

ADVERTISED COPY

Talbot Village, Oakleigh South

Preload Design Report - Domains 2a, 3a, 3b and 5

Huntingdale Estate Nominees Pty Ltd
c/- Sterling Global



Reference: 754-GEOTABTF09257AA-EH_Rev03

15 February 2022

TALBOT VILLAGE, OAKLEIGH SOUTH

Preload Design Report - Domains 2a, 3a, 3b and 5

Report reference number: 754-GEOTABTF09257AA-EH_Rev03

15 February 2022

PREPARED FOR

Huntingdale Estate Nominees Pty Ltd

C/- Sterling Global
Level 50, South Tower,
525 Collins Street
Melbourne VIC 3000

PREPARED BY

Tetra Tech Coffey

Level 1, 436 Johnston Street
Abbotsford
Vic 3067 Australia
p: +61 3 9290 7000
f: +61 3 9290 7499
ABN 55 139 460 521

QUALITY INFORMATION

Revision history

Revision	Description	Date	Author	Reviewer	Approver
Draft	Preload Design Report - Domains 2a, 3a, 3b and 5	26 October 2021	F. Khayyer	I. Pedler	
V0	Preload Design Report - Domains 2a, 3a, 3b and 5	19 November 2021	F. Khayyer	I. Pedler	F. Khayyer
V1	Preload Design Report - Domains 2a, 3a, 3b and 5	16 December 2021	F. Khayyer	Minor Edits	F. Khayyer
V2	Preload Design Report - Domains 2a, 3a, 3b and 5	22 December 2021	F. Khayyer	Minor Edits	F. Khayyer
V2	Preload Design Report - Domains 2a, 3a, 3b and 5	15 February 2022	F. Khayyer	Minor Edits	F. Khayyer

Distribution

Report Status	No. of copies	Format	Distributed to	Date
Draft	1	PDF	Sterling Global	26 October 2021
V0	1	PDF	Sterling Global	19 November 2021
V1	1	PDF	Sterling Global	16 December 2021
V2	1	PDF	Sterling Global	22 December 2021
V3	1	PDF	Sterling Global	15 February 2022

CONTENTS

1.	INTRODUCTION	1
2.	BACKGROUND	2
3.	RESULTS OF GEOTECHNICAL INVESTIGATIONS.....	3
3.1	Surface Conditions.....	3
3.2	Subsurface conditions	3
3.3	existing Preload construction.....	4
4.	PRELOAD DESIGN CRITERIA AND ASSUMPTIONS	4
4.1	Final site level (FSL)	4
4.2	Extent of Preload	5
4.3	Preload Levels	6
5.	PRELOAD GEOMETRY	6
6.	MONITORING	7
7.	INDICATIVE CONSTRUCTION PROGRAM.....	7
8.	CONSTRUCTION CONSIDERATIONS.....	8
9.	ADDITIONAL SITE MANAGEMENT REQUIREMENTS.....	8
10.	REFERENCES	9
11.	LIMITATIONS	9

LIST OF TABLES

Table 1: Indicative construction program.....	7
---	---

APPENDICES

FIGURES	10
APPENDIX A: 3D LEAPFROG MODEL	11
APPENDIX B: SETTLEMENT PINS AND PLATES LOCALITY PLAN.....	12
APPENDIX C: TREE REMOVAL PLAN.....	13

LIST OF FIGURES

Figure 1 – Site Plan

Figure 2a – Historical Imagery (1963 – 1972)

Figure 2b – Historical Imagery (1978 – 1992)

Figure 3 – Existing Conditions Plan

Figure 4 – Preload Layout with Respect to Pit Crest

Figure 5 – Cross Sections Locality Plan

Figures 7 to 30 – Cross Sections

ACRONYMS / ABBREVIATIONS

Acronyms/Abbreviations	Definition
BGL	Below ground level
RL	Reduced level
AHD	Australian Height Datum

1. INTRODUCTION

This report presents a design prepared by Tetra Tech Coffey (Coffey) for the placement of a preload over a backfilled former quarry pit, designated as geotechnical Domains 2a, 3a, 3b and 5 (Zones 2, 3 and 5 in the Statement of Environmental Audit¹), on the Talbot Village site which is located at 1221 to 1249 Centre Road, Oakleigh South, Victoria.

Domains 2a, 3a, 3b and 5 are located in the eastern part of the site as shown on Figure 1. The former quarry in this area was typically up to 20m deep and mainly backfilled with very soft to soft, highly compressible clay slimes which are typically covered by sandy and clayey fill varying between a few metres thick up to about 10m thick in some areas. Development of such sites by the placement of additional fill or the construction of dwellings, roads, lanes, open spaces, and infrastructure could cause significant total settlement and differential settlement due to the variable nature of the composition and thickness of the slimes and the overlying fill layers. Therefore, some form of ground improvement would be required across the area to meet the deformation design criteria and allow development of the site.

One of the common ground improvement methods for soft and highly compressible soils is preloading. Preloading involves placement of load on the ground surface prior to construction such that the imposed load is equivalent or greater than the final project loading conditions. The preload causes the slimes to undergo primary consolidation associated with the expulsion of excess water from the soil. The primary consolidation phase is followed by secondary consolidation or creep settlement which occurs due to the constant loads applied during the primary consolidation phase. The magnitude of secondary settlement is significantly smaller than the primary consolidation but can continue for many years.

From 2017 to 2018, access to potential fill materials for use as backfill in Domain 4 became available from surrounding infrastructure projects. This fill was stockpiled in Domains 2a, 2b, 3a, 3b, 5 and 6 for subsequent reuse and also to act as a 'preload' to a maximum level of about RL65.5m. This corresponds to the preload fill being between 2m and 4.5m thick. The preload was restricted to RL63.5 in Domains 2b and 6 as the ground surface falls toward the south. Typically the preload was placed to within 30m of the external boundaries as part of the permit conditions for the works but in some areas, fill was placed out to the historical perimeter mounds, as close as 10 metres to the boundary. The aim of the preload was to investigate the settlement properties of the existing backfilled quarry to assist the design of the ground improvement strategy for the site as well as initial ground improvement of the preloaded areas in anticipation of future development. A series of settlement plates were installed at the base of the preload fill to measure settlement during and after the placement of the preload. Additional settlement pins were also installed at the surface of the preload to increase the settlement locations that were monitored.

It is now proposed to extend the existing preload as close as practicable to the edges of the former pit to apply a more uniform load across the site and ensure the entire quarry pit is preloaded. This additional preload will act to reduce potential differential settlement between the edge of the existing preload and property boundary following the removal of the preload, construction of the structural fill platform and subsequent construction of infrastructure and dwellings.

The work was commissioned by Mr Simon Hicks of Sterling Global by email dated 12 October 2021 following a meeting between Sterling Global, Verve and Coffey on 5 October 2021.

¹ EHS Support (2020) *53X Environmental Audit of Land at 1221-1249 Centre Road and 22 Talbot Avenue, Oakleigh South, Vic*, Ref. AUS##C01679_2019, dated 13 May 2020

2. BACKGROUND

The Talbot Village site was formerly used for sand mining operations which commenced during the mid to late 1950's, initially at the northern end of the site, and continued until the mid to late 1990s, with progressive mining and filling operations during this time. The backfilling has been undertaken in various stages, using a mixture of materials including putrescible waste, rubble, soils and clay slimes until 1992. Selected aerial photographs during the period of pit operations are presented in Figures 2A and 2B.

The site has been split into 6 Domains to define areas of similar geotechnical characteristics which is also based on the progressive rehabilitation works that have been implemented to date. The Domains, which are shown on Plate 1, are as follows.

- Domain 1 is in the North West corner and includes a former Council municipal landfill that is understood to be producing methane gas. The subsurface soils generally comprise uncontrolled fill and landfill materials extending to depths of up to 20m. Treatment of the uncontrolled fill and gas management controls will be required in this area.
- Domains 2a and 2b defines two areas of an ex-quarry pit located in the eastern part of the site that was backfilled with very soft to soft highly compressible clay slimes up to 20m deep which were placed as part of the sand washing operations. Domain 2a lies along the northern boundary of the site where the slimes are typically covered by sandy and clayey fill up to about 10m thick including 'preload' Fill that was applied in recent years to accelerate the consolidation of the slimes. Domain 2b is located in the south east part of the site where the slimes were covered by clayey fill and some inert demolition waste.
- Domains 3a and 3b defines the area of an ex-quarry pit located in the eastern part of the site and generally comprise up to 9m of uncontrolled thick fill over slimes with variable thickness between 3m and 15m.
- Domain 4 is located in the south western part of the site and comprises an existing quarry void up to 20m deep. Clay slimes are located in the north western area of the Domain and water is present in the lower parts of the pit at the southern end. The slimes will be removed, dried and reused and the existing fill will be re-worked. The void will then be filled by compacted fill to create an engineered fill platform.
- Domain 5 is located along the western side of the eastern quarry pits and part of the are formerly supported the plant processing and concrete batching plant. Slimes are not present to any significant thickness but uncontrolled fill up to 10m thick exists within the western portion of Domain 5.
- Domain 6 defines another ex-quarry located along the southern boundary of the site that has been backfilled with very soft to soft highly compressible clay slimes, uncontrolled fill and inert demolition waste. The southern edge of this Domain includes a parcel of Council land which is included in the geotechnical strategy as the slimes extends across the site boundary.

Geotechnical investigations have been carried out across the site since the early 2000s by a number of consultants for several different site owners including a more recent geotechnical investigation undertaken by Coffey in 2020-21 (Coffey, 2021). The results of the investigations in Domains 2a, 2b, 3a, 3b, 5 and 6 are summarised in Section 3.

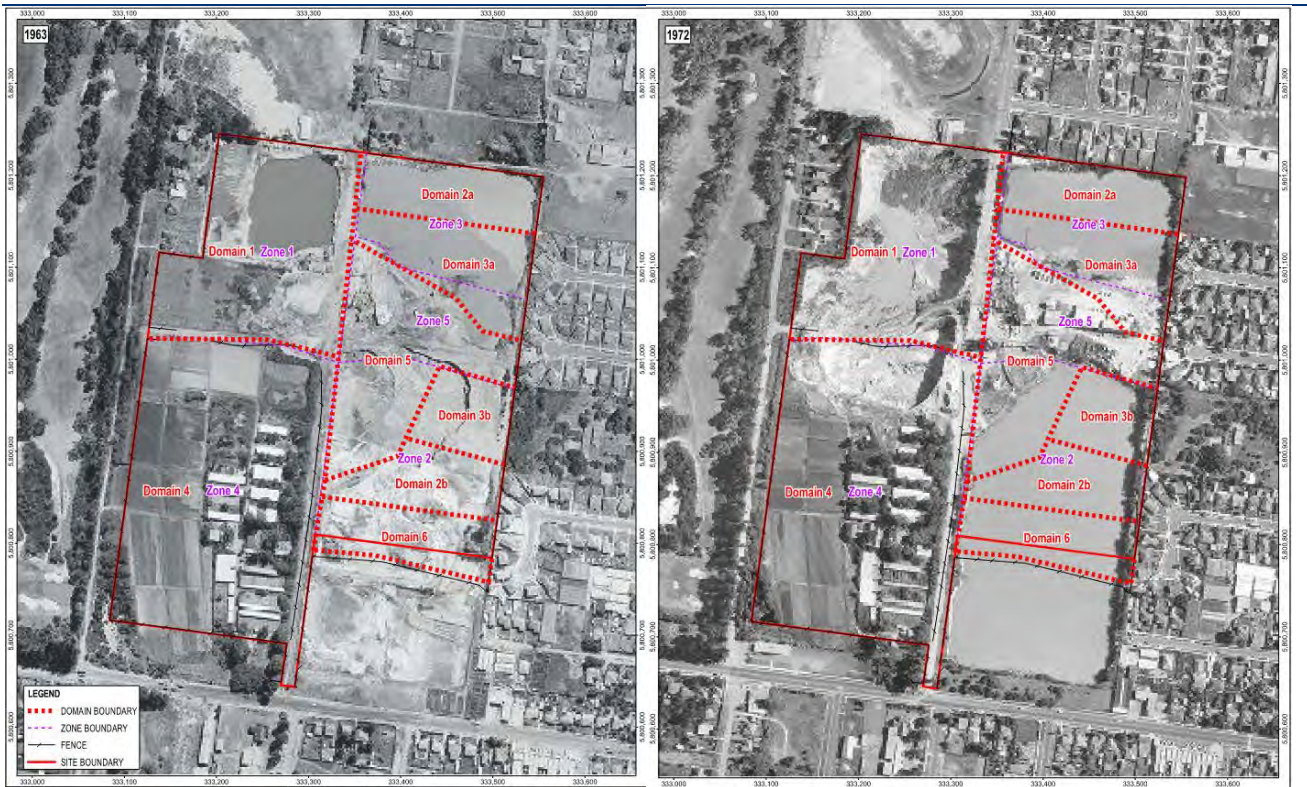


Plate 1: Historical Imagery (1963 - 1972)

3. RESULTS OF GEOTECHNICAL INVESTIGATIONS

3.1 SURFACE CONDITIONS

Fill has been placed within these sites to cap slimes and to provide a fill platform for machinery access since the 1980s which has been designated as “old fill”. The fill was placed in an uncontrolled manner with no specific purpose of ground improvement. The fill stockpiled in 2017 and 2018 for subsequent reuse and act as preload has been designated as “new fill”.

The new fill levels vary between RL65.5 in Domain 2a to RL60.5 in the southern end of Domain 6 as shown on Figure 3.

The site surface was generally trafficable during the 2020-21 additional investigation (Coffey, 2021).

3.2 SUBSURFACE CONDITIONS

The historical and 2020-21 investigation data was used to develop a 3D subsurface model using the software package “Leapfrog”. The Leapfrog model represents an interpretation of the data collect by Coffey and information from previous investigations which may differ from the original borehole logs presented in those reports. The Leapfrog model is presented in Figure A-01 of Appendix A. Figure A-02 of Appendix A presents a north south geotechnical section cut from the Leapfrog model.

Domains 2a, 2b, 3a, 3b, 5 and 6 contain very soft to firm highly compressible clay slimes. Figure A-02 shows the thickness of slimes varies from 2m to 16m and appears to be thinner within Domain 5, and thicker within the Domains 2a, 2b, 3a, 3b and 6 areas. Figure A-02 also shows that the subsurface profile varies significantly over relatively short horizontal distances, particularly in the areas where the clay slimes are thicker. The test pits undertaken as part of previous investigations indicate the old fill is an uncontrolled fill

comprising portions of refuse materials, such as paper, fabric, rubble and wire at some locations. The new fill comprises sandy clay or clayey sand fill placed in 2018 to stockpile soil for subsequent reuse and to also act as a preload to accelerate the process of consolidation settlement.

Beneath the fill and clay slimes, medium dense to very dense sands of the Brighton Group were generally encountered. At some locations, a relatively thin layer of transitional sandy clay (typically 1m to 2m thick) overlies the natural sands.

The contours of the thickness of slimes derived from the Leapfrog model is shown in Figure A-03 of Appendix A.

The static groundwater levels across the Domains ranged from about RL60m in Domain 2a to RL50m AHD in Domain 6.

3.3 EXISTING PRELOAD CONSTRUCTION

The existing preload in the eastern part of the site covered most of the Domains 2a, 2b, 3a, 3b, 5 and 6 shown on Figure 3 and was undertaken by Lantrak East Projects Pty Ltd from August 2017 to June 2018. The preload was typically placed within 30m of the external boundaries to a maximum level of RL 65.5m.

The results of the settlement monitoring of the existing preload have been used to derive “field calibrated” ground deformation parameters for use in numerical analysis to predict future ground movements across the development. It is proposed that the same approach be used for the extended preload out to the edge of the site to collect settlement data to inform the development design.

4. PRELOAD DESIGN CRITERIA AND ASSUMPTIONS

Development of such sites by the placement of additional fill or the construction of roads, lanes, open spaces, infrastructure and dwellings could cause significant total settlement and differential settlement due to the variable composition and thickness of the slimes and the overlying fill layers.

Differential settlement refers to the changes in settlement between two points and is typically the main design criteria governing structural performance. Large uniform settlement across a site or structure has no impact on the structure as evidenced around the City of Morwell where some areas have settled between 1 and 2 metres due to the impact of the mining operations but with only gradual settlement profiles.

Due to the variability of the fill materials and in particular the anticipated difference in settlement behaviour between the former quarry pits and the natural ground, some form of ground improvement is required to reduce future settlement across the site to meet settlement to meet tolerable limits of movement typically adopted for residential development.

The proposed general preload design in Domains 2a, 3a, 3b and 5 is based on the following design criteria and assumptions.

4.1 FINAL SITE LEVEL (FSL)

The final site levels (FSLs) vary between RL63.8m at the northern end of Domain 2a to RL62m at the southern end of Domain 3b.

The proposed levels have considered:

- Stormwater management controls whereby the surface has been graded towards Domain 4 to the south west. Domain 4 will contain retarding basin for the development before discharging to the local drainage network. Runoff to be collected and directed within the site, preventing flow paths to

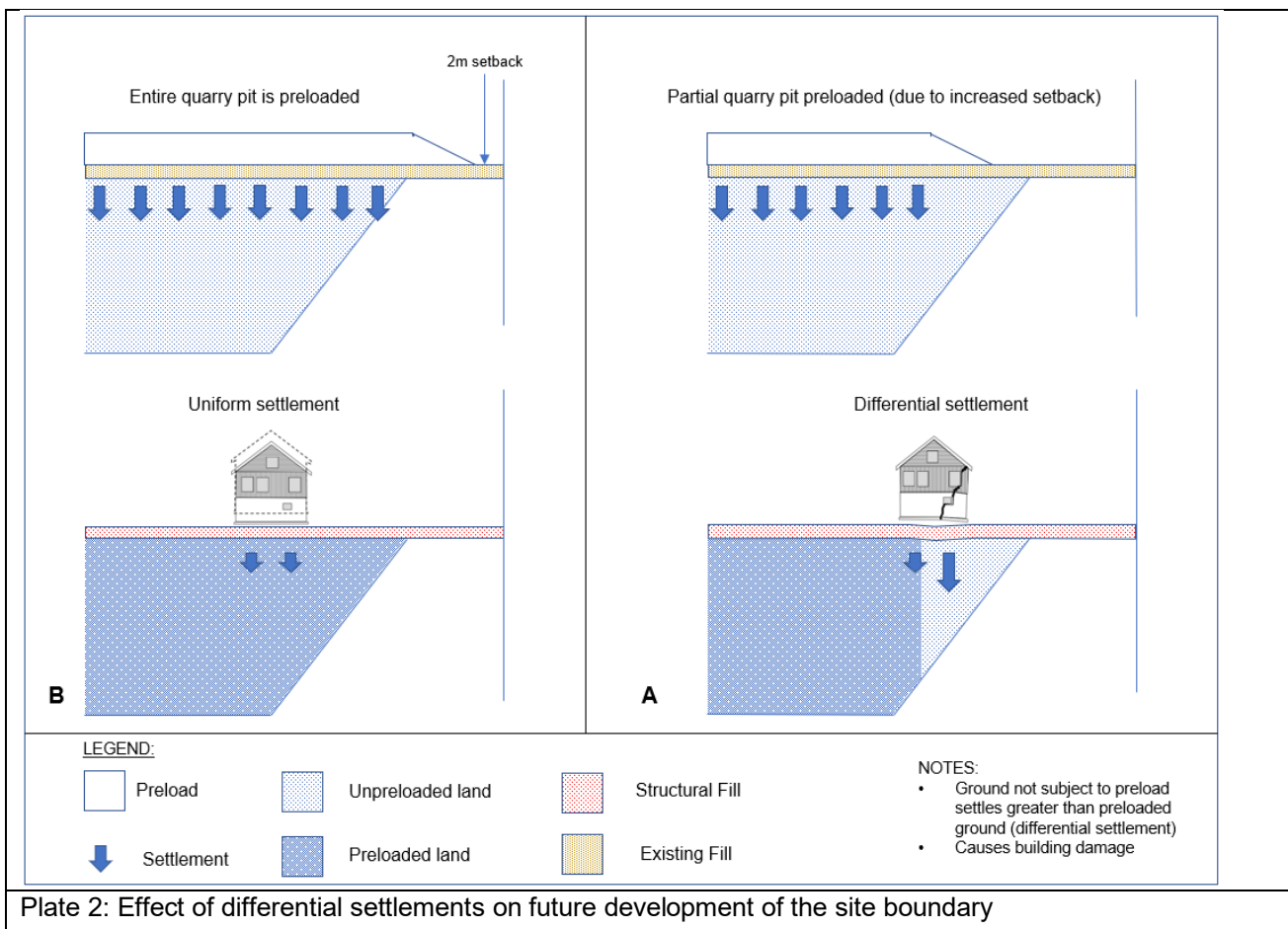
neighbouring properties. Erosion controls to be implemented as part of the stormwater management measures.

- Increase to the minimum longitudinal grade of potential future roads (1% minimum) to accommodate for differential settlement that may occur due to secondary consolidation following the removal of the Preload.
- Building in allowance within the structural Fill zone to accommodate for the installation of utilities and services (including gravity services) within 'clean' Fill, consequently avoiding or at least minimising the potential for penetration into the underlying waste materials.

4.2 EXTENT OF PRELOAD

The differential settlement is expected across the pit edges due to the variability of slimes thickness at the edges. An important aspect of the preload is that as well as reducing the total settlement that occurs after the preload is removed and development occurs, the differential settlement that occurs is also reduced significantly.

The effect of differential settlements on the buildings and structural fill is illustrated in Plate 2. The diagram A applies a greater boundary setback to the preload that means the entire quarry pit is not preloaded. The portion of land that has not been subject to a preload will settle more than the area which has been when the load of development is applied (differential settlement). The difference in settlement is outside of tolerable limits meaning structures can be subject to damage due to inadequate ground improvement works.



It is now proposed to extend the existing preload towards the property boundaries to apply a more uniform load across the site and ensure the entire quarry pit is preloaded. This additional preload will act to reduce

potential differential settlement between the edge of the existing preload and property boundary following the removal of the preload, construction of the structural fill platform and subsequent construction of infrastructure and dwellings (see Plate 2B).

