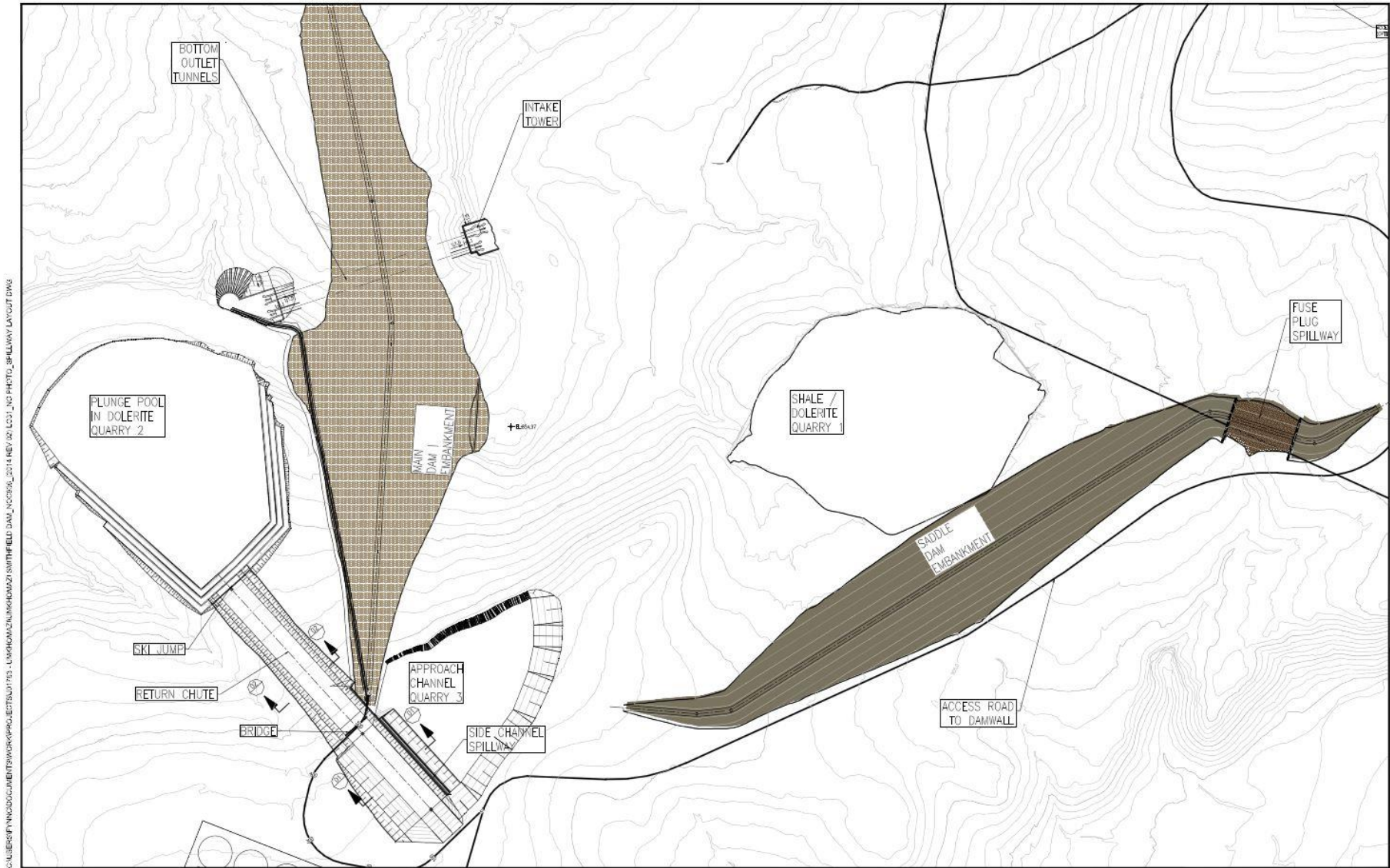


# APPENDIX F

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## DRAWINGS

*(Note that a detailed technical and financial due diligence study will be undertaken prior to project implementation, which will confirm the specific parameters like dam type, height, crest length, full supply level, etc. The dimensions and specific information regarding the project infrastructure should this be regarded as approximate, which may be refined and optimised as part of the final design phase)*



**Figure 1: Smithfield Dam spillway layout**

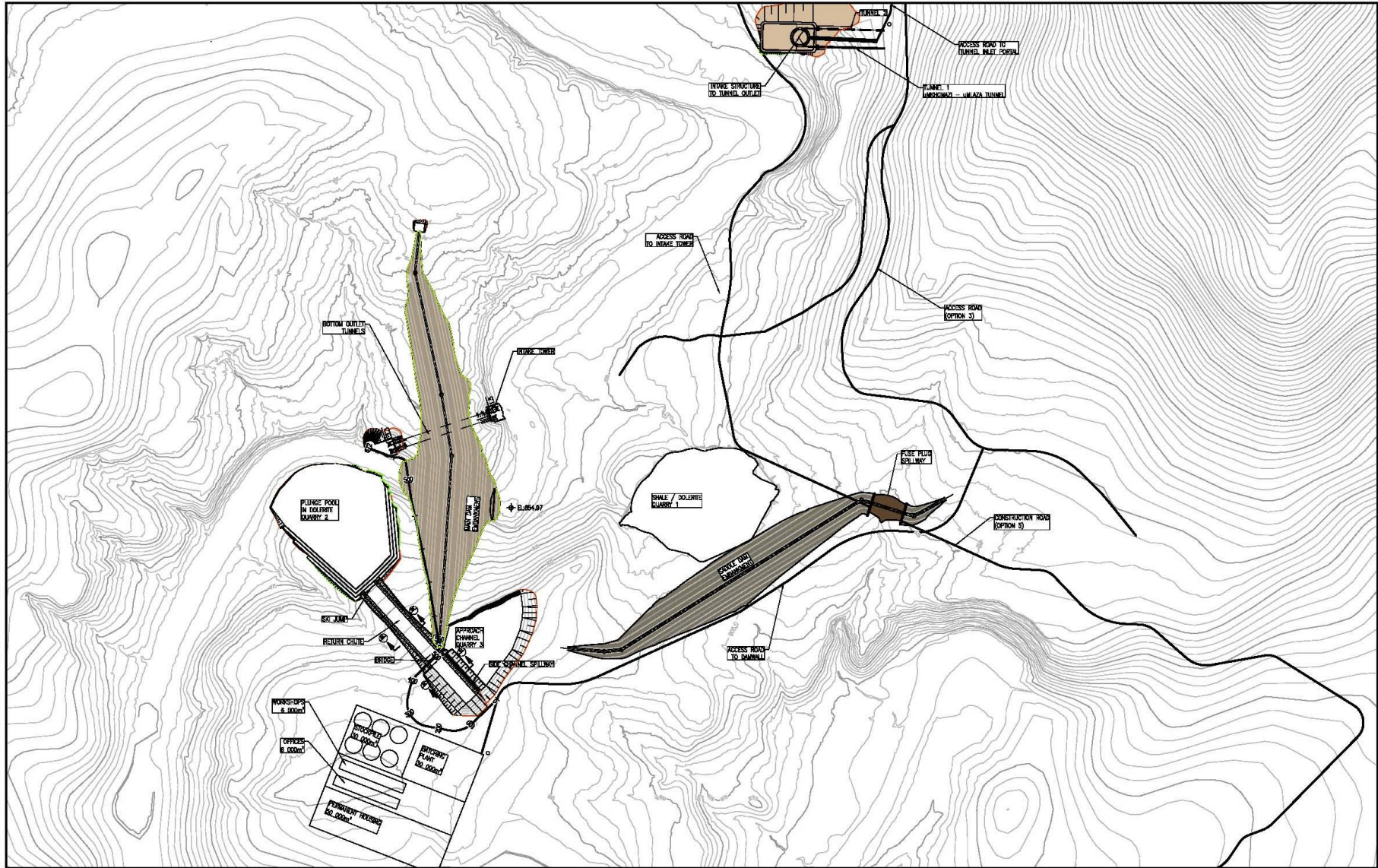
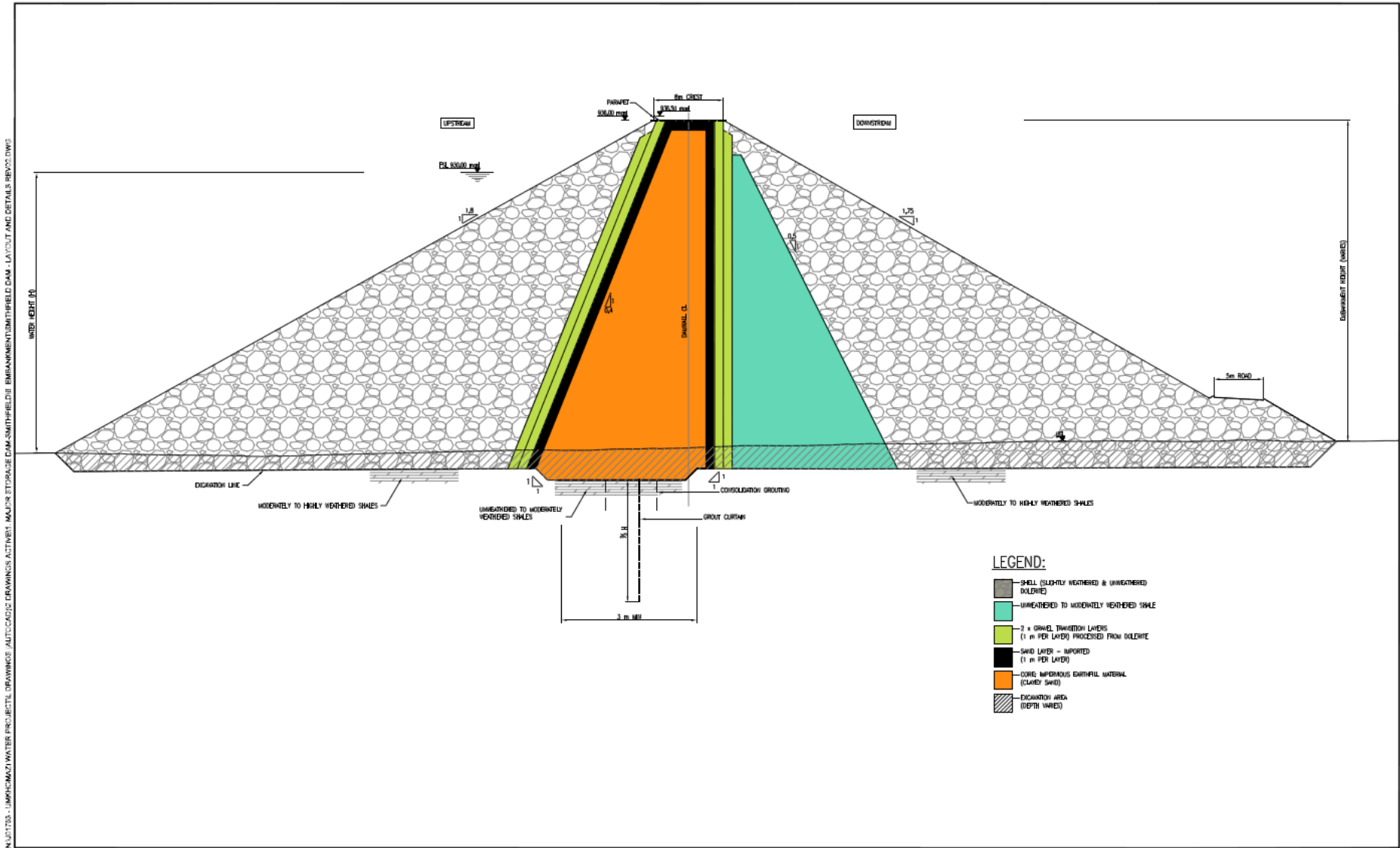
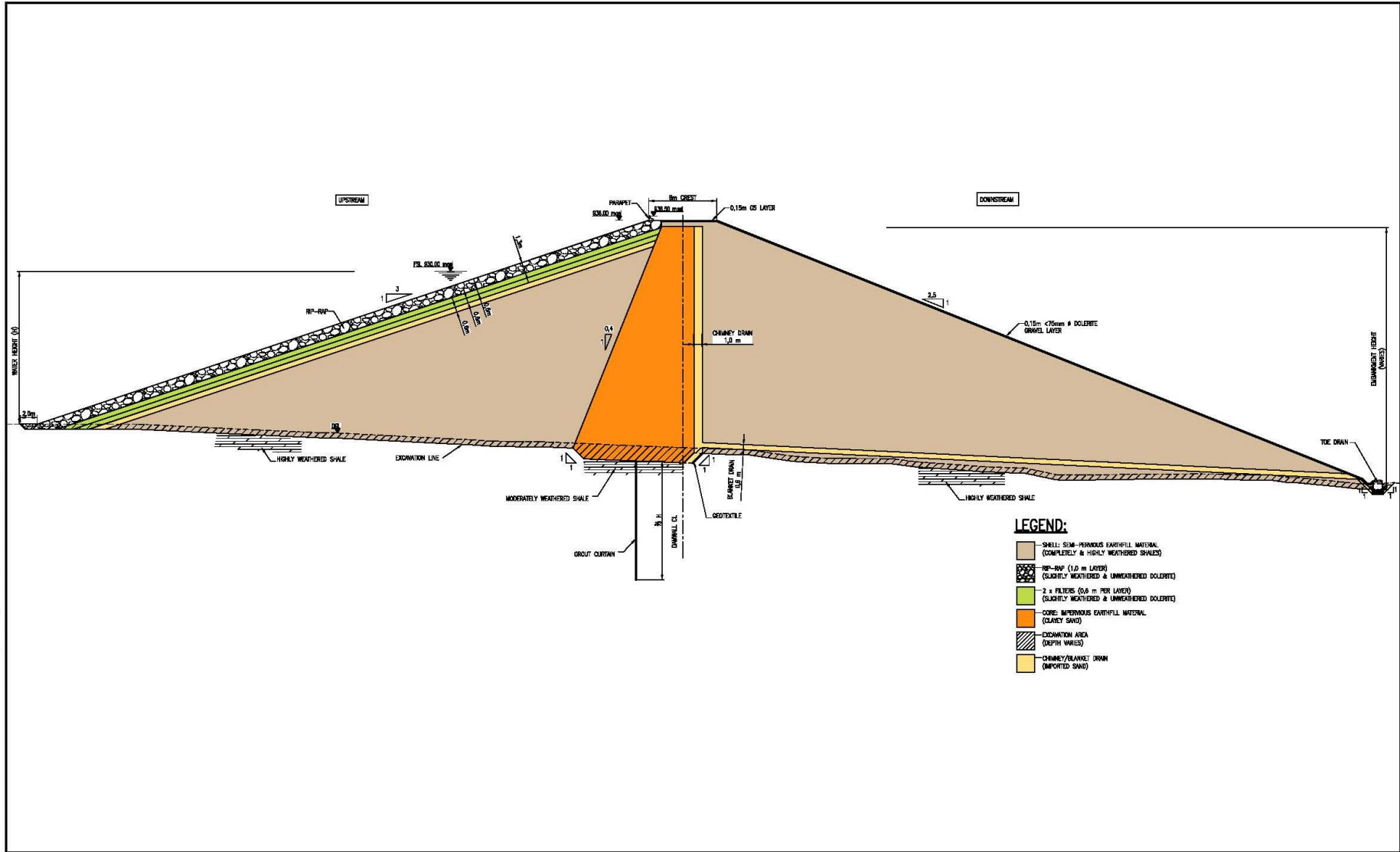


