

Takanini Plan Change

AREA 6A & 6B

VEGETATION, LANDSCAPE AND VISUAL ASSESSMENT

Prepared for

Hosken Associates

by

Boffa Miskell Limited



April 2006

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1.0 INTRODUCTION

1.1 Purpose of this Report - Plan Change

A private plan change for the rezoning of Takanini Structure Plan Areas 6A and 6B is currently being advanced by Hosken Associates for various landowners – the “Takanini Structure Plan Area 6A & 6B Ltd”.

This report is being prepared as part of the plan change process, to provide input in respect of landscape, vegetation and visual assessment as background to support an appropriate zone and concept subdivision design for Areas 6A and 6B.

1.2 The Site - Areas 6A and 6 B

The subject site referred to (under the Southern Sectors Agreement 2001) as Takanini areas 6A & 6B covers a total area of 53.3485 hectares. It is bounded in the north by the Papkura Stream and to the south by Manuroa Road. To the west the site is bounded by Takanini School Road and to the east by Porchester Road. Areas 6A & 6B are comprised of six separately owned properties, (each on their own title) with their collective activities being generally rural in character. West of Porchester Road, Areas 6A & 6B are the last remaining block with rural activities still in existence, while the surrounding land is undergoing development according to its current zoning.

The three northern lots – from west to east - Lot 2, DP 136772; Lot 1, DP 163055; Lot 2, DP 163055 have the Papakura Stream as their northern boundary and Pope Road (which runs west to east between Porchester Road and Takanini School Road) as their southern boundary.

The southern three lots - Lot 1, DP184486; Lot 3, DP36684; and Lot 2, DP 346037 have Pope Road as their northern boundary and Manuroa Road as their southern boundary.

These six lots are scheduled (under the SSA 2001) to be rezoned as future business areas between 2005-2010 and residential densities of 10-20 household units per hectare, from 2004 by way of plan changes to the area.

2.0 TERMS OF REFERENCE

2.1 The Regional Growth Strategy 1999 (RGS)

The RGS has indicated that the population of Papakura District will grow, from its current level of 42,000 to 94,000 by 2050. The Growth Strategy proposes that this growth be accommodated in the existing rural and urban residential areas, in the Papakura Central Area and in the growth areas. Within the first 20 years the greatest level of growth, will be accommodated in the Takanini Greenfield area and Hingaia areas.

2.2 The Takanini Structure Plan (TSP)

The TSP was developed in 2000 to illustrate how the area will provide for the projected population to be located in the greenfield area. The TSP process involved an analysis of the current situation based on underlying conditions of the area. This involved a geotechnical survey, identification of soils; borehole localities, topography, a stormwater review, including an analysis of overland flowpaths and the Papakura Stream. An ecological analysis was undertaken as was a heritage study which identified cultural heritage features.

A charrette process involving key stakeholders in workshops along with a professional team generated a vision and design concepts for the area which indicate the proposed landuse expected for the site with regard to: floodplain implications; stormwater detention; access; a new road with proposed bus route and cycle /pedestrian path through the site; mixed use zone employment zone; residential medium density; lower density and development requirements.

2.3 The Southern Sectors Agreement 2001 (SSA 2001)

The SSA has indicated that with regard to growth over the first 50 years, a future population of 20,000 will be accommodated in the Takanini greenfield area. In the first 20 years, the mechanism for controlling release of the land for urban use is to be legal and regulatory, using zoning as provided through a series of District Plan Changes.

3.0 SITE CONTEXT

3.1 Wider Context / Landuse

Takanini areas 6A and 6B (the site) are located south of Auckland, between Manurewa and Papakura town centres. Accessible from State Highway 1, the site is located in close proximity to Auckland (to the northwest) and Ardmore (directly east) airports and Takanini and Te Mahia railway stations (refer to Figure 1: Location Plan at **Appendix A**).

The general environs of the site are characterised by rural activities, including a number of horse training establishments, home enterprises and gate sales, although this is rapidly changing as a result of development.

To the south east of the site is the Papakura Military Camp and more immediately the recreational facilities of Bruce Pulman Park.

The site is located within the wider context of the natural areas associated with the Pahurehure Inlet, Manukau Harbour, the Auckland Regional Botanic Gardens, Totara Park and the Puhinui Stream and to the northeast the significant natural areas north of Alfriston Village.

3.2 Immediate Site Context

The northern boundary to the site is the Papakura Stream. A reserve associated with the residential subdivision of Manurewa East is adjacent to this boundary (refer Figure 1 at Location Plan at **Appendix A**).

The lots west of Takanini School Road, immediately neighbouring the northwestern corner of the site are currently undeveloped. The lots further west and to the south west of the site are mainly developed as manufacturing / light industrial premises, with the exception of the Sikh temple built on the southwestern edge of Takanini School Road.

To the south low density residential –including a rest home along Manuora Road borders the site, while to the east of Porchester Road the land is already subdivided into lifestyle blocks.

4.0 LANDSCAPE DESCRIPTION OF THE SITE

4.1 Topography / Landform

The site is mostly flat apart from some natural dips and hollows. It is low lying, with a gradual slope down towards the Papakura Stream which marks the valley floor of the swamp plain and demarcates the boundary between the soil types.

4.2 Soils

The western two thirds of the northern half of the site is characterised by raft on non organic stiff soils > 2.0m thick. A band of pumiceous alluvium which extends from the northeastern corner of the site to the southwestern quadrant of the site. The remaining southeastern quadrant is made up of a raft thickness up to 1.0m but predominantly less than 0.5m (refer Takanini Structure Plan Fig 4 Borehole Locality Plan). Horticultural activities (palm nursery) in the northeastern and (cropping) in the southwestern part of the site suggest good water holding properties of the soil in those areas.

4.3 Surface Water Environment

The surface water on site is currently managed by a series of man made linear drainage ditches which drain into the Papakura Stream. A drain cuts across the southwestern lot and appears to drain into the shallow ditch which runs along the entire length of the western boundary of the site down to the Papakura Stream (refer to Figure 2: Aerial Photograph and Figure 3: Landscape / Vegetation at **Appendix B**). Some weedy hedge growth is present along the drains.

4.4 Landuse

Current landuse of the site to some degree reflects the underlying soils – the northern end of the northwestern quadrant appears to be largely used for horse grazing while the central section contains a horse exercising track. The adjacent northeastern properties appear to have been productive properties

with a significant area of the far northeastern property supporting a palm nursery / plantation and a firewood storage yard. The southeastern property is run as a horse training unit complete with stables, trainer accommodation and a training track, while the southwestern property appears to be mainly used for horse grazing (refer to Figure 2: Aerial Photograph and Figure 3: Landscape / Vegetation at **Appendix B**).

