

**MINUTES**

**WORKS AND URBAN DEVELOPMENT  
COMMITTEE**

**8 SEPTEMBER 2015**

**APPROVED FOR RELEASE**



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**GARY STEVENSON PSM  
CHIEF EXECUTIVE OFFICER**



CITY of PERTH

**MINUTES**

**WORKS AND URBAN DEVELOPMENT  
COMMITTEE**

**8 SEPTEMBER 2015**

**THESE MINUTES ARE HEREBY CERTIFIED AS  
CONFIRMED**

**PRESIDING MEMBER'S  
SIGNATURE**

DATE: \_\_\_\_\_

*29/9/15*

# WORKS AND URBAN DEVELOPMENT COMMITTEE

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Minutes of the meeting of the City of Perth **Works and Urban Development Committee** held in Committee Room 1, Ninth Floor, Council House, 27 St Georges Terrace, Perth on **Tuesday, 8 September 2015**.

## **MEMBERS IN ATTENDANCE**

Cr Limnios - Presiding Member  
Lord Mayor Scaffidi  
Cr McEvoy

## **OFFICERS**

Mr Stevenson - Chief Executive Officer  
Mr Mileham - Director Planning and Development  
Mr Dunne - Interim Director Community & Commercial Services  
Mr Forster - Interim Director City Infrastructure & Enterprises  
Mr Ridgwell - Manager Governance  
Mr Newson - Interim Manager Transport  
Ms Smart - Governance Coordinator

## **WK116/15 DECLARATION OF OPENING**

**5.26pm** The Presiding Member declared the meeting open.

## **WK117/15 APOLOGIES AND MEMBERS ON LEAVE OF ABSENCE**

Nil

## **WK118/15 CONFIRMATION OF MINUTES**

*Moved by Cr McEvoy, seconded by the Lord Mayor*

*That the minutes of the meeting of the Works and Urban Development Committee held on 18 August 2015 be confirmed as a true and correct record.*

*The motion was put and carried*

The votes were recorded as follows:

**For:** The Lord Mayor, Crs Limnios and McEvoy

**Against:** Nil

**WK119/15 CORRESPONDENCE**

Nil

**WK120/15 DISCLOSURE OF MEMBERS' INTERESTS**

Nil

**WK121/15 BEAUFORT STREET TWO-WAY TRANSPORT REVIEW  
AND IMPROVEMENTS (ROE TO NEWCASTLE STREET)**

**BACKGROUND:**

FILE REFERENCE:	P1022459-2
REPORTING UNIT:	Transport
RESPONSIBLE DIRECTORATE:	Planning and Development
DATE:	10 August 2015
MAP / SCHEDULE:	Schedule 1 – Draft Concept Plan, Pedestrian Crossing Schedule 2 – Beaufort Street Two-Way Transport Review

Beaufort Street, between Roe and Newcastle Streets, was converted from one-way to two-way traffic operation on 7 April 2013. Shortly after, William Street in Northbridge (Roe to Newcastle Street) was converted to two-way operation on 21 April 2013. The completion of City of Vincent's two-way conversion of Beaufort Street, between Newcastle and Brisbane Streets, followed in May 2013.

Subsequent to the conversion to two-way, the operation of Beaufort Street has been monitored and also input received from stakeholders, particularly in regard to crossing provision for pedestrians.

This report summarises the major findings and recommendations of the Beaufort Street Two-Way Review and sets out the way forward in terms of the recommended infrastructure improvements.

**LEGISLATION / STRATEGIC PLAN / POLICY:**

<b>Integrated Planning and Reporting Framework Implications</b>	<b>Corporate Business Plan</b>
	Council Four Year Priorities: Getting Around Perth
	S4 Enhanced accessibility in and around the City including parking
	4.2 Deliver Two-Way Street Program

**DETAILS:**

**Review of Two-Way Operation**

From its commencement on 7 April 2013, the operation of Beaufort Street Two-Way has been continually monitored and reviewed through manual observations, timings of traffic signals, discussions with Main Roads Western Australia (MRWA) and

analysis of recorded data including bus journey time information provided by the Public Transport Authority.

The analysis indicates:

- 14% reduction in average northbound vehicle speeds. Southbound vehicle speeds are similar to northbound;
- 32% reduction in northbound traffic volumes, although total two way levels are similar to the previous one way level;
- No significant change in the number of crashes along the length; and
- 14% reduction in northbound bus journey times.

### **Review of Safety**

In February 2010, during the design for the two way scheme, a Road Safety Audit recommended that consideration be given to the provision of a pedestrian crossing at James Street. However, this was not included in the approved design for construction. A post-construction Road Safety Audit reiterated the previous Audit recommendations. Additionally a number of complaints have been received from pedestrian users of Beaufort Street regarding the safety of pedestrians crossing in the vicinity of James Street, particularly with the location of key generators such as the Cultural Centre and bus stops.

Morning and evening peak period manual surveys of pedestrians crossing Beaufort Street at James Street were undertaken and identified that upwards of 350 pedestrians currently cross Beaufort Street at this uncontrolled location in the busiest peak hour, to board and alight from buses and walk east/west along James Street. This level of pedestrian activity throughout the day, together with the volume of traffic on Beaufort Street combines to satisfy the MRWA warrant requiring consideration of a signal controlled crossing in this location.

In addition to this, it should be noted the recently approved mixed-use development of the former 'Mega-Mart' site on the south-east corner of the Beaufort and James Street intersection is expected to, once complete, generate a significant number of pedestrian trips across Beaufort Street to access the Cultural Centre and Perth Train Station. This is likely to exacerbate the existing situation and increase the need for a signal controlled pedestrian crossing.

### **Proposed Schemes**

#### James Street Signal Controlled Pedestrian Crossing

In order to address the safety concerns for pedestrians currently crossing Beaufort Street and to reduce the potential for accidents, the design of the pedestrian crossing would involve the following (also refer to Schedule 1):

- installation of traffic signals, including outreach mast arms to prevent blocking of traffic signals by buses within the bus lanes;
- installation of pedestrian ramps and push buttons;
- civil modifications to the north east corner of the Beaufort and James Street intersection;
- modifications to the Cultural Centre service vehicle access opposite James Street intersection;
- modifications to existing road markings and signage to enforce traffic regulations approaching the crossing;
- no modifications to existing bus stops and shelter locations on the western side of Beaufort Street;
- removal of three on street parking bays on the south side of James Street to facilitate the civil modifications on north east corner of the Beaufort and James Street intersection. (It is to be noted that these parking bays are due to be removed to facilitate vehicle access to the approved mixed use development of the former 'Mega-Mart' site on the corner of Beaufort and Roe Streets); and
- reinstatement of footpath on the north side of James Street fronting The Court building.

A broad consultation process has been undertaken with both major stakeholders and immediate community stakeholders. The City of Perth has developed plans for the pedestrian crossing with the full assistance and collaboration of the Metropolitan Redevelopment Authority (MRA), WA Museum, MRWA, Public Transport Authority (PTA) and Department of Treasury (DoT). A series of meetings to discuss the most suitable location and design of the pedestrian crossing have been held and all parties are now in support of the project and its location as put forward. Some existing street furniture and entry statements on the threshold to the Cultural Centre are required to be relocated. The MRA accept that this needs to occur and they are currently estimating the cost involved.

Community stakeholder consultation has been undertaken with the owner of The Court located on the corner of Beaufort and James Streets whom has expressed support for the project, subject to the construction not affecting the James Street Festival towards the end of November 2015.

The City of Perth has also consulted with WA Police at Curtin House on Beaufort Street and received full support for the project.

The Transport Consultant working on behalf of Mega-Mart site land owner is fully aware of the project and has passed on the details of the project to the land owner. The project should not compromise the approved development of the site.

#### Aberdeen and Newcastle Streets Traffic Signal Modifications

A regular review of the performance of both Aberdeen Street and Newcastle Street intersections with Beaufort Street has determined that the volume of vehicles turning

right from Beaufort Street within the peak morning and evening periods is very low, at around 40 vehicles per hour in each direction. At the intersection with Newcastle Street this value also includes scheduled bus services. The heaviest demand is north/south and east/west.

Changes to improve efficiency at these intersections may benefit pedestrians, buses and general traffic by reducing the overall cycle time. This increases the number of times pedestrians may cross within any given cycle of the signals.

It should be noted that the Public Transport Authority has offered to pay for the detailed design of the traffic signal infrastructure modifications which shall become an asset of MRWA.

### **Overall Transport Impacts**

Micro-simulation modelling undertaken for the proposed signal controlled pedestrian crossing has shown the maximum queue length in the PM peak is six vehicles in the northbound direction. This will result in a queue length of no more than 40 metres which can be accommodated within the 105 metre distance between the pedestrian crossing and the Roe Street intersection. Coordination of the two sets of infrastructure shall be reviewed and coordinated with MRWA. The pedestrian crossing itself shall operate with a good level of service with limited delay to pedestrians and vehicles including buses.

Analysis of the proposed intersection signal modifications at Aberdeen Street and Newcastle Street intersections shall be progressed within the City's own transport model. The desired outcomes are improvements to bus journey times and reliability on Beaufort Street, reduced pedestrian wait times and improved traffic flow/congestion on Newcastle Street.

### **Program**

Subject to Council approval of the Draft Concept Design for the proposed pedestrian crossing and given authorisation to proceed, the City will prepare the detail design documentation. At the same time, officers shall progress further investigations into potential intersection efficiency improvements and aim to implement these measures prior to or at the same time as the pedestrian crossing installation. Tenders for the construction are expected to be called during November 2015.

It is intended that the construction works shall commence in January 2016, following the Barrack Street Two-Way works (between St Georges Terrace and Wellington Street) to minimise disruption on this corridor and to avoid any clash with the James Street Festival at the end of November 2015.

A significant risk to the scheduled program is the requirement for a new unmetered power supply for the new traffic signal controlled pedestrian crossing to be provided by Western Power, which is a typically lengthy process. The above program should provide sufficient time to secure the power supply connection subject to the



application commencing straight away. Nonetheless this element of the project has the potential to delay commencement of construction. A close watch shall be kept on this potential risk.

**FINANCIAL IMPLICATIONS:**

ACCOUNT NO:	CW1793
BUDGET ITEM:	Transport, Streets, Roads, Bridges, Depot: Beaufort Street – Pedestrian Crossing
BUDGET PAGE NUMBER:	19
BUDGETED AMOUNT:	\$300,000
AMOUNT SPENT TO DATE:	\$ 0
PROPOSED COST:	\$295,000
BALANCE:	\$ 5,000

ANNUAL MAINTENANCE: Traffic signal infrastructure and signage/line marking shall be maintained by MRWA as these are their assets.

Road resurfacing to be included within scheduled City of Perth maintenance regime.

The estimated cost of the pedestrian crossing project including the proposed intersection modifications (excluding the works to be undertaken by MRA and the contribution from PTA) is approximately \$295,000 including preliminaries and contingency. A final cost estimate will be undertaken on completion of the detailed design documentation.

**COMMENTS:**

Following a review of the current two-way operation of Beaufort Street, between Roe and Newcastle Streets, and on the basis of the recommendations from an independent road safety audit and requests from stakeholders, it has been established that improvements to pedestrian safety and traffic flow efficiency are necessary in the form of a new signal controlled pedestrian crossing just north of James Street and signal phase sequence modifications to the intersections with Aberdeen Street and Newcastle Street.

These measures shall provide a safer location for pedestrians to cross Beaufort Street, improve bus journey times and reliability and also help to reduce the incidences of frustration related and red light running type accidents.

In order to provide these much needed improvements on Beaufort Street, it is requested that these proposed measures be endorsed by Council, noting construction provisionally scheduled to commence during January 2016 to minimise disruption and to avoid the James Street Festival at the end of November 2015.

*Moved by the Lord Mayor, seconded by Cr McEvoy*

*That Council:*

- 1. endorses the development of safety and traffic flow improvements to Beaufort Street as detailed in this report titled "Beaufort Street Two-Way Transport Review and Improvements (Roe to Newcastle Street); and*
- 2. approves the project to be further developed and constructed as programmed.*

*The motion was put and carried*

The votes were recorded as follows:

**For:** The Lord Mayor, Crs Limnios and McEvoy

**Against:** Nil

**WK121/15 MURRAY STREET WEST TWO-WAY (THOMAS TO  
ELDER STREET) INTERIM FEEDBACK ON  
STAKEHOLDER CONSULTATION**

**BACKGROUND:**

FILE REFERENCE:	P1030832
REPORTING UNIT:	Transport Unit
RESPONSIBLE DIRECTORATE:	Planning and Development
DATE:	24 August 2015
MAP / SCHEDULE:	Schedule 3 – Stakeholder Feedback and Responses Schedule 4 – Pie Chart, Consultation Responses Received by Topic Schedule 5 – Formal Letter from Stakeholder

At its meeting on **3 February 2015**, Council approved the draft Concept Plan of Murray Street West Two-Way (Thomas to Elder Street), for consultation purposes, noting that the plan:

- improves permeability and legibility of the city;
- extends the completed Stage 1 two-way section of Murray Street West (William to Elder Street);
- extends and improves connectivity of the on road cycling network; and
- retention of most kerbside parking and servicing where possible.

Council noted that the results of consultation would be presented to a future meeting and that the project is provisionally intended to comprise two stages of construction, Stage 2 – Thomas to Havelock Street and Stage 3 – Havelock to Elder Street.

This report presents feedback from stakeholder consultation and the initial technical responses. The final two-way street design is currently being refined and will be presented at a subsequent future meeting to the Works and Urban Development Committee.

#### **LEGISLATION / STRATEGIC PLAN / POLICY:**

##### **Integrated Planning and Reporting Framework Implications**

##### **Corporate Business Plan**

Council Four Year Priorities: Getting Around Perth

S4 Enhanced accessibility in and around the City  
including parking

4.2 Deliver Two-Way Street Program

#### **DETAILS:**

##### **Stakeholder Consultation Strategy**

Community and stakeholder consultation was undertaken from Friday, 20 February 2015 to Monday 30 March 2015. Public consultation letters and brochures, containing details of the proposals, were hand delivered to businesses and residents on Murray Street, between Thomas and William Streets, which represents an overlap of notification with businesses and owners on the already converted two-way section of Murray Street between Elder to William Streets.

The consultation coverage was also further far reaching and included a mail out of brochures to the above and also to the businesses and properties within the street blocks defined up to the boundaries of both Hay and Wellington Streets to capture those on side streets potentially impacted by the proposals. In addition, a letter was sent to Parliament House to specifically request feedback with an offer to meet to discuss the proposals.

