

section two –

contextual analysis



the global context

Auckland as a city is facing significant population growth with compounding pressure on already stretched infrastructure resulting in major challenges across the board, specifically relating to transport and water quality. Auckland is also a city that is rapidly evolving in terms of its cultural, social, and physical identity – its relationship to both the cultural and biophysical landscape.

It is the responsibility of a project of this scale to engage with these challenges and seek to offer solutions for more equitable and sustainable communities that address the social and environmental realities of today in order to achieve a better tomorrow.

Beyond the local context and the site itself there are a number of critical issues to be addressed which have significantly influenced the direction of the design process and resulting Concept Masterplan. The challenges facing the future of Aotearoa New Zealand and indeed the planet as a whole are manifold and widely documented.

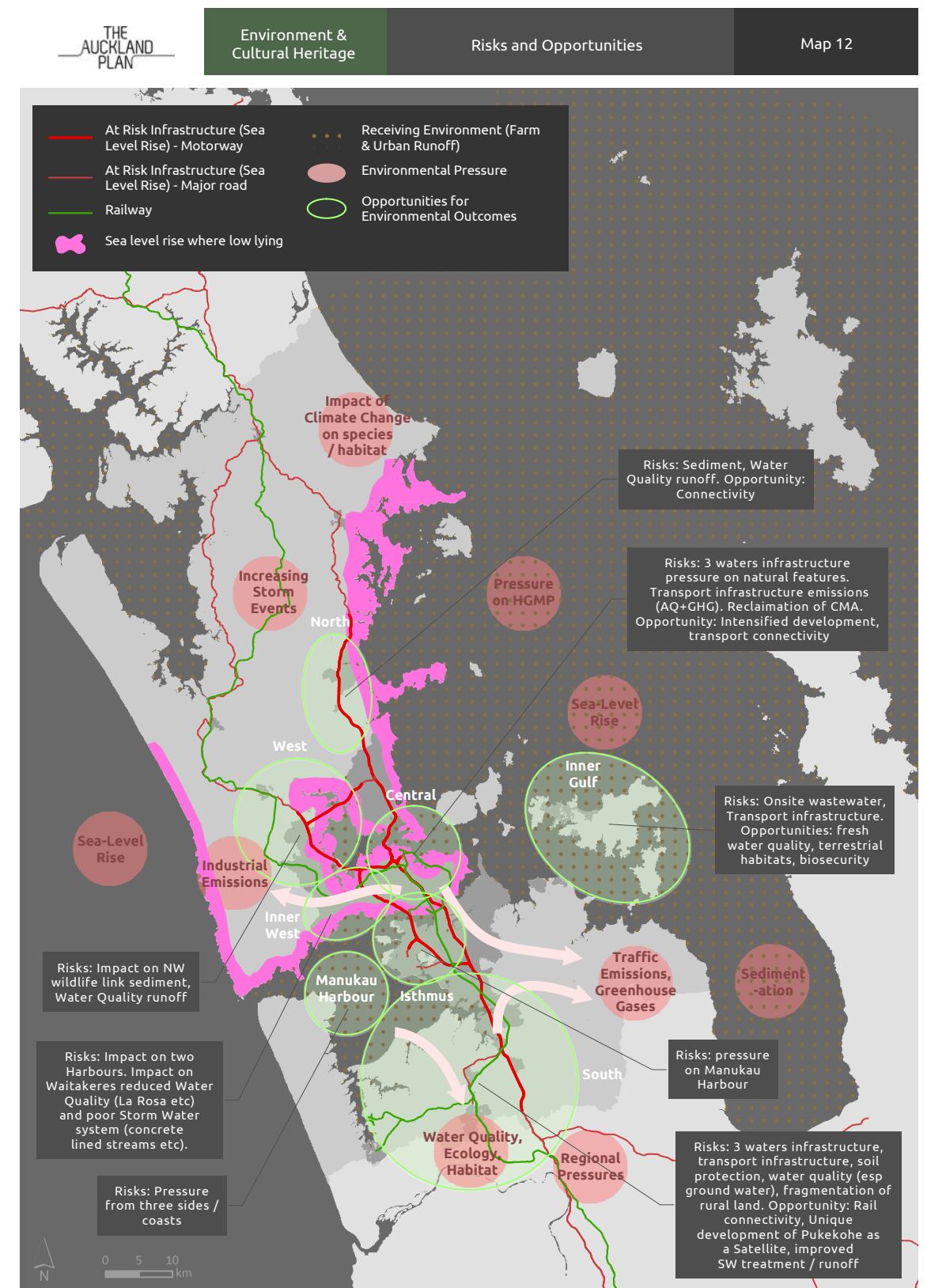
New Zealand is in the midst of a:

- Climate Emergency
- Biodiversity crisis
- Housing supply crisis
- Housing affordability crisis

In 2015 the UN established 17 Sustainable Development Goals (SDGs). They bring together the three dimensions of sustainable development: economic, social, environmental and apply to all countries. New Zealand will contribute to achievement of the goals through a combination of domestic action and international leadership. Working towards achieving the SDGs underpins much of government policy as New Zealand moves towards carbon neutrality and better, more sustainable outcomes for energy, infrastructure, environment, cities, communities, and people.

The design team have embraced an opportunity to explore a new approach to development that moves away from a reliance on private motor vehicles toward a future – thinking people centric collection of liveable neighbourhoods. This approach has unlocked a number of opportunities that will lead to healthier and more sustainable outcomes for now and the future.

Sunfield responds to these SDGs and employs measures to contribute to achieving their stated goals as well as responding to the specific Auckland context and offering solutions for transport and sustainable growth. These include consideration around questions of local identity, changing demographics, provision of diverse housing options, and addressing the environmental imperatives relating to resilience, sustainability, low carbon, and biodiversity loss, among others.



mana whenua values

Engagement with mana whenua, and integration of mana whenua values and aspirations into the Concept Masterplan will be fundamental next steps in the design process.

The process of engagement is well advanced with 6 of Tamaki Makaurau's 19 iwi expressing an interest in the Sunfield development.

It is worth reiterating that the Concept Masterplan captured in this document is only the beginning of a design process. Through engagement with mana whenua a framework would be established to guide the development of the design and embed the values of mana whenua into the built outcomes.

A possible framework for working alongside mana whenua could be structured around, and build upon, the Auckland Design Manual Te Aranaga Principles:

- Mana
- Whakapapa
- Taiao
- Mauri Tū
- Mahi Toi
- Tohu
- Ahi Kā

These principles seek to foster and guide both culturally appropriate design processes and design responses that enhance appreciation of the natural landscape and built environment and which place mana whenua as the heart of both.

The 6 iwi will also have design responses specific to their iwi which would further enhance Sunfield.



site context

regional location



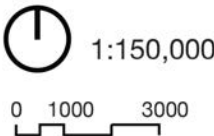
Sunfield is located on the edge of Auckland's Southern growth corridor only 30km south of Auckland CBD, or 12km south of Manukau City Centre by road or rail, and only 20km from Auckland Airport.

