

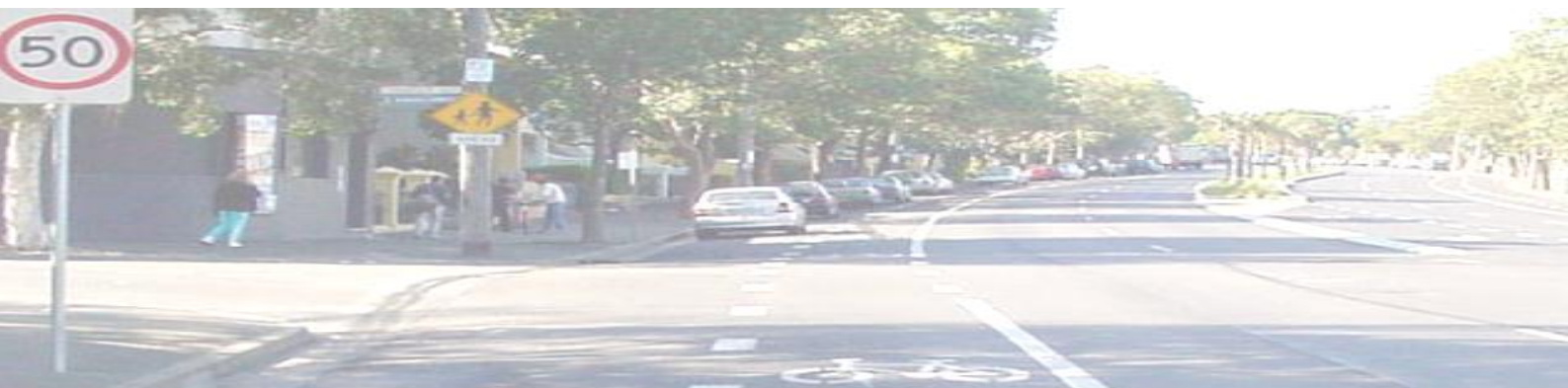
Pittwater Walks and Rides Strategy Masterplan Review – March 2012

Review of the Pittwater Walks and Rides
Strategy Masterplan – 2005

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Chippendale NSW 2008

COMPLETE

Version 6: 23rd March 2012



CONTENTS

1	Executive Summary.....	1
2	Background.....	2
3	Conclusion of Review.....	3
4	Route Plan and Works Programme	5
4.1	Prioritised Works Programme	5
4.2	Existing and Proposed Footpaths Map	4
	Appendix A – Revised Priority Weighting System	
	Appendix B – Priority Weighting Checklist	
	Appendix C – Methodology	
	Appendix D - Field Survey	
	Appendix E – Findings	
	Appendix F – Photos	

1 Executive Summary

Pittwater Council engaged Complete Urban Pty Ltd to review the 2005 Walks and Rides Strategy Masterplan (provision of paths and shared paths on Public Roads) to ensure that it was contemporary, took account of current legislation and was able to be used by Council to assess priorities involving limited funding to ensure the community acquired the best services in a cost effective manner.

This review is to be read in conjunction with the main 2005 Pittwater Walks and Rides Masterplan Strategy. This review is an annexure to the 2005 study and brings the development of the walk and ride system up to date. Also, a contemporary priority weighting system has been introduced to allow Council to assess the best way forward to develop the Walk and Ride network.

The Objectives of the review have included:

- Facilitate walking and bicycling as a viable transportation choice;
- Afford the public the opportunity to experience the Council's unique scenic and natural amenities;
- Provide access to healthy recreational and commuter activities;
- Link major centres, schools, places of work, parks and open spaces with Pittwater neighbourhoods;
- To augment on the work done in previous studies, and
- Review the Priority Weighting System to better facilitate improved decision making.

When all works are completed, the Council will have established a walking and bicycle facility network linking neighbourhoods and activity centres, as well as providing connections with recreational and natural areas within the Pittwater Council area.

A particular aspect of this study is the review of the Priority Weighting System (PWS). This was undertaken to ensure Council planned appropriately for the Walk and Ride Strategy and to ensure it is done in a cost effective manner.

Pittwater Council has recognised the benefits of a logical well planned walk and ride network in the LGA and has achieved a great deal to expand this network across the Pittwater area. This is evidenced by the extensive use being made of the walking trails and paths as well as the number of bikes observed both on road and off road. The well signposted and separated shared path along Garden Street, Warriewood is but one fine example of Councils forethought in planning ahead for walking and bicycling facilities for the Community.

It will be noted that few amendments are made to the 2005 Masterplan Strategy as progress has been made and certain routes are now being well established.

2 Background

In 2005 Pittwater Council commissioned PBA Australia to prepare the “Pittwater Walks and Rides Masterplan Strategy”. This document built upon the previous 1997 Pittwater Bicycle Plan and Pedestrian Access Plan (2003) that defined Councils Strategy for the provision of pedestrian and cyclist infrastructure on the Public Roads of Pittwater.

These documents are necessary to allow Council to plan proactively for appropriate footpaths and cycleways in Pittwater on Public Roads, and to ensure that the work is done in a prioritised and cost effective manner. They reference paths on Public Reserves to ensure (these are subject to separate planning/programmes) the integration of pedestrian/cyclist facilities in Pittwater.

This current review has been created as an annexure to the 2005 Masterplan Strategy.

These documents were also developed with input from various Government documents including the original 1998 Action for Transport 2010. The process also was guided by the 2002 RTA “how to prepare a bikeplan” publication. More recently the NSW Bicycle Guideline, published in July 2005, is the main guideline for the development of bicycle planning and design. This later document forms the basis of many assumptions in this review.

In regard to Pittwater in particular, the 2005 Masterplan noted the emerging issues as the large development in Warriewood and the opportunity to review the Priority Weighting System (PWS).

The emphasis of this report as an annexure is to deal by exception with the main differences since the 2005 study and to review the priorities for the future. The objective of the Walks and Rides Masterplan is to provide an integrated and continuous system of paths and as such routes that are discontinuous or are in isolated locations are not included. The review shall give a higher priority to projects that provide such a network and in particular to routes that radiates out from shopping centres and link to existing paths.

The previous study recognised the main types of pedestrians and walkers as:

- Recreational and fitness walkers;
- Commuters (journey to/from main commercial/retail centres, public transport services, schools and community colleges);
- Local Walkers (journey to/from local shops and other local facilities); and
- Children.

