



SH1: Waitati Curve Realignment Notice of Requirement Documentation



QUALITY ASSURANCE STATEMENT

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NZ TRANSPORT AGENCY

SH1 : Waitati Curve Realignment Notice of Requirement Documentation

CONTENTS

Form 18

Executive Summary

1 Introduction		ion	. 1
	1.1	NZ Transport Agency Background	. 1
	1.2	Project Background	1
	1.3	Overall Project Description	2
	1.4	Notice of Requirement	2
	1.5	Outline Plan	2
	1.6	Resource Consents	3
	1.7	Structure of this Report	3
2	Site Desc	ription	. 4
	2.1	Location and General Description	4
	2.2	Legal Description of the Site	4
3	Proposal	Description	. 7
	3.1	General	7
	3.2	Horizontal and Vertical Alignment	. 7
	3.3	General Cross Section	7
	3.4	Earthworks and Retaining Structures	8
	3.5	Culverts3.5.1Bissland Culvert (CH 3840)3.5.2Proposed Culvert in Unnamed Watercourse (CH 3520)	9
	3.6	Fencing	9



3.7	Harvey Street Intersection	9
3.8	Lighting	. 9
3.9	Property Access 3.9.1 Kim Access (CH 3360) 3.9.2 Mosley Access (CH 3360) 3.9.3 Gleeson Access (CH 3980) 3.9.4 M cLean Access (CH3840)	10 10 10
3.10	Pedest rians	11
3.11	Cyclists	11
3.12	Bus Stops and Ride Share	11
3.13	Parking	11
3.14	Land scaping	12
3.15	Noise Mitigation	13
3.16	S ervice s	13
3.17	Construction Methodology.3.17.1Road3.17.2Culvert Widening and Placement3.17.3Construction Period, Timing and Lapsing of Designation3.17.4Access during Construction	13 14 14
Objecti	ives and Need for the Project	16
Existin	g Environment	17
5.1	General	17
5.2	Existing Designations	18
5.3	Neighbourhood and Wider Community	18
5.4	Traffic Environment	19
5.5	Noise	19
5.6	Visual and Landscape	
5.7	Archaeological and Heritage	21
5.8	Tangata W henua	21
5.9	Natural Haz ards	22
5.10	Cont aminants	22
Assess	ment of Environmental Effects	23
6.1	Construction Effects	

4

5

6



		6.1.2	Safety and Access	
		6.1.3	Geotechnical	
		6.1.4	Dust	
		6.1.5	Noise	
		6.1.6	Water Quality	
		6.1.7	Archaeological and Heritage Values	
		6.1.8	Visual Landscape and Amenity	
		6.1.9	Natural Hazards	
	6.2	Operati	onal Effects	
		6.2.1	Neighbourhood and Wider Community	
		6.2.2	Safety and Effectiveness	
		6.2.3	Noise	
		6.2.4	Visual and Landscape and Amenity	
		6.2.5	Archaeological and Heritage	
7	Statuto	ory Frame w	ork and Consents Required	
	7.1	Resourc	ce Management Act	
		7.1.1	Purpose and Principles of the RMA	
		7.1.2	Designations	
	7.2	Dunedi	n Cit y District Plan	
		7.2.1	Existing Designations	
		7.2.2	Areas of Significant Conservation Value and Significant Trees	
		7.2.3	Information Requirements	
	7.3	Relevan	nt Regional Planning Documents	
		7.3.1	Regional Policy Statement for Otago	
		7.3.2	Regional Plan: Water for Otago	
		7.3.3	Otago Regional Land Transport Strategy	
		7.3.4	Consents Required	
	7.4	Other R	elevant Documents	
		7.4.1	Kai Tahu Ki Otago Natural Resource Management Plan 2005	
	7.5	Conclus	sion	
8	Alterna	tive Sites,	Routes and Methods	
9	Resour	ce Consent	ts	
10	Consult	tation		
11	Summa	ary and Co	nclusions	



- Appendix A: Proposal Illustration
- Appendix B: Site Plan
- Appendix C: Layout Plans
- Appendix D: Construction Plans
- Appendix E: Designation Plans
- Appendix F: Certificates of Title
- Appendix G: Service Plans
- Appendix H: Landscape Effects Assessment
- Appendix I: Traffic Assessment
- Appendix J: Noise Assessment
- Appendix K: Mosley Property Noise Mitigation Plans
- Appendix L: Archaeological Assessment
- Appendix M: Consultation

LIST OF TABLES

Table 2-1 :	Legal Descriptions and Land Area to be Designated	5
Table 5-1 :	District Plan Areas of Significant Conservation Value and Significant Trees	9
Table 7-1 :	District Plan Areas of Significant Conservation Value and Significant Trees	7

LIST OF FIGURES

Figure 2-1 : Locatio	on Map	. 4
Figure 5-1 : SH1 at	the Blueskin General Store. Taken from opposite the store at the bus stop looking to	1
the south. No	ote the two vehicles exiting the Blueskin General Store	18
Figure 6-1 : The sig	gnificant Oak and Beech tree	28



Form 18 Notice of requirement by NZ Transport Agency for alteration of a designation

To: Dunedin Cit y Council PO Box 5045 DUNEDIN 9058

From: NZ Transport Agency PO Box 5245 DUNEDIN 9058

The NZ Transport Agency gives notice of a requirement for an alteration of a designation for a project.

The site to which the requirement applies is as follows:

Land adjacent to SH1 at Waitati, Dunedin which extends approximately 400m north and 600m south of the Harvey Street intersection and includes land on both sides of the current alignment.

The legal description of the land to be designated is:

Land Ow ner	Legal Description	Area to be Designated (m²)
Jennifer Elizabeth Gleeson,	Pt Sec 45 Blk 1	1135
Paul Leslie Guy,	North Harbour and Blueskin SD OT	
Public Trust	247/179	
Her Majesty the Queen	Pt Lot 14	813
	Deeds Plan 401	
	CT OT 308/66	
	For Use in Connection With a Road	
Her Majesty the Queen	Road	7200
Birgette Sarah Brix McLean ¹	Pt Sec 45 Blk 1	200
	North Harbour and Blueskin SD	
	OT 247/185	
Birgette Sarah Brix McLean ¹	Pt Sec 45 Blk 1	250
	North Harbour and Blueskin SD	
	OT 247/153	
Blueskin Agricultural and	Sec 1	50
Pastoral Society	SO 352439	
	CT 349947	
Stuart Robert Beauchamp	Pt Lots 6-7	533
Clayton ²	Deeds Plan 401	
	CT OT 2D/333	

¹ There is a typographical error on the Certificate of Title, MsMcLean has advised her first name is spelt Birgitte

 $^{^2}$ Crown purchase agreement in place, with settlement and title registration of transfer expected by 31 August 2010



Land Ow ner	Legal Description	Area to be Designated (m²)
Her Majesty the Queen	Lot 5 Deeds Plan 401	312
	CIR 350506	
	For Use in Connection with a Road	
Her Majesty the Queen	Pt Lot 4 Deeds Plan 401	777
	CIR 350507	
	For Use in Connection with a Road	
Her Majesty the Queen	Pt Lots 2-3 Deeds Plan 401	4175
	CT OT 247/159	
	For Use in Connection With a Road	
Doreen Rose Mosley,	Pt Lot 1 Deeds Plan 401	490
Linda Ellen Mosley,	CT OT 407/236	
Graham Alexander Mosley,		
Cook Allan Gibson Trustee		
Company Limited		
Joho Technology (NZ) Limited	Lot 1 Deeds Plan 8971	1312
	CT OT 407/125	
Leigh Donne Morris,	Pt Sec 39 Blk II North Harbour and Blueskin	3460
and	SD	
Samuel Richard Crush	CFR 526871	
NZ Railway Corporation	Railway	505

The nature of the proposed project or work is:

The proposal is to realign approximately one kilometre of SH1located approximately 400m north and 600m south of Harvey Street, Dunedin. This includes associated works such as: provision of pedestrian and cycle paths, re-establishment of the Harvey Street intersection and accesses, landscape mitigation, provision of safety barriers and widening of bridges and culverts. The nature of the work is described more particularly in Section 3 of the document ation.

The nature of the proposed restrictions that would apply are described more particularly in Section 13 of the documentation.

The effects that the project will have on the environment, and the ways in which any adverse effects will be mitigated, are set out in Sections 5, 6 and 12 of the documentation.

Alternative sites, routes, and methods have been considered to the extent set out in Section 8 of the documentation.

The project and designation are reasonably necessary for achieving the objectives of the requiring authority for the reasons set out in Section 4 of the documentation.

The designation to which this notice does not lapse for a period of 10 years after the date it is included in the District Plan, in terms of Section 184(i)(c) of the Resource Management Act 1991. Refer to Section 3 of the document ation.



The following resource consents are needed for the proposed activity and have been applied for. Otago Regional Council: Resource consents for the extension and placement of culverts, disturbance of the beds of two unnamed streams, diversion of a stream and discharge permit for release of contaminants to two unnamed streams relating to earthworks associated with the placement of culverts and realignment of SH1.

Note: In addition, a resource consent application is being lodged with Dunedin City Council to enable the ongoing operation of a relocated Blueskin General Store.

The application is for the construction and operation of a store both on a temporary site and permanent site on the eastern side of SH1 adjacent to Harvey Street.

The consultation described in Section 10 of this documentation has been undertaken with parties that are likely to be affected by this Notice of Requirement.

The NZ Transport Agency attaches the following information required to be included in this notice by the district plan, regional plan, or any regulations made under the Resource Management Act 1991:

SH1: Waitati Curve Realignment Notice of Requirement Documentation

Signed at Dunedin on 2010.

Niclas Johansson State Highways Manager - Otago/Southland

Pursuant to a Delegation from the NZ Transport Agency Board

Address for Service:

MWH New Zealand Ltd PO Box 4 DUNEDIN 9054 Attention: Mike Brazil

Phone: (03) 474 3995 Fax: (03) 474 3992



Executive Summary

NZ Transport Agency (NZTA) has a proposal realign SH1 at Waitati extending approximately 400m north and 600m south of the Harvey Street intersection in Dunedin City. This work includes the realignment of approximately 1 km of SH1, extension and placement of culverts, associated paths, public parking and bus facilities, landscaping and enabling relocation of the Blueskin General Store. As SH1 comes under NZ Transport Agency control, it has financial responsibility for the project.

NZ Transport Agency's objectives for this project are to:

- Realign the state highway so as to align the design speed with that of the speed environment of the approaches.
- Improve the Harvey Street intersection.
- Enable continuity of the services currently offered by the Blueskin General Store, throughout and upon completion of the project development.

A number of crashes have occurred on the one kilometre section of SH1 adjacent to Harvey Street, Waitati. NZ Transport Agency considers that realignment of the highway is necessary to remedy the safety issues at this location.

NZ Transport Agency has identified that the current SH1 road alignment and adjacent land use at Waitati is out of context with the surrounding driving environment, which is relatively high speed and is predominantly rural. The driving environment on the highway at Waitati is further complicated by accesses to adjacent land use. These accesses increase the demand on driver attention as they negotiate the curve or seek to access the highway. NZ Transport Agency has prepared a Notice of Requirement for a proposed designation relating to the realignment of SH1, resource consent application for the relocation of the Blueskin General Store to a temporary site and a permanent site on Harvey Street to the Dunedin City Council and resource consent applications to the Otago Regional Council including the placement and extension of culverts for the realignment.

The overall upgrading project will comprise of the following features:

- Realignment of a kilometre of highway.
- Bissland Culvert will be wide ned.
- A new culvert will be placed in an unnamed water course.
- Harvey Street will be extended to the west to intersect with the realigned highway and a new intersection will be formed with a left turn lane and right turn bay on the highway and an island on Harvey Street.
- Property accesses and bus stops will be relocated.
- Parking will be provided.
- Paths will be provided for pedestrians.
- Landscaping will be incorporated into the design.
- The Blueskin General Store will be relocated to a temporary site and to a permanent site on Harvey Street to enable continuity of service to the community. The existing store building will be demolished during construction of the realignment.

The proposal has been developed and refined to avoid or mitigate effects, particularly with respect to the Blueskin General Store, residences, significant trees, landscape, and noise. The store will be relocated to the temporary site before the road works commence and relocated to the permanent site once the



highway traffic has been transferred on to the new alignment. Consultation has commenced and is ongoing. Noise effects arising from the project will be mitigated. Draft conditions to mitigate effects are included in the Notice of Requirement and resource consents.

The establishment of the temporary store is anticipated to start in the 2010/2011 construction season and work on the realignment is anticipated to start in the 2011/2012 construction season subject to the planning process and unforeseen circumstances. It is anticipated project work will extend over a 24 month period.

While a number of alternatives were identified; however this option is preferred by NZ Transport Agency as best meeting its objectives to realign SH1 at Waitati to improve safety for users of the road.

Other authorities are required from other organisations such as the NZ Historic Places Trust and application has been made for these. The QEII Trust has given its consent under s114 of the Public Works Act to vary an open space covenant by excluding the area affected by the proposal.



1 Introduction

This document comprises a Notice of Requirement from NZ Transport Agency relating to the realignment, operation and maintenance of SH1 at Waitati, extending approximately 400m north and 600m south of the Harvey Street intersection in Dune din City. This upgrade includes the realignment of this curved section of State Highway 1 (SH1), improvements to the Harvey Street intersection and associated works. As SH1 comes under NZ Transport Agency control, it has financial responsibility for the project.

The document describes the site, the existing environment, the proposed works and the effects on the environment that are likely to result from the proposed road upgrade, operation and maintenance, and the mitigation measures proposed. The statutory framework within the Resource Management Act 1991 (RMA) is outlined. An evaluation of alternative routes and alignment options is included as well as a description of why the proposed work is necessary to achieve the objectives of the requiring authority. Consultation has been undertaken and is outlined in this document.

1.1 NZ Transport Agency Background

NZ Transport Agency was approved as a Requiring Authority by Resource Management (Approval of New Zealand Transport Agency as Requiring Authority) Order 1992 which states:

The New Zealand Transport Agency is hereby approved as a requiring authority under section 167 of the Resource Management Act 1991 for—

(a) All existing roads that are State highways as defined in section 2(1) of the Government Roading Powers Act 1989; and

(b) The maintenance and improvement of the safe and efficient operation of the existing State highways in New Zealand.

This order transferred the responsibility for the State highway network from Transit New Zealand to NZ Transport Agency.

NZ Transport Agency's statutory objective under s94 of the Land Transport Management Act 2003 is "to undertake its functions in a way that contributes to an affordable, integrated, safe, responsive, and sustainable land transport system". The work proposed in this Notice of Requirement (NOR) and Outline Plan is aimed particularly at improving the safety and effectiveness of SH1 between the Waitaki River and Dunedin and is consistent with the NZ Transport Agency's statutory objective.

1.2 Project Background

NZ Transport Agency has identified that the current SH1 road alignment and adjacent land use at Waitati is out of context with the surrounding driving environment, which is relatively high speed and is predominantly rural. The driving environment on the highway at Waitati is further complicated by accesses to adjacent land use which includes the Blueskin General Store. The store is located on the western side of the road north of the Harvey Street intersection. The accesses increase the demand on driver attention as they negotiate the curve or seek to access the highway.



While some improvements made to the curve in 1999 comprised seal widening, guardrail, sight line improvements, extension of the left turn lane, lighting and the installation of pedestrian crossing points, there are still crashes occurring and this is considered to be because the current road alignment is out of context with the surrounding driving environment

Much of the land needed for the realignment is now in Crown ownership. Purchase agreements are in place for a number of other parcels.

1.3 Overall Project Description

This project involves the realignment of a section of SH1 at Waitati extending 400m north and 600m south of Harvey Street, Waitati. The overall project will comprise of the following features:

- Realignment of approximately 1 km of SH1.
- Extension and placement of culverts.
- Associated paths, public parking and bus facilities.
- Landscaping.
- Relocation of the Blueskin General Store.

An overview illustration of the project is located in Appendix A: Proposal Illustration and an overview of the project is located in Appendix B: Site Plan.

1.4 Notice of Requirement

This section outlines the Notice of Requirement (NOR) to alter designations sought by NZ Transport Agency. The objectives and need for the project is set out in Section 4 and the statutory framework and consents required are set out in Section 7 of this document.

The RMA provides for a Minister of the Crown, Local Authorities or a Requiring Authority to issue Notices of Requirement for designations, or alterations to designations, for a public work or for a project or work in respect of any land, water, subsoil or airspace where a restriction is necessary for the safe or efficient functioning or operation of a public work or project.

The outline for the Notice of Requirement to alter designations is:

Name of Designations: State Highway 1 Northern Motorway (Wait ati to Pinehill Road) and State Highway 1 DCC/WDC Boundary to Waitati Purpose: State Highway Purposes Location: Waitati, Dunedin

1.5 Outline Plan

Before work commences, and in accordance with s176A of the RMA, an Outline Plan needs to be submitted to the DCC unless the work has been otherwise approved under the RMA or the details of the work are incorporated into the designation, or the territorial authority waives the requirement for an Outline Plan. It is considered that the details of the work are incorporated into this documentation and the Outline Plan requirements will therefore be incorporated into the designation.



1.6 Resource Consents

Resource consents will be required from the Otago Regional Council (ORC) to enable placement of a culvert and extension of a culvert in unnamed water courses and for the discharge of contaminants to water associated with the culvert and road works.