4.5 Existing Ecological Values

The site has been highly modified for farming activities, being completely stripped of its original vegetation. Ecological values on the site are limited to habitat areas - hedges, shelterbelts and groups of trees and populations of invertebrates and birds living in these.

4.6 Existing Vegetation

Vegetation on the site is largely reflective of the rural land use of the site. The surface of the site is covered in pasture grass and weeds, with strips of productive temporary crops and palms grown for disposal off site (refer to Photographs of Existing Property, Image 1 at **Appendix B**).

The remainder of the site is characterised by hedges, formalised shelterbelts and informal amenity plantings – an avenue, individual trees as well as informal groupings of trees and palms (refer to Figure 2: Aerial Photograph and Figure 3: Landscape / Vegetation at **Appendix B**).

4.6.1 Informal Farm Hedges

A mixture of gorse, barberry and other weed species forms a hedge along the western boundary of the property, which is interspersed periodically with several large trees, mainly gums and wattles (refer to Figure 2: Aerial Photograph, Figure 3: Landscape / Vegetation at **Appendix B** and Figure 6, Viewpoint 2 at **Appendix C**).

4.6.2 Shelterbelts

The numerous shelterbelts around the property are a mix of macrocarpa and other conifers (cypress) and the native pittosporum (refer to Figure 2: Aerial Photograph, Figure 3: Landscape / Vegetation, Photographs of Existing Property, Image 8 and Image 11 at **Appendix B**). The boundary with Porchester Road is completely screened from the road by dense shelter planting of established pittosporums (refer to Photographs of Existing Property, Image 6 at **Appendix B**).

4.6.3 Amenity Trees

Apart from the shelterbelts, established trees appear within the site as individual exotic specimen trees, but also in groups (refer to Figure 2: Aerial Photograph and Figure 3: Landscape / Vegetation at **Appendix B** and Figure 7, Photographs of Existing Property, Viewpoint 3 at **Appendix C**).

4.6.4 Informal Tree Strip

The northeastern corner is clad with a fairly dense, but narrow strip of large trees, mainly eucalypts (refer to Figure 2: Aerial Photograph and Figure 3:

Landscape / Vegetation and Photographs of Existing Property, Image 2 and 10 at **Appendix B**).

4.6.5 Palms

A number of tall phoenix palms are located around the site, with the bulk of them clustered in the southeast corner of the site, around the stables and farm buildings (refer to Figure 2: Aerial Photograph and Figure 3: Landscape / Vegetation and Photographs of Existing Property, Image 3, 5, 13 and 14 at **Appendix B**).

An avenue of semi-mature palms form an avenue at the entrance to the property off Porchester Road (refer to Figure 2: Aerial Photograph and Figure 3: Landscape / Vegetation and Photographs of Existing Property, Image 9 at **Appendix B**).

4.7 Existing buildings

A number of farm buildings exist on the site in the form of residential dwellings, stables, workers accommodation and farm sheds (refer to Figure 2 Aerial Photograph and Figure 3: Landscape / Vegetation and Photographs of Existing Property Image 3, 5, 12, 13 and 14 at **Appendix B**).

5.0 LANDSCAPE / VEGETATION ASSESSMENT

5.1 Constraints

The landscape of the site, including its vegetation, has been described in Section 4.0. The topography, soils and surface water environment do not pose constraints to developing the site. However, the site does fall gradually towards the northwest corner and the soil type indicates its limitation but its suitability as a stormwater detention area.

Maturing vegetation on the site is in the form of established shelterbelts, creating linear divisions across the site and while these may be viewed as constraints, they can also provide opportunities. This is also the case with the groups of established exotic trees.

Existing buildings on the site are not considered to be highly significant and therefore are not seen to be constraints to developing the site.

5.2 Opportunities / Development Potential

The site has a number of existing features which have the potential to be used as ordering elements to provide a site responsive structure to any new development. These features include the topography as it is related to the surface water environment, the stream, and the established vegetation especially the shelterbelts.

5.2.1 Surface Water Environment

The site has a number of dips and hollows which act as natural ponding areas. These could be enhanced to maximize soakage and

water quality treatment as 'in development' swales for on-site stormwater management and link with the key stormwater detention area in the northwest corner indicated in the Structure Plan.

There is an opportunity to enhance, naturalise and make a feature of swales and drains with indigenous planting to respond to the character of the site as having a streamside link to open space areas.

5.2.2 Streamside Environment

As the Papakura Stream creates a strong edge to the site, with a northern aspect, there is an opportunity to accentuate and enhance the natural landform of the river terrace and the streamside environment as a valuable amenity asset for the surrounding area.

Along with providing a "green" edge to the development, a streamside reserve could provide a much needed passive recreational area for the manufacturing firms along Takanini School Road and those within the new development.

A quality pedestrian / cycle route could be developed along the river as an alternative to vehicle movement to and through the new development and across the stream into the residential subdivision of Manurewa East.

Riparian planting along the edges of the waterway would create a buffer between the new development and the existing residential subdivision and create opportunity for a wildlife corridor.

5.2.3 Mature Vegetation – Shelter Belts and Trees

Many of the existing established trees are considered to have landscape amenity value, both as shelterbelts, groups of trees and as individual trees.

5.2.4 Shelterbelts

Established primary shelterbelts within the site could act as cues for ordering the layout of the development. Consideration should be given to retaining parts of those on the edges of the main roads to buffer the development.

Since the shelterbelts generally run north to south, parallel to the existing grid of the north south roading pattern, they could provide a suitable alignment for new roads within the site, providing some legibility to the pattern of development.

The retention of parts of these shelterbelts (rather than a wholesale clearance) will provide a backdrop and some scale for the new development and retain some of the historical references to the site's earlier rural use.

The established shelterbelts also have value as contributors to potential habitat, providing corridors for wildlife within the site and beyond.

5.2.5 Amenity Trees

Apart from the shelterbelts, established trees appear within the site as individual exotic specimen trees, but also in groups of two or three. Selected established trees could be retained on site for their amenity value, as part of the development proposals.

5.2.6 Palms

A number of tall phoenix palms are located around the site, with the bulk of them clustered in the southeast corner of the site, around the stables and farm buildings.

Apart from a couple of palms, their general layout and alignment on the site is somewhat random. These could be re-used with effect in any proposed layout for the site. It is our understanding that this species of palm is easily relocated.