The types of Cyclists identified included:

- Recreational Cyclists;
- Training cyclists;
- Commuters (journey to/from work, school or community colleges);

- Local Transport cyclists (journeys to/from shops and other local facilities);
- Children; and
- Aspirational cyclists (people who do not cycle or only cycle infrequently but would like to cycle more).

3 Conclusion of Review

The recommended actions for Pittwater Council are listed below as related to the Pittwater Walks and Rides Masterplan Strategy and are to be read in conjunction with 2005 Masterplan Strategy.

- Undertake provision of paths in accordance with priority schedule in 4.1;
- It is recommended that in any promotional literature, Barrenjoey Road should be advertised for use by experienced riders only;
- On the busier commuter routes the safety of intersections for cyclists may be improved with revised designs based on the “NSW Bicycle Guidelines”, which should be considered for investigation in future;
- It is noted that certain on road cycle routes include traffic calming devices that appear not to be cycle friendly. These should be considered for possible future improvements in accordance with the recommendations of the cycle criteria recommended in the “NSW Bicycle Guidelines”;
- Council to investigate adding bicycle signage at appropriate locations advising “ring your bell when passing”;
- Recommend that Council investigate more directional signage (co-ordinate with SHOROC Councils) to reinforce the walk and ride routes. It is understood that Council reflects community desire to minimise signage in this regard, however, the popularity of cycling in particular has boomed and these cyclists are looking for some increased guidance;
- Recommend that Council consider carrying out Safety Audits of the identified routes to identify safety and other improvements (particularly at key intersections), for inclusion in future work programmes;
- Council to consider, as part of a future review, the identification of locations for the provision of bike racks at destinations as projects to be included in the prioritised works schedule. Provision of bike lockers is not considered as appropriate for the foreseeable future;
- That this review identified that the priority for the provision of infrastructure is for local trips related to shops, school and recreational facilities;
- Recommendations for lines/signs maintenance provision continue to be carried out as part of regular maintenance programmes and are not items in prioritised work programme; and
- Recommend the Plan to be reviewed after approximately 5 years to allow the prioritised schedule of paths to be extended (via a separate new 5 year schedule). Note that all paths on the existing schedule are to be completed prior to any paths

on the subsequent schedules to ensure paths are continuous and isolated sections are not constructed.

4 Route Plan and Works Programme

4.1 *Prioritised Works Programme*

The list below outlines the works, in priority order, that are proposed to improve the pedestrian and cycle network throughout the Pittwater Local Government Area by providing an integrated and continuous path system.

The list has been prioritised utilising the Priority Weighting System and Checklist (refer Appendices A and B) which places emphasis on projects that radiate out from shopping centres and link to existing paths.

Routes in isolated locations which do not link to an existing path do not meet the objectives of the Walks and Rides Masterplan and will therefore be included on separate funding programmes.

The works programme should be reviewed after approximately 5 years to account for works constructed, and a new separate 5 year schedule should be prepared to further develop the path network. It is suggested that all works on the original schedule are completed before any works on the subsequent schedule are commenced to ensure that a continuous network is provided.

Pittwater Walks and Rides Strategy Masterplan Review

Prioritised Works Programme

Street	Location	Suburb	Path	Shared Path	Project Description	W & R rating	Priority	Preliminary Estimate \$	General Comments	Construction Notes
McPherson St	Forest Road to Garden Street	Warriewood		x	Construct 360m of 2.5m wide concrete shared path on northern side	76	1	70,000	Missing link	Widen existing 1.2m wide concrete path
McPherson St	Ponderosa Parade to Forest Road	Warriewood		x	Construct 180m of 2.5m wide concrete shared path on eastern side	76	2	40,000	Missing link	Widen existing 1.2m wide concrete path
Ponderosa Pde	Jubilee Road to McPherson Street	Warriewood		x	Construct 340m of 2.5m wide concrete shared path on eastern side	76	3	70,000	Missing link	Widen existing 1.2m wide concrete path
Jubilee Ave	Warriewood Road to Ponderosa Parade	Mona Vale		x	Construct 320m of 2.5m wide concrete shared path on northern side	72	4	60,000	Missing link	Widen existing 1.2m wide concrete path
Barrenjoey Rd	Central Rd to Surf Side Ave	Avalon	x		Construct 380m of 1.5m wide concrete footpath on eastern side	72	5	125,000	Missing footpath link on main road	
Barrenjoey Rd	Coles Pde to Neptune St	Newport		x	Construct 300m of 2.5m wide concrete shared path on western side	70	6	75,000	Missing shared path link	
Surf Side Ave	Barrenjoey Rd to end	Avalon	x		Construct 310m of 1.5m wide concrete footpath on western side and widen existing path in pathway reserve to 2.5m width	66	7	115,000		
Walsh St - Stg 2	Collins St to Narrabeen Park Pde	Nth Narrabeen		x	Construct 450m of 2.5m wide concrete shared path on north side	66	8	125,000	Links beaches to shared path network and North Narrabeen Reserve	
Mona Vale Road	Ponderosa Parade to Foley St	Mona Vale		x	Construct 450m of 2.5m wide concrete shared path on southern side	66	9	150,000	Missing shared path link to Mona Vale Shopping Centre	Locate close to property boundary
Barrenjoey Rd	George St to North Avalon Rd	Avalon	x		Construct 250m of 1.5m wide concrete footpath on western side	65	10	75,000	Missing link on arterial road. No path on either side	
Garden St	Katoa Cl to Irrawong Rd	Nth Narrabeen		x	Widen 360m of existing footpath on east side to a 2.1m wide shared path	64	11	165,000	Missing path in shared path network linking Warriewood Valley south to Warringah	
Bishop Street	Bardo Rd to Queens Pde	Newport	x		Construct 350m of 1.5m wide concrete footpath on eastern side	63	12	150,000	Missing path to school	Includes kerb and gutter between Queens Pde and Gladstone St
Elvina Ave	No. 41 (shops) to George St	Avalon	x		Construct 180m of 1.5m wide concrete footpath on eastern side	62	13	85,000	Missing link	
Ross St	Bramley Ave to The Boulevard	Newport	x		Construct 150m of 1.5m wide concrete footpath on western side	62	14	50,000	Missing footpath link between shops and recreational centre	
Narroy Ave	Lido Ave to Nareen Pde	Nth Narrabeen	x		Construct 90m of 1.5m wide footpath on eastern side	61	15	120,000	Bridge widening over creek required in 2011/12. Includes construction of kerb and gutter	Allow for 6m carriageway plus indented width parking bays
Elouera Rd	Coolawin Rd to Ruskin Rowe	Avalon	x		Construct 150m of 1.2m wide concrete footpath on northern side	60	16	90,000	Extends existing path to allow missing link to be completed	Locate path partly behind kerb from driveway to No. 24 Ruskin Rowe
Powderworks Rd	West of Warraba Road	Nth Narrabeen	x		Reconstruct 30m of path to eliminate steps	60	17	30,000	Removes obstacle to pedestrian access for less mobile/prams	New steps to No.1 Powderworks needed adjacent to new park
Garden St	Katoa Cl to The Crescent	Nth Narrabeen	x		Construct 450m of 1.5m wide concrete footpath on western side	60	18	150,000	Missing footpath link on sub arterial road	Small retaining walls required
Ocean St - Stg 1	Robertson Rd to Coles Pde	Newport	x		Construct 130m of 1.5m wide concrete footpath on eastern side	58	19	50,000	Missing link in front of units	
Ocean St - Stg 2	Coles Pde to Neptune St	Newport	x		Construct 170m of 1.5m wide concrete footpath on eastern side	58	20	65,000	Missing link in front of units	

