APPENDIX F

Glasson Huxtable Landscape and Visual Assessment

GLASSON HUXTABLE
LANDSCAPE ARCHITECTS

Southern Screenworks Limited
Quarry Expansion,
Aylesbury

Landscape and Visual Assessment of Effects

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Document Quality Assurance	
Title	Southern Screenworks Limited Quarry Expansion, Aylesbury Landscape and Visual Assessment of Effects
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1. EXECUTIVE SUMMARY

Southern Screenworks Limited are applying for resource consent to expand their existing quarry at Aylesbury, Canterbury. The landscape is characterised by vast open plains and noted for its patchwork of rural activity, with the Southern Alps in the distance. The purpose of this assessment is to determine the potential landscape and visual effects of the proposed quarry expansion. Possible issues identified include adverse effects on the rural character of the landscape, views of the alps from a nearby lookout, and impacts on the residential amenity of neighbouring residents.

Overall, this assessment finds that with the recommended mitigation measures adopted, the proposed quarry expansion will result in:

- Landscape effects ranging from *adverse Very Low (less than minor) to Low to Moderate (minor),* due to the temporary change to the landuse and landcover and the irreversibility of the changes to the landform.
- Visual effects ranging from *adverse Very Low (less than minor) to Low to Moderate (minor)* dependant on the location and proximity of the viewer.

To manage adverse landscape and visual effects and to assist with integrating the project into its surroundings recommended mitigation measures include (but are not limited to) the:

- Retention of existing planting where practicable.
- Early planting of Leyland Cypress boundary screening planting.
- The staged removal of the northwestern and northeastern existing quarry hedging.
- The temporary construction of 2-3m high bunds along the northeastern site boundary.
- The retention of and management of the height of the existing Leyland Cypress planting. adjacent to the residence at 158 Bealey Road.
- Ensuring a 10m offset of quarry operations from site boundaries.
- Maintaining the height of stockpiles to below natural ground level.
- Provision of a Quarry Rehabilitation Management Plan.

2. INTRODUCTION

Glasson Huxtable Landscape Architects have been engaged by Southern Screenworks Limited ('the applicant') to undertake a Landscape and Visual Assessment ('assessment') that will form part of an application for Resource Consent from Selwyn District Council (SDC). This assessment is based on the site at 50 Bealey Road, Aylesbury (legal descriptions Lot 1 DP 354364, Lot 2 596079, Reserve 4005 and Reserve 1038).

The applicant seeks to expand an existing quarry operation. This assessment determines the potential landscape and visual effects of this activity. As part of this, the existing landscape character has been evaluated. The landscape and visual effects of the project have then been assessed against this, as well as the relevant statutory provisions. Design principles have been incorporated by way of mitigation and rehabilitation to assist where values may be potentially affected.

3. METHODOLOGY

This assessment has been prepared in accordance with the concepts and principles outlined within *Te Tangi a te Manu: Aotearoa Landscape Assessment Guidelines*.[1] A summary of the landscape and visual assessment methodology is appended as Appendix 1. A Graphic Supplement appends this assessment as Appendix 2.

3.1 Desktop Study

The first stage of preparing for this assessment included the collection of site information through a desktop study. This included reviewing the:

- Relevant planning information and statutory provisions.
- Existing aerials, topography, vegetation, neighbouring properties, and land uses.
- Meeting notes from a virtual meeting between the applicant, Planner and Landscape Architect on 26 February 2024.
- Descriptions of the proposal prepared by Bligh Planning and Engagement (Bligh) provided on 19 February and 30 May 2024
- Plans prepared by Bligh, dated 12 to 13 February and provided 19 February 2024.
- Rehabilitation information.

[1] *Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines.* Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022. For further information, refer to: https://nzila.co.nz/about/te-tangi-a-te-manu.

3.2 Site Visit

A site visit was conducted by Erina Metcalf and Naomi Crawford of Glasson Huxtable alongside Sarah Bonnington from Southern Screenworks on 7 March 2024. The weather on the day was fine and sunny. The site visit assisted with understanding the site, its wider context and taking photographs. It also informed the assessment of landscape and visual effects and recommendations for mitigation.

4. EXISTING LANDSCAPE

This chapter of the assessment includes two parts:

- Identifying the relevant landscape context. It is important to understand the wider context of the Canterbury Plains to ensure that any modification can be integrated in an acceptable manner.
- Describing, and interpreting the character and the values of the project area – physical, associative, and perceptual. Analysing these attributes is pertinent to understanding the potential effects of the project on the landscape values.

Definition of the Term 'Landscape'

The *Te Tangi a te Manu: Aotearoa Landscape Assessment Guidelines* recommend the following definition for landscape: *"Landscape embodies the relationship between people and place. It is the character of an area, how the area is experienced and perceived, and the meanings associated with it."*[2] This definition focuses on landscape as the relationship between people and place.

The following sections outline the relevant landscape context and describe the landscape character at a Wider Context (Canterbury Plains including Southern Alps), Intermediate Context (Aylesbury, SH73 and Midland Line Railway) and for the application site itself, and considers the three overlapping Physical, Perceptual and Associative dimensions.

4.1 Wider Context – Canterbury Plains including the Southern Alps

The site for this project is located between the Southern Alps and the Pacific Ocean on the Canterbury Plains, in the Selwyn District of the Canterbury Region. The plains landscape is

[2] *Te Tangi a te Manu: Aotearoa Landscape Assessment Guidelines*, Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022, refer to page 76, section 4.20.

characterised by stereotypical flat open spaces with long views and large skies. It contains a distinctive 'patchwork' of buildings and rural activity that ranges from grazing to growing crops, interspersed with hedgerows, shelterbelts, or smaller clusters of vegetation, providing shelter from the prevailing nor 'wester wind.

The Southern Alps form the backdrop to the Canterbury Plains. Revered for being snow-capped mountains, this part of the Alps contains the mountain ranges of the Winterslow, Mt Hutt, Big Ben, Torlesse, and Puketeraki Ranges. SH73 crosses the plains and links the east and west coasts of the South Island via Arthurs Pass. A recognisable feature, straight roads cut across the mosaic of fields, dividing up the vast plains into smaller segments.

The braided rivers of the Waimakariri, Rakaia, Selwyn and Rangitata Rivers spill out across the plains. These rivers were formed from Quaternary moraine gravels transported from the Southern Alps to the plains many thousands of years ago. The site for this project sits on an old flood plain, on alluvial gravels from the closest major river to the site; the Waimakariri River (7.5 km away), making it well suited to extraction activity.

4.2 Intermediate Context – Aylesbury, State Highway 73, and the Midland Line Railway

Physical Attributes

Aylesbury (where the project is located) sits on the Canterbury Plains, 35 kilometres west of Christchurch City. It is located between the large urban settlement of Rolleston and the small rural town of Kirwee at the junction of five converging roads (SH73, Bealey Road, Aylesbury Road, Railway Road, and Station Road). The Midland Line Railway linking Christchurch and Greymouth (and the route of the popular Tranz Alpine Train) intersects through the junction. Near to where these roads and rail converge is the Malvern Lions Club Lookout (Lions Lookout), a popular stopping place for tourists driving SH73.

As well as the Southern Screenworks site, Aylesbury is also home to Aylesbury Creamery (a raw milk supplier), a piggery, and a couple of Bed and Breakfasts. The various private rural landholdings contain smaller rural lifestyle properties and larger intensive agriculture blocks (for pastoral grazing and/or mixed cropping).

Perceptual Attributes

Views of the Southern Alps from the Aylesbury area, railway, SH73 and the Lions Lookout are memorable. The outwash fans and braided rivers of the Southern Plains are legible particularly from an aerial view. The intermediate context embodies a feeling of openness.

Associative Attributes

Aylesbury is also known for being near the epicentre of the 7.1 magnitude Canterbury earthquake on the 4th of September 2010 and as a result, having the largest land surface fractures.

4.3 The Project Site – Southern Screenworks Quarry

The site itself (Southern Screenworks Limited) is located at 50 Bealey Road, Aylesbury. Vehicle access is from Bealey Road, approximately 400m from the convergence of the above-mentioned roads. SH73, the railway and an existing watercourse run parallel to the northeastern boundary of the site with the Lions Lookout situated adjacent.

Landform

The landform of the site is predominately flat and not dissimilar to the surrounding landscape, apart from the existing quarry pit in the southeastern part of the site. Here, quarrying activity has formed an 8-10m depression in the ground (refer to panorama 5.1). Several large stockpiles exist within the quarry pit floor. The quarry pit is contained by temporary earth bunds which are 2 to 3m higher than the natural ground level. To the east of the existing quarry pit there is an area for clean fill deposition.

Landcover

The boundary of the existing quarry is bordered by Leyland Cypress and Lucerne trees. The majority of these are mature and have formed into a dense hedge, maintained to 4m high. Along Bealey Road to the east of the site entrance the trees are younger allowing glimpses into the site, although with a quick growth habit these gaps will soon be filled. The existing vehicle entrance off Bealey Road has post and rail fencing, a stone entranceway feature, stone boulders, clipped amenity planting and site signage (refer to panorama 6.3). Adjacent to this, in the southeastern part of the site, there is a neatly maintained grassed area with picnic tables, iconic machinery, a stand of mature upright pine trees, and groups of newer native amenity planting.

The proposed quarry expansion area (beyond the existing quarry site) is largely pastoral grass and crops. Some juvenile Leyland Cypress trees (remnants of a recent fire) remain along the boundary of proposed Stage 1 near the Lions Lookout. Established Leyland Cypress trees follow much of the proposed Stage 3 southern boundary alongside Bealey Road.

Landuse

The southeastern part of the application site is currently used for quarrying and cleanfill operations. Accompanying this is a large main building used as a visitor reception, offices and as a maintenance/repair workshop. In addition, there are parking, storage, refuelling and wash down areas (refer to Image 5.1). To a limited degree, the site is publicly accessible for those wanting to directly purchase aggregate. The remainder of the site is used for farming purposes.

4.4 Neighbouring Properties

Neighbouring residences surrounding and with views of the application site include:

- 23, 35, 137, 153, and 158 Bealey Road
- 1394 and 1492 and Highfield Road
- 2202, 2204 and 2214 West Coast Road
- 954 Aylesbury Road
- 1046, 1056, and 1062 Railway Road
- 10 (Aylesbury Plains B&B), 62, 92 (Aylesbury Park B&B) Station Road

5. PROPOSAL

The proposal as outlined below highlights those aspects pertinent to understanding the potential landscape and visual effects of the project.

5.1 Background to the Application

Quarrying activity has occurred on the Canterbury Plains since early European Settlement. Records show that quarrying activity has occurred on the existing site at 50 Bealey Road, Aylesbury for many years, with a SDC quarry ceasing to operate on Reserve 1038 in the early 1990's. The applicant, Southern Screenworks, has been operating at the site since 2011, undertaking quarrying for gravel extraction to produce aggregate products and receiving clean fill material. The quarry is recognised as an established mineral extraction site by GRUZ-SCHED1 of the Partially Operative Selwyn District

Plan – Appeals Version (POSDP). An application for use of land for quarrying and managed fill was submitted to the SDC in 2022 and is currently on hold.