Resource consent will also be sought from the DCC to enable the existing Blueskin General Store on the western side of the highway to relocate during the construction of the road realignment to a temporary site on the eastern side of Harvey Street and subsequently relocate to a permanent site on the western side of Harvey Street. Utilising the temporary store site during the construction of the highway realignment will enable the store to operate during the construction period. Other authorities are required from other organisations such as the NZ Historic Places Trust to whom an application has been made. The QEII Trust has given its consent under s114 of the Public Works Act to vary an open space covenant by excluding the area affected by the proposal.

1.7 Structure of this Report

This report is structured as follows:

This report is structured as follows:		
Section 1	Introdu ct ion	
Section 2	Site Description	
Section 3	Proposal Description	
Section 4	Objectives and Need for the Project	
Section 5	Existing Environment	
Section 6	Assessment of Environmental Effects	
Section 7	$Statutory\ {\it Framework\ and\ Consents\ Require\ d}$	
Section 8	Alternative Sites, Routes and Methods	
Section 9	Resource Consents	
Section 10	Consultation	
Section 11	Summary and Conclusions	
A ppen di ce s		
Appendix A	Proposal Illustration	
Appendix B	Site Plan	
Appendix C	Layout Plans	
Appendix D	Construction Plans	
Appendix E	Designation Plans	
Appendix F	Certificates of Title	
Appendix G	Service Plans	

- Appendix H Landscape Effects Assessment
- Appendix I Traffic Assessment
- Appendix J Noise Assessment
- Appendix K Mosley Property Noise Mitigation Plan
- Appendix L Archaeological Assessment
- Appendix M Consultation



2 Site Description

2.1 Location and General Description

The site is located on land adjacent to a 1 km section of SH1, which extends approximately 400m north and 600m south of Harvey Street, Waitati within Dunedin City. The site is located to the west of the South Island Main Trunk Railway and south west of Blueskin Bay. Figure 2-1 Location Map below identifies the location.

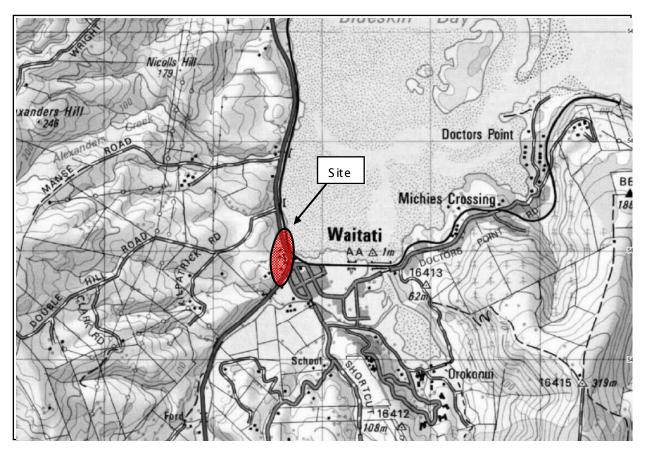


Figure 2-1 : Location Map

SH1 at this location runs generally north to south along the western side of Blueskin Bay and to the west of the main Wait at i township. The highway curves to the west at the intersection with Harvey Street. The highway crosses two unnamed water courses within the site area.

The requirement affects land both east and west of the existing highway.

The NZMG reference of the site is centred at approximately 2320700E, 5492900N.

2.2 Legal Description of the Site

The legal description of the land adjacent to SH1 which is subject to this requirement is detailed in Table 2-1: Legal Descriptions and Land Area to be Designated.



Table 2-1: Legal Descriptions and Land Area to be Designated

Land Ow ner	Legal Description	Area to be Designated (m²)
Jennifer Elizabeth Gleeson,	Pt Sec 45 Blk 1	1135
Paul Leslie Guy,	North Harbour and Blueskin SD OT	
Public Trust	247/179	
Her Majesty the Queen	Pt Lot 14	813
	Deeds Plan 401	
	CT OT 308/66	
	For Use in Connection With a Road	
Her Majesty the Queen	Road	7200
Birgette Sarah Brix McLean ³	Pt Sec 45 Blk 1	200
	North Harbour and Blueskin SD	
	OT 247/185	
Birgette Sarah Brix McLean ¹	Pt Sec 45 Blk 1	250
	North Harbour and Blueskin SD	
	OT 247/153	
Blueskin Agricultural and	Sec 1	50
Pastoral Society	SO 352439	
	CT 349947	
Stuart Robert Beauchamp	Pt Lots 6-7	533
Clayton ⁴	Deeds Plan 401	
	CT OT 2D/333	
Her Majesty the Queen	Lot 5 Deeds Plan 401	312
	CIR 350506	
	For Use in Connection with a Road	
Her Majesty the Queen	Pt Lot 4 Deeds Plan 401	777
	CIR 350507	
	For Use in Connection with a Road	
Her Majesty the Queen	Pt Lots 2-3 Deeds Plan 401	4175
	CT OT 247/159	
	For Use in Connection With a Road	
Doreen Rose Mosley,	Pt Lot 1 Deeds Plan 401	490
Linda Ellen Mosley,	CT OT 407/236	
Graham Alexander Mosley,		
Cook Allan Gibson Trustee		
Company Limited		
Joho Technology (NZ) Limited	Lot 1	1312
	Deeds Plan 8971	
	CT OT 407/125	

³ There is a typographical error on the Certificate of Title, MsMclean has advised her first name is spelt Birgitte.

 $^{^4}$ Crown purchase agreement in place, with settlement and title registration of transfer expected by 31 August 2010



Land Ow ner	Legal Description	Area to be _ Designated (m²) _
Leigh Donne Morris,	Pt Sec 39 Blk II North Harbour and Blueskin	3460
and	SD	
Samuel Richard Crush	CFR 526871	
NZ Railway Corporation	Railway	505

The proposed designation is illustrated on the plans in Appendix E: Designation Plans. These plans also illustrate the existing designations. Current copies of the Certificates of Title for the site are contained in Appendix F: Certificates of Title.

3 **Proposal Description**

3.1 General

The proposal is to improve the standard of SH1 at Waitati for motor vehicles as well as pedestrians and cyclists. The improvements will comprise realignment of a one kilometre section of highway including extension of the Bissland Culvert. Harvey Street will be extended to the west to intersect with the realigned highway and a new intersection will be formed with a left turn lane and right turn bay on the highway and a central traffic island on Harvey Street. Property accesses and bus stops will be relocated, public parking and landscaping provided.

Resource consent will be sought from the DCC for the relocation of the Blueskin General Store to a new permanent site on the eastern side of SH1 south of Harvey Street via a temporary site north of Harvey Street as the existing site will be affected by the highway realignment. To enable the Blueskin General Store to provide near continuous operation during the construction period, the store will first be relocated to a temporary site on the east side of SH1 on the north side of Harvey Street, the highway realignment will be constructed and the store will then be relocated to a permanent position south of Harvey Street as the realignment is completed. The existing store will be demolished during construction of the highway realignment,

A perspective illustration of the project is located in Appendix A: Proposal Illustration and an overall plan view of the project is located in Appendix B: Site Plan. Further detail is provided on the layout plans in Appendix C: Layout Plans. Construction Plans for the proposal, including cross sections are located in Appendix D: Construction Plans.

3.2 Horizontal and Vertical Alignment

The highway realignment will consist of a single curve approximately one kilometre long. The proposed curve has a design speed of 100km/hr which is complementary to the design speed of the adjacent sections of highway, where the speed environment is 110km/hr. The curve has a 550m radius with a maximum of 5.5% superelevation. The increase in the curve radius and the reduction in superelevation will improve safety for vehicles traversing the highway. The same superelevation has been applied to the turns into and out of the Harvey Street intersection. At times SH1 between Waitati and Dunedin may be closed and Harvey Street is the start of the alternative route into Dunedin city; the lower superelevation will improve safety for heavy vehicles. The vertical alignment will tie into the existing highway at the northern end with a gentle crest vertical curve followed by a gentle sag curve through the new Harvey Street intersection and a crest vertical curve ties the alignment into the existing highway at the south. Throu ghout the sag curve the highway will be generally higher than the existing road. The proposed road level coincides with the existing road level at the Bissland Culvert. The vertical alignment provides at minimum a 100km/hr design speed and meets the minimum design criteria.

3.3 General Cross Section

Two traffic lanes marked at 3.5m wide will be provided on SH1 and on the Harvey Street approaches to the highway. Sealed shoulders 1.5m wide will be provided on both sides of the highway other than north of the Harvey Street intersection. On SH1 north of the Harvey Street intersection, a sealed shoulder 1.5m to



1.8m wide will be provided. The proposed shoulder width is 1.5m south of the intersection. At the Harvey Street intersection, a 3.5m wide left turn lane and 4.0m right turn bay will be provided on SH1. The new section of Harvey Street will typically have a 9.0m seal width between the kerbs.

The unsealed shoulder slopes will vary but will generally be 4:1 or 5:1 to intersect with natural ground. In some locations the shoulder may be flatter or in others where there are constraints they will be steeper and in some cases a retaining structure will be used to construct a slope as steep as 0.4:1. Safety barriers will be installed where the shoulder is steep. Cut slopes will generally be in the order of 3:1.

3.4 Earthworks and Retaining Structures

Construction of the realignment includes a relatively large volume of earthworks; in the order of $35,000 \text{ m}^3$.

The volume of excavation is in the order of 9000 m³, of which some 5000m³ will remain on site; being reused as fill, recovered pavement, and topsoil. Surplus material that can not be re-used on site will be cut to waste; where the contractor will be required to remove it to a consented fill site.

The balance comprises similar volumes of fill material and pavement materials, which will be imported to the site to construct the road platform, carriageway, and footpaths. Similarly, the contractor will be required to source materials from consented borrow sites as appropriate.

North and south of Harvey Street adjacent to the railway corridor and sports field a retaining structure consisting of a Green Terramesh Structure will be constructed. The sections where the Green Terramesh Structure will be installed are CH3100 to CH 3370 and CH 3470 to CH 3810, refer to Plan C510, C520 and C521 in Appendix D: Construction Plans in the NOR. The Green Terramesh Structure will vary in height and will be a maximum of 4 metres high at CH 3280. The Green Terramesh Structure is a reinforced earth basket and the surface will be sprayed will a grass seed mix. Guardrail will be installed along the top of the wall with a nib kerb behind the guardrail. This aspect of the design protects motorists from the roadside hazard and provides for construction of a road embankment which minimises the foot print of the fill batters and the amount of land that is required for the road.

3.5 Culverts

The proposal involves the extension of one existing culvert and placement of a new culvert in two unnamed water courses. The culvert to be extended is known as Bissland culvert and is located towards the southern end of the work at approximate station CH 3840. The new culvert will be located at approximately station CH 3520.

There are a number of other culverts which are either existing culverts to be extended or new culverts that will be placed as part of the works. These convey drainage water from one side of the highway to the other and are not in water courses.



3.5.1 Bissland Culvert (CH 3840)

Bissland culvert is being extended on the eastern side of the road to the property boundary which is a distance of approx imately 6.5m from the edge of the traffic lane to the edge of the culvert. Guardrail will be installed on both sides of the road. Refer to plans C515 and C516 in Appendix D: Construction Plans.

3.5.2 Proposed Culvert in Unnamed Watercourse (CH 3520)

A new culvert will be placed in the unnamed watercourse at approximate station CH 3520 just south of Harvey Street. There is an existing culvert across this water course where the existing highway crosses the road. This existing culvert will be extended to provide the stream crossing under the new section of Harvey Street.

3.6 Fencing

All new road boundaries will be fenced with the exception of the store site. Acoustic Fencing will be installed along the boundary of the Mosley property facing the highway as indicated in the plans located in Appendix K: Mosley Property Noise Mitigation Plans. The balance of the road boundary on the western side of the curve is to be fenced with post and wire fencing.

3.7 Harvey Street Intersection

At the Harvey Street intersection a left turn lane will be provided to separate southbound left turning vehicles from those travelling straight through on the highway.

A right turn bay has been provided for northbound traffic on the highway wishing to turn right in to Harvey Street. A 2m wide splitter island on the Harvey Street intersection approaches will better define the intersection and control turning vehicle speeds.

3.8 Lighting

The intersection of SH1 and Harvey Street paths and the parking area south of Harvey Street will be lit to provide guidance for motorists and a level of security for pedestrians.

The lighting is designed to illuminate the road surface as opposed to horizontal light spill as this would dazzle approaching drivers.

The intersection of SH1 and Harvey Street will be lit in accordance with AS/NZS 1158.1.1:2005 Lighting for Roads and Public Spaces, V4 standard which is the appropriate standard for a rural highway carrying the design traffic volume.

There will be some lower level spill lighting on to the carparking area south of Harvey Street, the paths and bus stop on the western side of SH1. This lower level lighting will contribute to a certain extent to security of people using these areas. Refer to Lighting Plan C549 in NOR Appendix D.



3.9 **Property Access**

The proposal includes the upgrading and relocation of drive ways and property accesses on to the highway, as described below.

3.9.1 Kim Access (CH 3360)

The Kim access will be extended to intersect with the realigned highway at right angles, in a similar manner to their existing situation and good sight distances in excess of 250m will be attained.

To ensure that sight lines south of the access are not compromised by boundary fencing of the adjacent property, the design has been developed to provide sufficient legal road width to ensure adequate sight distance is provided from this access.

3.9.2 Mosley Access (CH 3360)

The Mosley access will be relocated to intersect with the highway at the same position as the Kim access at CH3360. It will be located to the north of the existing access which will increase the separation from the Harvey Street intersection and also reduce the number of access points along this section of the highway. At the shared Kim and Mosley access a sealed shoulder, 2.7m wide will be provided on the western side of the highway for a distance of 50m south of the access and on the eastern side of the highway the painted island for the left turn into Harvey Street will be 2.5m wide at this location. Refer to plan C525 in Appendix D of the NOR.

Sight distances in excess of 250m will be attained.

3.9.3 Gleeson Access (CH3980)

The Gleeson access to the highway is to be relocated approximately 150m south of its current position with a driveway formed to connect with the existing driveway.

The relocation of the access point will greatly improve available sight distance as it will be in excess of 250m in both directions. As a section of this access runs parallel to the highway, a front age strip of existing vegetation will be maintained to reduce the effect of vehicle headlights using the access being seen from the highway at night time. Vehicles will exit from this access to SH1 at 90 degrees to the carriage way. The NZ Transport Agency will authorise the use of this access to the property under s84 of the Government Roading Powers Act 1989 because access is not reasonably available from another road.

NZ Transport Agency will take the opportunity to relocate another existing access on the eastern side of the highway to be opposite the relocated Gleeson access. The land is owned by Mr O'Neill and the existing access is located 80m south of Bissland Culvert (CH 3920).

Widening is to be provided opposite the access as shown in Drawing C511 located in NOR Appendix D.



3.9.4 McLean Access (CH3840)

The existing residential access to the McLean property at CH3840 will be closed. Guardrail will extend from the Harvey Street intersection, across the existing access to south of the Bissland Culvert. A new access will be created between the existing residential lot and Almond Street. This will require land to be purchased from the Blueskin A&PSociety and an easement to be created over OT 247/153 in favour of OT 247/185 (Pt Sec 45 Blk I North Harbour & Blueskin Survey District). Both parcels are owned by McLean. This access is to have a typical formed width of 3.5m.

3.10 Pedestrians

A path 1.5m wide with asphalt surfacing is to be provided on the eastern side of the highway from opposite the bus stop at CH 3370 and link into Harvey Street. Pedestrian access is also provided between the parking area adjacent to the permanent store site to Bland Park.

Accommodation for a future path, between Almond St and across the Bissland Culvert, will be made by ensuring a 1.5m- 2.0m strip is maintained between the redirected McLean access and the new highway.

3.11 Cyclists

The 1.5m wide shoulder along the highway from Evansdale will be continued through to the Harvey Street intersection with a 1.8m wide shoulder adjacent to the guardrail. A sign will lead southbound cyclists to the designated cycle route to Dunedin via Mt Cargill. Cyclists are not permitted to ride on SH1 through to Pine hill Road.

3.12 Bus Stops and Ride Share

Widened shoulders on both sides of the highway, in a similar location to the existing bus stop (CH 3400), will be provided, and identified as bus-stops. The existing bus shelter will be re-established to suit.

In addition, the spatial relationship between the new store and Harvey St, has been determined such that a bus is able to do a complete turn in front of the store, enabling a bus stop at the store to be developed as an alternative.

Either of the above locations could similarly be used for the pick/drop of ride-share passengers. In addition also, an area of widening will be provided on the eastern side of the highway, south of Harvey St, as a further opportunity for the pick up of ride share passengers. A path will link this area to the store and Harvey St.

3.13 Parking

Parking areas utilising areas of redundant highway carriageway will be provided behind the new store and to the north of the Mosely and Kim accesses (CH 3200 - CH 3300).



3.14 Landscaping

The proposal includes landscaping with predominantly species indigenous to the area with some minor variations due to functional requirements. The Landscape Plans, LS01, LS02 and LS03 are contained in Appendix H: Landscape Effects Assessment.