Sunfield adjoins the rapidly expanding growth areas of Takanini and Papakura not far from SH1 and the southern train line. The major growth area of Drury sits further to the south. Ardmore Airport is a privately operated airport which adjoins the site to the east.

Site Context

Legend

- Project Boundary
- SH1
- AUP Future Urban Areas
- Trainline
- Rural / Urban Boundary
- Mill Road: Road of National Significance



site context

regional centres and connections

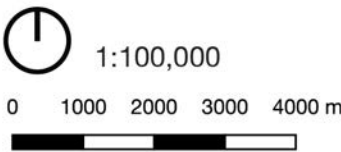


Sunfield sits in close proximity to the main arteries of State Highway 1 (SH1) and the southern rail line.

Nearby Manukau City Centre and Auckland Airport are significant employment destinations as are the light industrial and commercial centres of East Tāmaki, Onehunga, and Māngere.

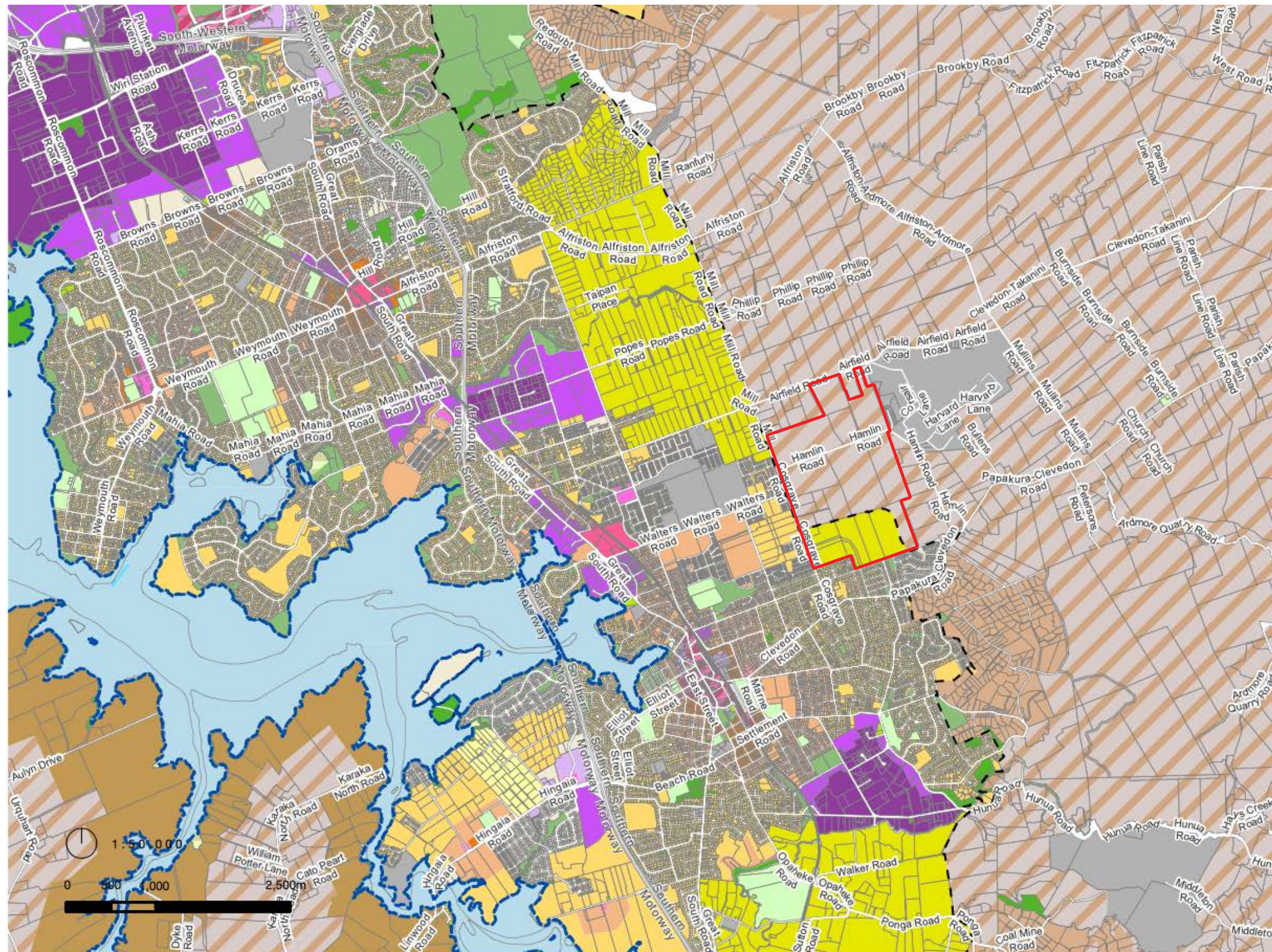
The adjacent centres of Takanini and Papakura provide for a range of commercial services as well as employment opportunities. Papakura is one of Auckland's 10 larger metropolitan centres and a key centre for the southern growth corridor.

- Key
- Sunfield project boundary
 - SH1
 - Train Line
 - Mill Road: Road of National Significance



site context

existing zoning – Auckland unitary plan



The southern portion of the site is currently zoned Future Urban and is within the current rural urban boundary. The remainder of the site is currently zoned Mixed Rural.

Key

- Sunfield project boundary
 - Future Urban Zone
 - Infrastructure – Special Purpose Zone
- Residential**
- Residential – Single House Zone
 - Residential – Mixed Housing Suburban Zone
 - Residential – Mixed Housing Urban Zone
- Business**
- Business – Metropolitan Centre Zone
 - Business – Town Centre Zone
 - Business – Neighbourhood Centre Zone
 - Residential – Mixed Housing Urban Zone
 - Business – General Business Zone
 - Business – Business Park Zone
 - Business – Heavy Industry Zone
 - Business – Light Industry Zone
- Open Space**
- Open Space – Conservation Zone
 - Open Space – Informal Recreation Zone
 - Open Space – Sport and Active Recreation Zone
- Rural**
- Rural – Mixed Rural Zone
 - Rural – Rural Coastal Zone
 - Rural – Countryside Living Zone

site context

local centres and connections



The eastern boundary of the site is approximately 3km from both Takanini and Papakura centres and railway stations on the southern line.

Southern line services operate with a 10 minute frequency in both directions (between Pukekohe in the south and Britomart in the north) from 7am – 7pm, and 20 minute frequency in early mornings and evenings.

Local Centres and Connec

- Key
- Sunfield project boundary
 - State highway
 - Train line
 - Mill Road: Road of National Significance

site context

profile of adjacent centres



Takanini Town Centre

Takanini is a linear commercial centre on Great South Road, which is an arterial road for the area ranging between 3-4 lanes. Large format retail and service businesses are the dominant building tenures. They are typically well set back from the road with car parking out front. The predominate transport method is private vehicles, however pedestrians can utilise several connections to the walkways around the Pahurehere Inlet.