6.0 VISUAL DESCRIPTION OF SITE

The site is mainly flat and contained on its east and west boundaries by roadside shelter planting. Visual accessibility into the site from public roads is limited because the land is generally lower than the adjacent properties and shelterbelts screen many of the boundaries.

The western boundary at Takanini School Road is characterised by an informal farm hedge, interspersed with the occasional large gum tree (refer Figure 4: Viewpoint Location Plan, Viewpoint 2 and Figure 5: Photographs of Existing Property, Viewpoint 2 at **Appendix C**).

The Papakura Stream forms the site's northern boundary and is mainly open apart from a dense strip of tall well established exotic trees in the northeastern corner. The most accessible views into the northern edge of the site can be gained from the reserve across the stream (refer Figure 4: Viewpoint Location Plan, Viewpoint 1 and Figure 5: Photographs of Existing Property, Viewpoint 1 at **Appendix C**).

To the south the residential properties fronting onto Manuroa Road, including the row of infill houses form the boundary with the site.

Pope Road segments the property connecting Porchester Road and Takanini School Road. While the northern edge of Pope Road is screened by existing established shelter planting, the southern edge is predominantly open, the view into the site currently being one of looking into horse paddocks.

From the road on the northeastern side, adjacent to Porchester Road, the site is partially hidden by the shelterbelts. Both private driveways off Porchester Road to the north and to the south are well established avenues and provide views into those properties (refer Photographs of Existing Property, Image 7 at **Appendix B**).

The southeastern edge of the property along Porchester Road is fenced, but not screened from the road along its boundary with the southern half of Porchester Road, it is open to views from the road (refer Figure 4: Viewpoint Location Plan, Viewpoint 3 and Figure 7: Photographs of Existing Property, Viewpoint 3 at **Appendix C**).

Existing visual access into the entrance to the property is controlled by the cypresses flanking either side of the drive and an avenue of tall conifers on the south side of the driveway (refer Photographs of Existing Property, Image 7 at **Appendix B**).

The site has a mixed rural character, made up of the elements described in the Section 4, surrounded on three sides by landscapes that were once rural in character and now developed, to the north and south as residential, to the west industrial and to the east lifestyle blocks.

Existing residential properties are immediately adjacent to the south of the site.

7.0 VISUAL ASSESSMENT

As described in Section 6, the site is visually accessible from a limited number of viewpoints and locations. Developing the site will generate substantial change. The likely development will change the character of the site from a semi-sheltered rural enclave to a developed site with an urban / industrial / manufacturing / commercial built character. The visual effects of this change are likely to be experienced most strongly by the residential subdivision across the Papakura Stream (refer Figure 4: Viewpoint Location Plan, Viewpoint 1 and Figure 5: Photographs of Existing Property, Viewpoint 1 at **Appendix C**) and the lifestyle properties on the east of Porchester Road, (refer Figure 4: Viewpoint Location Plan, Viewpoint 3 and Figure 7: Photographs of Existing Property, Viewpoint 3 at **Appendix C**). Visual effects are also likely to be experienced by the residential properties to the south of the site, and to a lesser extent from the properties to the west of the site, most notably the Sikh temple (refer Photographs of Existing Property, Image 4 at **Appendix B**).

Shelterbelts are a strong feature of the site and already act as buffers to the edges of the site. Consideration should be given to creating generous visual buffers to the edges of the site as well as throughout the site. It would be appropriate to give consideration the retention of existing established shelterbelts and to the creation of generous new landscape buffers along the boundaries of the site and within the development to assist with integration of the new development into the site and to mitigate the visual effects of the proposed development.

8.0 CONCLUSION

While no major constraints to development of the site have been identified, it should be emphasised that there are a number of considerations to take into account. These are:

- The Papakura Stream to the north of the site, can be developed as a significant amenity and ecological area with pedestrian paths and cycleways

- The existing vegetation provides structure, shelter and buffering for the site and should be retained in part to give form, identity, shelter and screening to prospective development
- New planting of the edges and throughout the site of can assist with integration of prospective development into the mixed environs
- The flat nature of the site means that audiences from a range of viewpoints along the edges of the proposed development have the potential to be affected with respect to their views being changed making generous buffer planting of the transitional areas necessary as mitigation to provide some relief

Chris Fourie

Landscape Architect

BOFFA MISKELL LTD

APPENDIX A:

Figure 1: Site Location Plan (NZMS 260)

APPENDIX B:

Figure 2: Aerial Photograph of site

Figure 3: Landscape / Vegetation

Photographs of Existing Property- Images 1-15

APPENDIX C:

Figure 4: Viewpoint Location Plan

Figure 5: Photographs of Existing Property- Viewpoint 1

Figure 6: Photographs of Existing Property- Viewpoint 2

Figure 7: Photographs of Existing Property- Viewpoint 3

Figure 8: Photographs of Existing Property- Context A and Context B

BIBLIOGRAPHY

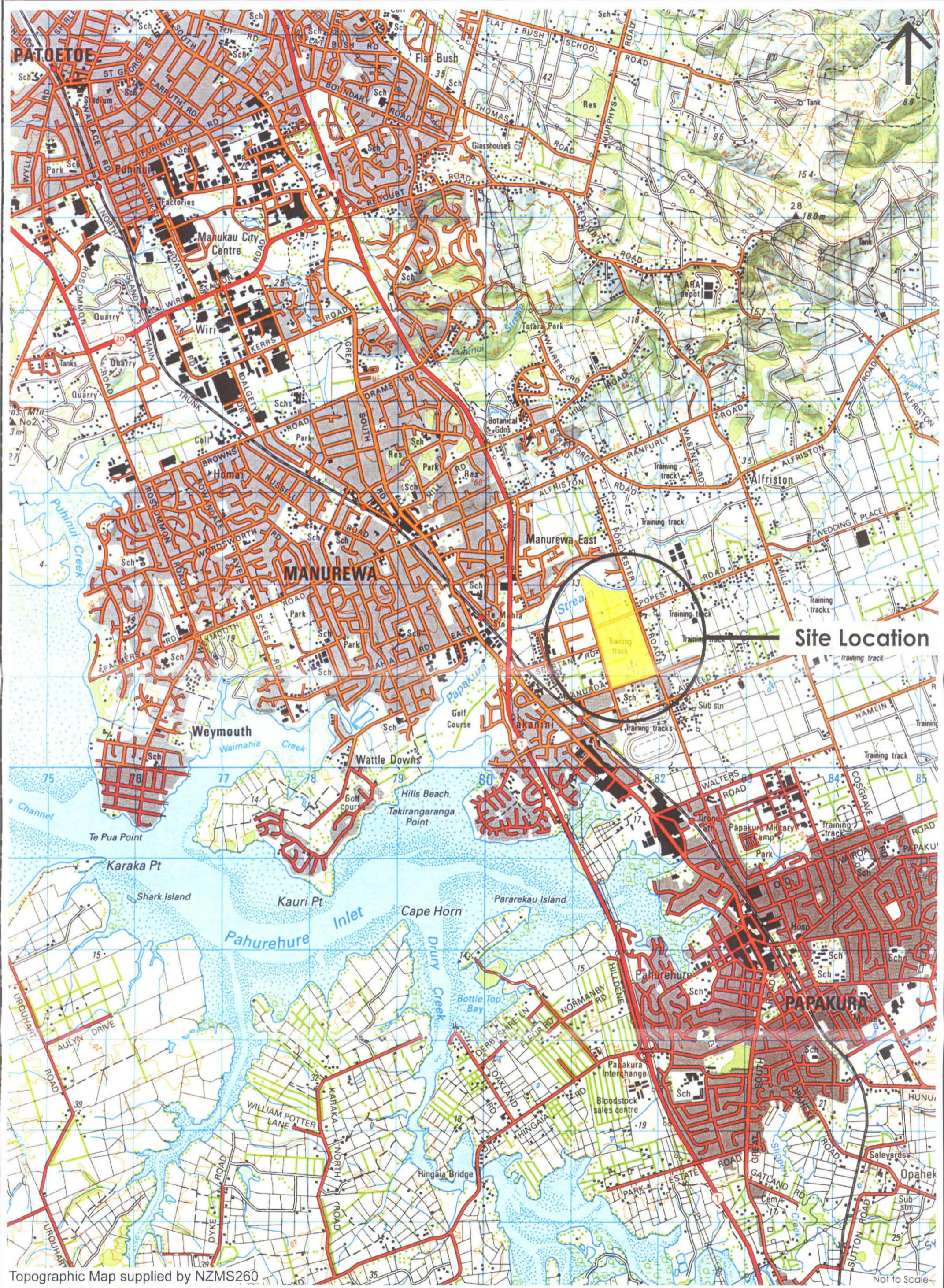
Regional Growth Strategy 1999

Takanini Structure Plan 2000

The Southern Sectors Agreement 2001

APPENDIX A:

Figure 1: Site Location Plan (NZMS 260)



Topographic Map supplied by NZMS260

Not to Scale

Boffa Miskell

Figure 1: Location Plan

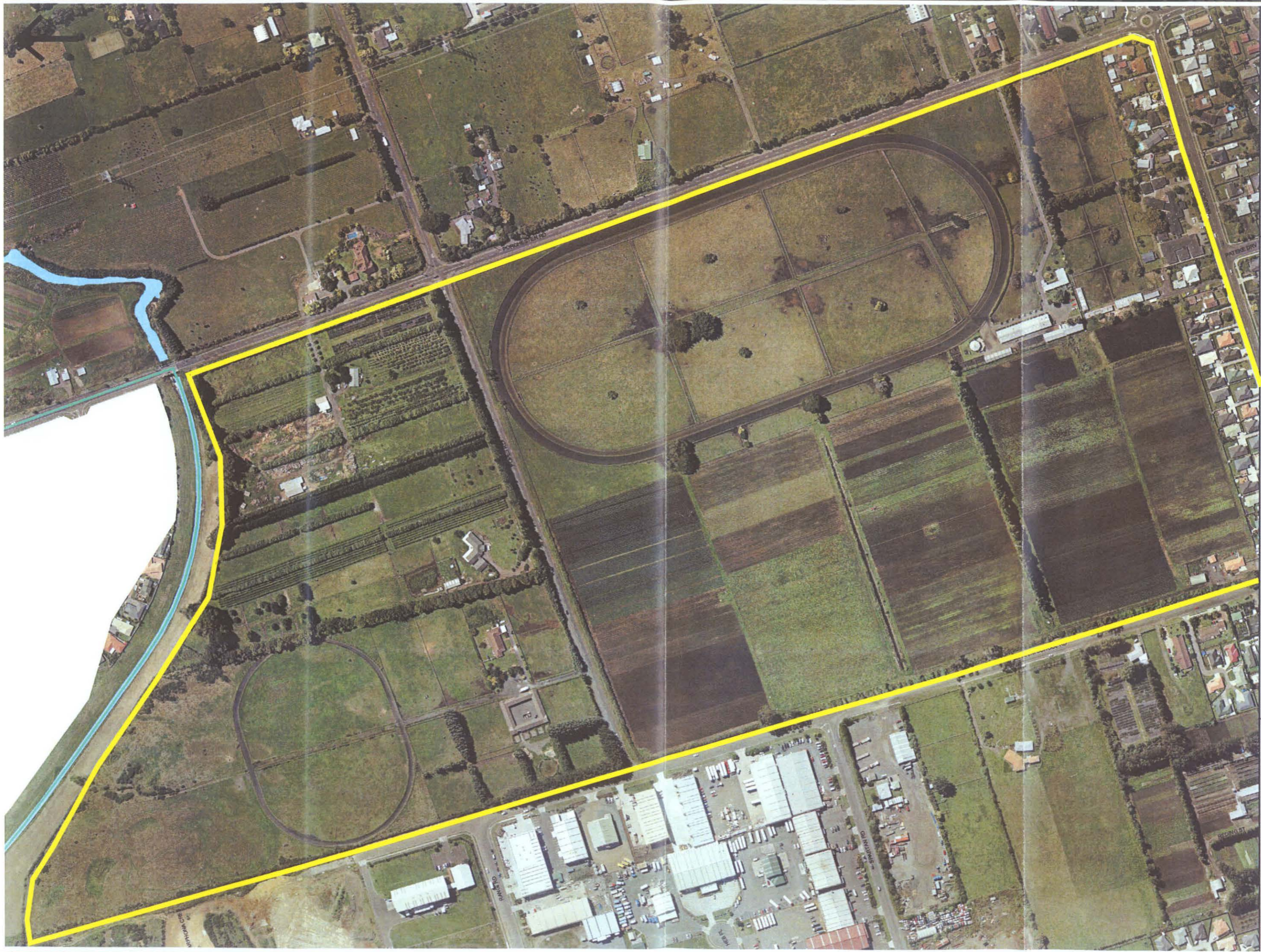
Takanini Area 6A and 6B Plan Change: Vegetation, Landscape and Visual Assessment. April 2006

