



# **Cycling in Wellington - Feasibility Studies**

**Offer of Service**





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# Wellington Cycling Feasibility Studies

## 1 Understanding the Brief

The Wellington City Council (WCC) has requested a proposal to assess the feasibility of three cycleway proposals in Wellington:

- Island Bay to Wellington CBD;
- Great Harbour Way (Ngauranga to Wellington CBD); and
- Great Harbour Way (Lyall Bay to Owhiro Bay).

For each of the projects we will identify the most viable facility type and route option. For these projects we understand that feasibility is closely linked to the ability to attract funds from the NZTA. Our primary assessment criteria will therefore be the extent to which each scheme meets the NZTA's funding criteria. This will help WCC to prioritise the implementation of each cycleway and to identify their contribution to the implementation costs.

We see the NZTA Planning and Investment Team as the main audience for this work. We also appreciate that the assessment will be subject to close scrutiny from City Councillors and other community leaders (e.g. Great Harbour Way Coalition Steering Group). We will therefore provide easy to understand justification for our conclusions and recommendations.

Many people in the community are already thinking about these projects, providing an opportunity to tap into their ideas and aspirations. We'll do this through the stakeholder workshops we propose mid-way through the study. Our assessment will address all of their suggestions, quickly focusing on the ideas most likely to attract NZTA funding. We will clearly communicate what alternatives have been considered and why certain options are preferred above others.

We see collaboration with WCC officers as crucial to the success of the project. By tapping into their experience and existing links with the community we will be able to streamline the project, ensuring delivery before the end of February 2013.

The rest of this document explains how we propose to deliver options for walking and cycling facilities that are practical, functional and most likely to attract the necessary funding. We are suggesting a value-engineering approach that we believe is appropriate for today's economic climate.

## 2 Project Team

We have structured our team to create the right balance between providing local knowledge and the specialist skills Opus is able to offer. Our core project team is based in the Majestic Centre, has previously planned walking and cycling facilities in Wellington and developed successful funding applications to the NZTA. We are complementing their skills with Peter Kortegast, a well-known New Zealand walking and cycling specialist. We also have a wider team with the right experience to support the project should Opus be appointed to assess the feasibility of all three projects.

Roger Burra will lead and administer the project for Opus. He will also be the main point of contact for WCC officers and the different community stakeholders that could be involved. Roger has been working in New Zealand for 6 years and has extensive experience in walking and cycling initiatives. Roger will energise the project and as an active cyclist will add a real-life perspective. His day-to-day experiences mean that he is keenly aware of the design influences and issues faced by both commuter and recreational cyclists.

Roger will work with Transport Engineer, Andrew Martindale. Andrew's role will be to complete the assessment, economics and funding justification work. Having been involved in other walking and cycling projects around the country Andrew is skilful in the application of the NZTA's economic evaluation procedures and the knowledgeable of the NZTA criteria which need to be met to secure funding.

We have nominated Peter Kortegast as our internal reviewer. Opus routinely undertakes internal technical reviews for all its projects. Peter will undertake internal reviews at least three times during the project:

- a. Early (10%) review confirming clients' requirements and ensuring the methodology or concepts adopted for the project are appropriate;
- b. mid-project (50%) review to assess the extent to which client's needs are being met; timed to enable any changes to take effect and have a positive impact; and
- c. final (90%) review before close-out to ensure the project is delivering.

Formally Nelson City Council's cycling officer; Peter is a highly experienced sustainable transport specialist. Peter will bring his wealth of knowledge to the core project team and help shape the work and analysis that is being completed.

A summary of the core team is provided below. We understand that we may be asked to work on one or more of the cycling projects. We have identified some of the wider Opus team with the right skills and availability to support the core team should the need arise. CVs can be provided on request. The wider team are presented in section 2.4.

## 2.1 Roger Burra – Project Manager

*BE (Hons) Civil, Wellington Transport Planning Team Leader, Affiliate Member of the IPENZ Transportation Group*



Roger has worked in the transportation sector for fourteen years. With an honours degree in Civil Engineering, Roger comfortably performs in transport planning and traffic engineering roles. His project experience reaches from design of traffic management schemes and local road improvements to strategic transport strategy studies.