The consultation brochure provided three separate opportunities for stakeholders to submit feedback which comprised by email, by post and via an online submission form at the City of Perth's website. The online submission form was by far the most popular method for feedback submissions, owing to the convenience of the service for many.

The consultation brochure also asked whether stakeholders would be interested in attending an information session on the project. Due to the lack of interest in previously organised information sessions for similar two-way street projects, the level of interest was gauged with the majority of people declining to attend. It was considered that this would not be an efficient use of resources given the plethora of information made available on the subject by various means.

A media release was also undertaken with print media and social media. The project was also featured on the City of Perth website and social media websites. The project was advertised internally within City of Perth as well as Inter-Government agencies and emergency services were also consulted, together with underground service providers.

### **Stakeholder Consultation Feedback**

Out of approximately 1900 property addresses targeted, the City of Perth received a total of 61 responses; a response rate of some 3.2% or one in 31.

All written feedback received from the community stakeholder consultation has been recorded, analysed and documented. In general the feedback that was received covered a wide range of issues from a broad cross-section of society such as, local businesses, residents, visitors to the city, investment property owners, emergency services and Government agencies.

The written feedback received has been categorised into three areas – those in favour, those against and not stated. A total of 61 responses were received as follows:

- 52% of responses generally were not in favour of project; and
- 48% were in favour of the project

Common issues raised regularly by respondents from those not in favour of the project were:

- existing levels of traffic congestion on Murray Street causing access issues to properties and the Freeway;
- concerns of traffic congestion as a result of the two way design;
- preference for protected cycle lane infrastructure;
- general safety concerns;
- loss of existing street trees and planting areas; and
- loss of existing on street parking bays.

Three stakeholders expressed strong objection to the project and these can be seen at submissions 29, 40 and 59 in Schedule 3.

The respondents who expressed their support for the project articulated the benefits that two-way will bring to the area. Some of these respondents had expressed the benefits and positive outcomes of existing two way conversions and appreciated the upgrades that had been undertaken by the City of Perth. These are summarised as follows:

- an appreciation of work undertaken to improve cycling conditions;
- increased vehicle accessibility to and from Murray Street;

- increased alternative routes for east/west movements across the city;
- reduced journey distances (reduced round trips on one way system);
- improved commute and much slower paced community feel;
- increased legibility of the street;
- reduced vehicle travel speeds;
- increased safety for pedestrians and cyclists;
- increased retail exposure to passing motorists;
- optimised traffic signal timings for all road users; and
- alternative access to the Mitchell Freeway.

In addition, and as previously touched on above, anecdotal evidence from a number of businesses on the existing two-way section of Murray Street indicated overwhelming support for the conversion citing the additional exposure that their businesses had received, greater accessibility for car dependent businesses such as Hertz Perth and Innerspace furniture company. Most had mentioned they are supportive of the City's plan to extend the conversion to the entire length of Murray Street with a perceived stretching of the CBD as a result.

Studies have documented that investment in cycle and pedestrian infrastructure and making streets safer in some cases has increased patrons arriving by foot and bicycle and they often spend the most money per month compared to vehicle drivers. Case studies have shown that making streets more walking and cycling friendly will increase retail rents in the area, increase sale prices of nearby homes, significantly increase pedestrian and cyclist activity (footfall), generate more business and stimulate the local economy<sup>1</sup>.

Interestingly, the level of support received from stakeholders during this round of consultation when compared to the same exercise undertaken prior to the change of the existing two-way section of Murray Street shows an increased rate of overall support. 27% of respondents were in favour of the completed Stage 1 with 16% not stating either way. When compared to the current statistics for the proposed two way conversion, 48% of respondents are in favour of proposed Stages 2 and 3 with no one undecided. This indicates an increased acceptance of the two-way street program by the community and recognition of the benefits which such works can bring.

All written feedback received has been documented and proposed responses have been prepared (refer Schedule 3). A graphical representation of the responses received from stakeholders broken down into the main topic areas is provided in Schedule 4, which indicates the two main issues discussed by stakeholders were traffic congestion and support for the two way project. Where letters have been submitted, these are also contained for reference as Schedule 5.

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<sup>1</sup> Source – 'Good For Business' Report, Heart Foundation.

During the consultation period, the developer of the 581-583 Murray Street, on the corner of Murray Street and Harvest Terrace (Scouts of WA Building) approached the City of Perth to discuss their proposed mixed use residential/hotel development and confirmed they are very supportive of the City's proposed two way street conversion indicating the development would benefit from additional accessibility and on road cycle infrastructure. The City has worked with the developer in order to ensure that the street upgrade and the development shall integrate together.

### **Independent Road Safety Audit of Concept Design**

As part of the evolution of the street design process, an independent road safety audit of the draft concept design plan was commissioned. This independent study of road safety, on the concept two way configuration of Murray Street, identified a number of findings and recommended solutions to issues such as, but not limited to:

- potential 'car-dooring' of cyclists as they pass parked vehicles;
- risks to cyclists as they pass the crossovers;
- buses stopping on road and integration with revised streetscape;
- integration of project with proposed Harvest Terrace cycle route;
- signal phase improvements for safety;
- Integration of line marking and signage for safety,
- sight line improvements due to the new direction of travel (westbound);
- road alignment and intersection layouts; and
- removal of parking to increase safety buffer for cyclists.

Solutions to the recommendations of the independent road safety audit are currently being worked through and shall inform the evolution of the two-way street design. One of the key findings was that the provision of a sufficient 'buffer' zone between on street parking and the new on road cycle's lanes should be greater than was previously proposed as part of the draft concept design. The implication of increasing the 'buffer' zone for safety has the potential to reduce the provision of on street parking in certain areas of the street and solutions to allow for safe cycle provision whilst maintaining sufficient parking are currently being worked through. The necessary changes shall be made to the concept street design and will be fully explained together with presentation of the final concept plan at a future meeting of Council.

**FINANCIAL IMPLICATIONS:**

ACCOUNT NO:	CW1637
BUDGET ITEM:	Transport, Streets, Roads, Bridges, Depot: 2-Way Street Conversion Programme – Murray Street West End
BUDGET PAGE NUMBER:	2
BUDGETED AMOUNT:	\$1,755,000
AMOUNT SPENT TO DATE:	\$ 50,861
PROPOSED COST:	\$ 0
BALANCE:	\$1,704,138
ANNUAL MAINTENANCE:	N/A
ESTIMATED WHOLE OF LIFE COST:	N/A

All figures quoted in this report are exclusive of GST.

**COMMENTS:**

The proportion of the initial feedback received was almost 50/50 in favour versus objection. The feedback response rate was very low and anecdotal evidence from businesses was mainly positive. The feedback received was extremely well informed and great importance has been placed on addressing the negative feedback, by adjusting the street design as necessary and accepting suggestions within the submissions. It is considered that many areas of concern can either be addressed by further technical explanation of the project to respondents or addressed in refining the detailed layout of the final plan. In particular, the following proposed changes will address multiple issues:

- re-engineering of Havelock Street intersection to prioritise the dominant flow of traffic in the eastbound direction and reduce congestion as much as possible;
- provision of a greater 'buffer' zone between on street parking and on road cycle lanes to minimise the risk of 'car-dooring' as much as possible at the possible expense of on street parking in certain areas;
- retention of additional trees in the West Perth areas;
- provision of new pedestrian footpath in the West Perth areas; and
- refinement of intersection layouts and more detailed traffic and intersection modelling.

Prior to formal presentation of a final concept plan to Council, it is proposed to fully assess all comments and undertake the following:

- liaise with property owners and businesses on sections of the street which shall be affected in terms of any significant changes to the street design (such as parking changes) over what was previously proposed due to the consultation feedback and requirements of the road safety audit;

- email all respondents – Communicate proposed changes and provide further technical information in response to issues raised;
- provide a detailed letter of reply to respondents who wrote letters to the City of Perth, offering to meet and discuss any outstanding issues; and
- liaise closely with representatives of Main Roads WA, to seek approval in principle to the road layout, specifically in terms of traffic signals, signage and line marking prior to reporting back to Council for approval. This is particularly important for the intersections with the Mitchell Freeway as Main Roads WA shall have a direct influence on the acceptability of the proposed changes in this location.

It is anticipated that many of the initial concerns raised by respondents and the findings of the independent road safety audit will be satisfactorily addressed as part of this process, prior to the final plan being presented to a future meetings of the Works and Urban Development Committee and Council.

***Moved by the Lord Mayor, seconded by Cr McEvoy***

***That the Works and Urban Development Committee notes:***

- 1. the initial comments and technical responses to stakeholder consultation for Murray Street West Two-Way (between Thomas and Elder Street);***
- 2. that the comments will be further assessed and used to refine the proposed final project plan;***
- 3. that a final report will be presented to a future meeting of Council in December 2015; and***
- 4. the importance of getting the balance right between the provision of parking bays and addressing the safety of cyclists.***

***The motion was put and carried***

The votes were recorded as follows:

**For: The Lord Mayor, Crs Limnios and McEvoy**

**Against: Nil**



**WK122/15    MOTIONS OF WHICH PREVIOUS NOTICE HAS BEEN  
GIVEN**

Nil

**WK123/15    GENERAL BUSINESS**

**Responses to General Business from a Previous Meeting**

**1.    Main Roads WA – Signs**

*At the Works and Urban Development Committee held on 18 August 2015, Cr Limnios requested the Director Planning and Development raise with Main Roads WA the possibility of developing new sign technology to ensure future road signs can be recovered rather than being replaced when damaged.*

*Update – At the Works and Urban Development Committee held on 8 September 2015, Cr Limnios requested that a suggestion as to investigating how to make signs more prominent to drivers and therefore less likely to be damaged, be forwarded to Main Roads WA.*

**New General Business**

**1.    Update – Bins**

The Interim Director City Infrastructure & Enterprises advised that the installation of new bins will commence in the Malls from 14 September 2015.

**2.    Coronial Inquiry – Fatality in 2012**

The Interim Director City Infrastructure & Enterprises provided an update in regards to the coronial inquest held 8 September 2015 relating to a fatality that occurred in May 2012.

**3.    Parking Fees in West Perth**

Cr McEvoy queried the availability of free 15 minute parking bays in West Perth. The Interim Director Community & Commercial Services advised that information will be distributed to Committee members advising of the location, availability and use of the existing 15 minute parking bays in the area.

**4.    Replacement of Trees – Corner of Barrack Street and St Georges Terrace**

The Director Planning and Development advised that the Box trees located on the corner of Barrack Street and St Georges Terrace will be removed and replaced with London Plane trees.

**WK124/15 ITEMS FOR CONSIDERATION AT A FUTURE MEETING**

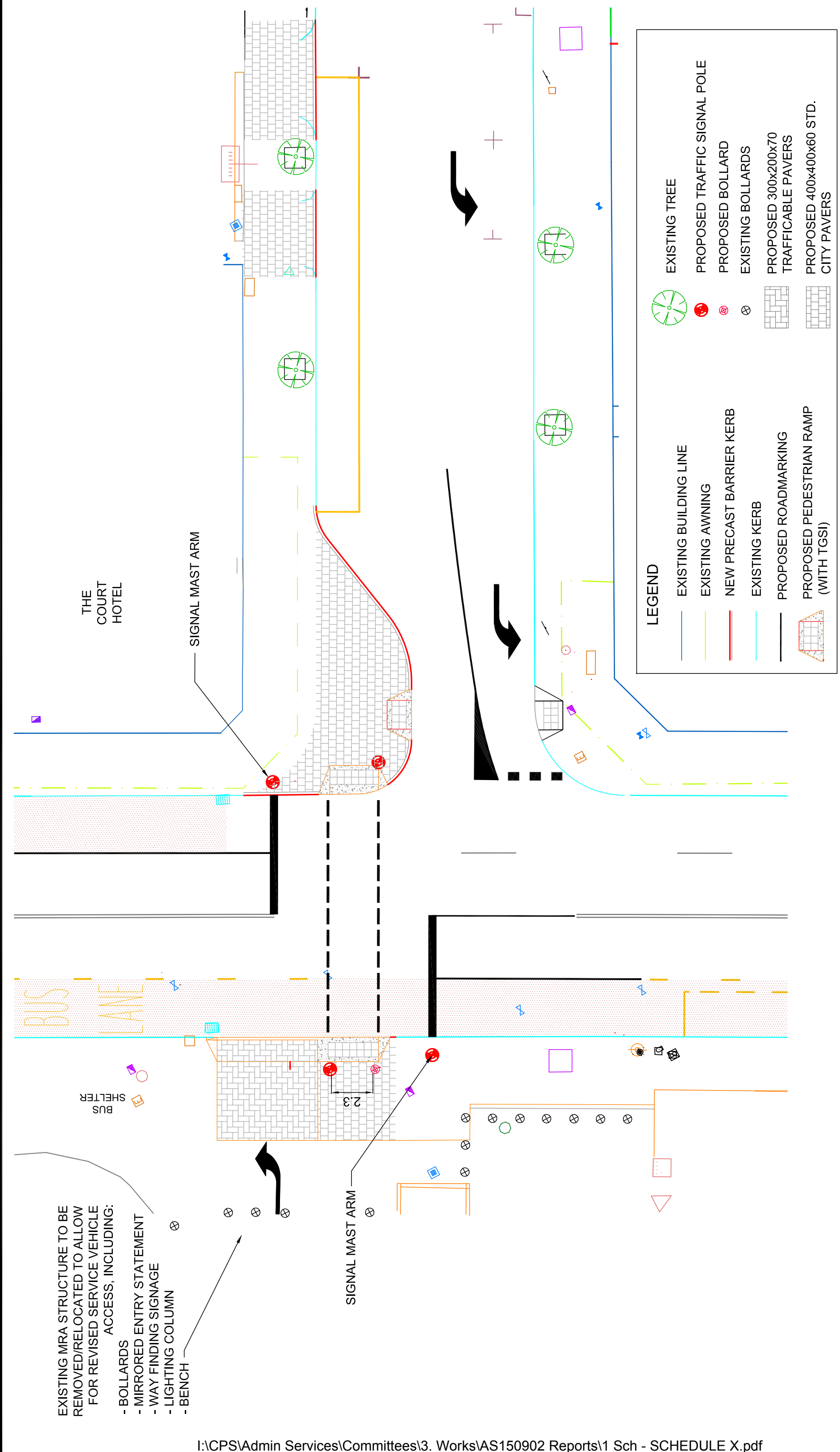
**Outstanding Items:**

- Northbridge Piazza Screening Wall – Detailed Costings for Enhancement (Raised 18/08/14 and updated by DCI 10/02/15).
- Identification and Improvement of “Neglected” Public Realm Spaces (Raised 04/11/14).
- Beautification of the city – Landscaping Options (Raised 05/05/15).