The following summarises the proposed landscaping:

a) Native regeneration planting of approximately 7500 m² is proposed on land to the west of the realigned highway. This area of land is shown on plans LS01 and LS02 in Appendix H: Landscape Effects Assessment. Of this area, 980m² of this is to compensate for land affected by the realignment which is currently within a QEII covenant. The following species will be close planted:

Botanical Name	Common Name	Perce nt age of Com position
Poa cita	Silvertussock	20%
Cort ade ria richardii	Toetoe	20%
Phormium cookianum	NZ Mountain Flax	20%
Cordyline au stralis	Cabbage tree	10%
Pittosporum tenufolium	Black mapou	10
S opho r a mic rophylla	SI Kowhai	5%
Olearia paniculat a	Olearia	5
Dodonae a viscos a	Akeake	5%
Podocarpus totara	Tot ara	2%
Dacrycarpus dacrydioides	Kahikatea	3%

Plant Species and Composition

Prior to planting the area will be weeded and existing native species will be retained. The planting will supplement and infill the existing plants while the existing plants will assist plant growth by providing nursery-like conditions.

- b) Verge planting consisting of a two metre wide strip of *Phormium cookianum* (NZ Mountain Flax) will be planted along the western edge of the proposed alignment, on the outer edge of the surface water channel where planting won't restrict vehicle sight lines and where there is sufficient space. This verge planting will also extend around the Harvey Street intersection on the western side of the highway. While Mountain flax is not endemic to the coastal area, it will allow sightlines to be maintained.
- c) Tussock areas will be planted predominantly on the eastern side of the highway and include a 2m wide strip north of Harvey Street with a tussock mix consisting of *Poa cita, Chionochloa flavicans*, and *Carex testacea*.
- d) The large Oak (*Quercus robur*), which is listed as Significant Tree T1136, under the Dunedin City District Plan as well as the Beech and a two trunked Gum in close proximity will be retained. Tree work is required to improve the form and health of these trees as well as improving sightlines under the canopies from the highway through to the store.



- e) Along the banks of the unnamed stream (approximate location CH 3520), riparian planting is proposed 5m either side of the existing stream. Plants are to be positioned to maintain views through to the store while allowing the ecological value of the stream to be improved. Proposed species include *Carex secta, Cordyline australis, Coprosma propinqua, Chionochloa flavicans* and *Poa cita.*
- f) Large grass areas are proposed on the eastern side of the highway adjacent to the public carpark and footpaths to provide informal sitting areas.

3.15 Noise Mitigation

There is only one property, Mrs Mosley's, which will experience a noticeable increase in traffic noise as a result of the realignment. Noise mitigation is incorporated into the design for Mrs Mosley's property. Double glazing will be provided on the sliding door and front windows and a 1.5m high acoustic fence will be constructed along the new front age of her property. Plans of the acoustic treatment are located in Appendix K: Mosley Property: Noise Mitigation Plans which shows the fence location and fence construction details.

3.16 Services

There are a number of services within the existing legal road and proposed designation at Waitati which are identified on the plans in Appendix G: Service Plans. A number of services will be protected or relocated during construction. There are underground water pipes, power and telecom lines which run along the sides of the existing road and cross it at various locations.

The pipes requiring relocation include DCC's water main. This will be managed during construction in accordance with the service agreement between DCC and NZ Transport Agency. The Council has been advised of the need for relocation of the pipe.

3.17 Construction Methodology

3.17.1 Road

Construction methods and procedures will be finalised with the Contractor once the contact has been let. However, consideration has been given to the general construction methods and they are outlined in this section.

Prior to commencing construction, the Contractor will be required to prepare an Environmental Management Plan to demonstrate compliance with designation and resource consent conditions and how environmental effects will be mitigated.

The realignment will be constructed by conventional methods and will include:

- Installing temporary fencing.
- Machine excavation of vegetation and removal of topsoil to stock pile for reuse for landscaping.
- Extending the existing culverts and placing new culverts.
- Relocating services.
- Machine excavation to sub-grade level.
- Removal of cut to waste material to a consented fill site.



- Placement of fill both excavated on site and imported.
- Hand construction of terramesh baskets.
- Machine placement and compacting pavement layers.
- Installing guardrail.
- Relocation of Blueskin General Store to a temporary and permanent site.
- Demolition of the Blueskin General Store and other structures on the site.
- Forming and compacting the footpaths.
- Forming and compacting the parking areas and bus facilities.
- Relocating the bus shelter.
- Installing new property fences.
- Installing lighting.
- Sealing and marking the new alignment.
- Altering and relocating existing property accesses.
- Re-spreading of topsoil, landscaping and re-veget ation.
- Installation of signs and markings.
- Tidying up following construction.

The construction are a will have temporary traffic control during the construction period in accordance with the NZ Transport Agency's Code of Practice for Temporary Traffic Management⁵. Traffic will have a reduced speed limit through the works and the site may be reduced to a single lane at times.

3.17.2 Culvert Widening and Placement

Culvert widening and placement will generally comprise of the following:

- Removal of the existing kerb.
- Prepare and construct foundations.
- Extension of the deck by insitu or precast units as appropriate.
- Surface the culvert, install guardrail.

3.17.3 Construction Period, Timing and Lapsing of Designation

It is anticipated that the construction period required for the overall project will be approximately 24 months with work anticipated to start in the 2010/2011 construction season, subject to unforeseen circumstances. Construction will not be undertaken continuously during that period but road construction will be focussed on the summer construction season. The NZ Transport Agency will require the Contractor to undertake the works in a manner that optimises the continuation of the services and operation of the Blueskin General Store. Current project planning is that the first activity will be the establishment of the store on the temporary store site. This will be followed by demolition of the existing store and construction of the highway realignment. The permanent store site will then be constructed and the store relocated to the permanent site.

The designation will not lapse for a period of 10 years after the date it is included in the District Plan.

⁵ Code of Practice for Temporary Traffic Management, Transit New Zealand (2004)



Unforeseen circumstances may arise due to funding uncertainty from the NZ Transport Agency, the acquisition and transfer of land and other approvals required before construction can commence such as an authority from the Historic Places Trust and consents from the ORC.

3.17.4 Access during Construction

Access to Harvey Street, the Blueskin General Store and other adjacent properties will be maintained during the construction period; however there may be delays in travel along the road and temporary accesses may be required. There may be periods during the construction where it is necessary for construction reasons for access to be restricted.



4 **Objectives and Need for the Project**

NZ Transport Agency's objectives for the project are to:

- Realign the state highway so as to align the design speed with that of the speed environment of the approaches.
- Improve the Harvey Street intersection.
- Enable continuity of the services currently offered by the Blueskin General Store, throughout and upon completion of the project development.

This section of SH1 forms a part of the Otago regional strategic road network which provides the main north-south link between Christchurch and Dunedin. It provides a direct road link for the transport of passengers and goods between Canterbury and Otago. The National State Highway Strategy (2007) identifies SH1 as a National State Highway. SH1 serves a number of functions including:

- The main north-south road link between Dunedin and Christchurch, and points further south as well as Central Otago.
- An identified heavy haulage route.
- A link to the local road network and limited direct property access.

A number of injury crashes have occurred on the one kilometre section of in the vicinity of Harvey Street, Waitati. The current SH1 road alignment and adjacent land use at Waitati is out of context with the surrounding driving environment, which is relatively high speed and is predominantly rural. The driving environment on the highway at Waitati is further complicated by accesses to adjacent land use. The se accesses increase the demand on driver attention as they negotiate the curve or seek to access the highway. NZ Transport Agency considers that realignment of the highway is necessary to remedy the safety issues at this location.



5 Existing Environment

5.1 General

The section of SH1 to be realigned extends from 400m north and 600m south at Harvey Street. This is approximately 105m south of Double Hill Road to 200m south of Bissland Culvert. Harvey Street intersects with the highway midway through this section of highway and extends in a south-westerly direction. Immediately to the east of Harvey Street is the main Waitati township. The Blueskin General Store is located immediately adjacent to the western side of the highway and the access to the Mosley residence is on the southern side of the store. Access to the Kim residence is on the northern side of the store. The Blueskin General Store is segregated from the majority of the Waitati Township by the highway. The main south railway line is adjacent to the eastern side of the highway north of Harvey Street. East of the railway line is Blueskin Bay. Also on the eastern side of the highway, there is a bus stop and parking area opposite the Blueskin General Store. South of the parking area, located between the highway and the railway line the Morris property is a former church converted to a residence which is currently vacant. Access to this property is gained from Harvey Street.

To the south and parallel to Harvey Street is Almond Street which has no intersection with SH1. On the southern side of Almond Street, and adjacent to SH1 is Bland Park. This field is owned by the Blueskin Agricultural and Pastoral Society, is used as a sports field and has no reserve status. Access to the Park is via Harvey Street. Just north of Bissland Culvert and east of the highway is the McLean residence which is set well back from the highway. Access to this property is from SH1 just north of Bissland Culvert.

Also just north of the Bissland Culvert on the western side of the highway is the access to the property owned by Gleeson and Guy. This residence is located some distance west of the highway. Further north, immediately adjacent to the western side of the highway, is the Blueskin General Store surrounded by a small cluster of three residences.

This section of highway is crossed by two unnamed water courses within culverts. The first is located at CH 3520 and the second is located at CH 3830 and passes through Bissland Culvert. The other surrounding land is predominantly rural in nature.



Figure 5-1 : SH1 at the Blueskin General Store. Taken from opposite the store at the bus stop looking to the south. Note the two vehicles exiting the Blueskin General Store.

5.2 Existing Designations

NZ Transport Agency has two designations for SH1 at Waitati. Designation D449 is for the section of SH1 from the Dunedin metropolitan boundary through to the Waitaki District Council boundary. The purpose of this designation is "State Highway Purposes (SH1)". Designation D450 is for the section of SH1 from Waitati to Pine Hill. The purpose of this designation is "Motorway Purposes (SH1)". The two designations meet at the Harvey Street intersection.

The NZ Railway Corporation has a designation for the Main South Railway (D419), with the purpose of the designation being "Railway Purposes". This designation extends from north to south through Dunedin City and there is a section of this designation close or directly adjacent to SH1 at Waitati. The railway is located to the east of SH1 and is adjacent to Blueskin Bay.

The extent of the designations identified above in the vicinity of the site are marked on the Designation Plans in Appendix E.

5.3 Neighbourhood and Wider Community

The neighbourhood and wider community can be described as rural in nature. Immediately to the east of Harvey Street is the main Waitati township, however the Blueskin General Store is located on the western side of SH1. While the majority of customers come to the store by vehicle, there is some pedestrian activity associated with locals visiting the store. Waitati is a small community of around 500 people.



Further to the east are the townships of Orokonui and Doctors Point which are also accessed via Harvey Street. The existing highway effectively segregates the main Waitati community from the Blueskin General Store.

5.4 Traffic Environment

The driving environment on SH1 at Waitati in the vicinity of Harvey Street is below driver's expectations and out of context with the adjoining road. This deficiency in the existing road arises from the low radius curve which occurs at a location along SH1, where there are a number of property accesses to residences, one to a commercial activity as well as the Harvey Street intersection. The property accesses do not have good visibility for approaching motorists. The NZ Transport Agency Crash Analysis System includes 17 crashes for the 10 year period 2000 to 2009 inclusive, 11 of the crashes resulted in injuries. Of these 5 involved vehicles entering or exiting the store, 4 were loss of control crashes on the curve and the remainder were unrelated. The out of context nature of the road alignment is likely to have contributed to the crashes that have involved a loss of control around the curve.

This section of SH1 is a Limited Access Road.

A Traffic Assessment is included in Appendix I: Traffic Assessment.

5.5 Noise

The existing noise environment is typical for a rural environment in close proximity to a State highway. A noise assessment has been prepared and is included in Appendix J: Noise Assessment.

5.6 Visual and Landscape

While the proposal is not located in a Landscape Conservation Area or a Coastal Preservation Area, there is a number of landscape or ecological features in the immediate area of the proposal.

The following table is a list of Areas of Significant Conservation Value or Significant Trees either affected by the proposal or in close proximity.

District Plan Reference	Descript io n / Significance	Legal Desc riptio n
C084	QEII Covenant - Coastal regenerating hardwood forest and forest regeneration	Part of Pt Sec 45 Blk I, North Harbour and Blueskin SD and Part of Sec 1 of 19 Blk II, North Harbour and Blueskin SD
T1136	Quercus robur - Oak	Pt Lot 9 Deeds 401
C104	Edge of Blueskin Bay estuary	
T1161	Dacrycarpus dacrydioides - Kahikatea	Pt Sec 44 Blk I North Harbour and Blueskin SD
T1162	Podocarpus totara -Totara	Pt Sec 44 Blk I North Harbour and Blueskin SD
G104	Group of Sophora microphylla - SI Kowhai	Sec 44 Blk I North Harbour & Blueskin SD

Table 5-1	District Plan Area	s of Significant	Conservation Valu	ue and Significant Trees
Table J-1.	District Fian Aleas	s of Significant	Conservation van	ie and significant tiees



On the western side of the highway is a QEII covenanted area (listed in the DCDP as an 'Area of Significant Conservation Value' (C084)). Part of the QEII covenanted land is within the proposed designation but the area affected has a number of exotic trees and is towards the eastern side of the Gleeson/Guy property.

Also on the western side of the highway and just south of the Harvey Street intersection is a large Oak tree, listed as a 'Significant Tree' (T1163) in the DCDP, which will not be affected by the works.

The edge of Blueskin Bay (C104) is east of the proposed designation and is not affected by the proposal.

A stand of Kowhai trees, identified in the DCDP as a 'Significant Group of Trees' (G104), is located immediately south of Bissland Culvert on the eastern side adjacent to the fenceline on private property. The Kowhai trees are beyond the area of land affected by the proposal.

The Kahikitea (T1161) and the Totora (T1162) are both beyond the land affected by the proposed designation.

The District Plan Areas of Significant Conservation Value and Significant Trees within close proximity of the site are marked on the Layout Plans in Appendix C and also on the Designation Plans in Appendix E.

5.6.1 Landscape Character

The wider visual environment is characterised by the dominating topography surrounding Waitati inlet and the Waitati river valley. The hills surrounding the area, including Double Hill, Swampy and Mopanui quickly rise to elevations over 400m giving a sense of enclosure when travelling along SH1 entering into Waitati. Often atmospheric conditions are misty with low cloud trapped by the surrounding hills giving the area a unique feel and character.

Indigenous vegetation is common throughout the wider area with significant stands of regenerating kanuka on higher slopes and with steeply incised gullies. On the broad river flats at the base of Waitati Valley, kanuka is also common as well as a number of significant stands of mature Kahikatea and to a lesser extent totara.

As a general rule, the area is rural in nature and the natural landscape elements dominate over cultural elements. Townships in the area including Waitati, on the south-western edge of the inlet and Warrington, on the northern side, are 'low key' in their character with low densities, large yards and significant areas of regenerating native vegetation. Buildings tend to be single or two storey with large set backs from internal roads. While rural residential properties in the area extend the built development onto higher slopes however these dwellings are small in number and they are visually subservient to the strong natural character.

In the immediate area of the road realignment, the natural character is mixed with large areas of exotic weeds giving the area a lower sense of stewardship or care. While native vegetation is regenerating in places, especially on steeper slopes above the road corridor where disturbance from human activities has been less recent, weed species such as barberry and blackberry are also present and the climber *Muehlenbeckia sp.* covers large areas of the canopy.



On the flat land at the base of the escarpment, there is a marked difference in veget ation types, it is assumed largely due to periodic disturbance by human activities. At the southern end of the proposed realignment, a large st and of pines, approximately 30m in height, is present. The alignment then moves through an area of mostly tall fescue grass and young gorse which is starting to be come established. Native species are largely restricted to the adjacent escarpment. At CH3500 there is a large st and of mature trees, including a large Oak (T1136). The remainder of the alignment passes through rural, residential and commercial land with little vegetation of note.

Refer to Appendix H Landscape Effects Assessment.

5.7 Archaeological and Heritage

An archaeological assessment has been undertaken and the only archaeological sites found, old fence posts, were situated on the eastern edge of the proposed alignment adjacent to the railway line. The assessment identified that the proposed alignment passes through an area where structures, the Grant residence, are identified on an 1875 survey plan. For these reasons an archaeological authority is being sought from the Historic Places Trust before construction is commenced. Refer to Appendix L: Archaeological Assessment for the complete assessment.

5.8 Tangata Whenua

Consultation was initiated with KTKO as the first point of contact with Runanga in the area early in the investigation phase of the project. This consultation has been ongoing. A meeting with Joy Smith, a represent ative from the Kati Huirapa Runanga ki Puketeraki was held on site on 8 June 2010 where the project was outlined. KTKO provided a response by letter dated 28 June 2010. KTKO indicated that Kati Huirapa Runanga ki Puketeraki are the Runanga in the area.

"Kati Huirapa Runanga ki Puketeraki has requested that the following be conditions of the NOR:

- If koiwi (human skelet al remains), waahi taoka (resource or object of importance), waahi tapu (place or feature of special significance) or other artefact materials are discovered work shall stop, allowing for a site inspection by the appropriate Runaka and their advisors. These people will determine if the discovery is likely to be extensive and whether a thorough site investigation will be required. Materials discovered should be handled and removed by takata whenua who possess knowledge of tikanga (protocol) appropriate to their removal or preservation.
- That an iwi approved archaeologist be present during any earthworks undertaken for the proposed works.
- That a rehabilitation programme be implemented with appropriate native planting undertaken after the proposed works have been completed.
- That further consultation and approval be sought if the extent of the work site is required to be increased.
- That appropriate fish/eel passage should be provided for at all times.
- That any excess excavated material is either re-used if suitable, or disposed of appropriately.