Roger is able to generate the sense of urgency needed to deliver the project before the end of February 2013. Roger is a practiced team leader whose strengths lie in identifying realistic and deliverable transport improvement opportunities. Roger is proud that many of the projects he has led are now being built, including some of those identified in the Ngauranga to Airport Strategy Study.

Roger enjoys working on walking and cycling projects. He and Andrew worked well together to develop the vision and an ultimately successful funding application for the Porirua Stream Shared

Path in Tawa. They also worked together on funding applications for Road Safety Improvements in Wellington. For the former Manukau City Council, Roger developed a business case for increase the level of service for pedestrians and cyclists on bridges being replaced as part of a KiwiRail electrification project. More recently he has been involved in a proposed national cycle trail between the Wairarapa and Manawatu Regions.

In 2010, together with Peter Kortegast, Roger planned and facilitated a professional TDM planning and design workshop in Wellington. Celia Wade-Brown in her (then) capacity as President of Living Streets Aotearoa, gave the key note address.

## 2.2 Andrew Martindale – Transportation Engineer

*BE (Hons) Civil, GIPENZ, Member of the IPENZ Transportation Group*

Andrew has five years' experience working as a Transportation Engineer within our Wellington office. During this time his responsibilities have included project managing and undertaking tasks within the fields of traffic engineering, transport planning, traffic modelling, transport economics and road safety. Working within these disciplines, Andrew has undertaken a number of NZTA, local government and private sector projects. This has included WCC cycling, walking and road safety assessments such as the Porirua Stream Shared Path and the Adelaide Road Growth Node Transport Options Assessment. He assisted WCC in the preparation of recent road safety funding applications. This work has required a detailed understanding of NZTA's Economics Evaluation Manual, Pedestrian and Cyclist forecasting and NZTA's funding assessment criteria.

## 2.3 Peter Kortegast – Walking and Cycling Specialist

*BE (Civil), ITE member, Member of the IPENZ Transportation Group*



Peter is a sustainable transportation specialist with over 25 years of international experience and perspective to sustainability discussions. As well as New Zealand, he has worked in Australasia, United Kingdom and North America. He has worked for both the public service as well as in the private sector.

Peter is the immediate past president of the Living Streets Aotearoa national walking advocacy organisation of New Zealand. Examples of the projects for which he has provided transportation advice include:

- the Nelson City Cycle network;
- Safer Routes Studies;
- the Alps to Ocean National Cycle Trail; and
- cycling infrastructure upgrades in Canada.

Peter is recognised as being a leader in cycle infrastructure and pedestrian facility design and specialises in designing sustainable schools. Earlier in 2012 he presented and attended the International Velocity Conference in Vancouver, British Columbia, Canada. Peter has a passion for

liveable communities and engaging urban form, which provides human scale framework that encourages health life choices. He is a regular speaker at national and international conferences.

## 2.4 Opus Support Team

In order to deliver the three projects, the core team will draw support from other Wellington-based staff with experience of walking and cycling assessment and design.

### 2.4.1 Cathy Crooks – Transport Planner

*BA (Hons) Geography*

Cathy has 13 years' experience working in the planning and transport sectors in New Zealand and the United Kingdom, and has a particular interest in active and sustainable modes of transport. Whilst working for Opus in the United Kingdom, Cathy completed Cycle Route Inspection and Stakeholder Plans (CRISPs) for three busy cycling routes in West London. This work included assessing existing facilities, consulting with stakeholders and prioritising improvement options.

### 2.4.2 Sarah Baxter – Transport Engineer

*BE (Civil), GIPENZ, Member of the IPENZ Transportation Group*

Sarah is a transportation engineer and has 7 years' experience working in New Zealand and the United Kingdom. She has worked on a variety of cycling projects in the UK, including managing the implementation of London Cycling Network (LCN+) Routes in the London Borough of Hammersmith and Fulham. She was also involved in investigating, designing and implementing individual schemes within the borough.