Since the Christchurch earthquakes and subsequent rebuild, there has been significant demand for aggregate within the Greater Christchurch area. The applicant proposes to extend their existing quarrying operations to ensure a continuity of supply with their existing consented area coming to an end. This in turn will help meet demand for aggregate within the Greater Christchurch area.

5.2 Proposed Operations

Some of the key features of the application include:

- Expansion of the existing quarrying extraction and processing operations onto directly adjoining rural land (approximately 66ha) to a maximum depth of 10m.
- Staged extraction activities, with no more than 6ha of active working quarry area at once.
- Progressive rehabilitation of the extraction areas.
- No further clean fill activity is currently proposed within the quarry expansion areas, with cleanfilling to remain within the existing quarry site.
- An anticipated quarry operation life expectancy of more than 30 years.

The quarry expansion would include utilising the adjacent land parcels at Lot 2 DP 596079 (64.5ha) and Reserve 4005 (1.84ha) located adjacent to the Midland Railway and SH73. The visitor reception, offices, parking, the maintenance and repair workshop, storage, refuelling, and connector haul roads would continue to be used. The existing grassed and planted amenity area in the southeastern corner of the site would remain unchanged. Access to the site would continue to be from the current quarry access at 50 Bealey Road. Existing post and wire fencing around the site would remain for security reasons. Pastoral areas within the expansion area would continue to be farmed until they are required for extraction activities.

5.3 Hours of Operation, Machinery, Traffic and Lighting

The quarry will operate between the hours of 0700 to 1800 Monday to Friday and 0700 to 1300 on Saturday, except for two machinery transporters, which may leave the site between 0600 and 0700.[3] No works will occur on Sundays or public holidays. Machinery will comprise of excavators, loaders, and processing machinery (including crushing), dump trucks and road trucks, and trailer

[3] This is a half hour earlier start on Monday to Friday and an hour earlier start on Saturday than the current resource consent provides for.

units.[4] No increase in traffic generation is proposed above and beyond the levels already consented for the existing quarry, which is understood to be on average 40 to 60 movements a day, up to a maximum of 120 movements a day. No new lighting is proposed, although existing lighting will remain at main building/service area.

5.4 Project Staging

It is proposed that the quarrying is completed in 5 stages (with sub-stages of 1 to 2ha within these) followed by progressive rehabilitation, moving across the site (refer to the Staging Plan in Appendix 2 Graphic supplement for further information).

Due to this staged approach, the active working quarry area at any one time is proposed to be a maximum of 6ha and will comprise of the:

- Working extraction faces and adjacent operational areas.
- Active rehabilitation areas.
- Stockpiling and load out areas.
- Areas where aggregate processing takes place.
- Quarry haul roads.

It will not include:

- Site offices, amenity blocks, workshops, and surrounding areas of the existing quarry.
- Refuelling and truck wash areas.
- Existing storage areas for quarry plant and machinery.
- Areas where rehabilitation has been completed.
- Paved, bunded or planted areas.

<u>Preparation</u>

Before extraction begins within a stage, topsoil and subsoil overburden material are removed from a 1 to 2ha area that is to be quarried over the immediate term (approximately 12 months). The material is then placed onto onsite bunds and/or into stockpiles for later use.

<u>Extraction</u>

Extraction of aggregate will occur in 5 stages by pushing through from the existing quarry pit area. The applicant has advised that subject to obtaining the necessary consents and permits, the Stage 1

[4] For more information on machinery refer to the AEE prepared by Bligh Planning and Engagement.

works are scheduled to begin early January 2025, with a duration of approximately 2.5 years. Following this, work will begin in the Stage 2 area and so on. Extraction of aggregate resource will utilise standard quarry machinery. Each stage of quarry extraction will be set back a minimum of 10m from site boundaries and extraction will keep a minimum distance of 100m to the notional boundary of any dwelling which has not provided written approval.

Processing and Stockpiling

Extracted aggregate will be processed within the pit floor and stockpiled or may otherwise be sold in an unprocessed state. Currently, processing occurs within the existing quarry site, and this is where it will remain for Stage 1 and the early part of Stage 2. Overtime, the processing plant may be located within the expansion area but will always retain a distance of at least 250 from the notional boundary of any dwelling existing at the time of consent lodgement. Any temporary stockpiles awaiting loadout will have a height lower than that of the adjacent quarry pit.

Rehabilitation

Rehabilitation will occur progressively over the site at the completion of each stage. In brief, this will primarily involve:

- Re-spreading and contouring of overburden and stored or imported topsoil materials within the base of the quarry floor.
- Stabilisation of quarry faces with a batter slope of no steeper than 1(v) in 3(h).
- Grassing of rehabilitated areas to create a free draining and stable landform.
- Weed control.

The final rehabilitated ground levels are yet to be determined and will depend on the amount of material extracted (up to 10m below ground level) and the applicant's plans for future use of the site. Based on hydrogeologic work completed for Screenworks by Sephira Environmental Limited, it is understood that the finished floor level will be well above the ground water level and that the land will be returned to pasture suitable for farming.

Mitigation Measures

Several mitigation measures are proposed, and these are discussed in more detail under Section 10 of this report.

6. STATUTORY PROVISIONS

This section of the assessment reviews and summarises the statutory provisions relevant to landscape matters. The purpose of reviewing the provisions is to help frame the assessment. It is not to undertake a full planning assessment of the project against the provisions.

The identified statutory provisions include the:

- *Resource Management Act (RMA).*
- *Canterbury Regional Policy Statement.*
- *Partially Operative Selwyn District Plan – Appeals Version.*

6.1 Resource Management Act

The *Resource Management Act (RMA)* provides the statutory framework for managing the effects of activities on the environment and is therefore a critical component to any development. Sections 6 and 7 of the RMA, and its elaboration in the lower order statutory documents, provides the framework for most landscape assessments, including this one. An evaluation against the applicable landscape provisions follows:

Resource Management Act	Applicable Provisions	Comment
Section 6 – Matters of National Importance: *"…managing the use, development, and protection of natural and physical resources…"*	*b) "The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development."*	The application area is not located within any District Plan overlays relating to outstanding natural features or landscapes.
	c) "The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna"…	No areas of significant indigenous vegetation or significant habitats of indigenous fauna have been identified.
Section 7 – Other Matters: *"…managing the use, development, and protection of natural and physical resources…"*	*c) "The maintenance and enhancement of amenity values."*	The effect of the application on amenity values is discussed under Sections 6.2, 8 and 9. The effect of the application on the quality of the environment is discussed under Section 9. With mitigation, it is deemed that there will be a reduction in visual amenity (depending on viewer location) and landscape character ranging from *Very Low (less than minor)* to *Low to Moderate (minor).*
	f) "The maintenance and enhancement of the quality of the environment."	

6.2 Canterbury Regional Policy Statements

The Canterbury Regional Policy Statement (RPS) provides a broad framework for managing Canterbury's natural and physical resources under the RMA. It identifies regionally significant resource management issues, objectives, policies and methods. An assessment of the relevant sections of the RPS is as follows:

Canterbury Regional Policy Statement	Applicable Objectives and Policies	Comment
Chapter 5 Land Use and Infrastructure	*5.2.1 .. Development is located and designed so that it functions in a way that:…* *b. maintains, and where appropriate, enhances the overall quality of the natural environment of the Canterbury region, including its coastal environment, outstanding natural features and landscapes, and natural values…*	The effect of the application on the quality of the environment is assessed in Section 8 Landscape Assessment. The biggest change in values relates to the change in site topography. With mitigation, it is deemed that there will be a reduction in landscape character ranging from *Very Low (less than minor)* to *Low to Moderate (minor).*
Chapter 12 Landscape	*Objective 12.2.1 Identification and protection of outstanding natural features and landscapes…*	The application area is not located within any District Plan overlays relating to outstanding natural features or landscapes, natural character, amenity, or historic and cultural heritage.
	Objective 12.2.2 Identification and management of other landscapes…	

6.3 Selwyn District Plan

The Selwyn District Council publicly notified the Proposed Selwyn District Plan (PDP) on 5 October 2020. Decisions on submissions to the PDP were publicly notified on 19 August 2023. Since this date the PDP has been known as the Partially Operative Selwyn District Plan (POSDP). Today, all provisions of the POSDP have legal effect, aside from those under appeal, where the previous Operative District Plan (ODP) still applies.

Applicable to this proposal, Earthworks rule EW-R2 of the Proposed Plan is under appeal. It is understood that Bligh Planning and Engagement have had discussion with SDC around the appeals on the POSDP in relation to EW-R2 and whether the ODP would have any relevance in respect of earthworks for quarrying. SDC personnel have advised that their position in respect of this rule is

that it does not apply to quarrying and as GRUZ-R21 is operative, the operative SDP earthworks rules are not applicable to quarry applications within the General Rural zone.

Under the POSDP the site is in the General Rural Zone, with a number of overlays. The site and immediate surrounds are not identified as outstanding natural features and landscapes or visual amenity landscapes (NFL SCHED 1 AND 2). Applicable objectives, policies and rules pertaining to landscape and visual matters from each plan have been included and briefly commented on below:

Partially Operative District Plan		**Comment**
General Rural Zone		
Policy GRUZ-O1	*Subdivision, use, and development in rural areas that: 1. supports, maintains, or enhances the function and form, character, and amenity value of rural areas…*	Refer to the Sections 8 Landscape Assessment and 9 Visual Assessment of this report. With mitigation, it is deemed that there will be a reduction in visual amenity (depending on viewer location) and landscape character, ranging from *Very Low (less than minor)* to *Low to Moderate (minor).*
Policy GRUZ-P8	*Enable mineral extraction in the General Rural Zone to meet the District's and region's supply needs, including by recognising the need for mineral extraction to locate where the mineral resource exists, while:* *1. managing the spatial extent and effects of mineral extraction activities in order to maintain the amenity values of sensitive activities and residential activities; and…*	
Policy GRUZ-P9	*Ensure that mineral extraction sites are progressively rehabilitated to:* *1. mitigate erosion and subsidence risks; and* *2. reinstate the land so that it is suitable for an alternative permitted or consented activity.*	It is proposed to progressively rehabilitate the site and return the land to light pastoral farming.
Rule GRUZ-R21 Mineral Extraction	*21.1. The establishment or expansion of any…quarrying activity; or…B. Associated activities to the principal use of a …quarrying activity that involve the recovery of aggregate products…* *Where:* *a. The activity is set back from the notional boundary of any lawfully established residential activity or visitor accommodation… by* *i. 200m for any excavation associated with mining, or extracting or winning aggregate; and* *ii. 500m for any activity involving blasting; and* *iii. 500m for any processing or aggregate recovery…* It is noted that the matters of discretion (although not restricted in this instance) require consideration of effects on amenity values and rural character during the establishment, operation, and rehabilitation of the site from the scale and intensity of the mineral extraction, including cumulative effect, and also the preparation and implementation of a site rehabilitation plan.	The extraction of material and processing will be less than 200m and 500m respectively from the notional boundary of lawfully established residential activity or visitor accommodation. **Discretionary** due to non-compliance. Refer to Sections 8 Landscape Assessment and 9 Visual Assessment of this report where it is deemed that with mitigation there will be a reduction in visual amenity (depending on viewer location) and landscape character, ranging from *Very Low (less than minor)* to *Low to Moderate (minor).* It is proposed to progressively rehabilitate the site and return the land to light pastoral farming.