Figure 3 shows the pit crest inferred from the test pits conducted during additional investigations of the site (Coffey, 2021) as well as the estimated pit crest lines from the aerial photographs. The offset distance from the pit crest to the eastern boundary is generally between 8m to 14m with a smaller offset (2.5 to 8m) along the northern boundary as shown on Figure 3.

Figure 4 presents the preload layout showing the location of the toe, crest and surface levels across the existing and extended preload. Based on the geotechnical properties of the fill and slimes material, a 3H:1V batter is considered a safe batter slope for the proposed preload height. On this basis, the preload has been designed with a 2m buffer from the site boundary to the toe of preload batter using a batter slope of 3H:1V. This enables the crest/top of the preload to extend as close as practicable to the edges of the former pit to apply a more uniform load and reduce potential differential settlement across the pit edges.

4.3 PRELOAD LEVELS

The existing preload of Domains 2a, 3a, 3b and 5 comprises stockpiles with surface elevations ranging from RL63.5m to over RL65.5m. These levels have previously been adopted to provide an applied load of about 25kPa greater than the final applied loads to accelerate the settlement that occurs and to reduce the magnitude of settlement that occurs during the placement of the structural fill and dwellings. An ongoing settlement of up to 900mm has been recorded since the placement of the preload.

The same approach has been adopted for design of the extended preload towards the property boundaries. The extended preload will be placed at least to RL66m in the northern end of Domain 2a and RL64.5m at the southern end of Domain 3b which corresponds to at least 2.5m above the final site levels (see Figure 4).

The results of the preload settlement monitoring will provide data to assess the settlement properties and to assist in predicting future settlement across the site. The predicted settlement will then be used to assess whether preloading alone will be suitable or other additional ground improvement methods will be required to allow development of this area.

5. PRELOAD GEOMETRY

Figures 5 and 6 present the preload layout showing the location of the toe, crest and surface levels across the existing and extended preload. The figures also include the preload levels proposed in Domain 1 if Planning Permit Application TPA/53179 were to be approved to show the cumulative potential impact should both applications be approved and undertaken.

A series of cross-sections showing the preload levels are presented in Figures 7 to 30.

The key features are:

- Proposed preload levels vary from RL66m at the northern end of Domain 2a to RL64.5m at the southern end of Domain 3b which corresponds to a minimum 2.5m high preload with a small allowance for future settlement.
- Retention of existing stockpiles with current elevations higher than the proposed preload levels.
- A 2m buffer from the site boundary to the toe of preload batter. This has been proposed to provide the maximum extent practicable and sufficient surcharge over the pit edges.
- Based on the geotechnical properties of the fill and slimes material, a 3H:1V batter is considered a safe batter slope for the proposed preload height.

6. MONITORING

As part of the preload, settlement pins and plates have been installed to record settlement of the preload over time. Additional plates will be installed prior to placing the extended preload connected to a steel rod up through the fill to allow the total settlement due to the preload to be surveyed on a regular basis. Settlement pins will be installed on the surface of the preload. The difference in settlement of the plates and pins is a measure of the settlement of the preload materials.

Vibrating Wire Piezometers (VWPs) have been installed prior to the preload placement at 2 or 3 depths within the clay slimes to measure the porewater pressure in the slimes at the level where the transducers are installed. Three (3) additional VWPs will be installed as part of the extended preload.

The locations of proposed settlement points and VWPs are presented in Appendix B.

7. INDICATIVE CONSTRUCTION PROGRAM

Table 1 shows an indicative timeframe for the construction of the extended preload. It should be noted that there is potential for significant variation in this timing due to external factors such as weather and material availability.

Table 1: Indicative construction program

Stage of Work	Likely Timeframe	Comment
1 Vegetation removal and site preparation	3 weeks	
2 Site Survey	Ongoing throughout the site preparation	
3 Settlement plates installation	Ongoing throughout the site preparation and prior to the stockpiling	
4 Installation of VWPs	Ongoing throughout the site preparation and prior to the stockpiling	
5 Stockpiling of imported fill materials	2 to 3 months	Will depend on contractor progress, weather conditions, and material availability
6 Survey	Ongoing throughout the stockpiling works	
7 Surface pins installation	Ongoing throughout the stockpiling works	
8 Settlement Monitoring	Ongoing throughout the stockpiling works	
9 Preload removal	12 to 18 months after construction of the preload	To be confirmed based on the results of the preload monitoring

8. CONSTRUCTION CONSIDERATIONS

The following construction issues and actions are to be addressed by the Contractor engaged to construct the extended preload:

- The importation of any fill soils to the site must be in accordance with EPA Victoria legislative requirements, the CEMP (Coffey 2020) (as attached to the Statements to Environmental Audit) and associated Site Backfilling Protocol (Coffey 2015). Importation is subject to specific site criteria (e.g. geotechnical) and must be approved prior to importation.

Following the Preload removal, the excavated fill will be transported for backfilling the former quarry pit in Domain 4 (subject to additional planning permits for backfilling works). The fill must meet the specific requirements for the importation of fill as outlined in the Backfill Design Specification (Coffey, 2019).

- The preload fill is to be placed in even layers and track rolled across the site. The maximum difference in the height of placed fill is to be no more than 1m.
- Dust management during the works, during prolonged periods where no filling is being placed, and upon completion of works is to be conducted in accordance with the Construction Environmental Management Plan (CEMP).
- All trees and some ground vegetation removal as required across the site for construction of the proposed preload. The locations of the trees are presented in Appendix C.
- Survey of the settlement plates during construction will be conducted initially on a fortnightly basis which may be extended out to monthly as settlement trends become evident.
- Stormwater at the site currently drains to the Domain 4 quarry void. Prior to construction works commencing a stormwater management plan must be prepared to manage stormwater quality and site drainage during construction.

9. ADDITIONAL SITE MANAGEMENT REQUIREMENTS

The preload activities are governed by the relevant sections of the following standards, guidelines and consents:

- Statement of Environmental Audit ref. CARMs: 70403-2 Service Order No.: 8004092 (EPA, 2020).
- The project approved Construction Environmental Management Plan (CEMP) dated 01 May 2020 (Coffey, 2020a).
- Work Health and Safety & Regulations 2021.
- AS3798-2007: Guidelines on Earthworks for Commercial and Residential Developments.

In addition, the site works will need to:

- Comply with the general requirements of the latest revisions of all other Standards and Specifications and Codes of Practice.
- Be carried out in full consideration of and in full compliance with the statement of environmental audit and any notices from EPA
- Be carried out in accordance with the contractor operations OH&S and risk management procedures.
- Be carried out in accordance with “Good Design and Construction Practices” as required under the Council license.

10. REFERENCES

- [1] Coffey Geotechnics Pty Ltd (Coffey), 2015. *Zone 4 Backfill Design Report, Huntingdale Estate, Oakleigh South, VIC*. GEOTABTF09257AA-AQ_Rev10, September 2015.
- [2] Coffey Geotechnics Pty Ltd (Coffey), 2019. *Zone 4 Backfill Design Specification, Huntingdale Estate, Oakleigh South, VIC*. GEOTABTF09257AA-BC_Rev10 dated April 2019.
- [3] EHS Support (2020) 53X Environmental Audit of Land at 1221-1249 Centre Road and 22 Talbot Avenue, Oakleigh South, Vic, Ref. AUS##C01679_2019, dated 13 May 2020.
- [4] Coffey Services Australia Pty Ltd, 2020. *Construction Environmental Management Plan (CEMP), 2020. Huntingdale Estate, Oakleigh South, VIC*. Ref. 754-ENAUABTF00751AB_R17 dated 1 May 2020a.
- [5] Coffey Services Australia Pty Ltd (Coffey), 2020b. *Former Talbot Quarry – A summary of the geotechnical history of the project*. Ref. GEOTABTF09257AA-DR dated 10 August 2020.
- [6] Coffey Services Australia Pty Ltd (Coffey), 2021. *Geotechnical Investigation Report 2020-21 Additional Investigation*. Ref. GEOTABTF09257AA-EC, 2021
- [7] Coffey Services Australia Pty Ltd (Coffey), 2021a. *Settlement Predictions Report*. Ref GEOTABTF09257AA-ED, 2021.

11. LIMITATIONS

This report has been prepared solely for the use of our client, their professional advisers and relevant authorities in relation to the specific project described in this document. No liability is accepted in respect of its use for any other purpose by any other person or entity. All future owners of this property should seek professional geotechnical advice to satisfy themselves as to its ongoing suitability for their intended use.

Your attention is drawn to the attached document entitled “*Important Information about your Coffey Report*”.

IMPORTANT INFORMATION ABOUT YOUR TETRA TECH COFFEY REPORT

As a client of Tetra Tech Coffey you should know that site subsurface conditions cause more construction problems than any other factor. These notes have been prepared by Tetra Tech Coffey to help you interpret and understand the limitations of your report.

Your report is based on project specific criteria

Your report has been developed on the basis of your unique project specific requirements as understood by Tetra Tech Coffey and applies only to the site investigated. Project criteria typically include the general nature of the project; its size and configuration; the location of any structures on the site; other site improvements; the presence of underground utilities; and the additional risk imposed by scope-of-service limitations imposed by the client. Your report should not be used if there are any changes to the project without first asking Tetra Tech Coffey to assess how factors that changed subsequent to the date of the report affect the report's recommendations. Tetra Tech Coffey cannot accept responsibility for problems that may occur due to changed factors if they are not consulted.

Subsurface conditions can change

Subsurface conditions are created by natural processes and the activity of man. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. Consult Tetra Tech Coffey to be advised how time may have impacted on the project.

Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and when they are taken. Data derived from literature and external data source review, sampling and subsequent laboratory testing are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, because no professional, no matter how qualified, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions. For this reason, owners should retain the services of Tetra Tech Coffey through the development stage, to identify variances, conduct additional tests if required, and recommend solutions to problems encountered on site.

Your report will only give preliminary recommendations

Your report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until project implementation has commenced and therefore your report recommendations can only be regarded as preliminary. Only Tetra Tech Coffey, who prepared the report, is fully familiar with the background information needed to assess whether or not the report's recommendations are valid and whether or not changes should be considered as the project develops. If another party undertakes the implementation of the recommendations of this report there is a risk that the report will be misinterpreted and Tetra Tech Coffey cannot be held responsible for such misinterpretation.

Your report is prepared for specific purposes and persons

To avoid misuse of the information contained in your report it is recommended that you confer with Tetra Tech Coffey before passing your report on to another party who may not be familiar with the background and the purpose of the report. Your report should not be applied to any project other than that originally specified at the time the report was issued.

Interpretation by other design professionals

Costly problems can occur when other design professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, retain Tetra Tech Coffey to work with other project design professionals who are affected by the report. Have Tetra Tech Coffey explain the report implications to design professionals affected by them and then review plans and specifications produced to see how they incorporate the report findings.

Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, drawings, etc. are customarily included in our reports and are developed by scientists, engineers or geologists based on their interpretation of field logs (assembled by field personnel) and laboratory evaluation of field samples. These logs etc. should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

Geoenvironmental concerns are not at issue

Your report is not likely to relate any findings, conclusions, or recommendations about the potential for hazardous materials existing at the site unless specifically required to do so by the client. Specialist equipment, techniques, and personnel are used to perform a geoenvironmental assessment. Contamination can create major health, safety and environmental risks. If you have no information about the potential for your site to be contaminated or create an environmental hazard, you are advised to contact Tetra Tech Coffey for information relating to geoenvironmental issues.

Rely on Tetra Tech Coffey for additional assistance

Tetra Tech Coffey is familiar with a variety of techniques and approaches that can be used to help reduce risks for all parties to a project, from design to construction. It is common that not all approaches will be necessarily dealt with in your site assessment report due to concepts proposed at that time. As the project progresses through design towards construction, speak with Tetra Tech Coffey to develop alternative approaches to problems that may be of genuine benefit both in time and cost.

Responsibility

Reporting relies on interpretation of factual information based on judgement and opinion and has a level of uncertainty attached to it, which is far less exact than the design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. To help prevent this problem, a number of clauses have been developed for use in contracts, reports and other documents. Responsibility clauses do not transfer appropriate liabilities from Tetra Tech Coffey to other parties but are included to identify where Tetra Tech Coffey's responsibilities begin and end. Their use is intended to help all parties involved to recognise their individual responsibilities. Read all documents from Tetra Tech Coffey closely and do not hesitate to ask any questions you may have.

FIGURES



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	GY	FK	08.09.21

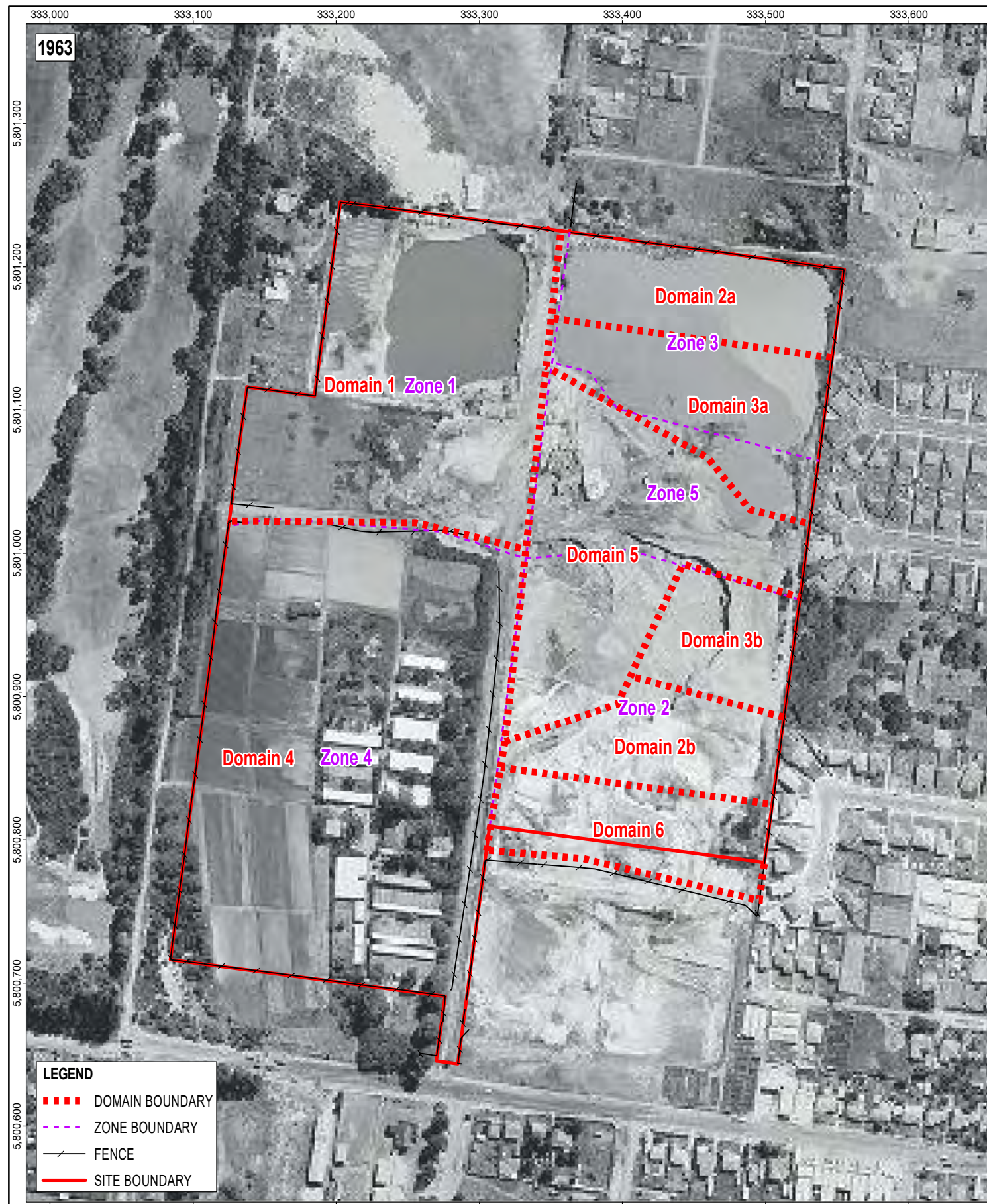
LEGEND	
	DOMAIN BOUNDARY
	SITE BOUNDARY
	CADASTRE

IMAGERY SOURCE: Nearmap (06-09-2020)

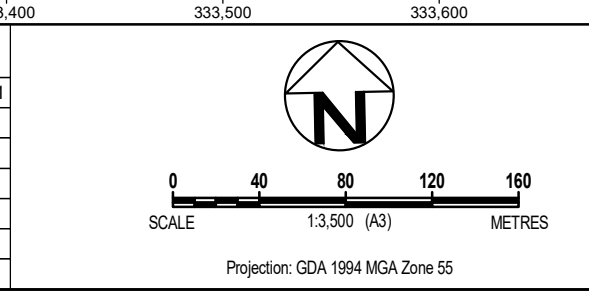
	SCALE 1:2,000(A3) METRES
	Projection: GDA 1994 MGA Zone 55
	drawn: GDY
	approved: FK
date: 08.09.2021	
scale: 1:2,000	
original size: A3	

client:	HUNTINGDALE ESTATE NOMINEES PTY LTD		
project:	GEOTECHNICAL SITE INVESTIGATION 1221-1249 CENTRE ROAD & 22 TALBOT AVENUE OAKLEIGH SOUTH, VICTORIA		
title:	SITE GEOTECHNICAL DOMAINS		
project no:	GEOTABTF09257AA-EE	figure no:	FIGURE 1
rev:	A		

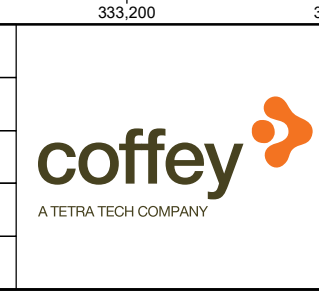
M:\D\Templates\Reference_08257AA_EE_GIS\02_00_2



revision	no.	description	drawn	approved	date
	A	ORIGINAL ISSUE	JS	FK	18.10.21



drawn	JS
approved	FK
date	18.10.2021
scale	AS SHOWN
original size	A3

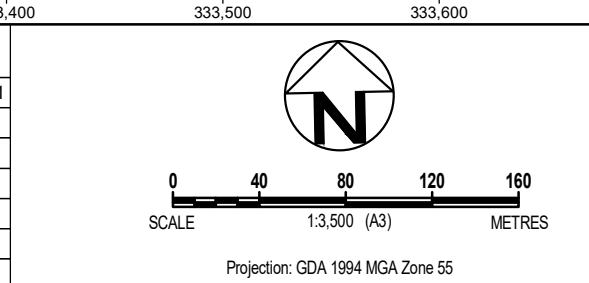


client:	HUNTINGDALE ESTATE NOMINEES PTY LTD		
project:	GEOTECHNICAL SITE INVESTIGATION 1221-1249 CENTRE ROAD & 22 TALBOT AVENUE OAKLEIGH SOUTH, VICTORIA		
title:	HISTORICAL IMAGERY (1963 - 1972)		
project no:	GEOTABTF09257AA-EH	figure no:	FIGURE 2A
		rev:	A

MXD ref: 09257AA_EH_GIS002_v0_1



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	JS	FK	18.10.21



drawn	JS
approved	FK
date	18.10.2021
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD
project:	GEOTECHNICAL SITE INVESTIGATION 1221-1249 CENTRE ROAD & 22 TALBOT AVENUE OAKLEIGH SOUTH, VICTORIA
title:	HISTORICAL IMAGERY (1978 - 1992)
project no:	GEOTABTF09257AA-EH
figure no:	FIGURE 2B
rev:	A

MXD ref: 09257AA_EH_GIS007_v0_1



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AM	FK	18.11.21

drawn	AM
approved	FK
date	18.11.2021
scale	1:1,500
original size	A3

LEGEND
 - - - CONTOUR LINE (m)
 - - - FENCE
 - - - CADASTRE
 - - - SITE BOUNDARY
 - - - ZONE BOUNDARY
 - - - DOMAIN BOUNDARY

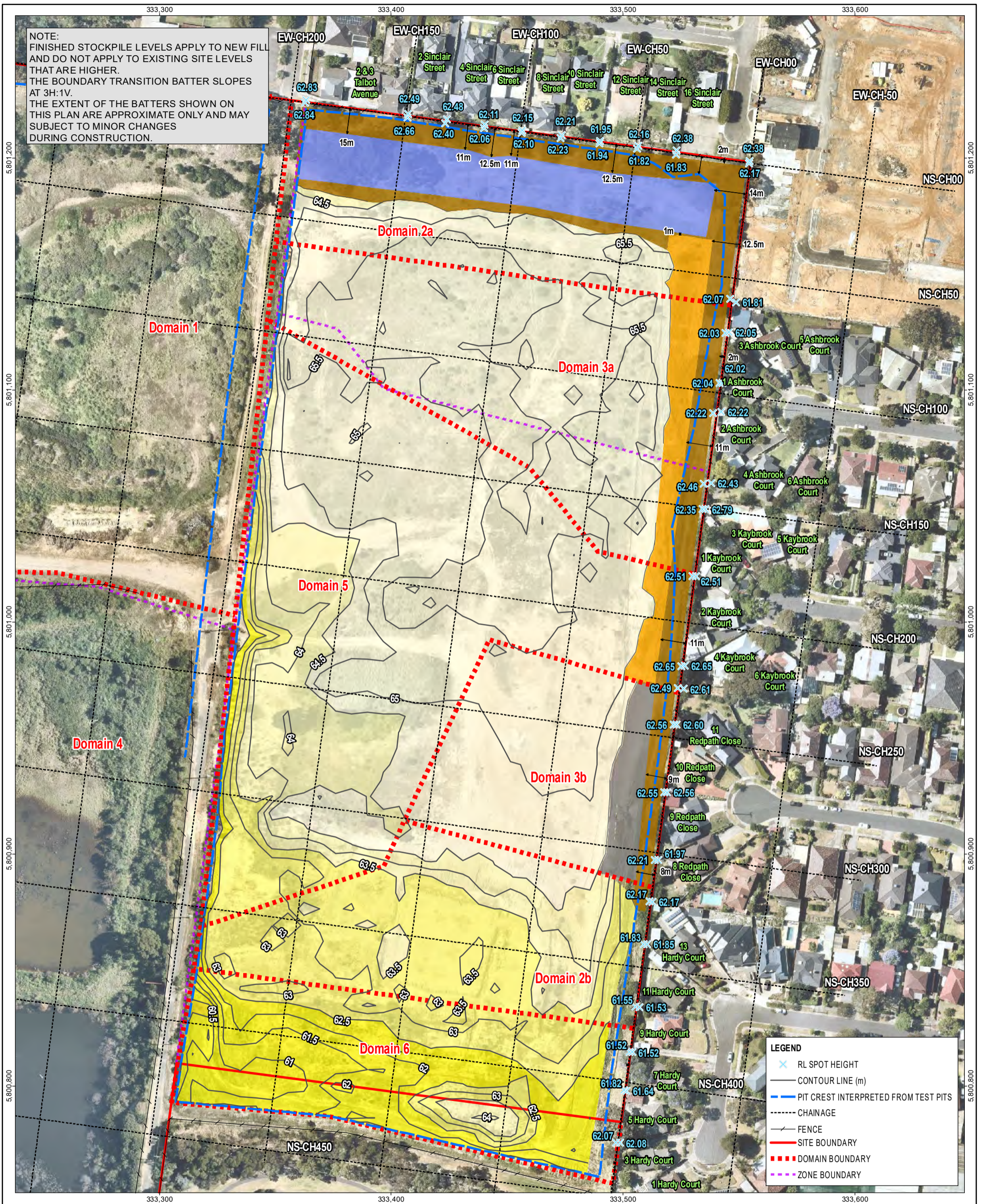
IMAGERY SOURCE: Nearmap (29-04-2021)