Figure 2: Smithfield Dam layout

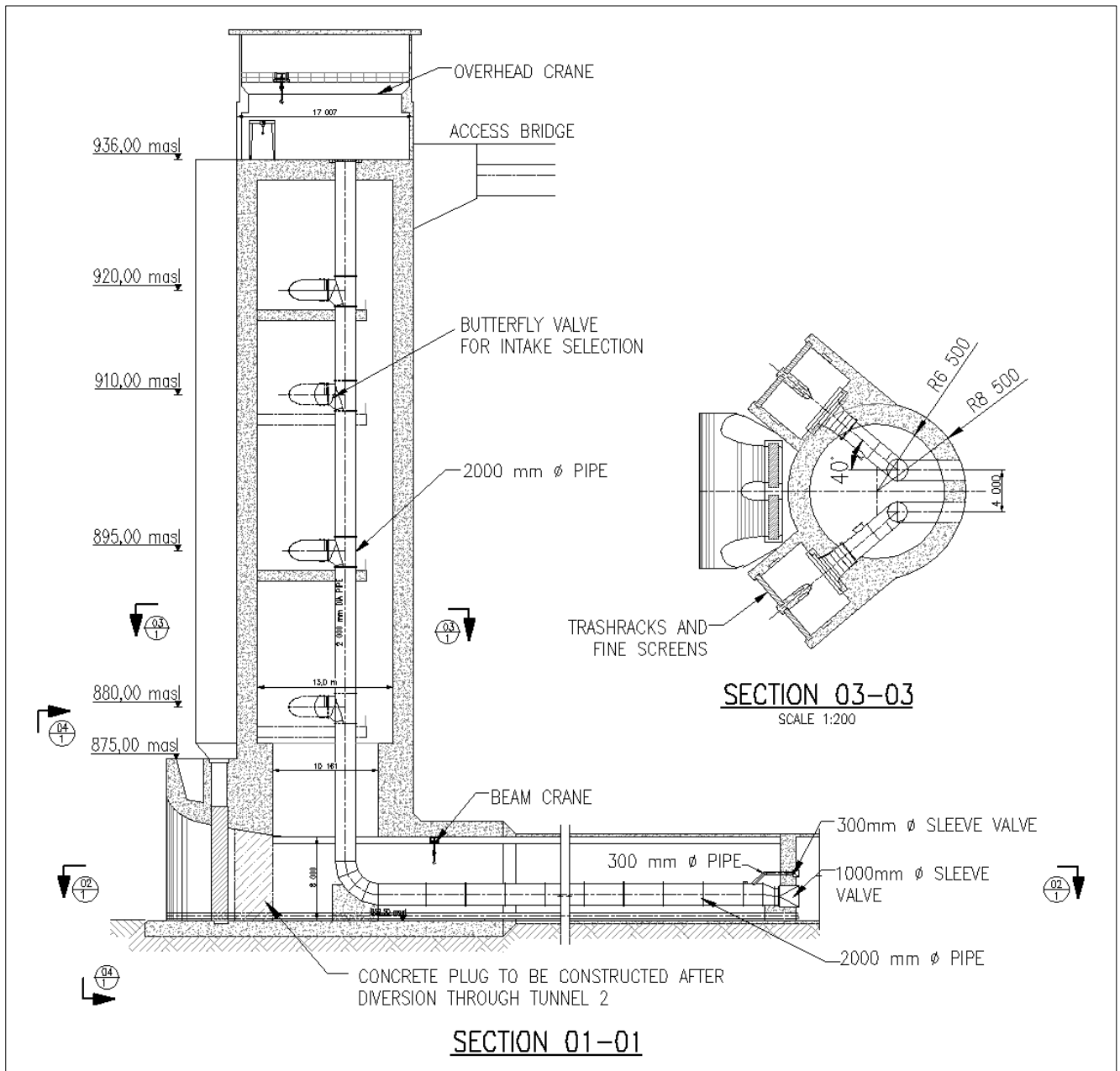


**Figure 3: Cross-section of Smithfield Dam main embankment**

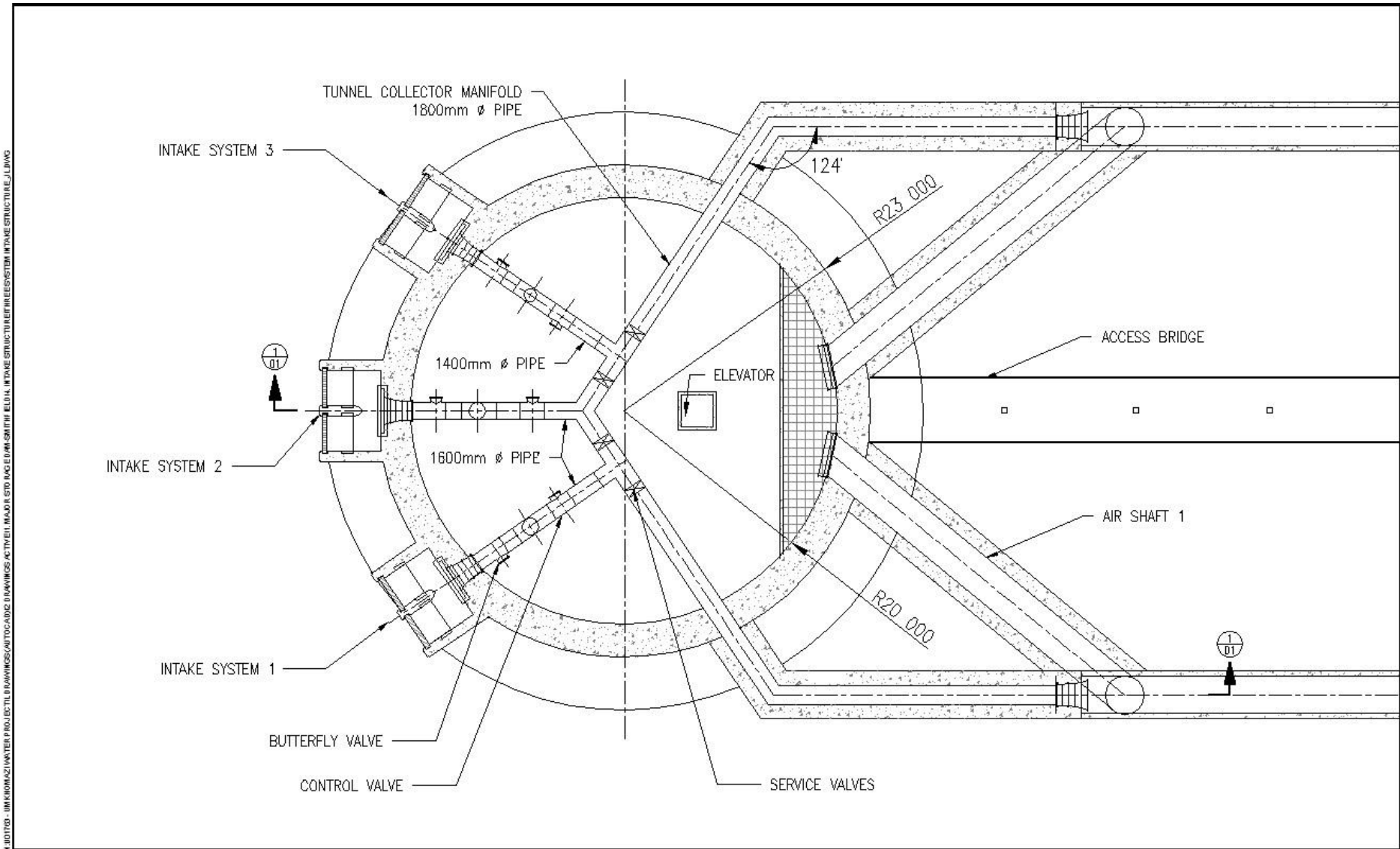
K1401785 - LIMKHOMAZI WATER PROJECT/L DRAWINGS (AUTOCAD)2 DRAWINGS ACTIVE/ MAJOR STORAGE DAM/SMITHFIELD/ EMBANKMENT/SMITHFIELD DAM - LAYOUT AND DETAILS REV/12 DWG