Mineral extraction is an anticipated activity within the General Rural Zone subject to consideration of, among other things, managing the spatial extent and effects of mineral extraction activities in order to maintain the amenity values of sensitive activities and residential activities. GRUZ-P9 directs that quarry sites are progressively rehabilitated, and this is also reflected in the matters for discretion from GRUZ-R21. Due to the scale and location of the proposed activity, the activity status of the proposal is **Discretionary.**

6.4 Amenity Values and the Quality of the Environment

Section 7(c) and 7(f) of the RMA requires decision makers to have regard to the maintenance and enhancement of '*amenity values'* and the *'quality of the environment.'* A definition for 'amenity' is found under Section 2 of the RMA and includes: *"…those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes."*

This mirrors the definition outlined within *Te Tangi a te Manu,* which is concerned about the relationship of people with the physical, associative, and perceptual dimensions of the landscape. Amenity values can be influenced by factors such as viewing position, the audience (residents, recreationalists, or travellers), audience sensitivity to change in the landscape, and the value people place on a location. The amenity values of relevance to this assessment relate the rural character of the area and views experienced. These matters and impacts on the quality of the environment are covered in Sections 8 and 9.

7. IDENTIFICATION OF POTENTIAL ISSUES

Potential landscape and visual issues arising from the quarry expansion include:

- The effects of change in landscape character from a rural pastoral activity to quarrying on landscape values.
- The change in landcover, albeit temporary during quarrying.
- Maintaining and managing views of the Southern Alps.
- The effects of change in visual amenity on landscape values as experienced by residents of neighbouring properties, users of SH73 and local roads, users of the midland railway line, and those visiting the Lions Lookout.

8. LANDSCAPE ASSESSMENT

8.1 Preface

Change in a landscape does not necessarily constitute an adverse landscape effect. Landscape is dynamic and constantly changing over time in both subtle and more dramatic transformational ways. These changes are both natural and human induced. What is important in managing landscape change, is that adverse effects are avoided or sufficiently mitigated to ameliorate the effects of the change.

The degree to which landscape effects are generated by the project depends on:

- The degree to which the project contrasts, or is consistent, with the qualities of surrounding landscape.
- The predictable and likely known future of the locality.
- The quality of the resultant landscape, its aesthetic values and contribution to the wider landscape character of the area.

Landscape and visual effects generated by an application can be perceived as:

- Positive (beneficial) contributing to the visual character and quality of the environment.
- Negative (adverse), detracting from existing character and quality of the environment.
- Neutral (benign), with essentially no effect on the existing character or quality of the environment.

The landscape and visual assessment has been undertaken on the understanding that all recommendations in Section 10 are adopted.

8.2 Landscape Assessment

The landscape assessment that follows, evaluates the effects of the quarry expansion on the landscape character and values, and the ability of the landscape to absorb change. This assists in determining whether the proposed changes are appropriate for the location and whether any mitigation is required.

Landform

The existing landform of the application site is predominately flat, in keeping with the surrounding landscape. The exception is the existing quarry pit, which has formed an 8 to 10m deep pit, and the associated clean fill area. Changes to the landform arising from the expansion will include:

- Preparation earthworks to strip topsoil and overburden prior to each stage being quarried.
- Creation of temporary 2- to 3-metre-high grassed bunds along some of the site boundaries.
- Extraction earthworks resulting in a 10m deep pit, moving through 5 stages over 30+ years.
- Stockpiling of processing material on the pit floor of the existing quarry and Stage 2 area respectively (maximum height to be below natural ground level).
- Rehabilitation of the site (as described in section 5.4).

The main change to the landform will arise from the extension of the existing quarry pit, which will take place over decades. Although quarry extraction and remediation will occur progressively in stages, the end result will be a permanent depression in the ground nearing 10m deep and covering most of the application site. At surface level, this may be considered a notable change, however the effects of this change in landform must be considered in the context of the landscape's specific character and values and sensitivity to change.

The Canterbury Plains are known for their stereotypical flat open spaces and large skies, which are appreciated across a broad scale. Due to the relatively small size of the proposed quarry extension, these values will be maintained at the wider scale. The landscape at all scales has been highly modified with dwellings, farming, crops irrigation, hedgerows, and other rural activity, including quarries, dotted throughout. The overall landscape value is therefore not high and consequently, the ability to absorb change is greater.

As the change in landform is a depression in the ground, the change, as appreciated from the relatively flat surrounds, will be readily absorbed into the landscape. Mitigation measures, including temporary bunds and perimeter hedgerows, will further integrate the change in landform into the landscape. For these reasons, adverse effects associated with the change in landform at the scale proposed are deemed *low to moderate (minor).*

Landuse

Quarrying extraction, processing, and infill activities (plus associated movement and machinery) have occurred within the site for many years, with the applicant, Southern Screenworks, occupying

the site since 2011. Existing elements such as building structures, traffic numbers, and the main site entrance will remain the same, albeit for a prolonged duration. No additional buildings, structures or fixed lighting is proposed. The extended quarry will essentially build upon the existing landuse, which forms part of the current landscape character of Aylesbury.

The Canterbury Plains are known by many people for their distinctive 'patchwork' of rural activities. As mentioned above, the landscape has been highly modified by varying types of rural activity, including small lifestyle blocks, farming, crops, intersecting roads, and shelterbelts. Although the landuse for the expansion area will change, quarries are not uncommon within the Canterbury Plains. The District Plan framework recognises this by seeking to enable them within the GRUZ zone, subject to consideration of their scale and impacts on amenity values and rural character.

Most of the application site is currently pastoral supporting cropping and grazing activities and embodies a feeling of openness. The proposed activities (including stockpiles and machinery) will be predominantly located below ground level. Until the land is required for quarry activities, the site will continue to be farmed. The proposed quarry extraction will occur progressively so that no more than 6ha of 'operational' activity (as defined in section 5.4) occurs at any one time. In turn, the land will be gradually remediated and returned to a stable landform, capable of supporting pastoral farming, and compatible with the rural landscape. For these reasons, adverse effects resulting from the change in landuse at the scale proposed are deemed to be *low (less than minor to minor).*

Landcover

Existing vegetative landcover is discussed under Section 4.3. Recommended mitigation measures (refer to Section 10) include the retention of existing planting, new temporary bunds within Stage 1 and Stage 2, and new Leyland Cypress boundary planting. The existing and proposed vegetation, particularly the hedgerows, are typical components of the rural landscape. Bunds are less common; however, these will be temporary (for the duration of Stage 1 and 2 works). Ultimately, the landcover will be pasture, which is also in keeping with the rural surrounds. For these reasons, adverse effects associated with landcover are deemed to be *very low (less than minor).*

8.3 Cumulative Effects

The proposed quarry expansion will not give rise to cumulative effects. The nearest quarry is located some 5 to 7km away.

8.4 Landscape Effects Summary

With the recommended mitigation measures adopted, the proposed quarry extension is anticipated result in a reduction in landscape character values that are *very low (less than minor)* to *low to moderate (minor)* with the greatest effects arising from the permanent change in the natural topography. Cumulative effects will be negligible.

9. VISUAL ASSESSMENT

9.1 Preface

The effect on visual amenity relates to the visibility of the proposed quarry expansion from different viewpoints, and the effect that the change in landuse from pastoral farming might have on the locality's landscape values. Much depends upon where the project is visible from and how successful the methods are to mitigate any effects.

The degree to which visual effects are generated by the project depends on:

- The proportion of the quarry expansion that is visible, determined by the observer's position relative to the objects viewed.
- The distance and foreground context within which the quarry expansion is viewed and the backdrop and context within which the proposal is viewed.
- The number of viewers, their location and situation (static or moving) in relation to the view.

The effect of the project from selected viewpoints is discussed below and illustrated within the Appendix 2 Graphic Supplement.

9.2 Public Viewpoints - SH73, Midland Railway Line, Lions Lookout and Local Roads

Viewers from State Highway 73 (SH73)

SH73 is a road used to connect with local townships across the plains and Christchurch City, as well as travel further afield to and from the West Coast. The site's northeastern boundary is directly adjacent to the highway across the Midland Railway Line. Views of the site from vehicles using SH73 are typically seen for a short duration at up to 100km/hr (apart from slower road users such as cyclists).

Driving southeast to northwest, a traveller views the site directly in front of them from a semi enclosed stretch of SH73. From this direction, the existing quarry area of the site is well screened by its existing boundary hedge. Only occasionally a digger boom can be seen above the top of the hedge. The road then travels around a sweeping right-hand bend to reveal the first view of the Southern Alps, with the vast Canterbury Plains in the foreground. The traveller is now parallel to the site, with a watercourse, vegetation, railway, and powerlines separating them from the site.

Driving northwest to southeast, a traveller is alongside the application site and then diverges away from it. Open views of pastoral farming are afforded across most of the site. The top of the existing Southern Screenworks building can be partially seen over the northwestern hedge of the existing quarry. However, it is viewed as part of the wider rural landscape alongside vegetation, so the building does not appear out of place.

Taking the project into account, the most prominent change visible to the users of SH73 will be the addition of new Leyland Cypress trees along the boundaries of the extended site area. In the context of the rural environment, where shelterbelts and boundary planting are common, these trees will be in keeping with the rural character of the area. Within five years, they will form a dense hedge that will screen much of the quarry activity from view from SH73, albeit those travelling in buses or trucks at higher levels may get glimpses into the site over the trees.

Until the proposed boundary planting reaches maturity, and with the removal of the northwestern and northeastern hedges and bunds from around the existing quarry area, there will be views from SH73 into the existing quarry site, Stage 1 and, less so, the Stage 2 works. During this time, recommended mitigation including the staged removal of the northwestern and northeastern existing quarry hedges, and the construction of temporary bunds within Stages 1 and 2 will restrict views of the quarry activity from SH73. In addition, much of the operational activity including extraction, processing and stockpiling will be located below ground level at the base of the quarry, and out of view. For the reasons discussed above and given the limited duration of views from the highway, adverse effects from SH73 are deemed to be *low (less than minor to minor).*

<u>Midland Railway Line</u>

The Midland Railway Line connects Christchurch with Greymouth via Arthurs Pass and is the route of the popular Tranz Alpine train. The route runs alongside Railway Road and SH73. Viewers on the train will view the site at a slightly higher level than the majority of those using SH73. However,

again, the site will be seen at speed with views being for a short duration. The visual effect will not be dissimilar to the effect on users of SH73. As such, adverse effects from the railway are deemed to be *low (less than minor to minor).*

Lions Lookout

The Lions Lookout area consists of a small layby area off SH73, with a gravel carpark, planting, signage, and an elevated viewing platform (refer to panorama 6.10) affording views of the Southern Alps and Canterbury Plains. Views of the site from this vantage point are seen for a longer duration and at a slightly closer proximity than those experienced along SH73.