The information provided by the Runanga has been incorporated into the Archaeological Assessment.



As previously stated, the Blueskin Bay area was used extensively by Maori in the past with a high number of recorded sites around the bay. A number of these sites are located within 500m-1km of the proposed works. There is a possibility that further sites could be disturbed by the proposed works."

5.9 Natural Hazards

There are no known natural hazards that will be affected by the proposed construction. While geotechnical investigation identified that instability issues could arise if the slope in the vicinity of Bissland Culvert was disturbed during construction, the proposal avoids disturbing this land.

5.10 Contaminants

There are no listed contaminated sites on the ORC database within the land affected by the proposal, however if evidence of soil staining or refuse is encountered during construction, resource consent may be required. There is the potential that contamination will be encountered in the vicinity of the existing store where a service station formerly operated and opposite the store where there is known to be an old rubbish dump.



6 Assessment of Environmental Effects

6.1 Construction Effects

6.1.1 Neighbourhood and Wider Community

The realignment passes through the Blueskin General Store's current location. The need to retain the Blueskin General Store, and provide continuity of service during construction, has been a source of considerable concern to the local community throughout consultation on this project.

Mitigation Measures

NZ Transport Agency is facilitating the ongoing operation of the store during and following construction. Resource consent is being lodged at the same time as the Notice of Requirement for the provision of a temporary and permanent site on the eastern side of SH 1. Subject to obtaining resource consent for the temporary and permanent store, a new store will be constructed on the temporary site ahead of the realignment construction. Once the highway traffic is moved on to the new alignment, construction of the permanent store site will commence. The temporary store operation will be disestablished and the store will begin operations at the permanent site once the Code Compliance Certificate is issued.

This method has been adopted to enable continuity of service to the community.

6.1.2 Safety and Access

The majority of the land required for the project has been purchased for roading purposes and is currently vacant. The Blueskin General Store will be relocated to a temporary site accessed from Harvey Street however the remaining properties will be in use during the construction and there is the potential for reduced safety associated with vehicles accessing these properties during construction.

During the 18 month construction period, vehicles, staff and equipment will be present on site. Sections of the road will operate on a one way basis during construction and from time to time temporary delays will occur for motorists and pedestrians. There is the potential for a reduction in safety for vehicles, cyclists and pedestrians travelling through the site however temporary traffic management will be in place to ensure the safety of the construction workers and road users. There will be some disruption to property access, parking and the Harvey Street intersection during the construction process however temporary access will be provided to residents where necessary.

Mitigation Measures

The Contractor will be required to obtain a Traffic Management Plan from NZTA which will set out the traffic control to be provided through the site.

The Contractor will be required to make provision for property access during the construction, including temporary access where necessary.

Safety and the continuity of operation of the Blueskin General Store has been enabled by the planned relocation of the store at the beginning of the construction period to a temporary and subsequently a permanent site on the eastern side of the highway accessed from Harvey Street.



6.1.3 Geotechnical

A geotechnical report was prepared during the project investigation. The potential instability identified by the report in the vicinity of Bissland Culvert has been recognised during the subsequent design process and will not be disturbed by the earthworks.

The excavation, fill and retaining structures have been carefully designed in accordance with the appropriate engineering standards and practice.

Two unnamed streams have been identified on site and culverts will convey the water from one side of the road to the other. Bissland Culvert will be extended and a new culvert at CH 3520 just south of Harvey Street will be installed. A number of other culverts will be installed along the proposed alignment to ensure stormwater is able to pass from one side of the road to the other and will not be disrupted or increase the risk of flooding.

The Green Terramesh Structures will have a grass covered surface and the structure is visually recessive that will minimise the area of land affected.

6.1.4 Dust

Dust arising from construction activities could potentially inconvenience and disrupt outdoor activities, infiltrate residences and commercial activities. The issue is most likely to arise during periods of settled we ather.

Mitigation Measures

Landscaping will be established as an integral part of the construction activities.

The exposed ground will be sprayed with a water cart during dry conditions to ensure dust is not excessive.

6.1.5 Noise

Noise arising from construction activities has the potential to cause annoyance and disrupt the activities of residents in the neighbourhood.

Construction activity will comply with NZS 6803: 1999 Acoustics – Construction Noise. Construction will generally take place between 7 am and 6 pm Monday to Saturday, exclusive of public holidays.

Compliance with the recognised standards for construction noise, together with the restrictions on the hours of operation will ensure that noise during construction is kept to a minimum practicable level.

Mitigation Measures

Construction activity will comply with NZS 6803: 1999 Acoustics – Construction Noise. Construction will generally take place between 7 am and 6 pm Monday to Saturday, exclusive of public holidays.



A Construction Management Plan (CMP) which will demonstrate compliance with the designation conditions will be submitted to DCC before starting construction.

6.1.6 Water Quality

The road construction and culvert works will result in removal of vegetation in and around watercourses and there is the likelihood of sediment and contaminants entering watercourses which could have an effect on water quality.

Mitigation Measures Separate consents have been applied for from the ORC and the effects will be addressed at that time.

The design and construction methodology is intended to reduce the likely risk of adverse effects.

Sediment traps will be utilised where appropriate to avoid sediment reaching water courses during construction activities.

6.1.7 Archaeological and Heritage Values

An archaeological assessment undertaken during the investigation period for this project has identified and recorded archaeological material. This archaeological assessment is included in Appendix L. There is known to have been pre 1900 European activity on the site and there is the possibility that previously unidentified archaeological sites will be uncovered and damaged during the construction works. It is intended that an archaeological authority is obtained prior to construction.

The area has been used extensively by Maori in the past and KTKO has advised that there are a number of known sites within 500-1000m of the proposed works. It is possible that the proposed works will disturb further sites given that the area was known to be a bountiful provider of food and may have been used as a waka landing site.

Mitigation Measures

An archaeological authority will be obtained from NZ Historic Places Trust prior to construction and the conditions of the Authority complied with.

If koiwi (human skeletal remains), waahi toaka (resource or object of importance), or other artefact materials are discovered work will stop in the vicinity, allowing for a site inspection by the Kati Huirapa Runanga ki Puketeraki Runaka and their advisors. These people will determine if the discovery is likely to be extensive and whether a thorough site investigation will be required. Materials discovered should be handled and removed by takata whenua who possess knowledge of tikanga (protocol) appropriate for the removal or preservation of these artefacts. Note: If human skeletal remains are discovered, the NZ Police will also be notified.

That the largely complete fence posts that are to be buried by the construction activity are removed and made available for interpretive purposes off site where practicable.

That site clearance and excavation of the top 500mm, within 20m of the identified pre-1900 structure be monitored by an archaeologist in order that any archaeological remains encountered during earthmoving can be recorded, investigated and recovered as appropriate.



That the location of the Grant residence and its outbuildings as indicated on the 1925 plan, be marked on the ground with a temporary fence during the bulk earthworks and paving construction to ensure the preservation of the site. Similarly, other potential sites are to be marked with hazard tape.

That storage, stockpiling and vehicle parking sites be located so as to avoid damage to any of the identified sites.

6.1.8 Visual Landscape and Amenity

A Landscape Effects Assessment has been undertaken and is contained in Appendix H. The landscape effects have been considered in detail in that report and are summarized in the following paragraphs. Note: the CH references are shown on the Site Plan in Appendix C.

CH4050-3850

The proposed works are largely confined to the existing road corridor with possible minor geotechnical works. Any changes to the landscape or visual character of this portion of the road resulting from the realignment are considered to be negligible.

CH3850 - CH3550

The proposed alignment passes through part of the land which is protected by a QEII covenant. The Designation Plans in Appendix E show the QEII covenanted land which is affected by the alteration to the designation. At the southern end of this alteration to the designation, where the proposed alignment first leaves the existing road there will be some site clearance of existing vegetation, mostly small shrubs and weed species with few native species of any substantial size. The more substantial native species higher on the slope will not be affected by the proposed realignment works.

The existing stand of *Pinus radiata* at CH 3650-3700 will require removal. While aging pine trees often offer nursery like conditions for regenerating native species to become established, no understorey growth was observed under the pines. For this reason, and the underlying purpose of the covenant, it is considered that the loss of the pines will have negligible impact on the landscape or ecological values in the immediate vicinity.

At CH3600, the QEII land is dominated by common weed species of gorse and tall fescue, showing signs of recent disturbance. The regenerating native vegetation on the escarpment behind the works area will be unaffected by the proposed works. The QEII Trust has given its consent under s114 of the Public Works Act to vary the open space covenant by excluding the area affected by the proposal.

CH3550 - 3350

From CH3550-3350, the proposed alignment will require the removal of some existing vegetation, mostly plantings associated with existing and former residential dwellings. The affected species include a number of weed or garden species such as tall fescue, convolvulus, gorse, broom, agapanthus and wilding pine. Small areas of native bracken as well as larger specimen trees such Prunus sp, macrocarpa, Chamae cypris and Eucalyptus species will also require removal. The height of these trees ranges from 4-20m and although the larger trees are visually prominent, the vegetation in this area is generally of a low quality with limited landscape value. The exception to this is the large Quercus robus (Oak); identified as Significant Tree T1136 in the Dunedin City District Plan, a large beech tree and a gum will be retained.



Weed and exotic garden species are the predominant vegetation cover and there is generally a low level of stewardship.

CH3350 - 3050

The new alignment generally comes back on line for this portion with only a small corridor of vegetation affected along the eastern side of the road. Vegetation here is exclusively exotic grass and weed species of negligible landscape value.

Overall, it is considered that the realignment of State Highway 1 at Waitati will have minimal to negligible effects on the landscape and ecological value of the vegetation or on existing landscape character and visual amenity. However, a number of mitigation measures are suggested to enhance native plantings in the area which will enhance the landscape and ecological value of the area, there by having residual positive effects.

Mitigation Measures

While it is considered that the proposal will have negligible effects on the existing landscape and visual character of the receiving environment, the following mitigation measures are proposed to either avoid, mitigate or compensate for any potential adverse effects:

a) Native planting of 7504 m² is proposed on land to the west of the realigned highway. This area of land is identified as native regeneration planting on plans L501, L502 and L503 in Appendix H: Landscape Effects Assessment. Of this area, 980m² of this is to compensate for land affected by the realignment which is currently under the protection of a QEII covenant. The following species will be planted with close spacing:

Botanical Name	Common Name	Percentage of Composition
Poa cita	Silver tussock	20%
Cort ade ria richardii	Toetoe	20%
Phormium cookianum	NZ Mountain Flax	20%
Cordyline au stralis	Cabbage tree	10%
Pittosporum tenufolium	Black mapou	10
Sophora microphylla	SI Kowhai	5%
Ole aria paniculat a	Olearia	5
Dodo nae a viscos a	Akeake	5%
Podocarpus totara	Tot ara	2%
Dacrycarpus dacrydioides	Kahikatea	3%

Plant Species and Composition

Pre-planting weeding of the area will be undertaken with existing native species within the area retained. The proposed plants will supplement the existing plants, acting as infill while the existing plants will assist plant growth by providing nursery-like conditions.

b) A two metre wide strip of *Phormium cookianum* (NZM ountain Flax) will be planted along the western edges of the proposed alignment, on the outer edge of the surface water channel where planting is not restricted by vehicle sight lines and where there is sufficient space. While Mountain flax is not endemic to the coastal area, it will allow sightlines to be maintained. On the eastern side of the



realignment, a 2m wide strip tussock mix is proposed, consisting of *Poa cita*, *Chionochloa flavicans*, and *Carex testacea*.

- c) Retention of the large Oak (*Quercus robur*), which is listed as Significant Tree T1136, under the Dunedin City District Plan as well as three other smaller trees in close proximity. Tree work is required to improve the form and health of these trees as well as improving sightlines under the canopies from the highway through to the store.
- d) Along the banks of the unnamed stream (approximate location CH 3520), riparian planting is proposed 5m either side of the existing stream. Plants are to be positioned to maintain views through to the store while allowing the ecological value of the stream to be improved. Proposed species include *Carex secta, Cordyline australis, Coprosma propingua, Chionochloa flavicans* and *Poa cita*.
- e) Large grass are as are proposed adjacent to the carpark and paths as informal sitting areas.
- f) The significant group of Kowhai trees south of Bissland Culvert (G104) are outside the area likely to be affected by construction activity, however they will be identified and temporary fencing installed and maintained during construction.



Figure 6-1 : The significant Oak and Beech tree

6.1.9 Nat ural Hazards

There are no known natural hazards in the vicinity of the site that will be affected by the works.



6.2 Operational Effects

6.2.1 Neighbourhood and Wider Community

As a result of the realignment and the relocation of the Blueskin General Store to Harvey Street, there will be positive effects on the neighbourhood and wider community. The Blueskin General Store will no longer be segregated from the majority of the immediate community that it services by the highway. This will enhance safety and encourage locals to walk and cycle to the store. The Blueskin General Store will no longer be segregated from the other community facilities in the Waitati township such as the library.

Continuity of the Blueskin General Store operation has been enabled during the construction of the realignment and the permanent site for the relocated Blueskin General Store has been accommodated on land which will be surplus to NZ Transport Agency requirements following the realignment. This will enable the Blueskin General Store to continue to have a site with a State highway profile while better serving the neighbourhood as it will no longer be segregated from the immediate community.

6.2.2 Safety and Effectiveness

The improvements to SH1 at Waitati will include a realigned road which is in context with the road on both State highway approaches, improved property accesses and a more forgiving road environment through the provision of improved clear zone widths. The relocation of the Blueskin General Store to Harvey Street is an integral part of the project. The construction of these improvements is likely to take 24 months with the main work being the earthworks and pavement construction. The construction will be completed in sections with temporary access being provided to residents where necessary and temporary traffic management in place to ensure the safety of the construction workers and road users.

The improvements are not likely to increase the volume of traffic using this section of SH1, nor is it likely to alter the nature of the vehicles using the road; however it will result in an increase in vehicle speeds due to the improved alignment.

The main traffic effect of the proposed realignment will be an improvement in traffic safety on this section of road due to the likely reduction in the number and severity of crashes, particularly loss of control and access related crashes.

The traffic effects of the proposal have been assessed and are contained in Appendix I.

6.2.3 Noise

The proposal will not result in a change in the volume or nature of traffic using this section of SH1 and any changes in the noise environment will only arise from relocation of this section of road. A Noise Assessment has been undertaken and is included in Appendix J. In order to understand the effects on the noise environment, it is useful to remember that traffic noise increases by 3 dB every time the distance halves (and conversely, decreases by 3 dB every time the distance doubles). Hence, a change from 20 metres to 10 metres will increase noise by 3 dB, and a change from 100 metres to 50 metres will also result in a 3 dB increase.



In terms of effects, a 1-2 dB change in noise level is generally considered to be insignificant, and a 3-4 dB effect to be minor.

The majority of the properties will experience either an insignificant change or a decrease in noise levels. The Gleeson/Guy house will experience an insignificant change acoustically. The road alignment remains essentially unchanged at the Kim property and there will be a negligible change in noise level. At the McLean (formerly Guest) property, the road alignment changes very little. Noise levels will be essentially unchanged.

The re-alignment at the Blueskin Nursery will move the road approximately twice as far from the nursery as at present, and as such, noise levels will reduce by about 3 dB. At the Morris property, the road will move to about 3 times as far away as at present, which would result in a noticeable 5 dB decrease in traffic noise.

The Mosley property is the only property which will experience a noticeable increase in noise. At present, the Mosley house is about 50 metres from the road and this will reduce to about 30 metres and removal of the existing store will expose the house to slightly more traffic noise. The increase in noise level of almost 4 dB at the Mosley dwelling would be a noticeable increase.

Noise mitigation is incorporated into the design for Mrs Mosley's property. Double glazing will be provided on the sliding door and front windows and a 1.5m high acoustic fence will be constructed along the new front age of her property. Plans of the acoustic treatment are located in Appendix K: Mosley Property: Noise Mitigation Plan. With this mitigation in place, noise effects from the proposed re-alignment will be insignificant.

6.2.4 Visual and Landscape and Amenity

Overall, given the low quality of existing vegetation along the proposed alignment, mostly being exotic weed or garden species with a limited numbers of native species, combined with the proposed compensatory planting and landscaping associated with the project it is considered that the overall effects on the landscape will be positive. The proposed plantings will assist with the regeneration of native species. The Green Terramesh Structures will be vegetated with grass reducing their visual effect.

Light spill can affect adjacent residents and the night sky. The lighting has been designed in accordance with AS/NZS 1158.1.1 : 2005 Lighting for Roads and Public Spaces. The design utilises a high mounting height and fitting which restricts the spill to adjacent residents and the total output to the upper atmosphere is just below 3%.

6.2.5 Archaeological and Heritage

There will be no operational effects on archaeological and heritage values arising from the operation of the road.



7 Statutory Framework and Consents Required

7.1 Resource Management Act

The RMA provides for a Minister of the Crown, Local Authorities, or requiring authorities, which have financial responsibility for a work, to issue Notices of Requirement for a designation for a public work or for a project or work in respect of any land, water, subsoil or airspace where a restriction is necessary for the safe or efficient functioning or operation of a public work or project. NZ Transport Agency is a requiring authority. Designation means a provision made in a district plan to give effect to a requirement made by a requiring authority.

This proposal requires a Notice of Requirement for Designation under section 168A, an Outline Plan under section 176A, and resource consents under Section 88.