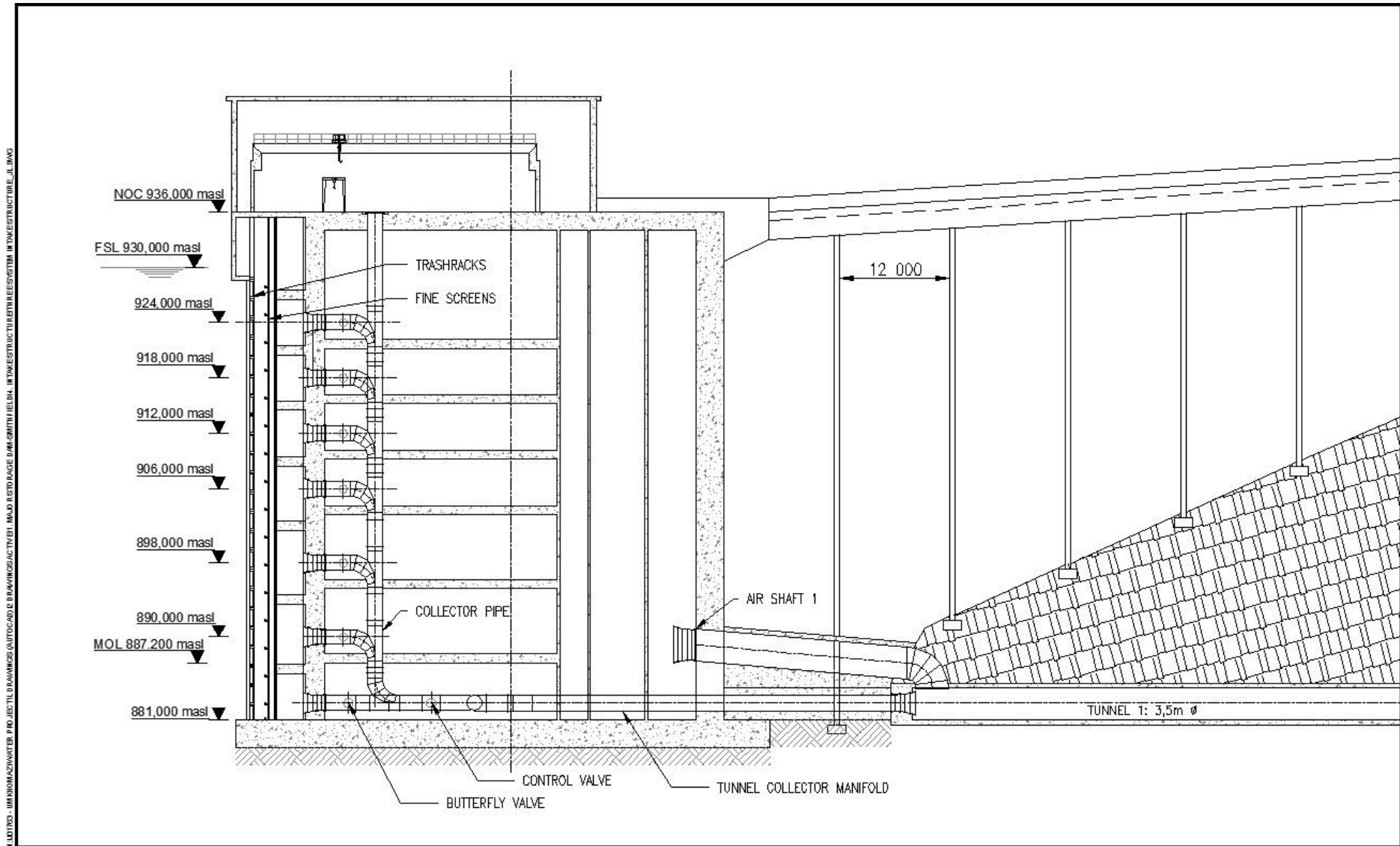
**Figure 4: Cross-section of Smithfield Dam saddle embankment**



**Figure 5: Section through intake structure**



**Figure 6: Layout of tunnel intake structure**



**Figure 7: Layout of tunnel intake structure**



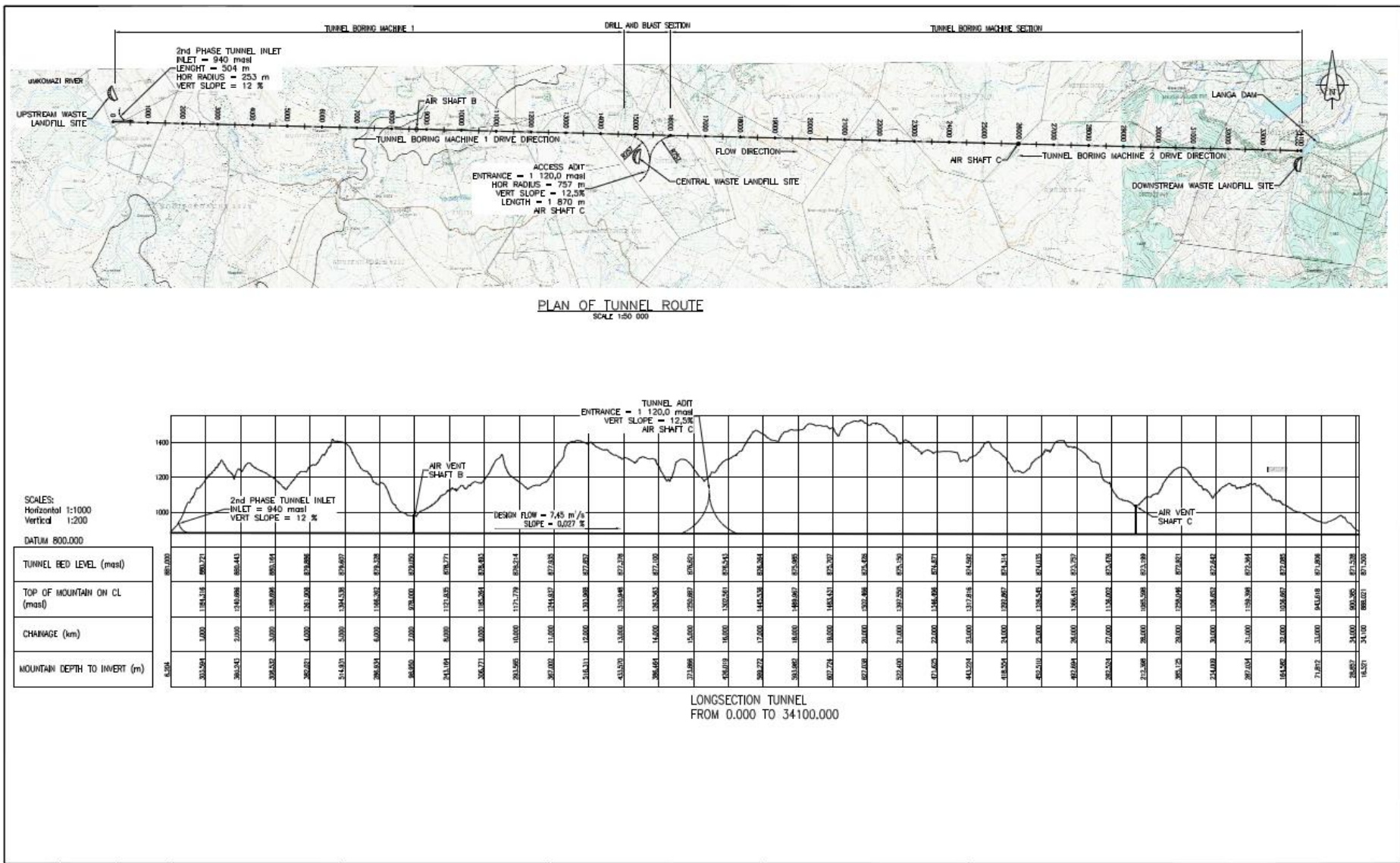
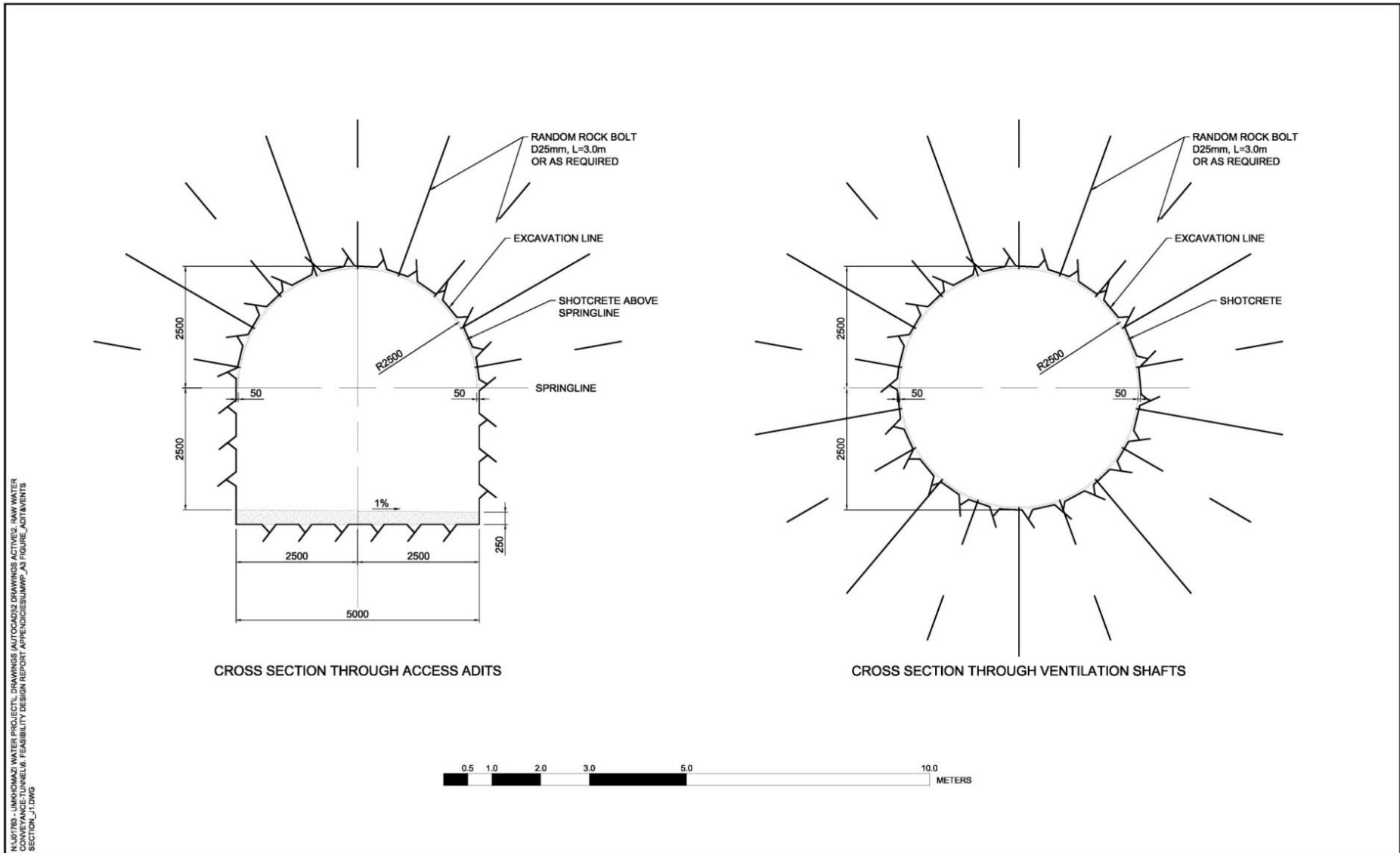
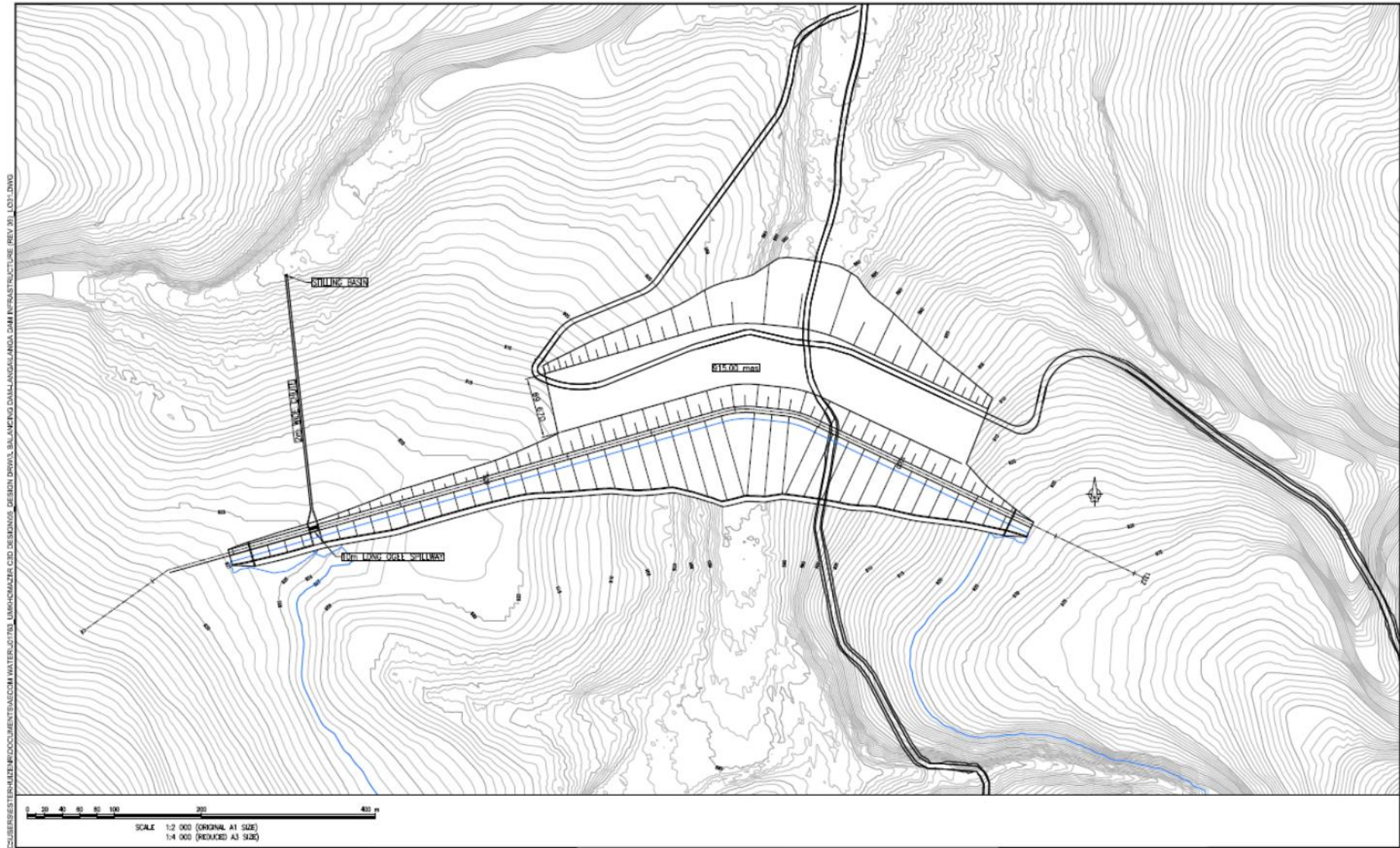