**WK125/15 CLOSE OF MEETING**

**6.00pm** There being no further business the Presiding Member declared the meeting closed

**SCHEDULES  
FOR THE MINUTES OF THE  
WORKS AND URBAN  
DEVELOPMENT  
COMMITTEE MEETING  
HELD ON  
8 SEPTEMBER 2015**



**DESIGNED**  
R.S. \_\_\_\_\_  
TRAFFIC ENG. \_\_\_\_\_  
PROJECT ENG. \_\_\_\_\_  
SRI RANJAN - PRINCIPAL ENG. CITY DESIGN

**DRAWN**  
C.F. \_\_\_\_\_  
DATE 28/05/2015  
SCALE 1:200  
CO-ORD SYS. MGA 50 / AHD


**DRAWING STATUS**  
ISSUED FOR APPROVAL

**RKS FILE No. ###**

**PEDESTRIAN CROSSING**  
BEAUFORT ST / JAMES ST  
INTERSECTION  
GENERAL LAYOUT

**DWG SET No. 15002**    **DISPLN C - GL - 01**    **SHEET No. 03**    **REV.**

**ISSUED FOR APPROVAL**    **CAD REF: 15002-BEAUFT-JAMES-TM.dwg**    **FOLDER: H:\CAD\1\_DR\1\_PUB\BEAUFY\_A3**



**CITY of PERTH**  
COUNCIL HOUSE,  
27-29 ST. GEORGE'S TERRACE, PERTH.

REV	DATE	REVISION DETAILS	DWN	APP.
03	20/08/2015	LOCATION OF BOLLARD REVISED. ISSUED FOR INFORMATION	CF	-
02	30/06/2015	ISSUED FOR INFORMATION	-	-
01	25/06/2015	ISSUED FOR CHECKING	RI	-

# Beaufort Street Two Way - Transport Review

City of Perth, 20 June 2014



## Technical Note

### 1.0 Background

- 1.1 Beaufort Street, between Roe Street and Newcastle Street was converted from one-way to two-way traffic operation on 7 April 2013 through a joint venture by City of Perth and the Public Transport Authority. Shortly after, William Street in Northbridge (Roe Street to Newcastle Street) was converted to two-way operation on 21 April 2013. The completion of City of Vincent's two-way conversion of Beaufort Street, between Newcastle Street and Brisbane Street, followed on 12 May 2013.

As part of an on-going and structured review of all two way street conversions, opportunities have been identified to improve both road safety for pedestrians and the level of traffic congestion currently being experienced within the City of Perth's section of Beaufort Street, particularly during evening peak period times. Potential improvements to traffic congestion on Beaufort Street and Newcastle Street have been identified as being possible through the proposal of relatively minor modifications to the intersections with Aberdeen Street and Newcastle Street.

This report summarises the major findings and recommendations of the Beaufort Street two way review and sets out the way forward in terms of the recommended infrastructure improvements.

## 2.0 Existing Situation and Review

### 2.1 Introduction

From its commencement on 7 April 2013, the operation of Beaufort Street two way has been continually monitored and reviewed through site observations, review of traffic signal timings, discussions with Main Roads Western Australia (MRWA), analysis of recorded traffic data and also bus journey time information provided by the Public Transport Authority.

### 2.2 Summary

In order to understand the relative differences and outcomes of the change from one way to two way traffic flow, a summary comparison of the following statistics before and after the two way conversion is provided below:

Direction	Before (One Way)	After (Two Way)			
	North	North	South	North	South
Average Traffic Speeds (kph)	45.7	39.2		44.6	
Daily Traffic Volume	11570	7842		3100	
Total Accidents (Yearly Average)	63	66			
		2014	2015	2014	2015
Public Transport Journey Times* (mins)	1:26	1:14	1:17	2:06	2:00
Daily bus numbers in survey	4571	5520	5585	5396	5576

\*Northbound – Beaufort St WA Museum Stop to Beaufort St after Newcastle St.

\*Southbound – Beaufort St before Newcastle to Beaufort St before James St.

### 2.3 Speed

It can be seen that following the two way street conversion there has been a reduction in average speed recorded in the northbound direction by some 6.5 km/h (14%). The recorded average speed southbound is below the speed limit of 50km/h at approximately 45km/h.

### 2.4 Traffic Volumes

Traffic volumes in the northbound direction have also reduced, however the overall average daily traffic volume (north and south combined) remains similar to the total one way traffic volume before conversion and accounts for redistribution of traffic elsewhere on the network, i.e. William Street in Northbridge.

### 2.5 Accidents

Overall the number of accidents occurring each year has remained constant, however there has been a significant reduction in the annual average on the section between Roe Street to James Street. Accidents on the section between James Street and Aberdeen Street have remained constant at around 12 accidents per year.

### 2.6 Public Transport Journey Times

Average public transport journey times along the Beaufort Street corridor have reduced in the northbound direction by approximately 12 seconds (14%).

This is despite an additional 1,000 services being surveyed in the year after implementation. The introduction of the higher frequency 950 service has made a significant contribution to the increased number of services. The longer southbound journey time can be explained due to the additional bus stop that services are required to stop at (between Newcastle St and Aberdeen St) whereas the northbound services do not have any intermediate stops between the two stops used for measurement. Public transport journey times are affected during the day by on street parking. At peak periods, when the clearways are in operation, there is a reliance on ensuring that the bus lanes are kept clear by Main Roads Western Australia's Clearway towing service.

## 2.7 Road Safety Audit

As part of this review process, a post construction road safety audit was commissioned and completed on 24 January 2014. This independent study of road safety, on the two way configuration of Beaufort Street, confirmed the finding of a road safety audit undertaken in February 2010, that consideration should be given to providing formal signal controlled pedestrian crossing facilities at a location immediately to the north of James Street, due to the limited carriageway width available for other refuge island type treatments.

## 2.8 Pedestrian Movement

The City of Perth undertook a morning and evening peak period manual survey of pedestrians crossing Beaufort Street in this location. This identified that upwards of 350 pedestrians/hour currently cross Beaufort Street at this uncontrolled location in the busiest peak hour, to board and alight from buses and walk east/west along James Street.

This level of pedestrian activity, together with the volume of traffic on Beaufort Street combines to satisfy the Main Roads Western Australia warrant requiring installation of a signal controlled crossing in this location.

Complaints have been received from members of the public and WA Police with regards to the lack of formal pedestrian crossing facilities in this area, particularly given the high numbers of pedestrians. This demonstrates the public desire for such improvements.

## 3.0 Identified Infrastructure Improvements

3.1 This section identifies the improvements resulting from the review of the operation of Beaufort Street following conversion to two way.

### **Signal Controlled Pedestrian Crossing Installation**

3.2 In order to address the safety concerns for pedestrians currently crossing Beaufort Street, the design of the pedestrian crossing would involve:-

- Installation of traffic signals, including outreach mast arms to prevent visual blocking of traffic signals by buses within the bus lanes.
- Installation of pedestrian ramps and push buttons.
- Civil modifications to the north east corner of Beaufort Street/James Street intersection.
- Modifications to existing road markings to enforce traffic regulations approaching the crossing.
- Modifications to the Cultural Centre service vehicle access opposite James Street intersection.
- Modifications to existing road markings and signage to enforce traffic regulations approaching the crossing.
- No modifications to existing bus stops and shelter locations on the western side of Beaufort Street.
- Removal of three on street parking bays on the south side of James Street to facilitate the civil modifications on north east corner of Beaufort Street/James Street intersection.
- Liaison required with the Metropolitan Redevelopment Authority (MRA), WA Museum, Main Roads WA (MRWA), Public Transport Authority (PTA) and Department of Treasury (DoT). Early discussions with PTA and MRWA indicate that they would be supportive of the above.
- Stakeholder consultation with the above and immediate community stakeholders including The Court, WA Police and adjacent land owners.

### **Aberdeen Street and Newcastle Street Intersection Modifications**

- 3.3 A regular review of the performance of both Aberdeen Street and Newcastle Street intersections with Beaufort Street has determined that the volume of vehicles turning right from Beaufort Street within the peak morning and evening periods is very low, at around 40 vehicles per hour in each direction at each intersection. At the intersection with Newcastle Street this value also includes scheduled bus services. The heaviest demand is north/south and east/west.
- 3.4 Whilst the popularity of the new southbound direction on Beaufort Street has increased dramatically since the opening to two way traffic, there is a quantifiable tidal flow of traffic on Beaufort Street within the peak periods i.e. mainly toward the City during the morning and away from the City during the evening peak period.
- 3.5 This section of Beaufort St is typically very congested in the evening peak period at present, which can affect the reliability of bus journey times. In addition the section of Newcastle Street, between Beaufort Street and William Street is typically congested by restricted flow at the Beaufort Street/Newcastle Street intersection. The above review and observations of site operations has led to the formulation of possible minor modifications to the traffic signals at both Aberdeen and Newcastle Street intersections, which may involve the following:



3.6 The above has led to the formulation of possible modifications to both Aberdeen Street and Newcastle Street intersections, which may involve some of the following options:

- Installation of morning and evening peak period illuminated 'No Right Turn' signs, similar those already in place at the intersections of Murray/Milligan and Hay/Milligan. Right turns would be possible during off-peak times.
- The requirement of scheduled bus services, 5 per hour in the morning peak and 13 per hour in the evening peak, turning right from Beaufort Street to Newcastle Street, means that the above would be accompanied by 'Buses Excepted' signage allowing buses to turn across oncoming traffic.
- Alternatively the modifications may involve introduction of a leading right turn (with green arrow phase) for the northbound right turn to Newcastle Street at both intersections to cater for bus movements whilst maintain synchronisation of these two closely spaced intersections. This could then be followed by an early shut down of the right turn arrow to be followed by a filtering right phase against oncoming southbound traffic.
- Further consideration of the above options is required together with further traffic modelling to be undertaken as part of the pedestrian crossing project to determine the most suitable signal phase sequence and traffic signal infrastructure changes at these intersections.
- Liaison with representatives of City of Vincent, Public Transport Authority and Main Roads Western Australia indicates that they may be supportive of either of the above options.
- Removal of two on street general parking bays and one on street motorcycle parking bay on the western side of Beaufort Street.

3.7 Any changes to improve efficiency at these intersections may also benefit pedestrians by reducing the overall cycle time thereby increasing the number of times pedestrians may cross within any given cycle of the signals. In turn, these intersection modifications may improve bus journey times and reliability on Beaufort Street

3.8 It is also anticipated that through improving traffic flow and reducing congestion on the Aberdeen Street to Newcastle Street section, this has the potential to reduce the number of rear end shunt and 'T-bone' type collisions currently occurring, usually associated with congested traffic conditions.

## **4.0 Summary and Recommendations**

4.1 Following a review of the current two way operation of Beaufort Street, between Roe Street and Newcastle Street, it has been established that improvements to pedestrian safety and traffic flow are necessary in the form a

signal controlled pedestrian crossing just north of James Street and potential signal phase modifications to the intersections with Aberdeen Street and Newcastle Street.

- 4.2 In order to provide these much needed improvements on Beaufort Street, it is recommended that the proposed measures should be further investigated in terms of detailed design, documentation and development of detailed cost estimates. A report should be presented to a future meeting of the Works and Urban Development Committee to explain the findings of this technical review and to request the endorsement of further development and construction of the identified infrastructure improvements.
- 4.3 In addition, the City must continue discussions with the PTA and MRA regarding their involvement and capacity to provide funding for such improvements. Liaison with MRWA must continue in order to reach an approved design solution for provision of the signal controlled pedestrian crossing and any modifications to Aberdeen Street and Newcastle Street intersections.

No	Individual	Overall Support Yes/No	Trim Ref	Comments Received	City of Perth Comments	Action by Administration
1	Graeme Eastwood	NO	29323/15	As far as I can see, Stage 1 of the Murray Street conversion to 2-way traffic has only resulted in longer queues of traffic between Milligan Street and William Street. Very few cars come the other way (out of the CBD). Why do we need 2-way on the rest of it? At the moment we have Hay St one way and Murray St the other way - it works perfectly well. Traffic already builds up at George Street around the evening rush hour and this is going to be made much worse. I cannot see anything positive in this idea.	The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. In reference to the comment regarding the completed section of stage 1 and very few cars travelling the other way, this is predicted to increase given the opening up of the currently restricted westbound link, all the way to West Perth. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car.	Investigate design changes to prioritise the dominant eastbound traffic flow at intersections to help minimise congestion and delays as far as possible.
2	Reece Cunnold	YES	29739/15	No Comment	Submission is supportive of two-way conversion proposal.	None
3	Junwei Lai	NO	29740/15	It will be harder to come out from Coolgardie St as there are less lanes in peak hour. You can image that the traffic flow in Murray street will be much slower when three flows go into the Freeway South together through one intersection, while now for West Perth, we still have two exclusive lanes. I will suggest, if you insist on converting into two-way. Build an exclusive fly-over to join the Freeway South for us - West Perth Commuters!!!	The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car.	Review traffic modelling simulation to ensure that excessive delays are not caused to vehicles exiting Coolgardie St to Murray St. The new signal controlled intersection of Murray St/Harvest Terrace shall create gaps in traffic flow on Murray St sufficient for vehicles to exit Coolgardie St