The proposed screening hedge, which is to be located approximately 20m to the left of the lookout, will restrict views of the alps from the lookout. The view is already partially obscured by the existing northeastern quarry boundary hedging. During the original consent process for the existing quarry, it was agreed that the existing northeastern quarry hedging should be maintained at a height of 3m (instead of the site-wide 4m) to facilitate views to the alps (although these views are not guaranteed as they are viewed across private land).

As the proposed boundary hedge will come closer to the lookout, a height limit of 2.5m is proposed (extending northwest from beside the viewing platform for the extent of this boundary) to ensure that views towards the alps are maintained as much as possible. This will allow for some views of the tops of the Winterslow, Mt Hutt and Big Ben ranges beyond, whilst still providing screening of the quarry. For the above reasons, adverse effects from the Lions Lookout are deemed to be *low to moderate (minor).*

Local Roads

Views of the site from Bealey, Aylesbury, Railway and Station Roads are largely screened by the existing boundary hedges. Road users will typically view the site for a short duration. Views into the quarry expansion area are currently open. Once the proposed boundary planting matures the entire site will be fully screened from local roads. Until then, recommended mitigation measures including the staged removal of the northwestern and northeastern existing quarry hedges, and the construction of temporary bunds will restrict views of the early stages of quarry activity. As such, adverse effects from the local roads are deemed to be *very low (less than minor).*

9.3 Private Viewpoints - Views from Neighbouring Residential Properties

Eighteen nearby properties with residential dwellings have been identified as having potential views of the proposed extension. From a combination of desktop analysis and observations from roadside public viewpoints, the effect on these properties has been summarised by answering the following questions:

- What do these residences currently view?
- What are the changes as a result of the project?
- Do these changes create any adverse effects? If so, how could these adverse effects be mitigated?

<u>23 Bealey Road</u>

This property is located directly across the road from the existing quarry and approximately 125m from the proposed Stage 1 extraction area. It is visually well enclosed with fencing, established vegetation, and a roadside bund that runs west from their driveway entrance along the road boundary of the adjoining site. Views through the driveway entrance look directly across Bealey Road at the existing Southern Screenworks site. The proposed Stage 1 works will not be visible from the driveway of 23 Bealey Road due to the existing hedge, bund and tree lucerne (to be retained). Traffic will also be unchanged by the new application. For the above reasons, adverse visual effects are deemed to be *very low (less than minor).*

<u>35 Bealey Road</u>

This property is directly across the road from the existing quarry with the dwelling being approximately 200 metres from the Stage 1 extraction area, and 500m from the Stage 3 area. The site is located behind a tall solid fence and gate, accompanied by a bund, which runs along the road boundary. There is no visual connection across Bealey Road from behind these structures unless the gate is open (refer to panorama 6.2). Views from the driveway towards the existing and proposed quarry activity and associated vehicles movements will be similar to those from 23 Bealey Road. As such, adverse visual effects are deemed to be *very low (less than minor).*

<u>137 Bealey Road – The Piggery and Residence</u>

The piggery and residence are both located directly across the road from the proposed Stage 3 extraction area, with the residence being approximately 50m from the excavation area. Due to established, dense, hedging that boarders both the piggery plant areas and the dwelling there are very limited views towards the application site. Views across Bealey Road are confined to the two

driveway areas and a 10m wide gap in the vegetation at the southwestern internal boundary of the piggery. Any views into the quarry expansion area from these vantage points will be screened by the existing dense hedge bordering the application site (refer to panoramas 6.4 and 6.5). Quarry traffic will continue to be observed along Bealey Road at existing levels. As such, adverse visual effects are deemed to be *low (less than minor to minor).*

153 Bealey Road

This property is located directly across the road from the proposed Stage 3 and 4 extraction areas with the dwelling being approximately 50m away. Dense, established hedging at the property boundaries restricts outward views to the driveway. From this location, views are currently afforded right across the application site (refer to panorama 6.6). However, by the time the works extend into the Stage 3 and 4 areas, the proposed Leyland Cypress boundary screening will be mature and dense enough to obstruct views into the site. Again, some quarry traffic may continue to be observed along Bealey Road, but this will remain at existing levels. As such, adverse visual effects are deemed to be *low (less than minor to minor).*

158 Bealey Road

This property is located directly adjacent to the application site with the two-storey dwelling being approximately 20m from the Stage 4 extraction area. However, from the dwelling and directly adjoining outdoor living areas, existing views across to the quarry are blocked by a thick hedge (some 7 to 8m tall at the time of site visit), which appears to be located within the application site. If trimmed to 4m high (as is proposed for the new Leyland Cypress planting in this area), views across the extended quarry would likely be visible from the upstairs windows.

It is recommended that the height of this existing portion of hedge is maintained at a level that suits the occupants. Views from their driveway, which runs parallel with the western application site boundary, are currently open (see panorama 5.6). Initially, some of the Stage 1 and 2 works may be visible in the distance. However, by the time the extended excavation works move into the later stages, the proposed Leyland Cyprus boundary planting will be well established and effectively screen the quarry works. For the reasons discussed, adverse visual effects are deemed to be *low to moderate (minor).*

1394 and 1492 Highfield Road

These dwellings are located approximately 770m and 850m from the proposed excavation works respectively. Number 1394 is a two-storey dwelling. Although a 4m high hedge surrounds their outdoor living space, there may be views towards the application site from the first floor (refer to panorama 6.7). Views from 1492 towards the site are obstructed by intervening shelterbelts. From both sites, any views of the initial Stage 1 and 2 works would be from a very long distance with the proposed works largely taking place within the pit and being visually insignificant within the context of the wider landscape. By the time the proposed excavation reaches the Stage 3, 4 and 5 areas, the proposed Leyland Cypress boundary trees will have formed a dense hedge that would screen the quarry activities from view. As such, any adverse visual effects will be *very low (less than minor).*

954 Aylesbury Road

This dwelling is approximately 770m southeast of the proposed Stage 1 extraction area. It has limited visual connection with the site due to the presence of small earth bunds in front of and to the north of the residence, and a stand of tall trees located along their road boundary and across the road, which obscure views towards the existing quarry area. The Stage 1 works would potentially be visible from the dwelling, but this would be from a long distance and as a small part of the much wider area. The temporary mitigation bunds and Leyland Cypress hedge planting (once established) would screen the works from this view. As such, adverse visual effects from the dwelling are deemed to be *very low (less than minor).*

2202, 2204 and 2214 West Coast Road / SH7

These residences are more than 840m from the proposed Stage 4 and 5 excavation areas. Views of the application site are restricted by established vegetation at their road frontages and along their site boundaries. By the time the proposed works progress into the later stages, the proposed Leyland Cyprus boundary planting will be mature, screening the quarry works from view. Any adverse visual effects are deemed to be *very low (less than minor).*

1046, 1056, and 1062 Railway Road

The dwellings on Railway Road are located approximately 360 to 550m southeast of the proposed Stage 1 excavation area, down a gravel road. Views of the existing quarry activity and building are restricted due to the existing Bealey Road boundary hedge, bund and tree lucerne (all of which will remain). The Stage 1 extraction area may be visible from all the above properties, but views will be hindered by foreground vegetation and the five roads and railway converging in the foreground

(refer to panorama 6.12). Any change would predominately be viewed when travelling northwest along Railway Road towards the site and from the closest property and two storey dwelling at 1062 Railway Road, with the change becoming less noticeable further away.

As the quarry extraction progresses into the proposed Stage 1 area working towards the three properties, the existing northeastern hedging will be removed. This may expose distant views of the existing quarry. However, these views will only be for a limited duration. Temporary 2 to 3m high grass bunds will screen the works. In addition, the existing juvenile Leyland Cypress planting at the southeastern end of the proposed Stage 1 area (approximately 1m high at the time of writing) will grow to provide screening. With a projected growth rate of 1m per year, this planting will screen the quarry activity from view within 3 to 4 years. As such, adverse visual effects on the dwelling at 1062 Railway Road are deemed to be adverse *low (less than minor)* reducing to *very low (less than minor)* on numbers 1056 and 1046.

<u>10 (Aylesbury Plains B&B), 62, and 92 (Aylesbury Park B&B) Station Road</u>

These residences are situated approximately 250 to 830m northeast of the proposed Stage 1 extraction area. From the dwellings themselves, views of the quarry site are limited to through the driveway entrances. This is apart from the new structure located towards the corner of Station Road and SH73, where there are views towards a slither of the existing quarry amenity area, although this area is screened by existing bunds and tree lucerne (to remain). This portion of Station Road has tall established hedges along the eastern edge. However, from the fields in front of these properties (on the other side of Station Road) views are generally open towards the site.

Viewers from the two driveways at 10 Station Road can currently see the top of the workshop and the northeastern quarry hedge that runs parallel with SH73 (refer to panorama 6.11). Once the Stage 1 operations are underway, this northeastern hedge will be removed progressively, temporarily 'opening up' views towards the existing quarry works and the workshop, service, and storage areas. The large workshop building will be softened by existing vegetation that surrounds it (to be retained). However, the arched roof structure in front of this, which can currently be seen in the panorama, will become more prominent.

Within five years of planting, it is anticipated that the proposed hedge adjacent to the railway will fully screen the Stage 1 quarry works from view. As an interim measure, 2 to 3m high bunds are proposed for screening. Aside from site preparation, all new quarry operations will take place below

ground level, reducing their visibility. From eye level, views into the site are also softened by foreground grasses and patches of intermittent vegetation. In time, the only sign of quarry activity from this view will be the top of the workshop building and arched structure, which are currently part of the existing landscape.

From 62 and 69 Station Road views towards the site are from a greater distance and are interrupted by existing intervening shelterbelt planting. For the reasons discussed above, adverse visual effects on 10 Station Road are deemed to be *low (less than minor)* reducing to *very low (less than minor) on* 62 to 92 Station Road.

9.4 Visual Effects Summary

In summary, adverse visual effects of the project will primarily arise from:

- The change in landform
- Effects on rural character due to visibility of the initial Stage 1 and 2 works, although this can be mitigated
- Narrowed views from the Lions Lookout

Until the boundary planting becomes fully established, the proposal will expose existing quarry activity and the initial Stage 1 to 2 works to a number of viewers. During this time, the northwestern and northeastern existing quarry hedges will be removed, and the existing 1m high Leyland Cypress trees and proposed Leyland Cypress boundary trees will still be establishing. However, with the staged progression of the existing northeastern and northwestern hedge removal, early planting of the proposed boundary trees, and the temporary construction of 2 to 3m high bunds, the visual effects can be mitigated until the boundary planting becomes fully established.

In addition, the proposed northeastern Leyland Cypress trees will narrow the view of the alps from the Lions Lookout. Maintenance of the hedge at 2.5m high will allow views of the tops of the hindered ranges as well as reduce views into the quarry site. The visual assessment has found that adverse visual effects arising from the Project will range from *very low (less than minor)* to *low to moderate (minor)* depending on the location of the viewer.