TETRA TECH COFFEY

client: HUNTINGDALE ESTATE NOMINEES PTY LTD
 project: GEOTECHNICAL SITE INVESTIGATION
 1221-1249 CENTRE ROAD & 22 TALBOT AVENUE
 OAKLEIGH SOUTH, VICTORIA
 title: EXISTING CONDITIONS PLAN
 (DOMAINS 2A, 3A, 3B, 5)
 project no: GEOTABTF09257AA figure no: FIGURE 3 rev: A



MDO Template Reference: 09257AA_EH_GIS001_v0_7



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AM	FK	04.02.22

drawn	AM
approved	FK
date	04.02.2022
scale	1:1,500
original size	A3

STOCKPILE AND BATTER

- PRELOAD STOCKPILE AT RL 66M
- PRELOAD STOCKPILE AT RL 65M
- PRELOAD STOCKPILE AT RL 64.5M
- TRANSITION BATTER 3H:1V

RL TOP OF THE EXISTING STOCKPILES

- 59.50 - 60.00
- 60.01 - 62.00
- 62.01 - 63.00
- 63.01 - 64.50
- 64.51 - 66.00

IMAGERY SOURCE: Nearmap (29-04-2021)

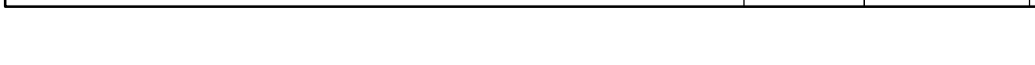
TETRA TECH COFFEY

client: HUNTINGDALE ESTATE NOMINEES PTY LTD

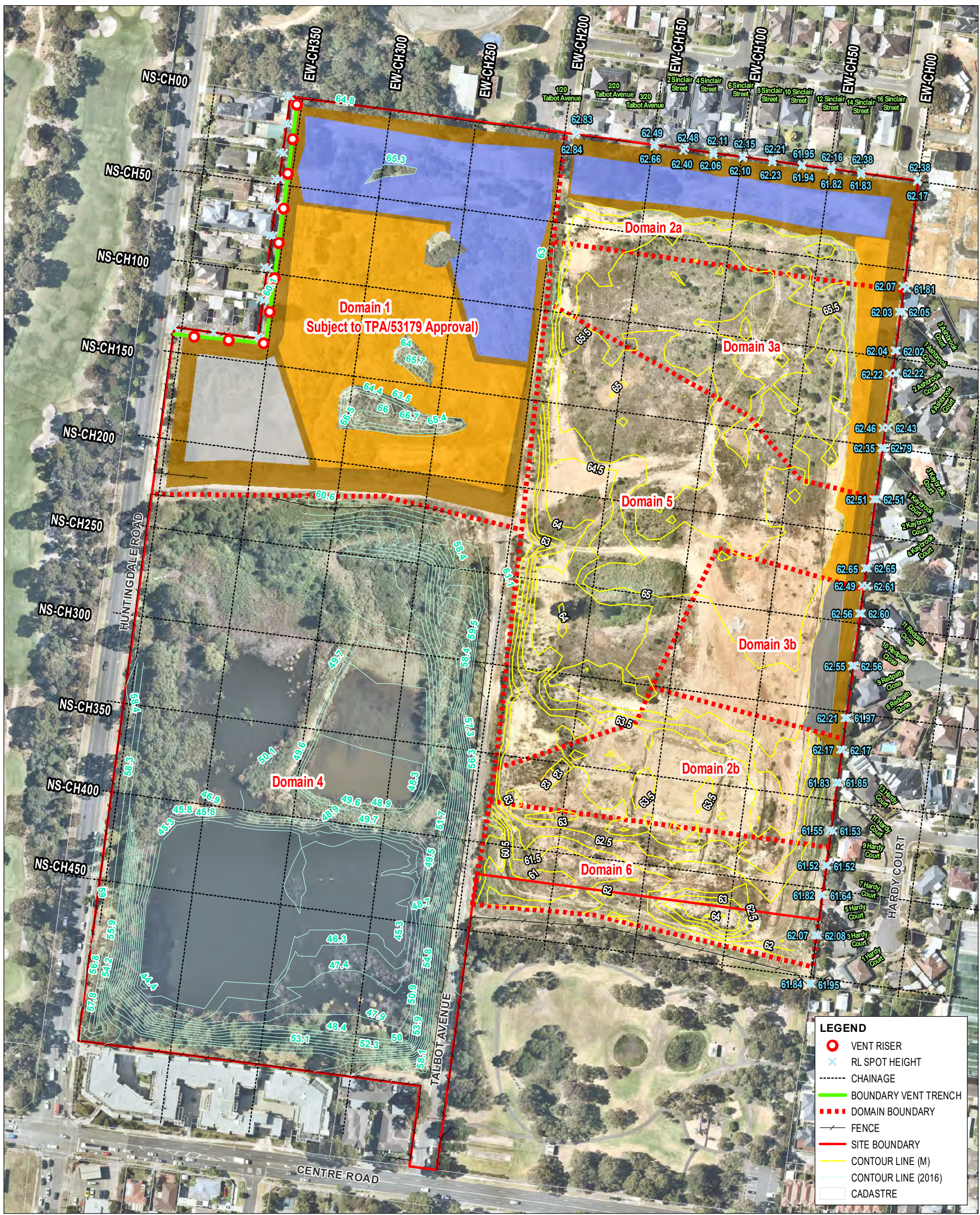
project: GEOTECHNICAL SITE INVESTIGATION
1221-1249 CENTRE ROAD & 22 TALBOT AVENUE
OAKLEIGH SOUTH, VICTORIA

title: PROPOSED PRELOAD LAYOUT
(DOMAINS 2A, 3A, 3B, 5)

project no: GEOTABTF09257AA-EH figure no: FIGURE 4 rev: A



M:\D\Templates Reference\09257AA_EH_GIS004_V0_5



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AM	FK	03.02.22

STOCKPILE AND BATTER					
	PRELOAD STOCKPILE AT RL 66M		PRELOAD STOCKPILE AT RL 64.5M		TRANSITION BATTER
	PRELOAD STOCKPILE AT RL 65M		PRELOAD STOCKPILE AT RL 64 M		

IMAGERY SOURCE: Nearmap (06-09-2020)

revision

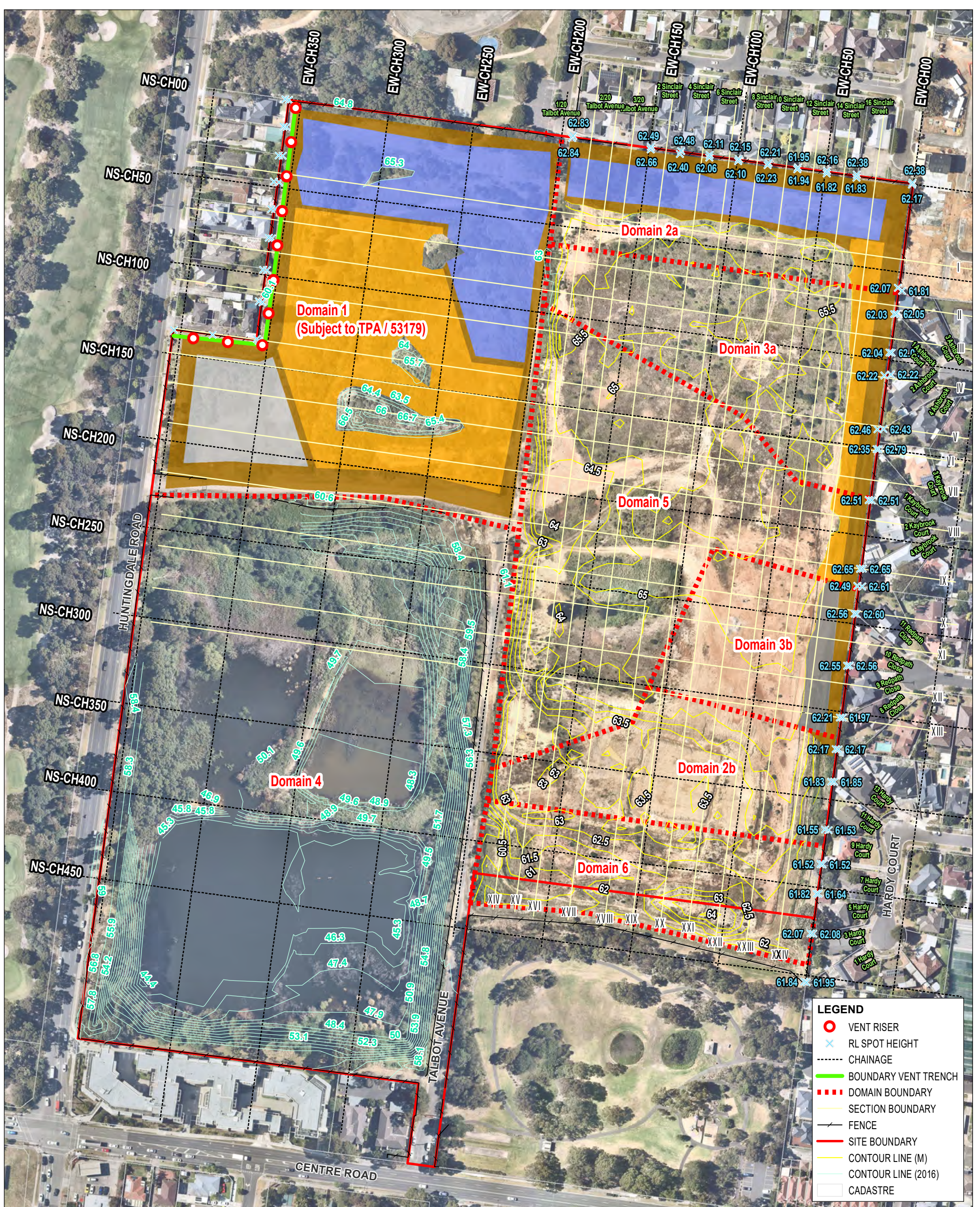
drawn	AM
approved	FK
date	04.02.2022
scale	1:2,000
original size	A3

SCALE 1:2,000(A3) METRES

 Projection: GDA 1994 MGA Zone 55

client:	HUNTINGDALE ESTATE NOMINEES PTY LTD		
project:	GEOTECHNICAL SITE INVESTIGATION 1221-1249 CENTRE ROAD & 22 TALBOT AVENUE OAKLEIGH SOUTH, VICTORIA		
title:	DOMAINS 1, 2A, 3A, 3B AND 5 PRELOAD LAYOUT		
project no:	GEOTABTF09257AA-EH	figure no:	FIGURE 5
		rev:	A

M:\D\Templates\Reference\09257AA_EH_GIS012_v0_2



LEGEND

- VENT RISER
- × RL SPOT HEIGHT
- CHAINAGE
- BOUNDARY VENT TRENCH
- - - DOMAIN BOUNDARY
- SECTION BOUNDARY
- FENCE
- SITE BOUNDARY
- CONTOUR LINE (M)
- CONTOUR LINE (2016)
- CADASTRE

no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AM	FK	03.02.22

STOCKPILE AND BATTER

 PRELOAD STOCKPILE AT RL 66M	 PRELOAD STOCKPILE AT RL 64.5M	 TRANSITION BATTER
 PRELOAD STOCKPILE AT RL 65M	 PRELOAD STOCKPILE AT RL 64 M	

IMAGERY SOURCE: Nearmap (06-09-2020)

revision

drawn	AM
approved	FK
date	08.02.2022
scale	1:2,000
original size	A3

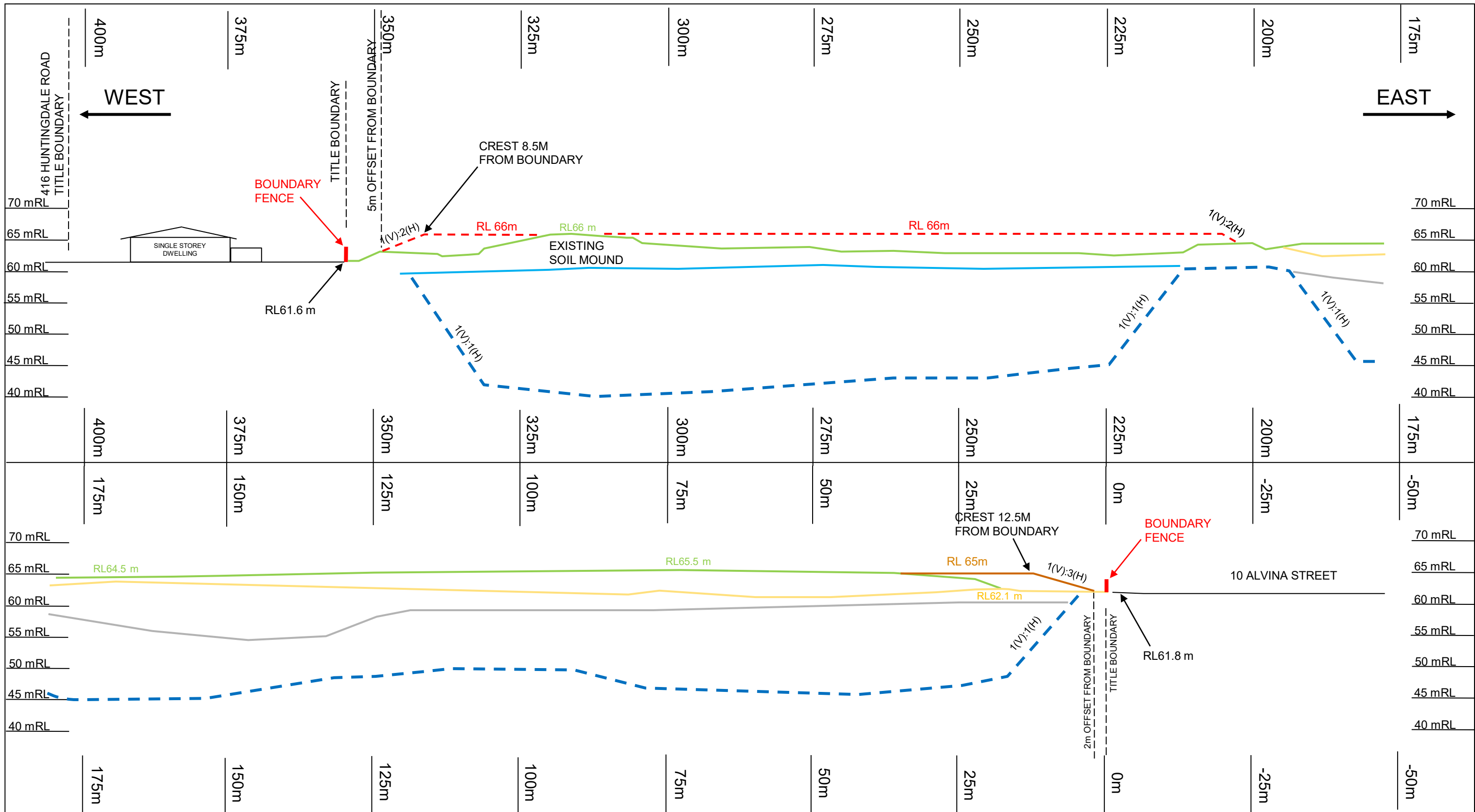
client: HUNTINGDALE ESTATE NOMINEES PTY LTD

project: GEOTECHNICAL SITE INVESTIGATION
1221-1249 CENTRE ROAD & 22 TALBOT AVENUE
OAKLEIGH SOUTH, VICTORIA

title: CROSS SECTIONS LOCALITY PLAN

project no: GEOTABTF09257AA-EH **figure no:** FIGURE 6 **rev:** A

M:\00_Templates\Reference\09257AA_EH_CIS13_v0_3



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	EXISTING GROUND LEVEL
	INFERRED PIT BATTER (APPROX.)
	TOP OF OLD FILL (APPROX.)
	TOP OF LANDFILL (APPROX.)
	TOP OF SLIMES
	DOMAIN 1 PRELOAD LEVEL (SUBJECT TO TPA/53179)

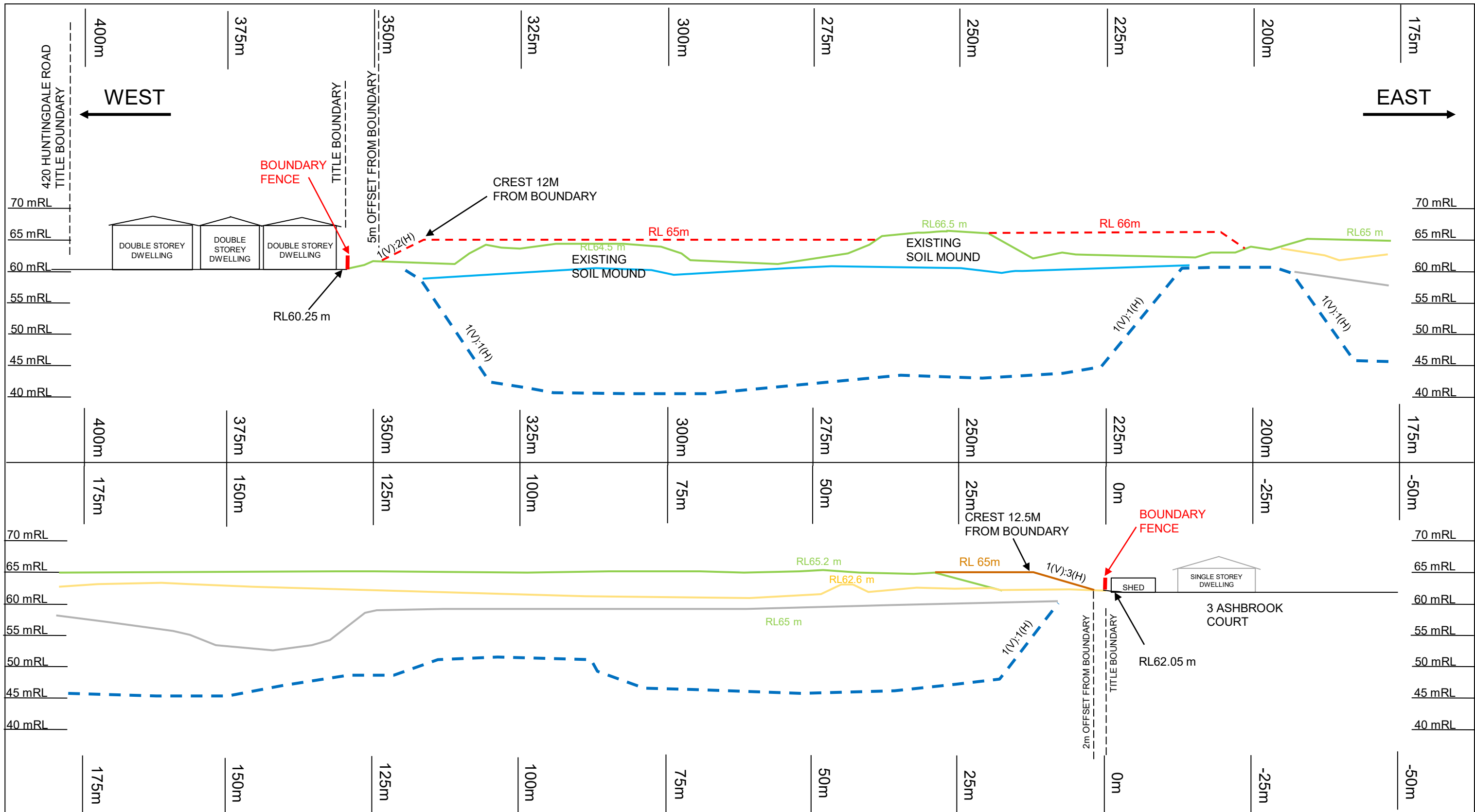
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION I	
project no:	GEOTABTF092574AA	figure no: 7



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	INFERRED PIT BATTER (APPROX.)
	EXISTING GROUND LEVEL
	DOMAIN 1 PRELOAD LEVEL (SUBJECT TO TPA/53179)
	TOP OF LANDFILL (APPROX.)
	TOP OF SLIMES