4	Murray Hill	NO	29798/15	<p>1. Murray St provides one of the few access points to Freeway South for traffic from Subiaco, West Perth and the western suburbs. Reducing Murray St from 3 lanes eastbound to 1 lane eastbound will significantly impede traffic flow. it will distribute this traffic onto Malcolm St/St Georges Tce and Spring St/Mount Street which are already stressed.</p> <p>2. I dispute the claim that 2 way traffic is safer for pedestrians, indeed the reverse has been shown. The total road width / number of lanes does have impact on pedestrian safety.</p> <p>3. I see no improvement for cyclists having 2 way traffic.</p> <p>4. The proposed plan will indeed disperse traffic across local roads which are already congested and is likely to result in gridlock.</p> <p>5. Improvements for cyclists, pedestrians and aesthetics do not require 2-way traffic but can be completed by re-engineering the roadway/verges.</p>	<p>1. The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St.</p> <p>2. Two-way street conversion have been shown to reduce the average speed of vehicles travelling in both directions - should pedestrians choose to cross the road legally mid-block then reduced traffic speeds significantly reduced the chances of serious injury. 3. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car. The cycle lanes provide much needed cycle infrastructure and will help to introduce bike share incentives for Perth, helping to reduce dependency on the private car and improve sustainable transport modes. 4. See point no. 1.</p> <p>5. The City's two-way program ensures consistent cycle and pedestrian infrastructure can be achieved without creating contra-flow lanes and associated complexities which is not current Council policy.</p>	<p>Review traffic modelling simulation with regards to displacement of traffic on adjacent roads and report on expected impact.</p>
5	Gareth Davies	NO	30166/15	<p>I agree with all the principals underpinning the two development of Murray street however in practice we have found that the interaction of bus and taxis lanes has been poorly implemented. There is not sufficient space for taxi and buses to wait and hence create blockages and noise pollution across the city (in particular our offices have become significantly noisier).</p>	<p>The Submission agrees with the principles underpinning the two-way development of Murray St. The submission is referring to the Raine Square taxi rank/bus zone which is currently under review for modifications to improve the area and reduce conflict between users.</p>	<p>Proposals for modifications to the Raine Square taxi rank/bus zone to be put to the next Parking Working Group meeting for endorsement. The intention is to reduce conflicts in this are.</p>
6	K C Oh	NO	30167/15	<p>There is no place for delivery trucks for furniture and groceries to be delivered and service people like electricians and carpet cleaners to park near the apartment anymore after the conversion. The traffic lights at Murray Street after coming out of the freeway is also hard to see if the colour is green or yellow, and distance to merge into one lane entering Murray Street is too short.</p>	<p>This submission refers to the Stage 1 two way conversion of Murray St (Elder St to William St), in particular the Murray St eastbound approach to the Milligan St intersection. The space requirement in this immediate area for the two-way conversion including the additional space required for cycle lanes in both directions meant that the loading zone was removed. Parking bays are provided on the opposite side of the street and the apartments are next door to a multi storey car park. Loading zones were added to the western end of Murray St, near Elder St where possible.</p>	<p>Review loading requirements as part of the City of Perth's upcoming On Street Parking Policy Review. Issues with traffic signals near the Freeway shall be reported to Main Roads WA.</p>

7	Mark White	YES	30169/15	Please consider Copenhagen bike lanes.	Copenhagen style protected two-way bicycle lanes have been considered in the past and their roll out was decided against by Council in favour of standardised on road cycle lanes in each direction as per the adopted Cycle Plan 2029. A proposal for temporary Copenhagen style bike lane was previously put to Council for approval for Barrack Street (St Georges Terrace to Wellington St) and was rejected due to lack of support.	None
8	Tze King Lim	NO	30170/15	Conversion of Murray Street to two way East of Elder Street has resulted in congestion due to: 1) Funnelling of traffic coming off freeway and going into single lane. 2) Long wait for traffic lights at other end of Murray Street going into William Street due to waiting for traffic turning into Murray Street from William Street. If aim to reduce local traffic, alternative routes must be provided to motorists to bypass Murray Street. For pedestrians, two-way traffic has resulted in longer waits for crossings compared to one-way. Conversion to two-way traffic has led to more congestion rather than bringing improvements.	1. The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. 2. The intersection of Murray/William is currently being reviewed by the Public Transport Authority to prioritise public transport and reduce pedestrian wait times.	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.
9	Luke lustini	NO	30171/15	In my opinion Stage one of the two way conversion of Murray Street (William Street to Elder Street) was unnecessary and has had a detrimental impact on traffic flow. Same with William Street in Northbridge.	The completion of the westbound link on Murray St from the City centre to West Perth shall provide an alternative link for vehicles exiting the City centre, making stage 1 of the project more efficient in the westbound direction and readdressing the balance of vehicle flows in the City centre. The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St.	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.

10	Jackie Renfrey	YES	30172/15	In principle, I like the proposal, but I wouldn't be happy about the "removal of some mature planting". I feel that the mature trees in West Perth do "contribute to and enhance the life of the city", as opposed to having another hot, lifeless concrete jungle. Perhaps shared pedestrian/cycle paths could be considered.	The submission gives in principle support to the two-way proposal, however concerns are raised as to the removal of some mature planting.`	Review planting/vegetation to be removed and identify opportunities to include new planting where possible. The area shown for removal of some trees is mainly in the West Perth section on land within the road reserve classified as a 'road widening reserve' and therefore the trees are not protected.
11	Jason van Straalen	YES	30249/15	What were the original benefits and ideas for it to be a one way street back in the day?	The submission refers to the original thinking behind the conversion of streets in the City of Perth circa 1970s. This was at a time when traffic growth was at its highest and the philosophy of 'predict and provide' ruled transport planning. With city's becoming more vehicle saturated coupled with finite space, prioritisation moved away from the private car to public transport, cycling and providing for pedestrians. In order to promote these sustainable transport modes, alternative routes need to be created within the finite confines of a city and hence the shift towards two-way streets which also helps to disperse congestion rather than funnel it to the same place.	Continue with two-way street program
12	Jessica Ferguson	YES	30754/15	The upgrade of Beaufort St and William St to two way has greatly improved my commute into the city and public transport options, and also given the streets a much slower paced community feel (rather than a traffic thoroughfare). Dying for William St (between Newcastle and Brisbane) and Barrack Street to also be made two way! Murray st conversion will be a great step for the CBD.	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers. The two way conversion of William St (between Newcastle St and Brisbane St) is currently being progressed by City of Vincent and the City of Perth is working closely with them to ensure seamless integration of the two way street across Council boundaries.	Continue with two-way street program
13	Rosslind Ellis	YES	30782/15	I really appreciate and am impressed with the work done towards improving cycling conditions in the City. I have noticed a big change in the last 6 months.	Thank you for your demonstrated support for the recent and upcoming cycle infrastructure improvements with City of Perth, whether they be stand alone cycle improvement projects or part of two way street conversions. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program

14	John GITTINS	NO	31066/15	<p>RETURN MURRAY STREET TO ONE-WAY</p> <p>Traffic heading east is blocked by cars turning into car parks and streets on the river side and they are delayed by on- coming traffic and pedestrians crossing access ways.</p> <p>Taxis and delivery vehicles also STOP traffic flow.</p> <p>WHEN MURRAY STREET WAS TWO-WAY, the left lane allowed the taxi and other traffic to stop AND THE RIGHT LANE ALLOWED TRAFFIC FLOW, EVEN WITH RIGHT TURNS.</p> <p>Cyclist usage could still be provided - one-way as for cars.</p> <p>Similarly, LEAVE HAY ST ALONE FOR THE SAME REASONS.</p>	<p>The submission identifies perceived congestion issues on Murray St. The submission requests that Murray Street be returned to one-way. The issue of cars turning into car parks and blocking traffic heading east is not considered to be an issue. Similarly the minor delays caused to drivers by oncoming traffic and pedestrians crossing access ways are not considered to be issues. These incidental and momentary delays to traffic travelling east and west are part of normal city activities and help to reduce traffic speeds giving the streets a much slower paced community feel (rather than a traffic thoroughfare). This helps to prioritise pedestrian movements on footpaths and at zebra crossings and provides a much safer and slower environment for cyclists on the road. Taxis and delivery vehicles are afforded kerb side areas to stop. Whilst taxis stopping randomly on street can be frustrating, these momentary delays assist to reduce traffic speeds. When Murray Street was one-way there was very little interruption to traffic flow and speeds were much higher. This was more imposing for pedestrians and cyclists. Regular overtaking occurred in the one-way scenario and pedestrians crossing the street, particularly at zebra crossings, were much more vulnerable to the masking effect of two lanes of traffic travelling at speed in the same direction.</p>	<p>Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion. Prioritise kerb side parking for taxis and service vehicles. Maximise measures to increase safety for pedestrians and cyclists in areas where drivers cross their path.</p>
15	Zack Harrison	YES	31127/15	No Comment	No Comment	Continue with two-way street program
16	Darren Agar	YES	31709/15	love all the 2 way conversions and the benefits it brings for our city with activity, slower speeds and pedestrian safety.	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program
17	Amy Yuy	NO	32112/15	I think it's a good idea to have Hay Street one way towards west and Murray Street one way towards east. The traffic is already very bad in the city. Changing Murray street to two way will make the traffic worse	The completion of the westbound link on Murray St from the City centre to West Perth shall provide an alternative link for vehicles exiting the City centre, making stage 1 of the project more efficient in the westbound direction and readdressing the balance of vehicle flows in the City centre. The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.

					<p>movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. Hay Street, between Thomas Street and Elder Street is intended to be converted to two-way in the future which shall help to disperse traffic congestion by providing more alternative routes, providing more flexibility for public transport routes and helping to balance traffic movements across the network.</p>	
18	Jonathan Miles	YES	32136/15	<p>The proposed changes to convert Murray Street to two ways of traffic looks fantastic. We are based at 509 Murray Street and witness the aftermath of many accidents at the intersection of Murray and Elder Street. This is largely as a result of the one way nature allowing drivers to speed down Murray Street.</p> <p>As a business owner in the area I am also keen to see the CBD stretch out to Elder Street and increase shopper awareness of the Western fringes of the CBD.</p> <p>The recent changeover to two way traffic outside our premises has increased awareness and traffic to our store and we welcome the City of Perth's plan to extend this to the entire length of Murray Street to Thomas Street.</p>	<p>Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers. We note that the conversion to two-way traffic has increased customer awareness of local businesses, which is one of the key outcomes of two way street conversions.</p>	Continue with two-way street program
19	Kath Jones	YES	32880/15	<p>I like the idea as it slows traffic, but to ensure pedestrians are safe a traffic island between the lanes is a much better option. Also, the bicycle lanes needs to be clearly designated with warnings for those parking to look out for cyclists as bike lanes running next to parking lanes are notorious for moroitsts opening doors and knocking cyclists off their bikes.</p>	<p>Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers. We note comments regarding a central median traffic island, however to provide this in most locations would require further widening of the road with subsequent knock on effects. The provision of a median island is not required on a street with only one lane in each direction and the intent is to slow traffic in each direction by not physically separating the directions of flow. With regards to bicycle lanes being clearly defined, the independent road safety audit recommended that the 'buffer zone' between vehicle parking bays and the cycle lane be increased to a standard 500mm to significantly reduce the chances of cyclist conflict with car doors. Also, green surface demarcation shall be installed at hazardous area such as at the approached to intersections and across the loading zones and crossover with high traffic movements.</p>	Continue with two-way street program



20	Bradley Abbott	NO	32898/15	The traffic on Murray St after working hours is bad enough with 2 lanes at the moment, so please do not change it to one lane as this will make it worse. Thanks	The completion of the westbound link on Murray St from the City centre to West Perth shall provide an alternative link for vehicles exiting the City centre, making stage 1 of the project more efficient in the westbound direction and readdressing the balance of vehicle flows in the City centre. The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. Hay Street, between Thomas Street and Elder Street is intended to be converted to two-way in the future which shall help to disperse traffic congestion by providing more alternative routes, providing more flexibility for public transport routes and helping to balance traffic movements across the network.	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.
21	Susan Kreemer Pickford	YES	33957/15	We are very supportive of the project to allow two way traffic along Murray Street .	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program
22	Dr Graham Carmichael	NO	34030/15	With the high volume of traffic that uses Murray street getting onto the freeway and access into West Perth, I think the conversion will cause significant problems with traffic flow. In the afternoon peak time, traffic flow is already large with people coming through west Perth and onto Murray and Wellington. Hay street accommodates the flow out of the city well. The bank up of traffic up Murray street waiting to get onto the freeway often extends up to Havelock St, and so converting it to a 2 way road will add to the problem.	The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who must choose to drive	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.

					a private car. The cycle lanes provide much needed cycle infrastructure and will help to introduce bike share incentives for Perth, helping to reduce dependency on the private car and improve sustainable transport modes.	
23	Qube Havelock Street Development Pty Ltd	YES	34223/15	We support the proposal.	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program
24	Tony Hatt	YES	34554/15	Please go ahead with it. We are building a 40 storey high rise (pending CoP approval) on the Scout site. Total of 290 rooms/apartments incl. restaurants and bars etc.	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program
25	Stephen Zurhaar	NO	36384/15	Traffic between 4:30 -5:30pm is already at a stand still as far back as Colin Street as 2 lanes, along with merging out of West Perth attempt to get on the freeway south whilst another lane attempts to go left on George St for freeway north and yet another lane wants to proceed down Murray into the city. Clearly a traffic management assessment has not been completed.	The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who must choose to drive a private car. The cycle lanes provide much needed cycle infrastructure and will help to introduce bike share incentives for Perth, helping to reduce dependency on the private car and improve sustainable transport modes.	Continue with two-way street program

26	Con Vlahos	YES	36835/15	Agree with the proposed two way plan and believe it will enhance traffic and pedestrian movement. Hope works can be completed in a reasonable time frame. What is the current time frame for this project ?????	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers. The project is currently staged in two phases of construction. Stage 2 is provisionally expected to commence construction at the end of January 2016 for four months and Stage 3 is expected to commence in July 2016 for four months. These timescales are subject to change due to Council decisions, programming of roadworks and Main Roads WA approval.	Continue with two-way street program
27	K H Thai	YES	39226/15	<p>1. Total support for two way conversion</p> <p>2. Further comment for your consideration - In general, parking for tradies to carry out repair/maintenance OR for delivery/removal of household goods in residential towers in the city should be considered. Perhaps, this could be included or as a requirement on future planning application. 2-3 parkings bay reserve for trade to service buildings. I have known trade to circle for 3/4 hrs for parking and some give up in the end. When they do find parking it would not be long enough for them to carry out the work.</p> <p>As we move towards apartment living, I think this point could be food for thought.</p> <p>3. Cycling lanes have been a very positive initiative, there is additional comment for thought. If footpath is widened, it could be a share traffic for pedestrian(either way) and cyclist (same direction as motor vehicle). And same could be said in the other direction on opposite side. Cyclist lane on the road risk getting 'nicked' by motor vehicle or those parking along the roadside opening car door or coming out of their parking bay. At intersection where walk/don't walk sign, there could also be red/green light for bike timed with pedestrian one. London/South of France/ Copenhagen have their version, but the version above was observed in Vienna and was the most efficient for cyclist commuters, including bikes available for tourists and some local use it too to get around the city within first hour for free.</p>	<p>1. Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.</p> <p>2. Recently the City has been liaising with the developer of a site on the corner of Murray St/Harvest Terrace and specifically requested that sufficient delivery/service areas be provided for within the development. The developer has agreed to provide this. The City is aware that some older developments may not provide sufficient facilities to cater for modern day demand. The respondents concern is noted.</p> <p>3. With regards to cycle lanes, these shall be clearly defined, the independent road safety audit recommended that the 'buffer zone' between vehicle parking bays and the cycle lane be increased to a standard 500mm to significantly reduce the chances of cyclist conflict with car doors. Also, green surface demarcation shall be installed at hazardous area such as at the approached to intersections and across the loading zones and crossover with high traffic movements. At present Murray St, in accordance with the City's adopted Cycle Plan 2029, is allocated for on road cycle lanes and not shared pedestrian/cycle path. The on road cycle lanes will be accompanied by signal prioritisation at intersections whereby cyclists shall be afforded a timed head start over general traffic improve safety and increase priority - this is soon to be introduced on Barrack Street Two Way (St Georges Terrace to Wellington St).</p>	Continue with two-way street program
28	Meleta Jones	NO	38016/15	As the two way is proposed currently to Elder Street, how would one enter the freeway from Murray St Southbound if it will be two way as the entry is on the right? Many thanks Meleta	The entry to the Freeway from Murray Street shall be via a right turn at the intersection with Elder Street. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.