APPENDIX B:

Figure 2: Aerial Photograph of site

Figure 3: Landscape / Vegetation Plan

Photographs of Existing Property- Images 1-15 – to be read in association with text
(Note: Viewpoints for images 1-15 have not been shown on Figure 4, Appendix C)



Aerial supplied by Papakura District Council. Flown 2003

Not to Scale

Boffa Miskell

Figure 2: Aerial Photograph
Takanini Area 6A and 6B Plan Change: Vegetation, Landscape and Visual Assessment. April 2006



- | | | | | | |
|--|-------------------------------------|--|-----------------------------|--|----------------------------|
| | Established Shelterbelt (Primary) | | Informal Tree Strip | | Large Exotics (Macrocarpa) |
| | Established Shelterbelt (Secondary) | | Established Avenue of Palms | | Amenity Trees (Exotics) |
| | Informal Farm Hedge | | Existing Drainage Ditch | | Palms |

Aerial supplied by Papakura District Council. Flown 2003

Date: 06/04/2006. Scale: 1:3500 @ A3

Boffa Miskell

Figure 3: Landscape/Vegetation Plan

Takanini Area 6A and 6B Plan Change: Vegetation, Landscape and Visual Assessment. April 2006



Image 1



Image 2



Image 3



Image 4



Image 5



Image 6



Image 7



Image 8



Image 9



Image 10



Image 11



Image 12



Image 13



Image 14

APPENDIX C:

Figure 4: Viewpoint Location Plan

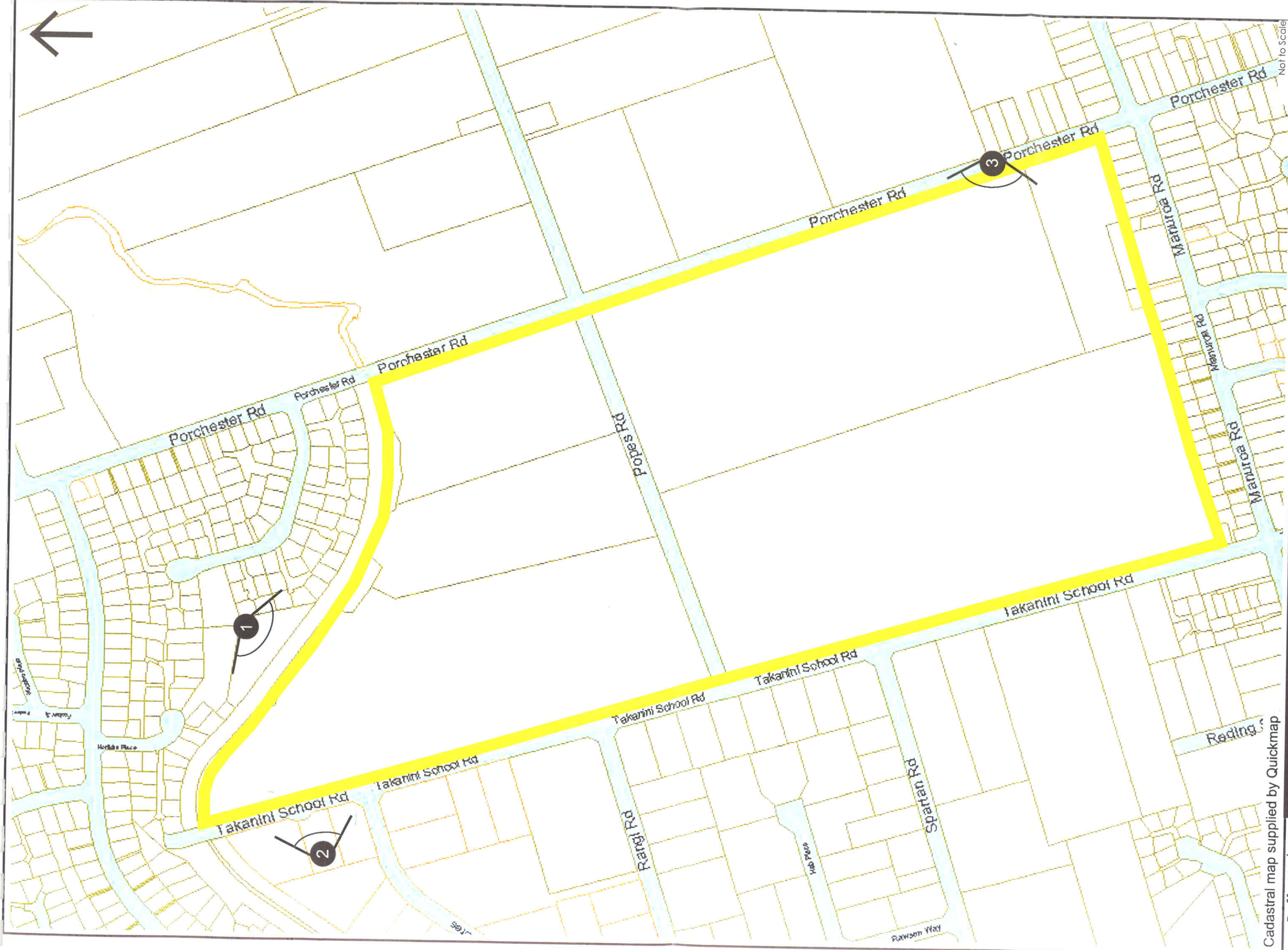
Figure 5: Photographs of Existing Property- Viewpoint 1

Figure 6: Photographs of Existing Property- Viewpoint 2

Figure 7: Photographs of Existing Property- Viewpoint 3

Figure 8: Photographs of Existing Property- Context A and Context B

(Note: Viewpoints for Context A and Context B have not been shown on Figure 4, Appendix C)



Cadastral map supplied by Quickmap
Boffa Miskell

Boffa Miskell

Figure 4: Viewpoint Location Plan

Takanini Area 6A and 6B Plan Change: Vegetation, Landscape and Visual Assessment. April 2006