Street	Location	Suburb	Path	Shared Path	Project Description	W & R rating	Priority	Preliminary Estimate \$	General Comments	Construction Notes
Barrenjoey Rd	The Serpentine to No. 532	Bilgola		x	Construct 300m of 2.5m wide concrete shared path	58	21	150,000	Position path to allow future provision of kerb and gutter by the RMS	Estimate does not include road drainage works or kerb and gutter
Narrabeen Pk Pde - Stg 1	Melbourne Ave to Cook Tce (Melbourne to 220m)	Mona Vale	x		Construct 220m of 1.5m wide concrete footpath on north western side	58	22	150,000	Missing link and forms part of the Bicentennial Walkway	Driveways too steep to allow path on east side. Facing wall needed along new path to protect embankments. 7.5m carriageway edge strip eastern side.
Narrabeen Pk Pde - Stg 2	Melbourne Ave to Cook Tce (220m to Cook)	Mona Vale	x		Construct 220m of 1.5m wide concrete footpath on north western side	58	23	150,000	Missing link and forms part of the Bicentennial Walkway	Driveways too steep to allow path on east side. Facing wall needed along new path to protect embankments. 7.5m carriageway edge strip eastern side.
Melbourne Ave	Narrabeen Park Pde to Bruce St	Mona Vale	x		Construct 70m of 1.5m wide concrete footpath on eastern side	58	24	40,000	Missing link to refuge at Hunter St	
Emma St	Mona Vale Rd to Maxwell St	Mona Vale	x		Construct 60m of 1.5m wide concrete path on northern side	57	25	75,000	Missing link. Includes provision of kerb and gutter, but not street drainage	Path on desire line across nature strip + includes link to existing path from Maxwell St to No. 40 on northern side (30m)
Vineyard St	Brinawa St to No. 42	Mona Vale	x		Construct 400m of 1.5m wide concrete footpath on northern side	57	26	120,000	Missing link	
Grandview Dr - Stg 1	Sybil St to No. 43	Newport	x		Construct 85m of 1.2m wide concrete footpath on southern side	57	27	165,000	Missing link	Includes approximately 85m of suspended pathway
Grandview Dr - Stg 2	Sybil St to No. 43	Newport	x		Construct 90m of 1.2m wide concrete footpath on southern side	56	28	165,000	Missing link. Includes section of path @ no. 49	
Pittwater Rd	Lakeside Rd to Powderworks Rd	Warriewood		x	Widen 390m of existing footpath on west side to a 2.5m shared path	56	29	150,000	Complete missing link in shared path network	
Rickard Rd - Stg 2	Gondola Rd to Anana Rd	Nth Narrabeen	x		Construct 80m of 1.5m wide concrete footpath on eastern side	55	30	70,000	Removes obstacle to pedestrian access	
Rickard Rd - Stg 1	Gondola Rd to Nareen Pde	Nth Narrabeen	x		Construct 170m of 1.5m wide concrete footpath on eastern side	55	31	75,000		
Parkland Rd - Stg 2	Pieta Cr to Samuel St	Mona Vale	x		Construct 370m of 1.5m wide concrete footpath on southern side	55	32	130,000	Missing link	
Gondola Rd	Venetian Rd to Rickard Rd	Nth Narrabeen	x		Construct 580m of 1.5m wide concrete path on north side	54	33	150,000		
Ruskin Rowe	Elouera Rd to Avalon Pde	Avalon	x		Construct 130m of 1.5m wide concrete footpath on eastern side	54	34	50,000	Completes footpath link to Avalon Pde / school	
Bristol Ln	Windsor Pde to Rickard Rd	Nth Narrabeen	x		Construct 80m of 1.2m wide concrete footpath on eastern side	54	35	80,000	Removes obstacle to pedestrians and includes kerb and gutter	Street drainage not included. 6m carriageway width.
Dress Circle Rd	Old Barrenjoey Rd to Bellevue Ave	Avalon	x		Construct 160m of 1.5m wide concrete footpath on southern side	54	36	100,000	Missing link	Adjust 50m of kerb and gutter to permit path construction in front of trees (7.5m carriageway)
Maxwell St	Katrina Ave to Parkland Rd	Mona Vale	x		Construct 100m of 1.5m wide concrete footpath on western side	54	37	45,000		
Bolwarra Rd	Powderworks Rd to Garden St	Elanora	x		Construct 450m of 1.5m wide concrete footpath on eastern side	54	38	150,000	Missing footpath link to shopping centre / wetlands	Small retaining walls required
Nareen Pde - Stg 1	Pittwater Rd to Narroy Ave	Nth Narrabeen	x		Construct 310m of 1.5m wide concrete footpath on south side.	53	39	80,000		
Parkland Rd - Stg 1	Maxwell St to Pieta Cr	Mona Vale	x		Construct 370m of 1.5m wide concrete footpath on southern side	53	40	150,000		Includes extension of existing path from Kundibah Rd to Maxwell St, north side