7.1.1 Purpose and Principles of the RMA

Part 2: Purpose and Principles of the RMA is the framework under which all functions, powers and duties are exercised for the purpose of giving effect to the RMA. There are no qualifications or exceptions. Any exercise of discretionary judgement must promote the statutory purpose of the RMA, which is the sustainable management of natural and physical resources. Section 5 of the RMA incorporates the following description of sustainable management:

"...'s ustainable management' means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well being and for their health and safety while –

- a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
- b) Safeguarding the life supporting capacity of air, water, soil and ecosystems; and
- c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment."

Part 2 of the RMA also has a focus on recognising and providing for matters of national importance (Section 6), having particular regard to other significant resource management matters (Section 7) and taking into account the principles of the Treaty of Waitangi (Section 8).

The matters of national importance under Section 6 are as follows:

- a) The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:
- b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:
- c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:
- d) The maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:



- e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.
- f) The protection of historic heritage from inappropriate subdivision, use, and development.
- g) The protection of recognised customary activities.

Protection of the rivers and the coastal marine area will be achieved through the mitigation measures that will be implemented during the culvert and earthworks aspects of the construction. The margins of the unnamed stream will be enhanced by the establishment of indigenous species. While part of an area of land identified in the Dunedin City District Plan as an Area of Significant Conservation Value and protected by a QEII covenant will be affected by the realignment, the area affected has a number of exotic trees and is located on the eastern side of the property. Compensatory planting of a greater area of land, which is to be retained by NZTA and is adjacent to the remaining QEII covenanted land will complement the adjacent land. It is noted that the QEII Trust has given its consent under s114 of the Public Works Act to vary the open space covenant by excluding the area affected by the proposal.

It is recognised that the area was used extensively by Maori in the past and the application for the archaeological authority will include a requirement to contact the Kati Huirapa Runanga ki Pukiteraki in the event of any discovery of any material of interest to the Runaka as well as other measures intended to reduce effects on historic heritage. The landscaping proposed with native species will contribute to the restoration and enhancement of the mauri of the rivers. While the archaeological assessment has identified that there will be some effects on historic heritage and pre 1900 posts will be buried by the proposal and they would be recorded and preserved for recovery in the future, the alternative suggestion to remove the posts and make them available for interpretive purposes would also provide for their protection.

There are no matters of national importance identified that will be affected and will not be mitigated.

The other resource management matters under Section 7 are as follows:

- a) Kaitiakitanga:
- aa) The ethic of stewardship:
- *b)* The efficient use and development of natural and physical resources:
- ba) The efficiency of the end use of energy:
- c) The maintenance and enhancement of amenity values:
- d) Intrinsic values of ecosystems:
- e) [Repealed]
- f) Maintenance and enhancement of the quality of the environment:
- g) Any finite characteristics of natural and physical resources:
- *h)* The protection of the habitat of trout and salmon:
- i) The effects of climate change:
- *j)* The benefits to be derived from the use and development of renewable energy.

Section 8 requires the principles of the Treaty of Waitangi to be taken into account. It is considered that the principles of the Treaty of Waitangi have been taken into account. Consultation has been undertaken with Kati Huirapa Runanga ki Pukiteraki in order to identify Runanga interests.



In terms of Part 2 of the Act, State highways are a physical resource. This designation will enable the efficient use and development of SH1 and will provide for the economic well being and safety of people and communities.

7.1.2 Designations

Designations are provided for in Sections 166 to 186 of the RMA.

Section 168 and Form 18, Schedule 1 (Forms, Fees and Procedures) Regulations 2003 of the RMA describes the information to be included in a Notice of Requirement. The Notice of Requirement must describe:

- The site.
- The nature of the proposed public work.
- The effects on the environment and the ways in which any adverse effects will be mitigated.
- The extent to which alternative sites, routes and methods have been considered.
- Why the public work and designation is reasonably necessary for achieving the objectives of the requiring authority.
- Resource consents needed and whether or not they have been applied for.
- Consultation undertaken

and provide any other information which is required.

When a notice of requirement under section 168 is received by a territorial authority, it must decide whether to notify the requirement under sections 95 to 95F and unless the territorial authority applies section 170, sections 92 to 92B and 96 to 103 apply and further information can be requested (s169). When considering a Notice of Requirement for a designation under Section 171(1A) and any submissions made on the Notice of Requirement, a Territorial Authority must, subject to Part 2, consider the effects on the environment and have particular regard to:

- a) any relevant provisions of -
 - (i) a national policy statement:
 - (ii) a New Zealand coastal policy statement:
 - (iii)a regional policy statement or proposed regional policy statement:
 - (iv)a plan or proposed plan; and
- b) whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if
 - (i) the requiring authority does not have an interest in the land sufficient for undertaking the work; or
 - (ii) it is likely that the work will have a significant adverse effect on the environment; and
- c) whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and
- d) any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.

Under section 171(2), the territorial authority may recommend to the requiring authority that it:

- (a) confirm the requirement:
- (b) modify the requirement:
- (c) impose conditions:
- (d) withdraw the requirement.



Section 171(3) requires the territorial authority to give reasons for its recommendation under s171(2).

The requiring authority is required under section 172(1) to advise the territorial authority whether it accepts or rejects the recommendation in whole or in part within 30 working days of the day on which it receives the territorial authority's recommendation. The requiring authority may only modify a requirement if the modification is recommended by the territorial authority or it is not inconsistent with the requirement as notified (s172(2)). If the requiring authority rejects the territorial authority's recommendation in whole or in part, or modifies the requirement, reasons must be given (s172(3)).

Within 15 working days after a decision is made under section 172 by a requiring authority, the territorial authority must ensure that a notice of decision and a statement of the time within which an appeal against the decision may be lodged is served on submitters and land owners and occupiers directly affected by the decision (s173(1)).

If the territorial authority gives a notice summarising a decision, it must make a copy of the decision available physically or by electronic means at all its offices and all public libraries in the district; and include with the notice a statement of the places where a copy of the decision is available and send or provide, on request, a copy of the decision within 3 working days after the request is received (s173(2)).

Once a designation is confirmed it is incorporated into a district plan as if it were a rule, providing for activities and setting out the conditions and restrictions that have been determined through the process.

Requirements for designations have an interim effect under section 178 from the time the requirement is notified until the designation is included in the district plan and the designation has effect from the time it is included in the Plan. No person may do anything on the land included in the designation that would prevent or hinder the work including; use of the land or changing the character, intensity, or scale of use of the land or subdividing the land without the prior written consent of the requiring authority under section 178(2).

After a designation for the work is established an outline plan of the work to be constructed must be submitted to the Council before work is commenced unless the details of the work are incorporated into the designation or the Territorial Authority has waived the need to provide an outline plan. The details required to be shown on an outline plan are contained in section 176A(3) as follows:

- (a) the height, shape and bulk of the public work, project, or work; and
- (b) the location of the site of the public work, project, or work; and
- (c) the likely finished contour of the site; and
- (d) the vehicular access, circulation, and the provision for parking; and
- (e) the landscaping proposed; and
- (f) any other matters to avoid, remedy or mitigate any adverse effects on the environment.

The information required to be supplied for an Outline Plan is incorporated into this Notice of Requirement for SH1: Waitati Curve Realignment.

The Notices of Requirement for designations relate to land (including subsoil and airspace) for the project. Resource consent applications are being made at the same time for consents for aspects which are the responsibility of the ORC for land use consent and for discharge permits in relation to culvert works and



the realignment construction as well as to DCC for the relocation of the Blueskin General Store to a temporary and permanent site.

7.2 Dunedin City District Plan

The Dunedin City District Plan contains the relevant provisions to be taken into account when considering a Notice of Requirement. The relevant objectives and policies of the Dunedin City District Plan in respect of this proposal are set out below.

Reference	Objective or Policy
Sustainability	
Objective 4.2.1	Enhance the amenity values of Dunedin.
Objective 4.2.2	Ensure that the level of infrastructural services provided is appropriate to the
	potential density and intensity of development and amenity values of the area.
Objective 4.2.3	Sustainably manage infrastructure.
Policy 4.3.1	Maintain and enhance amenity values.
Policy 4.3.4	Provide for the protection of the natural and physical resources of the City commensurate with their local, regional and national significance.
Policy 4.3.5	Require the provision of infrastructure services at an appropriate standard.
Policy 4.3.10	Adopt an holistic approach to assessing the effects of the use and development of natural and physical resources.
Manawhenua	
Objective 5.2.1	Take into account the principles of the Treaty of Waitangi in the management of
	the Gity's natural and physical resources.
Policy 5.3.1	Consult with Manawhenua regarding natural and physical resource issues of importance to them.
Policy 5.3.5	Avoid, remedy or mitigate any adverse effects on waahi taoka resulting from land
	use activities.
Rural	
Objective 6.2.1	Maintain the ability of the land resource to meet the needs of future generations.
Objective 6.2.2	Maintain and enhance the amenity values associated with the character of the rural area.
Objective 6.2.6	Maintain and enhance the life-supporting capacity of land and water resources.
Landscape	
Objective 14.2.3	Ensure that land use and development do not adversely affect the quality of the landscape.
Objective 14.2.4	Encourage the maintenance and enhancement of the quality of Dunedin's landscape.
Policy 14.3.3	Identify those characteristics which are generally important in maintaining landscape quality in the rural area (as listed in part 14.5.3 of this section) and ensure they are conserved.
Policy 14.3.4	Encourage development which integrates with the character of the landscape and enhances landscape quality.
Trees	



Reference	Objective or Policy
Objective 15.2.1	Maintain and enhance the amenity and environmental quality of the City by
	encouraging the conservation and planting of trees.
Objective 15.2.2	Protect Dunedin's most significant trees.
Policy 15.3.1	Ensure that landowners and developers are aware of the environmental benefits
	of trees and encourage them to conserve trees and undertake new plantings
	where possible.
Policy 15.3.2	Identify and protect trees that make a significant contribution towards amenity
	and environmental quality.
Hazards, Hazardo	ous Substances and Earth works
Objective 17.2.2	Prevent or mitigate the adverse environmental effects and risks arising from
	facilities and activities involving the storage, use, disposal or transportation of
	hazardous substances.
Objective 17.2.3	People, property and the environment in Dunedin are protected from the adverse
	effects of earthworks
Policy 17.3.8	Control activities involving the storage, use, disposal and transportation of
	hazardous substances and identify sites where hazardous substances processes
	and facilities which pose a risk to the environment and to health and safety are
	located.
Policy 17.3.9	Control the location and scale of earthworks in Dunedin
Transportat io n	
Objective 20.2.1	Avoid, remedy or mitigate adverse effects on the environment arising from the
	establishment, maintenance, improvement and use of the transportation network.
Objective 20.2.3	Achieve integrated management of the roading network, including pedestrian and
	cycle use, with rail, air and sea networks.
Objective 20.2.4	Maintain and enhance a safe, efficient and effective transportation network.
Policy 20.3.1	Avoid, remedy or mitigate the adverse effects on the environment of establishing,
	maintaining, improving or using transport infrastructure.
Policy 20.3.2	Provide for the maintenance, improvement and use of public roads.
Policy 20.3.5	Ensure safe standards for vehicle access.
Policy 20.3.8	Provide for the safe interaction of pedestrians and vehicles.
Environmental Is	sues
Objective 21.2.2	Ensure that noise associated with the development of resources and carrying out
	of activities does not affect public health and amenity values.
Policy 21.3.3	Protect people and communities from noise and glare which could impact upon
	health, safety and amenity.
Policy 21.3.8	Avoid where practicable, or otherwise remedy or mitigate, the adverse effects of

Overall it is considered that the proposed works are consistent with the relevant objectives and policies contained in the Dunedin City District Plan. The relevant objectives and policies are about providing and enhancing a safe, efficient, effective transportation network for all modes of transport while avoiding, remedying and mitigating the adverse effects of establishment and operation of roads, encourages



development which integrates with the character of the landscape and enhances landscape quality and amenity and protecting significant trees.

It is also consistent with the objectives and policies related to earthworks, the use of haz ardous substances, the effect on public health and amenity and discharges to land, water or air.

7.2.1 Existing Designations

There are two existing designations in the DCC District Plan for SH1 at Waitati:

- D449 NZ Transport Agency: SH1 DCC/WDC Boundary to Waitati "State Highway Purposes (SH1)".
- D450 NZ Transport Agency: SH1 Northern Motorway (Wait at i to Pine Hill Road) "Motorway Purposes (SH1)".

A notice of requirement for a designation is required for the realignment of SH1 at Waitati. An Outline Plan is also be required. The information requirements for an Outline Plan can be incorporated into the Notice of Requirement or alternatively, it can be provided before construction commences. It is considered that this document ation incorporates both the Notice of Requirement and the Outline Plan information requirements.

There is one other existing designation of relevance:

• D419 NZ Railway Corporation: Main South Railway – "Railway Purposes"

Where land is subject to an existing designation, the requiring authority responsible for the later designation must obtain written consent pursuant to s177 from the requiring authority responsible for the earlier designation before anything is done on land subject to an earlier designation. The alteration to designation will extend on to the Railways designation.

7.2.2 Areas of Significant Conservation Value and Significant Trees

There are two areas of significant conservation value and four significant trees (or groups of trees) on land adjacent to SH1 at Waitati identified in the Dunedin City District Plan. They are as follows:

District Plan Reference	Descript io n / Significance	Legal Desc riptio n
C084	QEII Covenant - Coastal regenerating hardwood forest and forest regeneration	Part of Pt Sec 45 Blk I, North Harbour and Blueskin SD and Part of Sec 1 of 19 Blk II, North Harbour and Blueskin SD
T1136	Quercus robur - Oak	Pt Lot 9 Deeds 401
C104	Edge of Blueskin Bay estuary	
T1161	Dacrycarpus dacrydioides - Kahikatea	Pt sec 44 Blk I North Harbour and Bluesk in SD
T1162	Podocarpus totara -Totara	Pt sec 44 Blk I North Harbour and Blueskin SD
G104	Group of Sophora microphylla - SI Kowhai	Sec 44 Blk I North Harbour &



District Plan Reference	Descript io n / Significance	Legal Desc riptio n
		Bluesk in S D

While part of the QEII covenant land (C084) will be affected by the proposal, designating the area and undertaking the works is not considered to be inconsistent with the covenanting of the land given that the planting on this particular area contains predominantly exotic species, it is proposed to undertake compensatory planting on land adjacent to the covenanted land and the QEII Trust has given its consent under S114 of the Public Works Act to vary the open space covenant by excluding the area affected by the proposal.

The significant trees will not be affected by this proposal, nor will the edge of the Blueskin Bay estuary.

7.2.3 Information Requirements

Section 2.3 of the Dunedin City District Plan outlines the information which is to be supplied with a Notice of Requirement. This information is as follows:

(i) Evidence from a Minister of the Crown or a local authority that it has financial responsibility for a public work, or evidence from a network utility operator of its requiring authority status.

(ii) A statement from the requiring authority that the work and designation are reasonably necessary to achieve the objectives of the requiring authority.

(iii) Current search copies of the Certificates of Title for the site, the subject of the notice.

(iv) Plans drawn to a standard scale (showing a north point, date, title and scale) and an accompanying statement detailing the location of the following matters where applicable:

(a) A description of the site including:

- \cdot its area and dimensions; and
- \cdot generalised relief of the site including contours, existing ground lines, and spot heights sufficient to illustrate the general topography of the site.
- (b) Where the site is held in separate titles, the existing boundaries between Certificates of Titles.

(c) Easements or encumbrances affecting the proposal.

(d) Access to the site and its design, including roads (which should be shown as being either formed or unformed), tracks and walkways.

(e) Provision for parking and on-site manoeuvring of vehicles.

(f) Fences.

(g) Water mains, power, telephone and gas lines.

(h) Areas of fill and excavation.

(i) Stormwater and sanitary sewers and drains, and stormwater and effluent treatment or disposal systems, including disposal fields.

(j) Existing buildings and structures on the site, including their size and existing use.

(k) All existing vegetation, indigenous or otherwise, and habitats of indigenous fauna - including significant trees, groups of trees, hedges and areas of bush or scrub, to enable consideration of the



rules of the Landscape, Townscape, Trees, and Indigenous Vegetation and Fauna Sections of the District Plan.

(1) Any watercourses, wetlands, drainage systems or defences against water.

(m) Any protected item listed in Schedule 25.1.

(n) Any archaeological site or sites (including those listed in Schedule 25.2).

(o) Any tree listed in Schedule 25.3.

- (p) Any area of significant conservation value listed in Schedule 25.4.
- (q) Designations listed in Schedule 25.5.
- (r) Any waahi tapu site, waahi taoka site or other significant site.
- (s) Where landscaping is to be undertaken, details of that landscaping.
- (t) Any other relevant occupation of the land.

(v) Drawings and plans, drawn to a standard scale (showing a north point, date, title and scale) and an accompanying statement containing a comprehensive description of the public work, project or work for which the designation is sought.

(vi) A description of the proposed sequence and timing of implementation of the public work, project or work clearly identifying any part of the public work, project or work which may not be commenced for five or more years.

(vii) A description of the proposals for the use and maintenance of those parts of the land which will not be developed for five or more years, in particular, identification of those buildings and structures which will continue to be used and maintained.

(viii) If the site is already designated or subject to a heritage protection order, a summary of the details of the designation or order, whether the previous designation has been put into effect fully, and how the proposed public work, project or work, will affect the efficiency of the existing designation or order.