Papakura Metropolitan Centre

Papakura has a range of commercial operations such as retail, service businesses and light industry. It is more pedestrian in nature than Takanini with generous footpaths outside shop frontages. It has a town centre character with single story shops, frontage canopies, street furniture and trees in places. The commercial offerings reflect the culturally diverse community with restaurants providing Indian, Thai, Pasifika and Singaporean cuisine. Many places of worship are dotted through out the blocks reflecting different religions of the community.

site context

local employment opportunities



A number of nearby industrial precincts including Ardmore Airport, as well as the centres of Papakura and Takanini, provide for a range of employment opportunities in close proximity.

Manukau City Centre and Auckland Airport are significant employment destinations slightly further afield but also in relative proximity.

The significant growth area of Drury just to the south also contributes to the make-up of employment destinations in the area.

Key

- Sunfield project boundary
- State highway
- Train line
- Ardmore Airport Future Industrial Area
- Mill Road: Road of National Significance

site context

local recreation + open space

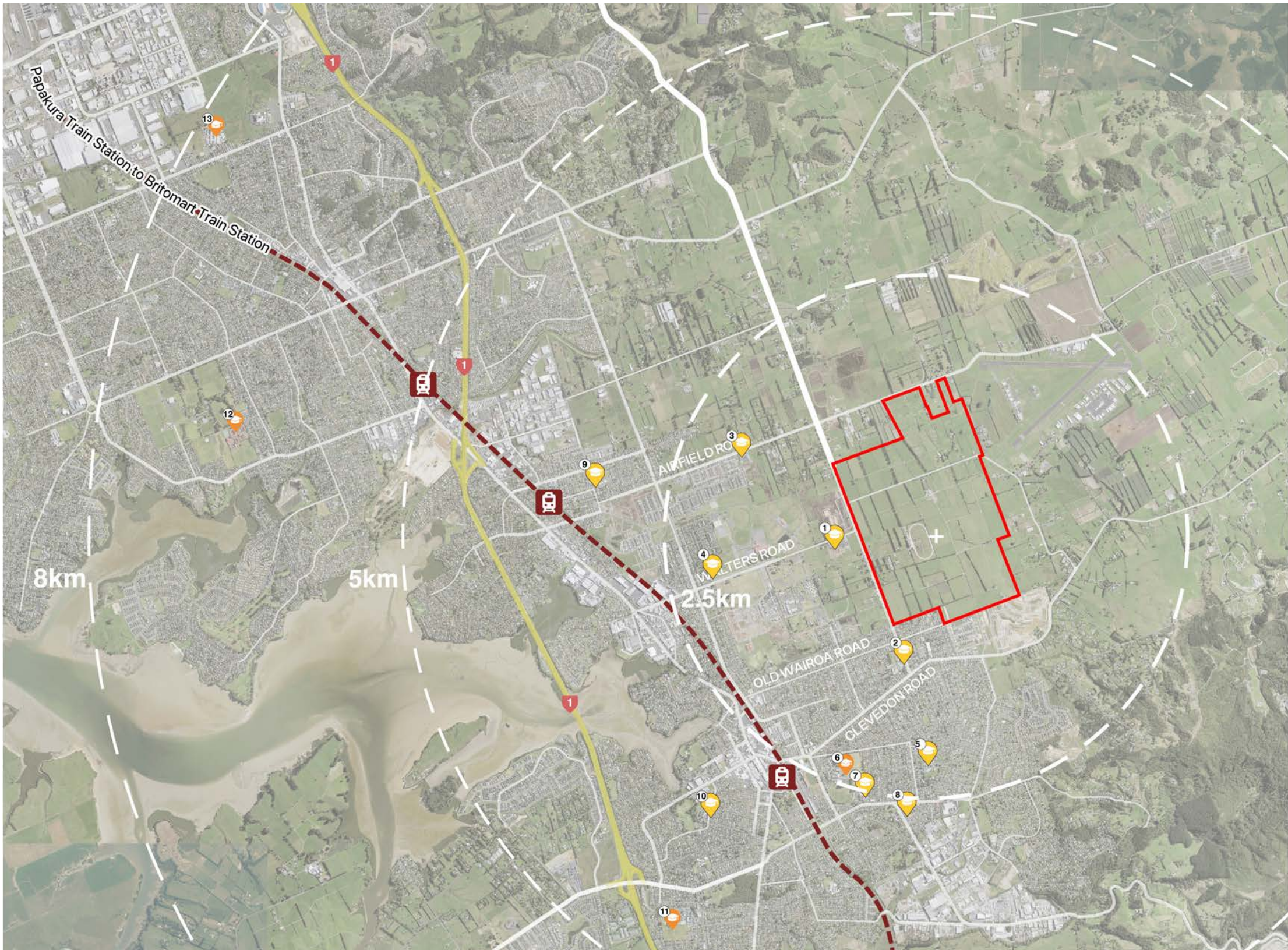


Bruce Pulman Park is the major destination open space in the area only a short distance from the site and with the potential for off road walking and cycling connections. It provides a range of both indoor and outdoor sports, recreation, and community facilities.

- Key**
- Sunfield project boundary
 - Active Recreation Parks
 - Informal Recreation Zones
 - Playgrounds
 - Recreation
- Within 2km**
- 1 Bruce Pulman Park
 - 2 Pulman Arena
 - 3 Pulman Indoor Courts Centre
 - 4 Pulman Recreation Centre
 - 5 Papakura City Football Club
- Within 5km**
- 6 Clarice Place Playground
 - 7 Prince Edward Park
 - 8 Ray Small Park
 - 9 Massey Park
 - 10 Massey Park Pool
 - 11 Papakura Bowling Club
 - 12 Central Park
 - 13 Papakura Leisure Centre