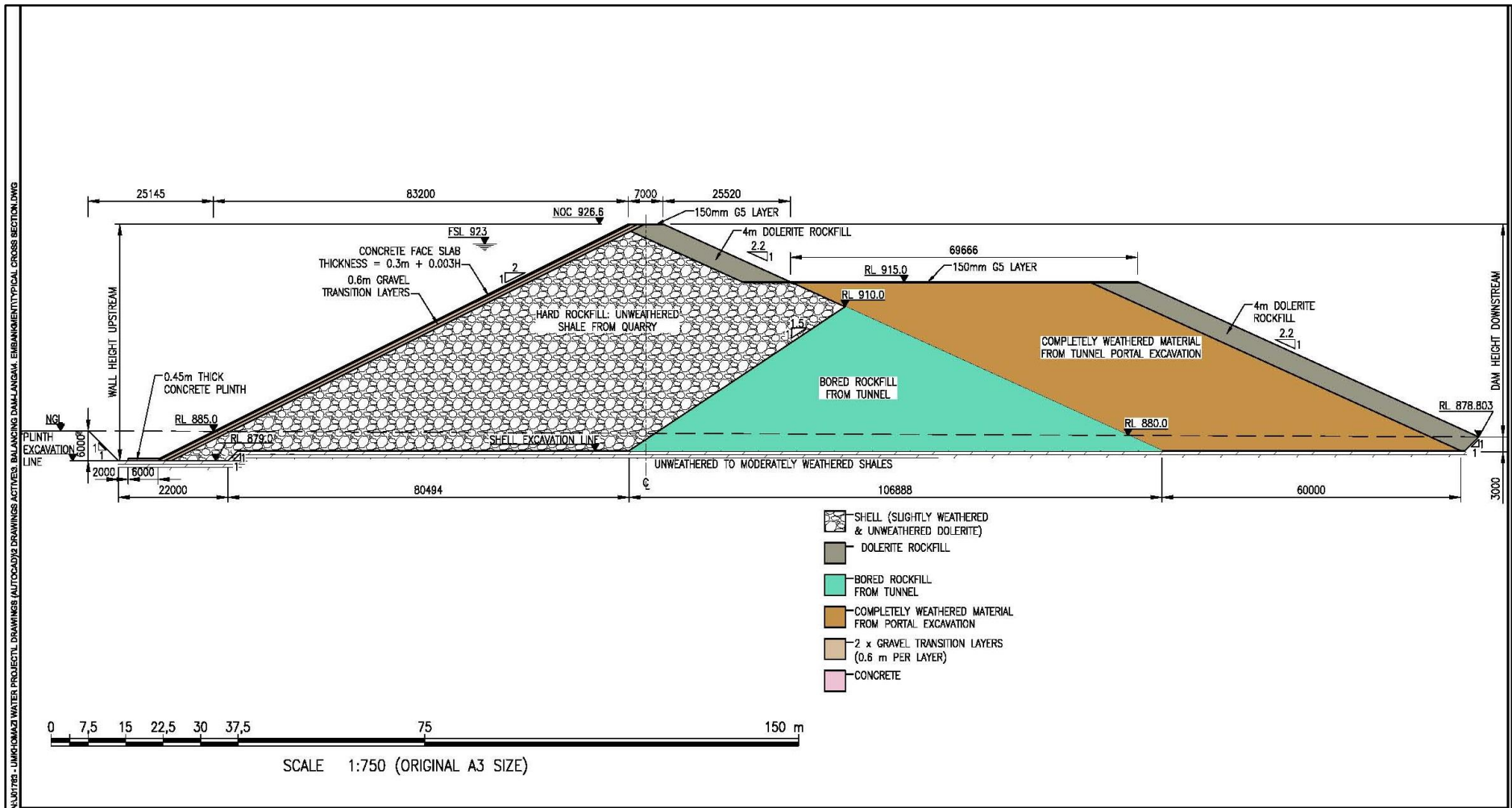
Figure 8: Long section and chainages of uMkhomazi – uMlaza Tunnel



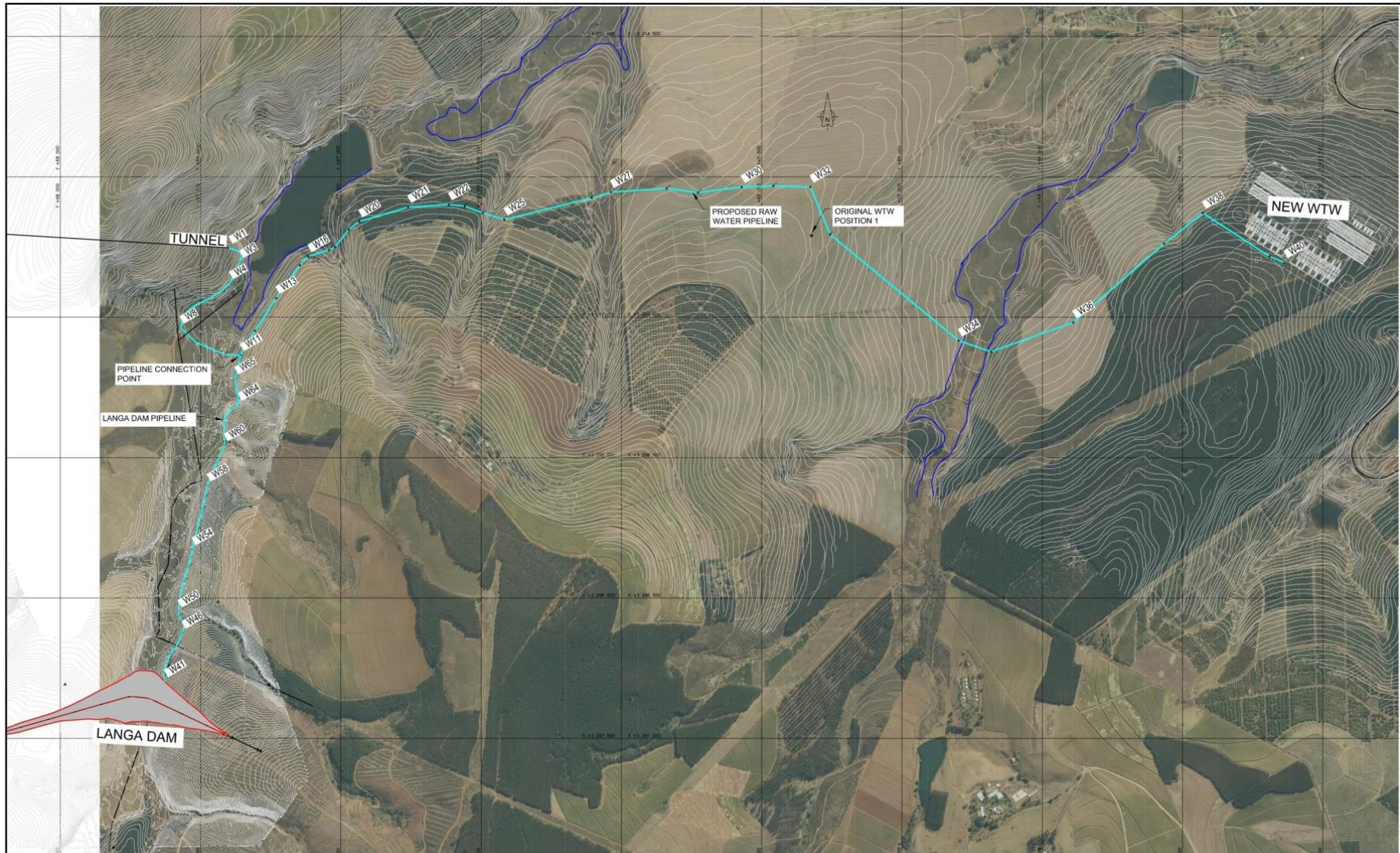
**Figure 9: Cross sectional view through an access adit and a ventilation shaft**



