SALMOND REED ARCHITECTS LIMITED

City Rail Link

Built Heritage Technical Expert Report

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Pulman's Register Map of the City of Auckland,1863

(Sir George Grey Special Collections, Auckland Libraries, NZ Map 4475-1)

Built Heritage Technical Expert Report History

Initial Draft for Consultant Coordination and Client Comment prepared by Salmond Reed Architects (SRA) and project managed by Bruce Petry.

This Draft has been substantially prepared by Mark Cannata, on behalf of SRA, with input from Richard Bollard of SRA and reviewed by Bruce Petry.

The outline history and research has been prepared by historian, Susan Yoffe, and has been developed from work previously undertaken by Clough & Associates and Matthews & Matthews Architects.

Salmond Reed Architects would like to thank and acknowledge the work of all involved.

Revision No	Prepared By	Description	Date
1	Mark Cannata, Richard Bollard, Bruce Petry & Susan Yoffe	First Draft of Technical Report	29 March 2012
2	Mark Cannata, Richard Bollard, Bruce Petry & Susan Yoffe	Second Draft of Technical Report (revised plans and information from draft Concept Design Report)	21 May 2012
3	Mark Cannata, Richard Bollard, Bruce Petry & Susan Yoffe	Third Draft of Technical Report (revised plans)	20 June 2012
4	Mark Cannata, Richard Bollard, Bruce Petry & Susan Yoffe	Final Draft of Technical Report (revised plans)	20 July 2012
5	Bruce Petry, Richard Bollard & Katherine O'Shaughnessy	Final Technical Report (revised plans)	09 August 2012
6	Bruce Petry	Project Optimisation Changes	10 December 2012

Built Heritage Technical Expert Report Review and Acceptance

Action	Name	Signed	Date
Prepared by	Mark Cannata & Richard Bollard		13 July 2012
Reviewed by	Bruce Petry		01 August 2012
Approved by	Bruce Petry		07 August 2012
	Bruce Petry		10 December 2012
on behalf of	Salmond Reed Architects Ltd.		

Contents

1.0 Glossary of Terms

Character – 'Character' qualities are those qualities resultant from historical patterns and eras of development that give our built environment recognisable form, which results from the combination of the public and private realms. It is the cumulative experience of place that creates distinctiveness and diversity in urban areas and town centres (ref also Auckland District Plan, Isthmus Section Sec 5C.7.10).

Character Defining – "Character Defining" buildings and structures are those that make a major contribution to the character and heritage significance of the centre and, if removed, would create a serious loss in identified character. Their retention is strongly advocated. These elements are seen as key parameters in the historic character and *sense of place* of urban areas. (ref also Auckland District Plan, Isthmus Section Sec 5C.7.10.3 [1.0]).

Character Supporting – "Character Supporting" buildings and structures make a positive contribution to the character and heritage values of the built environment. For example, they may contribute to the streetscape character, or form part of an intact group of traditional "main street" buildings, but not be of particular historic, social or architectural significance on their own merit. (ref also Auckland District Plan, Isthmus Section Sec 5C.7.10.3 [2.0]).

Cultural Heritage – as defined in the UNESCO (United Nations Educational, Scientific and Cultural Organisation) convention of 1972: the following is seen as "cultural heritage":

- **monuments:** architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;
- **groups of buildings:** groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;
- **sites:** works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.

Cultural Heritage Inventory (CHI) - The CHI is a computer database used to store and retrieve information on cultural heritage sites in the Auckland region (from Wellsford in the North to Pukekohe in the South). The majority of sites in the CHI have also been spatially/geographically mapped in the Auckland Council Viewer (where possible) along with archaeological survey coverage and this forms an important complement to the database.

The database is split into two sections – CHI Places and CHI Bibliography. It includes information on:

- Archaeological sites recorded under New Zealand Archaeological Site Recording Scheme (e.g. midden, pa)
- Built heritage sites (e.g. Auckland Town Hall)

- Maritime sites (e.g. shipwrecks, wharfs, boatsheds)
- Reported historic sites (e.g. location of a battle/building)
- Historic botanical sites (e.g. trees on Grey's Avenue)
- Places of special significance to Māori, including wāhi tapu, urupā, places of traditional importance

Bibliographic references for reports, newspaper articles, books, photos etc. of a cultural heritage nature.

The CHI is the result of the incorporation of information from diverse sources. It was initially developed and maintained by Auckland Regional Council with regular updates from:

- Departments from within Councils of the Auckland Region
- New Zealand Archaeological Association (NZAA)
- New Zealand Historic Places Trust (NZHPT)
- Department of Conservation (DOC)
- Heritage Consultants
- Ministry for the Environment (MfE)
- Department of Anthropology, University of Auckland
- Historical societies
- Iwi authorities
- Other resources including books, journals etc.

The maintenance of the CHI has now been taken over by the Heritage Unit of the Auckland Council.
https://www.chi.org.nz/CulturalHeritage.aspx (accessed 13 July 2012)

The CHI does not afford formal protection for sites, rather it is used as an identification tool for potential cultural heritage. Its stated uses include:

- Tool and information resource for education and advocacy (posters, brochures, booklets)
- Method to promote sustainable management - to protect and preserve a diverse and representative range
- CMA (Coastal Marine Area) and Regional Parkland management tool (Auckland Council responsibilities for protecting cultural heritage sites inc. archaeological)
- Adverse effects assessment tool (consent processing)
- Research and monitoring tool (identify, evaluate, conserve, manage & monitor and academic research).

https://www.chi.org.nz/Legal.aspx (accessed 13 July 2012)

Historic Place –The definition of Historic Place in the Historic Places Act (1993) means *"any land (including an archaeological site) that forms part of the historical and cultural heritage of New Zealand and lies within the territorial limits of New Zealand: and includes anything that is in or fixed to such land".*

Historic Area – The definition of Historic Place in the Historic Places Act means an area of land that: *(a) contains an interrelated group of historic places; and*

(b) forms part of the historical and cultural heritage of New Zealand; and

(c) lies within the territorial limits of New Zealand

ICOMOS NZ – ICOMOS, the International Council on Monuments and Sites, is an international non-governmental organisation of heritage professionals engaged in the conservation of places of cultural heritage value and dedicated to the conservation of the world's historic monuments and sites. Established in 1987, ICOMOS New Zealand/Te Mana o Nga Pouwhenua o Te Ao is a professional organisation for the support and advancement of individuals and organisations engaged in the conservation of places of cultural heritage value in New Zealand.

ICOMOS NZ Charter – The ICOMOS NZ Charter is a set of guidelines on cultural heritage conservation, produced by ICOMOS New Zealand. The NZ Charter is widely used in the New Zealand heritage sector and forms a recognised benchmark for conservation standards and practice. It is used by central government ministries and departments, by local bodies in district plans and heritage management, and by practitioners as guiding principles.

Mitigation – Mitigation is the means by which the project will, where practicable to do so, avoid, reduce or remedy adverse effects.

New Zealand Historic Places Trust (NZHPT) – The New Zealand Historic Places Trust (NZHPT) is a crown entity, New Zealand's leading national historic heritage agency and guardian of Aotearoa New Zealand's national heritage.

Potential Significant Heritage Places – This category highlights buildings and structures not scheduled by either the Historic Places Trust or Auckland Council but likely to have potential heritage significance either now or in the future and that may be affected by the proposed works. This identification means further investigation and research should be undertaken by those entities to more fully ascertain their significance.

Registered – a building, structure or site that is registered as a historic place under the Historic Places Act (1993).

Scheduled – Means a building, object or place of heritage significance scheduled for protection under the Plan in accordance with the Resource Management Act 1991.

Significance – 'Significance' in relation to this technical report only, is the means by which the cultural importance of a place and its components can be measured and compared, both absolutely and relatively. By applying a thorough understanding of a place to identify areas of high and low significance, one can identify areas where only the minimum of change should be considered, and areas where change and intervention could enhance the character and cultural values of a site. From the ICOMOS Charter: "*Cultural heritage significance means the cultural heritage value of a place relative to other similar or comparable places, recognising the particular cultural context of the place*."

Unscheduled of Merit – For the purpose of this study, character buildings and structures that are seen as being of having potential historic significance in the future that may be subject to formal identification or statutory protection.

2.0 Executive Summary

2.1 This study is the result of successive levels of refinement to identify potential risks to heritage places, Firstly it identifies all previously formally recognised and protected Historic Places in the proximity of the route, and then, given the timescales for realisation of the CRL, it considers what other elements may also be considered Built Heritage in the not too distant future. Consideration was also given to potential Historic Places and Character Buildings that provide urban context. An assessment based on accepted criteria for identifying the significance of historic places was used. Initially this procedure resulted in the identification of approximately 300 properties. The refinement of the results to those properties within the study corridor (100m either side of the indicative centreline of the CRL route) reduced the number of potentially affected properties to 238 properties. By further restricting the assessment to those properties within the limits of the vibration and settlement contours, the number reduced to 110 properties and just 53 properties have been found (by initial structural desktop analysis) to be potentially affected; 20 being identified in the Structural Engineer Report as within the *"slight-moderate" category*, the remainder having potentially *"slight"* risk (ref. Appendix A). The nature of historic places could mean that even the slightest damage may have significant effect on their heritage value. We have therefore taken the conservative approach of including these for further detailed assessment during the subsequent design phases.

Firstly it was necessary to identify what heritage assets are present within the 200m corridor (100m either side of the indicative centre line of the CRL)[1], and include their relative significance (ref Appendix C & D). With regard to the extent of the study area, we consider this to be a conservative estimate of the potential area of effect on Built Heritage on the basis of the experience in similar projects throughout the world such as Cross Rail and Kings Cross Station Redevelopment, London. This has been confirmed in the vibration and settlement contours outlined in the Structural Engineer Report and Noise and Vibration Report that have indicated that only half of the buildings and structures originally identified within the study area may actually be affected by the construction project.

2.2 In February 2012, Salmond Reed Architects was commissioned by Auckland Transport to undertake the Built Heritage Technical Assessment Report as part of the Notice of Requirement process for the designation of the route for the City Rail Link (CRL).

2.3 The CRL traverses some of the most historically significant areas of Auckland. The areas where three new stations are proposed have all played a significant part in the development of Auckland. They represent a wide period of the architectural development of the city from its inception to present day and, consequently, illustrating a variety of construction types, styles and settings.

[1] This assessment area of 200m was requested (100m either side of the indicative centre line of the CRL) by Auckland Council Heritage

2.4 The aim of the Built Heritage Assessment Report has been threefold: firstly, to identify the historic areas, places (buildings and structures) in the project study area, secondly to identify the potentially most significant impacts that construction and operation of the CRL might have on them and, thirdly to provide a general commentary as to how these impacts might be avoided, remedied, or mitigated. The report aims at establishing a methodology for identifying relevant heritage properties, assessing the potential impacts of the CRL on them and establishing broad general guidelines for mitigation. The identification of specific mitigation measures for individual buildings will form part of following stages of detailed design.

2.5 The report has identified previously formally recognised and protected Built Heritage in the proximity of the CRL as well as other unscheduled properties that are considered to be of Significance and that may also, in the not too distant future, be considered Built Heritage. (ref Appendix C and D) The identification of the latter was based on accepted criteria for identifying the Significance of buildings defined in the ICOMOS NZ Charter.

2.6 The brief called for the Built Heritage Assessment to consider risks to historic places resulting from the construction and operation of the CRL. It was agreed that the study area would include 100 metres either side of the indicative centre-line of the proposed route. We consider that this represents a conservative area of analysis that would capture all places that might potentially be affected by the project.

2.6 This report has relied on the project information available to the date of this report, specifically the 2012 Concept Design Report and other existing documentation, such as the expert reports on Noise and Vibration, Archaeology and Structural Engineer Report. This report is limited to a desktop research of other available information and visual analysis of Built Heritage assets along the proposed route.

2.7 The nature of historic places could mean that even the slightest damage may have significant effect on their heritage value. We have therefore taken the conservative approach of including these for further detailed assessment during the subsequent stages.

2.8 Both general and detailed considerations of potential effects of the CRL on Built Heritage have been covered in this report. The potential types of impact have been defined and information from Expert Reports for other disciplines has been reviewed (refer 3.4) and analysed, leading to a further refinement of the number of properties potentially affected. Whilst most of the risks of damage to the identified properties along the CRL appear, at this stage, to be either in the ‘negligible’ or ‘slight’ categories, there are some notable exceptions, particularly in the areas around the three proposed stations Aotea, Karangahape Road and Newton.

2.9 A desktop Structural Assessment prepared by Aurecon, has identified a risk category of ‘Aesthetic’ damage brought about by Negligible, Very Slight or Slight effects of Settlement due to the construction of the CRL. In this category it will be important to assess in detail what is actually present in the properties that fall into these risk categories and their condition, as well as more accurately accounting for the local soil conditions, the building configuration, construction type and

condition and any structural stiffness. More detailed assessment of the vulnerability of individual properties will be required, especially for those that are already seen as being at 'Slight-Moderate' risk of damage, which would trigger the requirement for Condition Surveys, Monitoring ground treatment and other measures. Currently 20 properties have been identified in this category with the majority located within the Upper Symonds Street Historic Area. (ref. Appendix A)

2.10 This evaluation has also identified potential risks to other specific built heritage associated with above ground CRL operations. These include; Former CPO (91), Albert Street Historic Wall and Toilets (08) (Type A), the Martha's Corner Buildings (142), The Griffiths Holdings Building (153), the Beresford Street Toilets (236) (all Type C). It is likely these risks can be substantially mitigated through sensitive design and careful construction management. The stated priority of the CRL is the adaptive re-use of these buildings and if this is possible the effect of the CRL might be a positive.

