

COUNCIL 28. 2. 2013

ENVIRONMENT AND INFRASTRUCTURE COMMITTEE
7. 2. 2013

A meeting of the Environment and Infrastructure Committee
was held in the No. 1 Committee Room
on Thursday 7 February 2013 at 9.03am.

PRESENT: Councillor Claudia Reid (Chair)
Councillors Sally Buck, Jimmy Chen, Barry Corbett, Aaron Keown (Deputy Chair), and
Sue Wells

APOLOGIES: Nil.

The Committee reports that:

PART A - MATTERS REQUIRING A COUNCIL DECISION

1. KEY CYCLEWAY PROJECTS

General Manager responsible:	General Manager City Environment Group DDI 941-8608
Officer responsible:	Unit Manager Asset and Network Planning
Author:	Michael Ferigo Transport Planner – Cycling and Pedestrians

PURPOSE OF REPORT

1. The report represents follow up information to the Council on open actions arising from the council meeting of 22 November 2012. It was resolved that the Council ask the Environment and Infrastructure Committee to identify four to five key cycling projects.

EXECUTIVE SUMMARY

2. Identifying key cycleway projects
3. Thirteen cycleway projects are identified in the map (refer **Attachment 1**). These projects reflect the major cycle network in the Christchurch Transport Strategic Plan and complement the cycling initiatives in the Christchurch Central Recovery Plan. The proposed cycle route alignments and the type of cycle infrastructure to be provided at this stage are indicative and will be developed further through planning and consultation on the alignments and detailed designs.
4. Staff have identified 13 significant cycleway projects for consideration by the Environment and Infrastructure Committee. Staff recommend to the committee that the top six of these projects are key priorities for consideration by the Council for the 2013 – 2022 draft Long Term Plan (LTP). The six routes are potential wins because they build on existing cycle infrastructure, connect areas of high cycle demand and link into other Council priorities such as the Avon river, southern motorway and delivering the recovery master plans. At present there is limited provision for cycle projects in the draft LTP. The following six projects would make a significant contribution to making Christchurch a cycle city:
 - (a) University route: Canterbury University (and Teachers College) to the central city (**currently funded in the draft LTP**)

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- (b) Grassmere route: connecting Papanui (Key Activity Centre) to the City connecting the existing northern railway pathway, through Sawyers Arms Road to Grassmere Road Rutland Reserve to Rutland Street and Edgeware Village to Colombo Street and into the central city **(currently funded in the draft LTP)**
- (c) Little River route: an off-road route following the southern motorway corridor from Prebbleton over the Wigram / Magdala Bridge (to be constructed) into Collins Street and Grove Road with a connection into southern Hagley Park and the central city **(currently funded in the draft LTP)**
- (d) Northern Rail route: extend the northern and southern sections of the off-road rail pathway from Factory Road in Belfast to Lester Street with a link into South Hagley Park to the central city **(currently unfunded in the draft LTP)**
- (e) Avon River route: connecting New Brighton to the central city primarily via the Avon River corridor **(currently unfunded in the draft LTP)**
- (f) Sumner to City route: connects up to the coastal edge pathway project at the Ferrymead Bridge and provides cycle provision linking into the central city **(currently unfunded in the draft LTP)**.

FINANCIAL IMPLICATIONS

- 5. There are direct financial implications for the implementation of cycleway projects.

Do the Recommendations of this Report Align with 2013-19 LTP budgets?

- 6. At the time of this report, the draft version of the LTP contained a limited number of cycleway projects. There may be implications to the LTP 2013 - 2022 if additions are made to the cycling programme by the Council.
- 7. The Environment and Infrastructure Committee has been asked to identify four to five key cycleway projects. Once agreed, depending on the implementation time frame, these may impact on the 2013-2022 Long Term Plan.

LEGAL CONSIDERATIONS

- 8. None.

Have you considered the legal implications of the issue under consideration?

- 9. There are no legal implications.

ALIGNMENT WITH LTP AND ACTIVITY MANAGEMENT PLANS

- 10. The issues discussed in this update report align with the activities within the Street and Transport Activity Management Plans, particularly the delivery of Active Travel activities.

Do the recommendations of this report support a level of service or project in the 2013-19 LTP?

- 11. At the time of this report, the draft version of the Long Term Community Plan contained a limited number of cycleway projects.

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ALIGNMENT WITH STRATEGIES

12. The drive for the early implementation of cycleway projects in the city has come about as a result of public consultation and adoption of the Christchurch Transport Strategic Plan which sets out an action to make Christchurch a cycling city.

Do the recommendations align with the Council's strategies?

13. The recommendations support the Christchurch Transport Strategic Plan.

CONSULTATION FULFILMENT

14. Not applicable. Any major cycle projects progression will be subject to consultation during its planning stage.

STAFF RECOMMENDATION

It is recommended that the Council:

- (a) Note the key (6) projects which staff consider will most effectively begin to deliver on the Council's Cycle Vision
- (b) Note the three projects (University to City, Grassmere (Papanui) to City, and Little River Route) which have been recommended for inclusion and funded capital projects in the Draft 2013-22 Long Term Plan.
- (c) Note that the prioritisation and timing of these and other cycle projects can be considered as part of the upcoming Long Term Plan.

COMMITTEE RECOMMENDATION

That the Council:

- (a) Note the key (6) projects which staff consider will most effectively begin to deliver on the Council's Cycle Vision
- (b) Note the three projects (University to City, Grassmere (Papanui) to City, and Little River Route) which have been recommended for inclusion and funded capital projects in the Draft 2013-22 Long Term Plan.
- (c) Note that the prioritisation and timing of these and other cycle projects can be considered as part of the upcoming Long Term Plan.
- (d) Prioritize in the first three years of the Long Term Plan, the following cycleways: University to City, Grassmere (Papanui) to City, Avon River Park (to be delivered and funded within the Central City Development Unit Avon River Park project) and increase the cycleways targeted improvements budget to \$1 million over two years. Request that the Planning Committee further consider the cycling solutions through the southwest area.