site context

local schools



Key

Sunfield project boundary

Within 2.5km

1

Kauri Flats School Yrs 1-8

2

Cosgrove Primary School

3

Holy Trinity Catholic Primary School

4

Papakura Normal Primary School

5

Kelvin Road School Yrs 0-8

6

Papakura High School

7

Papakura Intermediate

Within 5km

8

Edmund Hilary School Yrs 1-8

9

Takanini School Yrs 1-8

10

Papakura Central School

11

Rosehill College

Within 8km

12

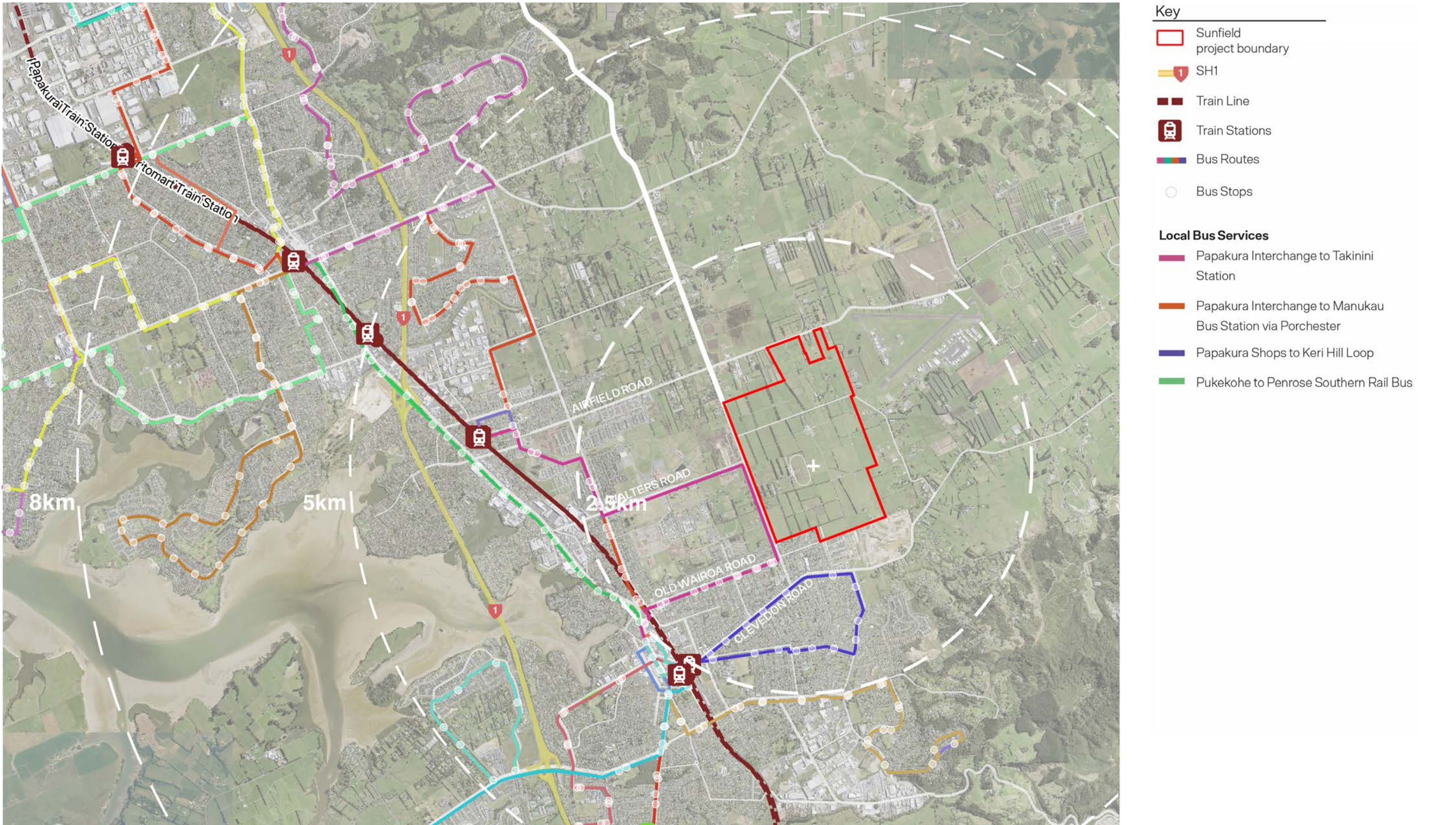
James Cook High School

13

Manuwera High School

site context

existing public transport



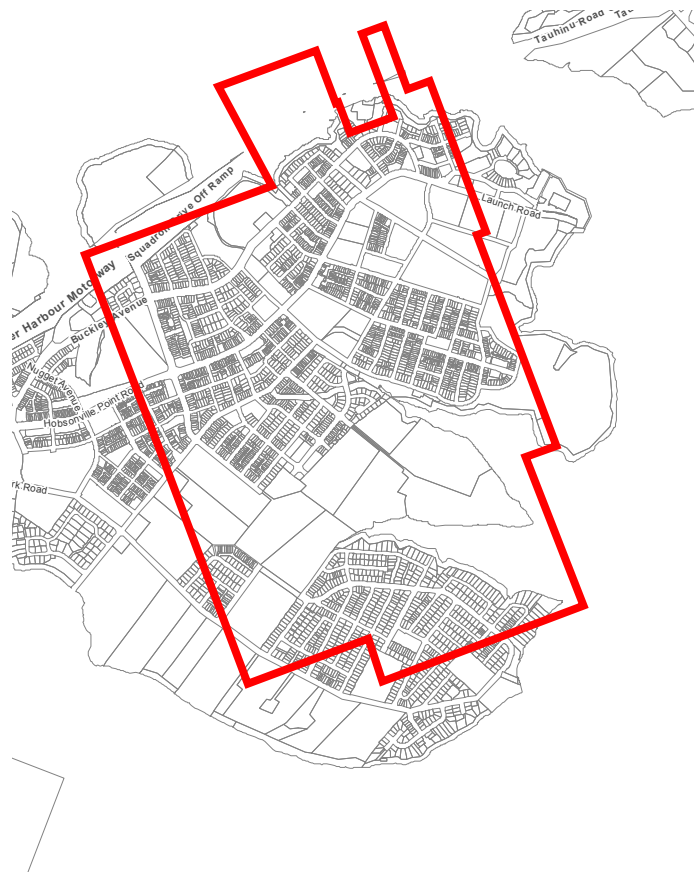
section three –

site analysis

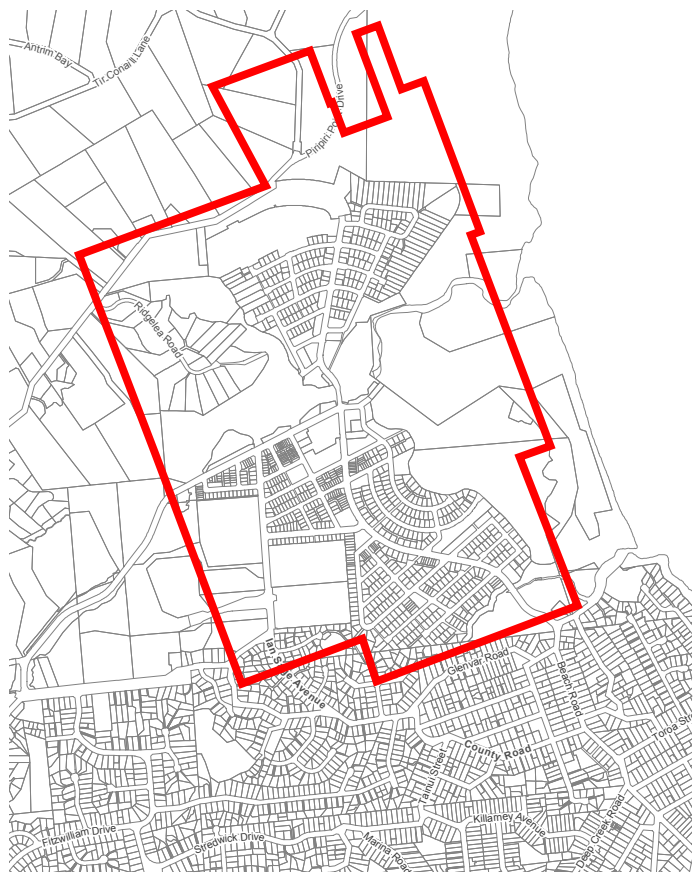


scale comparison

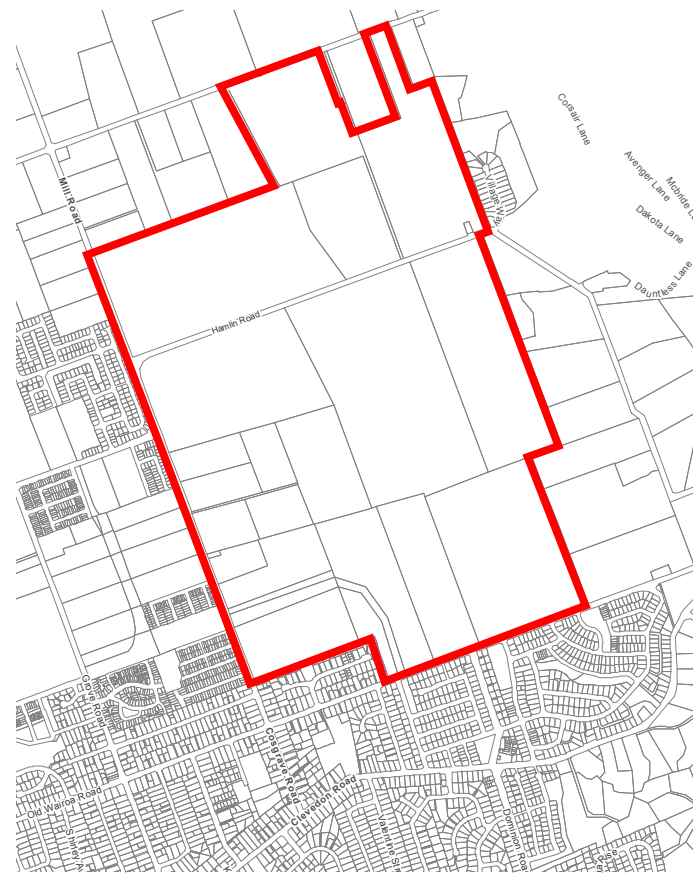
The ability of a project of the scale of Sunfield to provide for comprehensive approaches to land use, transport, services, and infrastructure is significant. The potential implications are major when compared to the impact of similar scaled comprehensive developments such as Hobsonville Point and Long Bay.