					'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St.	
29	MIKE GREAVES	NO	38164/15	<p>Thank you for the consultation. As a chartered town planner, dedicated cyclist and affected property owner, I am obliged to lodge serious objections to the proposed scheme.</p> <p>It is an incorrect statement to say that two way streets are safer for pedestrians and cyclists -- two way streets are more dangerous &amp; difficult to cross for both groups, especially the young and elderly. Any improvements to crossings etc as promised would be even more effective if applied to the existing street configuration.</p> <p>The claim of "to, not through" is equally bogus as without the provision of major new freeway capacity to relieve city/side streets, through and every other type of traffic will inexorably increase on these roads -- you need a strategy of Dutch style woonerfs and discontinuous traffic enclaves to achieve the stated objectives. Basic traffic engineering stuff. On the specifics of The Iceworks, the booklet does not indicate that there will be a loss of valuable car parking bays fronting Murray St, and possibly Orchard Terrace. There will be a reduction in existing paved pedestrian footpath space as well as the noted 'modification' of existing garden bed and irrigation system'. It will increase the accident risk for Iceworks residents driving into the Murray St entrance to the building because of crossing traffic conflicts, and insofar as drivers are delayed in making a turn, they will be stationary and blocking the flow of vehicles down the hill into the city. Ditto similar cyclist movements.</p> <p>Most seriously, the creation of a new signal controlled traffic intersection here will drastically and adversely affect the level of traffic noise and vehicle emissions in this vicinity. Under the current arrangements, we have high but relatively free flowing levels traffic on two downhill lanes along Murray St, with merging side road movements off Orchard Terrace. The greatest intrusion is from the frequent CAT vehicles using the Gordon St. bus stop immediately opposite the Iceworks -- these vehicles give rise to much braking, heavy acceleration and noise, none of which will be diminished by your proposals. However, they WILL bring substantial increases in traffic braking, acceleration, vibrations, emissions and noise for all other vehicles due to the effect of the proposed lights controlled junction. On top of all this, the impact of two-way traffic will create a stream of vehicles including heavy lorries which are accelerating hard against the gradient as they make their way up the hill.</p> <p>In short, it would be hard to design a more deleterious traffic system in terms of its long term future adverse impacts on residents/visitors to The Iceworks. I OBJECT MOST</p>	<p>1. Studies have shown that vehicles speeds reduce on a two-way street when compared to its former one-way configuration. Regular and fast overtaking occurs in the one-way scenario and pedestrians crossing the street, particularly at zebra crossings, are much more vulnerable to the masking effect of two lanes of traffic travelling at speed in the same direction. This masking effect is removed in a two way street environment with a single lane in each direction and reduces the incidences of overtaking. Slower vehicle speeds create a safer and less imposing environment for cyclists which helps promote and prioritise this mode including encouragement of modal shift away from the private car. This gives the streets a much slower paced community feel (rather than a traffic thoroughfare) much better suited to residential uses along its length.</p> <p>2. No parking bays shall be removed on Harvest Terrace. Two parking bays are proposed to be removed on Murray St outside the Iceworks, due to the additional road width required for cycle lanes on both side of the street. The prioritisation of pedestrians and cyclists does not encourage the widening of the road in this location to cater for on street parking bays at great expense, only where absolutely necessary to cater for the two way conversion including cyclists. The design of this is still being worked through and motorcycle parking is being considered or reconfigured parking as best as possible. The CAT bus stop area opposite the Iceworks is likely to be converted to parking should the CAT bus be relocated to Hay Street once that street is converted to two-way in the future. The two-way street will provide greater flexibility and give alternative routes to access parking elsewhere with signal controlled crossings provided in this area.</p> <p>3. In regards to the specifics of the Iceworks, residents driving into the Murray St entrance may be momentarily delayed turning right in, but they are only turning across one lane of oncoming traffic. The most obvious benefit of the two-way street for drivers is to turn left into the entrance from Murray St in the new westbound direction which means no turning across traffic. The signal controlled pedestrian crossing will create gaps in oncoming traffic to allow traffic to turn. The two-way conversion will reduce vehicle speeds and therefore reduce associated tyre noise - vehicles also produce less</p>	Review the provision of on street parking in the vicinity of the Iceworks. Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.

				<p>STRENUOUSLY.</p> <p>Where is the environmental impact study that should be mandatory for a proposal of this nature/scale? What mitigation measures are proposed to offset the dire health and public safety repercussions for Iceworks occupants? If you were adding to an airport in this way, the City would be obliged to install for example double-glazing and other sound vibration abatement kit to the property at no cost to the residents. Nothing less will suffice here.</p>	<p>emissions when travelling slowly.</p> <p>4. The proposals do not affect the CAT bus in terms of its stopping location, and the associated acceleration or braking situation shall be the same. Any perceived increase in vehicle related noise and vibration at the intersection shall be offset by reduced road noise from tyres, particularly given the removal of the road hump opposite iceworks and its associated noise when vehicles passing over it. The CAT bus may relocate to Hay St once that street is converted to two-way in the future.</p> <p>5. Numbers of heavy vehicles uphill in the westbound direction are not proposed to be high. The CAT bus will not operate uphill westbound. For these reasons, the project is not predicted to cause detriment to the surroundings and will in fact enhance the area. Studies have shown significant increases in land and property values when investment in cycle infrastructure and street enhancement occurs.</p>	
30	Richard Tatnall	NO	38644/15	<p>Who comes up with these. It's an absolutely terrible idea - it is impossible to get out of / across town as it is. The introduction of 2 way streets at barrack st bridge has created a choke point for traffic, cyclists and pedestrians that makes this area hazardous for cyclists and pedestrians. The light sequence changes recently introduced have severely limited and impeded traffic flow. The introduction of this proposal further up Murray St will make this problem even worse.</p> <p>The whole concept of a city CBD as a "place to stop" is flawed as most people want to get to work in the mornings and get home in the evenings quickly and easily. The city car parks cannot cope with a "place to stop" concept and public transport parking is severely limited. This will only succeed in adding more congestion to the CBD.</p> <p>A fundamentally flawed hypothesis, driving flawed planning and flawed investment decisions that is crippling and deadlocking traffic in the CBD at peak hours.</p>	<p>The submission identifies perceived congestion issues on Murray St and other CBD roads. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car.</p>	<p>Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.</p>
31	Vincent Scanlan	YES	TBC	<p>Will make access to Hay St easy from City</p>	<p>Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.</p>	<p>Continue with two-way street program</p>

32	Myles Goroon	NO	TBC	What a stupid idea - make more congestion problems. The road system is congested as it is - without you people causing more problems - not to mention the fact that it will take 6 years to complete a project like this! Don't be fools.	The submission identifies perceived congestion issues on Murray St and other CBD roads. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car. The project is currently staged in two phases of construction. Stage 2 is provisionally expected to commence construction at the end of January 2016 for four months and Stage 3 is expected to commence in July 2016 for four months. These timescales are subject to change due to Council decisions, programming of roadworks and Main Roads WA approval.	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.
33	Harbourville Pty Ltd / Pier Point Pty Ltd	YES	TBC	Great plan. Should proceed as soon as possible. Will improve City ingress and egress and open up dead parts of Murray St.	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program
34	Seale: Brian Wentworth	YES	TBC	This is a sensible, worthwhile and appropriate proposal.	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program
35	S.W Carr	YES	TBC	2 way to Murray Street seems like a good idea.	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program
36	Giuseppe Pagliaricci	YES	38625/15	I think this will be very beneficial to the whole of West Perth and give better exposure to local businesses	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers. Noted that the conversion to two-way traffic	Continue with two-way street program

					has increased customer awareness of local businesses, which is one of the key outcomes of two way street conversions.	
37	Ian and Catherine Harrison	YES	30173/15	We agree with the proposed two way traffic conversion between Thomas St and Elder St	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program
38	David Miliken	YES	32944/15	Hi Richard, Just saw the Murray Street sketches up for consultation on the website. Looks good to me overall. Let me know if there are any particular issues that arise that you need help with. We can offer support for this project, consistent with Central Transport Plan objectives and so on. Can do so formally if you need.  Only question is, the westbound approach to Outram Street there's a different configuration with the cycle lane in between the traffic lanes. Which is fine, and makes the cycle lane line up across the intersection. However, when a car is propped to turn right, a car behind may swing across the cycle lane in order to continue straight. There's a chance they could hit a cyclist passing in the cycle lane if this happened. You've probably already thought through that, but just something I noticed.	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers. The concept plan will be reviewed to consider a different cycle lane configuration on the westbound approach to Outram St.	Consider a different cycle lane configuration on the westbound approach to Outram St.
39	Jia Lin Ang	NO	40500/15	Currently Murray Street has been very congested as it is the main way to access to Wellington Street and Freeway. Car turning to Wellington Street jam up the left lane and car turning to freeway occupying the right way. To me, making it 2 ways will make the situation worst.	The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car.	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.

40	Jane Marshall	NO	41841/15	<p>I have studied the plans for Murray Street and am extremely concerned that my commute down from Colin Street to the Freeway will become a gridlocked mess at 5pm each day. Currently there are 2 lanes of traffic and the right hand lane leading to the freeway is nearly always jammed back up to Colin Street and sometimes beyond. I can't comprehend how removing the extra lane is supposed to be a better option when there will be a lane less, additional traffic lights and the prospect of being stuck behind slow moving CAT buses. PLUS it will make crossing the streets as a pedestrian more difficult. NOT HAPPY AT ALL.</p>	<p>The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car. Studies have shown that vehicles speeds reduce on a two-way street when compared to its former one-way configuration. Regular and fast overtaking occurs in the one-way scenario and pedestrians crossing the street, particularly at zebra crossings, are much more vulnerable to the masking effect of two lanes of traffic travelling at speed in the same direction. This masking effect is removed in a two way street environment with a single lane in each direction and reduces the incidences of overtaking. Slower vehicle speeds create a safer and less imposing environment for cyclists which helps promote and prioritise this mode including encouragement of modal shift away from the private car. This gives the streets a much slower paced community feel (rather than a traffic thoroughfare) much better suited to residential uses along its length.</p>	<p>Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.</p>
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41	Lawrence Man	YES	42801/15	<p>Thanks for the opportunity to comment.</p> <p>As a resident in West Perth who uses the modes of bike, car and Red CAT to commute to work in the city, its great to see these improvements along Murray Street.</p> <p>I would like to offer my support of the proposal to convert Murray Street to two way.</p> <p>The focus of my comment is to reconfigure the proposed bike lanes to become protected bike lanes. The proposed configuration has cyclists protecting parked vehicles and in the car door zone (see <a href="http://www.abc.net.au/news/2015-03-09/car-dooring-victims-fiancee-remembers-partner-alberto-paulon/6291692">http://www.abc.net.au/news/2015-03-09/car-dooring-victims-fiancee-remembers-partner-alberto-paulon/6291692</a>).</p> <p>As a bike commuter who uses Murray Street, I was involved in a crash where a vehicle had turned into me within the Stage 1 area of Murray Street due to their failure in sharing the road.</p> <p>Understanding the space constraints of the Stage 1 area where protected bike lanes are not possible, the Stage 2 and 3 areas represent an opportunity for improved bicycle infrastructure provision to be provided (see <a href="https://www.bicyclenetwork.com.au/general/better-conditions/2845/">https://www.bicyclenetwork.com.au/general/better-conditions/2845/</a>)</p> <p>As a key east-west link for residents between West Perth and the City, it would be great for protected bike lanes to support Perth's growing bicycle culture.</p> <p>Thanks for the opportunity to comment.</p>	<p>Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers. With regards to cycle lanes, these shall be clearly defined, the independent road safety audit recommended that the 'buffer zone' between vehicle parking bays and the cycle lane be increased to a standard 500mm to significantly reduce the chances of cyclist conflict with car doors. Also, green surface demarcation shall be installed at hazardous area such as at the approached to intersections and across the loading zones and crossover with high traffic movements. At present Murray St, in accordance with the City's adopted Cycle Plan 2029, is allocated for on road cycle lanes and not shared pedestrian/cycle path. The on road cycle lanes will be accompanied by signal prioritisation at intersections whereby cyclists shall be afforded a timed head start over general traffic improve safety and increase priority - this is soon to be introduced on Barrack Street Two Way (St Georges Terrace to Wellington St).</p>	Continue with two-way street program
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42	Luke Campbell	NO	42961/15	<p>Thank you for the opportunity to provide feedback on the conversion of Murray Street to a two way street. We acknowledge also that the conversion of Murray Street is a staged approach, with Stage 1 being already completed in 2013.</p> <p>We support the aim of improved pedestrian and cyclist safety but wish to raise the following queries with the proposal:</p> <ul style="list-style-type: none"> <li>• Has there been any work undertaken on the level of traffic congestion that will be reduced by the scheme. Typically we would anticipate one way streets would provide less congestion through better opportunities to synchronized traffic signals and easier opportunities to turn right.</li> <li>• Has any analysis be undertaken on the outcomes of Stage 1 in terms of pedestrian and cyclist crash reductions. Furthermore, have the outcomes of Stage 1 influenced the design development of Stage 2 and 3.</li> <li>• Are the pedestrian and cyclists improvements generated by the two way conversion or can the same benefits be achieved through dedicated bicycle lanes, cyclist head start treatments and pedestrian crossing improvements, and whilst still retaining the one way arrangement?</li> </ul> <p>Our overall concern is that the conversion to a two way street will increase traffic congestion, and that improvements to pedestrian and cyclist safety could still be achieved, and possibly with better outcomes, if the one way arrangement was retained.</p>	<p>Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.</p> <p>1. The aim of this project is not to reduce the level of traffic congestion. The aim of the project is firstly to provide much need cycle infrastructure for this growing demand as vulnerable road users. It is also to improve safety for pedestrians by providing as studies have shown that two-way street have reduced vehicle speeds when compared to one-way streets. This gives the streets a much slower paced community feel (rather than a traffic thoroughfare). Moreover, the benefit to vehicle are the alternative route choices that shall be available to drivers to disperse traffic congestion if it occurs. Currently vehicles are funnelled eastbound towards intersections whereas given the route choice drivers may wish to avoid busy areas. This will assist those who have destinations such as the Freeway. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St.</p> <p>2. At the time of consultation it was still too early to fully assess the comparative safety outcomes of the Stage 1 project, however monitored vehicles speeds have reduced, improving the chances of survival during a collision and the outcomes of cycle infrastructure design has greatly influenced the design of the Murray St Two Way project.</p>	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.
43	Julie Doran	YES	43739/15	No comment given	Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.	Continue with two-way street program