BACKGROUND

15. Staff have identified thirteen significant major or recreational cycle routes that collectively provide a level of geographical coverage of Christchurch similar to that illustrated in the Christchurch Transport Strategy Plan. Each route is selected on a mix of factors from strategic fit through to practical implementation with the top six achieving the best mix. The factors considered include:

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- (a) Potential to attract new cyclists and maintain existing cyclists. Attractiveness to encourage new cyclists via levels of safety, comfort and convenience and the overall likely level of cycle usage. Some modelling work has been undertaken using conservative factors to predict projected cycle trips based on a similar cycle provision programme as outlined below, out to the year 2026 as illustrated later in this report.
 - (b) Connecting strategic cycle destinations and generators – including Key Activity Centres, educational facilities, business centres, high density employment and residential areas.
 - (c) Alignment with the Council's strategic recovery plans and projects (transport and others) for the city - in response to expressed community aspirations.
 - (d) Level of impact (positive and negative) on other road users, residents, businesses or routes.
 - (e) Practicalities of implementation (land ownership, widths of corridors, detours, etc) and how it fits in with other existing and new infrastructure.
 - (f) Wider benefits of congestion relief, improved travel times, improved health and increased economic and sustainability benefits.
16. The 13 cycle routes identified in this report are described in more detail – the first six are proposed as key routes and the first three of these are included within the current draft LTP programme.
- (1) *University route:* Canterbury University (and Teachers College) to the central city. This route is partially complete. There needs to be a number of extensions and upgrades to provide a consistent level of service including: increasing safety with the introduction of signalisation at major intersections at Kahu Road and Deans Avenue, providing a more direct and attractive route. The route is expected to attract many new cyclists to commute to work or education and for recreational purposes. The route passes near a number of major high schools and several intermediate schools in addition to the tertiary locations. The route has been subject to a scoping report as part of the Council's resolution in response to Christchurch City Council's A City for People Action Plan 2010 - (action number 14) 'a trial for separated cycleways between key destinations such as the Central City and the University of Canterbury'. The Rough Order Costs (ROC) for this route totals \$ 1.9 million.
 - (2) *Grassmere route:* Connecting Northlands shopping area (Key Activity Centre) and the northern railway pathway to the central city. This route will provide a direct alternative to the arterial roads for cyclists to travel into the city centre from the northern suburbs. It is expected to attract many new commuters, shoppers and recreational cyclists alongside existing cyclists being attracted to it for its level of service. Sections of the route are planned to be physically separated from motor vehicles where it is busy whilst quieter residential sections of the route may have traffic calming / neighbourhood greenways treatments. This route will provide many local residents an attractive opportunity to use active transport to reach popular destinations especially as it provides a new direct and attractive direct route to the existing convoluted routes through local roads or on busy arterial roads. The proposed new bridge and Rutland Reserve pathway extension has historically had strong local support. The whole route will also provide immediate connections to Papanui High School, Graham Condon Leisure Centre, Paparoa School, Rutland Reserve, St Albans School, and Edgeware Village. The route will be linked to and coordinated alongside the Edgeware Village Master Plan. The ROC for the route totals \$3.0 million.
 - (3) *Little River route:* This project is named Little River route as it forms a major connection from the city to the 'Christchurch to Little River Rail Trail', an attractive route for local and national tourists, however the expected main usage will be in the form of people commuting from the new and existing local residential areas to the city and various

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businesses along the shared pathway. Long sections of it will also be popular with recreational and leisure cyclists as a longitudinal 'park' experience. The project also includes plans to complete the Little River township end of the trail with provision of an off road shared pathway through to the centre of the town and a crossing refuge near the shops. The Akaroa Wairewa Community Board are very interested in completing this section of the project as are the Christchurch to Little River Trust. Prior to the earthquakes the Council had resolved that the costs be established for inclusion into the draft Long Term Plan. The project will also extend the shared pathway from Barrington Street to Collins Street and then develop better provision for cycling along Collins Street and Grove Road to connect into the south eastern end of South Hagley Park. The ROC for the route totals \$2.7 million.

- (4) *Northern Rail route:* extend the northern and southern sections of the off-road rail pathway from Factory Road in Belfast to Lester Street with a link into South Hagley Park to the central city. This project includes upgrades to existing older sections of the railway pathway and signalisation of arterial intersections. This route will provide a consistent level of service to users providing an attractive and comfortable safe off-road route. This already very popular shared pathway will be extended along the rail corridor to link to the main north road pathway from Northwood residential and retail areas and further north

into the Belfast Super Centre, Public Transport 'Core Facilities', existing and new schools, local Belfast pool and the centre of the existing and developing Belfast residential areas. Its northern progress and alignment will be assessed in relation to other local developments and the proposed northern arterial motorway and its associated shared pathways. It will also extend south from the current Kilmarnock Street termination through to Tower Junction and the south western end of South Hagley Park allowing continual off road safe cycle trips to many local destinations. This will provide a northern cycle entrance to the city attracting a level of tourism to the route. The extensions of the route will need lease extensions to be granted from the New Zealand Railways Corporation with the associated limited tenure and conditions. The ROC for the route totals \$6.7 million.