10. RECOMMENDATIONS

The following measures are recommended to mitigate any potential adverse landscape and visual effects and assist with integrating the project into its surroundings. This section should be read alongside the Mitigation Plan within the Graphic Supplement.

Amenity Planting

a) Retention of the existing planting areas within the existing quarry site including the stand of pine trees, those alongside the Bealey Road boundary, and those at the road entrance.

Screening Planting

b) Retention of the tree lucerne and bunds on the adjacent southeastern land.
c) Retention of the hedges surrounding the existing quarry workshop building to a height of 4m.
d) Retention of the existing Leyland Cypress hedge along Bealey Road to a height of 4m.
e) Retention of the existing Leyland Cypress hedge along the northwestern boundary of the existing quarry site until it is required to be removed for the Stage 2 works. The aim is to delay the removal of this screening for as long as possible.
f) Removal of the existing Leyland Cypress hedge along the northeastern boundary of the existing quarry site progressively, in line with the Stage 1 extraction progress. The aim is to delay the removal of this screening for as long as possible.
g) Planting of a new single row of Leyland Cypress trees along the northeastern boundary of the site as soon as possible with plants that are at least 750-1000mm in height (when purchased), to be planted at 1.5m centres. The aim is to allow maximum time for these plants to establish before quarrying occurs in Stages 1 and 2. Once the hedge matures it should be maintained to a height of 2.5m northwest of the Lions Lookout (to facilitate views towards the ranges) and 4m at its southeastern end (refer to mitigation plans).
h) Retention of the existing Leyland Cypress hedge located adjacent to 158 Bealey Road to be maintained at a height that is acceptable to the adjoining occupants.
i) Planting of a new single row of Leyland Cypress trees along the remaining boundaries of the site before the commencement of Stage 1 works with plants that are at least 750-1000mm in height (when purchased), to be planted at 1.5m centres. Once established, these hedges should be maintained at a height of 4m.
j) All tree planting shall be undertaken between 1 April and 30 September.
k) Any damaged or diseased existing or proposed planting required as mitigation should be replaced as soon as possible within the next planting season with the same or similar species

capable of reaching the same height and providing the same level of screening. The aim is that any gaps around the periphery of the site will be filled with additional trees to screen the quarry operations from view.

Neighbouring Property Offsets

l) Ensuring that all quarry operation activity occurs a minimum of 10m from the site boundaries.

Colour

m) Ensuring that the colour of existing built structures on site are maintained in recessive colours such a mid-colour green or a neutral grey, with a reflectivity value less than 36%.

Landform

n) Creation of a 2 to 3m high temporary grass bunds from topsoil and overburden along the northeastern boundary of Stage 1 and half of stage 2. These should be completed prior to the Stage 1 works commencing and should sit directly behind the proposed tree planting.

o) Maintaining the height of stockpiles to below the natural ground level.

Rehabilitation

p) Provision of a Quarry Rehabilitation Management Plan which includes:

- Refined detail on the staging of progressive rehabilitation.
- Re-spreading and contouring of overburden and stored (stockpile or bund) or imported topsoil materials within the base of the quarry floor.
- Stabilisation of quarry faces with a batter slope of no steeper than 1 in 3.
- Grassing of completed and restored extraction areas to create a free draining and stable landform suitable for light pastoral farming.[5]
- Grass mix shall contain: 75% Winter active ryegrass (a mixture of up to 3 cultivars may be used such as Collosseum, Arena and Tambour), 12% Chewings type red fescue, 12% Creeping type red fescue, 1% Colonial bentgrass (Brown top).
- Weed control.
- Details for monitoring and maintenance of rehabilitated areas.
- Retention of trees around the periphery of the rehabilitation quarry.

[5] The recommended depth for pasture (light sheep) is 1m of inert material above highest recorded groundwater level, plus 0.3m topsoil. *Christchurch City Council Quarry Rehabilitation Plan Guidance,* August 2018.

11. CONCLUSION

The applicant, Southern Screenworks, seeks to expand their existing quarry at 50 Bealey Road, Aylesbury. This assessment has determined the landscape and visual effects of the project and made recommendations for mitigation.

It is anticipated that effects associated with the quarry expansion will reduce over time as screening vegetation establishes. Provided that the suggested mitigation measures are implemented it has been concluded that:

- Landscape effects associated with the proposed quarry expansion range from *adverse Very Low (less than minor) to Low to Moderate (minor),* due to the temporary change to the landuse and landcover and the irreversibility of the changes to the landform.
- Visual effects associated with the project are anticipated to range from *adverse Very Low (less than minor) to Low to Moderate (minor)* dependant on the location and proximity of the viewer.

APPENDICES

Appendix 1 – Landscape and Visual Assessment Criteria

Appendix 2 – Graphic Supplement

APPENDIX 1: LANDSCAPE AND VISUAL ASSESSMENT CRITERIA

An Introduction to Te Tangi a te Manu: Aotearoa Landscape Assessment Guidelines

This assessment has been prepared in accordance with the concepts and principles outlined within *Te Tangi a te Manu: Aotearoa Landscape Assessment Guidelines*. These guidelines were published by Tuia Pito Ora, the New Zealand Institute of Landscape Architects (NZILA) in July 2022. For further information on the guidelines, please refer to https://nzila.co.nz/about/te-tangi-a-te-manu.

Origins of Te Tangi a te Manu

These national guidelines are the result of more than four years' mahi, collaboration and consultation. They encapsulate the best collective wisdom of landscape architects working in landscape assessment under New Zealand's legislative framework. They also include insight from researching case law, reviewing findings of Landscape Assessment workshops,[6] and understanding best practice landscape guidelines from both New Zealand and overseas.[7] The guidelines are at the forefront of emerging practice internationally and will continue to evolve over time.

Whilst previous assessment approaches[8] have been built on the physical, associative, and perceptual realms of landscape, the guidelines underpinning this assessment go further. They promote a Te Ao Māori and Te Ao Pākehā partnership approach to landscape, binding together the layers of people and land across time and place. In doing so, the guidelines ensure that both tāngata whenua and tāngata tiriti values and perspectives are captured and equally shared and understood.

Purpose of Te Tangi a te Manu

Ultimately these guidelines (and subsequently this assessment) seek to assist decision-makers[9] and others[10] to manage and improve landscape values within a statutory planning context. Consequently, they also provide a much stronger platform for Landscape Architects and allied professionals to assess and manage landscapes. As part of undertaking this assessment, the assessor has identified the landscape's character and values (and the attributes on which those values depend), assessed the effects of the Project on these values, and designed mitigation measures to maintain and improve values. Whilst undertaking this work, a structured approach has been used to

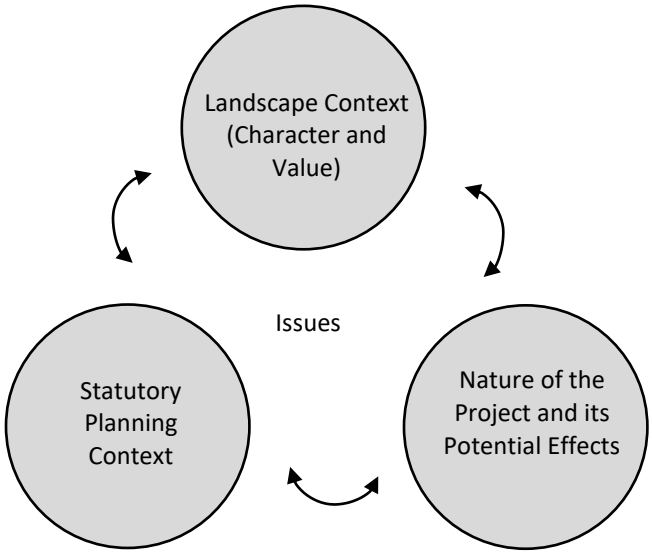
[6] Landscape Assessment Methodology workshops were held across New Zealand in November 2017 by the NZILA.
[7] This includes the *New Zealand Quality Planning Landscape Guidance Note*, as well as the well-known United Kingdom *Landscape Institute and Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact Assessment (GLVIA3)*, 3rd Edition, published in 2013.
[8] The guidelines replace *NZILA Best Practice Note 10.1: Landscape Assessment and Sustainable Management*, 2010.
[9] 'Decision-makers' means the Environment Court, boards of inquiry, council commissioners, and some council officers with certain delegated authority.
[10] 'Others' means everyone else involved in statutory planning processes.

ensure that findings are clear and objective. Judgement is based on skills and experience, supported by explicit evidence and reasoned argument. This approach is consistent with the Environment Court's 'Code of Conduct for Expert Witnesses.[11]

Methodology underpinning Te Tangi a te Manu

This assessment has adopted a principles-based approach that has allowed the methodology to be tailored to the Project. This approach emphasises transparency and reason, rather than adherence to prescriptive methods. Following a prescriptive method is not possible, because all landscape assessments vary (in type and scale) and require the need to interpret the different types of information and values (objective and subjective) inherent in landscapes.

This assessment focuses on the relevant issues for the decision maker. These issues arise from the drivers behind the assessment, the landscape context it is situated within, and the potential effects arising from the relevant statutory planning provisions. In addition, a concurrent iterative design process seeks to avoid, remedy, or mitigate adverse effects which may arise as a result of a Project.



Definition of the Term 'Landscape'

This assessment defines the term 'landscape' as consistent with that contained within the guidelines: *"Landscape embodies the relationship between people and place. It is the character of an area, how the area is experienced and perceived, and the meanings associated with it."* [12]

[11] *Environment Court of New Zealand, Expert Witnesses, Code of Conduct, Environment Court Practice Note,* 2014, Section 7.2. Available from: http://environmentcourt.govt.nz/assets/Documents/ Publications/2014-ENVC-practicenotes.pdf

Approach to Landscape and Visual Assessment

While landscape effects and visual effects are closely related, they form separate parts of this assessment. Understanding landscape effects includes assessing the potential effects of a Project on landscape character and values. Whereas for visual effects it includes assessing how a Project might change the physical landscape and in turn affect the viewing audience.

Change in a landscape does not, of itself, necessarily constitute an adverse landscape or visual effect. Landscape is dynamic and is constantly changing over time in both subtle and more dramatic transformational ways. These changes are both natural and human induced. What is important in managing landscape change, is that adverse effects are avoided or sufficiently mitigated to ameliorate the effects of the change. The aim is to provide a high amenity environment through appropriate design outcomes.

Landscape Effects

Landscape effects are measured against the existing landscape context (character and value) and the landscape and visual outcomes as anticipated by the statutory planning framework. Landscape effects derive from changes in the physical landscape, which may give rise to changes in its character. This may in turn affect the perceived value ascribed to the landscape.

The degree to which landscape effects are generated by the Project depends on:

- The degree to which the Project contrasts, or is consistent, with the qualities of surrounding landscape.
- The predictable and likely known future of the locality.
- The quality of the resultant landscape, its aesthetic values and contribution to the wider landscape character of the area.