### 2.4.3 Other Support Staff

The team will also draw on the other support staff as follows:

- David Dunlop: Project Director (14 Years);
- Jasmin Callosa-Tarr: Geographical Information Systems Analyst (17 Years);
- Nick Cooper: RMA Planning Consultant (11 Years); and
- Ron McFadyen: Civil Engineer (31 Years).



## 3 Methodology

The underlying objective of this study is to identify cycleway options that will meet the NZTA's funding criteria as well as meeting the project objectives. We propose a value-engineering approach starting from the NZTA funding criteria and working backwards to find options that best meet them. The NZTA are looking for projects that:

- give effect to the Government's Policy for Land Transport Funding (e.g. safety improvement and congestion relief on busy urban corridors);
- take account of any relevant local or regional strategies or policies;
- contribute to the objectives of the Land Transport management Act;
- have been assessed against other options and alternatives;
- comply with the consultation requirements of the LTMA; and
- achieve the above in the most economically efficient way (i.e. Benefit to Cost Ratios)

We'll identify what it takes to meet the above criteria for each cycleway corridor and use the findings to guide and optimise our option identification process. We'll then update and add detail to our final assessment for the option that best meets the above criteria. We'll use additional selection criteria (e.g. cost, level of service, etc.), agreed with stakeholder organisations in advance, to choose between options or routes.

The following is an overview of the tasks we'd complete:

- preliminary assessment of each corridor against NZTA funding criteria to identify opportunities (including preliminary demand forecast and monetised user benefits evaluation);
- confirm objectives for each cycleway proposal;
- route information gathering and desktop analysis;
- prepare draft option assessment framework / criteria;
- option identification and bicycle-based site visit involving WCC officers;
- meeting with WCC officers and stakeholders to:
  - » present the study methodology,
  - » confirm the cycleway objectives,
  - » gather user information, and
  - » seek feedback on proposed option assessment criteria;
- analyse and compare options, where appropriate using GIS (e.g. CBD to Island Bay) to distinguish between route options;
- identify the preferred route based on NZTA funding and project option evaluation criteria; and
- report the findings.

The following sections elaborate on the tasks

### 3.1 Preliminary Funding Assessment

The NZTA Planning, Programming and Funding Manual (2008) provides detailed guidance on the criteria that should be met before projects are funded. Roger and Andrew are familiar with the requirements, and particularly those for walking and cycling projects. They will review each of the

three projects to determine the extent to which it will be able to meet the NZTA criteria. This will involve both a policy assessment as well as a preliminary demand forecast. Initial effort will be placed on identifying the potential for each project to:

- address an existing road safety problem; and
- provide congestion relief (mode-shift).

### **3.1.1 Preliminary Assessment of Historic Crash Record**

This task will review the crash history for each corridor and determine the crashes that could be avoided or reduced in severity if the projects were implemented. Using the values presented in the NZTA's Economic Evaluation Manual (EEM) we will determine a preliminary cost for these crashes and estimate the potential saving from different types of intervention.

### **3.1.2 Preliminary Demand Forecasts**

The team will adopt and combine various methods of forecasting demand for the various types of user the project is likely to attract. Roger and Andrew will start by considering the possible types of user (e.g. commuter, utility and leisure / experienced and new-users / age). Different forecasting methods may need to be adopted for each user-type. They will qualitatively assess the extent to which these are new cyclists or existing cyclists that have adjusted their route. Josephine Draper of the NZTA Highways Network Operations has agreed to supply information regarding user preferences for cyclists that currently travel along SH2 between Petone and Ngauranga as an input to our forecasting. These will help the project team understand how existing cyclists would respond to potential infrastructure changes.

Previously Roger and Andrew have successfully applied commuter based cycling demand forecast models to projects in Wellington (i.e. Porirua Stream Shared Path). This method is based on guidance from the EEM. The Greater Wellington Regional Council TDM team have agreed to provide business travel survey information to the project team. This may be useful in understanding suppressed demand for cycling.