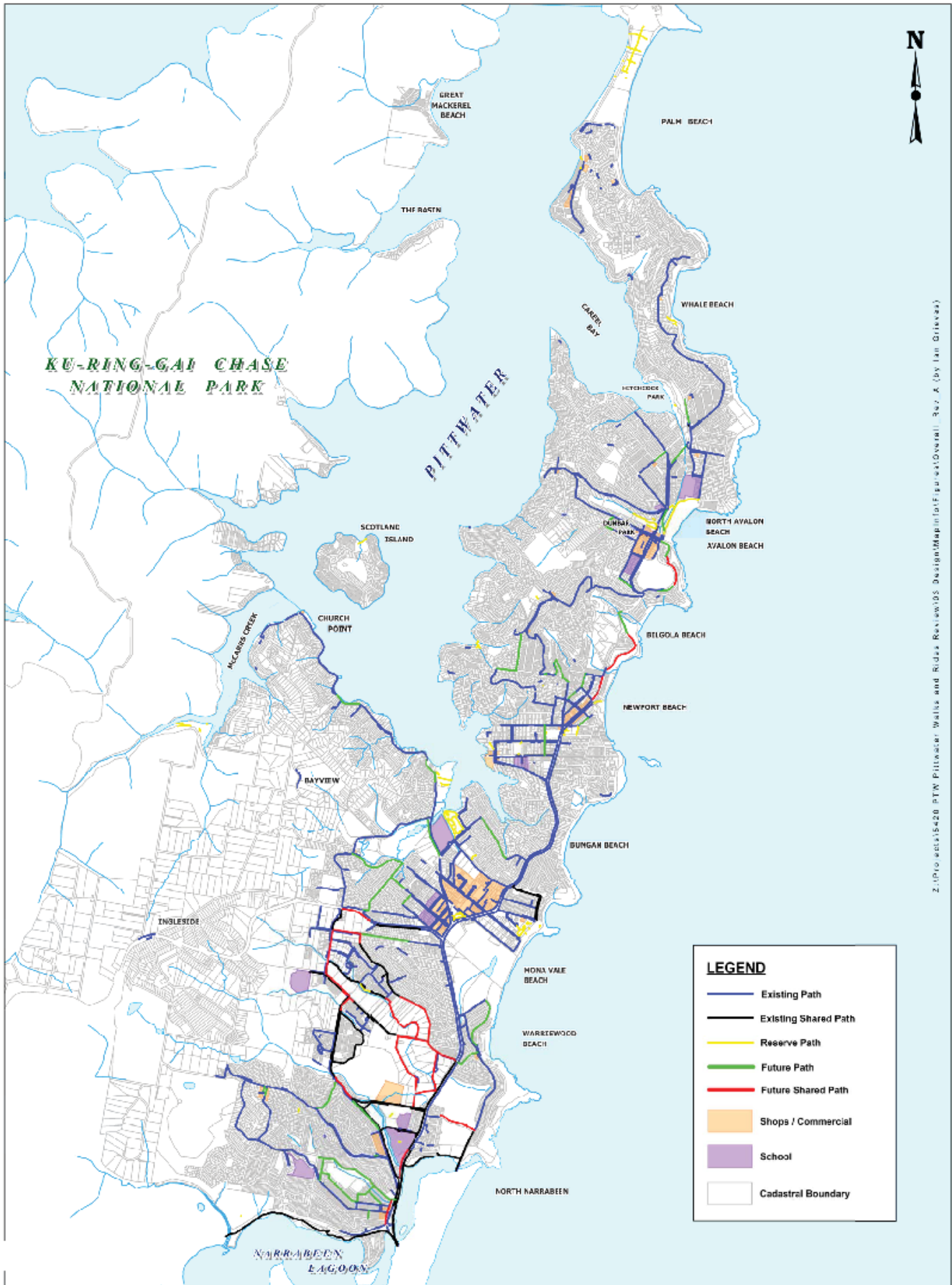
Street	Location	Suburb	Path	Shared Path	Project Description	W & R rating	Priority	Preliminary Estimate \$	General Comments	Construction Notes
Narrabeen Pk Pde - Stg 3	Cook Tce to Coronation St	Mona Vale	x		Construct 110m of 1.5m wide concrete footpath on north western side	52	41	80,000	Driveways on eastern side of road cannot be adjusted to permit path	Facing wall needed along new path to protect embankments. 7.5m carriageway edge strip eastern side.
Maxwell St - Stg 1	Emma St to Suzanne Rd	Mona Vale	x		Construct 220m of 1.5m wide concrete footpath on western side	52	42	80,000		
Grandview Dr- Stg 3	Sybil St to Seaview Ave	Newport	x		Construct 180m of 1.2m wide concrete footpath on western side	51	43	150,000	Reconstruct kerb and gutter	Reduce pavement width to 6m
Grandview Dr - Stg 4	Sybil St to Seaview Ave	Newport	x		Construct 120m of 1.2m wide concrete footpath on western side	51	44	150,000		
Lido Ave	Gondola Rd to Narroy Ave	Nth Narrabeen	x		Construct 210m of 1.5m wide concrete footpath on north-east side	51	45	240,000	Includes kerb and gutter construction	No street drainage included. Allow for 6m carriageway plus indented width parking bays
Maxwell St - Stg 2	Suzanne Rd to Katrina Ave	Mona Vale	x		Construct 370m of 1.5m wide concrete footpath on western side	51	46	150,000		
Narroy Ave	Venetian Rd to Lido Ave	Nth Narrabeen	x		Construct 120m of 1.5m wide concrete footpath on south-east side	50	47	150,000		No street drainage included. 7.5m wide carriageway.
Neptune St	Ocean St to Seaview Ave	Newport	x		Construct 170m of 1.5m wide concrete footpath on southern side	50	48	50,000		
Barrenjoey Rd - Stg 1	Attunga Rd to The Serpentine (Attunga to 300m)	Bilgola		x	Construct 300m of 2.5m wide concrete shared path on eastern side	50	49	150,000		
Barrenjoey Rd - Stg 2	Attunga Rd to The Serpentine (300m to Serpentine)	Bilgola		x	Construct 300m of 2.5m wide concrete shared path on eastern side	50	50	150,000	Include pedestrian refuge on Main Rd	
Venetian Rd	Narroy Ave to Gordon Rd	Nth Narrabeen	x		Construct 165m of 1.5m wide concrete footpath on eastern side	49	51	120,000	Includes construction of kerb and gutter	No street drainage included. 7.5m wide carriageway.
The Serpentine - Stg 1	Barrenjoey Rd to Allen Ave	Newport	x		Construct 300m of 1.5m wide concrete footpath on eastern side	48	52	100,000	Locate path on Reserve	No kerb and gutter provided
Waterview St - Stg 1	Karibou Cl to Delwood Pl	Mona Vale	x		Construct 160m of 1.5m wide concrete footpath on south western side	47	53	80,000	Missing link	
Nareen Pde - Stg 2	Narroy Ave to Tatiara Cres (Narroy to 250m)	Nth Narrabeen	x		Construct 250m of 1.5m wide concrete footpath on south side	46	54	150,000	Includes construction of kerb and gutter	
Nareen Pde - Stg 3	Narroy Ave to Tatiara Cres (250m to 500m)	Nth Narrabeen	x		Construct 250m of 1.5m wide concrete footpath on south side	46	55	150,000	Includes construction of kerb and gutter	
Nareen Pde - Stg 4	Narroy Ave to Tatiara Cres (500m to Tatiara)	Nth Narrabeen	x		Construct 250m of 1.5m wide concrete footpath on south side	46	56	150,000	Includes construction of kerb and gutter	Narrow road to 7m at creek crossing to allow width for path. No street drainage included
Pittwater Rd	Mona St to Cabbage Tree Rd	Mona Vale	x		Construct 440m of 1.5m wide concrete footpath on western side	46	57	110,000	Missing link to school. Meet existing path at bus stop /pedestrian crossing	
Waterview St - Stg 2	Delwood Pl to Mona St	Mona Vale	x		Construct 380m of 1.5m wide concrete path on south western side	45	58	140,000	Missing link	
Hunter St - Stg 1	Pittwater Rd to Carpenter Cr	Nth Narrabeen	x		Construct 180m of 1.5m wide concrete footpath on north side	44	59	65,000	Links to pedestrian crossing at traffic signals on Barrenjoey Rd	
Terama Cr	Raymond Rd to Plateau Rd	Bilgola Plateau	x		Construct 400m of 1.5m wide concrete footpath on eastern side	44	60	150,000	Missing link	
Barrenjoey Rd	Whale Beach Rd to Careel Head Rd	Palm Beach	x		Construct 260m of 1.5m wide concrete footpath plus K & G	43	61	150,000	Includes kerb and gutter construction	
Raymond Rd	Cheryl Cr to Argyle St	Bilgola Plateau	x		Construct 300m of 1.5m wide concrete footpath on southern side	43	62	200,000	Missing link	