2.11 The Main Construction Site Area along New North Road incorporates four buildings identified within the Built Heritage Assessment.

2.12 Mitigation measures that address the potential effects on Built Heritage will need to be considered on a building-by-building or site-by-site basis. The definition of these measures will be able to be finalised in successive refinements as the detail design and construction methods become clearer, and as detailed information on the properties becomes available and the construction methods are finalised. However, general mitigation principles, and a set of universal mitigation policies have been identified, ranging from the setting of Minimum Requirements to the definition of Agreed Procedures to deal with the management of the risk to historic properties including condition surveys, building recording, salvage strategies and other measures.

2.13 More detailed considerations have been given to the areas around the stations. The concept design proposals for Aotea Station are seen as representing the greatest effect on Built Heritage along the route with direct potential effects on the Albert Street Wall and Toilets, buildings known as Martha's Conner and Griffiths Holdings Building due to adaptive reuse. Also surrounds building may be affected by settlement due to construction works. Further consideration should be given, in the refinement of the design, to the options for the final design and construction methods of this station in particular.

2.14 Any proposal to significantly alter or demolish Built Heritage will need to be based on a full justification and exploration of all feasible alternative options available, including their retention, adaptive re-use, integration or partial retention in the new station design.

2.15 The CRL has the potential to enhance the historic environment of Auckland and potentially reverse the decline of many areas along the route such as Upper Symonds Street. The CRL should be considered an opportunity to encourage traditional commuter street life into Auckland's heritage context and to create multifaceted urban environments which is part of the ongoing change that is Auckland.

2.16 This report concludes that the stated methodology, policies and procedures should form part of a Heritage Management Plan in the future, which, together with similar proposed documents from other disciplines (for instance Archaeological Management Plan and the Construction Noise and Vibration Management Plan) can continue to inform the development of the project and, most importantly, become a key tool to manage the change the project will bring to the Built Heritage along the route.

3.0 Project Description

3.1 Project Description

3.1.1 The City Rail Link (CRL) is a 3.4km underground passenger railway (including two tracks and three underground stations) running between Britomart Station and the North Auckland Line (NAL) in the vicinity of the existing Mount Eden Station. The CRL also requires an additional 850m of modifications within the NAL. For ease of reference in this report, the stations included in the CRL NoR have been temporarily named Aotea Station, Karangahape Station, and Newton Station. The stations will be formally named in the future. A fuller description of the CRL is provided in the Assessment of Environmental Effects (AEE) which supports Notices of Requirement (NoR) and the CRL 2012 Concept Design Report.

3.1.2 This technical expert report has been developed by Salmond Reed Architects Ltd to provide an independent expert assessment of the actual and potential effects associated with the proposed CRL from a built heritage perspective.

3.1.3 This Built Heritage Technical Expert Report is an appendix of the AEE which supports Notices of Requirement (NoR) to be served by Auckland Transport on Auckland Council to designate the CRL for future construction, operation and maintenance. The NoR cover surface land, sub-strata (sub-soil) land and sub strata (sub-soil) protection designations within the Auckland City District Plan (both Isthmus and Central Area Sections).

3.1.4 Salmond Reed Architects Ltd confirms that the content of this report has been written with reference to the Key Project Parameters set out in the CRL 2012 Concept Design Report.

3.2 Aims, scope and structure of report

3.2.1 The aim of this report is, in the first instance, to identify Scheduled and Registered Historic Places, specifically identified areas (either historic/conservation or character areas) and other currently unidentified Built Heritage items deemed to be of potential Significance, termed ‘Unscheduled of Merit’, that may be affected by the CRL.

3.2.2 This report is in three parts: the first part describes the relevant parts of the 2012 Concept Design for the CRL and the existing Built Heritage context; the second part illustrates the potential physical and visual effects; the third part puts forward considerations as to how to mitigate these effects.

3.3 *Limitations of study*

3.3.1 This report has relied on the available project information, specifically the 2012 Concept Design Report and other existing documentation such as the expert reports on Noise and Vibration, Archaeology and Structural Assessment.
The report is limited to a desktop research of other available information and visual analysis (external only) of Built Heritage assets along the proposed route. Detailed assessment of risks and mitigation options for individual properties do not form part of the scope of this report.

3.3.2 This report is based primarily on desktop based research of Historic Places, (Buildings and Structures) and Areas present within the stated corridor along the proposed route of the CRL. The report brings together in a unified schedule in Appendix D, the information available on properties from the Auckland Council (AC) Schedule, the New Zealand Historic Places Trust (NZHPT) Register and the Cultural Heritage Inventory Register from the Auckland Council GIS. In addition to these items, a number of other built heritage items have been identified, based on their cultural heritage significance and the criteria outlined later in this report.

3.3.3 The report does not analyse potential impact on wider cultural heritage issues, whether material or immaterial, social or economic impacts, ecological or other impacts on the area considered.

3.4 Relationship with any other relevant documents

3.4.1 This report should be read in conjunction with the other expert technical reports supporting the NoR for the CRL and in particular with the Archaeology Assessment by Clough and Associates, the Noise and Vibration Assessment Report by Marshall Day and the Structural Engineer Technical Expert Report by Aurecon.

4.0 Scope of Report

4.1 The scope of this assessment is limited geographically to the corridor formed by 100m either side of the CRL[2] between Britomart and the North Auckland Rail Line (NAL) in the vicinity of Mt Eden Station.

4.2 The report also aims at providing high-level information on the actual and potential effects caused by the construction, operation and maintenance of the CRL on Built Heritage.

4.3 Additionally, this report provides information essential to the development of appropriate design principles for buildings and structures directly associated with the City Rail Link through the Urban Design Framework (UDF).

[2] Using indicative rail centre line within designation footprint

5.0 Existing Environment

5.1 Outline History

5.1.1 **Introduction:**

5.1.1.1 Auckland's central area occupies a series of broadly north/south oriented valleys and ridges, with Queen Street occupying the central valley. The early city grew from this water based point of arrival, rapidly altering the natural shoreline through reclamation, quarrying of Point Britomart and the construction of wharves.

5.1.1.2 Urban development within Auckland grew from the central area's dominant commercial core based in the Queen Street valley, with the waterfront as the commercial hub of the growing city.

5.1.1.3 Despite the successive reclamation of north-facing bays, Auckland's dominance as the capital city of the new colony from 1840 through to 1865 has left its mark on the street patterns.

5.1.1.4 Alongside establishing commerce and government, the needs of the community for religious observance, education, social interaction, entertainment, civic and cultural institutions, were provided for. A number of these early buildings were destroyed during widespread development undertaken during the 1980s. However, many remain and are now protected.

5.1.1.5 Desirable and affordable land, safety, and transport access have all been decisive factors in the settlement patterns in Auckland. Each improvement in public transport from 1840 to 1914 served to strengthen the central area as the heart of commercial, civic and industrial activity. Successive transport and infrastructure developments have meant the gradual movement of primary industry out of the central area and enabled the growth of the main port.

5.1.1.6 The ease of travel to outlying boroughs encouraged people to move out of the city. The motorway system planned in the 1950s had considerable effect on inner city working-class suburbs such as Ponsonby and Newton by removing houses and separating them from the city. The redevelopment of these areas into apartment houses has also significantly altered the population mix.

5.1.1.7 The areas where each of the three new stations are proposed have each played a part in the development of Auckland. Britomart, built on reclaimed land, was the first railway station in Auckland City. This magnificent building then became the Central Post Office (CPO). The recent return of this building back to railway station use has driven the redevelopment of the surrounding Victorian warehouse precinct for retail and other commercial uses.

5.1.1.8 Aotea Square – once the site of the city markets, surrounded by Chinatown and low scale commercial buildings, was chosen as the site for the Auckland Town Hall in 1908. Since then it has enjoyed development as the civic centre, with Auckland Council Offices, Aotea Centre and the Art Gallery nearby.

5.1.1.9 The Karangahape Road area, at the top of Pitt Street, was home to wealthy settlers taking advantage of the northern slopes, views and religious institutions located there. By the late 1800s it was a busy shopping and service area and, at the turn of the century, became the centre for the Auckland City Fire Service.

5.1.1.10 Upper Symonds Street, grew around the Newton Road / Khyber Pass / Mt Eden Road intersection and flourished with retail and service industries in the later decades of the nineteenth century. As nearby industry increased, the farm properties in the Newton valley were subdivided and became working class communities, remaining until the motorway was built in the early 1960s.

5.1.1.11 The CRL reflects the progress of Auckland's development, the community and commercial needs of a city's development, through one and a half centuries. Although much of the built history has gone, a substantial portion remains to be recorded and preserved.

5.2. Pre-European History (refer also Archaeological Assessment, Assessment of Environmental Effects: Volume 3 Technical Reports: Appendix 3)

5.2.1 The Auckland area was previously known as Tamaki-Makau-Rau, or Tamaki of a hundred lovers (Stone 2002: 81). As the name suggests, Maori had prized the isthmus for centuries. It offered fertile land, abundant fishing grounds and a temperate climate (Stone 2002: 3).

5.2.2 Maori settlement encompassed the City Centre area where, in the immediate Britomart area, a major pa site was constructed on the point between what was to become Commercial Bay and Mechanics Bay. A small stream (Waihorotiu), that was at least partly navigable by canoe, ran down the valley in what was to become Queen St and led to the shallow mudflats that typify much of the Waitemata coast. The large village of Horotiu covered what is now Albert Park (Stone 2002) and nothing remains from a built heritage perspective although archaeological heritage may be present.

5.3 Early European Settlement (refer also Archaeological Report)

5.3.1 European settlement in Auckland began in 1840 after the first Governor of New Zealand, Captain William Hobson, chose the isthmus as the site of the capital of the new colony. A group of Ngati Whatua chiefs had encouraged Hobson to choose the area.

5.3.2 With the decision to move the capital from Russell (Kororareka) to Auckland in 1840, the initial defence for the town of Auckland was provided by Fort Britomart, replacing the earlier abandoned pa there. The name Britomart derives from Saint Britomart, the name given to the brig that landed Shortland, the colonial secretary, at Auckland in September 1840 (Stone 2002:266). During the 1840s the settlement of Auckland had an unstructured, frontier feel. It was a garrison town, a home for soldiers and administrators with their dependents but a just-passing-through kind of place for everyone else.

5.3.3 Settlement proceeded relatively quickly, with tents set up for government officials in what was called Official Bay on the eastern side of Point Britomart and along the coast in Mechanics Bay. As infrastructure developed, Foreshore (Fore) St, later Fort St became the waterfront area with various hotels, warehouses and businesses.

5.3.4 To the west of Point Britomart was the small bay initially named Store Bay, later Commercial Bay. This was to become the main harbour landing point for the city (Stone 2002:267ff).

5.3.5 The shallow mudflats that typify the coastline of the Waitemata, however, provided poor anchorage for a growing capital and development of the area was quickly deemed essential. (Archaeological Assessment Sec.6.2 and 6.3.)

5.4 Reclamation (refer also Archaeological Report)

5.4. 1 In 1859 the first reclamation of the foreshore was undertaken. In less than half a century more than 50 hectares had been added to downtown Auckland.

5.4.2 An Act of Parliament established the Auckland Harbour Board in 1870 with the responsibility to develop the port, to build wharves, seawalls, breakwaters and reclaim land. This process was continuous throughout the nineteenth and into the twentieth century.

5.4.3 Land speculation and development has always been one of the major commercial activities in Auckland. The very act of reclamation was partly speculative, with blocks of land being sold well in advance of the reclamation. As the city grew, the increasing pressure on land and the need for improved harbour facilities resulted in the series of reclamations.

5.5. Waterfront Development (refer also Archaeological Report)

5.5.1 The Auckland city coastline extended from Mechanic's Bay to Freemans Bay and was the site of many early industries including sawmills, timber companies, brickworks and Auckland's first gas works in Fanshawe Street. Following reclamation, construction of the Auckland City Municipal Destructor and Depot, [now Victoria Park Market] and the Auckland Gas Company in its new Beaumont Street location occurred.

5.5.1.1 The Britomart Area (Customs and Quay Streets) was dominated by import and export warehouses. Some of the key commerce and industry activities, such as the ports and other companies responsible for reclamation, have left an indelible mark on Auckland's landscape.

5.5.1.2 Early commercial development centred on High St−Shortland Crescent, until a major fire in 1858 destroyed fifty buildings. Up until that stage, Queen Street was primarily a shopping street. The Ligar canal, an open sewer, prevented it from becoming much else until it was drained and covered in the 1870s.

5.5.1.3 From the 1880s, Queen St emerged as the main street for commercial and retail activity. As the country emerged from depression, new commercial and retail buildings were erected along Queen Street.