- (5) *Avon River route:* connecting New Brighton (Key Activity Centre) to the central city via the Avon river corridor. This route fits well with the redevelopment of the red zones and river banks alongside the Avon River. It is a natural extension of the central city river pathway and strongly requested within the 'Share an Idea' and feedback that eventually resulted in the Christchurch Central Recovery Plan. There are other riverside projects developing alongside the water management projects which may dictate the progress of this route. The pathway will primarily provide a high amenity pathway for recreation and tourists and in sections, commuting cycling. It is expected to be very popular for leisurely cycling and may need to be separated from pedestrians to reduce conflicts. The route will provide connections to the potential new sporting, recreational and cultural developments being considered alongside the river redevelopment areas as well as the many schools and parks alongside the river. The ROC totals \$4.2 million.
- (6) *Sumner to City route:* coastal edge pathway and cycle provision connecting into the central city. This route is divided into two distinct sections. The first is the coastal edge pathway running from Sumner to Ferrymead Bridge and is being progressed outside of many intersection crossings, occasionally crossing over busy streets. It will commence near Princess Margaret Hospital and continue winding east following the Heathcote River the cycleways capital programme. The second section that this report is covering starts at the Ferrymead Bridge and tracks into the city centre. This section is primarily aimed at attracting more commuter cyclists but will also attract utility cyclists to local destinations along the route and into the city centre along with weekend recreational cyclists accessing Sumner. The actual preferred corridor is still to be firm as more exploration is needed including more political and community discussion as to whether the primary route uses Ferry Road or Linwood Avenue and Linwood drain corridors. The preliminary staff preferred route initially proposed uses the Ferry Road corridor and is planned to be coordinated alongside the Ferry Road master plan. It is proposed that strong levels of

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separation from motor traffic are used along the length of the route to encourage new cyclists to use this popular route due to its convenient and directness by making it more comfortable and safe for cycling. The ROC for the route from Ferrymead Bridge to the City Centre totals \$6.7 million.

17. The following seven cycle routes make up the thirteen routes that collectively could provide a strong base cycle network to project Christchurch into the future as an attractive cycling city:
 - (7) *Western Orbital route:* This route tracks around the suburbs from Hoon Hay through Middleton, Upper Riccarton, Bryndwr, and Papanui. It will help provide for the post earthquake travel patterns that have followed development and employment re-locations, resulting in increased congestion on many western roads. This route connects to a number of existing and proposed key radial cycle routes thus providing many possible feeder routes. Additionally it tracks past the Canterbury University. It is expected to attract commuters and students primarily. The route travels through many different environments from quiet streets with little infrastructure required, through to busy roads suggesting the introduction of physical separation measures at busy intersections where signals will be introduced. Potential land purchases have been allowed for in the costings endeavouring to keep a level of provision consistent with major cycleways. The ROC for the route totals \$8.6 million.
 - (8) *Hornby Rail route:* This route connects the edge of the cities western boundary in Templeton and links through the suburbs of Hornby (also a Key Activity Centre), Sockburn, Middleton to Riccarton and Addington finishing by connecting to the Northern Railway route and the shared paths in South Hagley Park. This route will appeal to commuters with many employment and business areas concentrated alongside the rail corridor. It will also appeal to tourist and leisure cyclists, providing the primary cycling entrance to the city from the south – it is complementary to the current plans for the Southern Motorway Extension and Main South Road four laning. Local sections of it will be used recreationally and for utility purposes. It will also help service the demand from the south western residential development areas. Some property purchase may be needed where it links away from the rail corridor or where the rail corridor is too narrow to accommodate the shared pathway. The majority of the route would need a lease to be granted from the New Zealand Railways Corporation with the associated limited tenure and conditions. The ROC for the route totals \$12.6 million.
 - (9) *Halswell to City route:* This route connects the Halswell suburb (Key Activity Centre) and follows Halswell and Lincoln Road all the way to the existing shared pathways in South Hagley Park. It is proposed that strong levels of separation from motor traffic are used along the length of the route to encourage many new cyclists to use this existing direct and convenient route by making it obviously more comfortable, safe and attractive. The New Zealand Transport Agency is responsible for the Halswell Road section of this route and its agreement to any eventual plans will be needed. The route will help support the residential growth areas around the southwest of the city by offering another attractive transport option for commuters and for utility cyclists to access the many local road side shops and businesses. The ROC for the route total \$4.2 million.
 - (10) *Heathcote River / Heritage Trail route:* This route follows the river in various formats from using pathways along the river bank reserve to using quiet riverside streets and to Ferrymead. Much of the route has existing provision for cycling but will need upgrading. It will primarily attract recreational usage but may also provide some useful links for local commuter cyclists. The ROC for the route totals \$3.0 million.
 - (11) *South to City route:* This route connects to the cycle facilities along the foot of the Port Hills and the proposed Heathcote River route and uses the existing Tennyson Street pathway facilities to then develop strong separation from motor vehicles in Strickland and Antigua Streets all the way through to the Antigua Bridge cycle crossing. This route is currently popular as a commuter route providing direct and convenient access to the city and beyond from the southern suburbs into the city, linking to the shared paths

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through North Hagley Park to the west. The proposal will attract many more people to cycle the route for commuting and utility purposes as well as recreational cyclist because of the increased comfort and separation levels from motor vehicles. The ROC for the route totals \$2.9 million.

(12) *Heathcote Rail route:* This route commences in Heathcote and primarily uses the rail corridor to travel through Woolston, Opawa, Waltham and Sydenham suburbs on the way into the city centre at the Christchurch Polytechnic Institute of Technology on Moorhouse Avenue. It will be developed to a similar level as the newer sections of the Northern Rail shared pathway route with cycle signalised crossings at busy intersections, lighting and fencing. It is expected to attract many new users from across the range of cyclist purposes as it connects through the residential, business and industrial areas. The majority of the route would need a lease to be granted from the New Zealand Railways Corporation with the associated limited tenure and conditions. The ROC for the route totals \$7.8 million.