44	Sally Young	NO	44208/15	<p>As long-term residents of West Perth, we are opposed to the proposed Stage 2: two way conversion of Murray St (Thomas - Havelock St) on the following grounds:</p> <p>1) The unnecessary removal of important mature tree plantings between Outram and Colin Sts and Colin and Thelma Sts for the sole purpose of additional hard surface use (footpaths and road tarmac).</p> <p>1a) The mature trees provide year round habitat for numerous native bird species including: willy wag tails, magpies, pink and grey galahs, various honeyeater, parrot and cockatoo species (in particular the white-tailed black cockatoo and in the last two years, the red-tailed black cockatoo). As the trees are mature, they attract many birds every day and all year round. In addition, nesting occurs in these trees each year.</p> <p>1b) These trees attract and support a variety of insects including honey bees and native bees.</p> <p>1c) As the trees are mature, they flower heavily and are therefore an important seasonal food source to both the bird and insect life.</p> <p>1d) The mature tree canopies provide a much needed cooling effect in a cityscape dominated by heat generating structures. The temperature along the sections of Murray St with these mature trees is considerably lower during summer (in particular, the section between Outram and Colin Sts).</p> <p>1e) The beautiful and essential lifestyle amenity of being so close to mature trees. These trees can be seen from our house, the birds can be heard all day every day and they are therefore, an important part of our life in West Perth.</p> <p>2) Footpaths replacing green space: the plan proposes removal of well developed green areas with hard surface on the northern side of Murray St between Outram and Havelock Sts. Whilst upgrading of the existing footpaths are not objected to, there is no need for any additional footpath in these areas. These areas are not subject to high pedestrian traffic and those that use this area are well catered for by the footpaths already available on the southern side of Murray St. Since the operation of the Yellow and Green CATS, there has been a noticeable reduction in foot traffic in this area. Footpaths already exist in this area (northern side of Thelma and Clive Sts) and it is a positive feature that the footpaths are set well away from the traffic on Murray St and are such a pleasant green area. As for mature tree plantings, removal of existing green area will have an effect on habitat, temperature and general lifestyle amenity of the area.</p> <p>3) Cycle Plan: We fully support the reduction of car traffic in the CBD and associated development of public transport</p>	<p>1. Due to these comments the retention of as many trees as possible in West Perth is being progressed by removing the allocation of on street parking bays and creating kerb build outs to allow the trees to remain.</p> <p>2. There is an identified need for footpaths on the northern side of Murray St. These areas are subject to 'goat tracks' worn into the verge and the perceived low pedestrian traffic is a symptom of the street currently being so car dominated - i.e. it is currently easier to drive than it is to walk for short trips. It is not currently attractive to walk on the northern side.</p> <p>3. Colin St is identified in the adopted City of Perth Cycle Plan 2029 as an integrated cycle route, meaning cyclists share the road with vehicles. This route is subject to much lower vehicle speeds than currently exist on Hay Street, Murray Street and other parallel streets. The intention is to design in priority for cyclists at signalised intersections through the use of cycle head start boxes and timed signal head start priority.</p> <p>4. See point 1.</p> <p>5. The submission identifies perceived congestion issues on Thomas St between Hay Street and Wellington Street. Firstly, the proposed two-way project does not generate traffic in its own right and is not responsible for additional traffic movements. Any traffic turning left into Thomas St allowed by the two-way street shall have redistributed from either Hay St or Wellington St intersections with Thomas St. This shall in turn relieve the pressure on these intersections allowing them to operate more efficiently. Thomas Street is three lanes wide in this location and the upstream intersection with Wellington St creates gaps for traffic to emerge. It is noted traffic can be busy on Thomas Street at peak times, however because of the above the project is not intended to cause a detrimental effect, only a positive redistributing of traffic effect.</p>	Review the retention of trees as far as possible.
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			<p>infrastructure and cycling as preferred means of transport, it remains unclear and foolhardy to propose Colin St as a key North-South cycle route given that over 240 CAT buses/day/7-days-a-week travel along Colin St. This would appear to be in direct opposition to creating a safe-cycling environment.</p> <p>4) Erosion of residential amenity of the area. The City of Perth is continuously talking about attracting and maintaining a residential population yet frequently ignores the importance of the lifestyle amenity that is provided by green space areas, in-particular, mature planting green space. Destruction of mature habitat so well populated by birds cannot be supported.</p> <p>It should be noted that we take no comfort in the proposal statement that 'removal of some mature planting required', as our previous recent experience of 'some removal of mature planting' by the City of Perth in a public green space in West Perth resulted in almost every tree being removed. So, we have no confidence in the statement that 'some' mature trees will be removed.</p> <p>5) Traffic Congestion: the section of Thomas St between Hay and Wellington Sts is already heavily congested in peak hours and by converting Murray St into a two-way st this will result in additional traffic attempting turning left into Thomas St. Thereby, further increasing the heavy congestion between Hay and Wellington Sts. How is it proposed to deal with this additional congestion which would result in Murray St, as cars are unable to turn left into Thomas St?</p> <p>We welcome the opportunity to lodge our opposition to Stage 2. We would be most appreciative of further engagement on this matter both via personal contact and importantly, a public meeting.</p> <p>Sally Young and Chris Heberle</p>		
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45	Michael North	NO	46793/15	<p>The cycle lane design is not a significant improvement over present options (no cycle lane). Cyclists face significant danger from parked cars (dooring), cars entering and leaving the parking bays crossing their path and from cars turning right into their path at intersections. The design is similar to Sydney Road in Melbourne as it operates outside of peak hours and was responsible for the recent death of a cyclist from dooring and a very high rate of cyclist accidents in general. As a West Perth cyclist who cycles to work three times a week I would not use it because of the danger and would not encourage others to do so. See <a href="https://www.bicyclenetwork.com.au/general/better-conditions/783/">https://www.bicyclenetwork.com.au/general/better-conditions/783/</a></p> <p>and</p> <p><a href="https://www.bicyclenetwork.com.au/media/vanilla_content/files/CDM%20graphs.pdf">https://www.bicyclenetwork.com.au/media/vanilla_content/files/CDM%20graphs.pdf</a></p> <p>Note that dooring was the single biggest cause of accidents between vehicles and cyclists in Melbourne in this period.</p> <p>A better solution would be to create a dual lane cycle path by either removing parking on one side or possibly a central dual lane with spaced protection barriers either side, then two way traffic and retain parking on the edges. There must be separation between parked cars and cyclists as Victorian statistics show.</p>	<p>1. Comments of the respondent are noted with regards to risks to cyclists. The cycle lanes shall be clearly defined, the independent road safety audit recommended that the 'buffer zone' between vehicle parking bays and the cycle lane be increased to a standard 500mm to significantly reduce the chances of cyclist conflict with car doors. Also, green surface demarcation shall be installed at hazardous area such as at the approached to intersections and across the loading zones and crossover with high traffic movements. At present Murray St, in accordance with the City's adopted Cycle Plan 2029, is allocated for on road cycle lanes and not shared pedestrian/cycle path. The on road cycle lanes will be accompanied by signal prioritisation at intersections whereby cyclists shall be afforded a timed head start over general traffic improve safety and increase priority - this is soon to be introduced on Barrack Street Two Way (St Georges Terrace to Wellington St).</p> <p>2. Copenhagen style protected two-way bicycle lanes have been considered in the past and their roll out was decided against by Council in favour of standardised on road cycle lanes in each direction as per the adopted Cycle Plan 2029. A proposal for temporary Copenhagen style bike lane was previously put to Council for approval for Barrack Street (St Georges Terrace to Wellington St) and was rejected due to lack of support.</p>	<p>Pursue the improvements to the increased 'buffer zone', additional green surface treatment to highlight hazardous areas and signal priority for cyclists.</p>
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46	Geraldine Box	NO	46811/15	<p>Not sure about supporting the proposal without being clear about what is actually going to be put in place for vulnerable road users.</p> <p>However, it is promising to see cycling and pedestrian access as a priority in this proposal. There are several aspects which require comment:  Speed limit: in order to create a safe environment for vulnerable road users (pedestrians and cyclists) reduce the speed limit on this road and other in the CBD to 30km/h. Install "protected bike lanes" using the "Copenhagen-style" system which incorporates a protective barrier between the cyclist and the opening car door. This is to prevent "dooring"</p> <p>Example from Melbourne can be found at</p> <p><a href="https://www.google.com.au/search?q=copenhagen+style+bike+paths&amp;hl=en&amp;biw=1517&amp;bih=714&amp;site=webhp&amp;tbn=isch&amp;imgil=ROt1B0slnSvm4M%253A%253BeWk77HI5S456MM%253Bhttp%25253A%25252F%25252F5000plus.net.au%25252Fideas%25252F511&amp;source=iu&amp;pf=m&amp;fir=ROt1B0slnSvm4M%253A%252CeWk77HI5S456MM%252C_&amp;usg=__uVVeR5qHEwJSCJf2s1e-ssJBYic%3D&amp;dpr=0.9&amp;ved=0CDsQyjc&amp;ei=4oULVYXNEoOE8QXyyoEw#imgrc=ROt1B0slnSvm4M%253A%3BeWk77HI5S456MM%3Bhttp%253A%252F%252F5000plus.net.au%252Fsystem%252Fimage%252F511%252Flarge%252FIBOLT_GG236131_4050977_resized.jpg%3Bhttp%253A%252F%252F5000plus.net.au%252Fideas%252F511%3B900%3B676">https://www.google.com.au/search?q=copenhagen+style+bike+paths&amp;hl=en&amp;biw=1517&amp;bih=714&amp;site=webhp&amp;tbn=isch&amp;imgil=ROt1B0slnSvm4M%253A%253BeWk77HI5S456MM%253Bhttp%25253A%25252F%25252F5000plus.net.au%25252Fideas%25252F511&amp;source=iu&amp;pf=m&amp;fir=ROt1B0slnSvm4M%253A%252CeWk77HI5S456MM%252C_&amp;usg=__uVVeR5qHEwJSCJf2s1e-ssJBYic%3D&amp;dpr=0.9&amp;ved=0CDsQyjc&amp;ei=4oULVYXNEoOE8QXyyoEw#imgrc=ROt1B0slnSvm4M%253A%3BeWk77HI5S456MM%3Bhttp%253A%252F%252F5000plus.net.au%252Fsystem%252Fimage%252F511%252Flarge%252FIBOLT_GG236131_4050977_resized.jpg%3Bhttp%253A%252F%252F5000plus.net.au%252Fideas%252F511%3B900%3B676</a></p>	<p>With regards to cycle lane infrastructure, these shall be clearly defined, the independent road safety audit recommended that the 'buffer zone' between vehicle parking bays and the cycle lane be increased to a standard 500mm to significantly reduce the chances of cyclist conflict with car doors. Also, green surface demarcation shall be installed at hazardous area such as at the approached to intersections and across the loading zones and crossover with high traffic movements. At present Murray St, in accordance with the City's adopted Cycle Plan 2029, is allocated for on road cycle lanes and not shared pedestrian/cycle path. The on road cycle lanes will be accompanied by signal prioritisation at intersections whereby cyclists shall be afforded a timed head start over general traffic improve safety and increase priority - this is soon to be introduced on Barrack Street Two Way (St Georges Terrace to Wellington St). Copenhagen style protected two-way bicycle lanes have been considered in the past and their roll out was decided against by Council in favour of standardised on road cycle lanes in each direction as per the adopted Cycle Plan 2029. A proposal for temporary Copenhagen style bike lane was previously put to Council for approval for Barrack Street (St Georges Terrace to Wellington St) and was rejected due to lack of support.</p>	<p>Continue investigation of increased 'buffer zone' between general parking bays and cycles lanes, and if necessary remove parking bays.</p>
47	Jillian Woolmer	YES	46847/15	<p>I would like the bike path to be wider though and have a mountable kerb/no kerb so that I am not caught between the kerb and road if I need to swerve to avoid a car, bike or pedestrian. I would also prefer no street parking as the car dooring problems scares me. There is plenty of off road parking already. There is no real need for on street parking and there is a real danger of injury or even death if people do not look out for bike riders before they open their car doors, as they can be knocked into the path of other vehicles.</p>	<p>With regards to cycle lane infrastructure, these shall be clearly defined, the independent road safety audit recommended that the 'buffer zone' between vehicle parking bays and the cycle lane be increased to a standard 500mm to significantly reduce the chances of cyclist conflict with car doors. As a result of increasing the 'buffer zone' parking bays in various locations are proposed to be removed as a result of insufficient road width to accommodate cycle lanes, the buffer zone and inability to maintain parking. In certain areas it would be cost prohibitive to widen the road due to congestion of underground services, therefore cycling is being prioritised over on street parking. Also, green surface demarcation shall be installed at hazardous area such as at the approached to intersections and across the loading zones and crossover with high traffic movements. At present Murray St, in accordance with the City's adopted Cycle Plan 2029, is allocated for on road cycle lanes and not shared pedestrian/cycle path. The on road cycle lanes will be accompanied by signal prioritisation at intersections whereby cyclists shall be afforded a timed head start over general traffic improve safety and increase priority - this is soon to be introduced on</p>	<p>Continue investigation of increased 'buffer zone' between general parking bays and cycles lanes, and if necessary remove parking bays.</p>

					Barrack Street Two Way (St Georges Terrace to Wellington St).	
48	Hasan Ehdeyhed	NO	46855/15	<p>Unless if Hay Street is simultaneously turned into a two way street, this proposal will add to traffic congestion on Murray Street during afternoon peak hours. Traffic attempting to enter the freeway from Murray Street can bank up to Colin Street. At present, vehicles not entering the freeway can drive past the traffic on the left lane. If Murray Street is converted to two way lanes, the traffic entering the freeway and other traffic heading east will be forced into one lane and produce major congestion, making access to Murray Street heading east bound extremely difficult (and access to my residence on Coolgardie Street virtually impossible without long delays as it is also not accessible via Wellington Street heading east from Thomas Street).</p> <p>The existing Stage 1 two way project has added to extra traffic congestion at all times of the day. The traffic heading towards Thomas Street does not appear to be sufficient to justify this change. The amount of traffic heading toward the freeway however justifies maintaining the current one way scheme or at least converting Hay Street to two way traffic also.</p> <p>I support the installation of traffic lights at the intersection of Parliament Place and Murray Street and other attempts to make the street safer for pedestrians and cyclists.</p> <p>Thank you Hasan</p>	<p>1.The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car.</p> <p>2. Hay St is likely to undergo two way conversion in the future to provide even more alternative route choice. Funding may be available for Hay St Two Way as early as 2016/17 financial year for design and the following year for construction, subject to various influencing factors and approvals.</p> <p>3. The extension of the Murray St Two Way project shall promote the attractiveness of the westbound route to Thomas Street, which is currently restricted as the completed section finishes at the Freeway.</p> <p>4. The support for traffic lights installation at Murray St/Harvest Terrace and improvements in pedestrian and cycle safety are noted.</p>	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.