**Figure 10:** Langa Dam embankment and spillway layout



**Figure 11: Langa Dam embankment: typical cross-section**



**Figure 12:** General layout of the raw water pipeline (preferred option)

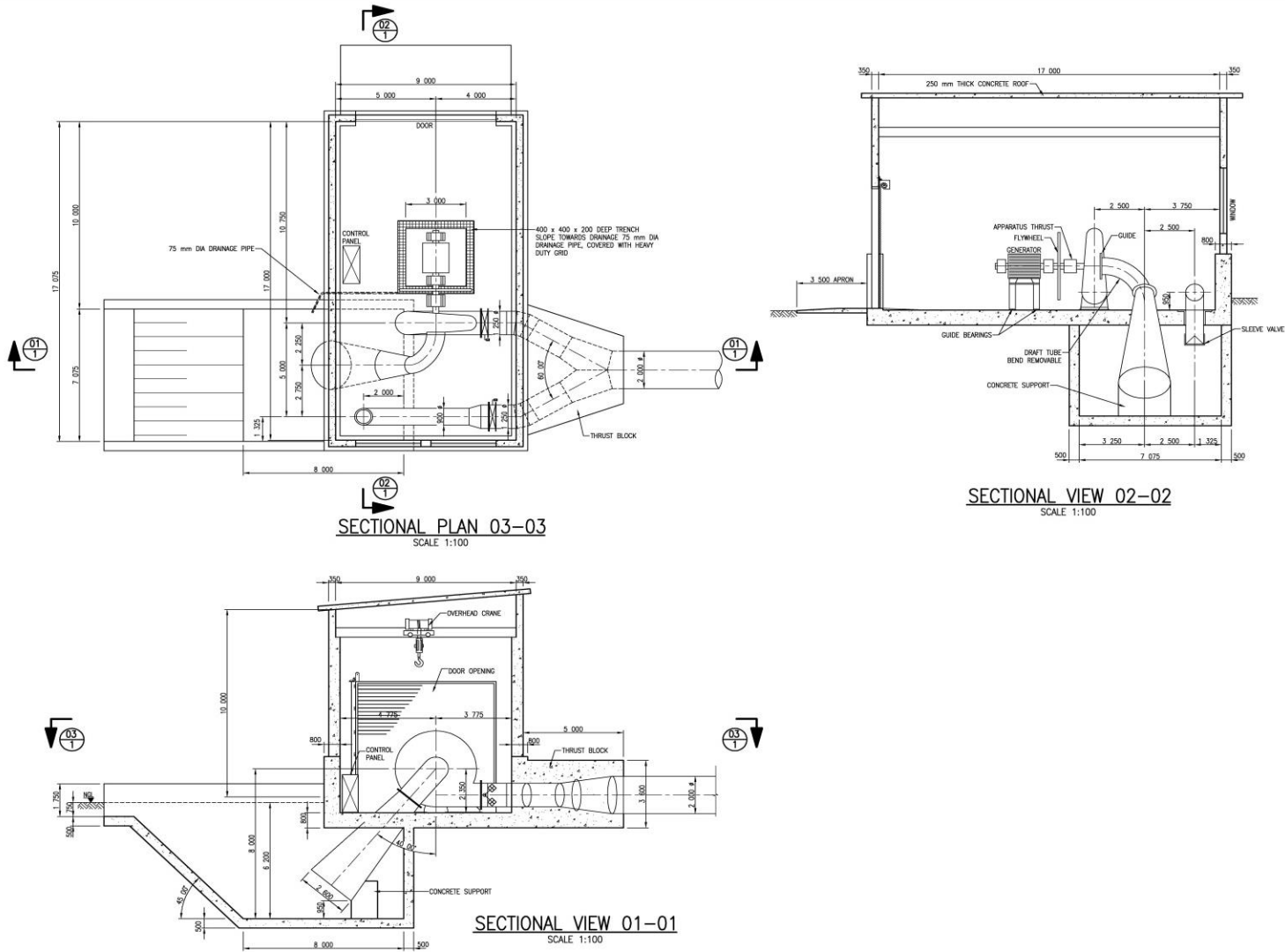
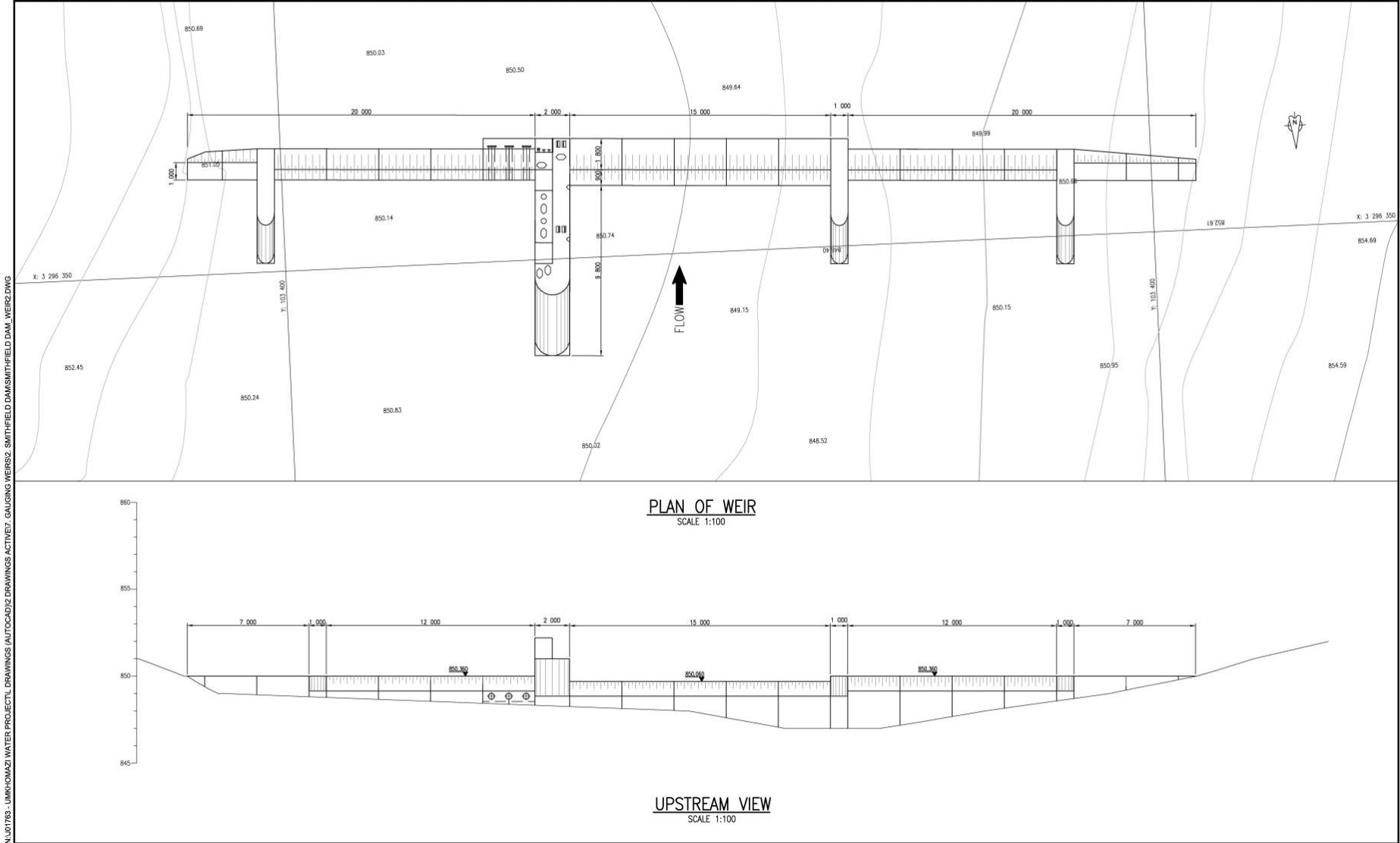
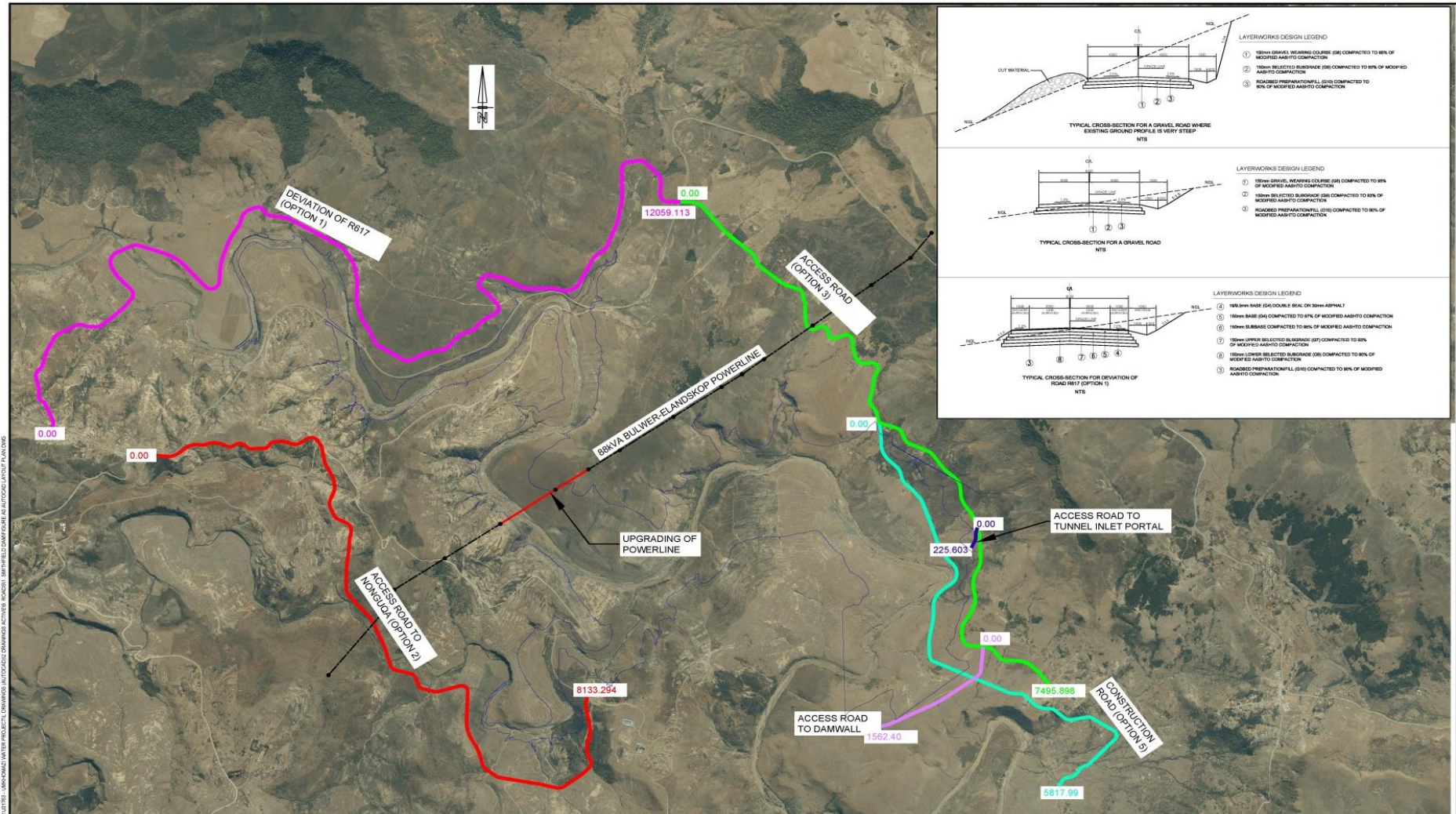