Hobsonville Point
167 Ha
4,500 🏠



Long Bay
162 Ha
2,500 🏠



Sunfield
244.5 Ha
4,000 🏠

aerial views

looking north-west



aerial views
looking south

Papakura Metropolitan Centre

Takanini Town Centre



site photos

characteristically flat ground



site photos

sloped land to southeast corner



site photos

characteristic shelter belts



site analysis

aerial photograph + auckland unitary plan zoning

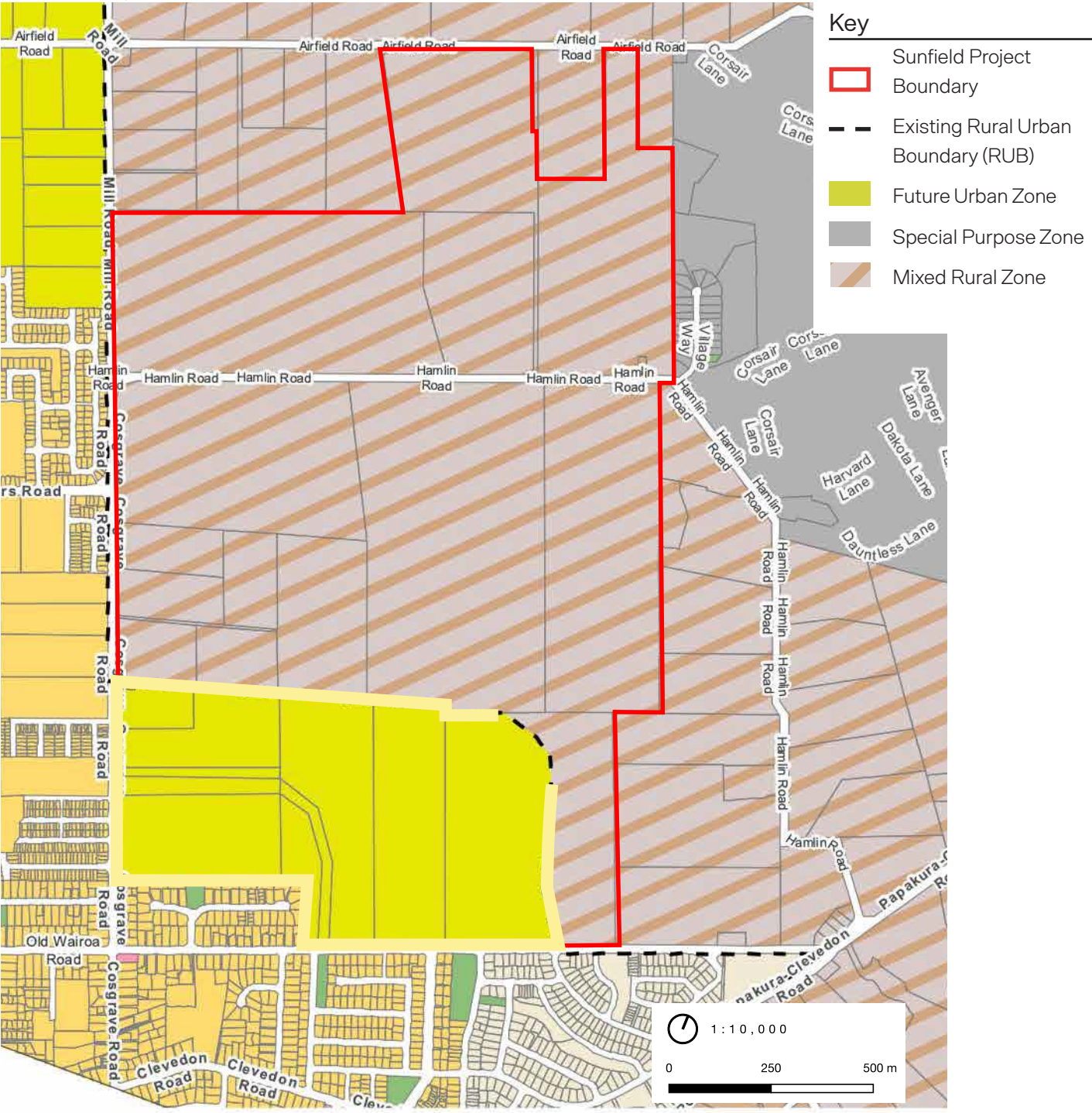
Aerial

The site currently comprises mostly grazed farmland with a pattern of north south shelter belts and farm drains



Auckland Unitary Plan – Zoning Layout

The southern portion of the site is currently zoned future urban and is within the current rural urban boundary. The remainder of the site is currently zoned mixed rural. Ardmore Airport to the east is zoned special purpose. Residential areas abutting the western and southern boundaries are zoned mixed housing suburban.