49	Western Power	N/A	46894/15	<p>Good afternoon Richard</p> <p>Western Power does not have any specific comments at this time to the above proposal, however we would appreciate being kept informed of developments. As there are overhead power lines and/or underground cables, adjacent to or traversing the property the following should be considered, prior to any works commencing at the above site/development/property or if any alignments, easements or clearances are encroached or breached.</p> <p>Working in proximity to Western Power Distribution Lines All work must comply with Worksafe Regulation 3.64 - Guidelines for Work in the Vicinity of Overhead Power Lines. If any work is to breach the minimum safe working distances a Request to Work in Vicinity of Power lines form must be submitted. For more information on this please visit the Western Power Website links below:</p> <p><a href="http://www.westernpower.com.au/safety/WorkingAroundPowerLines/working_near_electricity.html">http://www.westernpower.com.au/safety/WorkingAroundPowerLines/working_near_electricity.html</a> <a href="http://www.westernpower.com.au/safety/DialBeforeYouDig.html">http://www.westernpower.com.au/safety/DialBeforeYouDig.html</a> or <a href="http://www.1100.com.au">www.1100.com.au</a> <a href="http://www.commerce.wa.gov.au/WorkSafe/">http://www.commerce.wa.gov.au/WorkSafe/</a></p> <p>If you require further information on our infrastructure including plans, please complete a request for Digital Data</p> <p>(See attached file: WE#4436869V2.PDF)</p> <p>If you require relocation or removal of our infrastructure, please complete the below application.</p> <p>(See attached file: Application for relocation or removal of Western Power assets.pdf)</p> <p>Please note: Western Power must be contacted on 13 10 87, or complete the attached DQA form, if your proposed works involve:</p> <p>A) Any changes to existing ground levels around poles and structures.</p> <p>B) Working under overhead power lines and/or over underground cables.</p> <p>(See attached file: Updated DQA.pdf)</p>	N/A	The project team shall liaise with Western Power over any impacts to their infrastructure, relocations, diversions as a result of the proposals and report back on the costs associated with service relocations.
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			<p>Western Power is obliged to point out that any change to the existing (power) system; if required, is the responsibility of the individual developer.</p> <p>Kind regards</p> <p>Kelly</p> <p>Customer Service Coordinator</p> <p>Customer Service</p> <p>Western Power – 363 Wellington Street Perth WA 6000</p> <p>T: (Fault / Emergencies) 13 13 51 &amp; (General Enquiries) 13 10 87   F: (08) 9225 2660</p> <p>E: enquiry@westernpower.com.au</p> <p>W: westernpower.com.au</p>		
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50	Paul Hunt	NO	50107/15	<p>WAPU understand the need for better traffic flow in and around the CBD to overcome the disruption to natural flows, such as at Riverside Drive, created by the Elizabeth Quay development.</p> <p>We are concerned that reversion to two way traffic on Murray Street between Havelock and George will exacerbate the heavy afternoon peak hour congestion already experienced along this stretch of road, as it feeds both the north and south freeway onramps at George Street.</p> <p>Reducing vehicle movements to one lane in each direction, coupled to traffic lights at Harvest Terrace, will likely lead to increased congestion and driver frustration. We are also minded of the regular Red Cat transport, which at peak hour often includes two or more buses in close convoy, which will likely add to congestion as the trailing bus(es) will be blocking the single lane.</p> <p>As part of any conversion proposal, we suggest that the roadside parking bays immediately in front of our property, and east to Harvest Terrace, be changed to a combination of Police only and 15 minute short term parking bays. WAPU is two buildings west of the National Law Enforcement House, and with heightened security requirements and monitoring associated with Police properties it would be beneficial to these national security measures to modify street parking provisions. Limiting parking to police, or short term stays, will enable better security monitoring of vehicles overstaying there time allocation.</p> <p>A consequence of those changes would be the need to relocate the Disabled Parking bay immediately outside our building. We would propose it be moved west, to the front of our neighbouring property 643 Murray Street.</p>	<ol style="list-style-type: none"> <li>1. The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car.</li> <li>2. The Red CAT bus is likely to be relocated to Hay Street once that street is converted to two-way in the future.</li> <li>3. In relation to the suggested changes to kerbside parking use outside of the WAPU to a combination of Police only and 15 minute short term parking to improve security, this will be considered in relation to the provisions made in the City of Perth's On Street Parking Policy 22.9 and any requirements outside of that policy will be fully considered.</li> <li>4. Provision for the relocation of the disabled parking bay immediately outside the WAPU building has already been considered with an upgrade of the disabled bay to the current City standard requires relocation of the bay.</li> </ol>	Investigate and consider changes to the on street parking provision and allocation immediately outside of WAPU building. Continue relocation of disabled parking bay.
51	Bradley Ross	NO	50141/15	<ol style="list-style-type: none"> <li>1- Wouldn't it make sense to start from Elder Street and work up to Thomas Street - Not the other way round?!</li> <li>2- You need to make the road between Elder Street and Milligan a dual carriageway heading west. Get off your office chair and see what happens at peak period turning south. If it stays one lane, you will mess it up like you did between Milligan St and the Mall. No-one wants to see the COP mess it up twice. Its embarrassing.</li> <li>3- Get the buses off Murray Street.</li> <li>4- Don't stuff it up - you have already got a bad wrap for the Milligan to Mall disaster.</li> </ol>	<ol style="list-style-type: none"> <li>1. The proposed staging of the project is currently provisional and is subject to change. The rationale behind the staging the project with the West Perth section first and then the Freeway area last is that the West Perth section is much less complex in terms of civil engineering works, and the Freeway area is more complex and involves much more risk. In reality the staging of Stage 2 and Stage 3 shall likely be a continuous process in order to minimise disruption. The staging is currently subject to change should Council decide to approve construction of the project, and also depends on Main Roads WA approval and programming of road works in the CBD.</li> <li>2. Making the road between Elder and Millgan a dual carriageway heading west is not possible. This would only attract more journeys by private car, as there would not be sufficient room for cycle lanes, on street parking would be lost, the road would allow for greater vehicle</li> </ol>	Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.

					speeding placing pedestrians and cyclists at greater risk. 3. The Red CAT bus service may be relocated to Hay St, once this street is converted to two way operation in the future. However, whilst these buses remain in Murray Street these provide for journeys which may otherwise have been made by private car, assisting in the reduction of congestion for those who must travel by private car.	
52	Ross Montgomery	YES	50633/15	The return to two way flow is good. Cycling lane needs to be marked through the intersection and operated as a contraflow for safety reasons. In Graz in Austria they do this and there was a marked improvement in safety for cyclists and pedestrians. This improves the visibility of cyclists to all other It would also be preferable for the cycle lane to be located between the footpath and the parked vehicles - this is also done extensively in Europe and is safety related because it provides better protection for bikes, is safer for parkers and also slows car traffic down because of the perceived narrow carriageway. It would be good to replace removed vegetation at an appropriate location such as Colin Street, Owtram Street and Gordon Street.	With regards to comments of cycle lane configuration, the cycle lanes shall be clearly defined, the independent road safety audit recommended that the 'buffer zone' between vehicle parking bays and the cycle lane be increased to a standard 500mm to significantly reduce the chances of cyclist conflict with car doors. Also, green surface demarcation shall be installed at hazardous area such as at the approached to intersections and across the loading zones and crossover with high traffic movements. At present Murray St, in accordance with the City's adopted Cycle Plan 2029, is allocated for on road cycle lanes and not shared pedestrian/cycle path. The on road cycle lanes will be accompanied by signal prioritisation at intersections whereby cyclists shall be afforded a timed head start over general traffic improve safety and increase priority - this is soon to be introduced on Barrack Street Two Way (St Georges Terrace to Wellington St). 2. Copenhagen style protected two-way bicycle lanes have been considered in the past and their roll out was decided against by Council in favour of standardised on road cycle lanes in each direction as per the adopted Cycle Plan 2029. A proposal for temporary Copenhagen style bike lane was previously put to Council for approval for Barrack Street (St Georges Terrace to Wellington St) and was rejected due to lack of support. 3. Previously allocated removal of planting and vegetation shall be removed with efforts to retain trees pursued by installing kerbed build outs in mature tree locations. This involves the removal of on street parking.	Pursue the improvements to the increased 'buffer zone', additional green surface treatment to highlight hazardous areas and signal priority for cyclists. Pursue the retention of mature trees previously allocated for removal.
53	Jennifer & Brad Sheppard	NO	50649/15	traffic in peak hours on Murray St travelling east always comes to a stop blocking access to our building. If the street becomes 2 way, this will cause more of a bottle neck as it is the only access to south bound freeway. To come out of our parking area to go east will mean trying to get 3 lanes of traffic to stop to allow us out. This building houses a specialist dental practice with 7 chairs operating, therefore 7 patients in the chairs and 7 waiting for next appointment. This turnover of patients is constant and they are provided with parking on the Murray St level of the building. Not only will they cause traffic jams as they wait to turn into parking having travelled eastwards down Murray St ( bulk of patients are from western suburbs) but we stand to lose patients	1. The respondent refers to traffic currently blocking their access/egress on Murray Street. Currently traffic exiting this car park can only travel eastbound under the one-way street configuration. The two way configuration will allow those vehicles wishing to travel westbound or access Freeway north, to do so by turning left out of their access and/or tuning right onto Havelock St or Colin St and then onto Wellington St away from perceived congestion on Murray St. This in itself embodies the alternative route philosophy which a two-way street configuration allows for i.e. traffic can disperse away from congested areas, as they are afforded alternative routes.	Progress design development to maximise the number of alternative routes available to road users on Murray St. Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.

				<p>if it is too difficult for them to access. Older patients already find it difficult so more of them will choose to go local therefore it is detrimental to our business. How will parking access be affected during the actual road work? Will we still have that access and, if not, what will we tell patients who frequently have long appointments? We provide free parking but if they have to pay for parking externally they may choose not to get their dental work done here, more loss of revenue. Will we get a concession on the enormous Parking Tax we pay to Perth City Council if we cant even access the area during the development? We also have leased parking for the workers in adjacent buildings who may choose to park somewhere else easier to access, more loss of revenue for us.</p> <p>This particular intersection is horribly clogged up at peak times with workers looking to access freeway north and south; it can only get worse by reducing their access via east bound Murray St.</p> <p>I am sure other businesses will feel the same. If traffic flow westwards from the city on Hay St and Wellington St is monitored, does it really warrant adding Murray St? Currently, I park on the Murray st level of parking in the building. I am forced to turn eastwards; once I have been allowed out by the already blocked up freeway access lane, I cross over to Gordon St, then iturn westwards up Wellington St. I NEVER have access issues here at peak time. There is barely any traffic as there are freeway access lanes being used. I can always get out of Gordon St with no delay. This says to me that freeway access is paramount, not necessarily out flow of traffic from city. We are very disturbed at the proposal and cannot see the benefits to traffic flow.</p>	<p>2. The respondent assumes that every patient travels to the practice by car and has a destination to the east of Havelock St - this is not realistic. Patients accessing the practice by car in an eastbound direction shall turn right into the access and may experience momentary delay as they negotiate oncoming vehicles. The east and west vehicles movements shall operate through the intersection at the same time and therefore any momentary delays turning right into the practice will be minimal with sufficient gaps in traffic predicted. If the bulk of the patients are from the western suburbs then most patients travelling to the practice by car shall benefit from the new westbound lane when exiting the car park.</p> <p>3. Studies have documented that investment in cycle and pedestrian infrastructure and making streets safer in some cases has increased patrons arriving by foot and bicycle and often spend the most money per month compared to vehicle drivers. Case studies have shown that making streets more walking and cycling friendly will - increase retail rents in the area, increase sale prices of nearby homes, significantly increase pedestrian and cyclist activity (footfall), generate more business and stimulate the local economy. Anecdotal evidence from a number of businesses on the existing two way section of Murray Street indicated overwhelming support for the conversion citing the additional exposure that their businesses had received and greater accessibility for their businesses. Most had mentioned they are supportive of the City's plan to extend the conversion to the entire length of Murray Street with a perceived stretching of the CBD as a result.</p> <p>4. Access to the business during the road construction period will be maintain at all times, even if the road is closed to through traffic (if required) local access shall be maintained. The City of Perth will endeavour to minimise disruption to businesses as much as possible during the construction phase.</p> <p>5. Journeys from the business which currently involve routing via Gordon St to access Wellington St will directly benefit from the new westbound lane.</p>	
54	Naomi Graham	YES	50675/15	<p>Given the projected population in Perth, making the city more accessible is a forward thinking idea.</p>	<p>Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.</p>	Continue with two-way street program