5.5.1.4 Timber was a giant industry for the developing country and early sawmills were located in Freemans and Mechanics Bays. By the mid-1880s the timber industry was the largest manufactory in the country. Flour milling was also well represented. Early mills supplied flour to both the local and export market as well as to the biscuit and confectionary industry. The flour mills were located on Quay and Fort Streets.

5.5.1.5 Brewing was a significant enterprise in Auckland. Brewers built hotels to sell their own product as well as imported liquor. Some of the early premises were deemed disreputable by the licensing authority and were forced into demolition. The corner hotel, designed to take advantage of two street frontages, became popular in the 1870s and 80s. Many of these have survived in the city.

5.6 City Planning

5.6.1 The first plan of Auckland was prepared in 1841 by Hobson's Surveyor General, Felton Matthew. It envisioned a grand Georgian City reminiscent of Bath, with circular configuration of residential terrace houses centred on present day Albert Park. Victoria Street was to be the main axis running east - west from a Cathedral square on the Hobson St ridge to the current Stanley Street in Mechanics Bay and bisecting the circus. The plan proposed extensive reclamation of Commercial Bay for port activities and Mechanics Bay for a coastal road. That plan was never implemented, although parts, such as Shortland Street, Emily Place, Waterloo Quadrant, Albert Street and the grid pattern to the west of Queen Street, strongly refer to what might have been. Instead, the haphazard frontier capital developed around the commercial hub of the intersection of Shortland and Queen Streets and the harbour's edge.

5.6.2 The early capital centred round the administrative functions, the Regimental Garrison on Point Britomart the Governor's Residence and the necessary officials' accommodation to the east in Official Bay. Standing over the bays was the seat of government and defence on Britomart Point. The aspect was important for defence, but also gave the government offices a commanding view over the Waitemata Harbour and Hauraki Gulf. Government and defence establishments on the Britomart ridge were of fundamental importance to the economic and social life of the Auckland community. Settlement remained centred around the shores of Commercial and Mechanics Bays.

5.6.3 Many of these houses were four-room cottages (some with outbuildings), that were added to or replaced, as families' finances / social standing demanded. The larger houses occupied the ridges, the north facing volcanic slopes, the water edges, inlets and headlands. The smaller cottages and tenements were located on small lots on low-lying land, in valleys or adjacent industrial sites.

5.6.4 `Walking' suburbs grew up around the core settlement areas of the city. Working class people lived within walking distance of key places of employment − Parnell, Grafton, Newton, Freeman's Bay and Ponsonby. These areas were typified by small timber houses built close together on tiny lots.

5.6.5 With the transfer of the capital to Wellington in 1863, Auckland lost its importance as the administrative centre, but it continued to be the focal area for commerce – export and import. City status was awarded in 1871.

5.6.6 Auckland grew rapidly after initial settlement. By 1843, there were 3,000 people living in Auckland and by the end of the 1860s this had grown to more than 12,000. Forty years later in 1900 the population was 70,000 (Bush 1971). From its original centre near the waterfront, the city rapidly expanded up towards the Symonds Street ridge and out into the suburban areas such as Parnell, Freemans Bay and Ponsonby.

5.6.7 From the 1860s onwards, the early timber houses and shops in the central city were gradually replaced with more substantial brick structures less susceptible to fire. In the later decades of the nineteenth century a large amount of the settler housing in the central city was replaced by commercial buildings. Most notable areas included Shortland Street, Grafton Road, Hobson Street, Symonds Street, Victoria Street, Albert Street and Karangahape Road.

5.6.8 In the Central City there was substantial construction of large masonry buildings (pubs, banks, insurance houses, commercial premises, warehouses and factories).

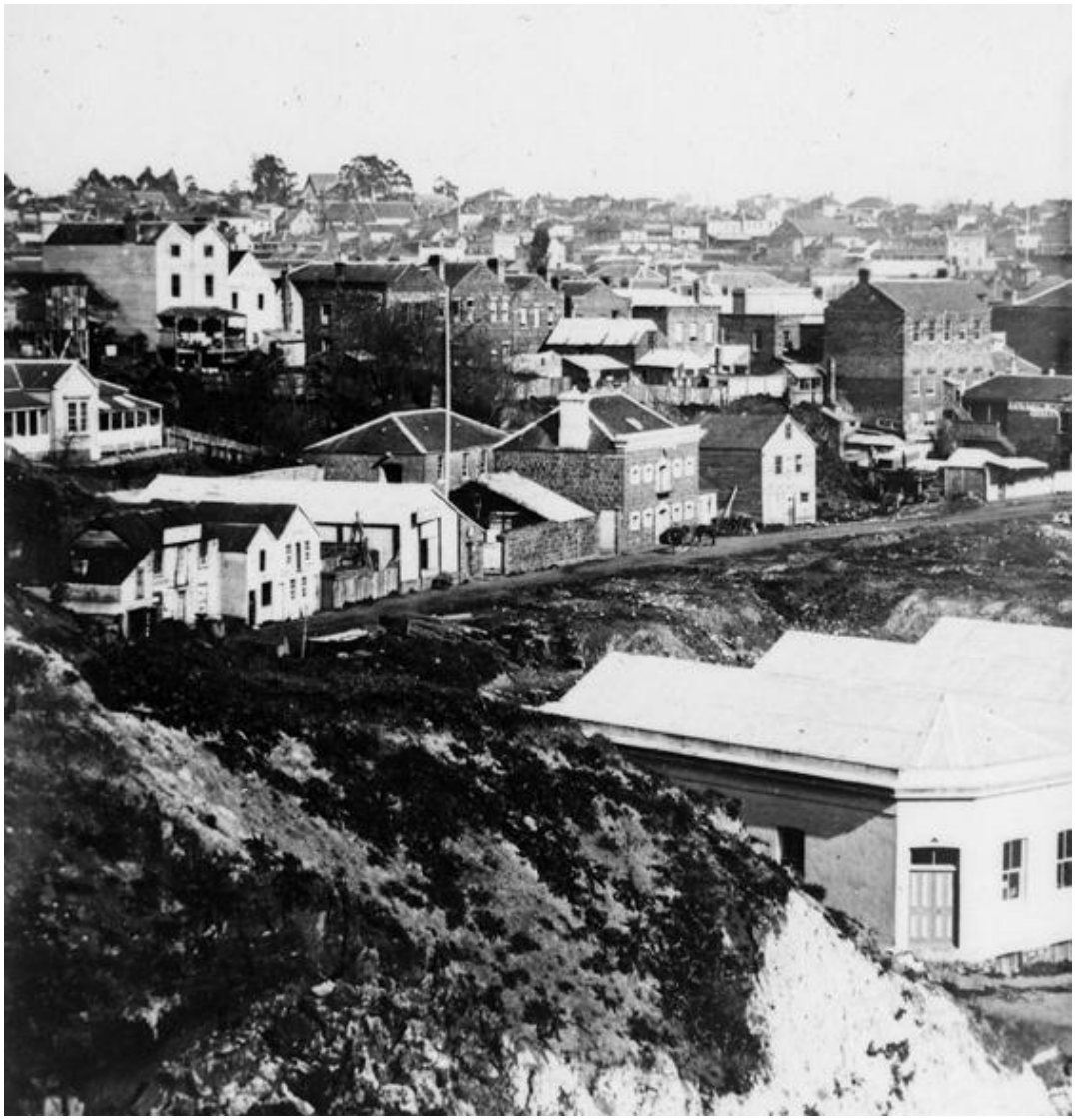
5.7 Infrastructure and Transport

5.7.1 Development and growth is inherently linked to the transport of people and goods. That then encouraged street front commerce / accommodation which, in turn, demanded infrastructure such as gas, water drainage and plumbing. Each improvement in public transport between the years 1840 –1914, served to strengthen Queen Street as the heart of commercial, civic and industrial activity in Auckland.

5.7.2 Initially the town had a raw, denuded look; there were no gardens, no trees, nor even grass, just bare earth gouged out and heaped among unpainted wooden structures. The roads were a mire of mud and horse dung that bogged vehicles and caked footwear and clothing.[3]

5.7.3 In response to the perceived threat of the Waikato Maori, British troops were brought in and constructed both Great North and Great South Roads as well as Symonds Street and Manukau Road in the early 1860s. But as late as 1871 only three streets (Queen Street, Princes Street and Shortland Street) had been properly formed and adequately surfaced with road metal.

[3] Auckland City Council Heritage Themes Mapping Auckland Central Area, p.22



Looking south west from Point Britomart, Auckland 1875
(Sir George Grey Special Collections, Auckland Libraries, 4-2718)

5.7.4 Other improvements included gas supply in 1865, piped water in 1866 and the first asphalted footpaths in 1872.

5.7.5 Telegraph, introduced in the 1860s, linked suburbs and many provincial towns and in 1872 Auckland was connected to Wellington and the South Island. However, it wasn't until thirty years later that the first undersea cable to the outside world was laid.

5.7.6 *Railway:*

5.7.6.1 The long planned railway between Mechanics Bay and Onehunga opened in 1873 and two years later the rail reached as far as Mercer. However, it wasn't until 1908 that the main trunk line was completed, connecting Auckland to Wellington. The railway station was brought to the foot of Queen Street in 1885 further enhancing this area as the commercial transport hub until its removal to Beach Road in 1930.

5.7.7 *Roads:*

5.7.7.1 In the 1850s Highway Boards were established with responsibility for forming and maintaining roads to connect the outlying settlements. A constant drain on local rates, some even erected toll gates to gather revenue. The Highway Boards gave way to Borough Councils which were gradually amalgamated into Auckland City – Ponsonby and Grafton 1882, Parnell and Arch Hill 1913.

5.7.8 *Public Transport:*

5.7.8.1 In the city, horse drawn trams were introduced in 1884, running a service between Queen Street and Ponsonby Road via Pitt Street and Karangahape Road. At its height in the mid 1890s this service comprised 34 vehicles, 300 horses and 12 feeder buses. The entire horse drawn system was scrapped in 1901 and tracks laid for electric trams.

5.7.8.2 The Auckland Electric Tramways Co. Ltd was formed in 1899 and electric trams began services to outlying boroughs in 1902. This led to groups of suburban shops along the route, especially at the stops and crossroads. The network was completed when the route reached Onehunga in 1903. In 1919 Auckland City Council purchased the entire tram system, made further extensions and doubled the tracks to facilitate two-way traffic.

5.7.8.3 The first motor buses were introduced by the Auckland City Council in 1924 as feeders to the trams.

5.7.8.4 The Auckland Transport Board Act of 1928 gave the Board the "*sole and exclusive right to own, acquire, construct and maintain, manage and operate tramways and motor and horse bus services*"[4]. Four bus routes in the outer western suburbs, which were outside the Board's Area, were transferred to the Auckland Bus Co.

5.7.8.5 Despite the exclusivity, the Board's routes were not profitable and in 1933 three areas were sub-contracted to three Board employees known as Transport Bus Services, an arrangement that lasted until 1946.

5.7.8.6 Due to the Board's exclusive right to operate, private bus companies had difficulty establishing profitable services. An early contender was Dunderdale and LeGrice with the Auckland to Otahuhu route. This lasted just two years before being taken over by Passenger Transport Co. Jackson & Guinivere, 1946, ran a service from the city to Greenlane and Cornwall Hospitals before being taken over by Bonnici Motors. Commercial Buses, 1953, serviced the southwest and was also taken over by Transport Bus Services.

5.7.8.7 After WWII the electric tram system, now over forty years old, needed upgrading. It was decided to replace the trams with electric trolley buses with the bus fleet as

[4] Auckland Transport Act quoted in The Auckland Transport Board, New Zealand Bus Club No.1ATB, Sept 1960, File 05/109/001, Motat Library

feeders. The first trolley bus circuit had been introduced in 1938 by Farmers Trading Co. in Hobson Street to link its department store to Queen Street.

5.7.8.8 The Auckland fleet of trolley buses reached 133 vehicles and in 1964 the service was taken over by Auckland Regional Council. These buses were gradually phased out from the late 1970s in favour of the Mercedes diesel buses and the last trolley bus service ran in 1980.

5.7.9 *Advent of the private car:*

5.7.9.1 Vehicle ownership increased markedly in the interwar and post WWII period, allowing urban expansion beyond public transport routes and after the war an extensive motorway system was planned and progressively built. In the 1950s the tram lines were removed and the decision made not to electrify the rail network, further strengthening the dominance of the private vehicle.

5.7.10 *Motorway expansion:*

5.7.10.1 A major feat for the development and growth of Auckland was the opening of the Auckland Harbour Bridge in 1959, facilitating a rapid connection between the North Shore and the central area. The development of Auckland's motorway network from the 1950s and 1960s accelerated suburban expansion and, at the same time, severed inner city neighbourhoods such as Freeman's Bay, Newton and more recently Grafton. The motorway network has influenced the importance of connections within the central area, in particular Hobson, Nelson and Wellesley Streets.

5.7.11 *Population Growth:*

5.7.11.1 After WWII the Maori population grew with the drift from countryside to work in the city. During the 1960s a high concentration of Pacific Island migrants formed in Freeman's Bay, Ponsonby, Arch Hill, Kingsland and Grey Lynn. A growing number of Asian immigrants also established communities.