(ix) A statement on the degree to which the public work, project or work is:

- (a) Consistent with Part II of the Act.
- (b) Consistent with the relevant provisions of national, coastal and regional policy statements and regional plans.
- (c) Consistent with, and inconsistent with the objectives and policies in and rules of this District Plan.

(x) An assessment of the effects that the public work, project or work will have on the environment, and the ways in which any adverse effects will be mitigated. This assessment shall contain such detail as corresponds with the scale and significance of the actual or potential effects that the public work, project or work may have on the environment, and shall be prepared in accordance with the Fourth Schedule of the Act.

(xi) Where the public work, project or work is subject to technological hazards, geological hazards such as fault lines, and areas susceptible to amplified ground shaking and liquefaction, falling debris, erosion, subsidence, slippage or inundation, a geotechnical report, prepared by a suitably qualified person, which satisfies the Council that the effects of such natural hazards from any source on the land or any structure on the land or proposed to be built on the land can be adequately avoided, remedied or mitigated shall be provided.



In the case of public works, projects or works that may be subject to inundation (other than those lying within the area enclosed by Victoria Road, the extended John Wilson Ocean Drive, Tainui Road, Ravelston Street, Royal Crescent, Portobello Road, Portsmouth Drive, Strathallan Street, Wilkie Road, South Road and Forbury Road where Council will undertake any mitigation work), the applicant shall provide a detailed level survey in accordance with a datum that can be related to mean sea level.

- (xii) The storage, use, disposal or transportation of hazardous substances requires the following:
 (a) A statement on the degree of risk to the public health and safety arising from the production, storage, use, disposal or transportation of such substance.
 - (b) A site management plan.
 - (c) An emergency response plan.

(xiii) Such other information as is necessary to explain the requirement fully.

All of the required information is provide in this documentation.

7.3 Relevant Regional Planning Documents

7.3.1 Regional Policy Statement for Otago

The relevant provisions of the Regional Policy Statement for Otago in respect of this proposal are set out below.

Reference	Objective or Policy
Manawhenua	
Objective 4.4.3	To recognise the principle of wairua and mauri in the management of Otago's water bodies.
Objective 4.4.5	To incorporate the concept and spirit of kaitiakitanga in the management of Otago's natural and physical resources in a way consistent with the values of Kai Tahu.
Land	
Objective 5.4.2	To avoid, remedy or mitigate degradation of Otago's natural and physical resources resulting from activities utilising the land resource.
Water	
Objective 6.4.2	To maintain and enhance the quality of Otago's water resources in order to meet the present and reasonably foreseeable needs of Otago's communities.
Objective 6.4.3	To safeguard the life-supporting capacity of Otago's water resources through protecting the quantity and quality of those water resources.
Objective 6.4.7	To maintain and enhance public access to and along the margins of Otago's water bodies.
Policy 6.5.10	To maintain and enhance access to and along the margins of Otago's water bodies through: a) Encouraging the retention and setting aside of esplanade strips and reserves and access strips to and along the margins of water bodies which will enhance access; and b) Identifying and providing for other opportunities to improve access; Except where restriction is necessary:



Reference	Objective or Policy		
	 (i) To protect areas of significant indigenous vegetation and/or significant habitats of indigenous fauna, (ii) To protect Maori cultural values, (iii) To protect public health or safety, (iv) To ensure a level of security consistent with the purpose of a resource consent; or (v) In other exceptional circumstances sufficient to justify the restriction notwithstanding the national importance of maintaining that access. 		
Built Environme	nt		
Objective 9.4.3	To avoid, remedy or mitigate the adverse effects of Otago's built environment on Otago's natural and physical resources.		
Policy 9.5.3	 To promote and encourage the sustainable management of Otago's transport network through: a) Promoting the use of fuel efficient modes of transport; and b) Encouraging a reduction in the use of fuels which produce emissions harmful to the environment; and c) Promoting a safer transport system; and d) Promoting the protection of transport infrastructure from the adverse effects of land use activities and natural hazards. 		

Overall it is considered that the proposed works are consistent with the relevant objectives and policies contained in the Regional Policy Statement for Otago. The assessment of effects on the environment within this document demonstrates that the proposed realignment of SH1 at Waitati can be undertaken in a manner that avoids, remedies or mitigates any potential adverse effects on the surrounding environment.

7.3.2 Regional Plan: Water for Otago

Consents are being sought under the Regional Plan: Water for Otago and have been assessed in the applications for those activities.

7.3.3 Ot ago Regional Land Transport Strategy

The relevant policies of the Regional Land Transport Strategy for Otago (2005) in respect of this proposal are set out below.

Reference	Objective or Policy
Policy 1.1	Assist economic development in the Otago region.
Policy 3.1	Ensure transport related decision-making supports improvement in safety and personal security.
Policy 3.2	Ensure transport decision-making improves access and mobility.
Policy 3.3	Ensure transport related decision-making protects and promotes Public Health.
Policy 3.4	Ensure appropriate incorporation of cultural wellbeing issues into transport related decision-making.

Overall it is considered that the proposed works are consistent with the relevant objectives and policies contained in the Regional Land Transport Strategy for Otago. The assessment of effects on the environment within this document demonstrates that the proposed realignment of SH1 at Waitati can be undertaken in a manner that avoids remedies or mitigates any potential adverse effects on the surrounding environment.



7.3.4 Consents Required

Consents are required from ORC under the Regional Plan: Water for Otago for culvert activities and discharge of contaminants to water and from the DCC under the Dunedin City District Plan for the establishment and operation of the temporary and permanent store. Applications are being lodged for these consents at the same time that this notice of requirement is being lodged.

An Archaeological Authority will be applied for from NZ Historic Places Trust and the QEII Trust has given its consent under s114 of the Public Works Act to vary the open space covenant by excluding the area affected by the proposal.

7.4 Other Relevant Documents

7.4.1 Kai Tahu Ki Ot ago Natural Resource Management Plan 2005

The Natural Resource Management Plan 2005 (NRM P) is the principal planning document for Kai Tahu ki Otago, created to provide a basis from which Kai Tahu ki Otago can further develop their participation in the management of the natural, physical and historic resources of Otago. The objectives and policies relevant to this proposal are set out below.

Reference	Objective or Policy
Objective 5.4.3	i. All wāhi tapu are protected from inappropriate activities.
	ii. Kāi Tahu ki Otago have access to wāhi tapu.
	iii. Wāhi tapu throughout the Otago region are protected in a culturally
	appropriate manner.
Policy 5.5.4.7	To require that all assessments of effects on the environment include an
	assessment of the impacts of the proposed activity on mahika kai.
Policy 5.6.4.20	To require an accidental discovery protocol for all road realignments and widening
	and forest harvest roads and to avoid any sediment run-off during earthworks and
	road construction to avoid contamination of waterways.

Overall it is considered that the proposed works are consistent with the relevant objectives and policies contained in the NRMP given the nature and location of the works.

There are no national policy statements (including the NZ Coast al Policy Statement), which have any relevant provisions with regard to this proposed Notice of Requirement.

7.5 Conclusion

This proposed Notice of Requirement is consistent with Part 2 of the Act, and the relevant provisions of the regional policy statement and, and the objectives, policies and rules of the Dunedin City District Plan. The proposal provides for the realignment of SH1 at Waitati which will better provide for the community's social and cultural wellbeing, by providing a safer and more effective State highway for both vehicular, cyclists and pedestrians. Adverse effects that arise from construction and use will be avoided, or mitigated to the greatest extent possible.



8 Alternative Sites, Routes and Methods

A number of options have been considered by NZ Transport Agency to improve the safety of this curve. These include installing a right turn bay into the store, widening of the highway to provide for vehicles entering and exiting the store, sight distance improvements both within and outside road reserve and imposing speed restrictions. None of these options were found to address either the safety concerns relating to access or the negotiation of the curve by motorists. As these options were considered and discounted, an option to realign the curve emerged as the preferred solution to the safety issues relating to the curve and the adjacent land use.

The alternatives considered for the SH1: Waitati Curve Realignment were focussed on identifying a horizontal curve design which would be consistent with the driving environment of SH1 on both approaches, in order to improve safety. Options considered included a 600m radius, compound radius and a 550m radius curve. The latter option was selected as it was able to avoid the geotechnical issues associated with the 600m radius curve, while being geometrically superior to the compound curve. During the design process the vertical alignment was adjusted with the project extended further south. This reduced the vertical profile resulting in significantly less fill and less retained embankments.

Effort has also been made to enable the ongoing operation of the Blueskin General Store during the construction period. A number of alternative temporary and permanent store sites have been investigated but were determined not to be suitable.



9 **Resource Consents**

A number of resource consents will be required from the ORC. These are to enable construction of an extension to the Bissland Culvert and the construction of a new culvert at the unnamed water course. They include land use consents and a discharge permit to enable discharge of contaminants to water.

Resource consent will be required from DCC to establish and operate a store on a temporary site and a permanent site accessed from Harvey Street.

These applications are being lodged with the respective Councils at the same time the Notice of Requirement.



10 Consultation

Consultation on the realignment of SH1 at Waitati commenced in 2004 and is ongoing. This has been undertaken with adjacent and directly affected landowners and occupiers as well as other stakeholders and is summarised in Appendix M: Consultation.



11 Summary and Conclusions

The proposed realignment of SH1 at Waitati will meet the NZ Transport Agency objectives of the project to:

- Realign the state highway so as to align the design speed with that of the speed environment of the approaches.
- Improve the Harvey Street intersection.
- Enable continuity of the services currently offered by the Blueskin General Store, throughout and upon completion of the project development.

The 100km/hr design speed proposed for the realignment has met the objective to align the design speed with that of the design speed of the speed environment of the approaches. Property accesses will be improved and relocated to ensure that their design and visibility distance is consistent with the design speed of the proposal.

The intersection with Harvey Street will be relocated and right and left turn bays provided. The intersection will be improved and better cater for the number and mix of vehicles using it.

The proposal enables continuity of the services currently offered by the Blueskin General Store and concurrent applications for resource consent to enable this are being made.

The improvements to SH1 at Waitati will include a realigned road which is in context with the road on both State highway approaches, improved property accesses and a more forgiving road environment through the provision of guardrail and improved clear zone widths. The relocation of the Blueskin General Store to Harvey Street is an integral part of the project. The construction of these improvements is likely to take 24 months with the main work being the earthworks and pavement construction. To enable the Blueskin General Store to provide near continuous operation during the construction period, the store will first be relocated to a temporary site on the east side of SH1 on the north side of Harvey Street, the highway realignment will be constructed and the store will then be relocated to a permanent position south of Harvey Street as the realignment is completed. The existing store will be demolished during construction of the highway realignment. Temporary access will be provided to residents where necessary, and temporary traffic management will be in place to ensure the safety of the construction workers and road users.

The improvements are not likely to increase the volume of traffic using this section of SH1, nor is it likely to alter the nature of the vehicles using the road; however it will result in an increase in vehicle speeds due to the improved alignment.

The main traffic effect of the proposed realignment will be an improvement in traffic safety on this section of road due to the likely reduction in the number and severity of crashes, particularly loss of control and access related crashes.

Alternatives have been considered and the option preferred for the realignment of SH1 at Waitati best meets the objectives of the NZ Transport Agency while avoiding and mitigating effects on the environment.



The environment is rural with some residences close to the existing State highway. Potential geotechnical effects have been identified and will be either avoided or mitigated during development of the proposal. The landscape close to the highway is highly modified. The proposed realignment moves the highway further away from all but one of the residences. Noise mitigation in the form of double glazing and an acoustic fence will mitigate the effects of realigning the road closer to this residence.

The Blueskin General Store will be directly affected by the proposed realignment and the proposal incorporates establishment of a temporary and permanent replacement store with access from Harvey Street. The utilisation of a temporary and permanent store will enable continuity of services to the community during the construction period.

An area of land under a QEII covenant will be affected by the realignment, however the vegetation on the area of land affected is mainly exotic species and an area of compensatory planting adjacent to the remaining land is incorporated into the proposal. The QEII Trust has given its consent under s114 of the Public Works Act to vary an open space covenant by excluding the area affected by the proposal. The significant Oak tree within the proposed designation has been protected and effects on the significant group of Kowhai just beyond the proposed requirement have also been avoided. The effects of the proposed realignment have been comprehensively considered and evaluated. The conclusions drawn from this process are that the effects on the environment will be minor and can be effectively managed by those mitigations identified and presented in this document.

The proposal is not contrary to the requirements of the RMA or any of the relevant planning instruments.

NZ Transport Agency is continuing to work with directly affected and adjacent landowners and occupiers to finalise mitigation measures that will avoid, remedy or mitigate adverse effects arising from the proposal.



Appendix A: Proposal Illustration



Appendix B: Site Plan



Appendix C: Layout Plans



Appendix D: Construction Plans



Appendix E: Designation Plans



Appendix F: Certificates of Title







Identifier

Date Issued

COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952 Limited as to Parcels

Search Copy



Part-Cancelled

Prior	References	
DI M	724	

Land Registration District Otago

 Estate
 Fee Simple

 Area
 15.2465 hectares more or less

 Legal Description
 Part Section 45 Block I North Harbour & Blueskin Survey District and Part Section 1 of 19 and Part Section 2 of 19 Block II North Harbour & Blueskin Survey District

DI W895

OT247/179

16 May 1931

Proprietors

Jennifer Elizabeth Gleeson, Paul Leslie Guy and Public Trust

Interests

Subject to a right to take and convey water from stream or reservoir and through pipeline shown on diagram in Deed of Easement over part Section 1 of 19 and part Section 45 herein in favour of Her Majesty the Queen for Railway purposes created by unregistered Deed of Easement dated 10th May 1911 (See Application C5232) Subject to a right to take and convey water from stream or reservoir over the within land appurtenant to Lot 19 Block I Deeds Plan 123 (CT OT247/155) and Lots 1 - 18 and 20 Block I Deeds Plan 123 (CT OT247/154) created by Conveyance 127073 (209/496) - 30.6.1922

5557 Proclamation taking for road parts Section 45 Block coloured red hereon (6.06 p) - 3.12.1941 at 10.00 am 6305 Proclamation defining the middle lline of the Dunedin - Waitati motorway over part Section 45 - 5.1.1953 at 10.43 am

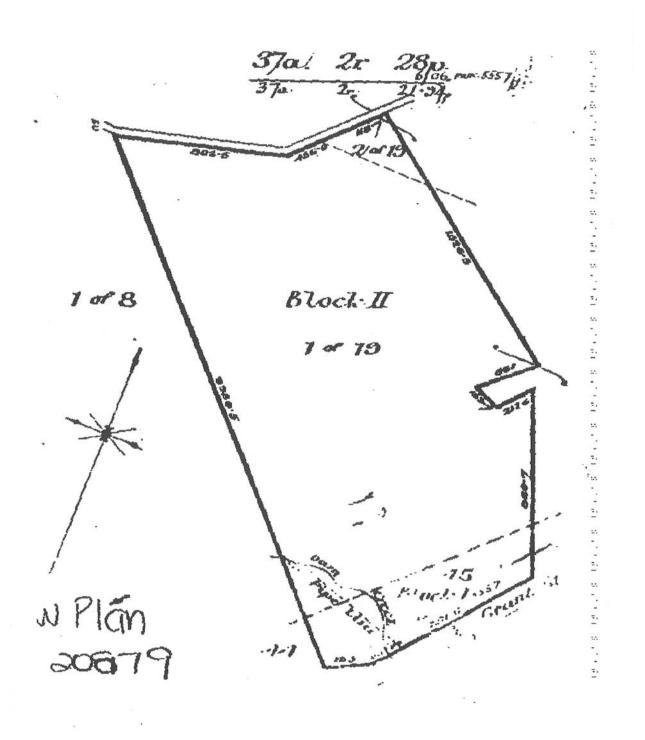
556746 Gazette Notice declaring part of State Highway 1 (Awanui - Bluff) fronting the within land to be limited access road - 26.6.1981 at 10.20 am

723010 Open Space Covenant pursuant to Section 22 QE II National Trusts Act 1977 - 1.3.1989 at 9.10 am 984015.2 Notice pursuant to Section 91 Transit New Zealand Act 1989 - 29.2.2000 at 10.34 am

Transaction Id 27362807 Client Reference 60577

Search Copy Dated 9/03/10 1:48 pm, Page 1 of 1 Register Only









COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952 Limited as to Parcels

Search Copy



IdentifierOT308/66Land Registration DistrictOtagoDate Issued04 December 1941

Prior References OT247/158

EstateFee SimpleArea813 square metres more or lessLegal DescriptionPart Lot 14 Deeds Plan 401PurposeFor use in connection with a road

Proprietors

Her Majesty the Queen

Interests

Fencing Agreement in Transfer 135695 - 4.12.1941

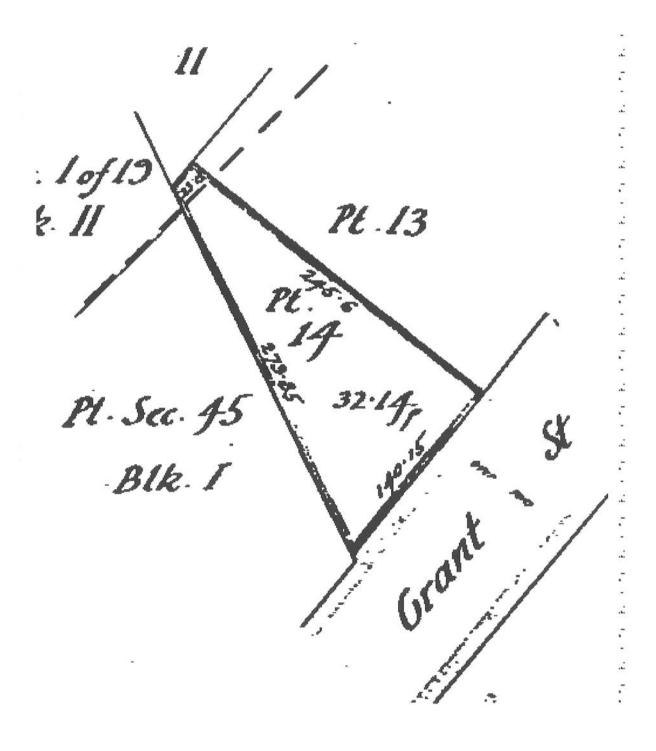
556746 Gazette Notice declaring part of State Highway 1 (Awanui - Bluff) fronting the within land to be limited access road - 26.6.1981 at 10.20 am

7362265.1 Compensation Certificate pursuant to Section 19 Public Works Act 1981 - 10.5.2007 at 9:00 am

Transaction Id 27004288 Client Reference 60488

Search Copy Dated 28/01/10 8:42 am, Page 1 of 1 Register Only







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Extract from New Zealand Gazette, 20/7/2006, No. 82, p. 2594

Land Acquired for Use in Connection With a Road -State Highway No. 1, Waitati Intersection, **Dunedin City**

Pursuant to section 20(1) of the Public Works Act 1981, and to a delegation from the Minister for Land Information, Ronald Alistair Jolly, Land Information New Zealand, declares that, pursuant to an agreement to that effect having been entered into, the land described in the Schedule to this notice is acquired for use in connection with a road and shall vest in the Crown on the date of publication of this notice in the New Zealand Gazette.