Street	Location	Suburb	Path	Shared Path	Project Description	W & R rating	Priority	Preliminary Estimate \$	General Comments	Construction Notes
Barrenjoey Rd - Stg 1	No. 482 to The Serpentine	Bilgola	x		Construct 160m of 1.5m wide concrete footpath	43	63	120,000	Provide in position to allow the RMS to provide kerb and gutter in the future	Does not include cost of drainage. Plan exists for kerb and gutter
Pittwater Rd	No. 2033 to 2089	Bayview	x		Construct 370m of 1.5m wide concrete footpath on north eastern side	42	64	120,000		
Hunter St - Stg 2	Carpenter Cr to Narrabeen Park Pde	Nth Narrabeen	x		Construct 80m of 1.5m wide concrete footpath on south side	40	65	50,000	Links Warriewood Valley to Warriewood Beach	Driveway adjustments prohibit path on northern side
Grandview Drive - stg 5	No. 67 to No. 69/25	Newport	x		Construct 25m of 1.5m wide concrete footpath on southern side	36	66	40,000	Missing footpath link	
Waratah St	Maxwell St to No. 76	Mona Vale	x		Construct 210m of 1.5m wide concrete footpath on northern side	36	67	75,000	Missing footpath link	
Vesper St	Waratah St to Wangara St	Mona Vale	x		Construct 140m of 1.5m wide concrete footpath on eastern side	36	68	50,000	Missing link to school	
TOTAL COST								\$7,295,000		

4.2 Existing and Proposed Footpaths Map

The plan below sets out the recommended Masterplan routes for the Council area, indicating the existing footpath and shared path network and also the future footpaths / shared paths that are on Council's forward works plan.

This plan will be used by Council to advertise the Walks and Rides in Pittwater and will be posted on the Council website for viewing by the public.



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Appendix A – Revised Priority Weighting System

Pittwater Walks & Rides Masterplan Revised Priority Weighting System

The aim of this part of the review is to prepare a revised priority weighting system that:

- establishes a transparent process to facilitate the equitable distribution of Council funds available for walking and cycle route implementation (on an area wide basis) within Council controlled road reserves and parks;
- identifies routes controlled by other agencies i.e. RMS which are critical to the establishment of the network; and
- matches construction priorities with potential route usage and importance to the area and overall network connectivity.

The ranking of the walking and cycle routes provides a means of identifying the relative importance of the overall area status / location of a walking and cycle route based on the activity/activities which they provide access.

The ranking table (and associated scoring) has been developed, tested and successfully applied in previous studies for other local government areas. It has been modified to suit the Pittwater circumstances.

The method for applying the prioritisation framework is outlined below and utilises the Priority Weighting Checklist in Appendix I.

Step 1	Identify the route under consideration (by name/number)
Step 2	Identify the route hierarchy i.e. Main Road, Collector Road, Local Road from the Pittwater Council 'Recommended Road Hierarchy Plan'
Step 3	Identify the route location and extent
Step 4	Identify the facilities served by the route
Step 5	Determine route scoring using the Priority Weighting Checklist (refer to explanatory notes below)
Step 6	Total the route score
Step 7	Order routes by adjusted route score (highest score indicates highest priority)

The following explanatory notes and methodology have been followed in this study and are to be used to assist in the completing of the Priority Weighting Checklist for future project locations that are subsequently identified.