They will also assess the likely use of each project for utility trips. This forecasting method will be more subjective and based on the size of the trip ends within cycling distance of each project. We will use GIS analysis to aid the development of the utility and commuter cyclist forecasts.

The projects would also attract some types of leisure cyclist. Our methodology for forecasting leisure users will be largely reliant on historic data collected for other trails. Following his contribution to the business case for the Tararua Traverse (mountain bike route) in 2012, Roger has access to datasets for various types of cycling routes (some urban) throughout New Zealand. We will seek to compliment this with additional data from Simon Kennett and /or the National Cycle Trails Programme. We also have access to continuous monitoring datasets for similar routes in Nelson City. Other datasets that we anticipate will be available include:

- 2006 Census Travel to Work Data; and
- Wellington City Council CBD Cordon and Cycling Monitoring Data.

### **3.1.3 Preliminary Assessment Outcomes**

This preliminary assessment will allow the project team to understand the funding potential for each route. More importantly it will identify any weaknesses and opportunities associated with

each project that need to be exploited. This understanding will guide the development of options and feed into options assessment.

### 3.2 Confirm Scheme Objectives

Work undertaken by Boffa Miskell on behalf of the Great Harbour Way Steering Group presents Guiding Principles / Objectives. We will review existing documentation relating to each project in order to identify and confirm the objectives for each project. Limited resource is required for this task however we will spend a little time confirming **how** we will assess the extent to which the projects are aligned with these objectives.

### 3.3 Information Gathering and Desktop Analysis

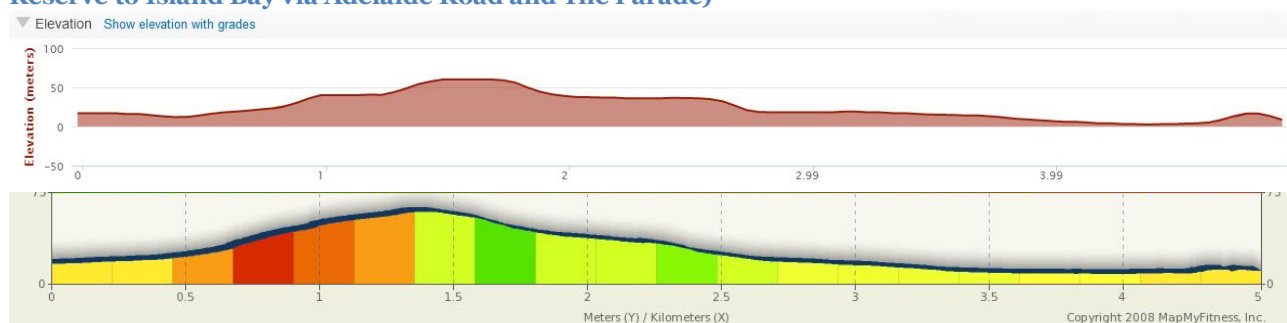
This task involves gathering data necessary to identify possible route options and assess the alternative facility types. We anticipate that our assessment will rely predominantly on existing data, some of which is referred to in section 3.1. We anticipate that much of this data will be readily available from WCC officers through the use of existing GIS layers, databases and WCC officers commissioned reports. **Table 1** lists these datasets and includes information held by Opus. We will manage the data collected in GIS. This will allow us to visually manipulate the data to identify appropriate routes and / or pinch-points on predefined routes.