5.7.12 *Auckland the Second City of the South*

5.7.12.1 Numerous proposals have been devised to solve Auckland City's transportation problems. One of the most notable was from Auckland's longest serving mayor, Sir Dove-Myer Robinson (1959-1965 and 1968-1980). His vision for Auckland was to develop a rapid rail network making rail the backbone of transport in the Auckland region, with buses connecting to train stations and feeding the local areas. In July 1973 the Government agreed to fund the cost of the electrification of the railway network between Auckland and Papakura, and an underground rail loop from downtown Auckland, via the central city to Newmarket. The proposed inner-city loop included an underground station on the Britomart site. However, in 1976 the Government subsequently decided that the rapid transport system was too costly and unjustified and cancelled the project.[5]

[5] http://britomart.co.nz/history2.html (accessed 18 May 2012)

5.8 Public Facilities, Arts, Culture and Entertainment

5.8.1 With settlement of central Auckland by Europeans came a desire for European art, culture and entertainment and those buildings that support and facilitate urban living. Funding for civic buildings, arts, culture and public parks was often lower on the priority list than roading and sewerage as those projects more immediately affected the growth of the city. However, the fledgling communities managed to raise funds to provide for their cultural and spiritual health and wellbeing.

5.8.2 As Auckland's central area emerged as the commercial hub for the growing city, it became appropriate that civic buildings be located within the Central Area. Many of Auckland's key civic buildings date back to the early pioneering period and the times of Victorian and Edwardian growth. The era of Auckland's role as capital of New Zealand (from 1840-1865) through to the inter-war period (up to 1945) saw construction of many outstanding civic buildings, including those for government and administration, among them Government House, the Town Hall, the Public Library and Art Gallery as well as structures and monuments to commemorate events, places and people.

5.8.3 The settlers brought their firm religious beliefs with them. In drawing up plans grants were assigned to the various denominations for churches, schools and cemeteries. The foundation stone for the Anglican church, St Paul's, was laid at the bottom of Princes Street in 1841. St Patrick's Catholic Cathedral on Wyndham Street was built 1846-48 and St Andrew's First Presbyterian Church on Symonds Street in 1847-50. Other churches soon followed, including the first temporary synagogue at Emily Place in 1884.

5.8.4 The first police watch-house was built at the south-west corner of the intersection of Queen and Victoria Streets. A small courthouse and jail were also built. The jail was moved to Mt Eden in 1856.

5.8.5 Early European settlement included areas that were assigned for public open space for the enjoyment and public health of residents and to provide green 'lungs' for the city.

5.8.6 In September 1871 the twenty-three acres occupied by the Albert Barracks was handed over for a commission set up for the improvement of the city and plans were immediately implemented to establish a park and large residential villas that established the character of this area. Myers Park was created in 1881 after the clearance of the slum that had formed in the valley of the upper Horotiu Stream.

5.8.7 Planting in Auckland's streets dates back to 1870s when hundreds of trees were planted to provide shade and enhance the street (city beautification of 1877).

5.8.8 The Tepid Baths were constructed in 1914 on land originally leased from the Auckland Harbour Board. The two pools – male and female – were originally of saltwater and were heated with hot water from the nearby tramways power plant.

5.8.9 A major event in the life of the young city was the building of the Public Library and Art Gallery, the first of its kind in New Zealand, on the corner of Kitchener

Street and Wellesley Street East. The Library opened in March 1887 and the Art Gallery the following year in February 1888.

5.8.10 Entertainment was provided by the early theatres (many of which no longer exist), the Town Hall, Public Library, also Choral Hall, the Northern Club etc

5.8.11 Early schools tended to be run by the various church denominations, particularly at the primary level. Only in the late 1860s-70s did city public schools open, beginning with Auckland Grammar in 1869 in Howe St. The first University College opened in Eden Street in 1883 and was relocated to Princes Street in 1890.

5.9 Britomart

5.9.1 With reclamation and the expansion of commerce onto the newly reclaimed land from the mid−late nineteenth century, the Britomart area became dominated by warehouse buildings designed to house import and export businesses, a direct correlation with the activity of the downtown working waterfront and port area.

5.9.2 The relocation of the central rail station back to the old Central Post Office Britomart site in 2002 triggered regeneration of this precinct. Many of the early warehouse and other commercial buildings remain intact and have been recognised as significant or iconic heritage items in the city. These have been adapted and redeveloped to house boutique offices, galleries, high quality retail and brasseries / cafes.

5.10 Aotea Precinct

5.10.1 The Aotea Precinct is the civic heart of Auckland City. It includes the administrative offices of Auckland City and the key civic / entertainment buildings including the Civic Theatre (1929) and modern Aotea Centre (1990).

5.10.2 *City Markets:*

5.10.2.1 The first city markets were built on the site of the former Horotiu Swamp and the confluence of Cook and Grey Streets before the 1870s. It occupied a square between Queen, Cook, Albert and Wellesley Streets. The market building was the centre for fresh produce and stood on this site until this activity moved to the waterfront in the late 1910s. Other services such as the Market Hotel and Carpenters Arms Hotel took advantage of this commerce.

5.10.2.2 Grey Street was formed in 1864 but by the 1880s the lower Grey Street buildings were vacated in favour of the more desirable dwellings further up the hill. The empty buildings gradually became rundown and decrepit. From early in the twentieth century Greys Avenue or Grey Street (as it was called at that time), became a focus for the Auckland Chinese population and was known as Auckland's 'Chinatown'. Rentals were cheap and it was close to the city markets. Shops such as Wah Lee's soon sprang up to cater for the community.

5.10.2.3 There were now three or four stores, restaurants, boarding houses – some of which were used as gambling or opium dens – often raided by the police. Thomas Humlog's 'China Laundry' at the intersection of Grey Street and Shoe Lane in 1895 was chosen as the site for the Town Hall.

5.10.2.4 In 1928, the Salvation Army built its Citadel near Myers Park entrance, and further up, Ross & Glendining, warehousemen, established their premises. The Myers Park Kindergarten was established in Myers Park and the Grey's Avenue state flats were built by the government in 1947 after the China Town slums had been cleared for this development.

5.10.2.5 As Auckland's central area emerged as the commercial hub for the growing region, it became appropriate that civic buildings be located within the Central Area. The Wellesley Street area grew in importance as a civic centre with the building of the Public Library and Art Gallery in 1887 and 1888. This building also accommodated the City Council Chambers until more permanent premises could be established.

5.10.2.6 In March 1908, tenders were called for the construction of a new Town Hall for Auckland. It was intended that part of the function of this building would be as a home for the City Council. Construction of this now well-known landmark took place from 1909-1911. Once built, the Town Hall became, and has remained, the venue for everything from council meetings and public receptions to boxing matches and classical music recitals.

5.10.2.7 The completion of the Town Hall gave impetus to considerations of a civic centre. In 1911 Charles Reade presented a scheme for the Civic Centre with large open spaces and the Town Hall as the central element. After Queen Street was widened between Wellesley and Wakefield Streets in 1924, a Civic Centre competition was won by Architects Gummer and Ford. Their plan proposed a municipal building and art gallery with grand classical facades, facing an extensive public square west of Queen Street. The scheme was abandoned in 1925, following an unfavourable poll of ratepayers and a year later Council established a commission to produce a new design. This scheme, similarly based on a strong classical style, was also turned down.

5.10.2.8 The issue of a civic centre persisted and Gummer and Ford were again approached in 1937 to design a civic administration block and then in 1943 to produce a new concept. By 1944 the new plans were ready but no further action was taken and in 1946 a significant change occurred when the Government proposed that a Civic Centre should also offer central Government accommodation.

5.10.2.9 The four stages of the scheme prepared by the Government Architect in the early 1950s saw 'rank upon rank of faceless bureaucratic monoliths march unhampered across the Civic Square'.[6] The lack of agreement between the Government and Auckland City Council as to the required features of the new centre delayed the scheme. However, it was a precursor to the building of Bledisloe State Building (1957) and the Civic Administration Building (1966), the latter designed by City Architect, Tibor Donner, after he had completed a study tour of modern American office buildings.

5.10.2.10 The Mayor, Dove-Myer Robinson, was a strong advocate of the Auckland Regional Authority co-ordinated underground ' Rapid Rail' circuit beneath the

[6] Auckland City Council, Department of Planning and Community Development 1990, Focus: the past, present, and possible future of Auckland's Civic Centre, p.15

central business district and the 1969 plans included access to a station on this loop in the Rutland Street area.

5.10.2.11 In Scheme 5, Quadrant Road was realigned to later become Mayoral Drive which was built in two stages; Albert Street to Queen Street in 1974 and Queen Street to Wellesley Street in 1985.

5.10.2.12 The 1971 Civic Square Competition did little to further the building of the Centennial Hall and it was deferred due to lack of finance.

5.10.2.13 Further meetings and consultation led to the 1979 design for a large multi-purpose theatre and a smaller theatre. Construction of the Aotea Centre began in 1984 but, due to cost escalation and debate about the site, it was not completed until 1990.

5.11 Karangahape

5.11.1 The Karangahape ridge and the valley to the south was a rural area outside the town of Auckland until well in to the 1860s. However, the elevated north facing slope attracted wealthy settlers who built substantial houses, in fact the first Government House was built on this ridge.

5.11.2 The Maori track along the ridge was the main route to the north and was developed into a road joining Great North Road. It was this traffic that attracted shops and other business to the crossroad of Pitt Street, Karangahape Road and Mercury Lane.

5.11.3 This area, outside the main settlement but close enough to the centre of the city, was ideal for large sections to be allocated by the Crown to religious groups. Some still remain in the area today such as the Wesleyan or Methodist Church (1866), on the Pitt Street corner and the beautiful Hopetoun Alpha in Beresford Square, built by the Congregationalist Church in 1875.

5.11.4 In 1882 this area became part of Auckland City and over the following four decades Karangahape Road became a significant shopping area. The replacement of horse drawn trams by electric trams in 1902 added to the attractiveness of the area for shopping and brought people from outlying areas. Virtually all the tram lines from the outer boroughs travelled the Symonds Street or Karangahape Road routes.

5.11.5 After WWI, Karangahape Road developed a more sophisticated reputation as larger specialist stores appeared, supplementing the smaller shops that still supplied the local population. The Naval and Family Hotel on the corner of Pitt Street dates from 1897, although there is evidence that a hotel was on this site in 1865. The department store, George Courts, opened in 1914 on the corner of Karangahape Road and Mercury Lane. The Karangahape Road area also became a centre of entertainment. Mercury Theatre was built in 1910 and in the 1920s cinemas and dance halls were popular. In the latter half of the twentieth century red light businesses were attracted to the area.

5.11.6 The Auckland City Fire Station was built on the corner of Grey and Pitt Streets in 1901 on a site formerly occupied by the Lennox family home. The St John's

Ambulance Station across the road was begun in the same year as part of the Fire Station complex. It was built in stages with the Beresford Street building erected in 1912. Designed for horse drawn fire engines, it enclosed a central courtyard with a large arched entrance. The tower was intended as a lookout over the city and for drying hoses. The Beresford building was converted to private dwellings in the 1990s.

5.11.7 Indian and Chinese traders have always had business in the area. Further diversity of the population occurred in the 1960s and 1970s with the arrival of Pacific people in New Zealand. Many settled in the Ponsonby and Karangahape Road areas. Shops and other businesses selling island produce and clothing were set up to cater to this community. The Polynesian population replaced working class families who had left for the suburbs. The department stores and other large businesses gradually relocated to suburban hubs in the later part of the 1900s.

5.11.8 The Newton end of Karangahape Road was cut off by the motorway excavation which removed an entire block of shops. The overbridge disrupts the continuous range of retail shop fronts that previously lined Karangahape Road unbroken from Symonds Street to Ponsonby Road.

5.12 Newton

5.12.1 Plans showing the early ownership of land within the area reveal that there were multiple purchases of allotments by wealthy individuals, many of whom were hoping to make a quick profit on speculative deals. By 1850, a number of well-to-do houses dotted the landscape, establishing it as a recognisable and fashionable residential area.

5.12.2 The junction of Upper Symonds Street, Newton Road, Khyber Pass and Mt Eden Road soon developed into a hub of shops and services. The area expanded with the advancement of industrial and commercial enterprises following the revival of the economy in the mid 1890s. Along with this was the constant upgrading of the roads necessitated by the arrival of the horse-trams in the 1880s and electric trams from 1902.

5.12.3 At the same time an infrastructure was established to support that community, evidenced by the appearance of churches, hotels, schools, banks, a post office, fire station, halls and other public buildings.

5.12.4 Large properties bought in the early decades were subdivided for suburban development. The slopes of Newton, during the latter part of the nineteenth century, were an intensely developed small suburb of wooden houses. Situated between the retail areas of Karangahape Road and Symonds Street, Newton was a fairly densely populated area, mainly of a working class nature with many boarding houses. Until the construction of the motorway system in the 1960s, the gully area was the location of several primary and intermediate level schools and about six churches.

5.12.5 In the 1950s, it was decided that Auckland needed a motorway, and the best path for it was right through Newton Gulley. Here older residential areas identified as developing into slums were removed to create a passage for the motorway.

