10 November 2016

M E M O R A N D U M

TO: INFRASTRUCTURE PLANNING MANAGER

FROM: TRANSPORT PLANNER

RE: iGO ACTIVE TRANSPORT ACTION PLAN
            NETWORK PRIORITISATION MAPS

INTRODUCTION:

This is a report by the Transport Planner dated 10 November 2016 concerning the prioritisation of the pedestrian and cycle networks as part of the development of the *iGO Active Transport Action Plan* (ATAP).

BACKGROUND:

At its Ordinary Meeting on 11 October 2016, Council approved the outcomes of the ATAP Summary Report. Further, Council resolved that the detailed cycling and pedestrian network prioritisation work be finalised in consultation with all Councillors and submitted to Council for their consideration and approval [refer Item 1 tabled at the City Infrastructure & Emergency Management Committee Meeting No 2016(07)].

iGO ACTIVE TRANSPORT ACTION PLAN NETWORK PRIORITISATION:

The iGO ATAP provides comprehensive cycle and pedestrian network plans to guide infrastructure delivery and encourage more people to use active transport. However, this infrastructure cannot be constructed all at once. As a result, prioritisation processes have been developed to assist Council in deciding where to focus its investment first.

The identified infrastructure priority areas need to deliver value for money, as well as be the first steps towards encouraging more people to walk and cycle in Ipswich.

Separate prioritisation methods were developed for the cycle network plan and the pedestrian network plan. The methodologies for prioritisation and their outcomes are discussed below. The initial analysis used Council's geographic information system and then checked, validated and adjusted where necessary in an internal technical workshop.

CYCLE NETWORK PRIORITIES:

Principal Routes
The prioritisation of principal cycle routes was undertaken as part of the development of the Queensland Government's *SEQ Principal Cycle Network Plan* (PCNP) which was endorsed by Council in June 2016.

The PCNP routes were prioritised using evidence-based quantitative analysis and confirmed during consultation with TMR regional staff and Council officers. This process involved the following five steps:

(1)   Identified areas with the greatest benefit for cycling investment by applying TMR's Cycle Benefit Index;

(2)   Overlayed the principal cycle network on high benefit areas and undertook a supplementary analysis to identify priority routes - refer to Table 1 (over) for more information on the analysis undertaken;

(3)   Consulted with Council and TMR regional representatives to moderate priority cycle routes based on local knowledge of technical officers and qualitative variables - refer to Table 2 (over) for more information on the analysis undertaken;

(4)   Proposed specific actions for each very high priority route for the next 0-10 years formulated as an action plan for TMR and local government internal use; and

(5)   Sought endorsement from all parties to publish Priority Route Maps as an addendum to the SEQ PCNP.

TABLE 1
SUPPLEMENTARY ROUTE ANALYSIS

SAFETY	
Crash Data	A high number of crashes can indicate (a) a dangerous situation, and/or (b) more people riding at a location. The number of crashes, divided by route length was calculated. Crash numbers were tripled if the identified crash was a fatality. A higher ranking indicates a higher number of crashes on that route, therefore recognising there is a greater need to provide a cycle facility in this location.
DEMAND	
Cycle Counts	Demonstrates current demand. The analysis used Strava data. Higher scores indicates higher number of cyclists, however it is acknowledged that Strava data may not accurately reflect transport or commuting patterns.
Population Within a Catchment	Measures potential demand by adjacent population. Calculated total population within 500m of the route, divided by length. The greater the population, the higher the ranking.
CONNECTIVITY	
Topography	Measures difference in elevation along a link. Elevation differences of less than 5m received higher rankings. Route is less attractive to cycle if grade greater than 5%.
Analysis of Trip Attractors and Generators	This assessment indicates the likely community benefit achieved through investment, by examining the number and significance of the places people live, work, study or visit, connected by a route. Counted the number of attractors, divided by length (e.g. employment, commercial, community facilities, education facilities and parks) within 500m of the link. Education facilities received a higher score.