METHODOLOGY GUIDELINES

The following guidelines are to be used to assist in the completion of the Walking and Bicycle Route Assessment Priority Weighting Checklist to ensure a consistent approach between the routes under consideration.

Once compiled in a priority listing, should any routes be assessed with the same weighting score, then the route with the higher priority score for checklist item 1 (Proximity to Facilities) would be ranked as the higher priority. Should these also be equal, then the route with the higher score for checklist item 2 (Pedestrian Accessibility) will be ranked higher. As and if required, this would continue down the item numbers in order until a higher priority was established.

1. Proximity to Facilities

The proximity of the route to various community facilities is an important factor in determining the priority for progression to construction. The identified community facilities should be scored using the following guidelines. In addition to the score guidelines below, scores should also to be assigned on a sliding scale to allow routes within the same distance band to be assessed on their proximity to the facility, for example if two routes are located between 0.5km and 1km of a shopping centre, then the sliding scale allows for the closer of the two to be scored a 16 and the further one a 15:

- a) Shopping Centre (score range 0-20): Routes adjacent to major shopping centres should be scored at 20, with a sliding scale downwards the further the site is away from the centre. Locations adjacent to local shopping hubs should to be scored with a maximum of 10. Scoring as follows:

Major Shopping Centre	
20	Runs directly adjacent to and links to shopping centre pedestrian/cycle network
18	Within 0.5km of shopping centre
16	Between 0.5km and 1km from shopping centre
14	Between 1km and 2km from shopping centre
12	Between 2km and 5km from shopping centre
0	> 5km from shopping centre
Local Shopping Area/Block of Shops	
10	Runs directly adjacent to a local shopping area or block of shops
8	Between 0.5km and 1km from shops
6	Between 1km and 2km from shops
4	Between 2km and 5km from shops
0	> 5km from shops

- b) School (score range 0-10): Routes adjacent to schools should be scored at 10, with reduced scores the further the route is located away from the school. Routes large distances from schools or which are not expected to be used by school children or parents (either pedestrians or cyclists) are scored at 0. Scoring as follows:

10	Runs directly adjacent to a school
8	Between 0.5km and 1km from school
6	Between 1km and 2km from school
4	Between 2km and 5km from school
0	> 5km from school

- c) Recreational/Community Facility (score range 0-10): Routes adjacent to recreational and community facilities which pedestrians and cyclists would access are to be scored 10 if they are in close proximity and a sliding scale downwards for those further away. Such recreational and community facilities include parks and reserves, beaches and surf clubs, libraries, sports grounds and clubs etc. Scoring as follows:

10	Runs directly adjacent to a facility
8	Between 0.5km and 1km from facility
6	Between 1km and 2km from facility
4	Between 2km and 5km from facility
0	> 5km from facility

- d) Transport Terminus (score range 0-5): Routes in close proximity to important bus stops, ferry terminals etc should be scored at 5 if they are in close proximity and on a sliding scale downwards for those further away. Routes which are not expected to be used by pedestrians or cyclists accessing main bus stops or ferry terminals should be scored 0. Scoring as follows:

Bus Stops	
5	Bus stop on route
3	Bus stop within 500m
0	Not expected to be used by bus passengers
Ferry Terminals	
5	Ferry terminal on route
3	Ferry terminal within 1km
1	Ferry terminal between 1km and 2km
0	Not expected to be used by ferry passengers

2. Pedestrian Accessibility

The pedestrian accessibility factor assesses the existing conditions for pedestrians along the route with a higher priority given to sites where there are currently difficulties for pedestrians in walking along the road. The factors below are scored on a sliding scale between 0 and 5.

- a) Mobility obstruction (score range 0-5): Identifies obstructions for pedestrians along the existing route, be it on an existing constructed path or where no path exists and pedestrian walk on the verge. Scoring as follows:

For existing constructed path	
5	≤ 0.5m width available
4	0.5m to 0.9m width available
3	0.9m to 1.2m width available
2	1.2m to 1.5m available
0	≥ 1.5m width available
For site with no path	
5	Total physical blockage forcing pedestrians onto roadway (e.g. open drain)
0	No blockage/obstruction

- b) Curved road alignment (score range 0-5): Visibility to pedestrians is affected by the road alignment with a straight level alignment providing good visibility and resulting in a 0 score, and an alignment with a tight curve and poor visibility scoring a 5. Scoring as follows:

5	Series of acute curves (>90°)
4	Acute curve and curves
3	Acute curve or blind crest
2	Series of curves
1	Single curve
0	Straight road

- c) Narrow road pavement (score range 0-5): A narrow road pavement would make pedestrian movements more difficult due to the proximity of vehicles and as such a narrow confined road pavement would score higher than a wider width. Scoring as follows:

5	≤ 5m width
4	5m to 6m width
3	6m to 7.5m width
2	7.5m to 8.5m width
1	8.5m to 12.5m width
0	> 12.5m width

- d) Accessibility of nature strip (score range 0-5): The accessibility of the nature strip or verge affects the ability of pedestrians to walk in locations other than the road pavement. Where the verge is wide and accessible with an existing path, the score would be 0, where the verge is narrow, discontinuous and difficult for pedestrians to access and walk on the score would be 5. Scoring as follows:

5	< 1m width, discontinuous area
4	< 1m width, continuous area
3	1m to 1.5m width, discontinuous level area
2	1m to 1.5m width, continuous level area
1	>1.5m width, continuous level area
0	Path exists

3. Road Hierarchy

The Road Hierarchy factor gives additional ranking to higher status roads as it would be typical that such roads would have a greater demand for pedestrian and bicycle facilities. To score this factor, Council's 'Recommended Road Hierarchy Plan' should be used to identify the status of the road (Main Road, Collector Road or Local Road), from which the score can be allocated. Scoring as follows:

10	Main road
8	Collector Road
6	Local Road

4. Type of Path

This factor assesses the type path proposed on the route. Scoring as follows:

10	Shared path
0	Pedestrian only path

5. Path Continuity

The path continuity factor identifies the proximity of the route to other paths and aims to minimise the provision of paths in isolated locations and improve the continuity of the existing path network. Scoring as follows:

10	Missing link with existing paths at either end
8	Extension of route with path at one end
6	Main road with existing path on one side of the road
0	Isolated section of path