(13) *Airport route:* This route provides a route to the airport and its wider employment and business areas. The route connects from the existing section of the Northern Rail route at Harewood Road intersection and follows Harewood Road to the proposed underpass at Russley Road and then continues into the start of both Orchard and Mcleans Island Road. The majority of the route will require strong separation measures from the motor vehicle traffic. Whilst mainly residential there are several schools on or near the route and it is predicted to attract school students along with shoppers to the Bishopdale Mall and Papanui Key Activity Centre. Primarily the usage is predicted to be commuting to the employment areas nearing the airport and Papanui. The ROC for the route totals \$4.3 million.

18. The six key cycle projects have rough order costs totalling \$25.2 million. The seven next major cycleway projects described in this report have rough order costs totalling \$43.4 million. Collectively the rough order costs for the thirteen major cycleways that establish the city wide major cycleways network from the Christchurch Transport Strategic Plan total \$68.6 million.

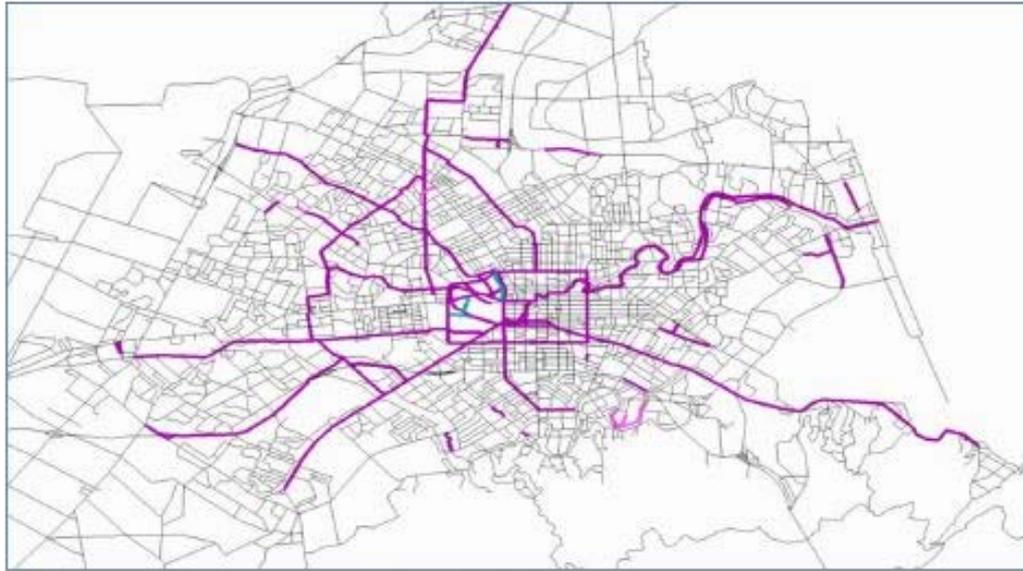
	Project Title	Rough Order Cost
6 Key Projects	University Route	\$1.9 M
	Grassmere Route	\$3.0 M
	Avon River Route	\$4.2M
	Northern Rail Route	\$6.7 M
	Little River Route	\$2.7 M
	Sumner to City Route	\$6.7 M
	Sub Total: \$25.2 M	
	Western Orbital Route	\$8.6 M
	Hornby Rail	\$12.6 M
	Halswell to City Route	\$4.2 M
	Heathcote River / Heritage Trail Route	\$3.0 M
	South to City Route	\$2.9 M
	Heathcote Rail Route	\$7.8 M
	Airport Route	\$4.3 M
	Sub Total: \$43.4 M	
	Overall Total: \$68.6 M	

19. The first three of the six key cycle projects listed above are funded in the draft LTP. In addition to this there are two other significant cycleways capital projects shown within the draft LTP. The first is for targeted improvements – this is aimed to improve a number of strategic ‘problem’ or potential high benefit locations such as where cyclists need better separation through the trialled ‘flexi posts’ or shoulder or pathway widening. The project is aimed at making an early positive impact in the city for cycling and totals \$0.5 million over the first two years of the LTP. The second project is an upgrade of the existing Prestons Road cycle route – this is to