Figure 13: Powerhouse layout

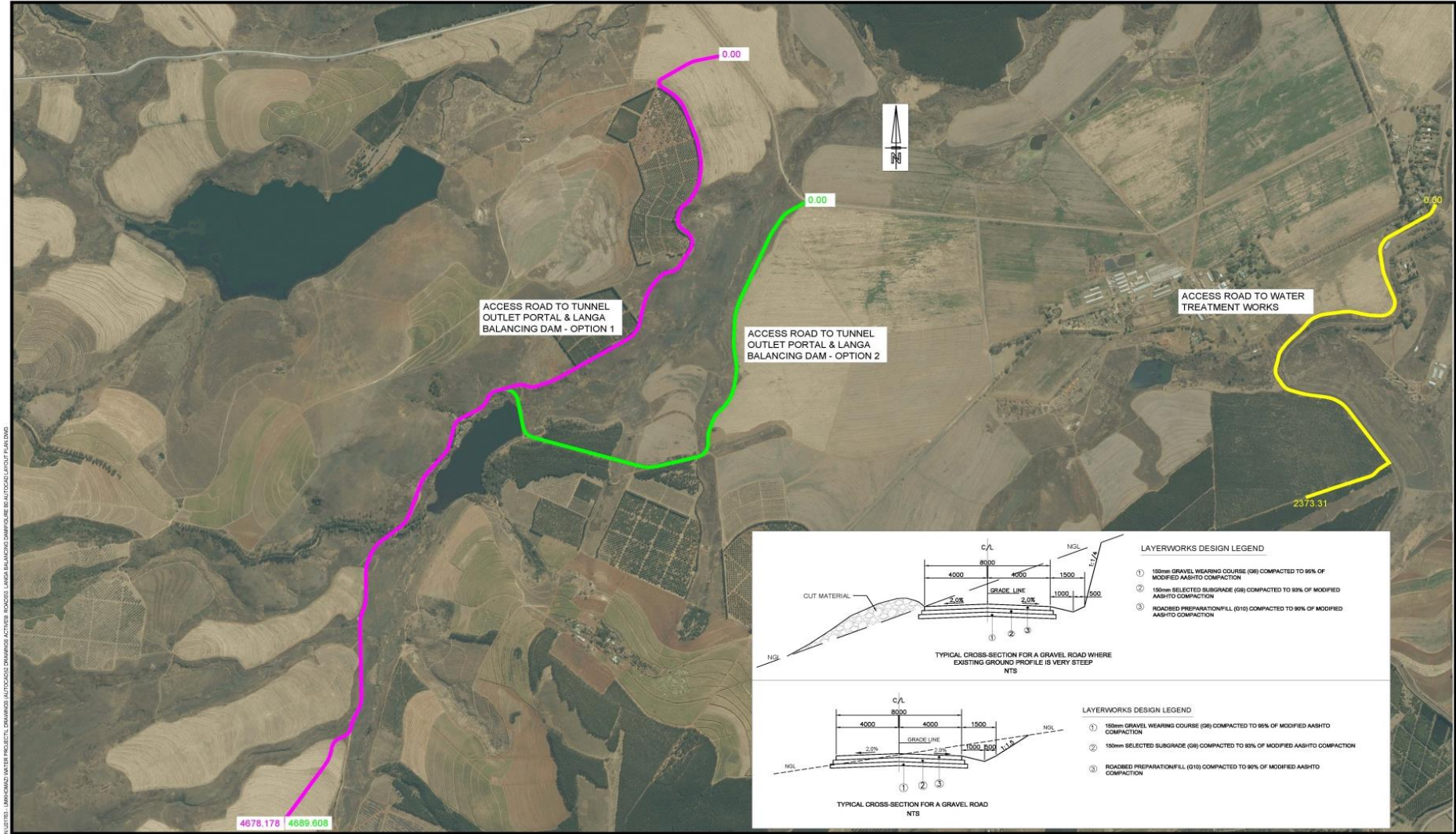


**Figure 14: Plan and cross-sectional view of gauging weir downstream of Smithfield Dam**

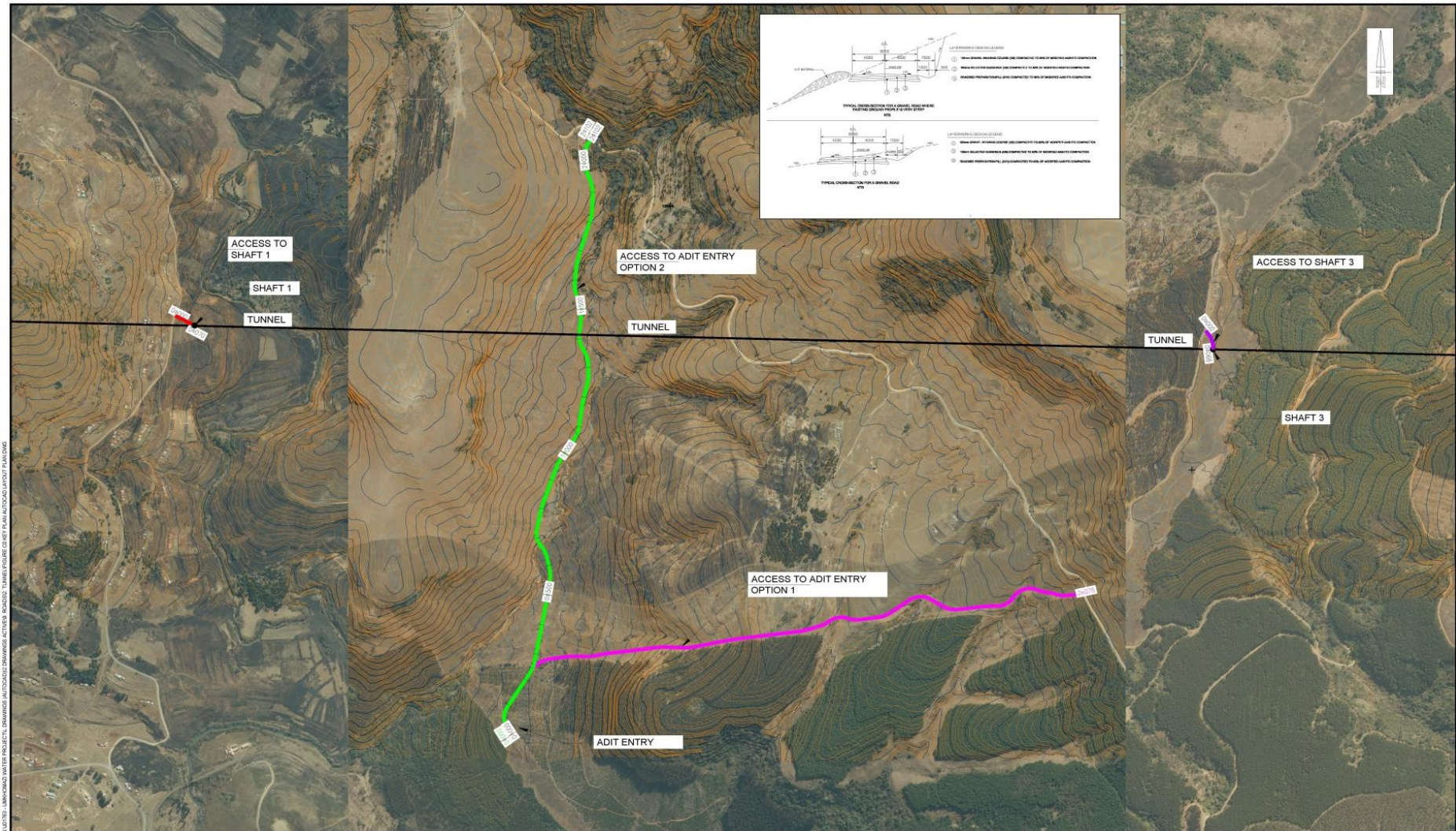


**Figure 15: Smithfield Dam – Key plan of road deviation and upgrading of powerline**





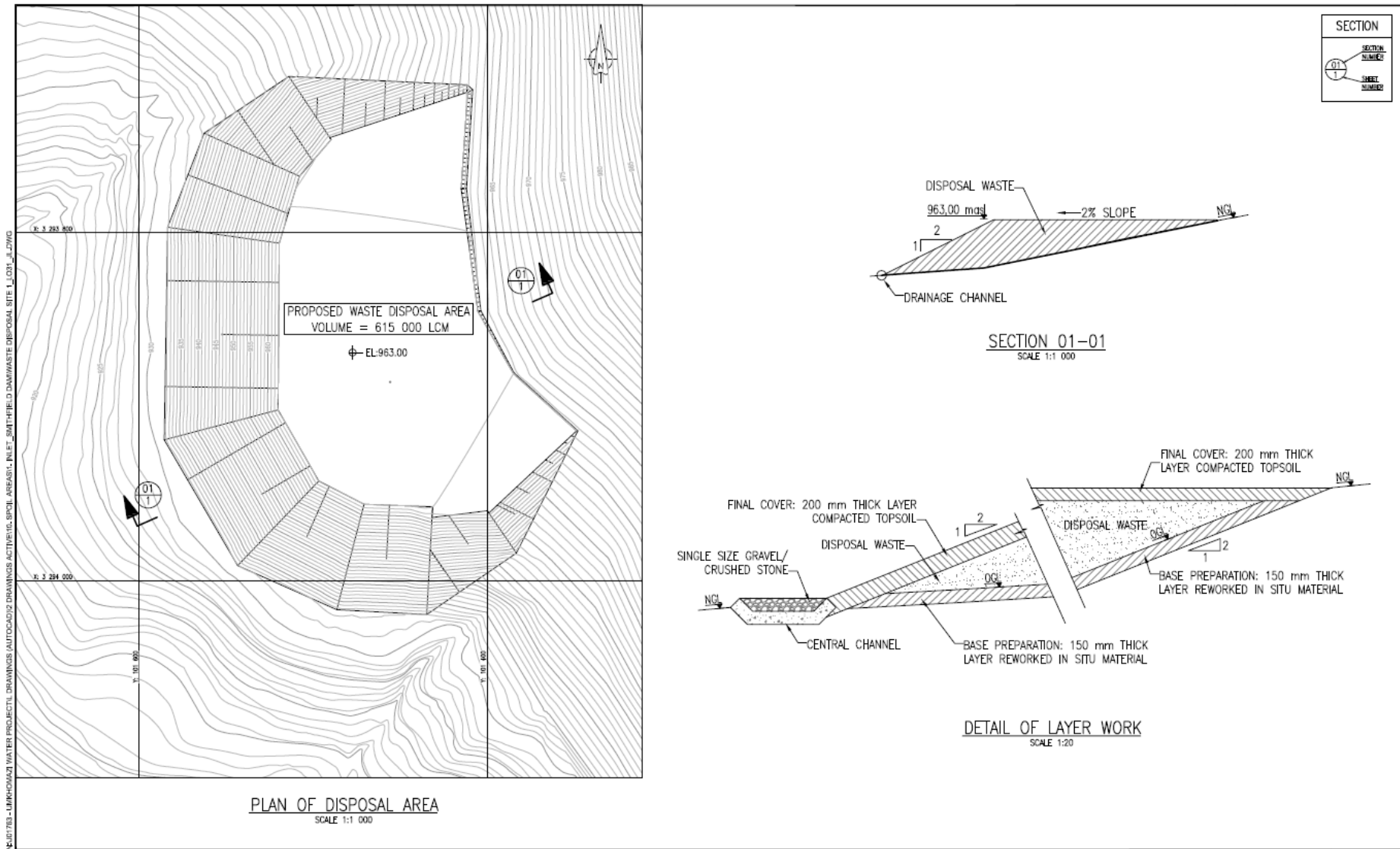
**Figure 16: Langa Balancing Dam – Key plan of access roads**



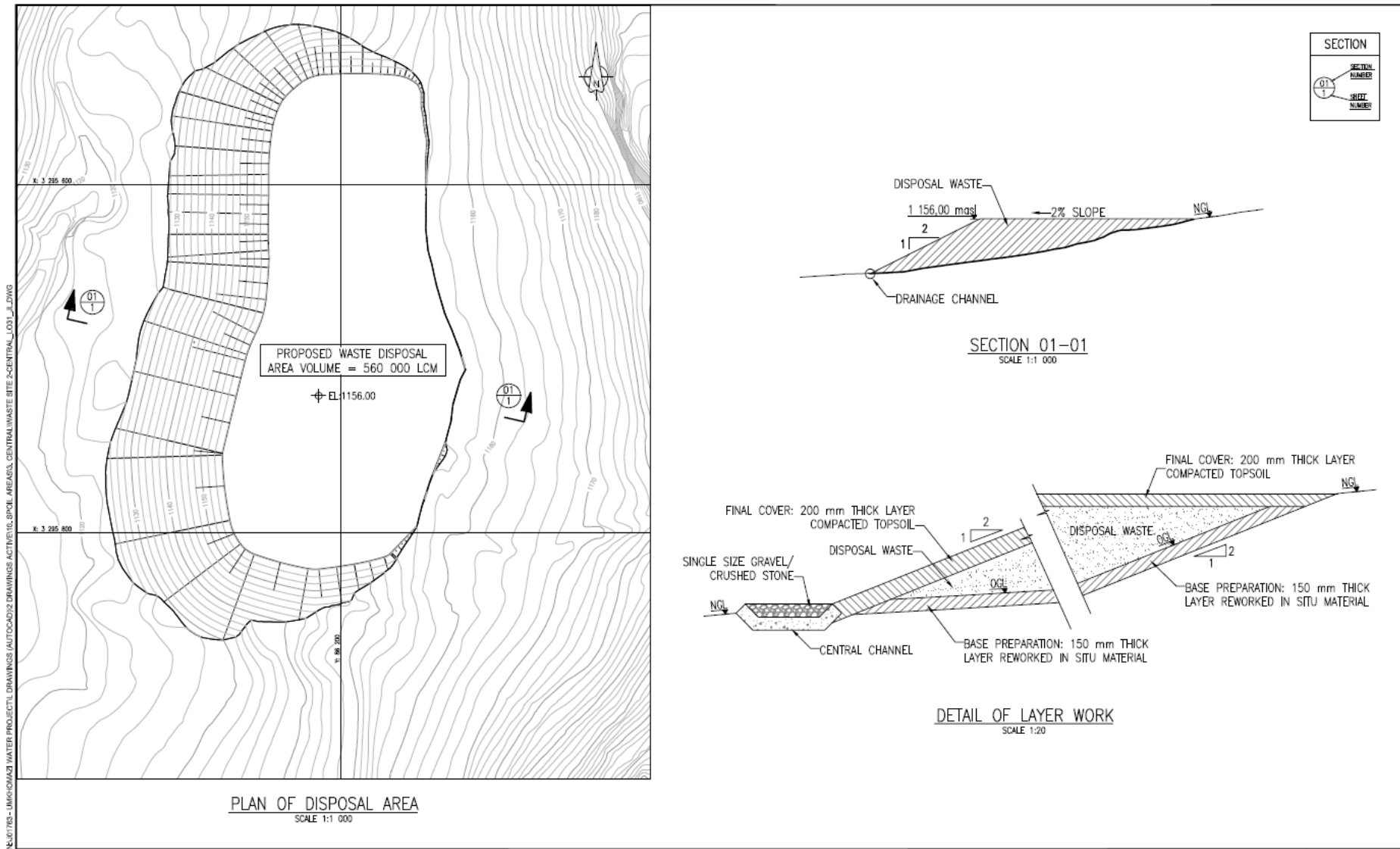
**Figure 17: Transfer tunnel – Layout of access roads to shaft 1, adit entry and shaft 3**