5.12.6 After the motorway was cut through, much of the remaining housing stock was utilised for light industrial use and often rebuilt for factory and warehouse uses. Since the 1990s there has been a reverse trend of rebuilding. The remnants of Newton soon turned from residential to commercial and the old houses were pulled down, replaced by commercial buildings. Other industrial buildings were converted for residential use including some turned into large apartment blocks.

5.12.7 While the motorway may have eradicated the old residential, suburban Newton, a part of old Newton remains in the surviving villas, the street names and the old bluestone kerb stones. Slowly over the last fifteen years, people have started living in Newton again, not in villas though, but rather, in apartments and townhouses.

5.12.8 Some of the significant buildings in the area include the former Grafton Public Library (designed by Edward Bartley in 1913) which has been converted to a restaurant and the Art Deco former Post Office of the 1930s, also in restaurant use.

5.12.9 Eden Vale Hotel, at the intersection of Mt Eden Road, New North Road and Symonds Street is a building that for many years was the premises of W.H.Tongue, a firm of undertakers. The building was built as the Eden Vale Hotel, but soon after it was finished the inhabitants of Mt Eden voted for the area to become “dry”. As the building was just within the boundaries of Mt Eden it could not continue to be used as a licensed hotel. The other two pubs in the Upper Symonds Street area were both within Auckland City: the Astor Hotel (demolished; corner Khyber Pass Road and Symonds Street) and the Edinburgh Castle Hotel (extant; corner Symonds Street and Newton Road).

Aerial view shows Karangahape Road (running left to right at top of picture) and the junction of the Southern motorway (to right) and the north western motorway (to left) as these two major routes merge into the

5.13 General commentary in relation to project area

(For ease of identification, the CRL has been subdivided into three sections, approximately centred on the CRL stations)

5.14.1 *Britomart Station to "Aotea Station":* This area is characterised by the highest density of built heritage, and perhaps the area that has been subject to most change, represented by the large variety of buildings of different eras, from the earliest stone buildings such as the 1861 Bluestone Store in Durham Street up to the recently completed office towers, such as the Deloitte building.

5.14.2 *Aotea Station to Karangahape Station:* Beyond *Aotea Station* the tight urban fabric starts to fragment and the scale of buildings is more varied until Pitt Street and Karangahape Road. The area around the location for the station is part of the Karangahape Road Precinct with a large number of significant historic buildings.

5.14.3 *Karangahape Station to Newton Station:* The section between Karangahape Station and Newton Station is characterised by the division created by the motorway, which effectively resulted in two areas of very distinct character. To the North is an area that contains mainly warehouses or light industrial buildings, whilst beyond the motorway is the Symonds St Historic Area, with a large number of historic buildings.

5.14 Types of structures along the CRL

5.15.1 A great variety of buildings, with different construction types, line the CRL. These are broadly representative of the architectural development of Auckland from the 1840s to the present day.
Buildings include:

- Timber clad buildings with timber beams and posts supporting timber floors
- Brick bearing wall structures on shallow wall foundations
- Brick bearing wall structures on shallow wall foundations with upper storeys with timber beams and posts supporting timber floors
- Masonry bearing wall structures on pile foundations and timber floors
- Multi-storey brick bearing wall structures with timber beams and posts supporting timber floor joists between brick bearing walls
- Multi-storey buildings with brick bearing walls and floors consisting of I beams with jacked arches of brick
- Multi-storey buildings with brick bearing wall structures with cast reinforced concrete floors
- Steel structures with masonry outer skin
- Reinforced concrete frame structures with brick infill
- Multi-storey steel structures with curtain walling

6.0 Technical Assessment Methodology

6.1 Methodology Applied

6.1.1 There is no one accepted methodology for assessing the risk of damage brought about to historic properties by a project such as the CRL. However an approach that is based on best practice from similar projects such as Crossrail in London, the Washington Metro Construction, the Toronto Subway expansion in the mid-1990s, the recent Passante Ferroviario in Turin, the Singapore North East Line subway, and the application of professional opinion and experience will guide this project.

6.1.2 Firstly it is necessary to identify what heritage assets are present within the 200m corridor (100m either side of the indicative centre line of the CRL) within the buffer zones requested by Auckland Council Heritage and including their relative heritage significance. (ref Appendix C, D and E) With regard to the extent of the study area, we consider this to be a conservative estimate of the potential area of effect on Built Heritage on the basis of the experience in similar projects throughout the world such as Cross Rail and Kings Cross Station Redevelopment, London. (This has been confirmed by the production of vibration and settlement contours that have indicated that only about half of the buildings and structures originally identified within the study area may actually be affected by the project.)

We have categorised the buildings and structures that fall within the area of this study into three classes:

- **Type A:** are those buildings, structures and areas that are identified in statutory lists such as the former Auckland City Council "Schedule of buildings, heritage properties, places, monuments and objects of special value and those subject to heritage orders", the Historic Places Trust Register and the former Auckland Regional Council Cultural Heritage Inventory.
- **Type B**: are those buildings, structures and areas that are not included in formal lists, but that are seen as having heritage significance or making an important contribution to the built environment and its character. These buildings and structures are seen, therefore, as being 'character defining'.
- **Type C:** are those buildings and structures that are seen as being 'character supporting' and form part of a group of significance as well as having some individual significance, but are not currently protected by statutory mechanisms.

6.1.3 The criteria for inclusion in the table, in particular in relation to Types B and C, is via an assessment of Significance, based on internationally accepted definition of what constitutes the Cultural Heritage Significance of a building or place, reflected also in the ICOMOS NZ charter. This comes from an appreciation of its physical character and from an understanding of its associations over time with persons and events.

6.1.4 The nature and scope of this significance has been assessed on the basis of a number of characteristics - for example: the extent to which a building demonstrates design and / or construction techniques or knowledge of the time; or whether the building has aesthetic significance due either to its uniqueness, or its being representative of commonly held ideas of beauty, design and form at a particular point in time; or whether the building or site has clear association with particular events or persons in history. Such analysis will account, not only for the overall significance of the place, but also for the contribution to that significance made by its constituent parts or some part of its setting.

6.1.5 For clarity, the Significance of a building or structure can derive from a number of factors and our assessment has been based on an analysis of these qualities for the properties considered:

- **Historic Significance:** Whether a feature, element, or the building as a whole can be deemed to have significance, through its place in history or historic associations.
- **Functional Significance:** Whether the item's particular function in the building helps to explain the use or purpose of the building.
- **Technical Significance:** The extent to which an item demonstrates design and / or construction techniques or knowledge of the time.
- **Aesthetic Significance:** Whether the item has aesthetic significance due to its contribution to the overall unity of the design of the building.
- **Heritage Significance:** The degree to which the element or space as a whole can be said to have a heritage value consisting of the above qualities. This is the assessed cultural significance of that space or element.

6.1.6 The evaluation of potential effect on the historic buildings and structures has drawn on the knowledge of existing practice, knowledge from similar projects and professional judgment in the light of the general criteria set out by the ICOMOS NZ Charter. These include assessing the impact on:

- The Significance of the place.
- The particular physical features of the building or structure.
- The contribution of the building to the townscape.
- The vulnerability of the building or any of its parts, to change brought about by the CRL.
- The setting and character of the historic building, structure, place or area.

6.1.7 Having identified all the buildings or places seen as being of cultural heritage significance that are present within the study area, the analysis is then based on a three-stage approach. It is important to note that Stage 3 is beyond the scope

of this report and will require detailed project information and building information and the collaboration between various disciplines.

- **Stage 1** – **Preliminary assessment** – *Identifying what might be at risk*

  In an urban situation such as this, a large number of buildings are likely to be located within the settlement and vibration trough of a tunnel as mentioned above. The area considered for this report is 100m either side of the indicative centreline of CRL, which, in the light of the information that has become available later in the process, is in excess of any effects zone. Indeed, by drawing ground surface contours of potential settlement and vibration effect along the route, it has been possible also to immediately eliminate all buildings having less than negligible risk, as they fall without these contours. However, particularly sensitive buildings might be earmarked for the next stage of assessment.

- **Stage 2** – **Secondary assessment** - *Identifying the general risks, specific risks, mitigation options and opportunities for particular sites.*

  The available information such as desktop analysis of individual buildings along the CRL was researched and together with structural engineers. (ref Appendix A). More detailed analysis will be required, inventory prepared and appropriate mitigation measures proposed at this stage. Only generic mitigation measures can be proposed until detailed construction methodology is confirmed, but particularly sensitive buildings may already be earmarked for the next stage of assessment.

- **Stage 3** –**Detailed evaluation** - *Identifying the specific risks, mitigation requirements, and opportunities to individual buildings and areas*

  As outlined above, the scope of this report is to provide high-level information on the actual and potential effects caused by the construction, operation and maintenance of the CRL. Detailed evaluations will need to be carried out in the future on those buildings that are at highest risk and are seen as remaining at risk even after the general mitigation procedures outlined in this report are applied.

  This should also include any buildings of particular sensitivity, because of their historic significance, fragility or use. Each building will need to be considered in its own right and will require a detailed inspection both internally and externally.

  In relation to these, particular attention will need to be paid, for instance, to:

  - Tunnelling and excavation sequence
  - Structural continuity
  - Foundations
  - Orientation of the building
  - Previous movements and existing cracking

7.0 Effects and Mitigation Assessment

7.1 General considerations on potential effects

7.1.1 This report assesses the potential effects or impacts to Built Heritage - whether positive or adverse - that might result from the construction and operation of the CRL. Defining what the actual effect might be and the vulnerability of the Historic Areas, Places (Buildings and Structures) to damage is not straightforward at this stage, as the assessment can only refer to the high-level information available in the 2012 Concept Design report for guidance on the engineering and architectural requirements and the indicative construction methodology. More detailed information will be available following further design phases and site investigation works to be undertaken in the next phases[7]. The primary purpose of this report is to inform the NoR for the purposes of route protection, not to determine specific effects on, and mitigation for, individual properties.

7.1.2 Therefore, this report aims, firstly, at identifying the historic areas, places (buildings and structures) in the project study area, secondly at assessing the potentially most significant impacts that construction and operation of the CRL might have on them and thirdly on providing a general commentary as to how these impacts might be avoided, remedied, or mitigated. The report aims, therefore, at establishing a methodology for the identification of the property, the potential impact and establishing guidelines for mitigation measures but not at identifying specific mitigation measures for individual buildings. This information will be a key input into the Environmental Management Plan (EMP)[8].

7.1.3 The information in this report will need to be refined and updated as more information on the project requirements and detailed information on the historic places, buildings and structures becomes available. This will eventually provide, together with the reports from other disciplines, a comprehensive overview of the measures that will be implemented to avoid, remedy, or mitigate such effects and which will be captured in the EMP.

7.1.4 The project proposals should, in the first instance, seek to avoid damaging in any way, any historic buildings or structures. In some cases, this may not be possible and, significant effects (see also definition of effects in 7.1.8) might be predicted. This eventuality should trigger other mandatory requirements, such as those for building recording, condition surveys, monitoring and salvage strategies, the specification of which should be detailed and accepted by all parties involved in the project. These processes and procedures should be contained in a Heritage Management Plan for the project.

7.1.5 The assessment of effects on Built Heritage has focused on direct physical impacts on the identified buildings and structures that are consequential to excavation and tunnelling, such as vibration and settlement.

[7] Environmental Management Framework

[8] ibid

7.1.6 The types of impact can vary significantly. Some of these will relate to *site-specific (direct and indirect)* effects which are positive or adverse, temporary and permanent, result from a geographically localised activity. Others will be *route-wide* impacts, again positive and adverse, temporary and permanent, which cannot be attributed to a particular section of the project route. In addition there will be *cumulative* effects where the effect is the accumulation of a number of effects of the same or related types at different locations along the route. Finally *residua*l effects are those that will remain significant even after the implementation of all agreed mitigation measures.

7.1.7 The potential damage that might be caused to the identified buildings and structures along the CRL fall into three general categories (after John Burland – The assessment of the risk of damage to buildings due to tunnelling and excavations – An Historical Perspective,1995): the *'Aesthetic'* ones, where the effect might affect only the appearance of the property; the '*Serviceability'* ones, cracking and distortion which impairs, for instance, the weather tightness or other functions (e.g. sound insulation, fracturing of service pipes, jamming of doors and windows) and finally effects related to '*Stability'*, where there might be an unacceptable risk that some part of the structure will collapse unless preventative action is taken.

7.1.8 In the case of Built Heritage even 'Aesthetic' damage brought about by Negligible, Very Slight or Slight damage might be significant. For instance, small cracks in a decorative plaster ceiling or, say, damage to unique original details or decorations, might not be at all satisfactory and other solutions will need to be found. In this case it will be important to assess in detail what is actually present in the properties and their condition, the likely effects and what options are available to avoid, remedy or mitigate these effects.

7.2 Baseline Information and dealing with uncertainties

7.2.1 As stated above, the baseline information and project description used in this report are those contained in the 2012 Concept Design Report. Where there has been a need to make assumptions to undertake the assessment of particular impacts, these assumptions have been described.