**Table 1: Data Requirements**

Data	Availability
Existing Pedestrian and Cycling Volumes	We are aware that WCC officers have completed a number of cycle and pedestrian counts in 2012. There are some count sites where cyclist numbers have been recorded for the past ten years. We request that this information is provided.  We anticipate that we will also be able to use counts undertaken for other projects (for example the Basin Reserve Scheme Assessment). In the unlikely event that additional count data is required, we will agree a fee before they are initiated.
Vehicle Volumes	Estimated 2011 traffic volumes can be extrapolated from the Wellington Transport Model (WTM). Opus currently manages this SATURN based traffic model. If required, the modelled traffic flows can be validated by comparing them against actual counts.  It is noted that the SATURN network may not represent all the roads required for the cycle lane analysis. This is particularly true for some low volume, local streets or cul-de-sacs. In such instances it is proposed that traffic volumes are extracted from NZTA's Crash Analysis System or WCC's RAMM dataset to supplement the SATURN results in isolated instances.
Mesh-Block Data	Commuter mode use and other demographic information will be extracted from the readily available 2006 census. While it is accepted the information may out of date, no 2011 census occurred. The 2006 data is therefore the most recent and is widely used on other cycleway analysis projects.
Road Length	GIS layer already available.
Gradient	Contour GIS layers available. All average and maximum gradients of the road network will be calculated. We will also investigate the potential for using information from Google maps (see Figure 1)

Data	Availability
Crash History	Will be taken from NZTA's Crash Analysis System for the five year period between 06/2007 to 06/2012. This is the most recent data that is applicable.
Road Reserve Boundaries	GIS layer already available. Where appropriate, we will also use aerial photographs to evaluate the existing carriageway and footway widths. These measurements will, to a certain extent be verified during a site visit (refer to section 3.5.3).

**Figure 1: Example of Level Change and Gradient Plots from Google Maps (From left to right: Basin Reserve to Island Bay via Adelaide Road and The Parade)**



### 3.3.1 Cyclist Counts

The business case for funding feasibility of projects is influenced by the extent to which they reduce the numbers of **existing users** involved in crashes as well as the potential for future users to be involved in crashes. It would therefore be necessary to develop an indicator such as crashes per cyclist- km.

The business case is also influenced by the extent to which the projects address congestion. Understanding the times of day when existing cyclists use each corridor provides a baseline for forecasting the different types of potential future users.

We therefore believe that cycle count data is required if the feasibility assessment is to be taken seriously. Counts may be undertaken manually or using automatic counting equipment. Assuming a survey (two days minimum) of one location on each route corridor is undertaken, we recommend including a provisional sum for data collection of \$6,000 (for the three routes). The exact methodology and pricing will be agreed with WCC officers at inception.

## 3.4 Confirm Option Assessment Criteria

Draft option assessment criteria should be developed and agreed with WCC officers before routes and options are developed. This will prevent preconceptions from influencing their formation. Possible assessment criteria are listed in [Table 2](#), below. These will be developed further in collaboration with WCC officers before being tested with stakeholders.

For sections of the Great Harbour Way, there is little route choice and options assessment will be predominantly focused on facility type. The assessment of Island Bay to the CBD will require consideration of both route and facility type. [Table 2](#) provides a preliminary indication of which criteria are applicable in each situation.

**Table 2: Possible Assessment Criteria**

Possible Assessment Criteria	Comment	Route Selection or Facility Type?
Route Length	Indicator for assessing how direct a route is. Requires understanding of possible trip ends.	Route & Facility
Available Width	The ability of new cyclists to be safely and comfortably accommodated.	Route & Facility
Topography (Level Differences / Grades, Lengths of Maximum Grades)	Cycling facilities with minimal level changes and low gradients are more attractive, particularly for new cyclists.	Route
Crime Prevention Through Environmental Design (CPTED)	Subjective assessment by Urban Designers of route attributes such as amenity and sense of personal security (existing lighting etc).	Route
Directness / Continuity / Legibility	Direct routes with fewer corners or turns are easier to cycle on, more convenient and more intuitive.	Route
Proximity to Major / Identified Trip Generators	e.g. schools, hospitals, shopping areas etc	Route
Traffic Volume	Routes with lower motorised traffic flows will reduce the safety hazard for cyclists and improve the amenity, particularly for new users.	Route
Pedestrian / Cyclist Crash History	The number and location of crashes along the selected routes. Indicator for the safety of a route except that pedestrian and cyclist crashes are often unreported.	Route & Facility
Hazardous Intersections	Engineering assessment to identify intersections with high traffic volumes and / or significant crash histories. Refer to Work completed for WCC by Abley Transportation Engineers.	Route (& Facility)
Consents Required	The need for, ease and likely costs associated with obtaining consents.	Route & Facility
Cost	Feasibility Estimate for route sections and / or options.	Route & Facility
Cycling Level of Service (LOS)		Route & Facility
Effect on Other Road Users	Consider Traffic Effects or Parking Supply	Route & Facility