When determining the overall level of landscape effect, it is important to be clear about what factors have been considered when making professional judgements. The following table helps to guide this process:

[12] Refer to page 76 of *Te Tangi a te Manu*. This definition is also consistent with that which evolved from the NZILA Landscape Assessment Methodology workshops held in November 2017.

Contributing Factors		Higher	Lower
Landscape (sensitivity)	*Ability to absorb change*	The landscape context has limited existing landscape detractors which make it highly vulnerable to the type of change resulting from the proposed development.	The landscape context has many detractors and can easily accommodate the Project without undue consequences to landscape character.
	The value of the landscape	The landscape includes important biophysical, sensory, and shared and recognised attributes. The landscape requires protection as a matter of national importance (ONF/L).	The landscape lacks any important biophysical, sensory, or shared and recognised attributes. The landscape is of low or local importance.
Magnitude of Change	*Size or scale*	Total loss or addition of key features or elements. Major changes in the key characteristics of the landscape, including significant aesthetic or perceptual elements.	The majority of key features or elements are retained. Key characteristics of the landscape remain intact with limited aesthetic or perceptual change apparent.
	Geographical extent	Wider landscape scale.	Site scale, immediate setting.
	Duration and reversibility	Permanent. Long term (over 10 years).	Reversible. Short Term (less than 10 years)

Visual Effects

Visual effects are a subset of landscape effects. They are effects on landscape values as experienced in views. Visual effects relate to the changes that may occur to the view and visual amenity experienced by people because of changes to the landscape. Much depends on where the Project is visible from and how successful any mitigation is to mitigate any effects.

The degree to which visual effects are generated by a Project depends on:

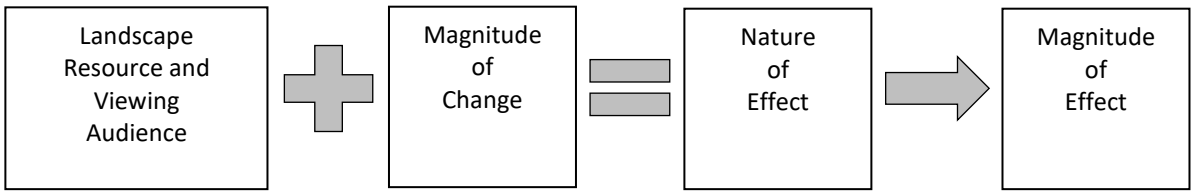
- The proportion of the Project that is visible, determined by the observer's position relative to the objects viewed.
- The distance and foreground context within which the Project is viewed and the backdrop and context within which the Project is viewed.
- The number of viewers, their location and situation (static or moving) in relation to the view.

When determining the overall level of visual effect, the nature of the viewing audience is considered together with the magnitude of change resulting from the Project. The following table helps to guide this process:

Contributing Factors		Higher	Lower	Examples
The viewing audience (sensitivity)	*Ability to absorb* change	Views from dwellings and recreation areas where attention is typically focussed on the landscape.	Views from places of employment and other places where the focus is typically incidental to its landscape context. Views from transport corridors.	Dwellings, places of work, transport corridors, public tracks
	Value attached *to views*	Viewpoint is recognised by the community such as an important view shaft, identification on tourist maps or in art and literature. High visitor numbers.	Viewpoint is not typically recognised or valued by the community. Infrequent visitor numbers.	Acknowledged viewshafts, Lookouts
Magnitude of Change	*Size or scale*	Loss or addition of key features in the view. High degree of contrast with existing landscape elements (e.g., in terms of form scale, mass, line, height, colour and texture). In full view	Most key features of views retained. Low degree of contrast with existing landscape elements (e.g., in terms of form scale, mass, line, height, colour and texture. Glimpse/no view of the Project.	Higher contrast/lower contrast. Open views, partial views, glimpse views (or filtered), no views (or obscured)
	Geographical extent	Front on views. Near distance views. Change visible across a wide area.	Oblique views. Long distance views. Small portion of change visible.	Front or oblique views. Near distant, middle distant and long distant views.
	Duration and reversibility	Permanent. Long term	Transient/temporary. Short Term	Permanent (fixed), transitory (moving)

Landscape and Visual Assessment – Determining the Overall Level of Effects

This assessment identifies the magnitude of landscape and visual effects that are likely to be generated by the Project. It assesses both the nature (adverse, neutral, beneficial) and magnitude of effect (low, moderate, high) and the effectiveness of any proposed mitigation.



Landscape and Visual Assessment - Nature of Effects

This assessment also considers the nature of effects in terms of whether this will be positive (beneficial), neutral (benign) or negative (adverse), in the context within which it occurs. Neutral effects can also occur where landscape or visual change is benign. Effects can also be short term or permanent and/or cumulative. [13,14]

Landscape and Visual Assessment - Magnitude of Effects

Each effect within the assessment has been assigned a rating (magnitude of effect) to distinguish effects from one another and to assist with determining the need for landscape mitigation. Within the assessment, the specific nature of the effect is described, its magnitude is rated, and then the evaluation is justified. The seven-point scale of effects from *Te Tangi a te Manu* is as follows: [15]

						Significant[16]
Less than Minor[17]		Minor	More than Minor			
Very low	Low	Low – Moderate	Moderate	Moderate – High	High	Very High

Widely used definitions across the landscape profession and included within *Te Tangi a te Manu* include (but are not limited to):

> Low: *"A slight loss to the existing character, features or landscape quality."*
>
> Moderate: *"Partial change to the existing character or distinctive features of the landscape and a small reduction in perceived amenity."* [18]

[13] Refer to footnote 140. on page 135 of *Te Tangi a te Manu* which describes the meaning of 'effect' in more detail and includes short term or permanent effects.
[14] For more information on cumulative effects, refer to pages 153-154 of *Te Tangi a te Manu*.
[15] Refer to pages 140 and 151 of *Te Tangi a te Manu* which covers this in more detail.
[16] The term 'significant' is only to be used when evaluating Policy 13(1)(b) and Policy 15(b) of the *New Zealand Coastal Policy Statement (NZCPS)*, where the test is 'to avoid significant adverse effects'.
[17] For more information on the terms 'minor,' 'less than minor,' and 'no more than minor', refer to pages 150-151 of *Te Tangi a te Manu.* An assessment of whether the effect generated by a Project are *"less than minor"* will generally involve a broader consideration of the effects of the activity, beyond landscape and visual effects. In addition, more than minor effects on individual elements or viewpoints, does not necessarily equate to more than minor landscape effects.

In addition:

'More than Minor' is characterised as "moderate effects or above" on the 7-point scale.

'Minor' is characterised as *"low"* and *"low to moderate"* effects.

'Less than Minor' means insignificant. It can be characterised as *"very low"* and *"low"* effects. [19]

[18] Refer to page 141 and footnote 149 within *Te Tangi a te Manu*.

[19] Refer to page 150 and footnote 158 within *Te Tangi a te Manu*.

GLASSON HUXTABLE
LANDSCAPE ARCHITECTS

Glasson Huxtable Landscape Architects Ltd.

P.O. Box 13162

Christchurch

W: https://www.ghla.co.nz/

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GLASSON HUXTABLE
LANDSCAPE ARCHITECTS

SOUTHERN SCREENWORKS LIMITED
AYLESBURY

LANDSCAPE AND VISUAL ASSESSMENT
GRAPHIC SUPPLEMENT
APRIL 2024

1.0 AREA LOCATION PLAN

KEY

- STATE HIGHWAY
- MIDLAND RAILWAY LINE
- SOUTHERN SCREENWORKS SITE

GLASSON HUXTABLE
LANDSCAPE ARCHITECTS

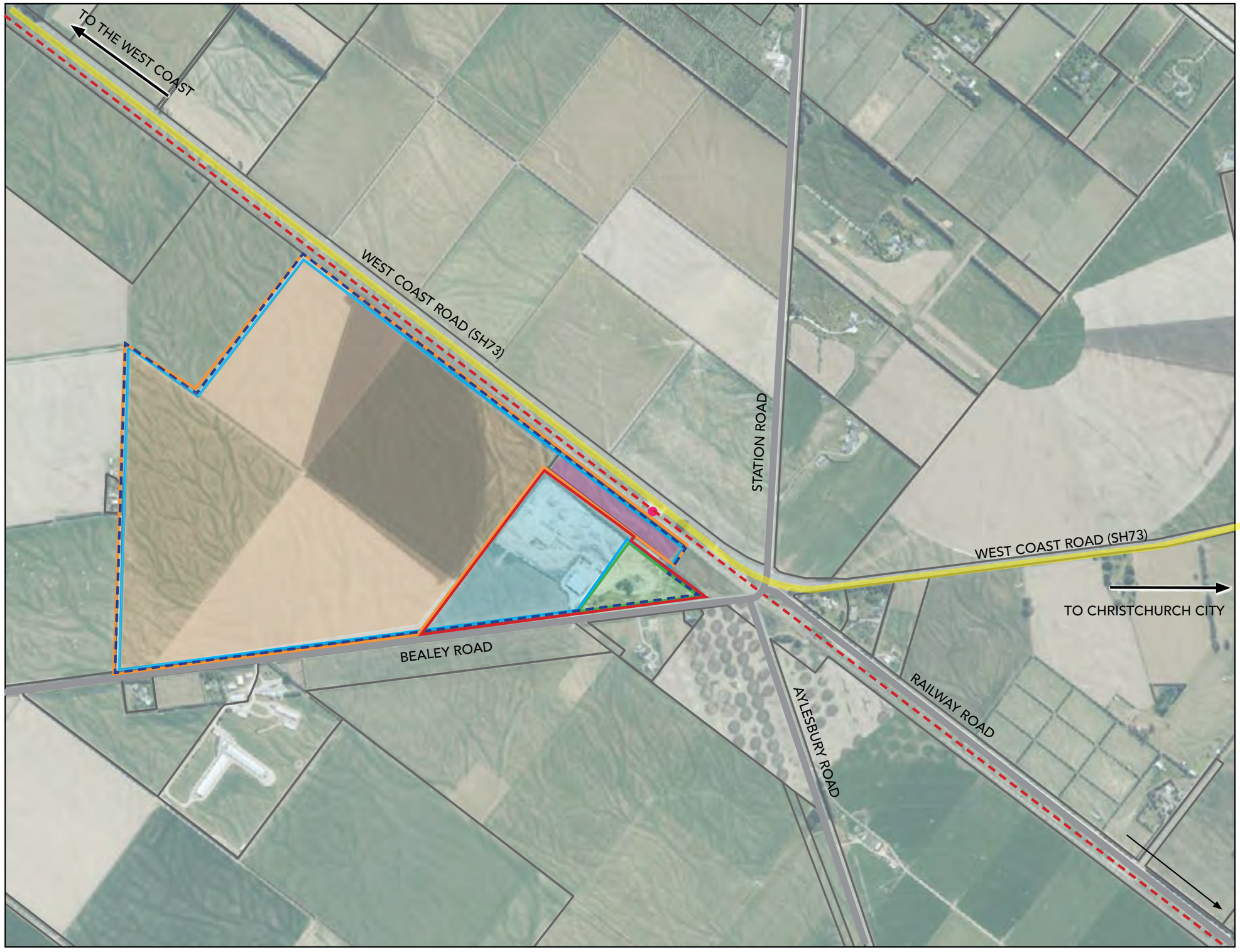
2402_Southern Screenworks Limited_Aylesbury Site_by Glasson Huxtable Ltd.