7.2.2 With respect to assessing against the indicative construction methods proposed in the 2012 Concept Design Report, the approach has been to apply experience from similar projects. It is beyond the scope of this report to discuss what specific measures contractors will need to undertake during the construction period. However, the general mitigation principles and approach outlined in this report and eventually forming the Heritage Management Plan, will inform the EMP, as will the information from the site investigations and additional design refinements.

The future Construction Environmental Management Plan (CEMP)[9] will outline the specific measures contractors will need to undertake during the construction period.

[9] Environmental Management Framework

7.3 Types of Effects

7.3.1 Design Effects - Over-site Developments

7.3.1.1 There are sites where the 2012 Concept Design Report has indicated the potential alteration of buildings for temporary or permanent uses. It is important that a strategy be in place not only for the sites that have a future permanent operational requirement, such as stations and shafts, but also for those where there might not be permanent operational works on the land. Any proposed development or redevelopment should respond to the character of the context, in terms of scale, set-backs and materials and aim to maintain or enhance the character of the historic environment.

7.3.2 *Design Effects - Regenerative Opportunities*

7.3.2.1 In addition to the point above, there are likely to be regeneration activities brought about by the CRL project which provide an opportunity to enhance existing historic areas with sensitive new developments. Areas of opportunity could be:

- The junction of Victoria Street West and Albert Street, both the empty site to the South East and the regeneration of the Martha's Corner buildings.
- The junction of Wellesley Street and Albert Street, with the opportunity of integrating the Griffiths Buildings.
- The area between Karangahape Road and the Motorways.
- The area between Symonds Street and St Benedict's Street.
- The area adjacent to the Orange Coronation Hall at the junction between Dundonald Street and Newton Road.
- The area adjacent to the proposed station on Symonds Street, in particular at the junction with New North Road.
- The area between Mt Eden Road and Mt Eden Station.

7.3.3 Design Effects - Enhancement Opportunities

7.3.3.1 On a smaller scale a possible positive effect of the project might be the enhancement of individual historic buildings, whether in relation to supporting the sustainable adaptive re-use of these, or by allowing for the direct enhancement of these through, for example, the removal of low quality later accretions that are currently affecting their character and impacting negatively on their significance.

7.3.4 Design Effects - Visual amenity

7.3.4.1 In addition to issues affecting the 'setting' of historic buildings and structures, as illustrated elsewhere in this report, there are likely to be impacts affecting not necessarily adversely, established historic views, whether short distance views of buildings that might be affected by elements such as signage (more on this below) or the effect of new built elements in character areas. Similarly, but at this stage less evident, there might be impacts on significant long distance views such as those towards Rangitoto and the other volcanic cones.

7.3.5 Design Effects - Cumulative impacts

7.3.5.1 The proposed project will affect the historic environment not only with acute impact, such as the creation of new stations, but also through a likely layer of incremental change brought about by the CRL that could individually or cumulatively impact on the significance of the historic places (whether buildings or structures) and in particular on historic areas.

7.3.5.2 Signage, lighting, street furniture, paving treatments can all impact positively or negatively on the historic environment. The CRL presents an opportunity for a coordinated approach to these smaller interventions along the route to ensure a sensitive and potentially positive outcome for Built Heritage.

7.3.6 Construction Effects - Noise

7.3.6.1 Standards of performance with respect to the control of construction noise and vibration can be agreed well in advance, together with the effective management of the works programmes. Such a proposal is made in the CRL Noise and Vibration Assessment with a Construction Noise and Vibration Management Plan (CNVMP) to be prepared.

7.3.6.2 Whilst noise impact on the historic buildings and structures is not an issue per se, the consequential remedies that may be required to protect occupants from noise carry the risk of affecting any such properties to a greater extent. The noise assessment may identify a number of historic buildings which may be eligible for mitigation in the form of noise insulation by means of secondary glazing (and ventilation, where required), which has the potential to alter the fabric of these buildings. The installation of such mitigation should be undertaken in such a way as to minimise any impacts and in some cases it may be practical and desirable to remove the noise insulation after the construction works are complete to restore the building to its pre-existing condition.

7.3.6.3 Analysis in the Noise and Vibration Assessment Report has been undertaken at key positions along the route and at key receivers. Some of these such as the Mercury Theatre coincide with buildings identified in this report. However no specific recommendation is made at this stage in regards to mitigation solutions that might physically affect Built Heritage, which we understand will be contained in the CNVMP. Acceptable solutions will need to be identified in parallel with the production of detailed project and construction information and Stage 3 of the Built Heritage Assessment outlined above.

7.3.7 Construction Effects - Vibration

7.3.7.1 The Vibration effects, on the other hand, can affect heritage assets to a great extent, depending on their location, construction and condition. The Noise and Vibration Assessment Report identifies, in particular, the greatest risk to buildings from vibration as being during the construction phase. The criteria applied also highlights specific levels for risk of superficial damage to 'Historic Structures' and 'Risk Contours' have been developed which have been instrumental in refining the list of properties that may be affected by the CRL. This has allowed for the identification of those properties that are likely to require detailed research and analysis in Stage 3 of the Built Heritage Assessment as well as the detailed Structural Assessment.
(These properties are identified in the table in Appendix A)

7.3.7.2 General mitigation measures might, along with monitoring, include specific measures to deal with buildings that are attached or contiguous to buildings that are proposed for demolition. The attached buildings will need to be unattached, where practicable, using non-vibratory techniques, such as diamond sawing, before demolition commences. Where necessary, appropriate vibration monitoring regimes are recommended for demolition or other major activities. This would, in the worst case, allow cessation of works should vibration levels exceed relevant limits.

7.3.7.3 The Noise and Vibration Assessment Report risk contours identify damage thresholds for Built Heritage along the CRL route. The type and condition of buildings that are within the area defined by the contours vary considerably. Therefore, the actual risk might be greater for certain properties and less for others and consequentially the identification of specific mitigation measures will be required for specific properties. As highlighted in the Structural Assessment Report many of these are fragile, single and multi-storey unreinforced masonry buildings, typically with shallow foundations. These are the ones at greatest risk of damage from vibration.

7.3.8 Construction Effects - Work sites

7.3.8.1 Tunnelling is potentially the main risk to the historic properties and structures along the route due to the potential effect brought about by construction vibration and ground settlement. However there are a number of supporting and logistical activities that also carry significant risks. These are likely to be site-specific but potentially of greater severity during the construction stages. Depending on the finalised construction methodology, type and sequencing outlined in the future CEMP these may have acute effect on historic properties, ranging from direct impacts all the way to residual impacts.

7.3.8.2 The creation of work sites, for instance, within what are constrained urban sites in close proximity to historic properties, whether due to extraction of material or movement of equipment, or other site set ups. Depending on the finalised construction methodology, type and sequencing, specific mitigation procedures will be required to safeguard these properties.

7.3.9 Construction Effects - Logistics

7.3.9.1 The redirection of services, whether permanent or temporary, is likely to impact on a wider area than that immediately adjacent to the proposed route, potentially affecting buildings that may not be otherwise affected by the construction process.

7.3.10 Construction Effects - Settlement

7.3.10.1 As highlighted in the CRL Structural Assessment Report, tunnel shaft and cut and cover excavations have the potential to induce surface, subsurface and lateral ground movement. This can have resultant effects on nearby structures and their foundations and consequential damage to buildings and other infrastructure including utilities. Such damage ranges from small internal cracks through to effects on the structure.

7.3.10.2 Specific consideration has been given to buildings which are listed as being Significant in order to protect the building and any sensitive features or features of heritage value. Elements that are often at risk from settlement impacts are decorative plasterwork, joinery and glazed items.

7.3.10.3 As with the vibration, settlement contours maps have been produced from the settlement prediction data with contours plotted along the length of the CRL corridor, overlaid with existing building footprints. (ref Appendix B.) This has allowed for the identification of the 53 properties that are likely to require more detailed research and analysis in Stage 2 and 3 of the Built Heritage Assessment, as well as the detailed Structural Assessment. (ref Appendix A.)

7.3.10.4 The Structural Assessment Report (Page 21) states that: *"in general the level of damage associated with Settlement will be in the Negligible to Slight categories is aesthetic or cosmetic in nature and non-structural"* and that *"The effect on some of these buildings has been identified as potentially falling into the Moderate category where significant hogging curvature or tensile strains occur in the settlement profile"*

7.3.10.5 As stated above, in the case of Built Heritage even the 'Aesthetic' damage category brought about by Negligible, Very Slight or Slight damage might be significant. In this case it will be important to assess in detail what is actually present in the properties and their condition as well as more accurately accounting for the local soil conditions, the building configuration, construction type and condition and any structural stiffness. Furthermore, the information available at this stage does not include detailed knowledge of the construction methodology, which could generate significantly different results.

7.3.10.6 More detailed assessment of the vulnerability of individual properties will be required, especially those that are already seen as being at 'Moderate' risk of damage, which would trigger the requirement for Condition Surveys, Monitoring or ground treatment

7.3.11 Permanent Residual Effects

7.3.11.1 Permanent residual effects are those effects that remain even after any mitigation procedure is put in place. These may be both positive and negative, and are effectively the permanent changes to the historic environment that will need to be managed throughout the construction and operation of the CRL.

7.4 General Mitigation Principles, Approach and Philosophy

7.4.1 The need to mitigate must be a key consideration for the following design and construction phases of the project. The following general mitigation principles and approach should be included, as part of the Heritage Management Plan, in the EMP as considerations to avoid or reduce significantly the impact on Built Heritage along the route alignment through the design and construction phases. Mitigation also includes, for example, refinement of the design to eliminate settlement and vibration affects.

7.4.2 A tried and tested approach to mitigating impacts arising from the permanent works is the development of a 'mitigation hierarchy', a cascading series of actions where:

- Impacts will be avoided or reduced at source, where possible, designing the project so that the impact is avoided in the first place
- Mitigation measures will be included in the project to reduce the adverse impact where it has not been practicable to avoid or reduce that impact at source.
- For those adverse impacts that still remain significant after the application of the above measures, additional measures should be taken to avoid the potential impact or, if not practicable, to compensate for it by some other means.

7.5 Universal Mitigation Policies

7.5.1 Mitigation measures that address the potential effect on Built Heritage will need to be considered on a building-by-building or site-by-site basis. The definition of these measures will be able to be finalised in successive refinements as the detail design and construction methods become clearer, and as detailed information on the properties becomes available and the construction methods are finalised. There are, however, a number of universal mitigation actions, the Policies, that can already be identified at an early stage and that will be applicable:

- **Setting of Built Heritage** – The success of any proposal that alters the historic environment is likely to be measured by its relationship to the context of which it is part. The effect of the proposal on the setting of an historic place, historic area, or a scheduled or any significant heritage structure is a material consideration in determining the suitability of such proposals. Setting is effectively the surroundings in which a historic environment is experienced and is, therefore, both a heritage and an urban design concern in relation to the CRL.
- **Wider context** – Deep knowledge and a thorough understanding of this context should form part of the design process. Design concepts will need to be progressed to a level that is sufficient to enable adverse landscape / townscape impacts and impacts on visual amenity to be defined and appropriate mitigation identified. The design of any new building and structure should respond to its context. Care should be taken to ensure that design proposals within historic contexts are properly founded and based on a thorough understanding of this. Historical pastiche or conjectural restoration should be avoided.
- **Relevant planning and other policies** – The design and construction methods should meet the requirements of all relevant statutory legislation, codes of practice and standards in relation to the protection of Built Heritage.
- **Adaptive Reuse** – Any proposal to significantly alter or demolish Built Heritage items should be based on a full justification and exploration of all

feasible alternative options available, including their retention, adaptive re-use, integration in the new station design or partial retention.

- **Mitigation programme** – In first instance, an agreed mitigation programme for impact on Built Heritage will need to be agreed and implemented through the development of the Heritage Management Plan and its inclusion in the CEMP prior to the commencement of any construction work and monitored during construction as appropriate.
  This will bring together the specific mitigation actions required for specific properties.

- **Minimum Requirements** – An approach that has been tested successfully for projects such as the London Crossrail is that of setting Environmental Minimum Requirements as an agreed and pragmatic method that allows for mitigation procedures and outcomes for most impacts to be agreed at the outset of the project. The benefits of this are that the project can proceed with a clear basis of understanding between the various parties, thereby reducing uncertainties on the project as well as minimising potential delays for consents. A similar approach might be applicable for the CRL in regards to the historic environment (and potentially beyond), with broad brush minimum requirements agreed early on between the parties, building on the design principles being developed and the mitigation subsequently refined in parallel as proposed in this report.

- **Agreed Procedures** – As mentioned above, the overall aim for the project should be that of no negative effect on Built Heritage. However, where damage is possible or where alteration - or indeed demolition - of Built Heritage will need to be undertaken for other overriding factors, a series of agreed procedures, actions and approvals will need to be put in place prior to work being carried out. These will include Condition Surveys, Building Recording, Salvage Strategy, as much as the production of Method Statements by the contractor to determine the effect of specific proposed works.

- **Condition surveys** – Condition surveys will need to be undertaken to define appropriate vibration and settlement limits for Built Heritage that may be potentially affected by the construction works. Where these are very close to work sites, or attached to buildings or structures that form parts of work sites, detailed assessments should be undertaken prior to commencement of works to inform the selection of specific items of plant and working methods.