site analysis

environmental conditions

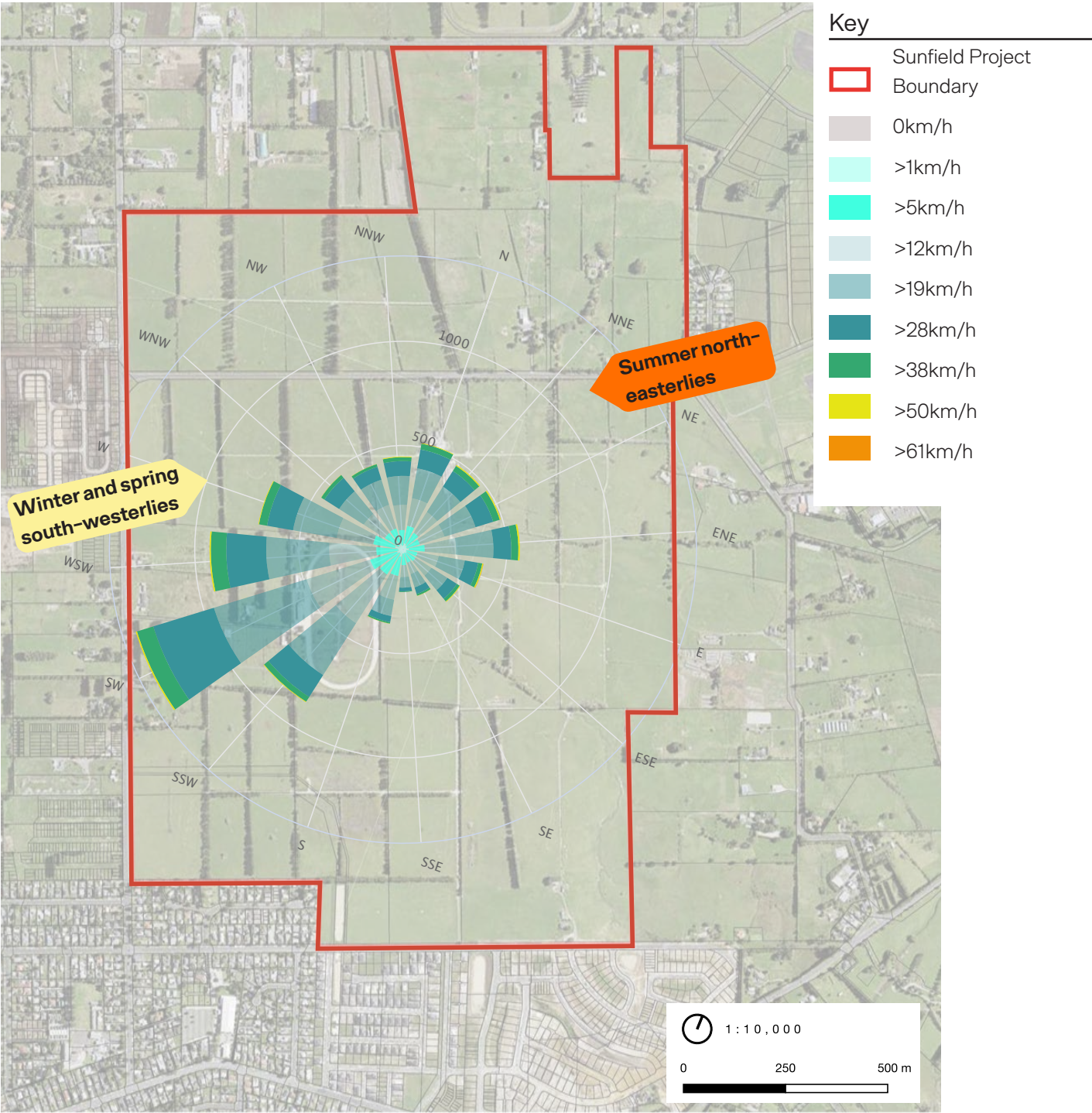
Sun

The region receives 1925–1950 median annual sunshine hours. Positioned in the base of a wide open valley and close to the coast the flat site is ideally suited to maximise solar gain for liveability and potential solar energy generation.



Wind

The predominant wind is from the south-west. It is stronger in the winter and spring months. There is also a slight increase in north-easterlies in the summer months. The predominant wind is reflected in the orientation of the adjacent airport runway and the orientation of the shelter belts on site.