TABLE 2
CONSULTATION WITH COUNCIL

LOCAL KNOWLEDGE	
Strategic Importance	Routes are more likely to receive priority where there is a strong fit with local and state government published plans, programs and studies i.e. Local Government Planning Schemes and area studies. Consideration is also given to opportunities to align with major state and local government projects and infrastructure programs such as scheduled road upgrades.
Opportunity	Measures whether the cycle link could be undertaken as part of another project with committed funding (e.g. where a road / bridge is being built or upgraded, it is often easier and more cost effective to include a cycle facility).
Feasibility	There are a number of factors including cost, engineering, and community impacts which may constrain the provision of cycle facilities at a location in the short term.
Missing Links	TMR aims to deliver direct and connected principal cycle networks across Queensland cities and towns. Projects that complete 'missing links' to form a connected cycle network are more likely to be prioritised.

Secondary & Local Routes

The prioritisation analysis undertaken for the iGO ATAP cycle network plan was therefore undertaken for the secondary and local routes. This analysis included consideration of the criteria and weightings outlined in Table 3.

TABLE 3
CYCLE NETWORK PRIORITISATION CRITERIA

PROCESS	CRITERIA	WEIGHTING
Geographical information system analysis	Population within 500m catchment (existing & planned)	20%
	Jobs within 500m catchment (existing & planned)	20%
	Traffic volumes along route	15%
	Trip attractors / generators within (200m catchment)	15%
	Crash Data	10%
	Topography	10%
	Likelihood of vulnerable road users (e.g. school children)	5%
	Social disadvantage (relative index)	5%
Internal workshop validation	Strategic importance	
	High level feasibility and constructability	
	Integration with another Council project, program and funding pool	

Overall

Maps illustrating the results of the cycle network prioritisation work are outlined in *Attachment A.* The top priority cycle routes as approved by Council in the ATAP Summary Report in October 2016 are outlined in Table 4.

TABLE 4
CYCLE NETWORK PRIORITIES

LINK / PROJECT	SECTION
Deebing Creek Bikeway	Ipswich Central to Yamanto/ Ripley *(via South St, Thorn St and the Deebing Creek corridor)*
Brassall Bikeway (Stage 6)	Ipswich Central to North Ipswich
Glebe Rd	Ipswich Central to Booval
Bradfield Bridge links	Integration with the Ipswich Mall redevelopment and other inner city connections
RAAF Base Amberley	Southern Amberley Road
Goodna Creek Bikeway	Collingwood Park to Redbank Plains
'Western Ipswich Link'	Ipswich Central to Leichhardt *(via Roderick St, Omar St and Old Toowoomba Rd)*
Brassall Bikeway (Stage 5)	Brassall to Karrabin
South St	East St to Ellenborough St
Bremer St	Olga St to Ellenborough St

The aim is to deliver these priority cycle routes in the short term subject to detailed planning and funding approval.

PEDESTRIAN NETWORK PRIORITIES:

The prioritisation process for the pedestrian network plan was undertaken on an area basis (as opposed to the link basis developed for the cycle network). Separate criteria were developed for each of the major proposed pedestrian generators identified in the pedestrian network plan:

- Activity Centres;
- Major Public Transport Facilities; and
- Schools

Activity Centres

The pedestrian prioritisation analysis undertaken for activity centres was based on a three kilometre radius catchment for Principal, Sub-regional and District activity centres and included consideration of the criteria and weightings outlined in Table 3.

TABLE 3
PEDESTRIAN NETWORK PRIORITISATION CRITERIA
ACTIVITY CENTRES

PROCESS	CRITERIA	WEIGHTING
Geographical information system analysis	Population within catchment (existing & planned)	30%
	Jobs within catchment (existing & planned)	30%
	Trip attractors / generators within catchment	30%
	Centre's functional hierarchy	5%
	Social disadvantage (relative index)	5%
Internal workshop validation	Strategic importance	
	Integration with another Council project, program and funding pool	

Maps illustrating the full results of the pedestrian network activity centre prioritisation work are provided in *Attachment B*. The top priority activity centres for pedestrian network improvements as approved by Council in October 2016 as part of the ATAP Summary Report are outlined in Table 4.

TABLE 4
PEDESTRIAN NETWORK ACTIVITY CENTRE PRIORITIES

GENERATOR TYPE	LOCATION
Activity Centres	• Ipswich Central; • Booval; and • Brassall

Public Transport

The prioritisation analysis undertaken for public transport was based on an 800 metre radius catchment for rail and major bus stations and included consideration of the criteria and weightings outlined in Table 5 (over).