**Figure 18:** Smithfield Dam – Contour plan of the gauging weir downstream of Smithfield Dam

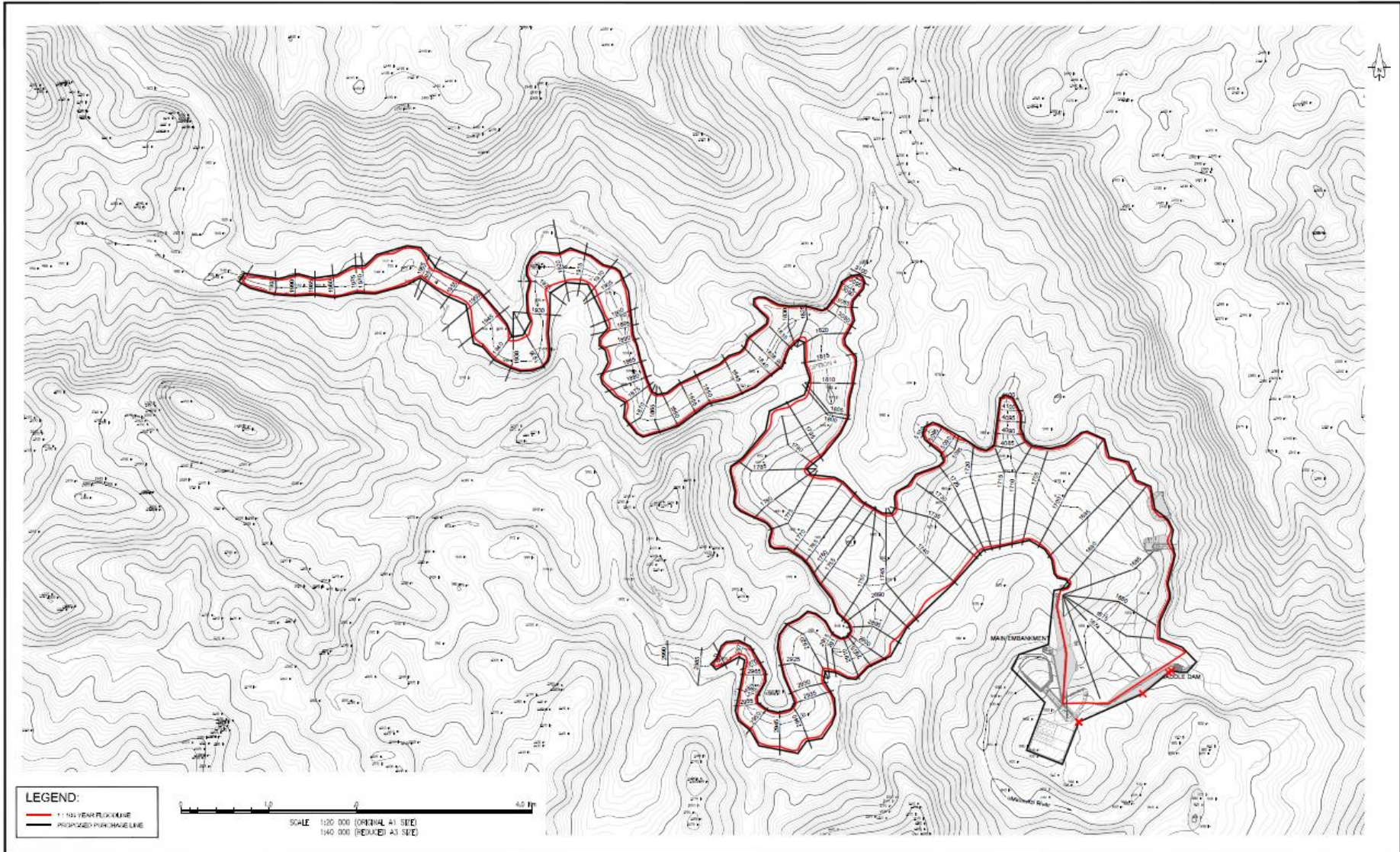


**Figure 19: Plan and sections of spoil site 1**

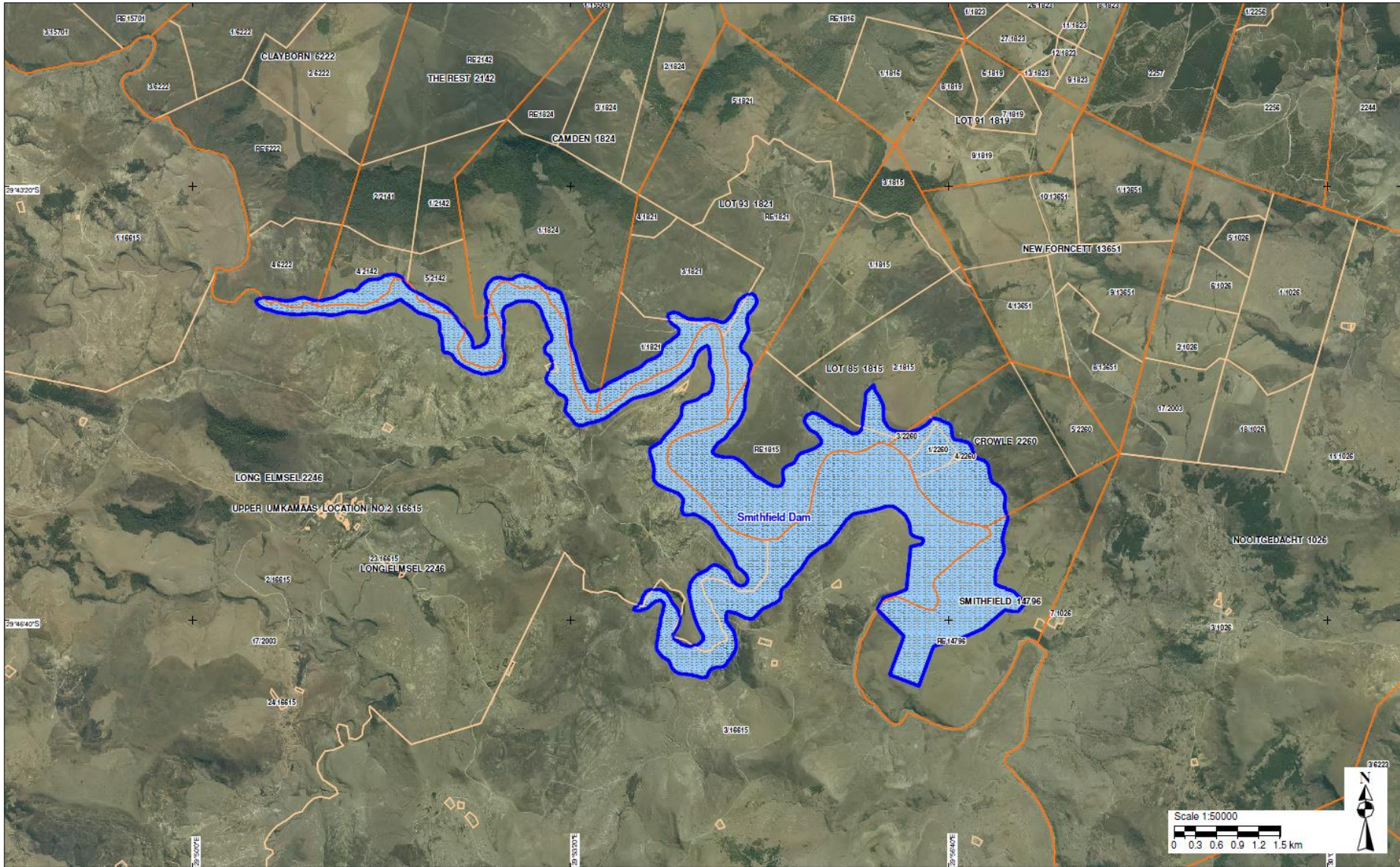


**Figure 20: Plan and sections of spoil site 2**

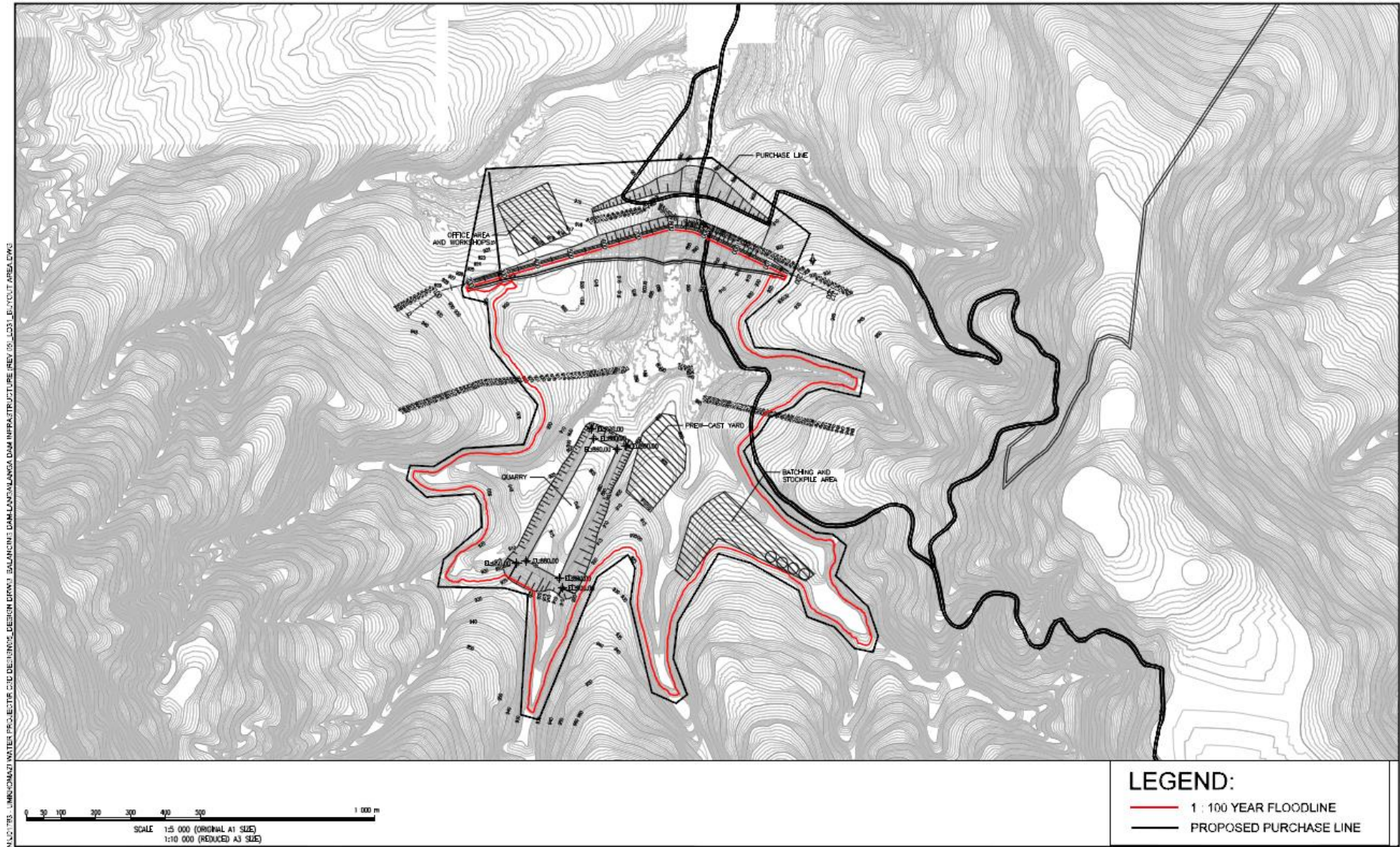
K:\MTR3 - URMUNDAZI WATER PROJECT\DRAWINGS\AUTOCAD\DRAWINGS\ACTIVE\MAJOR STORAGE DAM\MPFIELD23A\_3M CONTOUR FLOODLINE WITH PURCHASE LINE.DWG