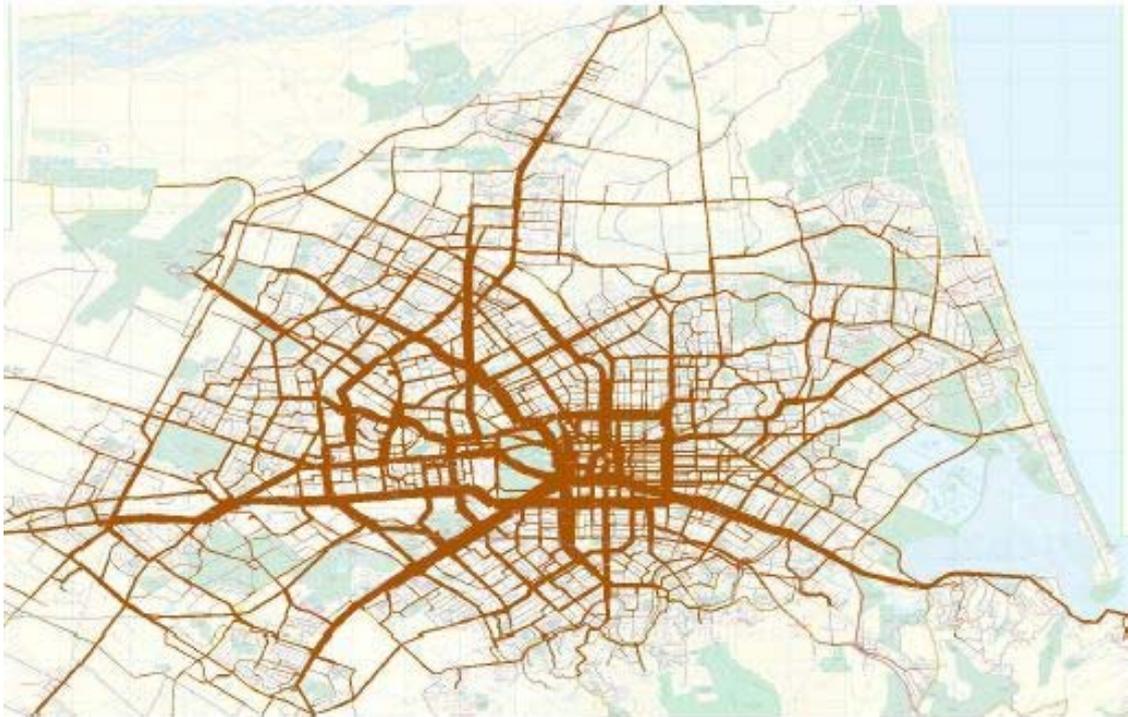
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substantially upgrade the pathway that is very narrow and not up to current standards with driveway crossings and markings/signage and needs better connections. However in comparing it to the key cycle project outcomes the Council may want to consider this project as a potential substitution to begin partial funding of a key project. The funding for Prestons Road is in the year 2018, and totals \$1.0 million.

20. As part of the exercise in estimating the predicted cycle usage rates that correspond to the programme indicated in the Christchurch Transport Strategic Plan a Christchurch 'Strategic Cycle Model' (SCM) was developed. The model uses a refined version of the Christchurch Assignment and Simulation Traffic (CAST) model. Cycle trip generation has been estimated for four principal purposes (home based work, home-based education, other home-based trips and non home-based trips). One of the key assumptions relating to potential future cycle demand is how many car users (drivers or passengers) would choose cycling as a viable alternative given significant improvements. Existing research varies from 80 per cent to 9 per cent. For the purposes of the SCM a reasonably conservative 30 per cent was selected as the 'trader factor' from car use.
21. The following extracts from the SCM report provide an indication of predicted cycling levels forecast at 2026:



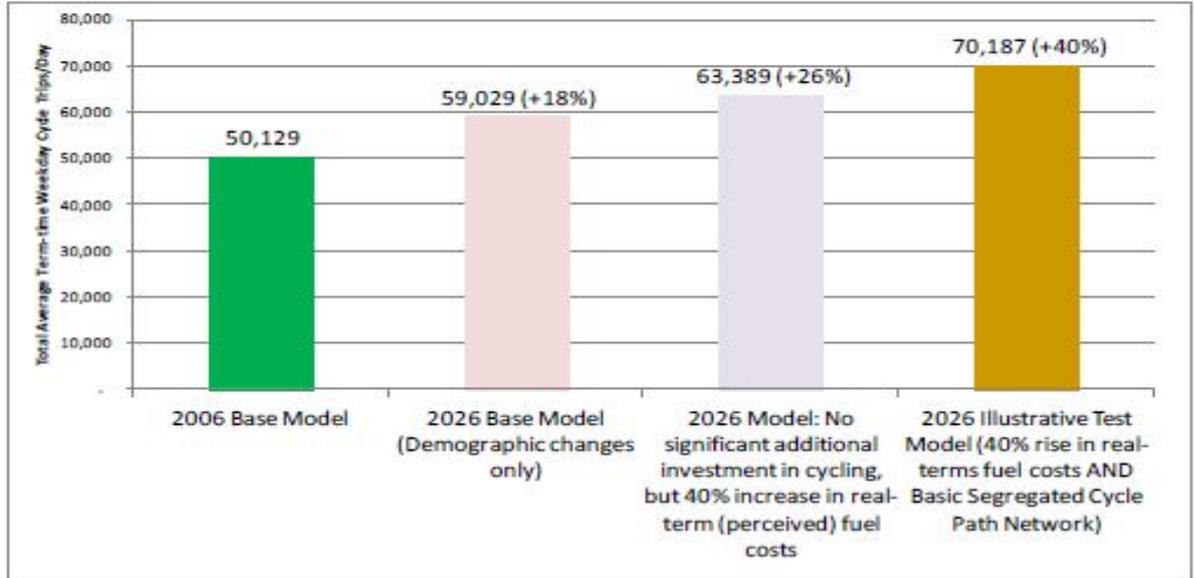
*Illustrative Segregated Cycle Path Additions for a 2026 Test model
(Note Blenheim Road is a proxy for a Southern Railway cycleway and Main North Rd is a proxy for extension of the Northern Railway Cycleway)*



2026 Illustrative Test Model: Estimated resulting total daily cycling demand

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The resulting total cycle demand forecast at the various stages of model projection can be summarised by the following figure:



22. The figure above shows predictions based on daily trips which extrapolated to yearly figures equates to over 25 million trips by cycle per year of which an additional 2.5 million trips per year attributable to the implementation of the 2026 basic separated cycle path network illustrated above. The expectation is that more people will cycle and all cyclists will be attracted to use the path network routes as they provide a good level of service and safety. As such the levels of usage on the network routes newly developed are expected to rise even higher than the overall average increases.