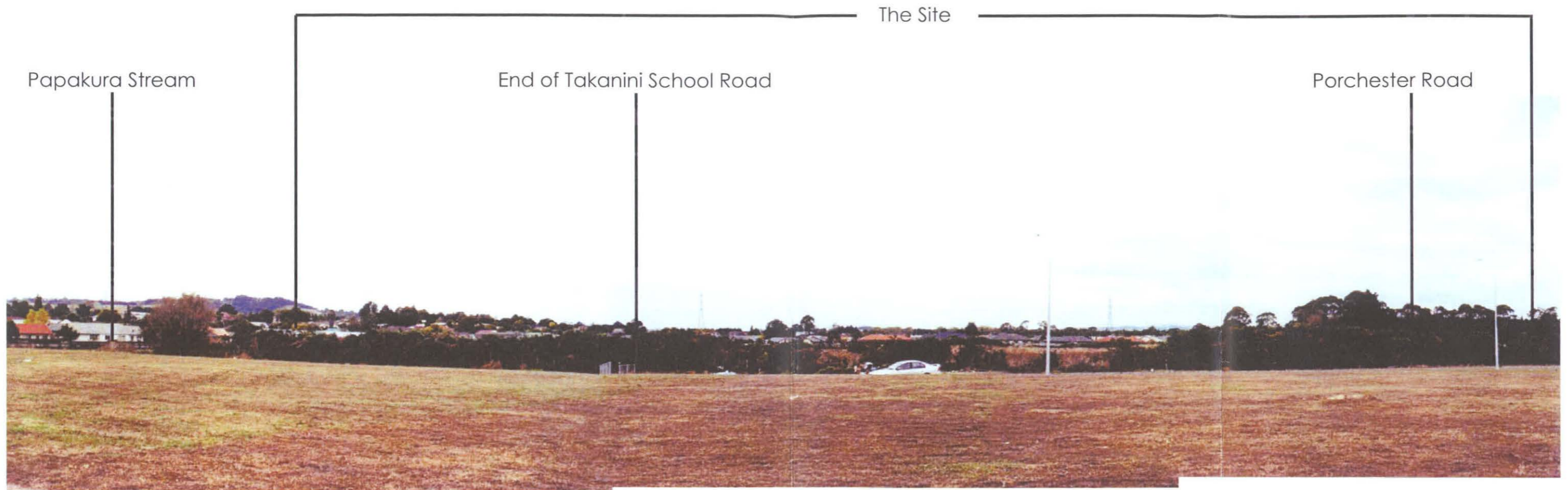
Not to Scale



Viewpoint 1

View looking directly into the Northern edge of the site, across the Papakura Stream from the reserve (Manurewa West)

Panorama consists of 6 photographs. Photos taken by Chris Fourie on Tuesday 7th March, 2006, with a 50mm lens camera.



Viewpoint 2

View looking directly at the North West corner of the site from the Western side of Takanini School Road (No 118)

Panorama consists of 3 photographs. Photos taken by Chris Fourie on Tuesday 7th March, 2006, with a 50mm lens camera.



Viewpoint 3

View looking at the South Eastern part of the site from the road opposite 296 Porchester Road
Panorama consists of 10 photographs. Photos taken by Chris Fourie on Tuesday 7th March, 2006, with a digital camera.



Context A

View looking out from the Northern edge of the site looking across the Papakura Stream toward the reserve in the Manurewa East subdivision
Panorama consists of 6 photographs. Photos taken by Chris Fourie on Tuesday 7th March, 2006, with a 50mm lens camera.



Context B

View looking out from the North West corner of the site across the Papakura Stream at the end of Takanini School Road
Panorama consists of 8 photographs. Photos taken by Chris Fourie on Tuesday 7th March, 2006, with a 50mm lens camera.

5 February 2009

Takanini Structure Plan Area 6 Ltd
c/o Hosken Associates
99 Gloria Avenue
Te Atatu Peninsula
AUCKLAND 0610

Attention: Nigel Hosken

Boffa Miskell

Initially emailed 05-02-09 to: nigel@hosken.co.nz

Dear Nigel

RE: TAKANINI STRUCTURE PLAN AREAS 6A AND 6B - REVIEW OF ADDITIONAL INFORMATION AND RECOMMENDATIONS OF BOFFA MISKELL 2006 VEGETATION, LANDSCAPE AND VISUAL ASSESSMENT

We write further to your recent request that we review the recommendations of our 2006 Vegetation, Landscape and Visual Assessment which concluded as follows:

"While no major constraints to development of the site have been identified, it should be emphasised that there are a number of considerations to take into account. These are:

- *The Papakura Stream to the north of the site, can be developed as a significant amenity and ecological area with pedestrian paths and cycleways*
- *The existing vegetation provides structure, shelter and buffering for the site and should be retained in part to give form, identity, shelter and screening to prospective development*
- *New planting of the edges and throughout the site can assist with integration of prospective development into the mixed environs*
- *The flat nature of the site means that audiences from a range of viewpoints along the edges of the proposed development have the potential to be affected with respect to their views being changed making generous buffer planting of the transitional areas necessary as mitigation to provide some relief".*

In particular we respond to your query regarding existing vegetation and our conclusion that this *provides structure, shelter and buffering for the site and should be retained in part to give form, identity, shelter and screening to prospective development*, which you have indicated is in conflict with your latest Plan Change proposal.

As requested, we have reviewed our original Vegetation, Landscape and Visual Assessment, April 2006, alongside the IAC Arboricultural Assessment (November 2006) and the Harrison Grierson (HG) 'Structure Plan', December 2008, Revision 12. We have also read the Papakura District Council letter in response to your amended December 2008 Application Version (Friday 19 December 2009) which states:

" 8/ SHELTERBELTS

Previous requests for further information at the plan change stage about shelterbelt retention still stand.

The proposal currently advises that shelter belt retention will not be determined until the resource consent or subdivision stage.

Sections 5.8 and 5.9 of the main report document refer to the retention of shelterbelts. Specific shelterbelts for retention do not appear to be identified in the "Visual and Landscape Assessment Report:" or "Arboricultural Assessment Report" (Appendices 16 and 17).

It is noted the arboricultural report is quoted as saying that none of the shelter belt trees are subject to tree protection rules, they all could make a useful contribution to screening and the general visual amenity of the site.

Are shelterbelt or other trees intended to be visual buffers? This request picks up the point, quoted as being made in the Visual and Landscape assessment appendix that the retention of parts of these shelterbelts (rather than clearance) could assist to provide a backdrop and some scale for the new development and retain some of the historical references to the site's earlier rural land use.

Therefore, as previously requested as part of the plan change application, please advise which, if any, trees in shelterbelts are to be retained, and where are they located? What is their condition?

Council still considers that this matter needs to be addressed at this stage."