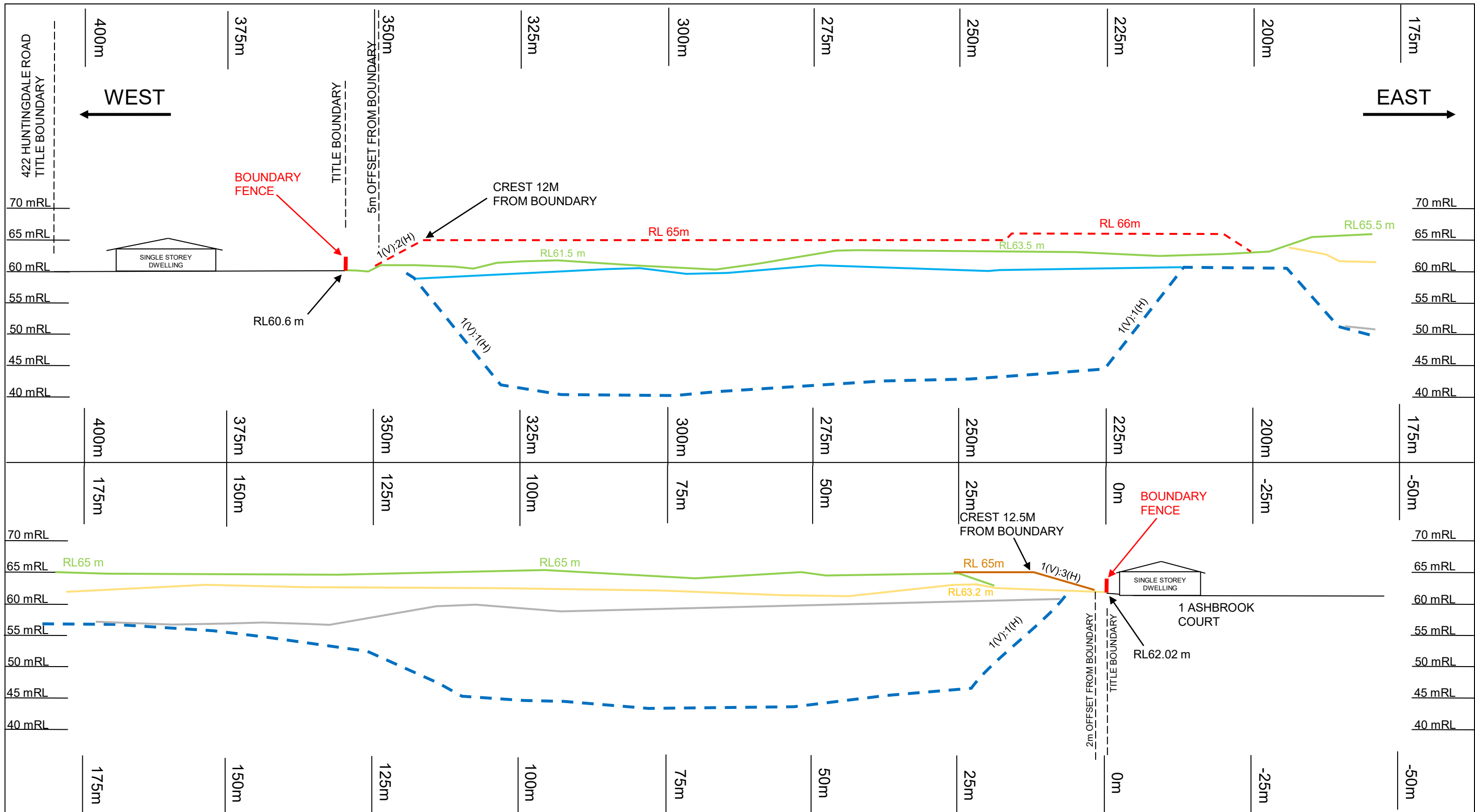
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION II	
project no:	GEOTABTF092574AA	figure no: 8



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	INFERRED PIT BATTER (APPROX.)
	EXISTING GROUND LEVEL
	DOMAIN 1 PRELOAD LEVEL (SUBJECT TO TPA/53179)
	TOP OF LANDFILL (APPROX.)
	TOP OF SLIMES

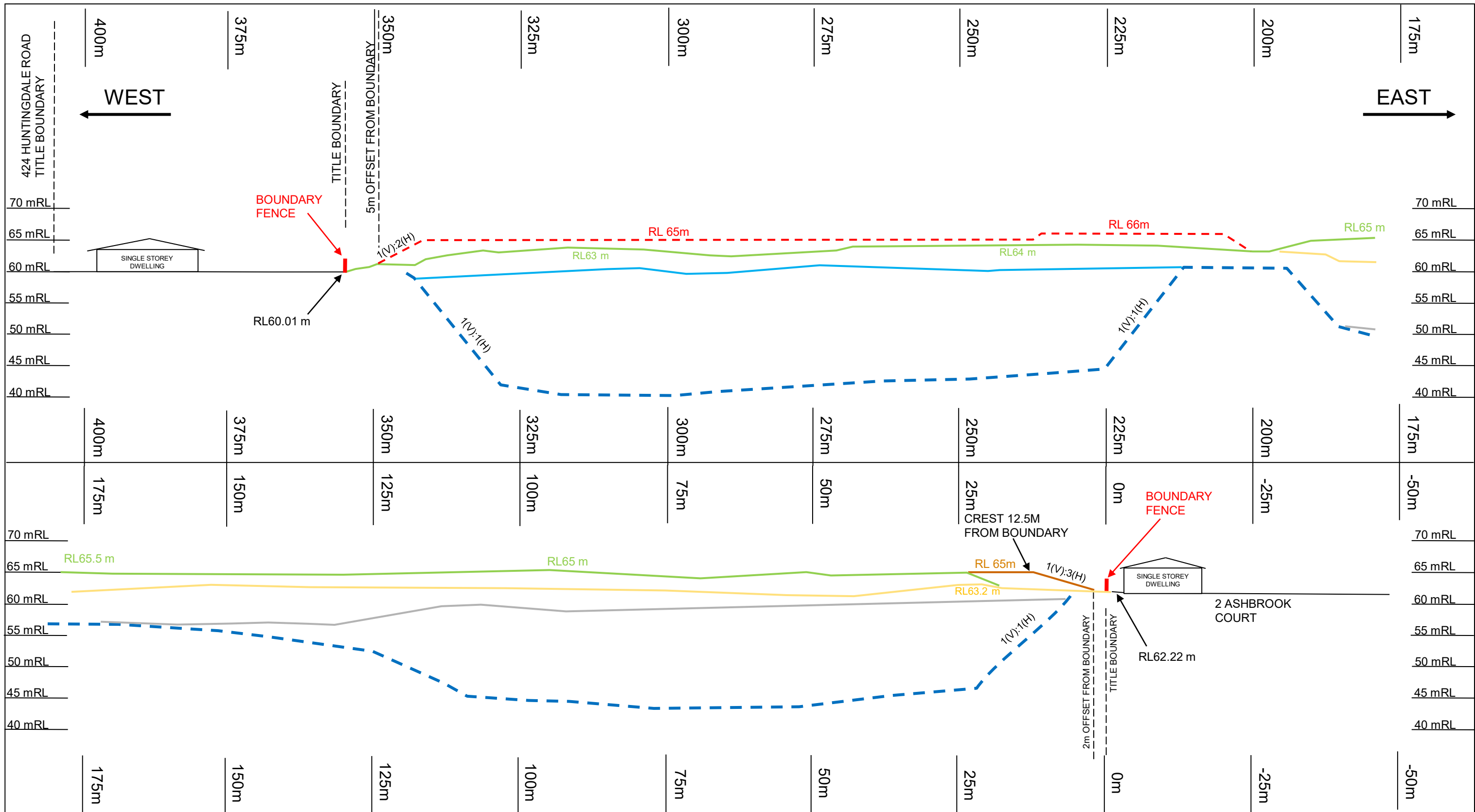
revision	description	drawn	approved	date
	V0	FK	IP	12.11.21
	V1	FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION III	
project no:	GEOTABTF092574AA	figure no: 9



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	INFERRED PIT BATTER (APPROX.)
	EXISTING GROUND LEVEL
	DOMAIN 1 PRELOAD LEVEL (SUBJECT TO TPA/53179)
	TOP OF LANDFILL (APPROX.)
	TOP OF SLIMES

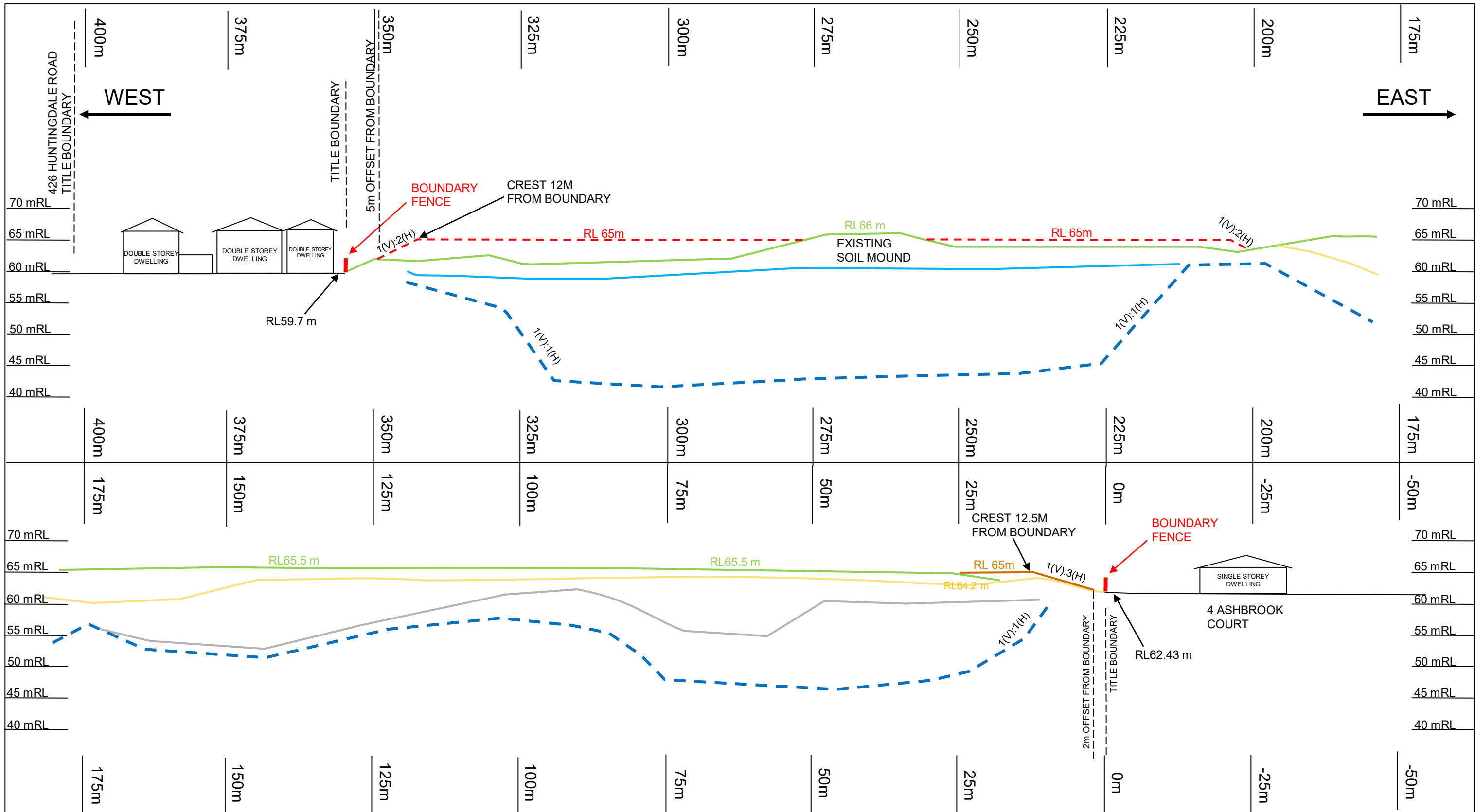
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION IV	
project no:	GEOTABTF092574AA	figure no: 10



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	INFERRED PIT BATTER (APPROX.)
	EXISTING GROUND LEVEL
	DOMAIN 1 PRELOAD LEVEL (SUBJECT TO TPA/53179)
	TOP OF LANDFILL (APPROX.)
	TOP OF SLIMES

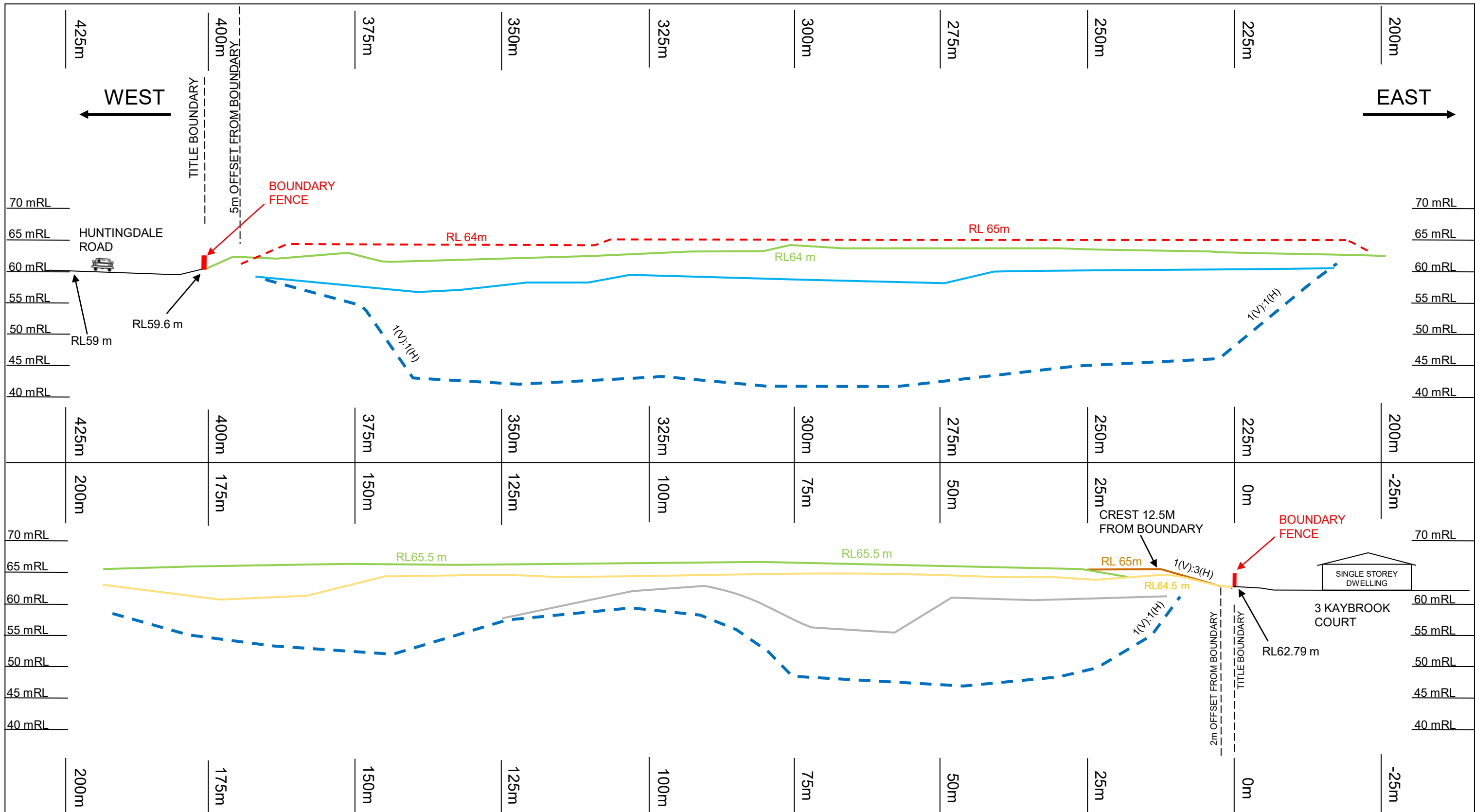
revision	description	drawn	approved	date
	V0	FK	IP	16.11.21
	V1	FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION V	
project no:	GEOTABTF092574AA	figure no: 11



LEGEND	
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	DOMAIN 1 PRELOAD LEVEL (SUBJECT TO TPA/53179)
	TOP OF SLIMES

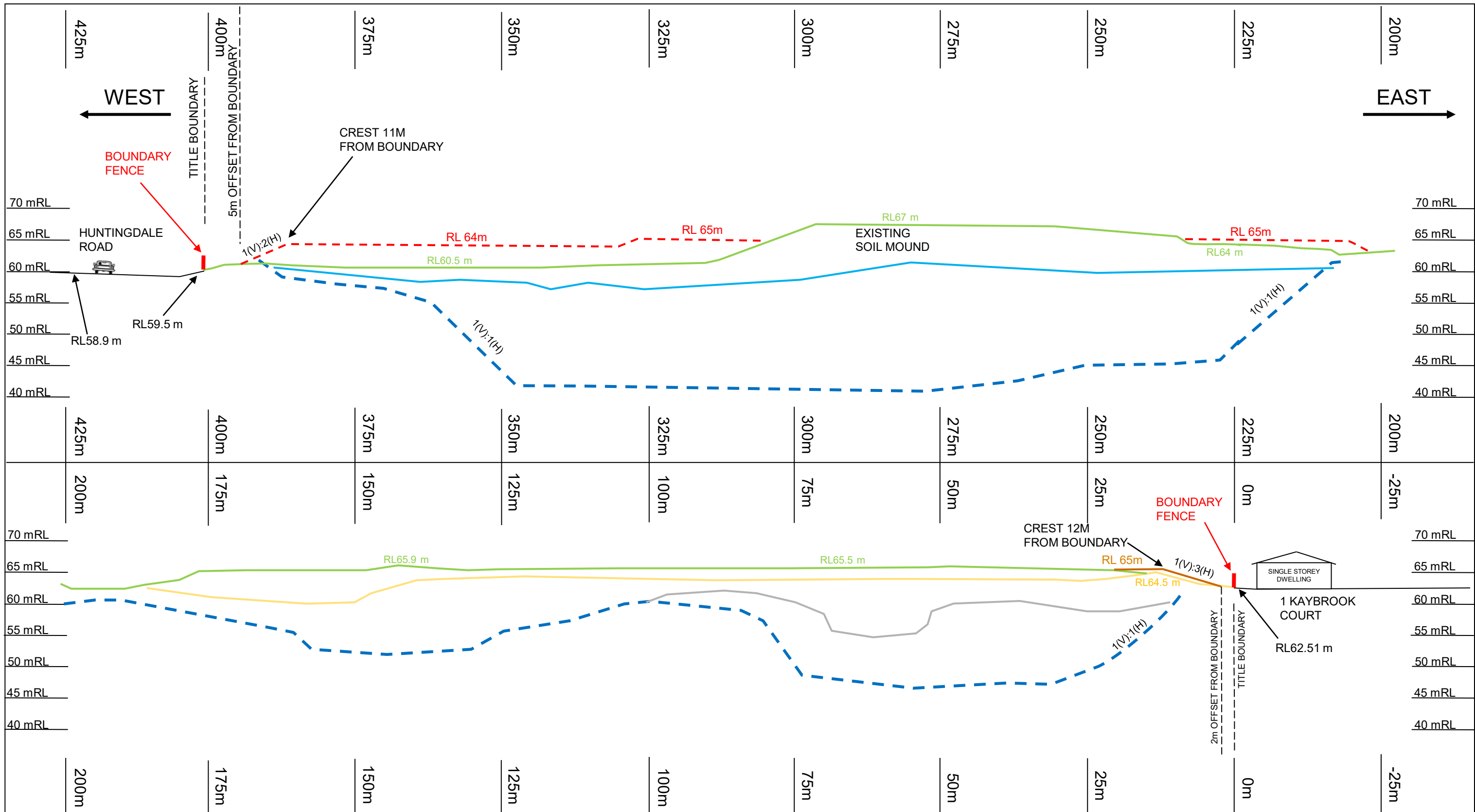
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION VI	
project no:	GEOTABTF092574AA	figure no: 12



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	INFERRED PIT BATTER (APPROX.)
	EXISTING GROUND LEVEL
	DOMAIN 1 PRELOAD LEVEL (SUBJECT TO TPA/53179)
	TOP OF LANDFILL (APPROX.)
	TOP OF SLIMES

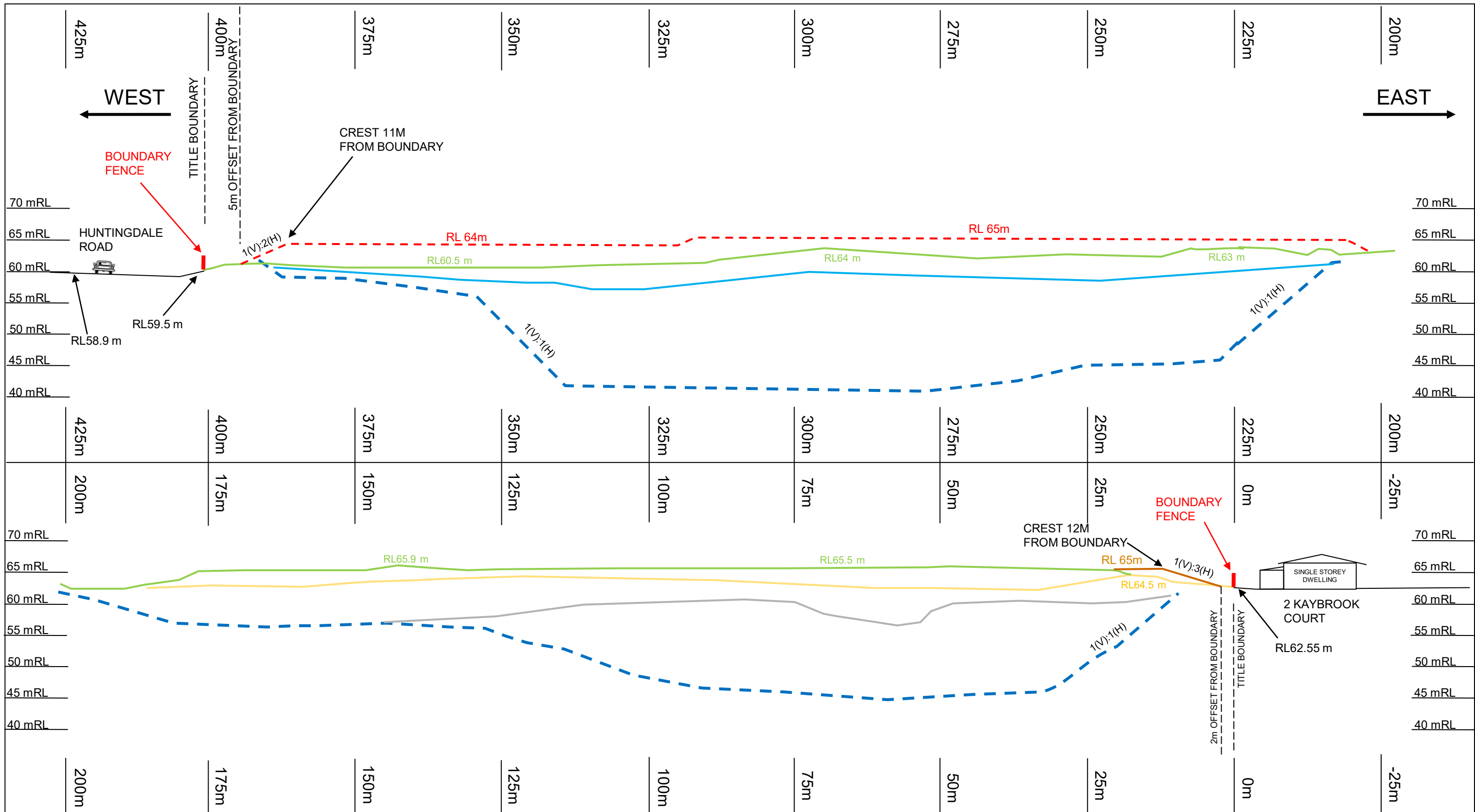
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION VII	
project no:	GEOTABTF092574AA	figure no: 13