2. VICTORIA CLOCK TOWER

General Manager responsible:	General Manager City Environment, DDI 941-8608
Officer responsible:	Unit Manager Transport and Greenspace
Author:	Maria Adamski Parks Heritage Contract Manager

PURPOSE OF REPORT

- To provide further information in regards to the option to maintain one face of the clock permanently set at 12.51pm.

EXECUTIVE SUMMARY

- Victoria Clock Tower is of considerable national and regional significance making an important contribution to the identity, sense of place and history of the Canterbury region. It is listed as a Group Two (national or regional importance) heritage item in the Christchurch City Plan and is registered as a Category I (special or outstanding historical or cultural heritage significance or value) Historic Place by the New Zealand Historic Places Trust(refer **Attachment 1**).
- Several options have been proposed for the future display of the time on the Victoria Clock Tower:
 - Fix the clock completely: This will ensure the clock maintains its original purpose as a dedicated memorial to Queen Victoria’s Jubilee and of telling the time for the citizens of Christchurch.

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- (b) One face remains at 12.51pm: This would alter the purpose of the clock as a memorial to the Jubilee of Queen Victoria to encompass an unrelated memorial, that of the earthquake. Also the clock will not be fulfilling its purpose as a timepiece and there will be complaints that the time is not correct. Overseas/out of town visitors may not comprehend this.
4. The clock faces are driven from one central mechanism, while it is possible to stop one face they cannot be run independently.
5. To stop one face and assign another value to the clock would be in conflict with the principles of the ICOMOS New Zealand Charter (2010) for the Conservation of Places of Cultural Heritage Value. The Council subscribes to the principles of the ICOMOS (NZ) Charter through the City Plan assessment matters with regard to alterations of listed heritage items (Vol 3, Part 10, 1.4.1 (i). This proposed alteration to the clock would not align with the conservation principles and policies of minimum intervention.¹ The ICOMOS (NZ) charter states that “Any **intervention** which would reduce or compromise **cultural heritage value** is undesirable and should not occur.”²
6. Restoring the clock completely to working order follows good practice heritage conservation principles whereas mixing memorial subjects is considered inappropriate. Any alteration in the meaning and purpose of this 1897 memorial clock tower would significantly and adversely affect the social historical and intangible heritage values of this nationally recognised heritage item.

Heritage Summary

7. The Victoria Clock Tower is of architectural significance for the original design of the clock case of the upper portion of the tower by B W Mountfort and the later design of the stone section to house it as a Jubilee memorial by Strouts and Ballantyne.
8. It is of cultural significance for its brief association with Canterbury Provincial Government), but principally as a Jubilee memorial for Queen Victoria's 'Diamond Jubilee 1837-1897' as is inscribed in a stone tablet on the east side of the base.
9. The upper part of the clock tower was constructed by Midland Counties Iron Works in Coventry or Skidmore and Sons in Coventry, England and sent out to New Zealand in 1860 in 142 packages. It proved too heavy for the Provincial Buildings timber tower and was placed in storage until its incorporation in the Jubilee memorial. The base employs Mount Somers, Port Chalmers and Timaru stone, and a high level of stonemasonry skill for the period (1890s) is evident in the work.

FINANCIAL IMPLICATIONS

10. There would be no additional cost to maintain the Victoria Clock in working order as this is currently covered under the Garden and Heritage activity.
11. There would be a cost to disconnect one face of \$180.00 and to fabricate a support for the hands of \$350.00.

Do the Recommendations of this Report Align with 2009-19 LTCCP budgets?

12. Not applicable.

¹ **Policy 6: Intervention Policy 17** should be the minimum necessary to ensure the retention of **tangible and intangible values** and the continuation of **uses** integral to those values. The removal of **fabric** or the alteration of features and spaces that have **cultural heritage value** should be avoided.

² **Policy 17 ICOMOS (NZ) Charter**

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LEGAL CONSIDERATIONS

13. Not applicable.

Have you considered the legal implications of the issue under consideration?

14. Not applicable.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

15. Yes. Maintaining the city clocks in working order aligns with p126 of the LTCCP 2009-2019 and 6.2.12 of the proposed 2013-22 Activity Management Plan LOS: *“this includes ensuring open heritage buildings and structures are safe, appropriately maintained, and serviced to ensure their heritage values are protected, and that they can be appropriately enjoyed by the community.”*

Do the recommendations of this report support a level of service or project in the 2009-19 LTCCP?

16. As above.

ALIGNMENT WITH STRATEGIES

17. The retention of the correct time on all faces of the Victoria Clock Tower is aligned with the LTCCP Community Outcome “An Attractive and Well-designed City”. In particular protecting our heritage for future generations.

Do the recommendations align with the Council’s strategies?

18. Yes, refer above.

CONSULTATION FULFILMENT

19. Not applicable.

STAFF RECOMMENDATION

It is recommended that the Environment Council restore the Victoria Clock completely to working order.

COMMITTEE RECOMMENDATION

That the staff recommendation be adopted.

3. INFRASTRUCTURE IMPROVEMENT ALLOWANCE REQUEST FOR INFRASTRUCTURE REBUILD PROGRAMME

General Manager responsible:	General Manager City Environment, DDI 941-8608
Officer responsible:	Unit Manager Asset and Network Planning
Author:	Mike Bourke, Senior Technician Water and Waste Planning

PURPOSE OF REPORT

1. To seek the Committee’s recommendation to the Council to fund the betterment portion of a number of projects that the Stronger Christchurch Infrastructure Rebuild Team (SCIRT) are

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undertaking to design and build. The requests are based on costs estimated at the time of concept design and these projects have now moved into the detailed design stage.