In consultation with WCC officers, we will divide each project into mutually exclusive sections. This was very useful for the Porirua Stream Shared Path and ensured that the assessment was well structured. When undertaking the assessment we will present findings for each option / route section using an appraisal summary table. We will also use GIS to present the whole route analysis

visually. Whole route criteria, such as route consistency will be an important factor where confirming the assessment and may to a certain extent over-ride route section criteria.

When applying the assessment framework we will also need to keep in mind the NZTA funding criteria. Except value engineering / economic efficiency (BCR), these are most relevant for the whole route, rather than individual sections.

## 3.5 Option Identification & Site Visits

Each of the three cycleway proposals may be achieved with different facility types and to a much lesser extent by alternative route options. Of the three, the Island Bay to CBD proposal has the most scope for alternative routes and will require the most resource for developing options and assessing them.

### 3.5.1 Routes

Initially this will be a desk-top, map based exercise. We'll be able to streamline the route identification process by reviewing the work of others. The Island Bay to CBD cycleway could be accommodated on a range of different routes: both on-road and off-road.

We will divide the routes down into mutual-exclusive sections as was adopted for the Porirua Stream Shared path. In this way an optimised performance achieving the maximum value for money and practicality can be achieved.

For each of the three projects, the feasibility of different possible routes will be analysed under the assessment criteria attributes listed in **Table 2**. Using GIS, the interaction between these attributes will allow for the preferred route alignments to be easily identified. GIS will enable the results to be displayed visually, greatly assisting the justification of one route over another to key community groups and stakeholders.

The Great Harbour Way proposal between Ngauranga and Bunny Street has limited route choice. Either the route must cross underneath the motorway and tie into an improved version of the current facility down Hutt Road and Thorndon Quay. Alternatively the cycleway could follow the waterfront, go through the ferry terminal and re-emerge down Aotea and Waterloo Quay. Either route will encounter difficulty in achieving the desired link around the waterfront. There will be major complications around the ferry terminal which will need to be accounted for. The assessment criteria will help to determine the most appropriate route and facility type. This is where well defined project objectives will aid the assessment.

Only one route is possible on the Great Harbour Way project from Stewart Duff Drive to the car park at the western end of Owhiro Bay Parade. In following the south coast there is barely any scope for alternative routes. The options will be the type of on or off-road facilities than can be accommodated.

### 3.5.2 Type of Facility

Our project team has implemented a range of different cycling facilities around the country and overseas. As well as considering options we've previously implemented and those presented in NZ guidance, we'll also look to our network of offices around the world. We'll draw on the experience of specialists such as Peter Kortegast, who earlier this year attended and presented at the International Velocity Conference in Vancouver.

The type of facility will be guided by the type of user that:

- a. would be naturally be attracted to the route (e.g. is it a commuter route);
- b. needs to be attracted to the route in order to meet the NZTA funding criteria; and / or
- c. can feasibly be constructed (e.g. land and / or cost constraints may limit the type of facility that is possible).

The options development work will focus on cycleway and / or road cross sections and consider the need and ability to:

- separate cyclist by direction;
- separate cyclists from other road users (pedestrians, motorised traffic or parked cars); and
- provide adequate width for overtaking cyclists.

We do not believe in a “one size fits all” approach and will seek to determine practical options that can be implemented cost effectively. This could mean different facilities are provided on different sections of the cycleway routes as long as is not to the detriment of the route in terms of consistency. We may also identify opportunities to stage implementation.

Analysis of facility types will be based on the road reserve cross-sections. This will be heavily influenced by features such as property, existing road widths, parking demands and coastal edge lines. We anticipate that the outputs to this analysis will be predominantly visual.