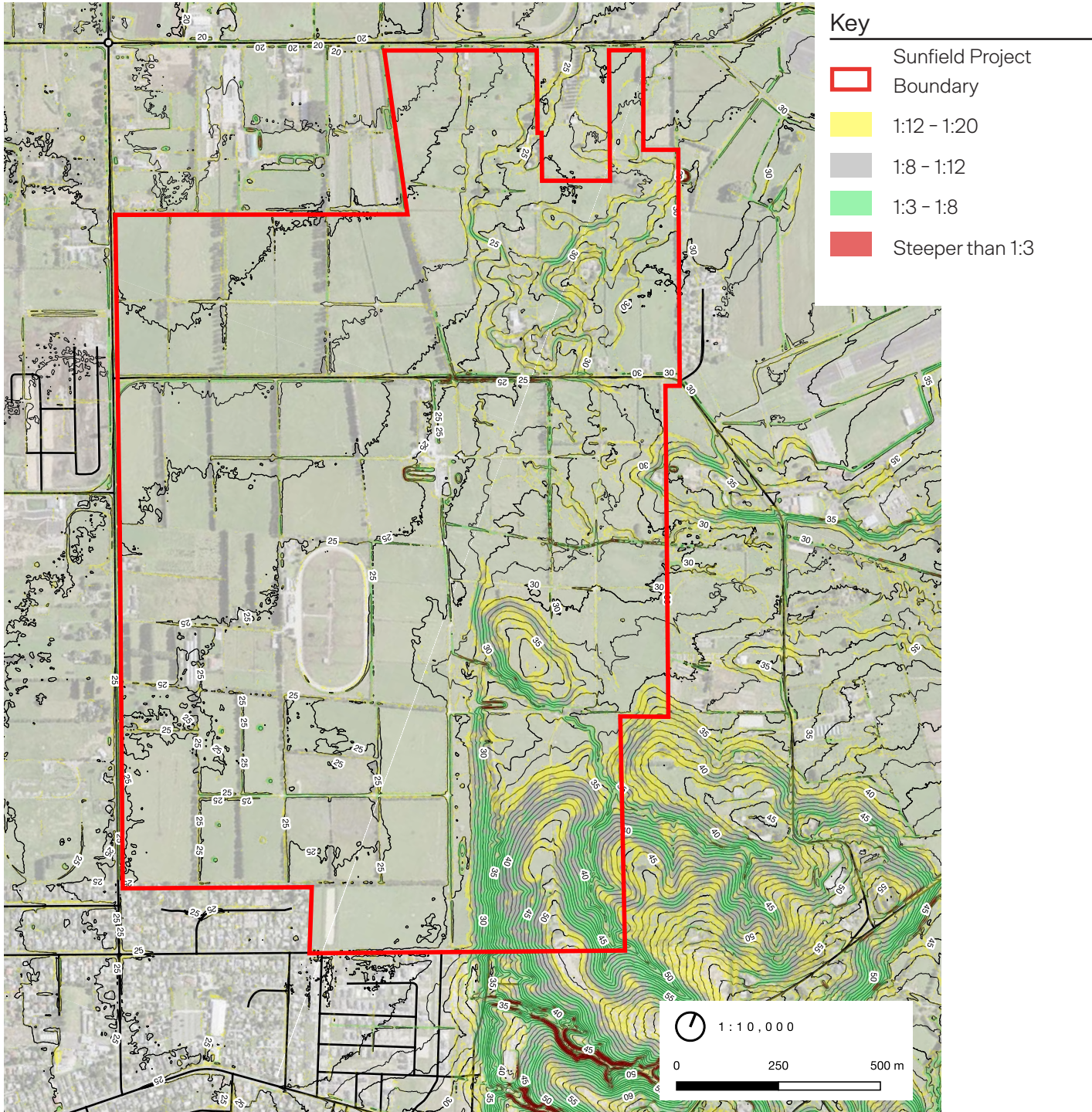


site analysis

slope analysis + existing streams

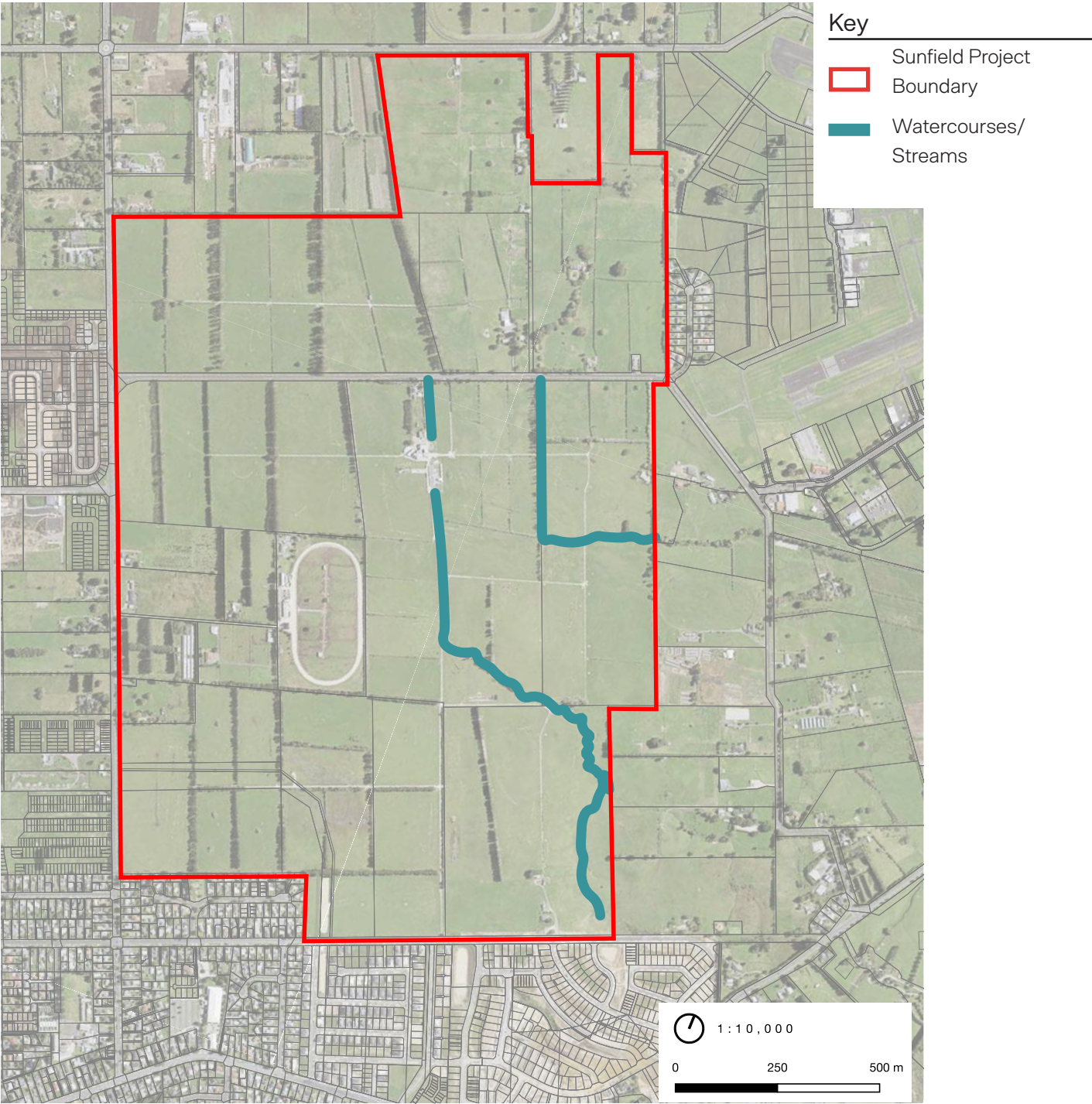
Slope Analysis

The site is predominantly flat with the topography rising in the south-east corner to a high point, which affords long views across the site and beyond, including Manakau harbour in the distance.



Existing Streams

Initial studies indicate two streams within Sunfield. Additional waterways are confined to farm drains along the edges of paddocks. The southern-most stream follows the topography of the local valley and presents the opportunity to restore as a natural waterway. NOTE: Status of streams subject to further analysis.