EXECUTIVE SUMMARY

2. The SCIRT mandate for the rebuild is to return the assets to their pre-earthquake condition, however there are a few situations where it is sensible and practical to carry out additional work over and above the earthquake repair. These situations arise where:
 - (a) the asset only has a short remaining life
 - (b) to avoid digging up the new road again in the short term
 - (c) to repair non-earthquake damage as part of the rebuild to extend the asset life, or
 - (d) to provide future flexibility to the rebuild or flexibility and resilience to future operation.
3. Reports on all of the betterment projects described in this report have been presented to the Scope and Standards Committee, and approval given for funding to be sought from the Council.

BACKGROUND

4. This report includes seven projects where betterment has been identified and the additional cost of the betterment needs to be funded separately from the rebuild costs.
 - (a) Charleston Area Water Supply (refer **Attachment 1**).
 - (b) Pump Station 8 Area Stormwater pipe upsize (refer **Attachment 2**).
 - (c) Beachville Catchment Stormwater upgrade (refer **Attachment 3**)
 - (d) Maces Road Water Main Upgrade (refer **Attachment 4**)
 - (e) Worsleys Reservoir Repair (refer **Attachment 5**)
 - (f) Main Road Causeway Seawall and associated works (refer **Attachment 6**)
 - (g) Beachville Road Eastern Seawall rebuild and associated works (refer **Attachment 3**).

Charleston Area Water Supply Improvements

5. The old cast iron water supply pipes in Grafton Street require replacement due to earthquake damage as part of the rebuild and road reconstruction in the Charleston area of Waltham. Additional funding of \$315,000 is sought to increase the size of two sections of this pipe line (283 metres out of a total of 392 metres – sections B and C on **Attachment 1** to meet City Plan zone fire fighting capacity requirements where the zoning has changed from Living to Business since the pipes were first laid in 1925. The total cost of the Rebuild project for this area just for water supply, roading and stormwater is estimated at \$8.4 million.

Pump Station 8 Area Stormwater Pipe Upsize

6. CCTV condition assessment indicates that in the pump station 8 catchment area of Avonside the majority of stormwater pipes require replacement. Additional funding of \$54,410 is sought to upsize 404 metres of stormwater pipe to meet the Council design service levels of an Annual Exceedence Probability of 20 percent (meets a one in five year storm). It is proposed to increase a total of 224 metres of stormwater pipes from 375 millimetres diameter to 450 millimetres diameter in North Avon Road, and 180 metres of stormwater pipes from 225 millimetre diameter to 300 millimetres diameter in North Avon Road and Flesher Avenue.

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The total stormwater upgrade cost of these pipes is estimated at concept design stage to be \$278,000.

Beachville Catchment Stormwater Upgrade

7. CCTV inspection of the 1500 metres of stormwater pipes in this Beachville Road/Celia Street area shows that the majority require replacement due to earthquake damage. There is a section of 101 metres that is below capacity to achieve the Infrastructure Design Standards required 20 percent Annual Exceedence Probability (one in five year storm) and should be increased in size to meet current levels of service as there is no alternative overland flow path for the stormwater to get into the estuary. The additional cost of this increase in size is \$12,400 in a total cost \$97,800 for this stormwater pipe section. The total catchment project cost is \$6 million for construction.

Maces Road Water Main Upgrade

8. The 800 million of asbestos concrete and 2 metres of cast iron 150 millimetres of diameter water main in Maces Road is to be renewed due to earthquake damage and the carriageway renewal is to follow. The capacity of the water main is inadequate to meet full fire flow requirements in the Maces Road industrial area and renewal of the main in a larger size will rectify this. A larger main will also provide for improved resilience between zones and allow future rezoning and pressure management to proceed, further improving resilience and reduced water loss. The additional betterment portion of the cost of increasing the size of the water main to 300mm diameter is \$158,000 in a total water main renewal cost of \$945,000. The construction rebuild cost estimate for roading, water supply and stormwater for this catchment is \$16.9 million.

Worsleys Reservoir Repair

9. The Worsleys Road reservoirs (two tanks) are now the largest in the City Water Supply system and due to earthquake damage require repair to meet the required strength of the New Building Standard (NBS). These tanks are considered importance level four in terms of essential infrastructure (need to be operational after a major event) and therefore are required to meet 67 percent of the NBS. (Both tanks are currently at 28 percent of the NBS). The residual life of these tanks is estimated at 50 years. Upgrading them to the equivalent of 100 percent of the NBS for 50 years is actually 83 percent of NBS (assumes new tanks have a 50 year life). The estimated total cost of repair of these tanks to reach 83 percent of NBS (equivalent to 100 percent NBS for a 50 year life) is \$1.28 million, compared to the estimated cost of repair to reach the required 67 percent of NBS of \$1.2 million. Additional funding of \$80,000 is therefore sought to bring these tanks up to equivalent 100 percent of NBS.

Main Road Causeway Seawall and Associated Works

10. The 980 metres of seawall on the estuary side of the causeway has been damaged and requires replacement for the full length to provide long term erosion protection for the causeway. In order to provide for the future four metres wide coastal walkway for the full length of the causeway rebuild including pedestrian access to the estuary (consistent with the concept design and feasibility report for the Christchurch Coastal Pathway), and space to accommodate future sea level rise additional betterment funding of \$603,000 is sought. The total cost of the seawall replacement at concept design stage is \$1.3 million which includes the allowance for the betterment.

Beachville Road Eastern Seawall and Associated Works

11. This package of work covers the Celia Street and Beachville Road area and this package includes total replacement of the damaged seawall, together with road reconstruction, wastewater and road realignment at a total estimated cost of \$5.9 million. In order to provide for a future four metre wide coastal walkway for the full length of the wall rebuild and space to

3 Cont'd

increase seawall height to counter sea level rise in the future some additional road realignment is proposed. This betterment portion is estimated at \$129,000.