Otago Land District-Dunedin City

Schedule

Land Declared as Road

Description

- Area m² Part Lots 12 and 13, Deeds Plan 401 (Computer Freehold Register OT16D/322) (limited as to 1499 parcels).
- Part Lot 11, Deeds Plan 401 (Computer Freehold 2118 Register OT17C/537).
- Allotment 10, Deeds Plan 401 (Computer Freehold Register OT247/163) (limited as to 2371 parcels).
- Part Lots 8 and 9, Deeds Plan 401 (Computer Freehold Register OT5B/443) (limited as to 1212 parcels).

Dated at Wellington this 7th day of July 2006. R. A. JOLLY, for the Minister for Land Information. (LINZ CPC/2004/9692) Lo4889







COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952 Limited as to Parcels

Search Copy



OT247/185 Identifier Land Registration District Otago Date Issued 16 May 1931

Part-Cancelled

Prior References DI W782

Estate

Area

Fee Simple 1.8211 hectares more or less Legal Description Part Section 45 Block I North Harbour & Blueskin Survey District

Proprietors

Birgette Sarah Brix McLean

Interests

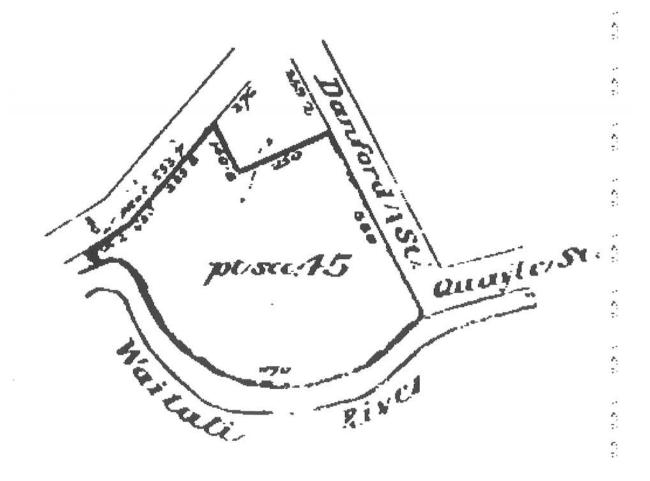
Proclamation 5557 taking for road the land coloured red herein (1.75 perches) - 3.12.1946 at 10.00 am 6305 Proclamation defining the middle line of the Dunedin - Waitati Motorway - 5.1.1953 at 10.43 am 556746 Gazette Notice declaring part of State Highway 1 (Awanui -Bluff) fronting the within land to be limited access road - 26.6.1981 at 10.20 am

984018.7 Crossing place notice pursuant to Section 91 Transit New Zealand Act 1989 - 28.2.2000 at 10.34 am 984018.8 Crossing place notice pursuant to Section 91 Transit New Zealand Act 1989 - 28.2.2000 at 10.34 am 8314045.2 Mortgage to ASB Bank Limited - 15.10.2009 at 3:11 pm

Transaction Id 27004288 Client Reference 60488

Search Copy Dated 28/01/10 8:41 am, Page 1 of 1 Register Only











COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952 Limited as to Parcels

Search Copy



349947 Identifier Land Registration District Otago **Date Issued** 24 April 2007

Prior References 324059

OT247/154 Fee Simple Estate 2.1041 hectares more or less Area

Legal Description Allotment 1-18, 20 Block 1 Deeds Plan 123 and Section 1 Survey Office Plan 352439

Proprietors

Blueskin Agricultural and Pastoral Society

Interests

Allotments 1-18 and Allotment 20 Block I Deeds Plan 123 are subject to the provisions of Section 23 of the Land Transfer (Compulsory Registration of Titles) Act 1924

Appurtenant to Allotments 1-18 and Allotment 20 Block I Deeds Plan 123 is a right to take water from stream or reservoir in part of Section 1 of 19 Block II North Harbour and Blueskin Survey District created by Deed of Easement 127073 (209/496) - 30.6.1922

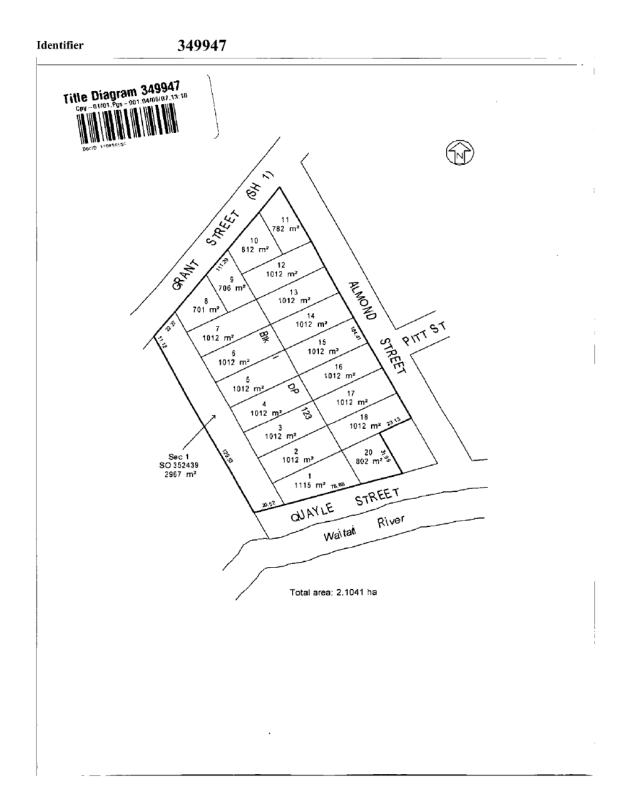
3422 CAVEAT BY DISTRICT LAND REGISTAR - 18.4.1931 AT 11.30 AM (affects Allotments 1-18 and Allotment 20 Block I Deeds Plan 123)

556746 Gazette Notice declaring part of State Highway 1 (Awanui - Bluff) fronting Allotments 1-18 and Allotment 20 Block I Deeds Plan 123 to be a limited access road - 26.6.1981 at 10.20 am

Subject to Section 345(2A)(a) Local Government Act 1974

Transaction Id Client Reference = :1630901 Search Copy Dated 3/08/10 1:40 pm, Page 1 of 2 Register Only









COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952 Limited as to Parcels

Search Copy



IdentifierOT2D/333Land Registration DistrictOtagoDate Issued12 July 1966

Prior References OT247/162

EstateFee SimpleArea533 square metres more or lessLegal DescriptionPart Lot 6-7 Deeds Plan 401Proprietors

Stuart Robert Beauchomp Clayton

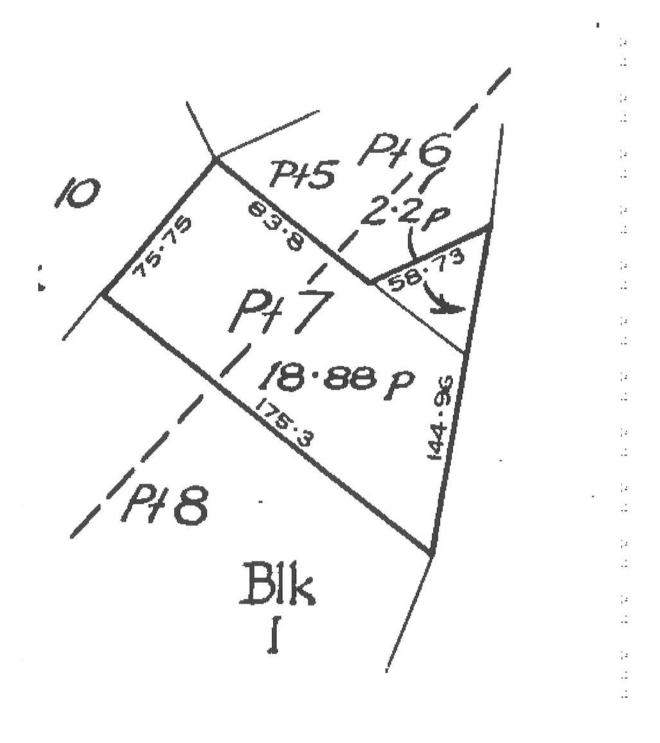
Interests

Fencing agreement in Conveyance 145557 (252/142)

2383 Notice that part of the waters of a creek flowing through the part formally Section 1 of 19 Block II North Harbour and Blueskin Survey District have been taken for Railway Purposes - 7.4.1911 at 10.00 am 556746 Gazette Notice declaring part of State Highway 1 (Awanui - Bluff) fronting the within land to be limited access road - 26.6.1981 at 10.20 am

Transaction Id 27004288 Client Reference 60488 Search Copy Dated 28/01/10 8:57 am, Page 1 of 1 Register Only









COMPUTER INTEREST REGISTER UNDER LAND TRANSFER ACT 1952 Limited as to Parcels

Search Copy



Identifier350506Land Registration DistrictOtagoDate Registered02 March 2007 09:00 am

Prior References GN 7256771.1

 Type
 Fee Simple

 Area
 312 square metres more or less

 Legal Description
 Allotment 5 Deeds Plan 401

 Purpose
 for use in connection with a road

 Proprietors
 For use in connection with a road

Her Majesty the Queen

Interests

Transaction Id 27004288 Client Reference 60488 Search Copy Dated 28/01/10 8:56 am, Page 1 of 1 Register Only



Extract from New Zealand Gazette, 22/2/2007, No. 20, p. 411

Land Acquired for Use in Connection With a Road -State Highway 1, Waitati Curve, Dunedin City

---State Highway I, Waltati Curve, Dunedin City Pursuant to section 20 of the Public Works Act 1981, and to a delegation from the Minister for Land Information, Ronald Alistair Jolly, Land Information New Zealand, declares that, pursuant to an agreement to that effect having been entered into, the land described in the Schedule to this notice is acquired for use in connection with a road and shall vest in the Crown on the date of publication of this notice in the New Zealand Gazette.

Otago Land District—Dunedin City Council Schedule

Land Acquired for Use in Connection With a Road Area m²

- Description 312
- Part Allotment 5 Deeds Plan 401 (balance Computer Freehold Register OT247/160). Part Allotment 4 Deeds Plan 401 (balance Computer Freehold Register OT247/161). 777

Dated at Wellington this 16th day of February 2007. R. A. JOLLY, for the Minister for Land Information. (LINZ CPC/2005/10342) In1140

GN 7256771.1 Gazette N Title Diagram Gazette D(Cpy - 01/01, Pgs - 001, 21/05/07, 12:51

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NOTICE NO: 1140

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COMPUTER INTEREST REGISTER UNDER LAND TRANSFER ACT 1952 Limited as to Parcels

Search Copy



Identifier350507Land Registration DistretOtagoDate Registered02 March 2007 09:00 am

Prior References GN 7256771.1

TypeFee SimpleArea777 square metres more or lessLegal DescriptionAllotment 4 Deeds Plan 401Purposefor use in connecton with a roaad

Proprietors Her Majesty the Queen

Interests

Transaction Id27004288Client Reference60488

Search Copy Dated 28/01/10 8:53 am, Page 1 of 1 Register Only



Extract from New Zealand Gazette, 22/2/2007, No. 20, p. 411

Land Acquired for Use in Connection With a Road -State Highway 1, Waitati Curve, Dunedin City

---State Highway I, Waltati Curve, Dunedin City Pursuant to section 20 of the Public Works Act 1981, and to a delegation from the Minister for Land Information, Ronald Alistair Jolly, Land Information New Zealand, declares that, pursuant to an agreement to that effect having been entered into, the land described in the Schedule to this notice is acquired for use in connection with a road and shall vest in the Crown on the date of publication of this notice in the New Zealand Gazette.

Otago Land District—Dunedin City Council Schedule

Land Acquired for Use in Connection With a Road Area m²

- Description 312
- Part Allotment 5 Deeds Plan 401 (balance Computer Freehold Register OT247/160). Part Allotment 4 Deeds Plan 401 (balance Computer Freehold Register OT247/161). 777

Dated at Wellington this 16th day of February 2007. R. A. JOLLY, for the Minister for Land Information. (LINZ CPC/2005/10342) In1140

GN 7256771.1 Gazette N Title Diagram Gazette D(Cpy - 01/01, Pgs - 001, 21/05/07, 12:51

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NOTICE NO: 1140

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COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952 Limited as to Parcels

Search Copy



IdentifierOT247/159Land Registration DistrictOtagoDate Issued18 April 1931

Part-Cancelled

Prior	References
DI Q2	05

EstateFee SimpleArea4892 square metres more or lessLegal DescriptionAllotment 2-3 Deeds Plan 401Purposefor use in connection with a road

Proprietors

Her Majesty the Queen

Interests

2383 Notification that part of the waters of a creek flowing through Section 1 of 19 Block II have been taken for railway purposes - 7.4.1911 at 10.00 am

4931 Proclamation taking the land coloured red hereon (13.1p) for the purposes of a road from 22nd December 1939 - 7.2.1940 at 9.30 am - 7.2.1940 at 9.30 am

556746 Gazette Notice declaring part of State Highway 1 (Awanui - Bluff) fronting the within land to be limited access road - 26.6.1981 at 10.20 am

984017.4 Notice pursuant to Section 91 Transit New Zealand Act 1989 - 28.2.2000 at 10.34 am

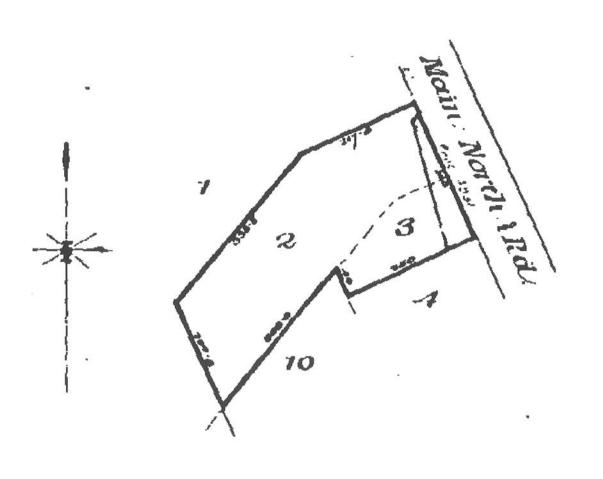
984017.5 Notice pursuant to Section 91 Transit New Zealand Act 1989 - 28.2.2000 at 10.34 am

5003306.1 Encumbrance to Her Majesty the Queen - 9.6.2000 at 9:00 am

6845029.1 Compensation Certificate pursuant to Section 19 Public Works Act 1981 - 2.5.2006 at 9:00 am

Transaction Id 27004288 Client Reference 60488 Search Copy Dated 28/01/10 8:49 am, Page 1 of 1 Register Only







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COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952 Limited as to Parcels

Search Copy



OT407/236 Identifier Land Registration District Otago 09 April 1959 **Date Issued**

Prior References

OT308/73

Fee Simple Estate 1.0560 hectares more or less Area Legal Description Part Lot 1 Deeds Plan 401

Proprietors

Doreen Rose Mosley, Linda Ellen Mosley, Graeme Alexander Mosley and Cook Allan Gibson Trustee Company Limited

Interests

X1888 Building Line Restriction - 3.7.1957 at 1.46 pm 556746 Gazette Notice declaring part of State Highway 1 (Awanui - Bluff) fronting the within land to be limited access road - 26.6.1981 at 10.20 am 915067.1 Transfer creating the following easements - 29.8.1996 at 11.00 am Servient Tenement Easement Area Туре Dominant Tenement **Statutory Restriction** Right of way Part Lot 1 Deeds Plan A DP 25389 Lot 1 Deposited Plan 401 - herein 8971 - CT OT407/125 Lot 1 Deposited Plan A DP 24853 Part Lot 1 Deeds Plan Convey water