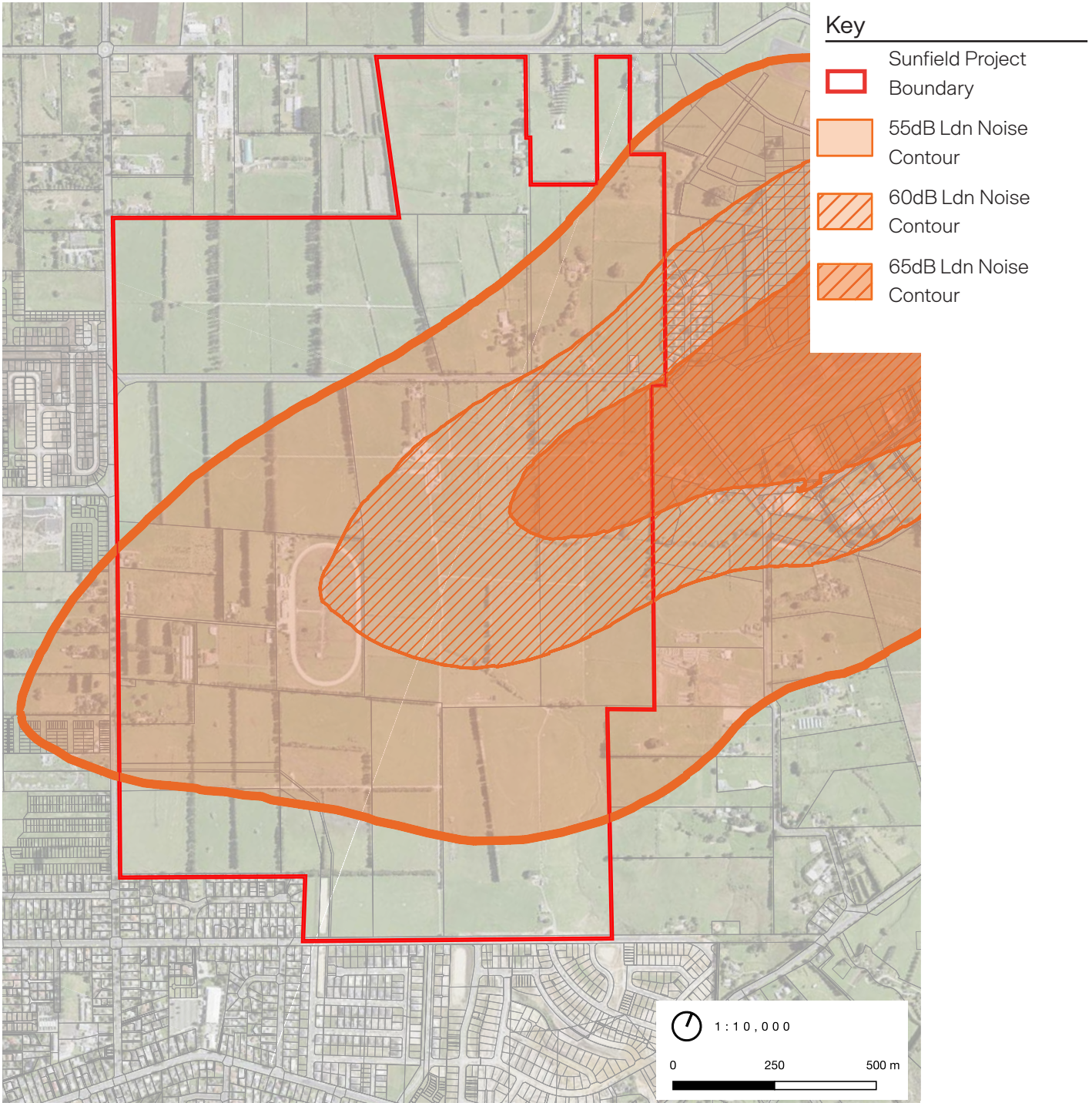


site analysis

noise contours + gas easement

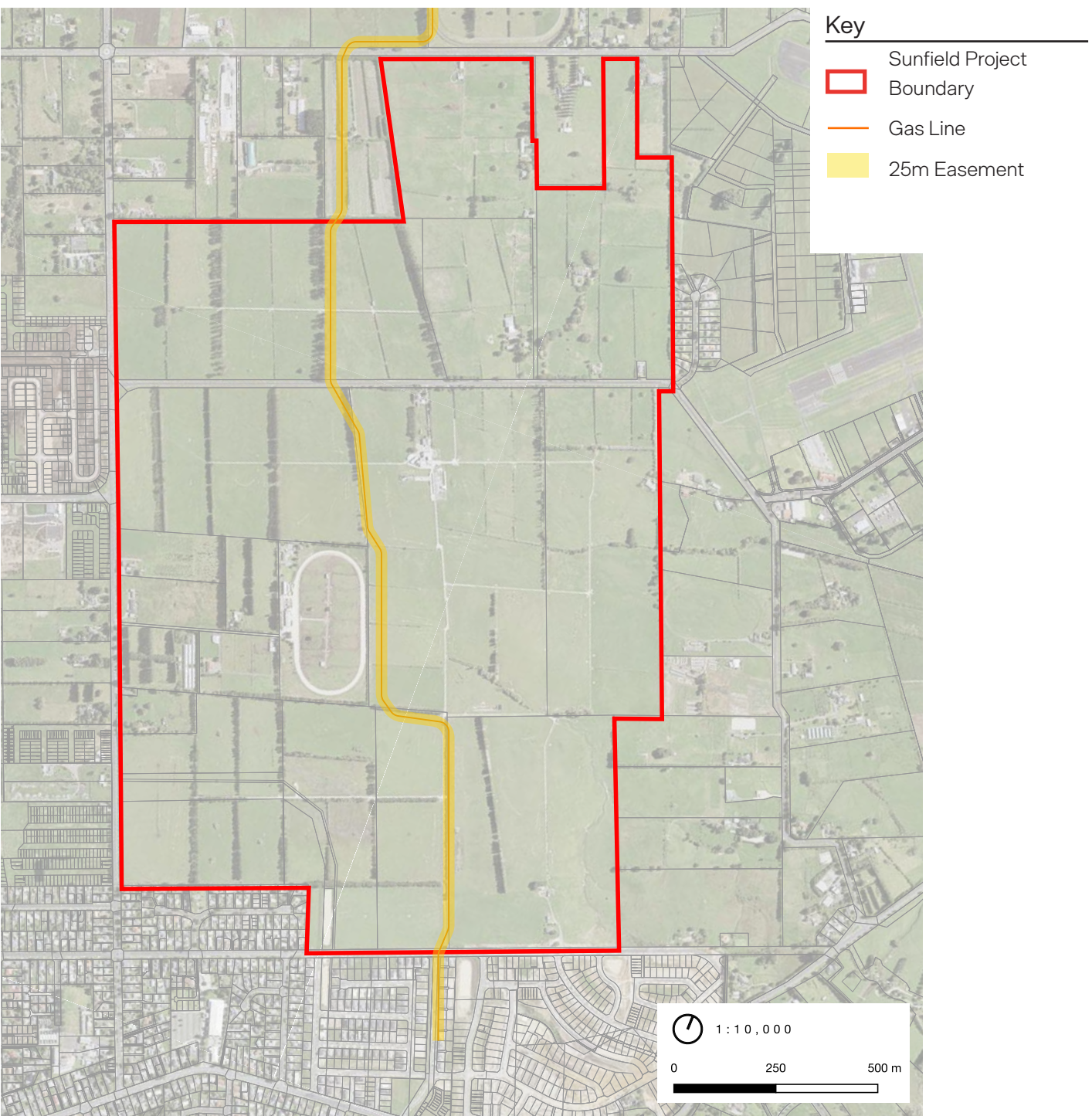
Auckland Unitary Plan: Noise Contours

Noise overlay contours from the adjacent Ardmore Airport will restrict residential properties from part of the site (within the inner noise contour). The Sunfield Concept Masterplan works within the existing constraints associated with the Ardmore Airport noise contours. Winton is not proposing any changes to these noise overlays.



Gas Easement

An existing gas line runs north south through the site within 25m easement. The intention is to maintain the gas line and easement in its current location and incorporate it into the design.



Report prepared by:
Studio Pacific Architecture

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