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	INFERRED PIT BATTER (APPROX.)
	EXISTING GROUND LEVEL
	DOMAIN 1 PRELOAD LEVEL (SUBJECT TO TPA/53179)
	TOP OF LANDFILL (APPROX.)
	TOP OF SLIMES

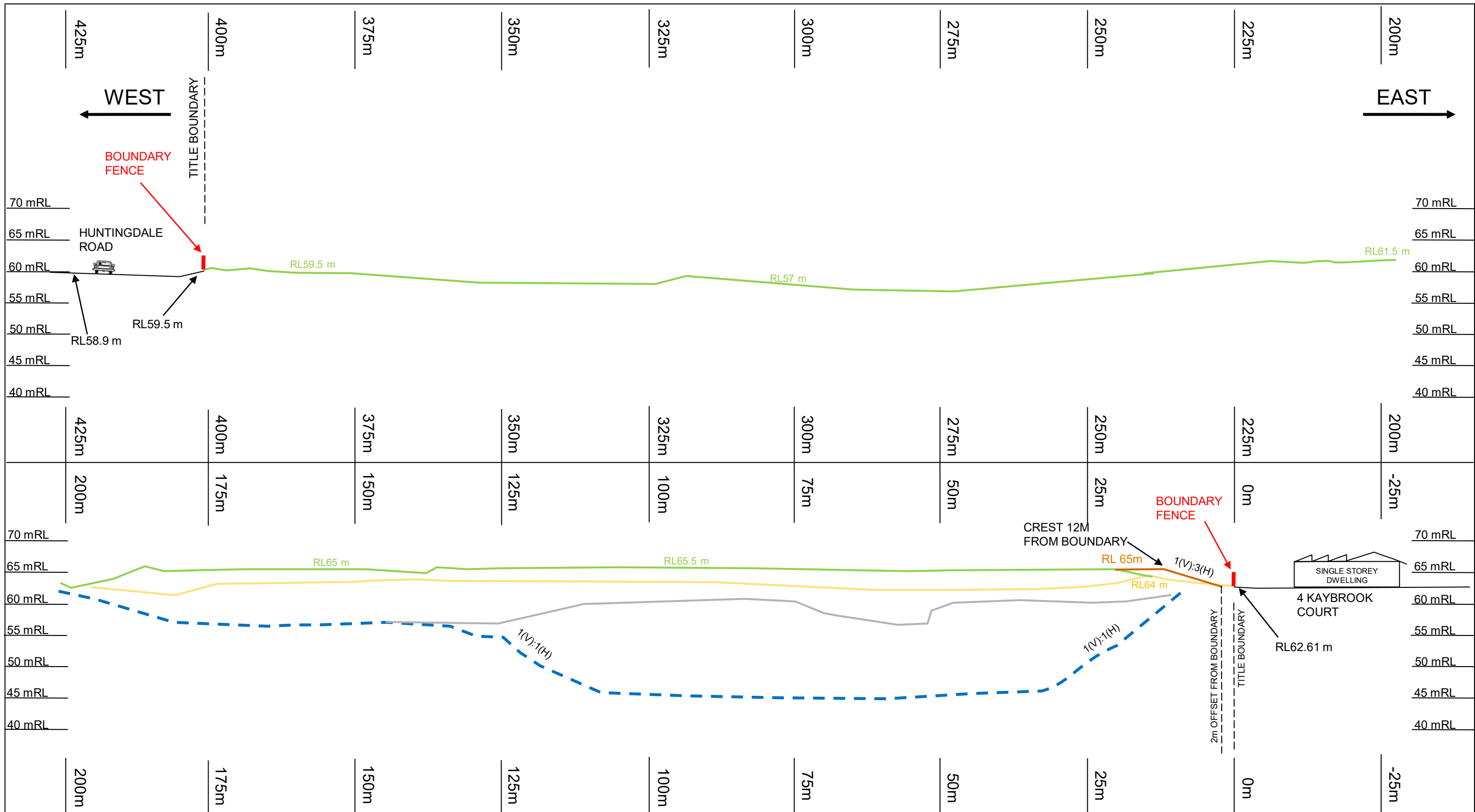
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION VIII	
project no:	GEOTABTF092574AA	figure no: 14



LEGEND	
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES

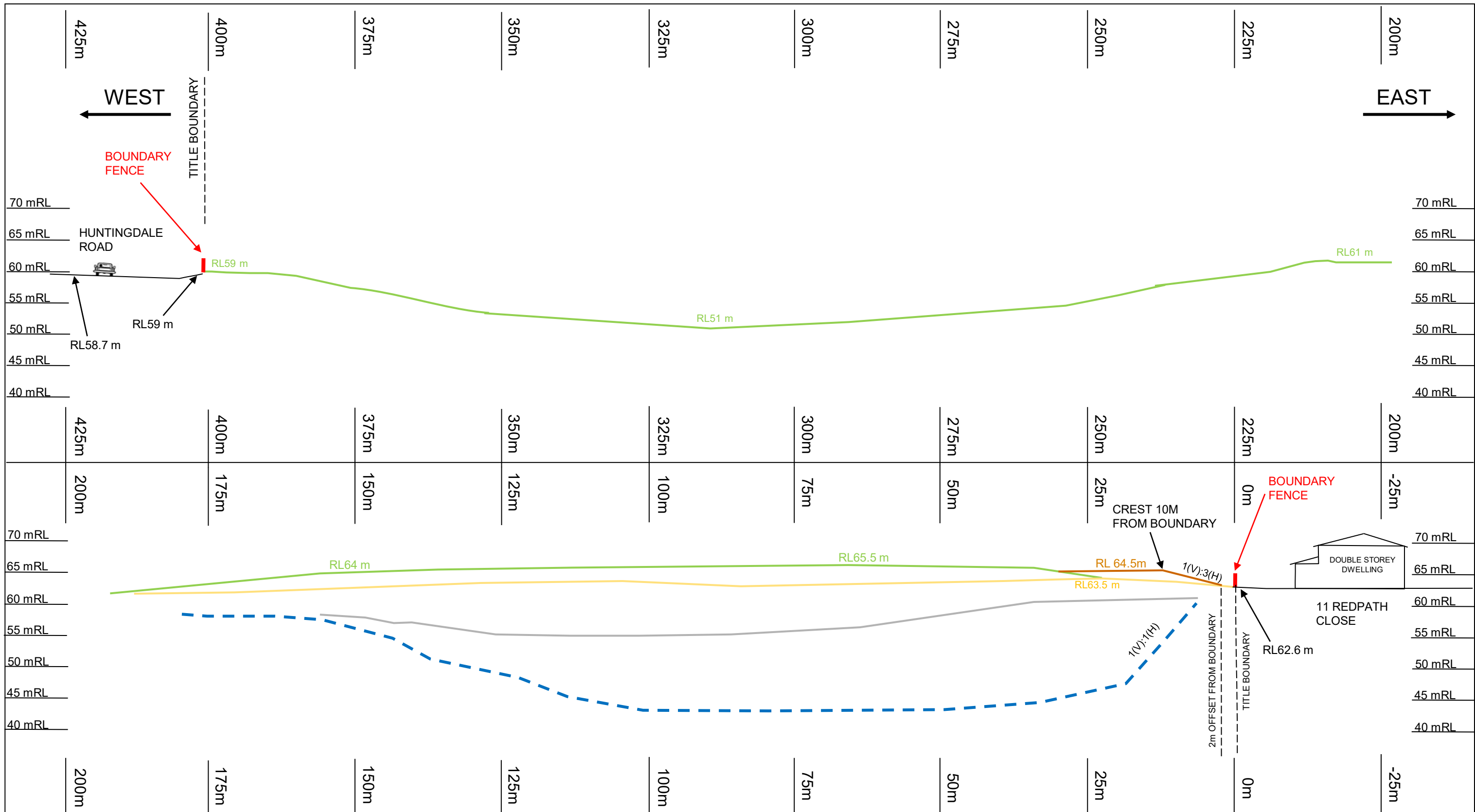
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION IX	
project no:	GEOTABTF092574AA	figure no: 15



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)

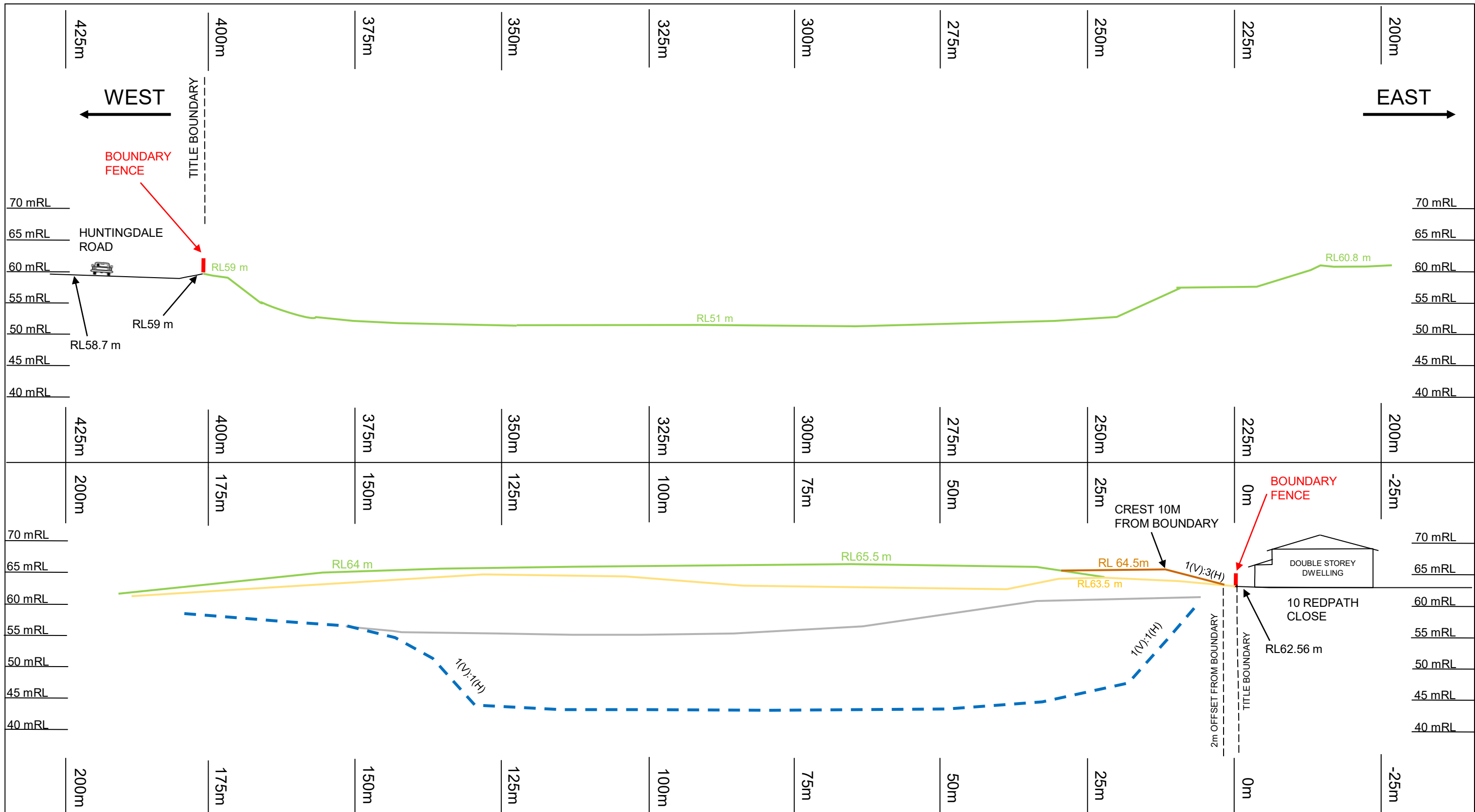
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION X	
project no:	GEOTABTF092574AA	figure no: 16



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)

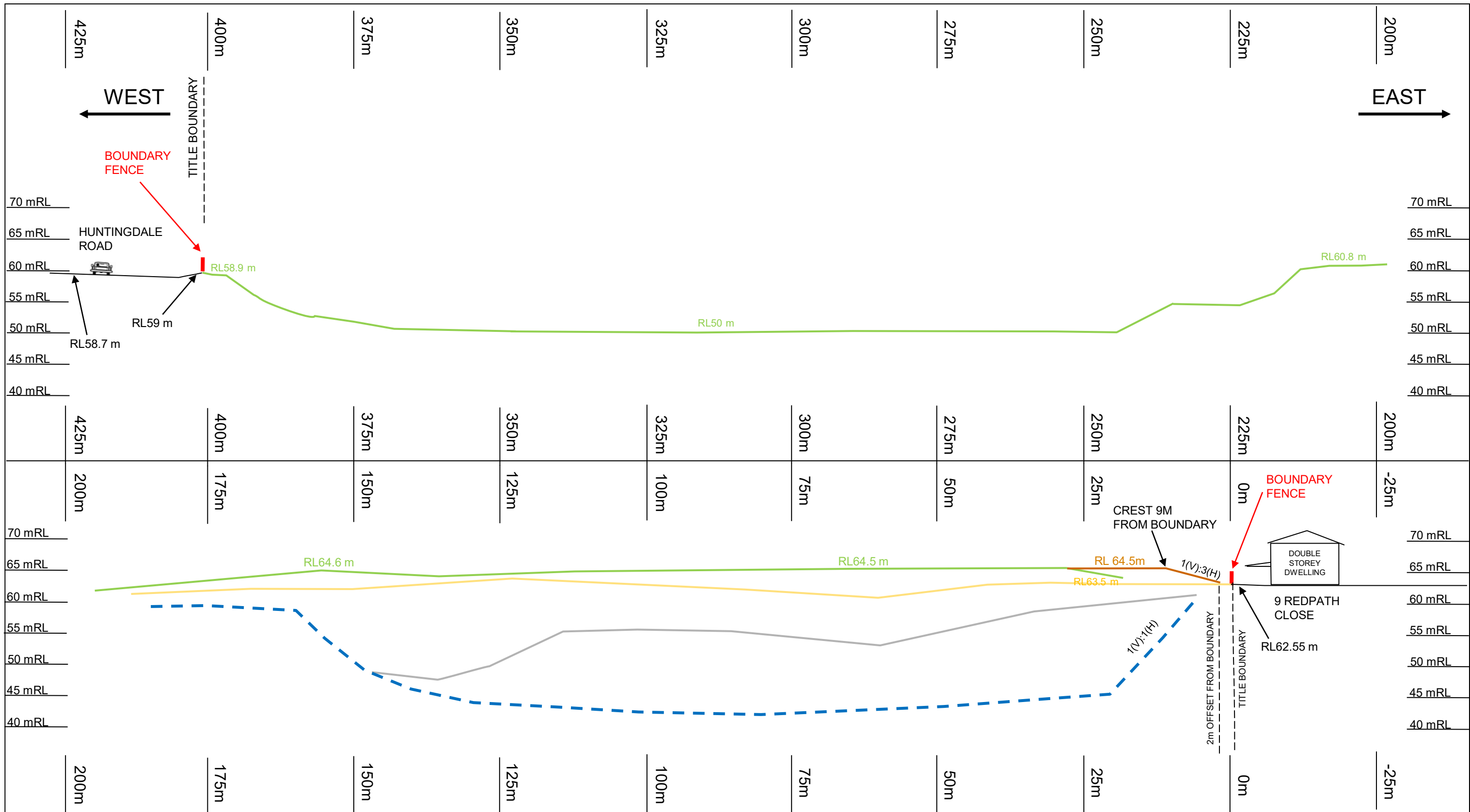
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XI	
project no:	GEOTABTF092574AA	figure no: 17



LEGEND	
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES

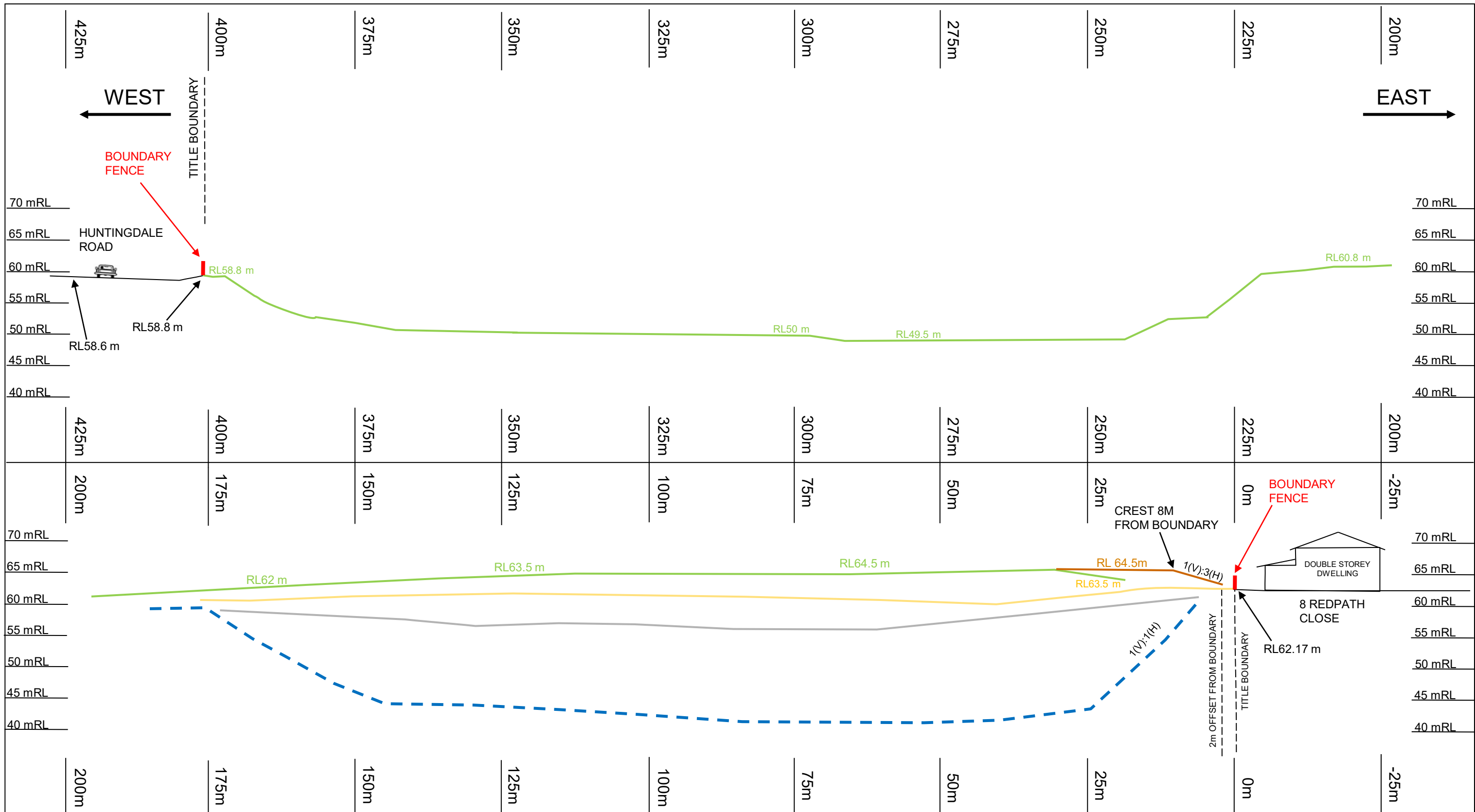
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XII	
project no:	GEOTABTF092574AA	figure no: 18



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	DOMAIN 1 PRELOAD LEVEL (SUBJECT TO TPA/53179)
	INFERRED PIT BATTER (APPROX.)
	TOP OF SLIMES
	TOP OF LANDFILL (APPROX.)