FINANCIAL IMPLICATIONS

12. Funding of these betterment initiatives will draw down the Council Building / Infrastructure Improvement Allowance which currently stands at \$72,846,116. Where there are renewal aspects of these projects the renewal aspect would normally be funded from renewal funds but renewal funds have been reduced in line with the strategy of lesser renewals being required once the rebuild is complete.

Summary of betterment funds sought	
Project	Betterment Cost
Charleston Area Water Supply Improvements	\$315,000
PS 8 Area Stormwater Pipe Upsize	\$54,410
Beachville Catchment Stormwater upgrade	\$12,400
Maces Road Water Main Upgrade	\$158,000
Worsleys Reservoir Repair	\$80,000
Main Road Causeway Sea Wall	\$603,000
Beachville Road Eastern Sea Wall	\$129,000
TOTAL	\$1,351,810

Do the Recommendations of this Report Align with 2009-19 LTCCP budgets?

13. This work represents a marginal increase in scope (betterment) over work being conducted as part of the infrastructure rebuild being undertaken by SCIRT. SCIRT will perform these betterment elements as part of the infrastructure packages of work. Work to be funded from the Council Building/Infrastructure Improvement Allowance.

LEGAL CONSIDERATIONS

14. The projects are all on Council land and there are no legal implications of these works.

Have you considered the legal implications of the issue under consideration?

15. Not applicable.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

16. These works are associated with Waterways and Land Drainage Activity (6.5) the Wastewater Collection Activity (11.0) and the Christchurch Strategy Transport Plan.

Do the recommendations of this report support a level of service or project in the 2009-19 LTCCP?

17. Works additional to work programmed by SCIRT as part of the infrastructure rebuild. Budget provision made for the base scope of work in FY 12/13 Annual Plan (Infrastructure Rebuild Budget).

ALIGNMENT WITH STRATEGIES

18. Aligns with the Surface Water Strategy; draft Wastewater Strategy and the Christchurch Strategy Transport Plan.

3 Cont'd

Do the recommendations align with the Council's strategies?

19. As above.

CONSULTATION FULFILMENT

20. Not applicable.

STAFF RECOMMENDATION

It is recommended that the Council:

- (a) Approve the allocation of the betterment funds from the Council Infrastructure / Building Improvement Allowance as detailed above for:
 - (i) Charleston Area Water Supply Improvements (\$315,000 to increase pipe size)
 - (ii) PS 8 Area Stormwater Pipe (\$54,410 to increase pipe size)
 - (iii) Beachville Catchment Stormwater Upgrade (\$12,400 to increase pipe size)
 - (iv) Maces Road Water Main Upgrade (\$158,000 for larger water main)
 - (v) Worsleys Reservoir Repair (\$80,000 to bring up to 100% of NBS)
 - (vi) Main Road Causeway Sea Wall and Associated Works (\$603,000 to future proof for possible four metre wide walkway)
 - (vii) Beachville Road Eastern Sea Wall and Associated Works (\$129,000 to future proof for possible four metre wide walkway)
- (b) Authorise the City Environment General Manager to instruct the Stronger Christchurch Infrastructure Rebuild Team to complete betterment elements as part of the infrastructure rebuild works being progressed in each of the respective areas.

COMMITTEE RECOMMENDATION

That the staff recommendation be adopted.

4. INFRASTRUCTURE REBUILD MONTHLY REPORT

General Manager responsible:	General Manager Capital Programme DDI: 941 8235
Officer responsible:	Infrastructure Rebuild Client Manager
Author:	Will Doughty, Infrastructure Rebuild Leader

PURPOSE OF REPORT

- 1. To provide the Council with a monthly update on the infrastructure rebuild.

EXECUTIVE SUMMARY

- 2. At its April 2011 meeting, Council gave approval for an alliance to be formed to deliver the reinstatement of the City's damaged infrastructure. It was also agreed that the Chief Executive would report regularly to the Council on progress with regard to the reinstatement work.

4 Cont'd

3. The report (**Attachment 1**) is the 13th of what will be a regular monthly report that is provided to the Environment and Infrastructure Committee, Council and the Canterbury Earthquake Recovery Authority (CERA).

STAFF RECOMMENDATION

It is recommended that the Council receive the Infrastructure Rebuild Monthly Report for December 2012, noting that the next report will cover the two month period around the Christmas break.

COMMITTEE RECOMMENDATION

That the staff recommendation be adopted.

PART B - REPORTS FOR INFORMATION

5. BRIEFING ON WATER MANAGEMENT ZONE IMPLEMENTATION PROGRAMMES

The Committee received an introduction and overview of the Canterbury Water Management Strategy from Christina Robb, Programme Director Water and Land.

The Committee also received a briefing on the draft Banks Peninsula and Christchurch West Melton Zone Implementation Programmes from Richard Simpson, Chair of the Banks Peninsula Zone Committee and Ian Fox, Chair of the Christchurch West Melton Zone Committee.

6. DEPUTATIONS BY APPOINTMENT

- 6.1 Glen Koorey, representing Spokes Canterbury Inc, addressed the Committee with regard to future cycleways and encouraged an ongoing dialogue on this issue.

PART C – DELEGATED DECISIONS

7. APOLOGIES

Nil.

8. RESOLUTION TO EXCLUDE THE PUBLIC

It was **resolved** on the motion of Councillor Wells, seconded by Councillor Reid, that the resolution to exclude the public set out on page 172 of the Agenda be adopted.

The meeting concluded at 12.05pm.

CONSIDERED THIS 28TH DAY OF FEBRUARY 2013

MAYOR