**Figure 21: Land acquisition pertaining to Smithfield Dam**

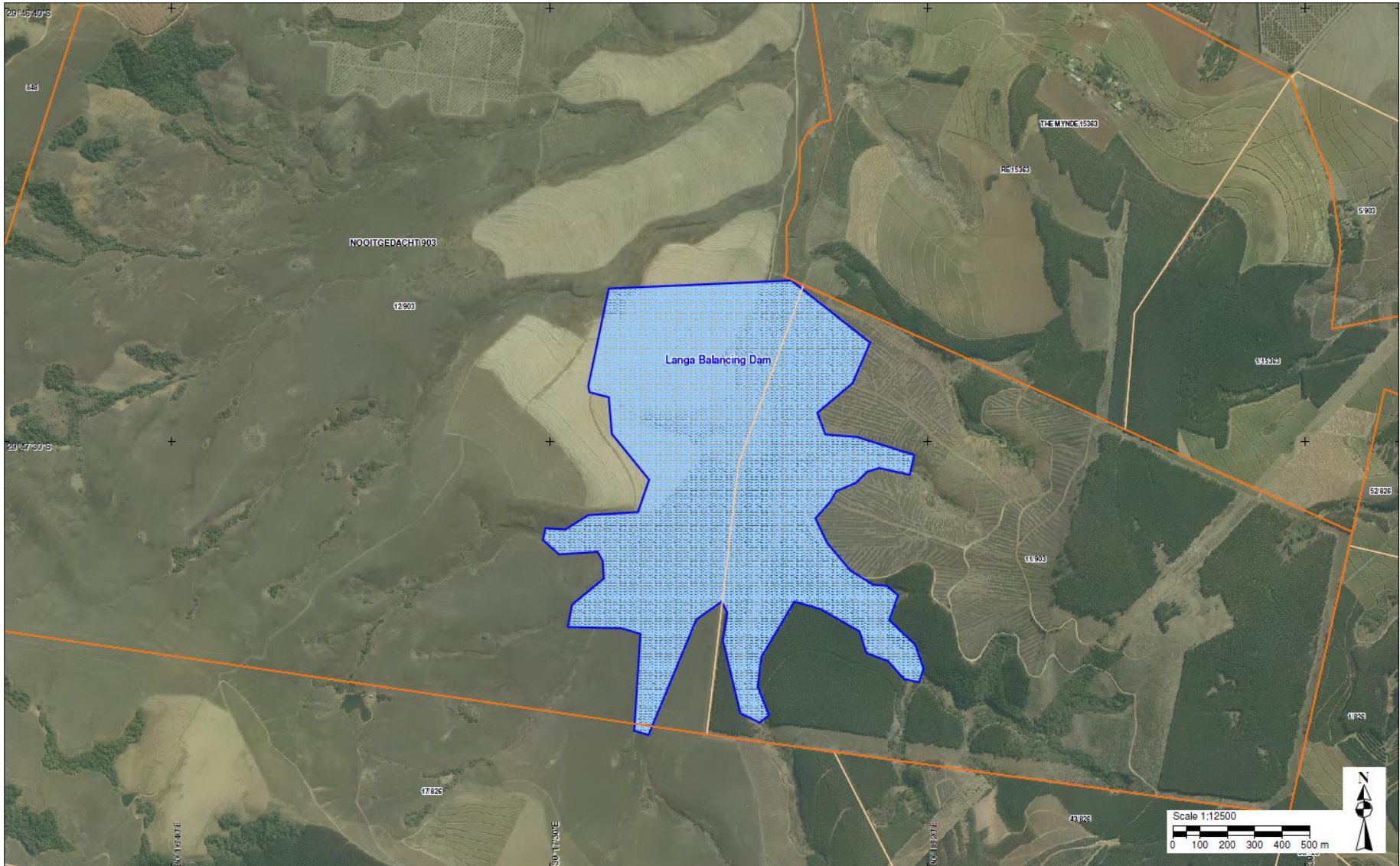


**Figure 22:** Land acquisition pertaining to Smithfield Dam (with orthophoto)



**Figure 23: Land acquisition pertaining to Langa Dam**





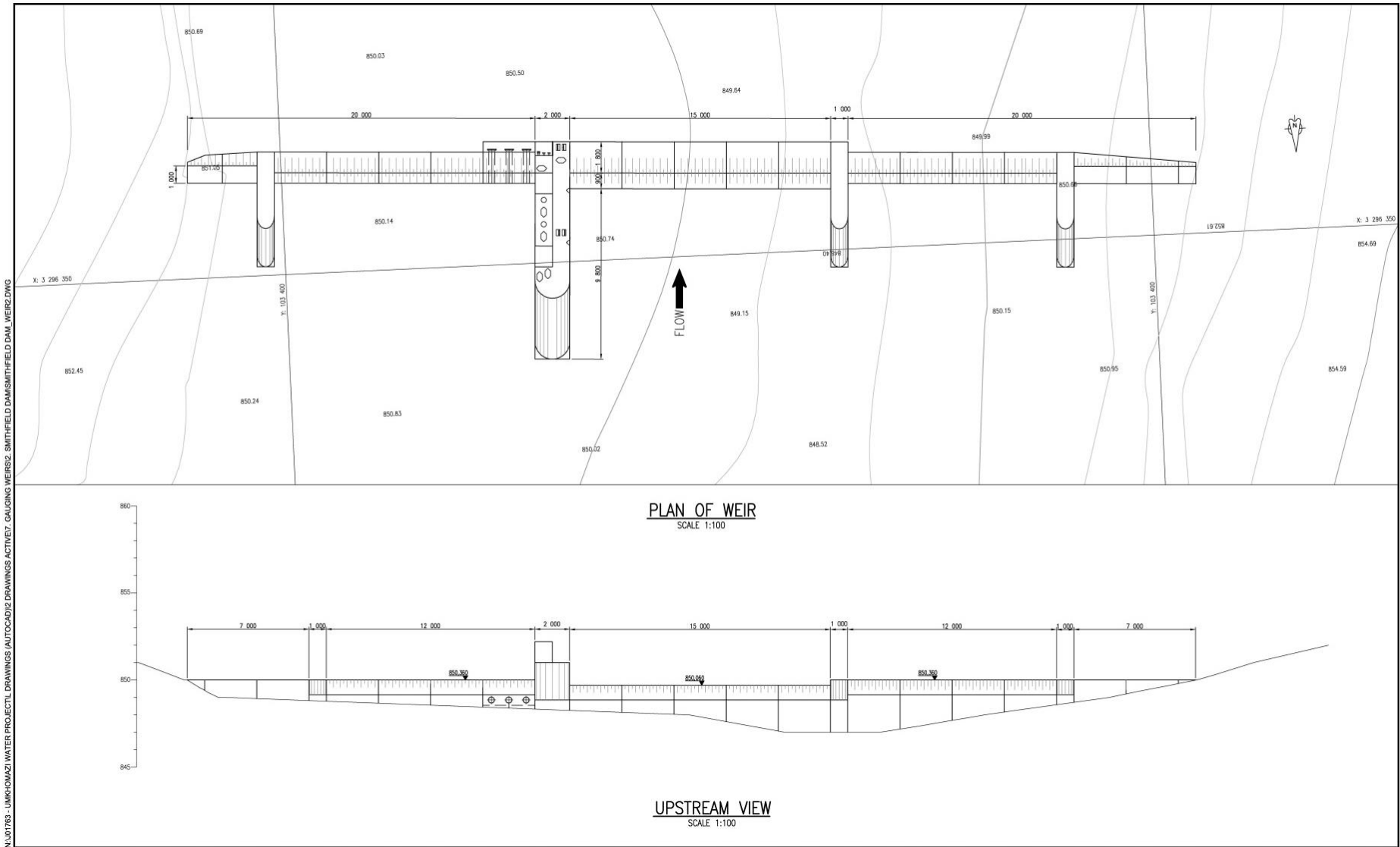
**Figure 24:** Land acquisition pertaining to Langa Dam (with orthophoto)



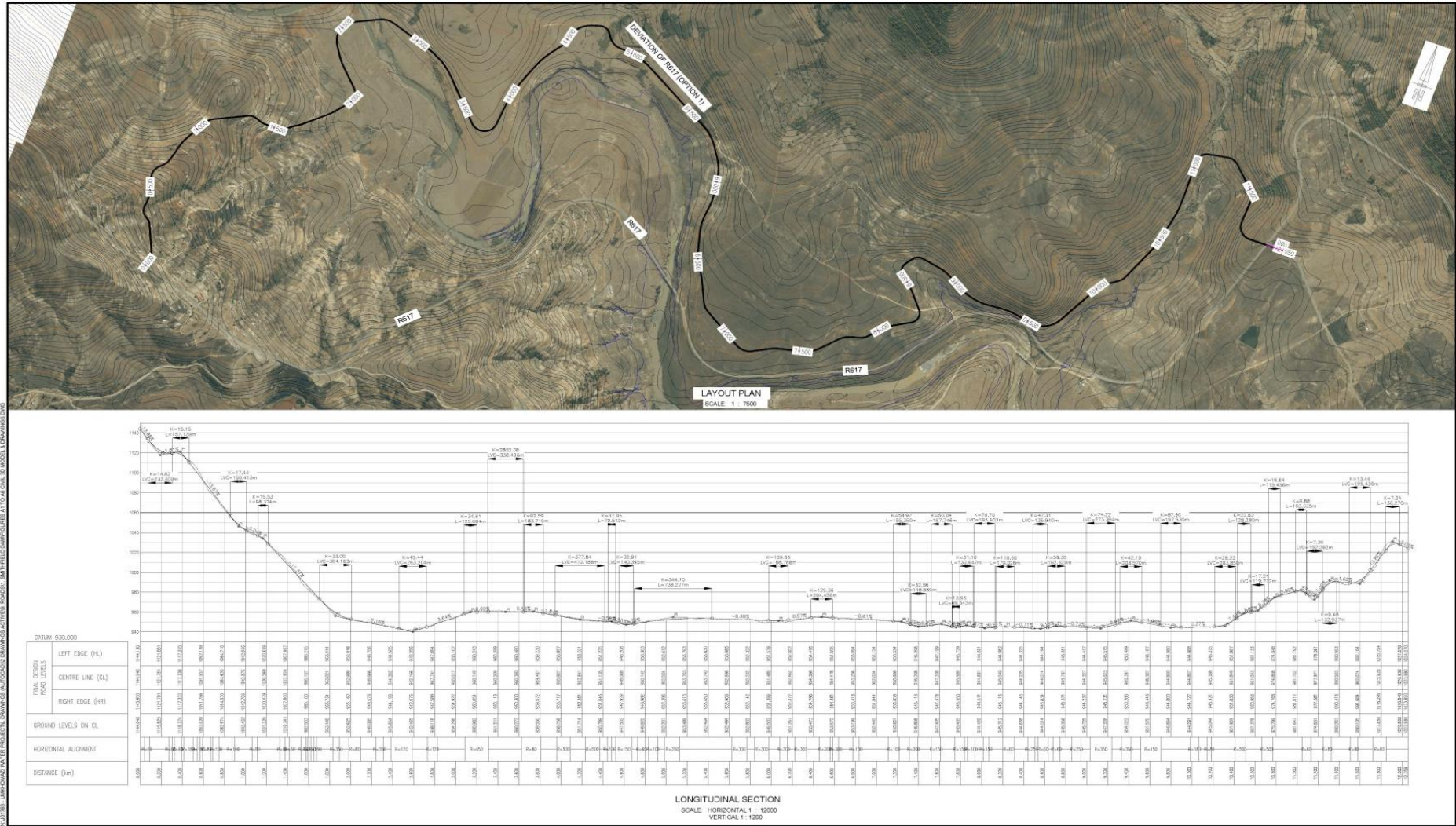
Figure 25: Borrow areas and test pit location



Figure 26: Borehole position, seismic lines



**Figure 27: Plan and cross-sectional view of gauging weir downstream of Smithfield Dam**



**Figure 28: Smithfield Dam – Layout plan and longitudinal section of the deviation of road R617**