6. Kerb and Gutter

The kerb and gutter factor simply assesses whether or not the proposed location of the path (including side of the road) has existing kerb and gutter in place. Higher priority is given to routes with kerb and gutter existing as Council will only construct paths in locations with kerb and gutter. Scoring as follows:

5	Kerb and gutter exists or is not required
0	Kerb and gutter does not exist and is required

7. Construction Issues

The identification of construction issues that may impact on the provision of the path at that location are factored into the assessment whereby sites where little or no construction difficulty is expected scored higher and have priority over locations where significant construction issues are identified. Where no constructability issues are identified, the route scores 8, where significant construction difficulty is identified the route would score a 0. Scores between 0 and 8 are possible depending on the assessment of the affect on constructability and cost. Major construction issues which may score a 0 include major service relocation (eg light/power poles), retaining walls, width issues, etc. Construction issues that may result in a score between 0 and 8 include grade issues, existing tree interface, relocation of path around obstructions etc. Scoring as follows:

8	No construction difficulties identified
5	Minor construction difficulties identified that are easily overcome with minor works e.g. existing tree interface, relocation of path around obstructions
2	Moderate construction difficulties identified that require additional detailed design but can be overcome without major works e.g. excessive crossfall, moderate earthworks
0	Major construction difficulties identified that would significantly delay and increase cost of the works, e.g. service relocation including light poles, retaining walls required, restricted widths requiring major earthworks

Appendix B – Priority Weighting Checklist

Walking and Bicycle Route Assessment

Priority Weighting Checklist



PITTWATER
COUNCIL

PAGE 1 OF 1

VERSION 4

COMPLETE

Project Details

Date of Assessment:

Location:

Brief description of works:

1	Proximity to Facilities		
	Identify the proximity of the route to the following facilities:		
		SCORE	
a	Shopping Centre	Score Range 0 - 20	<input type="text"/>
b	School	Score Range 0 - 10	<input type="text"/>
c	Recreational / Community Facility	Score Range 0 - 10	<input type="text"/>
d	Transport Terminus	Score Range 0 - 5	<input type="text"/>
2	Pedestrian Accessibility		
	Identify accessibility constraints associated with the following issues		
		SCORE	
a	Mobility obstruction	Score Range 0 - 5	<input type="text"/>
b	Curved road alignment	Score Range 0 - 5	<input type="text"/>
c	Narrow road pavement	Score Range 0 - 5	<input type="text"/>
d	Accessibility of nature strip	Score Range 0 - 5	<input type="text"/>
3	Road Hierarchy		
	Identify status of road that the proposed route is located on.		
		SCORE	
	Main Road	10	<input type="text"/>
	Collector Road	8	<input type="text"/>
	Local Road	6	<input type="text"/>
4	Type of Path		
	Identify the type of path proposed		
		SCORE	
	Shared Path	10	<input type="text"/>
	Not a Shared Path	0	<input type="text"/>
5	Path Continuity		
	Identify how the proposed path affects route continuity.		
		SCORE	
	Missing link with existing paths at either end	10	<input type="text"/>
	Extension of route with existing path at one end	8	<input type="text"/>
	Main road with existing path on one side of the road	6	<input type="text"/>
	Isolated section of path	0	<input type="text"/>
6	Kerb and Gutter		
	Does the proposed path location have existing (or require) kerb and gutter?		
		SCORE	
	Kerb and gutter exists or is not required	5	<input type="text"/>
	Kerb and gutter does not exist and is required	0	<input type="text"/>
7	Construction Issues		
	Identify any construction difficulties.		
		SCORE	
	No difficulties identified	Score Range 0 - 8	<input type="text"/>
TOTAL RANKING SCORE			<input type="text"/>

Appendix C – Methodology

COMPLETE Urban undertook to provide a review of the Pittwater “Walks and Rides Masterplan” complete in June 2005 by PBA Australia.

PITTWATER WALKS AND RIDES MASTERPLAN REVIEW

METHODOLOGY FOR DELIVERY

COMPLETE will deliver the project under the following methodology:

1. Key project members shall meet with Council (Meeting 1) to discuss the project and confirm the timeline for deliverables. We shall also take receipt of any information from Council that is required as an initial input. Throughout the process, COMPLETE will maintain a close collaboration with Council to better develop the project in an effective and integrated manner. At this meeting, COMPLETE will also discuss with Council any recent land use change that may impact on options identified during the previous study.
2. COMPLETE will initiate the project internally which includes:
 - a. Establishment of a project database and quality plan;
 - b. Confirmation of roles and responsibilities;
 - c. Project inception meeting.
3. COMPLETE will undertake a desktop study of the existing Walks and Rides Strategy Masterplan and other relevant documents. This will provide knowledge of the existing and proposed bicycle facilities, and give an understanding of the basis for the proposed measures and priorities. The desk top review will also identify any additional project sites to be investigated that may result from recent changes in legislation standards and development or land use change within the Council area.
4. Following the desktop review and further discussions with Council, COMPLETE will undertake a comprehensive site visit and analysis of selected sites and proposals to fully inform a revised priority weighting system. The site analysis will include:
 - a. Development of bicycle proposals for any new project sites that have been identified from the desktop review and Council officer discussions;
 - b. Review of selected existing proposals against a revised priority weighting system. COMPLETE will also investigate if the proposals are still considered appropriate (with respect to site conditions/constraints and/or adjacent land use changes), and make recommendations if an improved option has been identified;
 - c. A full photographic record.
5. Following site analysis and identification of the key local criteria for the assessment of bicycle facilities COMPLETE, in close consultation with Council, will develop a revised priority weighting system to enable the proposals to be assessed in a logical and transparent manner.
6. At this early stage, it is envisaged that the priority weighting system will assess the following, however this will be developed further in consultation with Council:

- a. Link and continuity to existing cycle routes;
 - b. Proximity to bicycle and walking trip generators;
 - c. Ease of construction within the existing road infrastructure and open space;
 - d. Safety - consideration of accident history, traffic volumes and speeds, and heavy vehicle proportions;
 - e. Accessibility and compliance with 'Access' requirements, DDA etc;
 - f. Appeal of the route to the general public in terms of social safety, e.g. lighting, open space etc;
7. COMPLETE will prepare a Draft Summary overview document which shall form an annexure to the current Pittwater Walks and Rides Strategy Masterplan, June 2005. The annexure itself will highlight any exceptions from the initial Masterplan and will include a Microsoft Excel based revised prioritised schedule of future works based on the revised priority weighting system, and updated route plans based on Map Info, that includes a) a user friendly route plan, and b) revised plan showing existing paths/shared paths.
8. The report will also include a blank template document that can be used by Council in the future to assess any bicycle proposals that may be developed against the same criteria as the proposed ones, and allow re-prioritising as required.
9. Following receipt of locations of existing bicycle support and end of trip facilities from Council, an investigation will be carried out to determine future opportunities for such facilities to further encourage bicycle use in the area. Such facilities include bicycle parking racks, lockers, showers and toilets, and drinking water etc. COMPLETE will prepare a GIS Map Info based route plan highlighting these existing and future locations.
10. A preliminary draft will be referred to Council for initial overview appreciation and for any Council input. This communication will be carried out by e-mail and follow up phone calls as required.
11. In conjunction with this investigation, the provision of further end of trip facilities should be discussed with adjacent businesses to encourage their employees to cycle to and from work. This would include the provision of showering facilities, lockers (for helmets and bicycle clothing) and additional bicycle parking within their premises to compliment those proposed by Council. COMPLETE would be happy to assist Council with this initiative at a future date as and if required.
12. COMPLETE will present the Draft Summary overview document and appendices to Council at a meeting (Meeting 2) where the contents and format can be discussed and revisions agreed as appropriate. COMPLETE would then finalise the document and submit to Council in both hard and soft copy formats.

Appendix D - Field Survey

An onsite field survey was carried out on a number of days to facilitate completion of this review. Observations were made on the street, footpath and shared way network in Pittwater. Photos were taken of typical facilities, roads, paths and bikeways. The field survey included an assessment of existing facilities as well as constraints and opportunities available. The survey also assessed the implications of the previous study on the current situation. The principles developed in the Priority Weighting System were also developed in parallel with the field survey. The photographic record of the audit is shown in the Appendix H.

Appendix E – Findings

As listed above, during the field study an assessment was made of the current walks and rides network in Pittwater. It is self evident that the terrain of the northern end of Pittwater being basically a promontory between the Ocean and Pittwater with the higher ridge areas of Bilgola Plateau and the narrower access available in Palm Beach and Whale Beach makes cycling particularly difficult for all but the die hard cyclists. In fact a number of cyclists were observed in these areas and they should be catered for if possible. For the more southerly areas more scope exists for a greater number of residents to benefit from walking and cycling. It is recommended that Council make every attempt to push through walking and cycling opportunities in these areas. These issues are supported in the 2005 study. It intended to deal with the findings by exception on the basis that this document is designed to be an annexure to the 2005 study.

The following lists the same sections developed in the 2005 study and comments are made relative to the Field Audit. It will be seen that only a few amendments are made. This is due to the incremental nature of this long term project. The basic logic in the 1997 study was sound and the subsequent studies will fine tune the progress made. Following the review some general comments are made as related to the overall Masterplan Strategy to ensure the plan remains contemporary.

Preliminary Recommendations

1. Narrabeen to Bayview Via Warriewood Cycleway

Here the same works are still recommended from the 2005 study

2. Narrabeen to Mona Vale Cycleway

Here the same works are still recommended from the 2005 study.

Comment:

Some signage has been provided and it is agreed that there is insufficient width in Cabbage Tree Road for a shared path as volumes are relatively low.

3. Bayview to Avalon Cycleway

On road bike ways are also recommended. The comment about Hudson Street and the connection to Prince Alfred Parade still stands (see Photo).



The route can still however stand as a non continuous collector route. Signage has been provided along this route both on road and cycleway signage. There are a number of pinch points along these routes and the disclaimer that cyclists use this route at their own risk should be emphasised. A formal risk audit along the route would also be recommended. See general comment below.

The final recommendation is also supported in regard to a detailed intersection design to improve pedestrian and cycle safety in accordance with the current guidelines.

4. Avalon Beach to Whale Beach to Palm Beach

Here the same works are still recommended from the 2005 study.

Comment:

Opportunities exist for some additional routes along the beach side. Care should be exercised however on providing some of these routes before the road works recommended have been provided.

5. Avalon to Palm Beach

Here the same works are still recommended from the 2005 study.

Comment:

Barrenjoey Road is narrow with some blind bends. This route should be nominated for experienced cyclists only. The Hitchcock Park and Careel Bay Playing Fields project has strong merit.

The Palm Beach area is a very positive recreational cycling and walking area and detailed plans for formal and informal shared paths should be further explored to augment the intent of the 2005 study.

6. Walkways

Here the same works are still recommended from the 2005 study.

Comment:

Some sections of the recommended footpath have been completed in the 2005/06, 2006/07, 2007/08 Capital Works Program. Further concerted progress is needed however to match the Walks and Rides Strategy.

This is seen as particularly important in the sections near the shopping centres, North Narrabeen, Mona Vale, Newport and Avalon.

7. Other cycleway Connections.

Here the same works are still recommended from the 2005 study.

Comment:

As mentioned previously the Warriewood development works are under way. Detailed design needs to ensure that the requirements of pedestrians and cyclists are considered while still calming traffic speeds.

8. Regional Cycleway routes

Here the same works are still recommended from the 2005 study.

Comment:

It is recommended that Barrenjoey Road should be advertised for use by experienced riders only.

General Comments

1. Safety Audits

In addition to the above and as alluded to some particular sites could benefit by providing formal traffic safety audits at key sites. Some of these sites are alluded to in this report.

2. Intersection design

On the busier commuter routes the safety of intersections may be improved with detailed design based on the “NSW Bicycle Guidelines”. As cycling becomes more and more popular the potential for increased risk is heightened. A pro active approach improves traffic flow and reduces accidents.

3. Retro fit of traffic calming devices to facilitate on road bikeways

It is noted that certain on road cycle routes include traffic calming devices that appear not to be cycle friendly and should be considered for possible future improvements. The procedures for traffic device design as a result of Traffic Committee recommendations should include the cycle criteria recommended in the NSW Bicycle Design Guidelines where possible.

Appendix F – Photos



Example of narrow Pittwater Road footpath requiring widening to cater for a shared path



Example of shared path through Warriewood



Example of footpath widening and upgrading to a shared path



Example of a shared path