N

SCALE: 1: 50,000@ A3

0 0.5 1 2 3 4 5KM

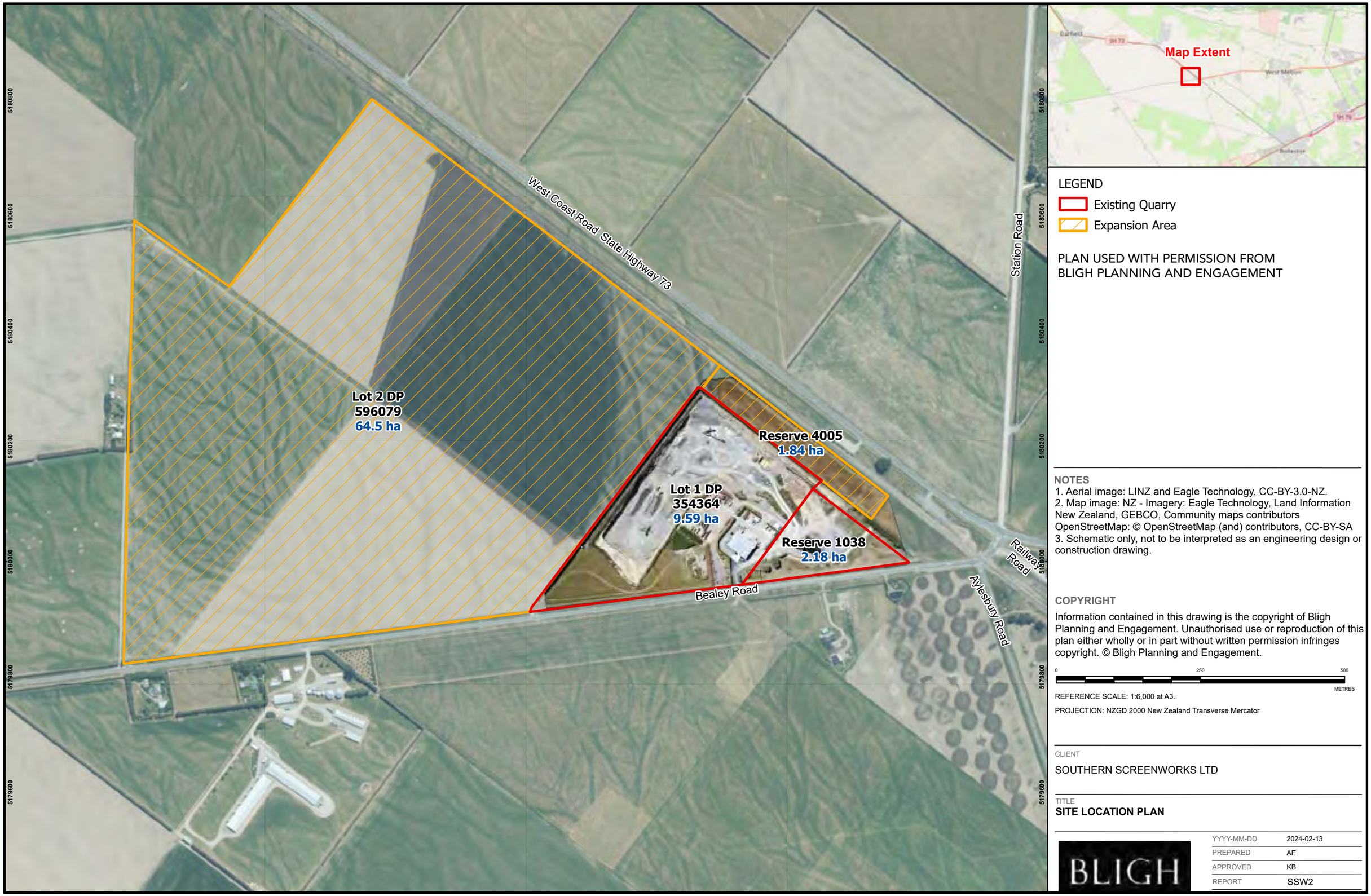
2.0 CONTEXT LOCATION PLAN



KEY

- SITE BOUNDARY
- EXISTING QUARRY AREA
- QUARRY EXPANSION AREA
- LEASED LAND FROM SDC
- QUARRY LAND OWNED BY SCREENWORKS
- STATE HIGHWAY 73
- MIDLAND RAILWAY LINE
- LOCAL ROAD
- LIONS LOOKOUT
- RESERVE 1038
- RESERVE 4005
- LOT 1 DP 354364
- LOT 2 DP 596079

3.0 SITE LOCATION PLAN



LEGEND

- Existing Quarry
- Expansion Area

PLAN USED WITH PERMISSION FROM BLIGH PLANNING AND ENGAGEMENT

NOTES

1. Aerial image: LINZ and Eagle Technology, CC-BY-3.0-NZ.
2. Map image: NZ - Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors OpenStreetMap: © OpenStreetMap (and) contributors, CC-BY-SA
3. Schematic only, not to be interpreted as an engineering design or construction drawing.

COPYRIGHT

0 250 500 METRES

REFERENCE SCALE: 1:6,000 at A3.

PROJECTION: NZGD 2000 New Zealand Transverse Mercator

CLIENT

SOUTHERN SCREENWORKS LTD

TITLE

SITE LOCATION PLAN

BLIGH

YYYY-MM-DD	2024-02-13
PREPARED	AE
APPROVED	KB
REPORT	SSW2

4.0 SOUTHERN SCREENWORKS INDICATIVE STAGING

KEY:

- STAGE 1
- STAGE 2
- STAGE 3
- STAGE 4
- STAGE 5
- STAGE DIRECTION
- EXISTING QUARRY
- PROPOSED QUARRY EXPANSION ZONE

5.0 INTERNAL VIEWPOINTS

VIEWPOINT KEY:

THE VIEWPOINTS BELOW CORRESPOND WITH PANORAMAS ON THE FOLLOWING PAGES

1. Existing quarry operations - as viewed from on top of the bund
2. South Eastern corner view towards Stage 1
3. Midway along North Eastern boundary view towards Stage 2
4. Northern corner view towards Stage 5
5. North western corner view towards Stage 4
6. Midway along Western boundary view towards Stage 4
7. South Western corner view towards Stages 3 and 4
8. Midway along southern boundary view towards Stage 3

GPS CO-ORDINATES:

5.1: 172°15'45.50"E 43°31'46.74"S
5.2: 172°15'55.94"E 43°31'45.95"S
5.3: 172°15'39.38"E 43°31'48.89"S
5.4: 172°15'17.51"E 43°31'23.97"S
5.5: 172°14'59.36"E 43°31'30.83"S
5.6: 172°14'58.19"E 43°31'44.01"S
5.7: 172°14'57.66"E 43°31'53.76"S
5.8: 172°15'29.46"E 43°31'52.76"S

KEY

- EXISTING QUARRY
- PROPOSED QUARRY EXPANSION ZONE

5.1 VIEWPOINT 1 - EXISTING QUARRY OPERATIONS

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

5.2 VIEWPOINT 2 - SOUTHEASTERN CORNER VIEW NORTHWEST TOWARDS STAGE 1

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

5.3 VIEWPOINT 3 - MIDWAY ALONG NORTHEASTERN BOUNDARY VIEW TOWARDS STAGE 2

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

5.4 VIEWPOINT 4 - NORTHERN CORNER VIEW TOWARDS STAGE 5

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

5.5 VIEWPOINT 5 - NORTHWESTERN CORNER VIEW TOWARDS STAGE 4

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

5.6 VIEWPOINT 6 - MIDWAY ALONG THE WESTERN BOUNDARY VIEW TOWARDS STAGE 4 (158 BEALEY ROAD)

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

5.7 VIEWPOINT 7 - SOUTHWESTERN CORNER VIEW TOWARDS STAGES 3 AND 4

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

5.8 VIEWPOINT 8 - MIDWAY ALONG THE SOUTHERN BOUNDARY VIEW TOWARDS STAGE 3

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.0 EXTERNAL VIEWPOINTS

VIEWPOINT KEY:

THE VIEWPOINTS BELOW CORRESPOND WITH PANORAMAS ON THE FOLLOWING PAGES

1. Outside 23 Bealey Road viewing towards existing quarry site
2. Outside 35 Bealey Road viewing towards existing quarry site
3. View from opposite main entrance of Southern screenworks
4. Outside the Piggery farm viewing towards Quarry expansion area (Stage 3)
5. Outside 137 Bealey Road
6. Outside 153 Bealey Road
7. 1394 Highfield Road distant view of Quarry expansion area
8. Between 2202 and 2204 West Coast Rd / SH73 distant view of Quarry area
9. West Coast Road / SH73 toward quarry expansion area
10. Lion's lookout view towards Stage 1 of quarry expansion area
11. Outside 10 Station Road
12. Outside 1062 Railway Road

GPS CO-ORDINATES:

6.1: 172°15'56.37"E 43°31'50.76"S
6.2: 172°15'51.68"E 43°31'51.16"S
6.3: 172°15'45.14"E 43°31'52.09"S
6.4: 172°15'12.17"E 43°31'54.70"S
6.5: 172°15'6.65"E 43°31'55.30"S
6.6: 172°14'58.79"E 43°31'55.94"S
6.7: 172°14'22.58"E 43°31'55.80"S
6.8: 172°14'44.15"E 43°31'2.29"S
6.9: 172°15'2.43"E 43°31'13.22"S
6.10: 172°15'52.95"E 43°31'42.95"S
6.11: 172°16'5.95"E 43°31'42.75"S
6.12: 172°16'11.34"E 43°31'51.87"S

6.1 VIEWPOINT 1 - 23 BEALEY ROAD VIEWING TOWARDS THE EXISTING QUARRY SITE

6.2 VIEWPOINT 2 - 35 BEALEY ROAD VIEW TOWARDS THE EXISTING QUARRY SITE

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.3 VIEWPOINT 3 - OPPOSITE THE MAIN ENTRANCE TO SOUTHERN SCREENWORKS

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.4 VIEWPOINT 4 - PIGGERY FARM VIEW TOWARDS QUARRY EXPANSION AREA (BEHIND HEDGE)

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.5 VIEWPOINT 5 - 137 BEALEY ROAD VIEW TOWARDS QUARRY EXPANSION AREA (BEHIND HEDGE)

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.6 VIEWPOINT 6 - 153 BEALEY ROAD

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.7 VIEWPOINT 7 - 1394 HIGHFIELD ROAD DISTANT VIEW OF QUARRY EXPANSION AREA