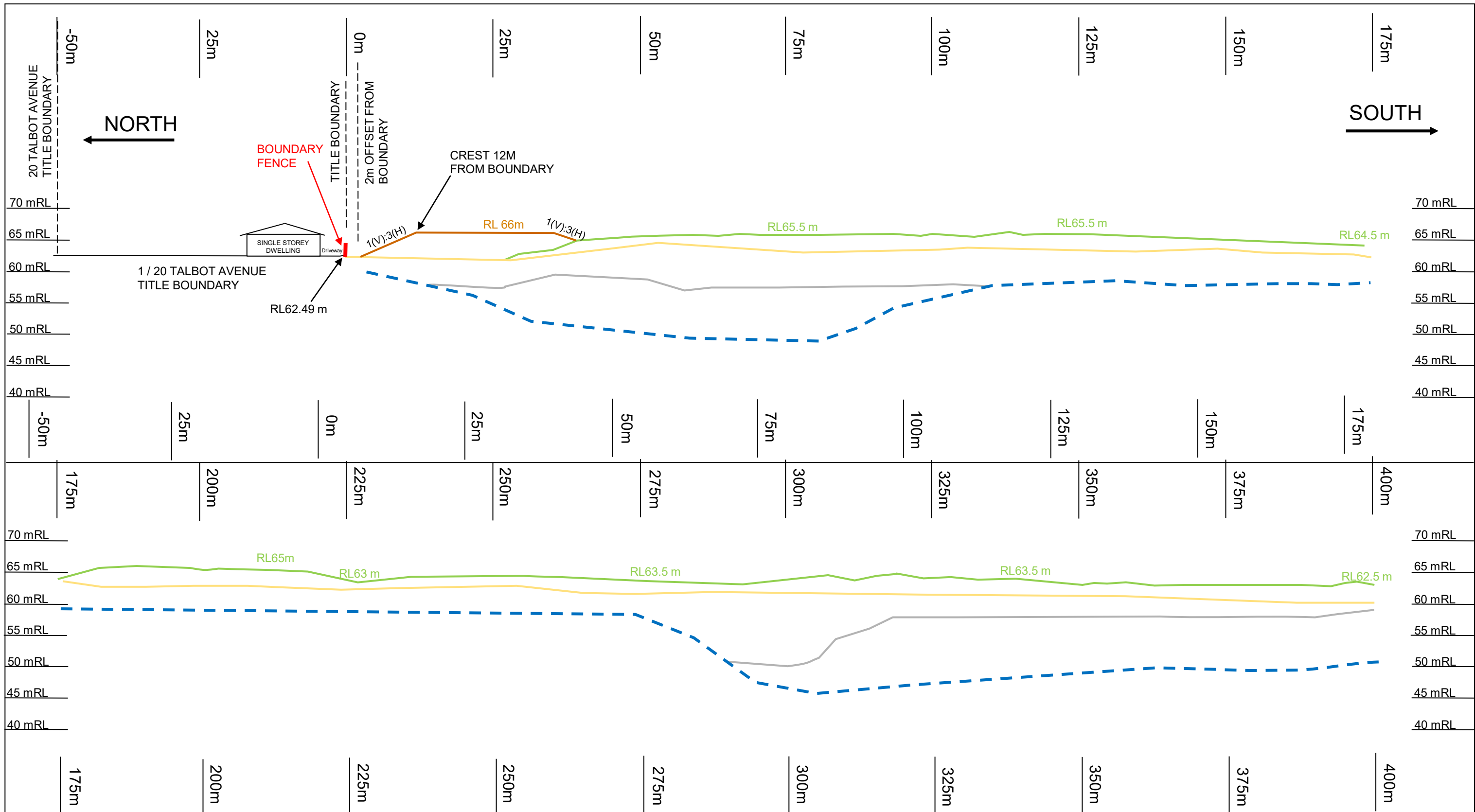
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XIII	
project no:	GEOTABTF092574AA	figure no: 19



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)

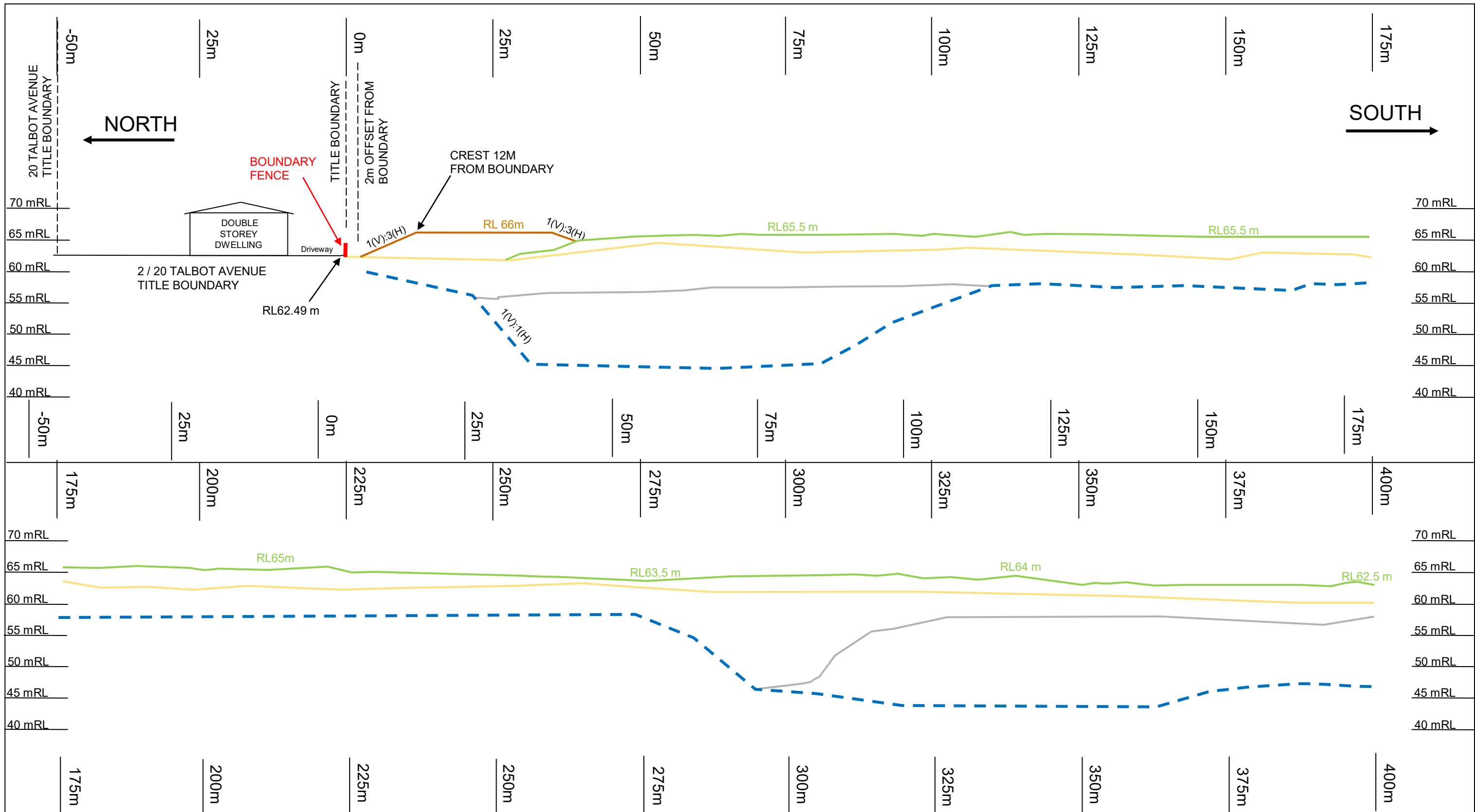
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XIV	
project no:	GEOTABTF092574AA	figure no: 20



LEGEND	
	INFERRED PIT BATTER (APPROX.)
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	TOP OF LANDFILL (APPROX.)

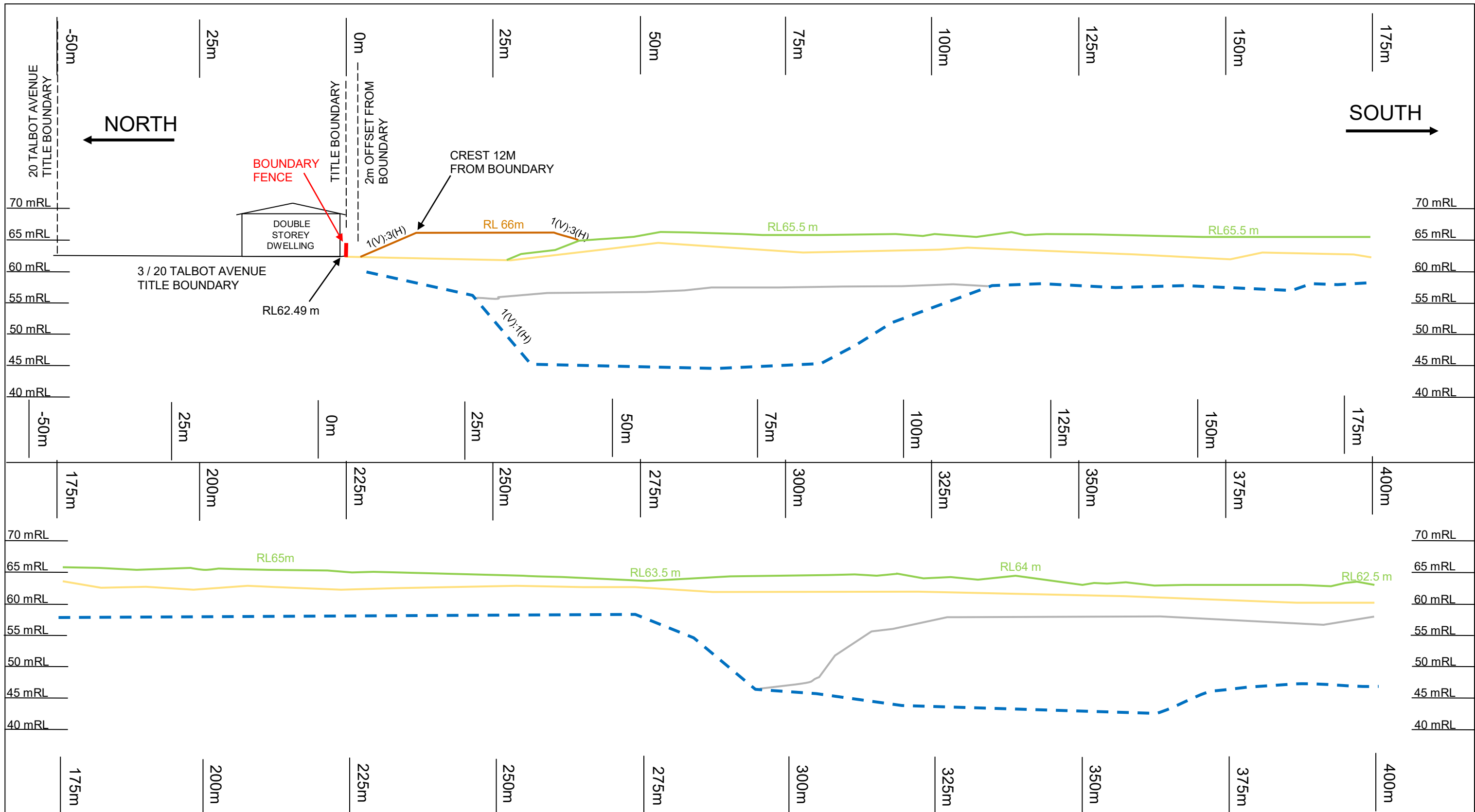
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XV	
project no:	GEOTABTF092574AA	figure no: 21



LEGEND	
	INFERRED PIT BATTER (APPROX.)
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	EXISTING GROUND LEVEL
	TOP OF OLD FILL (APPROX.)
	TOP OF SLIMES

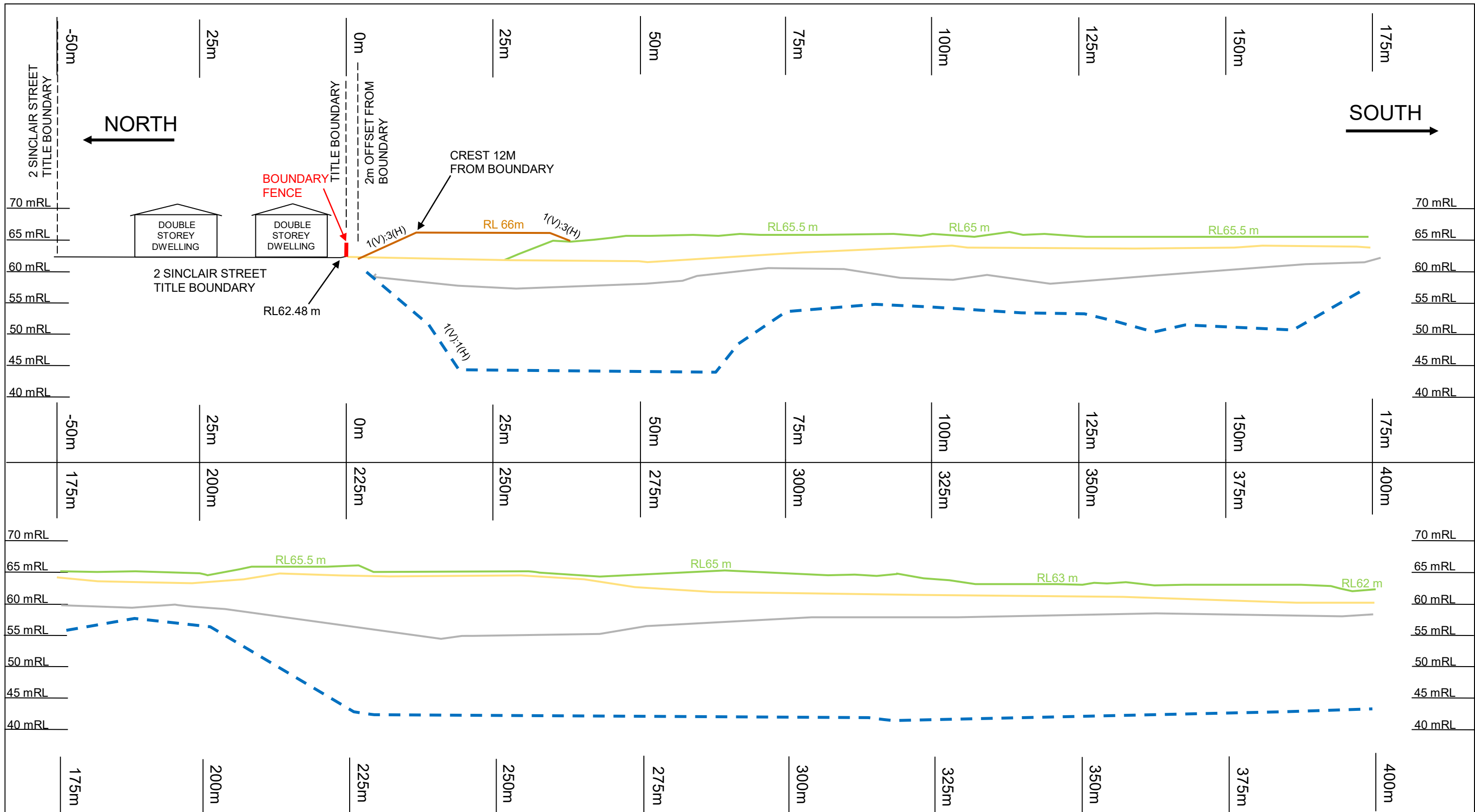
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XVI	
project no:	GEOTABTF092574AA	figure no: 22



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)

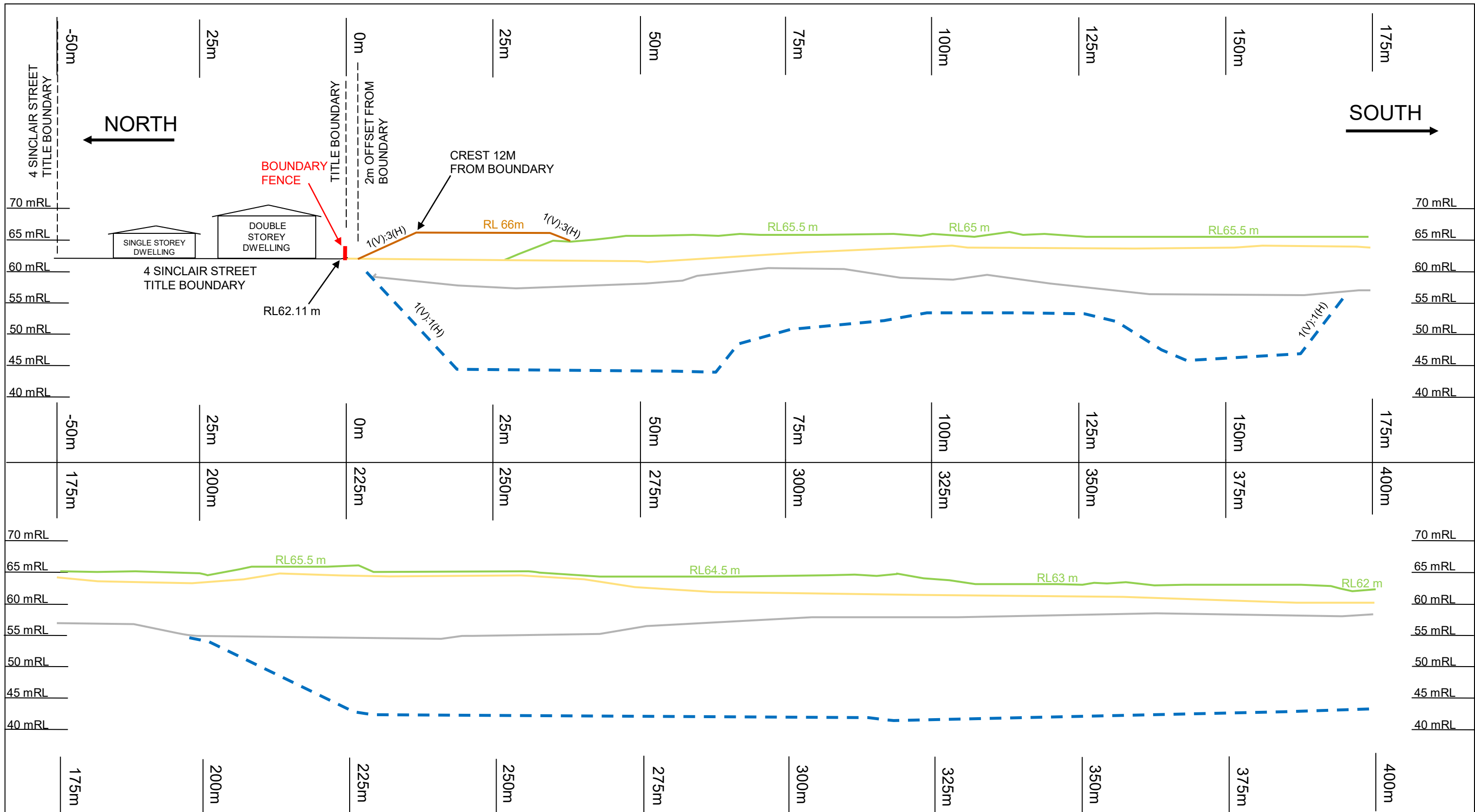
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XVII	
project no:	GEOTABTF092574AA	figure no: 23



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)

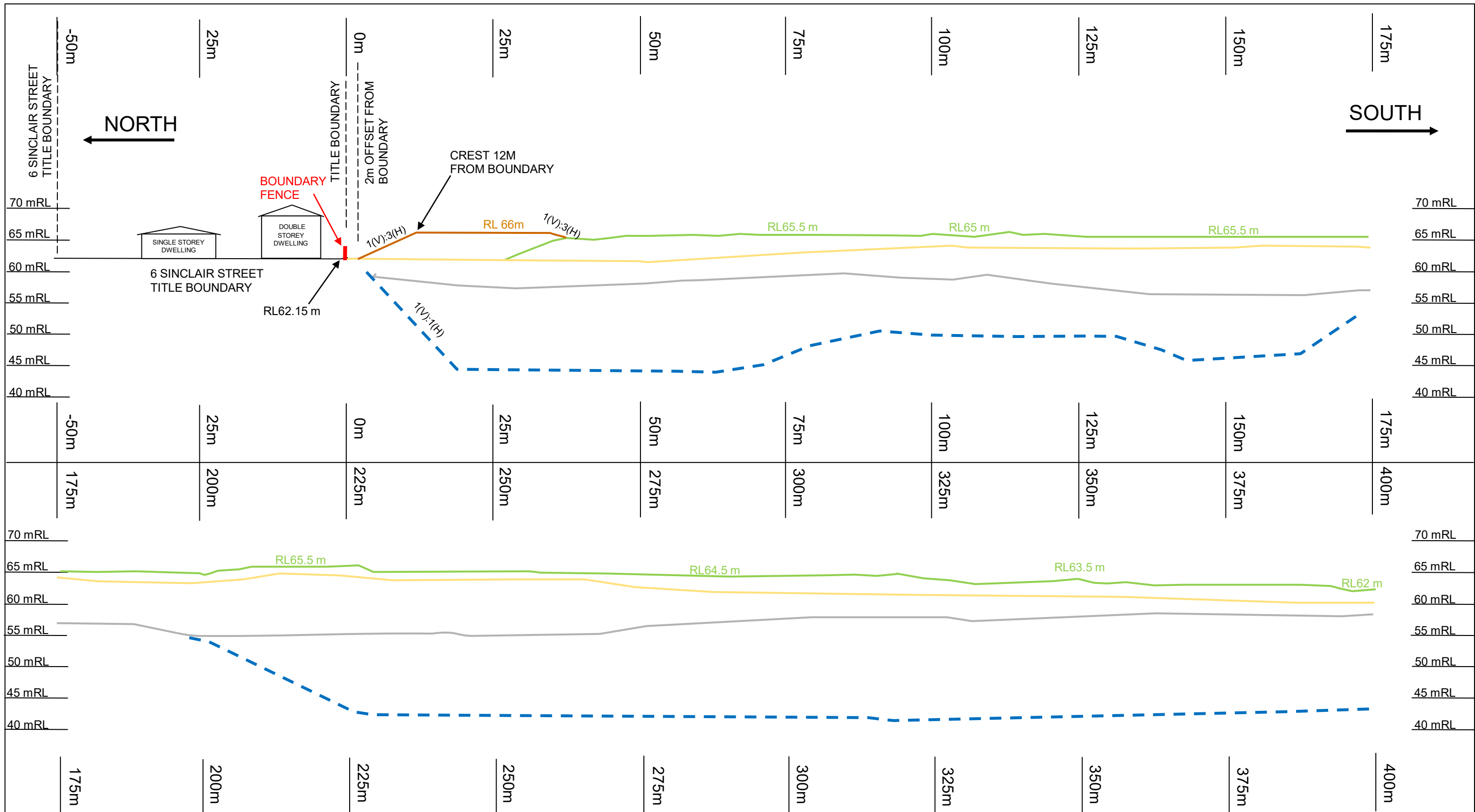
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XVIII	
project no:	GEOTABTF092574AA	figure no: 24



LEGEND	
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	TOP OF OLD FILL (APPROX.)