- **Building Recording** – An appropriate level of Building Recording and publication of these investigations will need to be agreed and implemented in a format suitable for public dissemination. Building Recording will record and document in detail the context, physical features of the building and the construction techniques applied. This is imperative for any historic building or structure being demolished, dismantled, or altered substantially. A Building Recording Specification will need to be included in the Heritage Management Plan to inform the contractor about requirements prior to construction being carried out.

- **Salvage Strategy** – A suitable set of procedures will need to be established and agreed for the removal, storage and for later refitting and re-use of

elements from certain historic buildings and other historical structures. This should be in the format of a Salvage Strategy, with clear identification of actions, responsibility and decisive authorities.

- **Method statements** – For specified work, method statements will need to be submitted to the local planning authority for its approval, as well as NZHPT, where required. The method statements will be used to determine the effect of specific proposed works on the historic areas, places and structures and should both describe the condition of historic place and give details of how the work will be carried out.
- **Important features** - Specific protective measures will need to be undertaken, where necessary, to protect the building or its important or valuable heritage features. Appropriate procedures will need to be established and agreed for the emergency repair of damage to historic buildings brought about by construction work or operation of the CRL.
- **Precautions** – Suitable precautions will need to be taken to avoid any unplanned impacts on identified heritage assets. Where necessary, for instance, suitable screening and other protective measures will need to be erected to protect historic buildings within and adjacent to works areas.
- **Dismantling and reconstructing** – Appropriate procedures will be need to be established and agreed for any dismantling or re-erection of certain historic buildings and other historical structures temporarily or permanently affected by the works.
- **Interiors** – The statutory protection offered by the Historic Places and Resource Management Acts is not limited to parts or elements of the buildings, such as the exterior façade, but includes the entire curtilage of the properties, including any out buildings, structures and in particular interiors. It is indeed interior features of these buildings, such as decorative plasterwork, that might be at greater risk from settlement and vibration damage. Suitable precautions should be put in place by the contractor for the protection of the more sensitive interiors. As an example, these might include boarding around delicate staircase balustrades, propping balconies etc. It is a matter for the contractor to submit details of these precautions for amendment and approval.
- **Vacant buildings** – Procedures should be established and agreed for the management and maintenance of historic buildings that may be left empty during construction, until such times as these buildings are subsequently occupied or disposed of. Security procedures should also be established to prevent unauthorised access to historic buildings and damage to them or theft of historic elements and fittings from them.
- **Enhancement of public appreciation** – The historic environment and individual buildings along the route are sometimes perceived by the general public as being of little value. Lack of on-going investment, empty buildings and poor maintenance contribute significantly to breakup historically important urban centres. In addition, the lack of information available to the general public about the historic environment of the City can contribute to what might be a distorted perception.
  The project is likely to raise the profile of localities along the route, leading to increased occupier and developer confidence. This, in turn, will create a virtual

circle of inward investment as land values increase and the quality of the built environment improves. The project offers an opportunity via presentation and interpretations, to not only educate the general public in regard to the CRL and its benefits, but also to encourage Aucklanders to take a fresh look at their City and their Heritage.

- **Future research** –The CRL proposals are at an early stage of design development and this report responds to the information provided in the 2012 Concept Design Report. As the project develops and more detailed information becomes available, it is likely that further research will be beneficial to inform key decisions being made.

7.6 Specific Impacts, Mitigation Policies and Procedures

7.6.1 ***Currently identified major risks to specific buildings and structures:***
A preliminary evaluation has been carried out to identify what specific risks are known at this stage on the basis of the concept design information available at time of writing. The properties outlined below have either *been identified as having Slightly to Moderate Affects*[1] *from construction as identified in the CRL Structural Engineer Technical Expert Report or identified for adaptive use with**in** station footprints. These have been identified as building/structures that will require a more detailed assessment of* their *vulnerability prior to construction.* The table of properties is contained with the in Appendix A. Places of particular note are outlined below by specific areas.

7.6.1.1 *Britomart Station to Aotea Station***:**

- **Former Chief Post Office Building -** Type A building, (91)

Built in 1909, the Former Chief Post Office building is one of the most significant historic buildings in central Auckland as for several decades the building was the main postal and communications hub of the city. After a period of decay, the building was reborn as the Britomart Transport Centre, placing it once again at the centre of Auckland life.

The 2012 Concept Design Report proposes the further modification of the building to accommodate through lines, which will require temporary support of the building and the insertion of new structure beneath the building.

The potential effects could be significant. However the building has been extensively altered for the creation of the Britomart station and the structure of the building and that of the alterations are well known. From the information available in the 2012 Concept Design Report, the alterations required – and the sequence of works – will be complex and mitigation measures are likely to be equally as detailed.

- **Albert Street Historic Wall and Toilets -** Type A building, (08)

The bluestone wall above the toilets is the oldest piece of road construction in the central city. The men's toilets were constructed underneath the road in 1880 and contain cast iron interiors dating back to 1906 when the steps and railing were also introduced. The proximity of the wall to the cut and cover section of the CRL and its relative fragility highlights a number of immediately identifiable impacts, particularly the risk of damage during construction and potentially during operation.

7.6.1.2 *"Aotea Station":*

- **Martha's Corner Buildings -** Type C building, (142)

Should the design proposals in the 2012 Concept Design require the modification of the buildings on this site and their incorporation with a new station building, proposals will need to be based on a full justification and exploration of all feasible alternative options available, including retention, adaptive re-use, integration in the new station design or partial retention. Demolition is seen as the worst case scenario and retention and adaptive re-use should be the first priority.

The Martha's Corner Buildings have been identified as being Type B buildings (Buildings of architectural and historic significance / Character-defining building not currently included in statutory lists). Their significance derives from their completeness as a group and significant presence of unaltered pre-1900 historic fabric including, for instance, original shop windows, being representative of the particular era of construction, as well as a colourful history.

The retention and, if required, adaptation of historic buildings like these almost always results in the enhancement of the urban environment. The success of the adaptive reuse schemes such as the Britomart Precinct should be a good indication of the potential that these properties have.

These buildings are also identified in the Auckland Council Central Area Character Overlay with the following justification:

"….The grouping is significant for its uniformity and continuity of façade. The buildings are a recognisable group that has long been associated with Auckland city's nightlife and provide a remnant of the original streetscape of this part of Victoria Street.

Between Martha's Corner and the Aurora Tavern (now removed) *are two shops of a similar scale that currently also house ground floor retail with restaurants above. They are rather more modified on the frontage than adjoining buildings, however are still part of a recognisable group of early 20th Century buildings that makes up this block along Victoria Street between Albert and Federal Streets.*

In summary this is part of a recognisable grouping of buildings that retains a scale, massing and character otherwise no longer present in this part of the city. Its loss or replacement with large scale tower blocks would destroy the character and human scale of the block and the relationship with the Aurora Tavern on the corner of Victoria and Federal Streets.

Reasons for inclusion:

Context – remnant of early settlement in Auckland

Contribution to local character and streetscape – retains historical proportions that relate to scheduled buildings such as Aurora Tavern;

Group significance – part of a recognisable group with a continuous façade;

Urban structure in terms of human scale, relationship to street, height and block length."

A noted, any proposal to significantly alter or demolish them should be based on a full justification and exploration of all possible alternative options available, including their retention, adaptive re-use, integration in the new station design or partial retention.

Should the buildings be retained in their current form, precautions will need to be taken in regards to their integrity due to the proximity of the excavation for the new station.

Should it be demonstrated that their demolition is justifiable, and of course subject to all relevant statutory consents and approvals, the procedures for Building Recording,

Salvage Strategy etc. should be applied.

- **Griffiths Holdings Building -** Type C building, (153)

This building has been identified as being Type C building (Buildings of potential architectural and historic significance / Character-supporting building not currently included in statutory lists).

The location of Aotea Station assumes that the block containing the Griffiths Holdings Building is adaptively re-used to accommodate the new station entrance. The design proposals in the 2012 Concept Design Report currently indicate a new station entrance on this site. As mentioned above, any proposal to significantly alter will need to be based on a full justification and exploration of all feasible alternative options available, including their retention, adaptive re-use, integration in the new station design or partial retention. Further research will be required as the project progresses but the design proposals should take into account the potential cultural heritage significance of this building.

The Griffiths Holdings Building has not been included in the Auckland Council Central Area Character Overlay with the following reasons:

"…although typical early twentieth century shops, the roof profile has been modified and these sit along amongst the larger buildings on the other corners of Albert Street. In terms of redevelopment potential, as this is a prominent corner, it offers the opportunity to construct a landmark type building that addresses the corner and relates better in scale to buildings on the other three corners of the intersection."

Should the buildings be retained in their current form, precautions will need to be taken in regards to their integrity due to the proximity of the excavation for the new station.

Should it be demonstrated that their demolition is justifiable, subject to statutory consents and approvals, the procedures for Building Recording, Salvage Strategy etc. should be applied.

7.6.1.3 *Karangahape Road Station:*

- **Beresford Square Toilets -** Type C building, (236)

The Karangahape Road Station falls within the confines of the Karangahape Road Precinct, identified in the City of Auckland - District Plan Central Area Section as "*applied to give particular recognition to the special character of the Karangahape Road ridge which is quite distinctive from the rest of the Central Area"* [10]*.* The objectives include the retention of significant buildings which contribute to the character of the area. The Beresford Square Historic Toilets have been identified as being a Type C Building. Although not used for their original function and significantly altered with the addition of the adjacent restaurant/Bar, the Beresford Square Toilets are a local landmark and one of the few remaining historic toilets in the city.

The location for Karangahape Road Station assumes that the Beresford Square Toilets are modified to make way for a new station entrance. Any proposal to significantly alter or modify them should be based on a full justification and exploration of all feasible alternative options available, including their retention, adaptive re-use, integration in the new station design or partial retention.

Adaptive re-use should be the first priority. Consideration should also be given to the possible integration of the building with the new entrance or the relocation of the building within a transformed square.

[10] City of Auckland – District Plan Central Area Section, Part 14.11.1

Should the toilet structure be retained in its current form, precautions will need to be taken in regards to their integrity due to the proximity of the excavation for the new station.

Should it be demonstrated that their substantial alteration is justifiable, subject to statutory consents and approvals, the procedures for Building Recording, Salvage Strategy etc. should be applied.

- **Pitt Street Buildings -** Type A building, (47)

As mentioned above, the Karangahape Road Station falls within the confined of the Karangahape Road Precinct, identified in the City of Auckland - District Plan Central Area Section as "*applied to give particular recognition to the special character of the Karangahape Road ridge which is quite distinctive from the rest of the Central Area*"[11]. The objectives include the retention of significant buildings which contribute to the character of the area. As can be seen from the information in Appendix D, a large number of buildings are immediately adjacent to the proposed new station site. There are therefore a number of immediately identifiable effects to these ranging from the impact on their Significance caused by the design of the new station buildings and other structures, to risks of damage during construction. However there are also potential positive effects in terms of enhancement and regeneration which might be brought about. In any event, the design of the new elements will need to have regard to the Karangahape Road Streetscape Design Guideline.

- **Mercury Theatre -** Type A building, (57)

The 2012 Concept Design Report proposes the creation of a new station entrance adjacent to the King's Theatre on Mercury Lane, the oldest surviving theatre in Auckland. This building is one of the most significant along the CRL and the potential effects on the building are also significant, both in terms of potential physical impact and effect on its use during the construction phase.

Particular attention will also need to be given to the design of the new station building and its effect on the setting of the historic theatre. Having said this, the introduction of a station entrance is likely to have a regenerative effect on Mercury Lane which could improve the urban environment surrounding the theatre.

7.6.1.4 *Newton Road Station*:

- **227 Symonds Street - Type C building, (130)**
- **235 Symonds Street - Type C building, (132)**
- **239-241 Symonds Street - Type C building, (133)**
- **245-253 Symonds Street -** Type C building, (135)

The area around the proposed Newton Road Station is within the Upper Symonds Street Historic Area, registered by the NZHPT. As can be seen from the information in Appendix C, The Historic Area contains a significant number of character buildings and the proposed new station site is immediately adjacent to the terrace of buildings along the Western edge of the Upper Symonds Street. There are therefore a number of

[11] City of Auckland – District Plan Central Area Section, Part 14.11.1

immediately identifiable impacts to these ranging from the impact on their Significance caused by the design of the new stations and other structures, to risks of damage during construction, to potential positive impacts in terms of enhancement and regeneration that might be brought about. The choice of proposed location for the station buildings has the opportunity of complementing these buildings and enhancing the character of the area as a whole.

- **151 Newton Road -** Type C building, (73)

The building on the corner of Newton Road/Dundonald Road is immediately adjacent to the proposed new station site. There are therefore a number of immediately identifiable impacts to these ranging from the impact on their Significance caused by the design of the new stations and other structures, to risks of damage during construction, to potential positive impacts in terms of enhancement and regeneration that might be brought about.

8.0 Legislative Framework

8.1 The identification and protection of heritage buildings is a shared responsibility between national, regional and local government acting under different legislation - the New Zealand Historic Places Act 1993 and the Resource Management Act 1991 [RMA]. ref. Appendix F.