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.8 VIEWPOINT 8 - BETWEEN 2202 AND 2204 WEST COAST ROAD / SH73 DISTANT VIEW OF QUARRY EXPANSION AREA

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.9 VIEWPOINT 9 - SH73 / WEST COAST ROAD TOWARDS QUARRY EXPANSION AREA

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.10 VIEWPOINT 10 - LIONS LOOKOUT VIEW TOWARD STAGE 1 OF QUARRY EXPANSION AREA

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

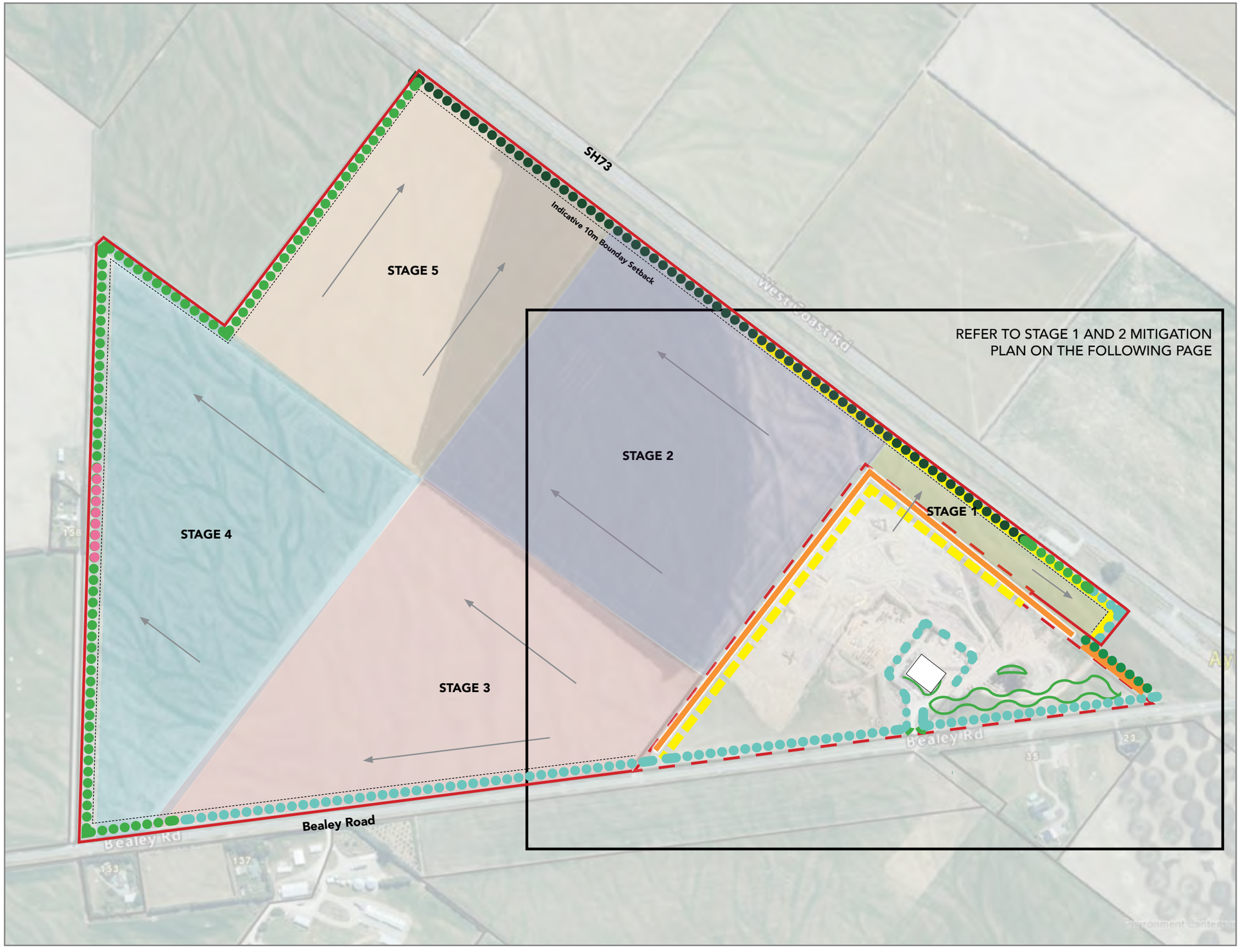
6.11 VIEWPOINT 11 - 18 STATION ROAD

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

6.12 VIEWPOINT 12 - 1062 RAILWAY ROAD

Photos to compile this panorama were taken on the 7th March 2024 using a OM System OM-5 camera with a 25mm lens (equivalent to a 50mm focal length). A1 size prints should be viewed at approx. 500mm distance from eye level. A3 size prints should be viewed at approx. 250mm.

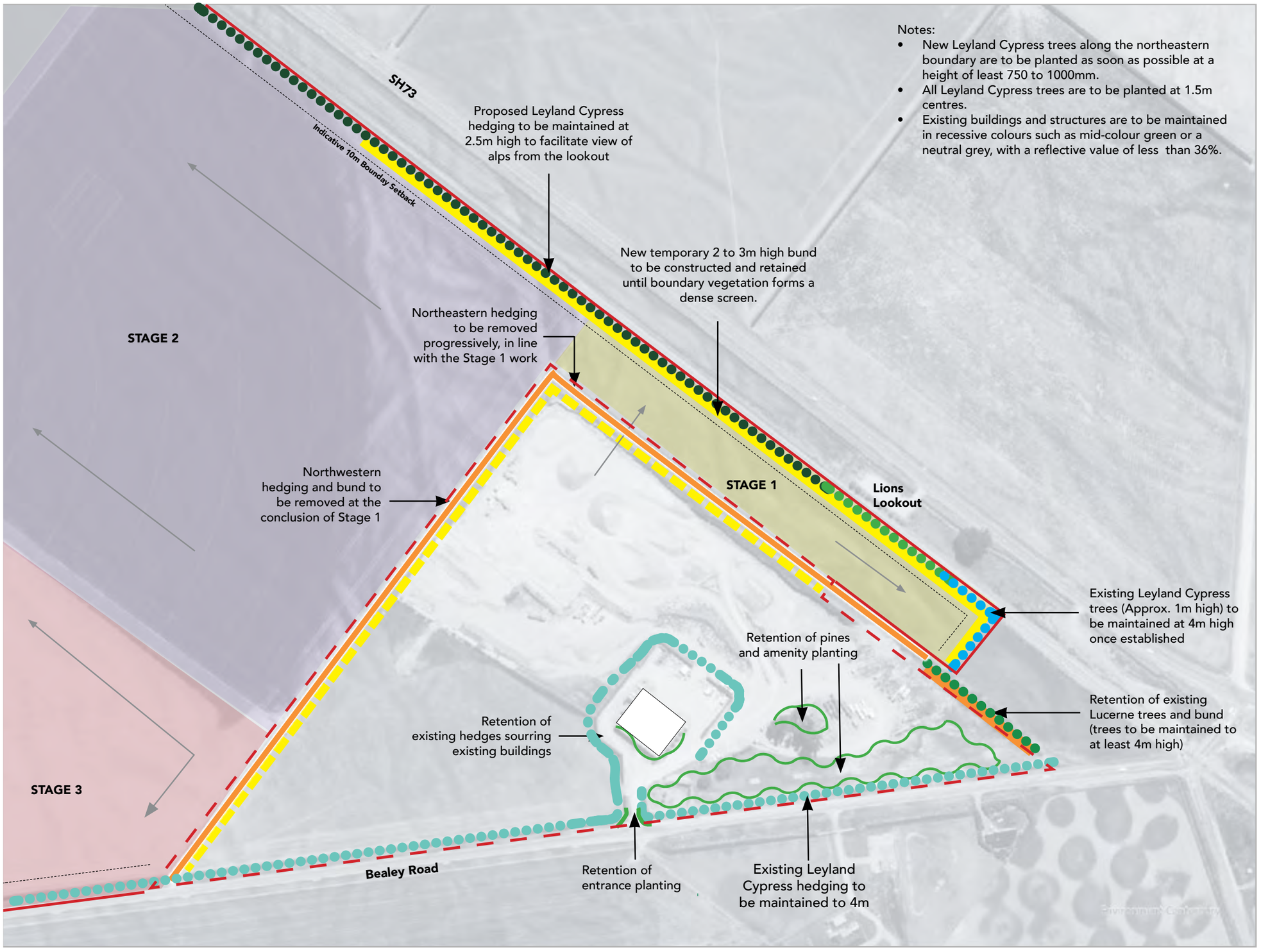
7.0 LANDSCAPE MITIGATION PLAN



KEY:

- STAGE 1
- STAGE 2
- STAGE 3
- STAGE 4
- STAGE 5
- STAGE DIRECTION
- EXISTING QUARRY
- PROPOSED QUARRY EXPANSION AREA
- INDICATIVE 10M BOUNDARY SETBACK
- OFFICES/WORKSHOP
- AMENITY PLANTING TO BE RETAINED
- EXISTING LEYLAND CYPRESS HEDGE TO BE MAINTAINED AT A HEIGHT AGREED WITH NEIGHBOURS
- EXISTING LEYLAND CYPRESS HEDGING TO BE MAINTAINED AT 4M HIGH
- EXISTING TREE LUCERNE AND BUND TO BE RETAINED (4M HIGH)
- EXISTING HEDGE TO BE REMOVED PROGRESSIVELY
- PROPOSED LEYLAND CYPRESS HEDGING TO BE MAINTAINED AT 4M HIGH
- PROPOSED LEYLAND CYPRESS HEDGING TO BE MAINTAINED AT 2.5M HIGH
- EXISTING BUNDS TO BE REMOVED PROGRESSIVELY
- PROPOSED TEMPORARY 2 TO 3M HIGH BUNDS

8.0 LANDSCAPE MITIGATION PLAN - STAGES 1 AND 2



Notes:

- New Leyland Cypress trees along the northeastern boundary are to be planted as soon as possible at a height of least 750 to 1000mm.
- All Leyland Cypress trees are to be planted at 1.5m centres.
- Existing buildings and structures are to be maintained in recessive colours such as mid-colour green or a neutral grey, with a reflective value of less than 36%.

KEY:

- STAGE 1
- STAGE 2
- STAGE 3
- STAGE DIRECTION
- EXISTING QUARRY
- PROPOSED QUARRY EXPANSION AREA
- INDICATIVE 10M BOUNDARY SETBACK
- OFFICES/WORKSHOP
- AMENITY PLANTING
- EXISTING LEYLAND CYPRESS HEDGING TO BE RETAINED AT 4M
- EXISTING LUCERNE TREES AND BUND TO BE RETAINED
- PROPOSED LEYLAND CYPRESS HEDGING TO BE MAINTAINED AT 4M
- PROPOSED LEYLAND CYPRESS HEDGING TO BE MAINTAINED AT 2.5M
- JUVENILE LEYLAND CYPRESS (APPROX. 1M)
- EXISTING HEDGE TO BE REMOVED PROGRESSIVELY
- EXISTING BUNDS TO BE REMOVED PROGRESSIVELY
- PROPOSED TEMPORARY BUNDS