401 - herein 984017.3 Notice pursuant to Section 91 Transit New Zealand Act 1989 - 28.2.2000 at 10.34 am

8971 - CT OT407/125

Transaction Id 27004288 Client Reference 60488

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COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952

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IdentifierOT407/125Land Registration DistrictOtagoDate Issued17 March 1959

Prior References OT308/73

01308/73

EstateFee SimpleArea1312 square metres more or lessLegal DescriptionLot 1 Deposited Plan 8971

Proprietors

Joho Technology (NZ) Limited

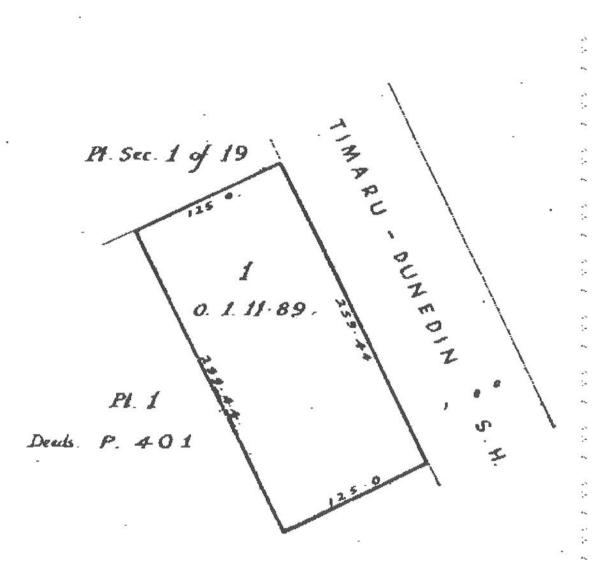
Interests

2383 Deposit Notice that part of the waters of a stream flowing through Section 1 of 19 Block II North Harbour and Blueskin Survey District have been taken for railway purposes - 7.4.1911 at 10.00 am X18881 Building Line Restriction - 3.7.1957 at 1.46 pm 556746 Gazette Notice declaring part of State Highway 1 (Awanui - Bluff) fronting the within land to be a limited access road - 26.6.1981 at 10.20 am 915067.1 Transfer creating the following easements - 29.8.1996 at 11.00 am Туре Servient Tenement **Easement Area Dominant Tenement** Statutory Restriction Right of way Lot 1 Deeds Plan 401 -A DP 25389 Lot 1 Deposited Plan CT OT407/236 8971 - herein A DP 24853 Part Lot 1 Deeds Plan Convey water Lot 1 Deposited Plan 8971 - herein 401 - CT OT407/236

984017.2 Crossing place notice pursuant to Section 91 Transit New Zealand Act 1989 - 28.2.2000 at 10.34 am 6894161.2 Mortgage to ANZ National Bank Limited - 16.6.2006 at 3:28 pm

Transaction Id 27004288 Client Reference 60488 Search Copy Dated 28/01/10 8:59 am, Page 1 of 1 Register Only









COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952

Search Copy



Identifier526871Land Registration DistrictOtagoDate Issued29 July 2010

Prior References OT263/93

EstateFee SimpleArea5689 square metres more or lessLegal DescriptionLot 1 Deposited Plan 429236Proprietors

Leigh Donne Morris and Samuel Richard Crush

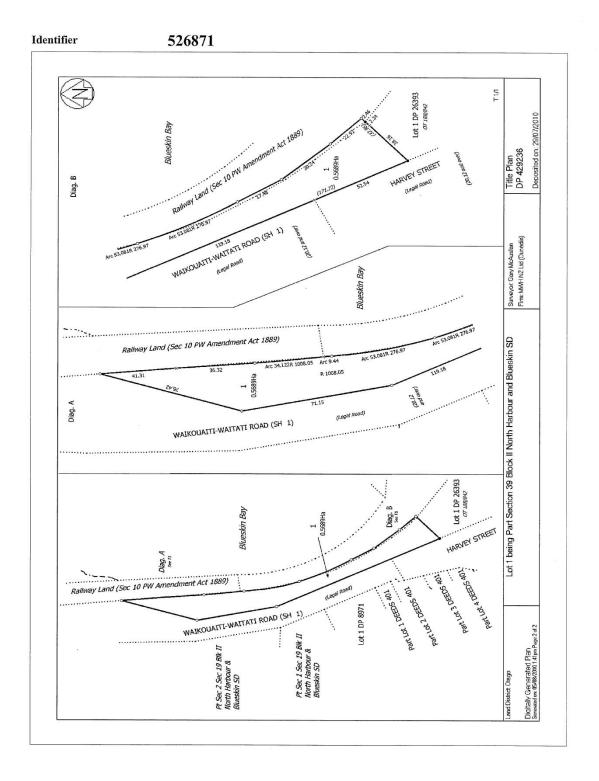
Interests

556746 Gazette Notice declaring part of State Highway 1 (Awanui - Bluff) fronting the within land to be a limited access road - 26.6.1981 at 10.20 am

984018.5 Notice pursuant to Section 91 Transit New Zealand Act 1989 - 28.2.2000 at 10.34 am 984018.6 Notice pursuant to Section 91 Transit New Zealand Act 1989 - 28.2.2000 at 10.34 am

Transaction Id 28627244 Client Reference jvanboldere001





Transaction Id28627244Client Referencejvanboldere001

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Appendix G: Service Plans



Appendix H: Landscape Effects Assessment





Appendix I: Traffic Assessment



Appendix J: Noise Assessment



Appendix K: Mosley Property Noise Mitigation Plans



Appendix L: Archaeological Assessment



Appendix M: Consultation



1. Introduction

The following is a summary of the consultation undertaken and the outcome to date of that consultation. Consultation and investigation of options to improve the safety of Waitati Curve began in 2004. A consultation group was set up comprising of a represent ative from Transit New Zealand (NZTA), LTNZ, and Community Board members to evaluate safety improvement options. They concluded that a realignment of the highway and relocation of the Blueskin General Store was the preferred option.

In 2008 investigation and reporting began for realignment of the curve and an initial meeting was held with the two Community Board members that were part of the 2004 consultation group.

2 Initial Contact with Land Owners and Occupiers

Initial contact letters were sent to owners and occupiers of land which fronted on to or gained access from SH1 along the length of the project in May 2008. The letters advised of the commencement of investigations and reporting on realignment of the curve and relocation of the Blueskin General Store. Enclosed was a concept plan showing the realignment and an indicative land plan identifying property owners and showing the land requirements for the project as well as the area of land that could become surplus following construction. People were advised that they were welcome to engage in ongoing consultation.

3 Directly Affected Landowners and Occupiers

Consultation with directly affected and adjacent landowners and occupiers followed the initial contact.

3.1 Blueskin General Store

3.1.1 Store Owner - Doug Pryor

Following the initial contact letter a meeting was held with Doug Pryor, the store owner, NZTA, the Property Group and MWH during May 2008 to discuss the realignment and the intention to relocate the store across the highway, show the area of land that might be available for the store and to seek feedback on the critical issues. Doug Pryor advised that he would like to relocate the store south of Harvey Street, subject to agree able property negotiations.

In March 2009 The Property Group sent a letter to Doug Pryor outlining the options for relocation of the store and the land plan for the project. There was subsequent dialogue through 2009 confirming the compensation process and location for the store.



3.1.2 Store Operators - Heather & Brent Bell

After an initiating letter in May 2008, there have been numerous meetings, discussions, and correspondence with Heather and Brent Bell. The feedback from this ongoing consultation has influenced the form and planned implementation methodology of the store to a large degree. In summary, the Bell's preference is for the status quo however on the basis that the highway realignment proceeds, they are comfortable that the provision to be made for the continued accommodation of the Store presents an optimum solution.

The need for the store to be located on a temporary site for the duration of the construction of the realignment was discussed with the Bells in June 2009 with a potential site south of the old church on Harvey Street suggested. The Bells reiterated their concern about the viability of their business for the duration of the construction and had initial reservations about the site for the temporary store.

In Mid June 2009 MWH contacted Foodstuffs and Trent, the holders of the franchise for "On the Spot" stores, such as the Blueskin General Store. The Business Manager, Mike Luck, meet with the Bells and MWH to review the plans for the temporary store and identify any areas where assistance might be able to be given to the Bells with the store relocation. Some positive feedback was given to the Bells about the temporary store site, it was advised that Foodstuffs could assist with aspects of the relocation and opportunities were highlighted.

In October 2009 there was a meeting with the architect to measure the existing building, identify functional needs and develop plans for the replacement store. During a site walkover with two MWH represent atives the Bells were shown plans and their relationship with the existing landform to improve their understanding of the design of the realignment and the temporary and permanent store site.

From November 2009 to February 2010 the layout plans for the store were developed with several meetings between the architect, MWH and the Bells, including a meeting in January 2010 to show a driver's eye view of the permanent store using computer modelling software. There is ongoing dialogue to confirm the details of the replacement store.

3.1.3 Doreen Mosley

There was a meeting with Mrs Doreen Mosley in May 2008 following the initial letter and a further meeting in April 2009. At the initial meeting the proposed realignment was discussed including the need for land and the position of the new highway relative to the house. Mrs Mosley indicated that she did not want to sell her house and would like double glazing along the front of her house to reduce noise.

MWH representatives met Mrs Mosley in Nov 2009 to determine her access needs and alignment for drive way. Acoustic fencing and double glazed windows and doors along the frontage of the house are included in the proposal. By April 2010, Mrs Mosley indicated she was comfortable with the mitigation measures proposed for her property.



3.1.4 Leigh Morris

A meeting was held on June 5th 2008 with Leigh Morris, the Property Group, MWH and NZTA following the letter in May 2008, a further meeting was held in April 2009. The issues raised were the boundary positions, fair compensation and an interest in surplus land.

3.1.5 Guy/Gleeson

Following the letter in April 2008, an initial meeting was held with Mr Guy and Ms Gleeson in May 2008 followed by two meetings the following year in April 2009, the latter meeting included Rob Campbell of the QEII Trust. The landowners were not supportive of a land exchange for the land that would be lost from the QEII cove nant. Agreement has been reached on the location and design of a relocated access.

3.1.6 QEII Trust

Rob Campbell, Regional representative of the QEII Trust attended a meeting on April 2009, Jennifer Gleeson (one of the landowners of the QEII covenanted land), and NZTA agents. While the QEII Trust promoted a land exchange to replace the land lost from the covenant, it was accepted that it was not possible to compel a landowner to adopt that position. The Trust subsequently accepted by letter the NZTA proposal to undertake compensatory planting on land adjacent to the remaining QEII covenanted land. The QEII Trust has given its consent under S114 of the Public Works Act to vary the open space covenant by excluding the area affected by the proposal.

3.1.7 McLean

Birgitte McLean has recently purchased land affected by the realignment of SH1 at Waitati. Meetings were held in February, March and June 2010 with Birgitte McLean. Daniel Monkton has attended the majority of the meetings. Issues about the access design and a possible path along their front age were resolved by design changes.

Issues that are the subject of ongoing consultation are the effects on front age landscaping, possible fencing, and access to the northernmost of the two lots.

3.1.8 New Zealand Railways Corporation

Consultation has been initiated with Ontrack about the potential operational effects on the railway as well as the effects on the Railway designation. A letter dated 3 June 2010 was sent to NZ Railways Corporation by NZ Transport Agency outlining the proposal and seeking feedback.

3.1.9 A&P Society

An onsite meeting was held with Steve Bourne, the Treasurer of the A&PSociety in 2009 and the proposed realignment was discussed. As the realignment will not directly affect their land no concerns were expressed although notification was requested if any of the buildings on site were to be affected.



4 Other Stakeholders

4.1 Waikouaiti Coast Community Board

A letter was sent to the Board in January 2008 advising that realignment investigations were commencing and this was followed up with attendance at a Community Board meeting in July 2008 where a scheme plan was presented.

The Board re-iterated their support for the project subject to facilitation of relocation of the store. The Board expressed an interest in the store site not precluding the sale of fuel at some stage in the future. Matters that were raised for design consideration were provision for hitchhiking, car pooling and buses.

An updated scheme drawing was presented to the Community Board meeting in January 2010 for discussion. The Board suggested that a cycle lane be created so that cyclists could exit the highway before reaching the Harvey Street intersection, identified that hitch-hiking and car pooling occurs for people travelling in both directions from Waitati and suggested consultation is undertaken with bus companies. A suggestion was made that information is provided to the people of Waitati.

4.1.1 Kati Huirapa Runanga ki Puketeraki

Consultation with Kati Huirapa Runanga ki Puketeraki via KTKO was initiated in 2009. A letter from Kai Tahu ki Otago dated November 29, 2009, highlighted that Kati Huirapa Runanga ki Puketeraki interest is likely to focus on the management and mitigation measures to address sediment ation during earthworks and effects on vegetation and waterways.

It was noted that Blueskin Bay area was used extensively by Maori in the past with a high number of recorded sites around the bay. While most of these sites are located within 500m to 1 km from the proposed works, the possibility exists that further sites could be disturbed by the proposed works. It was requested that the following be incorporated in to the Notice of Requirement:

- If koiwi (human skeletal remains), waahi taoka (resource or object of importance), or other artefact materials are discovered work shall stop, allowing for a site inspection by the appropriate Runaka and their advisors. These people will determine if the discovery is likely to be extensive and whether a thorough site investigation will be required. Materials discovered should be handled and removed by takata whenua who possess knowledge of tikanga (protocol) appropriate for the removal or preservation of these artefacts.
- That an iwi approved archaeologist be present during any earthworks undertaken for the proposed works.
- That a rehabilitation programme be implemented with appropriate native planting undertaken after the proposed works have been completed.

A further letter was sent in March 2010 to confirm the position of the realignment and the two sites for the Blueskin General Store and that the matters raised would be incorporated in to the Notice of Requirement. Comment was sought from KTKO on these measures.



A meeting with Joy Smith, a represent ative from the Kati Huirapa Runanga ki Puketeraki was held on site on 8 June 2010 where the project was outlined. KTKO provided a response by letter dated 28 June 2010. "Kati Huirapa Runanga ki Puketeraki has requested that the following be conditions of the NOR:

- If koiwi (human skelet al remains), waahi taoka (resource or object of importance), waahi tapu (place or feature of special significance) or other artefact materials are discovered work shall stop, allowing for a site inspection by the appropriate Runaka and their advisors. These people will determine if the discovery is likely to be extensive and whether a thorough site investigation will be required. Materials discovered should be handled and removed by takata whenua who possess knowledge of tikanga (protocol) appropriate to their removal or preservation.
- That an iwi approved archaeologist be present during any earthworks undertaken for the proposed works.
- That a rehabilitation programme be implemented with appropriate native planting undertaken after the proposed works have been completed.
- That further consultation and approval be sought if the extent of the work site is required to be increased.
- That appropriate fish/eel passage should be provided for at all times.
- That any excess excavated material is either re-used if suitable, or disposed of appropriately.

4.1.2 DoC

DoC has responded that their interest is the in stream values and fish passage. They have indicated that their interests would be met if the standard ORC conditions are incorporated in to the consent to protect in stream values of the waterways and that the culverts do not impede fish passage.

4.1.3 Fish & Game

Fish and Game indicated that the only potential issue that he could see for Fish and Game was sediment entering the Wait ati Stream. Fish and Game would like to see the final application either before or after lodgement with ORC.



4.1.4 New Zealand Historic Places Trust (NZHPT)

An Archaeological Assessment has been prepared and an archaeological authority will be sought before work commences.

4.1.5 DCC Roading Operations and Transportation Planning

A letter was sent during March 2010 with detailed design drawings to initiate dialogue with these departments. The comments received have resulted in some minor changes being incorporated in to the design.

4.1.6 Bus Operators

Bus companies known to operate in the area (Dunedin Passenger Transport, InterCity Coachlines, Atomic Travel/Shuttles, Knight Rider Bus Services and Citibus Ltd were consulted about the proposed realignment. Mr Kayne Baas, Dunedin Passenger Transport, responded favourably about the proposed bus stop facilities.

4.1.7 Wait at i Community Information Evening

An Information Evening was held at the Waitati Community Hall on July 7, 2010 between 6.00pm and 9.00pm. The Information Evening was publicised in the Blueskin News and the Waitati Community were invited to attend. A poster and handouts publicised the evening at the Blueskin General Store.

Drawings showing the key aspects of the project were displayed and plans were available to provide detailed responses to questions. Simon Underwood (NZTA, Project Manager), Andrew Quigley (Designer, MWH) and Mike Brazil (Project Manager, MWH) were available to answer questions. Forms were available for attendees to make written comments if they wished to do so.

A number of comments were made during the Information Evening and a summary of the responses and comments follows:

- Potential for an alternative access for the McLean property via Almond Street.
- Provision of safe, convenient and enhanced facilities for park and ride (bus stops opposite each other and parking in close proximity, bus shelters provided).
- Horizontal and vertical light spill should be avoided, particularly to the coast, village and the sky, eg. "Dark Sky" approach.
- Turning provisions at the Harvey Street intersection.
- Promotion of ongoing store operation.
- Improved road safety.
- Reduced visibility of Blueskin Nursery.
- Promoting improved cycle facilities.
- Speed limit reductions.
- Promotion of nut tree planting.

Note: Some of the issues raised were beyond the scope of the proposal and have not been included in this summary.