1. BML Vegetation, Landscape and Visual Assessment, April 2006

Our initial brief on this project was to assess the existing site conditions with respect to vegetation, landscape and visual matters as background to the application for a private Plan Change. While our assessment described the landscape elements, particularly vegetation, our brief did not include an assessment of the life span, quality of vegetation or appropriateness of retaining it in relation to a development scenario. Nor did it involve

an evaluation of specific vegetation or the landscape and visual effects in relation to a Plan Change proposal.

The recommendation in our original assessment was to retain some of the landscape and vegetation elements (at a conceptual level) to reflect the landscape character and history of the site and to provide some visual buffering of the site from roads and adjacent activities, such as between the proposed industrial sites and proposed residential sites. The recommendations were made at a conceptual level as we were not asked to respond to a specific Plan Change concept.

In addition, in terms of landscape and visual issues, the Structure Plan shows the Papakura Stream on the northern boundary and stormwater pond in the northwest corner, for which a landscape plan has been prepared for the area immediately around the proposed pond.

At present the Structure Plan does not reflect any of the existing landscape features or elements such as vegetation, and while we acknowledge the note: "*The exact location of reserves, roads etc. will be determined at the time of subdivision*", there is an implicit assumption that the existing vegetation has been disregarded as having value.

2. IAC Arboricultural Assessment

Our understanding of the arborist's report is that it was undertaken to "*assess the existing trees and to determine if any should be included in Schedule 3B of the Papakura Operative District Plan*". The IAC assessment stated that "*none of the trees were considered of a size and quality to justify their inclusion on Schedule 3B*" (Notable Trees).

The assessment also provided an inventory and description (Tree Schedule) of site vegetation and identified generally 'protected trees' (those higher than 6 metres) as per the provisions of the District Plan.

We acknowledge that this assessment is useful as an initial identification of site vegetation, condition, and protection status.

In order to acquire a general understanding of the quality of the vegetation in relation to the Structure Plan, we have attempted an interpretation of the arborist's assessment, based on health and the protection status of the shelterbelts and trees (Refer Interpretation of IAG Arboricultural Assessment draft plans attached).

Based on this investigation, we remain of the opinion that some of the existing vegetation may be worth retaining. While we would prefer to see existing vegetation of value retained, it may also be possible to remove this vegetation as long as the essence /

quality of the existing vegetated framework is responded to in replanting associated with the Plan Change.

3. Recommendation

We acknowledge that the proposal currently foresees that "*shelter belt retention will not be determined until the resource consent or subdivision stage*".

Having reviewed the information supplied to us, as well as our original Vegetation, Landscape and Visual Assessment, April 2006, we confirm that our original advice remains. The existing shelterbelts and trees have value in terms of structuring, buffering and wildlife opportunities and these qualities should be acknowledged within the Plan Change proposal.

We recommend that an initial landscape concept plan be prepared based on a survey plan of the arborist's tree schedule of vegetation, particularly 'protected trees' and the HG Structure Plan. This landscape concept plan should accompany the Plan Change proposal documentation.

This landscape concept plan should:

- indicate which existing vegetated elements and tree species should be retained, based on the proposed roading pattern and land use indicated in the HG Structure Plan;
- highlight opportunities to respect the landscape character and identity of the site;
- maximise opportunities to provide visual buffers on boundaries with busy roads;
- provide landscape buffering between industrial and residential sites;
- maximise opportunities for increasing the ecology and amenity of the Papakura Stream environment with pedestrian paths and cycleways;
- provide edge / transitional landscape treatments to assist with the integration of the prospective development into the mixed environs; and
- provide appropriate plant buffering and visual relief to assist in minimising potential adverse visual effects for a range of viewing audiences into the site.

In our opinion this approach will provide some assurance regarding the appropriateness of retaining components of the existing vegetation as part of an overall vegetated

framework. The plan will illustrate how these landscape elements can inform the design by providing structure to the future development.

We trust this assists you with your response to the Council with respect to the issues they have raised regarding existing shelterbelts.