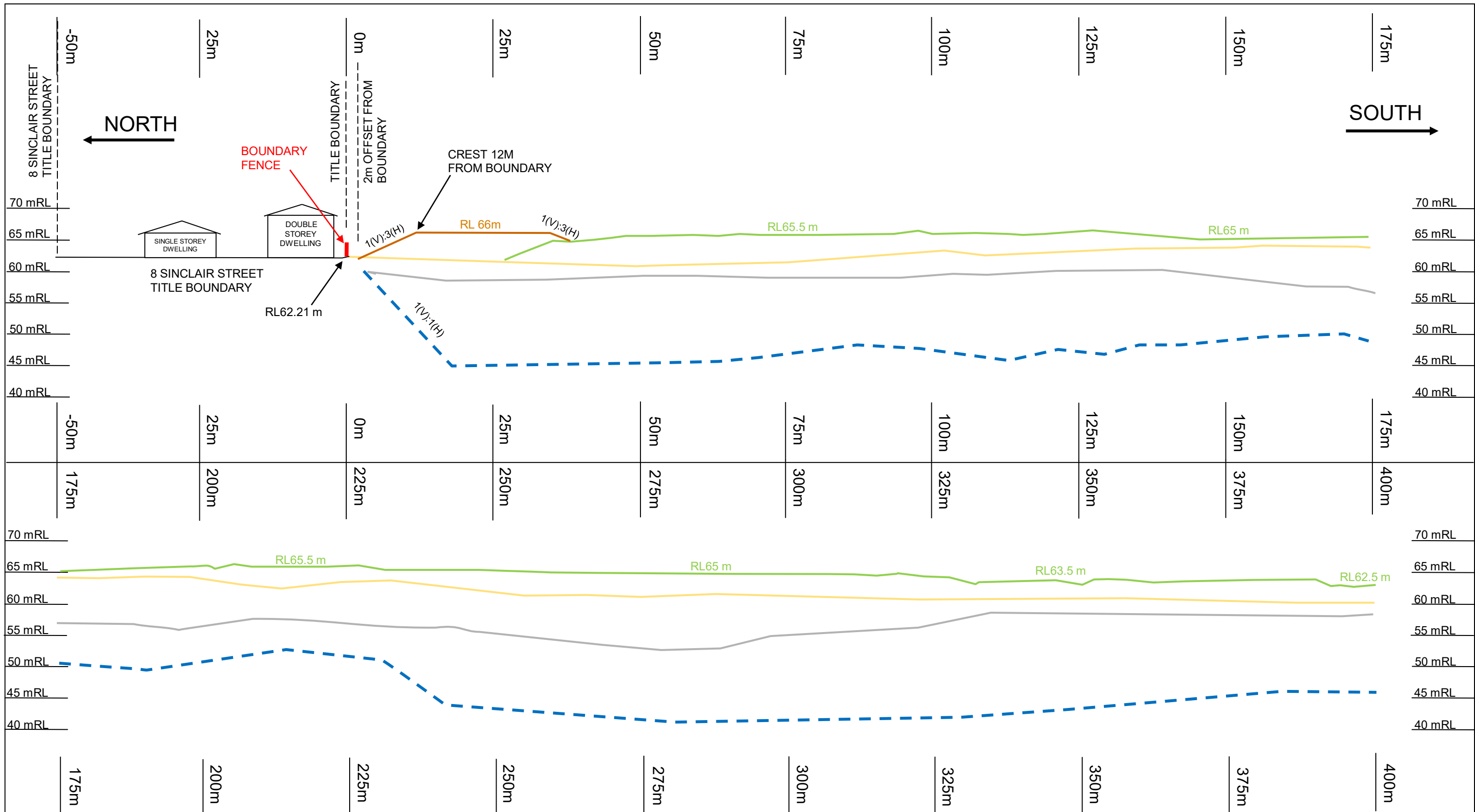
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XIX	
project no:	GEOTABTF092574AA	figure no: 25



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)

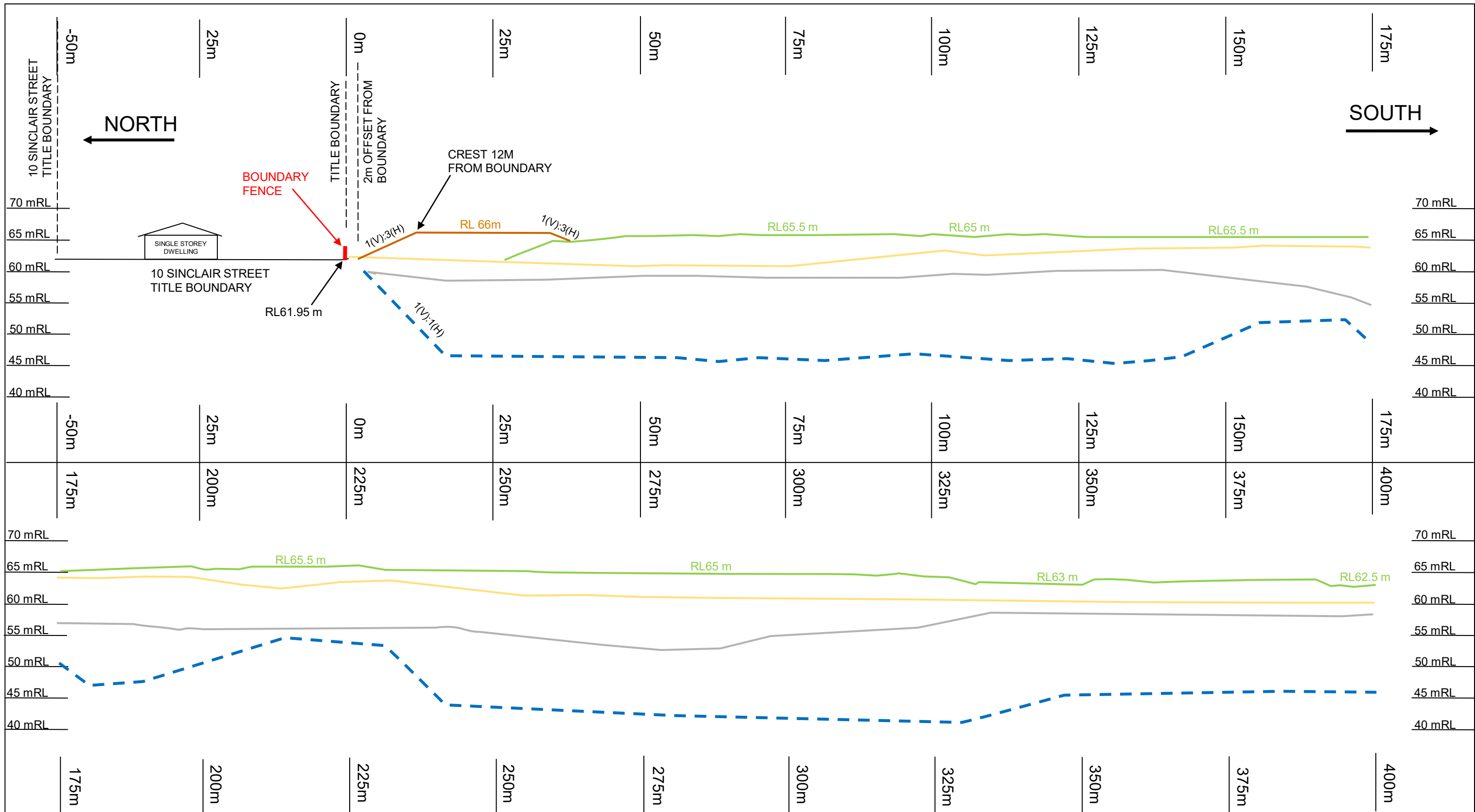
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XX	
project no:	GEOTABTF092574AA	figure no: 26



LEGEND	
	INFERRED PIT BATTER (APPROX.)
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	TOP OF LANDFILL (APPROX.)

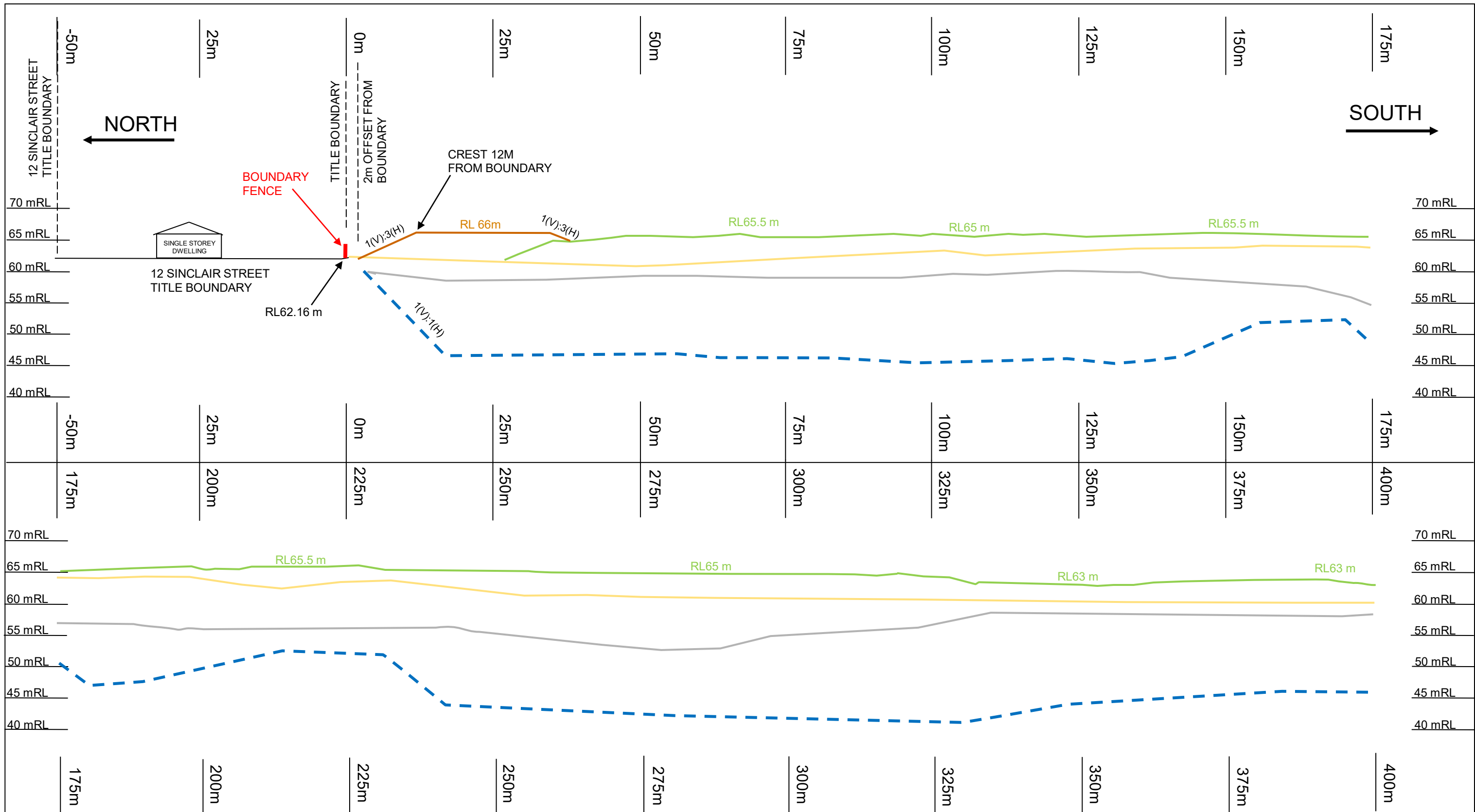
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XXI	
project no:	GEOTABTF092574AA	figure no: 27



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	INFERRED PIT BATTER (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF LANDFILL (APPROX.)
	TOP OF SLIMES

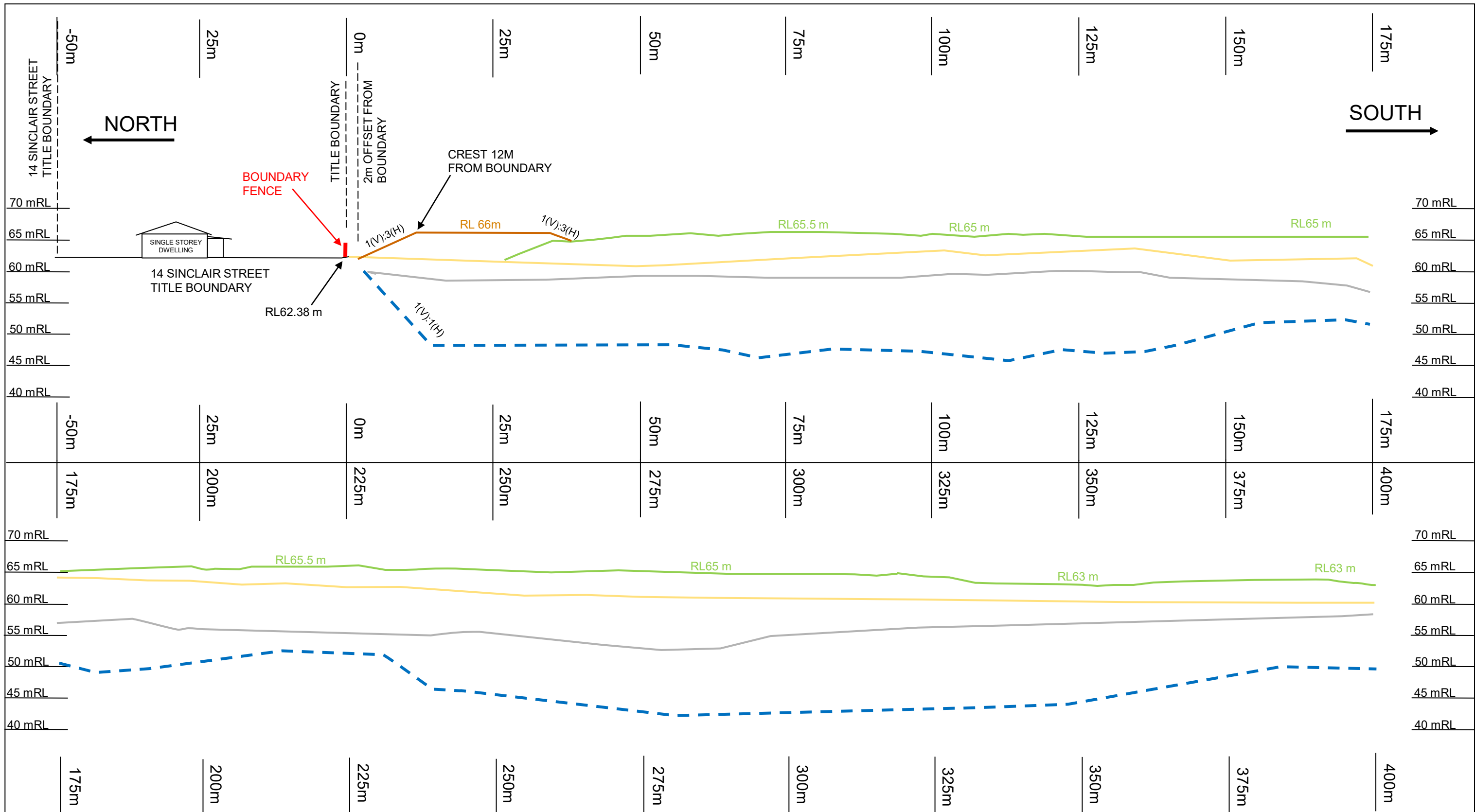
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XXII	
project no:	GEOTABTF092574AA	figure no: 28



LEGEND	
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	TOP OF OLD FILL (APPROX.)

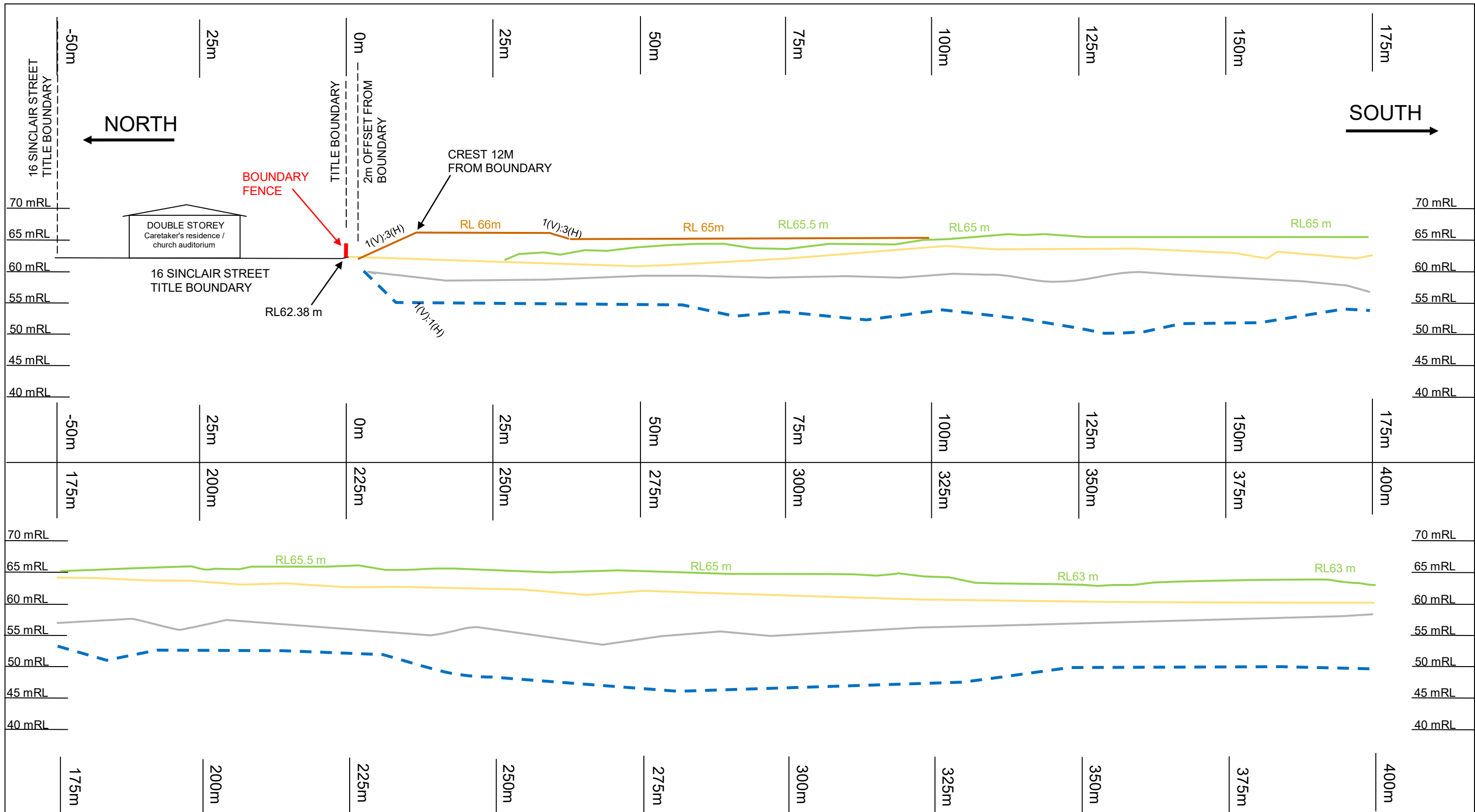
revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XXIII	
project no:	GEOTABTF092574AA	figure no: 29



LEGEND	
	DOMAINS 2A, 3A, 5 PROPOSED PRELOAD LEVEL
	TOP OF OLD FILL (APPROX.)
	EXISTING GROUND LEVEL
	TOP OF SLIMES
	INFERRED PIT BATTER (APPROX.)
	TOP OF LANDFILL (APPROX.)