8.2 At the national level, the New Zealand Historic Places Trust Pouhere Taonga [NZHPT] maintains the Register of Historic Places, Historic Areas, Wāhi Tāpu and Wāhi Tāpu Areas. Its size, scale and national focus, makes it the primary statutory national record. NZHPT registers both individual places and historic areas including three in the study area: the Customs Street Historic Area, the Harbour Historic Area and the Upper Symonds Street Historic Area. Buildings are classified as either Category I or II and registration applies to the *place;* that is, the exterior and interior of the building and its site. Any alteration or change to a registered place may require consent from NZHPT as an "affected party".

8.3 At the regional and local level, Regional Councils and Territorial Local Authorities, operating under the RMA have regional or district plan lists of heritage buildings and often include separate lists of archaeological sites and trees.

8.4 In Auckland, the former Auckland Regional Council [now the Auckland Council] maintains a Cultural Heritage Inventory [CHI] which is a database of historic places, including archaeological sites, historic buildings, maritime places and areas, historic places where events occurred, historic trees and botanical sites.

8.5 In addition, Auckland Council has a District Plan schedule of buildings, heritage properties, places, monuments and objects of special value. Buildings are classified as either Category A or B and changes or alteration to scheduled buildings and in some cases their surrounds [when defined], are subject to district plan rules and resource consent procedures to ensure such change is sympathetic and that the place and its heritage values will be maintained for future generations.

8.6 The CRL also includes various District Plan identified precincts as indicated on the maps in Appendices B and D, being the Britomart Precinct, the Aotea Precinct and the Karangahape Road Precinct as well as the Upper Symonds Street Character Overlay. As areas of identified character, they contain scheduled and registered places.

8.7 Heritage buildings and structures along the CRL may be either NZHPT registered, listed on the CHI, scheduled in the District Plan or any combination of these, as illustrated in the tables in Appendices C, E and F.

8.8 Heritage Orders are provided for in the Resource Management Act for the purpose of protecting 'any place of special interest, character, intrinsic or amenity value or visual appeal, or of special significance to the tangata whenua for spiritual, cultural, or historical reasons; and such area of land (if any) surrounding that place as is reasonably necessary for the purpose of ensuring the protection and reasonable enjoyment of the place'.

8.9 A Heritage Order is a provision made in a district plan to give effect to a requirement made by a heritage protection authority, which includes any Minister of the Crown, local authorities, the New Zealand Historic Places Trust and a body corporate approved as a heritage protection authority. Once a heritage order is granted it is included in the appropriate District Plan and affects all operative resource consents and any future application for a resource consent. There are no places identified as having Heritage Orders identified as being affected within the CRL.

9.0 Conclusion

9.1 The aim of the Built Heritage Assessment Report has been threefold: firstly to identify significant elements of Built Heritage along the proposed route of the CRL, secondly to assess the potential impacts of the design, construction and operation of the CRL on these elements and finally to consider how these effects can be avoided, managed or mitigated.

9.2 Summary of Findings

Description	Properties Identified
Built Heritage in Study Area Broad analysis included within the initial site area - 200m corridor (100m either side of the indicative centre line of the CRL (ref 2.4)	**238** properties identified within the initial study area (ref Appendix C & D)
Built Heritage within Vibration and Settlement Corridors With the successive refinement to the limits of the vibration and settlement contours	**110** properties within vibration and settlement contours (ref Appendix B)
Potential Affected Heritage Properties Formally recognised historic places either as registered by HPT or scheduled by Auckland Council or noted on the CHI. The remainder have been categorised depending on whether they are seen as Potentially Historic, 'Character Defining' or 'Character Supporting' by site survey and desk top analysis. We have categorised the buildings and structures that fall within the area of this study into three classes: • **Type A:** are those buildings, structures and areas that are identified in statutory lists such as the former Auckland City Council "Schedule of buildings, heritage properties, places, monuments and objects of special value and those subject to heritage orders", the Historic Places Trust Register and the former Auckland Regional Council Cultural Heritage Inventory. • **Type B**: are those buildings, structures and areas that are not included in formal lists, but that are seen as having heritage significance or making an important contribution to the built environment and its character. These buildings and structures are seen, therefore, as being 'character defining'. • **Type C:** are those buildings and structures that are seen as being 'character supporting' and form part of a group of significance as well as having some individual significance, but are not currently protected by statutory mechanisms.	**Around 53** of these are identified in the Built Heritage Technical Report as having recognised heritage value.

Of the 55 properties identified as being potentially affected there are; **Slight - Moderate Affected Properties** Cracks may require cutting out and patching. Recurrent cracks can be masked by suitable linings. Brick pointing and possible replacement of a small amount of exterior brickwork may be required. Doors and windows sticking. Utility services may be interrupted. Weather tightness often impaired	**20** Properties in the slight to moderate category. Of these 20 there are; **4 Type A** **13 Type B** **3 Type C** **Total: 20 properties**
Slightly Affected Properties Cracks easily filled. Redecoration probably required. Several slight fractures inside building. Exterior cracks visible, some repainting may be required for weather-tightness. Doors and windows may stick slightly.	**35** Properties in the slightly affected category. Of these 35 there are: **13 Type A** **20 Type B** **2 Type C** **Total: 35 properties**

Table 7.2.1 Structural Engineer Technical Expert Report

Category of Damage	Normal Degree of Severity	Description of Typical Damage (Building Damage Classification after Burland (1995), and Mair et al (1996))	General Category (after Burland - 1995)
0	Negligible	Hairline cracks	**Aesthetic Damage**
1	Very Slight	Fine cracks easily treated during normal redecoration. Perhaps isolated slight fracture in building. Cracks in exterior visible upon close inspection.	
2	Slight	Cracks easily filled. Redecoration probably required. Several slight fractures inside building. Exterior cracks visible, some repainting may be required for weather-tightness. Doors and windows may stick slightly.	
3	Moderate	Cracks may require cutting out and patching. Recurrent cracks can be masked by suitable linings. Brick pointing and possible replacement of a small amount of exterior brickwork may be required. Doors and windows sticking. Utility services may be interrupted. Weather tightness often impaired	**Serviceability Damage**

4	Severe	Extensive repair involving removal and replacement of walls especially over door and windows required. Window and door frames distorted. Floor slopes noticeably. Walls lean or bulge noticeably. Some loss of bearing in beams. Utility services disrupted.	
5	Very Severe	Major repair required involving partial or complete reconstruction. Beams lose bearing walls lean badly and required shoring. Windows broken by distortion. Danger of instability.	**Stability Damage**

9.3 Of the approximately 110 historic buildings, structures and areas identified within the effects area defined by the vibration and settlement contours, 15 properties are formally identified as Built Heritage. The remaining are considered to be of sufficient significance to require careful future consideration in relation to the detailed project proposals.

9.4 As the CRL Concept Design is still at the early stages of development and detailed construction methods will not be known until later phases it is not possible to identify all specific impacts to Built Heritage, apart from a few areas, particularly those immediately adjacent to the proposed stations. It will be necessary, as the project develops, to further refine the list of properties affected and carry out detailed research and investigation of these to identify in greater detail their significance (for instance by conducting archival and on site research), determine their condition and their actual vulnerability to the effects brought about by the project. Only after this detailed investigation and with specific project and construction information will it be possible to determine what the required specific mitigation requirements will be for each individual property.

9.5 The specific risk from the CRL project to Built Heritage that has already been identified –to the former CPO building, the Albert Street Wall and Toilets, the Martha's Corner buildings, the Griffiths Building in particular – are all capable of being mitigated through sensitive design and careful construction management. Indeed, since the priority of the project is the adaptive re-use of these buildings, rather than their demolition, it is possible that the effect of the CRL might be a positive enhancing one.

9.6 This report has, furthermore, identified both the potential positive and adverse effects and provided a methodology for identification of further risks and a methodology for the procedures to be put in place for the mitigation of the negative impacts on Built Heritage. In addition, general principles for mitigation are established and a number of policies have been proposed which will serve as guidance to the development of the project and its realisation. The prioritised process of establishing mitigation measures contained in the methodology proposed in this report will need to be developed and adopted by all parties in advance of the works being carried out.

9.7 Whilst most of the risks of damage to the identified properties along the route appear at this stage to be either in the *"negligible"* or *"slight"* categories, there are some notable exceptions, particularly in the areas around the proposed stations where the risks are identified as *"moderate".* These places will require further analysis and the proposed construction methods will need to be justified in relation to their potential effects on adjacent Built Heritage.

9.8 Any proposal to significantly alter or demolish identified historic places will need to be based on a full analysis and exploration of all possible alternative options available, starting with retention, adaptive re-use, integration or partial retention with any proposed works. Demolition will be seen as the worst case scenario and retention or adaptive re-use should be the first priority.

9.9 Close coordination, integration and input from a Built Heritage Specialist included with other disciplines will be required as the design develops. This is to ensure that the design proposals are properly informed by the historic context so as to minimise what are currently major negative impacts in a few areas, for example where historic buildings are proposed for demolition.

9.10 The report concludes that the methodology, policies and procedures should form part of a Heritage Management Plan, which, together with similar proposed documents from other disciplines (for instance Archaeological Management Plan and the Construction Noise and Vibration Management Plan), will continue to inform the project and most importantly, become a key tool to managing change associated with the project to Built Heritage along the route.

9.11 A useful tool as part of the Heritage Management Plan, would be a set of minimum requirements established, from the outset of the project, between all relevant stakeholders including: requiring authority, local authority and, eventually, the contractor/s. Establishing common ground in this way will assist in speeding up procedures and dealing thoroughly and efficiently with the unexpected issues that will inevitably occur during construction.

9.12 The CRL has the potential to enhance the historic environment of the parts of Auckland it traverses and potentially reverse the decline of many of the historic buildings present along the route. Built Heritage should certainly not be seen as a constraint to the project; the introduction of the CRL can be considered an opportunity to breathe new life into Auckland's heritage context and to create a more vibrant, liveable and multifaceted urban environment as part of the ongoing change that has shaped modern Auckland.

APPENDICES A – F

APPENDIX A

Built Heritage potentially affected by Vibration and Settlement

APPENDIX B

Built Heritage within Vibration and Settlement Contours

APPENDIX C

Mapping of Built Heritage in Study Area

COLOUR KEY TO MAPS :

NZHPT Registered and AC Scheduled

NZHPT Registered

AC Scheduled

CHI Listed

Unscheduled of Merit

KEY TO BUILT HERITAGE LIST:

CHI = CULTURAL HERITAGE INVENTORY: Number

NZHPT = NEW ZEALAND HISTORIC PLACES TRUST: Registration Number

AKC = CITY OF AUCKLAND -DISTRICT PLAN CENTRAL AREA SECTION: Reference Number

CATEGORY:

AKC CITY OF AUCKLAND – DISTRICT PLAN CENTRAL AREA SECTION AND ISTHMUS SECTION : Category (A or B)

*In the following Built Heritage List, where the classification includes interiors and/or surrounds, it is denoted by a dot or an asterisk (• *) as explained below.*

Where interiors and/or surrounds are not included, this is indicated by a dash or dashes (– –) (interior, surrounds)

INTERIOR:

•- = All original and/or reconstructed spaces, components and materials. ('RECONSTRUCTION' as per the ICOMOS CHARTER means "to be built again in the original form using old or new material.")

• *- = Specific descriptions as listed in Schedule A(2)

SURROUND:

-• = Entire site as defined by the boundaries of site(s) is scheduled

-• * = The specific site surround dimensions of the item are listed in Schedules A(1) and B(1).

NZHPT NEW ZEALAND HISTORIC PLACES TRUST Registration (1 or 2)

Type A: = Buildings, structures and areas that are identified in statutory lists such as the former Auckland City Council "Schedule of buildings, heritage properties, places, monuments and objects of special value and those subject to heritage orders", the Historic Places Trust Register and the former Auckland City Council Cultural Heritage Inventory.

Type B: = Buildings, structures and areas that are not included in formal lists, but that are seen as having heritage significance or making an important contribution to the built environment and its character. These buildings and structures are seen, therefore, as being 'character defining'.

Type C: = Buildings and structures that are seen as being 'character supporting' and form part of a group of significance as well as having some individual significance, but are not currently protected by statutory mechanisms.

APPENDIX D

Schedule of Built Heritage in Study Area

Mapping Limitations

While every effort has been made to ensure individual buildings and structures are accurately described as to extent and heritage classification the map is illustrative only and the location of buildings and structures is indicative only. Difficulties were encountered reconciling GIS street addresses with individual heritage classifications and building outlines shown on aerial photographs. Some of the properties are individually owned or on separate land parcels but form part of a larger building. An effort has been made to recognize this but there will need to be further specific structural analysis completed at a second stage our identification work with actual building construction.

APPENDIX E

Map of Study Area

Mapping Limitations

While every effort has been made to ensure individual buildings and structures are accurately described as to extent and heritage classification the map is illustrative only and the location of buildings and structures is indicative only. Difficulties were encountered reconciling GIS street addresses with individual heritage classifications and building outlines shown on aerial photographs. Some of the properties are individually owned or on separate land parcels but form part of a larger building. An effort has been made to recognize this but there will need to be further specific structural analysis completed at a second stage our identification work with actual building construction.

APPENDIX F

Legislative Heritage Hierarchy