Yours sincerely

BOFFA MISKELL



Chris Fourie
Landscape Architect
Associate ANZILA

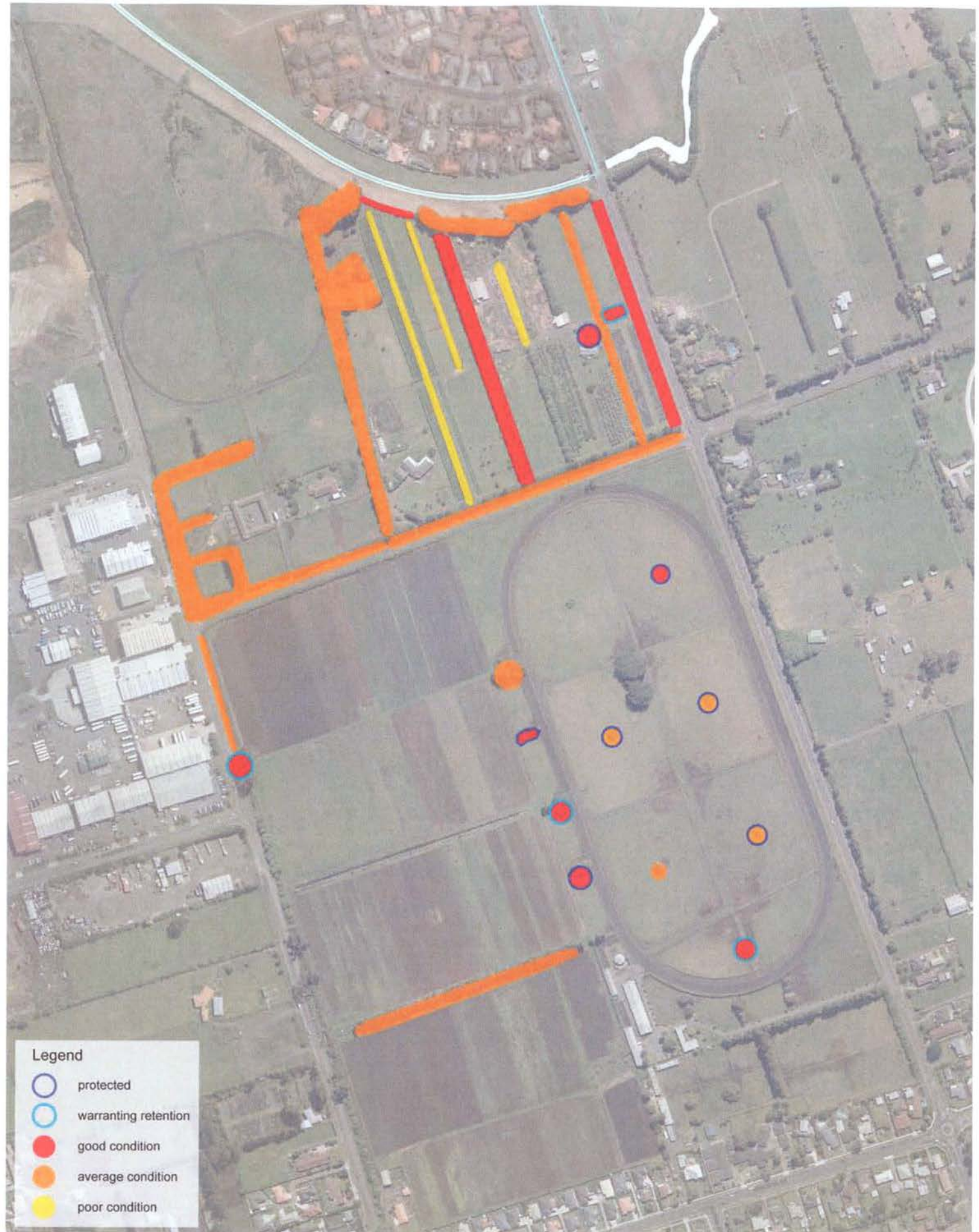


Peter Kensington
Principal



Enclosure: Interpretation of IAG Arboricultural Assessment draft plans

cc: Karen Kurzeja, Harrison Grierson Ltd
by email: k.kurzeja@harrisingrierson.com

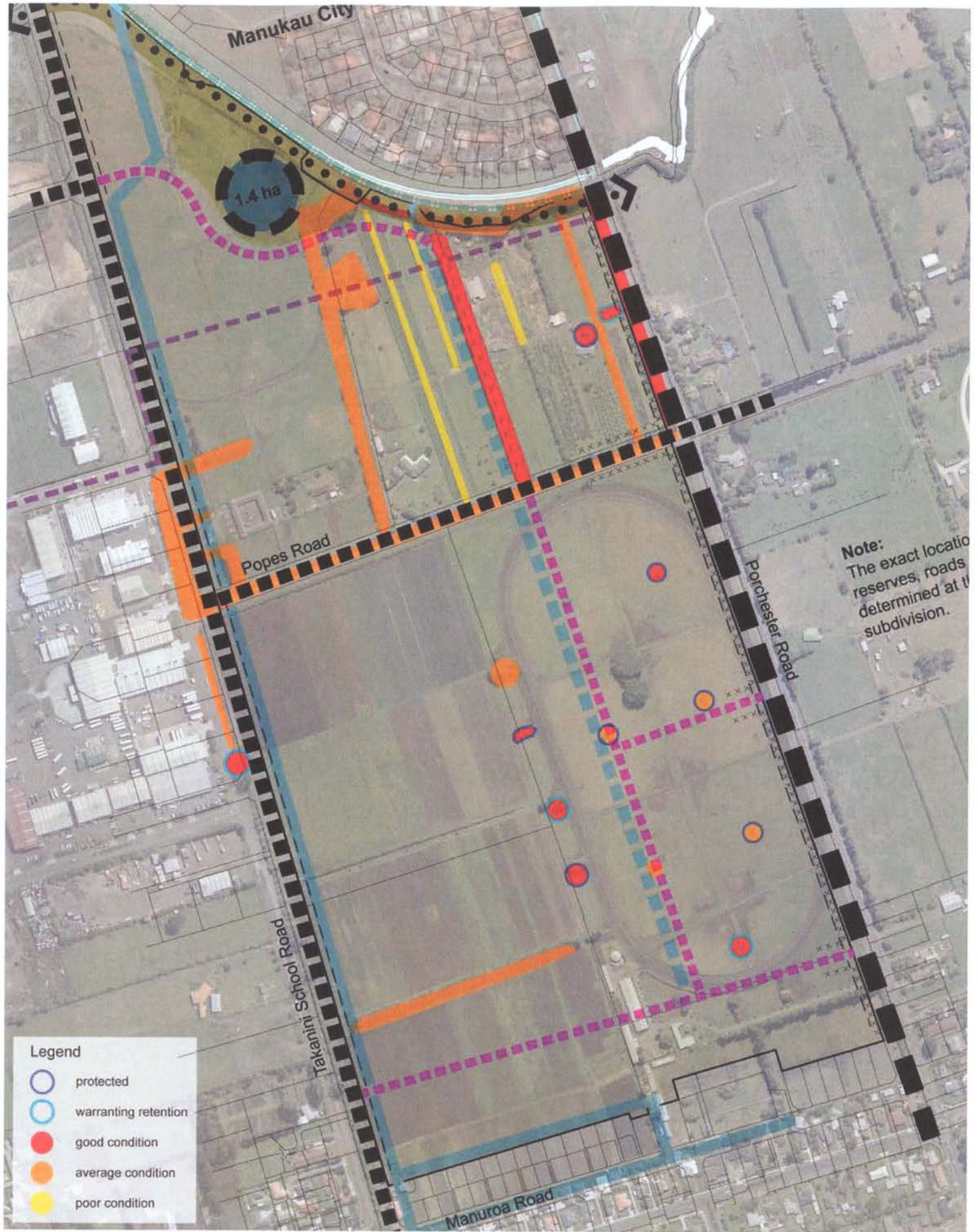


Legend

- protected
- warranting retention
- good condition
- average condition
- poor condition

Plan illustrates details of tree survey as outlined in IAC letter on the 13th of November 2006.
 Note: Locations 1 - 34 only shown - information relating to locations 35 - 50 missing from document.

DRAFT



Plan illustrates details of tree survey as outlined in IAC letter on the 13th of November 2006.
 Note: Locations 1 - 34 only shown - information relating to locations 35 - 50 missing from document.

Overlay on HG Structure Plan

DRAFT

Interpretation of IAC Arboricultural Assessment

Date: 05.02.2009 Scale: 1:3500 @ A3 Project: Takanini Plan Change





Plan illustrates details of tree survey as outlined in IAC letter on the 13th of November 2006.
 Note: Locations 1 - 34 only shown - information relating to locations 35 - 50 missing from document.

Overlay on HG Zoning Plan

DRAFT

Interpretation of IAC Arboricultural Assessment

Date: 05.02.2009 Scale: 1:3500 @ A3 Project: Takanini Plan Change



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