TABLE 5
PEDESTRIAN NETWORK PRIORITISATION CRITERIA
PUBLIC TRANSPORT NODES

PROCESS	CRITERIA	WEIGHTING
Geographical information system analysis	Population within catchment (existing & planned)	20%
	Jobs within catchment (existing & planned)	20%
	Trip attractors/ generators within catchment	20%
	Public transport patronage	15%
	Presence of a park and ride facility	10%
	Social disadvantage (relative index)	10%
	Likelihood of vulnerable road users (e.g. school children)	5%
Internal workshop validation	Strategic importance	
	Integration with another Council project, program and funding pool	

Maps illustrating the full results of the pedestrian network public transport facility prioritisation work are provided in *Attachment C.* The top priority public transport facilities for pedestrian improvements as approved by Council in October 2016 as part of the ATAP Summary Report are outlined in Table 6

TABLE 6
PEDESTRIAN NETWORK PUBLIC TRANSPORT PRIORITIES

GENERATOR TYPE	LOCATION
Public Transport Facilities	• Ipswich Central Rail Station and Bus Station; • Riverlink Bus Station; • Goodna Rail Station and Bus Station; and • Booval Rail and Bus Station.

Schools

The prioritisation analysis undertaken for schools was based on a two kilometre radius catchment for all schools and included consideration of the criteria and weightings outlined in Table 7.

TABLE 7
PEDESTRIAN NETWORK PRIORITISATION CRITERIA
SCHOOLS

PROCESS	CRITERIA	WEIGHTING
Geographical information system analysis	Enrolments	35%
	Population within catchment (existing & planned)	20%
	Trip attractors/ generators within catchment	25%
	Social disadvantage (relative index)	10%
	Likelihood of vulnerable road users (e.g. school children) needs)	10%
Internal workshop validation	Strategic importance	
	Integration with another Council project, program and funding pool	

The top priority schools for pedestrian improvements approved by Council in October 2016 as part of the ATAP Summary Report are outlined in Table 8. Maps illustrating the full results of the pedestrian network school prioritisation work are provided in *Attachment D.*

TABLE 8
PEDESTRIAN NETWORK SCHOOL PRIORITIES

GENERATOR TYPE	LOCATION
Schools	• Woodcrest State College • Redbank Plains State High School • Springfield Lakes State School • Westside Christian School • Kruger State School • Raceview State School • Ipswich Grammar School • St Edmund's College • St Augustine's College • Springfield Central State High School

CONCLUSION:

Detailed prioritisation work of the iGO Active Transport Action Plan cycle and pedestrian networks in Ipswich has now been undertaken. This information will be used to guide the delivery of active transport infrastructure and supporting infrastructure through various Council programs.

ATTACHMENTS:

Name of Attachment	Attachment
Attachment A iGO Active Transport Action Plan Cycle Network Prioritisation Maps (2015 and 2031)	Attachment A
Attachment B iGO Active Transport Action Plan Pedestrian Network Activity Centre Prioritisation Maps (2015 and 2031)	Attachment B
Attachment C iGO Active Transport Action Plan Pedestrian Network Public Transport Prioritisation Maps (2015 and 2031)	Attachment C
Attachment D iGO Active Transport Action Plan Pedestrian Network School Prioritisation Maps (2015 and 2031)	Attachment D

RECOMMENDATIONS:

A.   That the outcomes of the *iGO Active Transport Action Plan* pedestrian and cycle prioritisation maps, as outlined in the report by the Transport Planner dated 10 November 2016, be approved.

B.   That the Chief Executive Officer use the *iGO Active Transport Action Plan* pedestrian and cycle prioritisation maps to inform and guide Council infrastructure planning and investment programming activities.

Jessica Coats
TRANSPORT PLANNER

I concur with the recommendations contained in this report.

Tony Dileo
INFRASTRUCTURE PLANNING MANAGER

I concur with the recommendations contained in this report.

Charlie Dill
CHIEF EXECUTIVE OFFICER (INFRASTRUCTURE SERVICES)