
**40-ARI-WS-71-CI-DR-1052**  
Drawing Status  
**Planning**  
Issue  
**0**