### 3.5.3 Site Visits

Following the desktop analysis we propose to undertake a site-visit to view the proposed corridors. This is largely intended to confirm some of the more qualitative attributes of the different routes. We propose to undertake the site visit in the form of a “cycle over”. We envisage that the site visit will involve WCC officers. It will provide the opportunity to:

- clarify issues identified during the information gathering and desktop analysis stage;
- pick-up issues that were not identified during the desktop analysis;
- view the physical and environmental constraints;
- observe pinch-points or problem areas; and
- where appropriate, view the most promising route options.

The site visit will, except where current terrain prevents, be undertaken by bicycle. The main benefit of the visit will be to provide the team with a much a greater appreciation of the “feel” of the ride and the difficulties specifically associated with travel by bicycle. This is particularly true for tight narrow roads, conflicts at major intersections and any grade issues that might make the routes less practical than they initially appear.

While Opus will manage all aspects of the site visits (including health and safety), we will also encourage WCC officers to attend. An agenda and timing will be developed before the visit so that most effective use of time will be made. While not currently anticipated, further site visits may be required where more detailed information is required.

### 3.6 Stakeholder Meetings

Following inception we will draft a letter which can be sent by WCC to interested stakeholders. The letter will inform stakeholders the study is underway, advise of the aim of the study and the methodology adopted. Stakeholder meetings are proposed after the project team has had the opportunity to:

- collate and understand the background data;
- develop a draft evaluation framework;
- identify possible options; and
- travel the corridors by bicycle.

The purpose of the meetings is to report on progress. It will also provide the opportunity for the project team to listen to and take account of feedback from the project team on the proposed evaluation method and, where appropriate, on the possible routes.

We envisage that the meetings will be attended by WCC officers with inputs or a presentation from Roger Burra. To help the meetings function effectively we will provide an agenda explaining the purpose and meeting outline. This can be circulated in advance. We have allowed for three stakeholder meetings. A separate meeting with:

- Great Harbour Way Steering Committee;
- Cycle Aware Wellington;
- a representative of the Architectural School / Newtown Residents Association; and
- GWRC.

### 3.7 Options Assessment

Our starting point will be to identify every conceivable possibility at a high level and then quickly narrow the list down to options that:

- are achievable given the physical and environmental constraints;
- have most potential to meet the NZTA funding criteria;
- best meet the achieve the project objectives (i.e. Great Harbour Way Vision); and
- provide the optimal level of service for the available funding (value for money).

The options assessment will rely on the application of the assessment framework described in section 3.4. It will be evidence based. We will summarise our assessment using Appraisal Summary Tables that allow quick and easy comparison of options. Wherever possible we will use visual outputs (e.g. colour coded plans and / or cross sections) to present our findings.

### 3.8 Feasibility Cost Estimate(s)

We will, in consultation with WCC officers, develop unit cost estimates (e.g. per metre). These will be used to distinguish between alternative options which provide the same or a similar level of service. We will develop feasibility estimates with assessed risk profiles, only for the preferred options. These will be needed for the NZTA funding applications. We have identified Ron McFadyen, who brings more than 20 years construction experience to lead these tasks.



### **3.9 Finalise Funding Assessment & Reporting**

The final output of this study will be a report structured to support an application to the NZTA for funding support. The main audience of the report will be the NZTA. It will be structured to quickly and easily provide the information needed within the application.

After the preferred option is identified and before finalising the funding application it will be necessary to re-visit and update the forecast (referred to in section 3.1):

- new users; and
- user benefits (\$).

We will use the LTP on-line forms as a guide to structuring our final report.

## 4 Fee Proposal & Programme

Table 3 shows the fee (excluding GST) for each element of the projects. The table shows the fee for undertaking each project independently as well as the fee for undertaking all of the projects together as one. If the projects are undertaken separately we believe there will be a significant amount of duplication in terms of management, scoping and reporting. This is highlighted in the right hand column of the table.