revision	description	drawn	approved	date
V0		FK	IP	16.11.21
V1		FK	IP	31.01.22

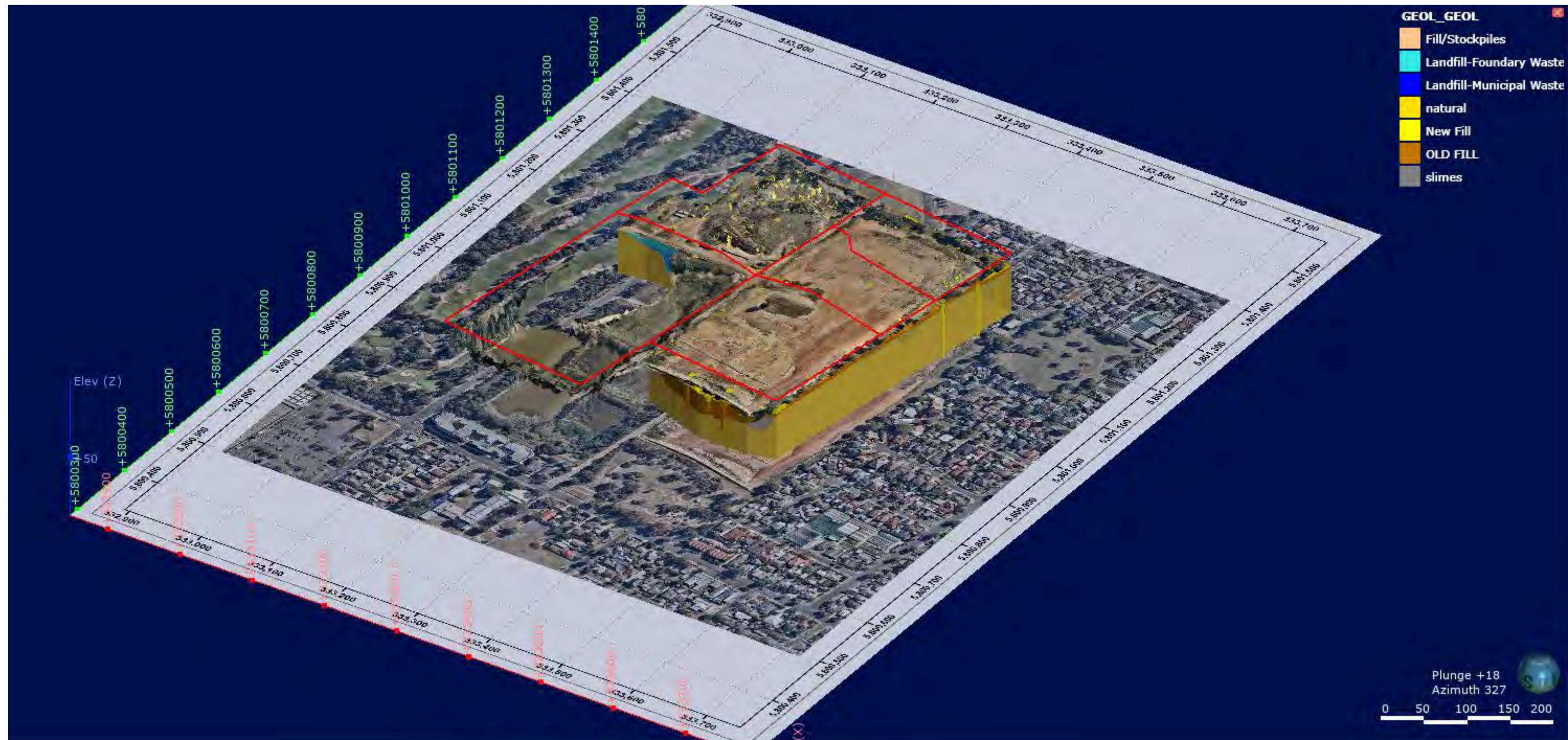
NOTES:
 1- The scale is vertically exaggerated
 2- Refer Plan EM04 for swale and silt fence details

drawn	FK
approved	IP
date	31.01.22
scale	AS SHOWN
original size	A3

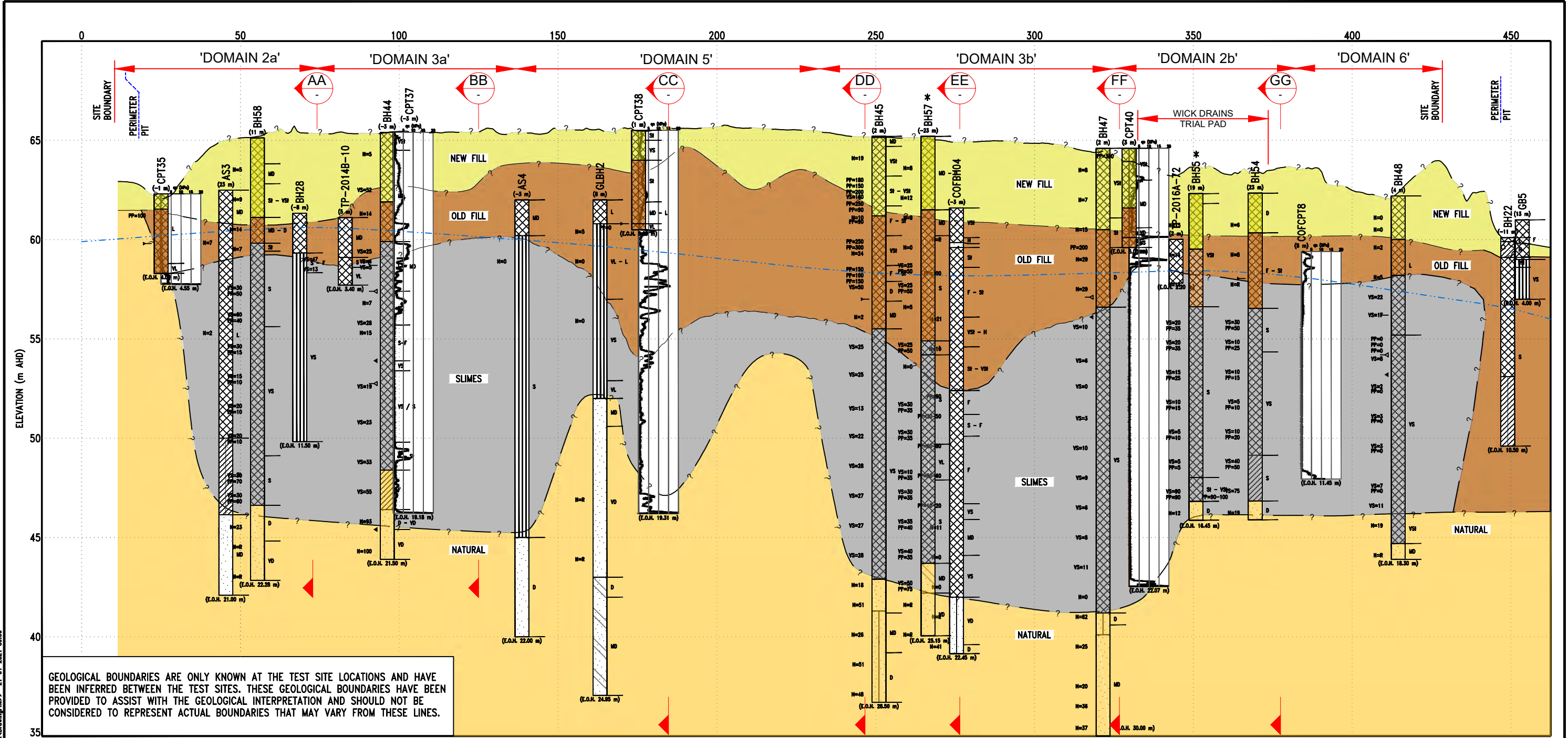


client:	HUNTINGDALE ESTATE NOMINEES PTY LTD	
project:	TALBOT AVENUE, OAKLEIGH SOUTH	
title:	SECTION XXIV	
project no:	GEOTABTF092574AA	figure no: 30

APPENDIX A: 3D LEAPFROG MODEL

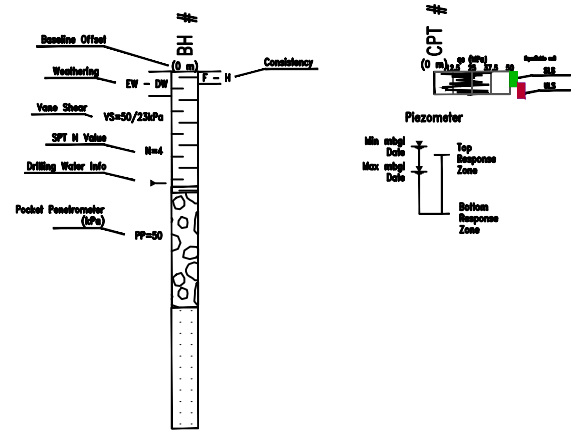


revision	description	drawn	approved	date	drawn	FK	 A TETRA TECH COMPANY	client:	HUNTINGDALE ESTATE NOMINEES PTY LTD		
					approved	IVP		project:	1221-1249 CENTRE ROAD & 22 TALBOT AVENUE OAKLEIGH SOUTH, VICTORIA		
					date	26.02.21		title:	Leapfrog Model		
					scale	AS SHOWN		project no:	GEOTABTF09257AA	figure no:	A-01
					original size	A3					

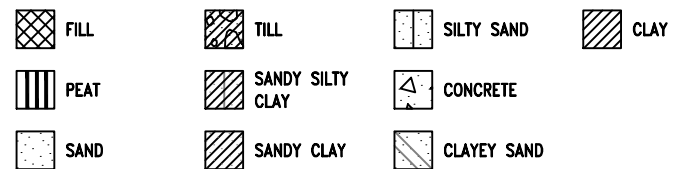


GEOLOGICAL BOUNDARIES ARE ONLY KNOWN AT THE TEST SITE LOCATIONS AND HAVE BEEN INFERRED BETWEEN THE TEST SITES. THESE GEOLOGICAL BOUNDARIES HAVE BEEN PROVIDED TO ASSIST WITH THE GEOLOGICAL INTERPRETATION AND SHOULD NOT BE CONSIDERED TO REPRESENT ACTUAL BOUNDARIES THAT MAY VARY FROM THESE LINES.

POST LEGEND



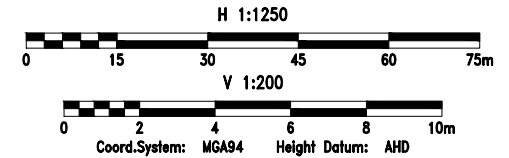
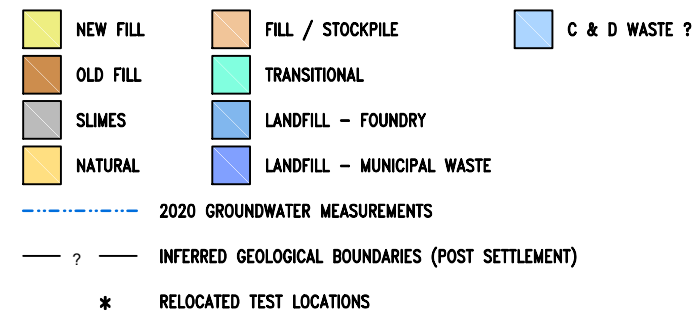
MATERIAL GRAPHIC



NOTES:

- ELEVATIONS ARE TO AUSTRALIAN HEIGHT DATUM, M AHD
- COORDINATES ARE TO ZONE 55, GDA94
- DUE TO THE BOREHOLE OFFSETS, THE LEAPFROG GEOLOGICAL BOUNDARIES SHOWN ON THE SECTIONS DO NOT COMPLETELY MATCH WITH THE BOREHOLE GEOLOGICAL UNITS AT SOME LOCATIONS.
- THE TOP OF NEW FILL IN ZONES 2, 3 & 5 AND FILL & STOCKPILES IN ZONE 1 IS INFERRED FROM THE APRIL 2019 SURVEY LEVELS PLUS THE SETTLEMENT THAT HAS OCCURRED UNDER THE PRE-LOAD FROM APRIL 2019 TO NOVEMBER 2020.
- THE TOTAL PRE-LOAD SETTLEMENT THAT HAS OCCURRED FROM MAY 2018 TO NOVEMBER 2020 HAS BEEN APPLIED TO THE TOP OF SLIMES SURFACE.
- THE TEST LOCATION MARKED WITH AN ASTERISK (*) HAVE BEEN SLIGHTLY RELOCATED ON SECTION DRAWINGS FOR CLARITY.

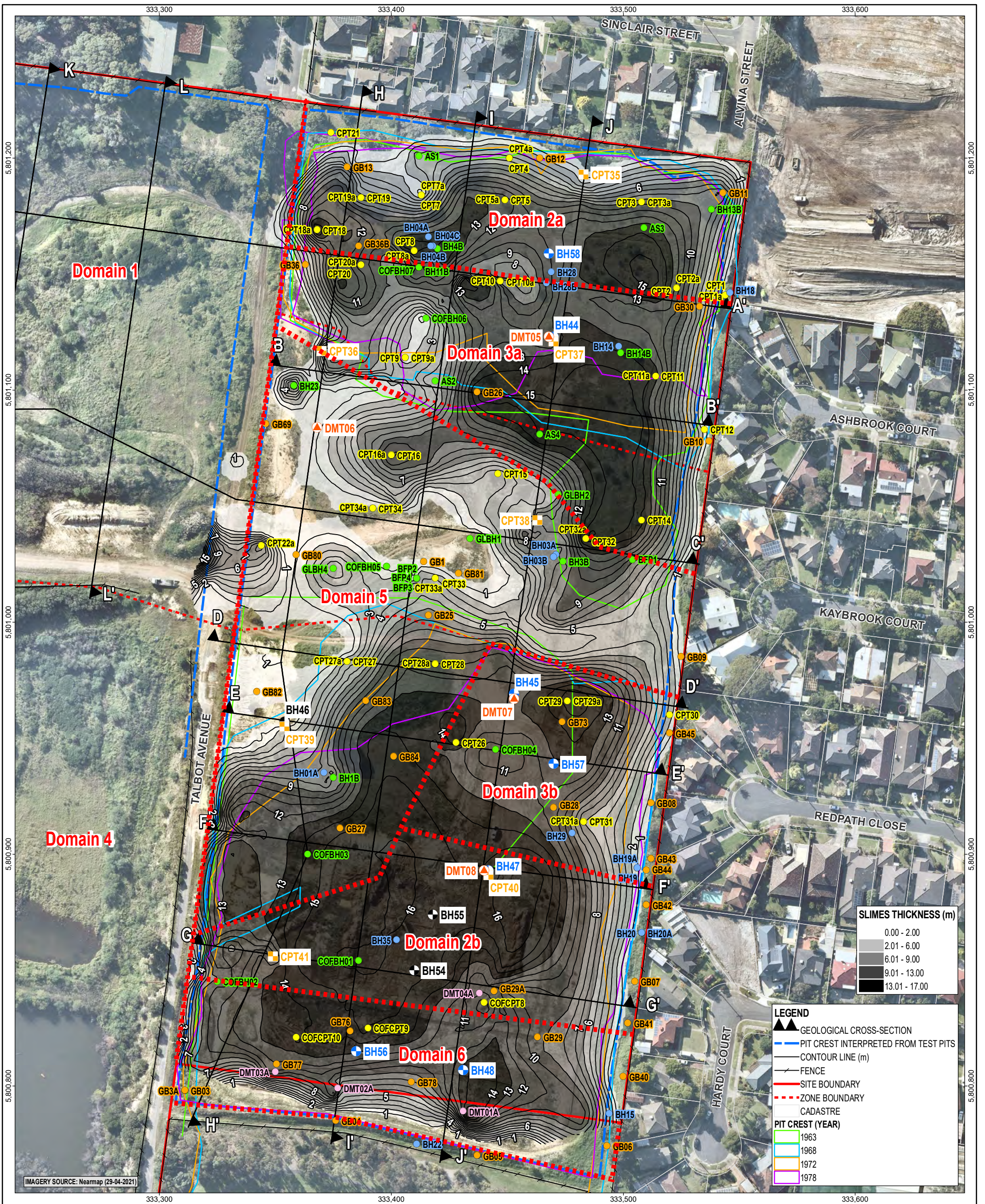
LEAPFROG LEGEND



drawn	M.J.B.
approved	I.V.P.
date	15-06-2021
scale	H 1:1250 V 1:200
original size	A3

client:	HUNTINGDALE ESTATE NOMINEES		
project:	TALBOT QUARRY 22 TALBOT AVENUE, OAKLEIGH SOUTH		
title:	SUBSURFACE SECTION JJ'		
project no:	754-GEOTABTF09257AA	fig no:	FIGURE A-02
rev:	2		

CPT_0_9_07_LIBRARY G49257AA.GLB Fence COF FENCE AXI 754-GEOTABTF09257AA 2020 COMBINED FILE.RPJ <<DrawingFile>> 21-01-2021 09:06



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	JS	FK	27.07.21

drawn	JS
approved	FK
date	27.07.2021
scale	1:1,500
original size	A3

STAGE 1 INVESTIGATION LOCATION (2019-2020)

- BOREHOLE WITH VWP
- BOREHOLE
- CONE PENETRATION TEST
- FLAT DILATOMETER TEST
- NEW DOMAIN BOUNDARIES

HISTORICAL INVESTIGATION LOCATION

- BOREHOLE
- CONE PENETRATION TEST
- FLAT DILATOMETER TEST
- GROUNDWATER BORE
- GAS BORE

client: HUNTINGDALE ESTATE NOMINEES PTY LTD

project: GEOTECHNICAL SITE INVESTIGATION
1221-1249 CENTRE ROAD & 22 TALBOT AVENUE
OAKLEIGH SOUTH, VICTORIA

title: SLIMES THICKNESS CONTOUR PLAN
(Domains 2a, 2b, 3a, 3b, 5, 6)

project no: GEOTABTF09257AA-EC **figure no:** FIGURE A-03 **rev:** A

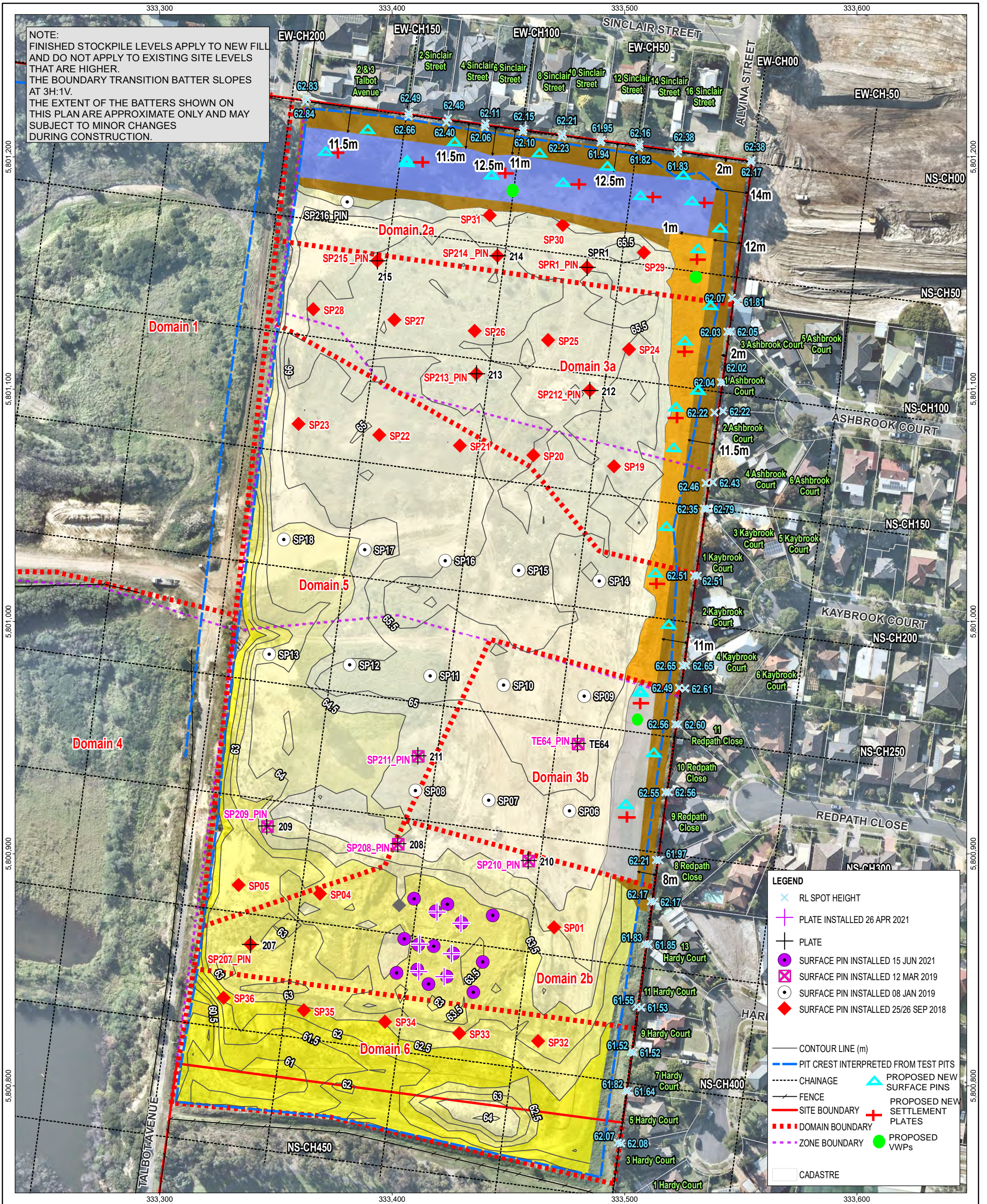
IMAGERY SOURCE: Nearmap (29-04-2021)

Scale: 0 15 30 45 60 METRES
Projection: GDA 1994 MGA Zone 55



MDO Template Reference: 0825744_EC_GBS019_v0.2

APPENDIX B: SETTLEMENT PINS AND PLATES LOCALITY PLAN



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AM	FK	19.11.21

STOCKPILE AND BATTER		RL TOP OF THE EXISTING STOCKPILES	
PRELOAD STOCKPILE AT RL 66M	PRELOAD STOCKPILE AT RL 64.5M	59.50 - 60.00	63.01 - 64.50
PRELOAD STOCKPILE AT RL 65M	TRANSITION BATTER 3H:1V	60.01 - 62.00	64.51 - 66.00
		62.01 - 63.00	

revision

drawn AM

approved FK

date 19.11.2021

scale 1:1,500

original size A3

IMAGERY SOURCE: Nearmap (29-04-2021)

client: HUNTINGDALE ESTATE NOMINEES PTY LTD

project: GEOTECHNICAL SITE INVESTIGATION
1221-1249 CENTRE ROAD & 22 TALBOT AVENUE
OAKLEIGH SOUTH, VICTORIA

title: CROSS SECTIONS LOCALITY PLAN
(DOMAINS 2A, 2B, 3A, 3B, 5 & 6)

project no: GEOTABTF09257AA-EH figure no: APPENDIX B rev: A

SCALE 0 25 50 75 100 METRES

Projection: GDA 1994 MGA Zone 55

TETRA TECH COFFEY


MDO Template Reference: 082744_EH_GIS011_v0_6

APPENDIX C: TREE REMOVAL PLAN



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AM	FK	18.11.21

IMAGERY SOURCE: Nearmap (29-04-2021)



SCALE
0 25 50 75 100 METRES
1:1,500 (A3)
Projection: GDA 1994 MGA Zone 55

drawn	AM
approved	FK
date	18.11.2021
scale	1:1,500
original size	A3



client:	HUNTINGDALE ESTATE NOMINEES PTY LTD		
project:	GEOTECHNICAL SITE INVESTIGATION 1221-1249 CENTRE ROAD & 22 TALBOT AVENUE OAKLEIGH SOUTH, VICTORIA		
title:	TREE REMOVAL PLAN (DOMAINS 2A, 3A, 3B, & 5)		
project no:	GEOTABTF09257AA-EH	figure no:	FIGURE C-01
rev:	A		