Should the work be procured as one study, we propose to prepare three reports as a final output.

**Table 3 – Fee Proposal Schedule (Excluding GST)**

Task / Activity	Proj 1: CBD to Island Bay	Proj 2: Ngauranga to CBD	Proj 3: Lyall to Owhiro Bay	All Projects	<i>Saving</i>
Project Management (incl. Progress Meetings / Reports)	\$3,100.80	\$2,907.00	\$2,907.00	<b>\$5,059.20</b>	<i>\$3,855.60</i>
Internal Technical Review & Verification	\$5,344.00	\$3,129.00	\$3,129.00	<b>\$9,604.80</b>	<i>\$1,997.20</i>
Preliminary Funding Assessment	\$9,960.00	\$7,038.00	\$5,214.00	<b>\$15,422.40</b>	<i>\$6,789.60</i>
Data Collation & Preliminary Evaluation Framework	\$15,616.80	\$3,782.00	\$3,782.00	<b>\$20,080.80</b>	<i>\$3,100.00</i>
Option Identification and Site Visit	\$4,293.20	\$2,600.00	\$2,600.00	<b>\$8,590.80</b>	<i>\$902.40</i>
Stakeholder Meeting (include. Preparation and Notes)	\$3,288.00	\$3,082.50	\$3,082.50	<b>\$4,376.00</b>	<i>\$5,077.00</i>
Options Assessment & Cost Estimating	\$5,494.40	\$5,151.00	\$6,987.00	<b>\$10,771.20</b>	<i>\$6,861.20</i>
Develop Funding Application	\$8,508.80	\$4,677.00	\$4,677.00	<b>\$15,440.00</b>	<i>\$2,422.80</i>
<b>Total</b>	<b>\$55,606.00</b>	<b>\$32,366.50</b>	<b>\$32,378.50</b>	<b>\$89,345.20</b>	<b><i>\$31,005.80</i></b>
Provisional Sum: Pedestrian / Cyclist Surveys	\$2,000.00	\$2,000.00	\$2,000.00	<b>\$6,000.00</b>	-
<i>Total with Provisional Sum</i>	<i>\$57,606.00</i>	<i>\$34,366.50</i>	<i>\$34,378.50</i>	<i>\$93,845.20</i>	<b><i>\$31,005.80</i></b>

This fee proposal assumes that there will be an inception meeting, weekly progress reports or a short meeting. It also assumes that the WCC project manager will attend each of the three technical reviews at 10%, 50% and 90% completion.

If the three studies are procured separately, it will be important for WCC officers to consider the consistency of each methodology. This will be particularly important if funding applications are submitted to the NZTA at the same time.

Table 4 shows the hours we have allowed for each staff member as a proportion of the total resource. It relates to the allocation of hours if all three projects are awarded. For the most part the balance of hours is similar for each of the projects except that a greater allowance is made for data collation and GIS analysis for the Island Bay to CBD proposal.

**Table 4 – Total Hours by Team Member as a proportion of Total Hours**

Team Member	Project Role	Proportion of Total Hours
David Dunlop	Project Director	1%
Roger Burra	Project Leader	22%
Andrew Martindale	Transportation Engineer	42%
Peter Kortegast	Internal Challenge / Technical Review	5%
Jasmin Calossa-Tarr	GIS Specialist	17%
Ron McFadyen	Cost Estimating	6%
Other Support Staff		7%
<b>Total</b>		<b>100%</b>

Our hourly charge out rates (excl. GST) for additional services beyond the scope outlined in this report are:

Team Member	Hourly Charge-out Rate for Additional Services (excl. GST)
David Dunlop	\$265
Roger Burra	\$190
Andrew Martindale	\$135
Peter Kortegast	\$210
Jasmin Calossa-Tarr	\$160
Ron McFadyen	\$190
Technician Support	\$110

## 4.1 Programme

We confirm that we will be able to deliver the final reports before the end of February. We will organise the stakeholder workshops in the week commencing 4<sup>th</sup> February 2011.

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