55	Alan Ferguson	NO	51076/15	<p>You obviously don't want any comments because of the tiny comment box you have provided.</p> <p>When I received your brochure in the mail I thought that finally the two way experiment on Murray St was being proposed to end.</p> <p>I can't believe this is a proposal to extend the portion of Murray St that will be broken.</p> <p>East bond traffic is constantly backed up all the way from Barack St to Milligan St. Having only one lane eastbound has worsened the traffic congestion by an order of magnitude. If any vehicle attempts to turn, or park the entire traffic flow stops.</p> <p>There is no way to drive around the CAT bus, all traffic is stopped when these buses stop.</p> <p>Can you please provide your statistics on how the current two way configuration on Murray St has worsened congestion in the past year?</p> <p>It is plain to see for anyone who is ever in the city that a 2 lane east bound street has been changed into a one lane east bound street, with one lane that is west bound that is unused, and unneeded by vehicles.</p> <p>Do you have any statistics on the percentage of cars attempting to move east vs the number of cars attempting to move west on Murray St between Barack St and Milligan St?</p> <p>I would estimate it is somewhere between 100-1 and 100-5.</p>	<ol style="list-style-type: none"> <li>1. The consultation brochure provided various ways for respondents to give feedback, by post, by email and by online form, each with unlimited space for written content. The consultation brochure referred to these methods.</li> <li>2. The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car.</li> <li>3. The potential relocation of the Red CAT bus from Murray St to Hay St once Hay St is converted to two-way operation may improve delays currently experienced by the Red CAT bus.</li> <li>4. The extension of the Murray St Two Way project shall promote the attractiveness of the westbound route to Thomas Street, which is currently restricted as the completed section finishes at the Freeway.</li> </ol>	<p>Review traffic modelling simulation to ensure congestion is minimised as much as possible following two-way conversion.</p>
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56	Evan Boyd	NO	51520/15	<p>This section of Murray St feeds the freeway entrances from West Perth and Subiaco etc and having , in essence , one lane traffic in each direction will cause congestion and actually impede traffic flow as well as increase noise pollution. I am definitely not in favour of this proposal.</p>	<p>1. The submission identifies perceived congestion issues on Murray St. At present traffic is forced to travel one way towards the Freeway intersections of George St and Elder St concentrating traffic in this area. The two way proposal aspires to create alternative routes for traffic which would otherwise travel westbound away from the congested areas, helping to reduce congestion by redistributing traffic. The two way proposal incorporates improved traffic signal phasing at all traffic signal controlled intersections, with removal of some phases to increase traffic flow efficiency. The proposed traffic signal phasing at the Freeway intersections shall be coordinated to achieve a 'green wave' for traffic movements in the current dominant traffic directions (eastbound on Murray St and southbound on George St. 2. Two-way street conversion have been shown to reduce the average speed of vehicles travelling in both directions - should pedestrians choose to cross the road legally mid-block then reduced traffic speeds significantly reduced the chances of serious injury. 3. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car. 2. Studies have documented that investment in cycle and pedestrian infrastructure and making streets safer in some cases has increased patrons arriving by foot and bicycle and often spend the most money per month compared to vehicle drivers. Case studies have shown that making streets more walking and cycling friendly will - increase retail rents in the area, increase sale prices of nearby homes, significantly increase pedestrian and cyclist activity (footfall), generate more business and stimulate the local economy.</p>	<p>Review traffic modelling simulation to ensure congestion is reduced as much as possible following two-way conversion.</p>
57	Glen Ford	YES	51899/15	<p>The more bicycle friendly the better to encourage people to cycle into work even shopping, but must have infrastructure when they get into the CBD like racks, parking and bringing cycles on the train if they need to!!</p>	<p>Thank you for your demonstrated support for the recent and upcoming two way street conversions within the City of Perth. The City of Perth appreciates your feedback and is happy that the objectified outcomes of these projects are being realised by stakeholders and customers.</p>	<p>Continue with two-way street program</p>

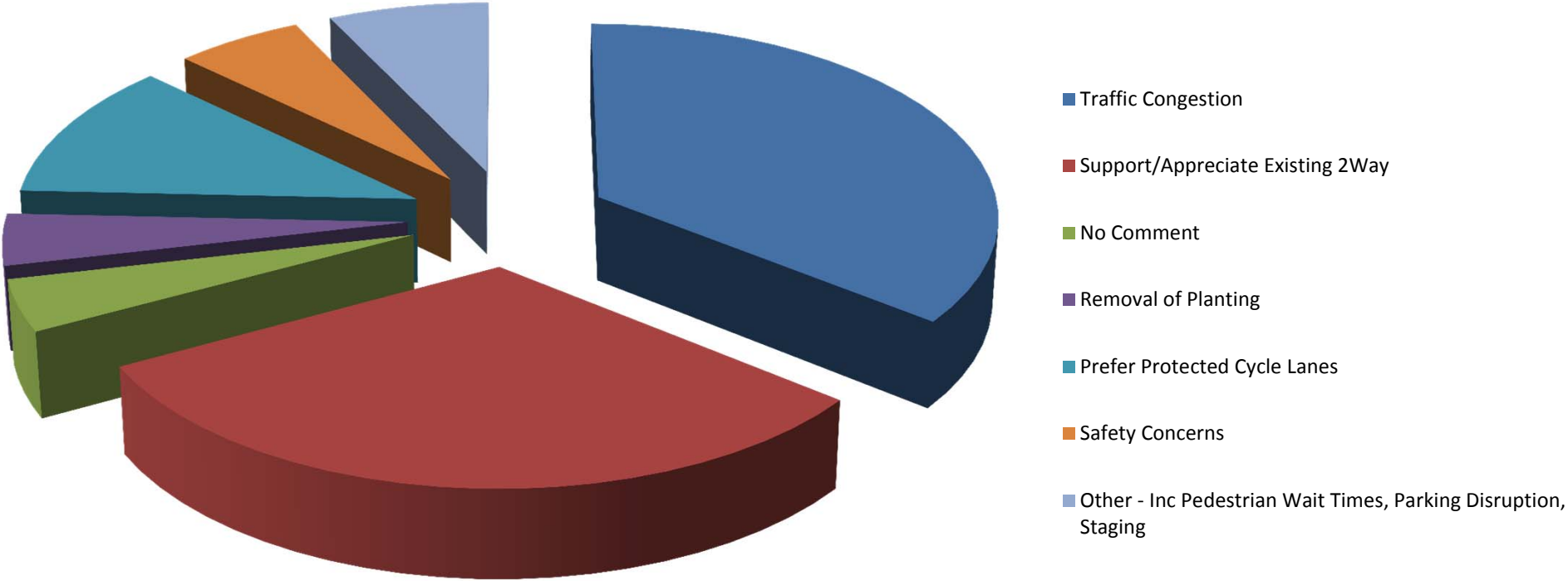
58	Stephen O'Keefe	NO	139424/15	<p>Two way street conversion will reduce visibility for our business. Disruption to business due to road works, could cause significant financial loss to the business. Disruption to parking outside the business makes it more difficult for customers to drop by, therefore reducing foot traffic.</p> <p>Pedestrian safety will be reduced, therefore deterring more foot traffic.</p>	<p>Anecdotal evidence from a number of businesses on the existing two way section of Murray Street indicated overwhelming support for the conversion citing the additional exposure that their businesses had received, greater accessibility for businesses. Most had mentioned they are supportive of the City's plan to extend the conversion to the entire length of Murray Street with a perceived stretching of the CBD as a result. The development of the street design will minimise the loss of street parking as much as possible; there is already a large supply of on street and off street public parking in the West Perth area. Many car-borne shoppers are 'drive-through' shoppers, stopping to pick up one item on the way to their eventual destination, rather than people for whom shopping is their main purpose for visiting the area. This has a negative impact on a busy retail street, which is likely to be disproportionate to the extra business that it generates. Studies have documented that investment in cycle infrastructure and making streets safer in some cases has increased patrons arriving by foot and bicycle and often spend the most money per month compared to vehicle drivers. Case studies have shown that making streets more walking and cycling friendly will - increase retail rents in the area, increase sale prices of nearby homes, significantly increase pedestrian and cyclist activity (footfall), generate more business and stimulate the local economy. Studies have shown that vehicles speeds reduce on a two-way street when compared to its former one-way configuration. Regular and fast overtaking occurs in the one-way scenario and pedestrians crossing the street, particularly at zebra crossings, are much more vulnerable to the masking effect of two lanes of traffic travelling at speed in the same direction. This masking effect is removed in a two way street environment with a single lane in each direction and reduces the incidences of overtaking. Slower vehicle speeds create a safer and less imposing environment for pedestrians and cyclists which helps promote and prioritise these travel modes including encouragement of modal shift away from the private car. This gives the streets a much slower paced community feel (rather than a traffic thoroughfare) much better suited to residential and retail uses along its length.</p>	<p>Ensure construction methodology minimises disruption to businesses during construction. Review on street parking to maximise provision as much as possible.</p>
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59	James Fogarty	NO	139452/15	<p>I am a local resident that travels on the section on Murray street to be converted every day. The conversion of the street to a two way section would be dreadful for me. I am not passing through the cbd I live right on the road you are proposing to change. Prior to the conversion of the first stage of Murray street I had no problem accessing my home -- access of Milligan street. The conversion of the first stage has had a detrimental impact on me. The effective removal of the peak hour lane on Wellington street between Milligan street and Elders street has also had a detrimental impact on me. Because of these changes I now spend less time in the city I have to get out before I get stuck in traffic, and I can't get back in till after peak hour has passed. I have actually changed my lifestyle to be in the city less since the stage one conversions.</p> <p>It is my strongest possible wish as a local resident that the council does not proceed with this project. I have worked on travel planning. I have conducted cost benefit studies where no market values are incorporated as a benefit.</p> <p>Any serious analysis of this project would show that it is a seriously flawed concept. Even some basic thinking about the way the red cat runs along the route and you would see it is a bad idea.</p> <p>Regards, Dr. James Fogarty</p>	<p>1. It is difficult to see how the conversion of the first stage of Murray St to two way has had a detrimental effect on access to properties on Milligan St. The conversion of the first stage did not remove any access routes or permitted turns when compared to the former one way system. The two way configuration actually increases the number of alternative routes such as the westbound route to the Freeway. A review of the peak period banned right turns at the intersection of Murray/Milligan shall improve accessibility to properties and alternative routes further if they are removed; the potential for this is currently being progressed with Main Roads WA.</p> <p>2. The removal of the 'peak hour lane' on Wellington St referred to, was not part of the two way conversion. This was done to improve pedestrian footpath provision and also improve pedestrian crossing facilities at signal intersections. Studies have documented that investment in cycle and pedestrian infrastructure and making streets safer in some cases has increased patrons arriving by foot and bicycle and often spend the most money per month compared to vehicle drivers. Case studies have shown that making streets more walking and cycling friendly will - increase retail rents in the area, increase sale prices of nearby homes, significantly increase pedestrian and cyclist activity (footfall), generate more business and stimulate the local economy.</p>	<p>Pursue the potential removal of peak period banned right turns at the intersection of Murray/Milligan to improve accessibility to properties and alternative routes. Review traffic modelling simulation to ensure congestion is minimised as much as possible following two-way conversion.</p>
60	Ross Billing	NO	139471/15	<p>Murray st traffic in the afternoon is now a car park following the two-way conversion of Murray St between Milligan St and William St. The traffic does not have time or anywhere to move into onto William St. Priority should be given to clear these streets. Not many vehicles travel westbound on Murray St between Milligan and William and that lane would be better off being a taxi/bus lane in the Eastern direction.</p>	<p>1. The perceived traffic congestion on the section of Murray St between Milligan St and William St is under continuous review and recent discussions with Main Roads WA and potential signal phase improvements to the intersection of William/Murray as a result of proposals by PTA may reduce congestion on this section. The potential relocation of the Red CAT bus from Murray St to Hay St once Hay St is converted to two-way operation may improve delays currently experienced by the Red CAT bus.</p> <p>2. In reference to the comment regarding the completed section of stage 1 and very few cars travelling the other way, this is predicted to increase given the opening up of the currently restricted westbound link, all the way to West Perth. The benefits that the two way conversion shall bring for cyclists will be huge and is likely to achieve</p>	<p>Investigate design changes to prioritise the dominant eastbound traffic flow at intersections to help minister congestion and delays as far as possible. Review traffic modelling simulation to ensure congestion is minimised as much as possible following two-way conversion.</p>



					a modal shift of journeys away from the private car in this area, helping to reduce congestion for those who choose to drive a private car.	
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# Murray St Two Way (Thomas to Elder) Consultation Responses Received by Topic



# SCHEDULE 5

The Royal Automobile Club of WA (Inc.)  
ABN 93 095 467 226  
A 832 Wellington Street, West Perth, WA 6005  
T 13 17 03

[rac.com.au](http://rac.com.au)



## Memo

To: FAO Richard Spencer, City Design – [info@cityofperth.wa.gov.au](mailto:info@cityofperth.wa.gov.au) Date: 30/03/2015  
Cc: Anne Still, Senior Manager Policy and Research, Advocacy and Members, RAC No of Pages: Three(3)  
From: RAC, Policy & Research Team  
Re: Murray Street Two Way Conversion Proposal – Consultation Response

Urgent  For Review  Please Comment  Please Reply

Dear Richard,

Thank you for inviting RAC to comment on the City of Perth's proposed conversion of Murray Street (between Thomas Street and Elder Street) to two-way operation. RAC advocates for safe, accessible and sustainable mobility options for our members and the wider WA community. We welcome the Council's proactive approach to seeking to create people oriented streets and providing better access to this area for all road users.

Specifically, we are broadly supportive of following elements of the proposal:

- On-road cycle facilities in the form of dedicated on-road cycle lanes (with green surfaces and signage) and cycle head start facilities at the intersections with Outram Street, Colin Street, Havelock Street, and George Street and Elder Street;
- Footpath improvements and widening;
- Improved crossing conditions for pedestrians in the form of reduced crossing distances at Gordon Street and the new traffic signals at the intersection with Harvest Terrace; and
- Improved vehicular access and potential reduction in traffic circulation which may result from improved legibility following the conversion.

We do however have some comments and queries about the proposal as set out below.

### **Pedestrian movement and safety**

From the consultation leaflet provided by the City is it apparent that parallel walk crossings are proposed to be introduced at intersections with timed head starts and 'walk / don't walk' pedestrian lanterns.

The City has a policy to convert pedestrian signals at signalised intersections from exclusive pedestrian crossings to parallel walks, the intention of which is to provide more consistency in crossing arrangements and maximise capacity for vehicular traffic. We understand that the typical head start period for

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pedestrians at crossings in the city that have already been converted is 5 seconds.

Despite the fact that such crossings have been operating in the CBD for some time now, some motorists do not realise that they are required to give way to pedestrians when turning. Upon receiving a green light they sometimes assume they have right of way and pull away from the stop line at speed. As a result, there is increased potential for conflict between turning vehicles and pedestrians. Vehicles pulling off from the lights edging forward whilst pedestrians are still on the crossing can also be intimidating, particularly for slower moving pedestrians.

In our submission on MRWA's draft Traffic Signal Policy and Application Guidelines in August 2014 we highlighted the need for appropriate permanent signage to be installed at signalised intersections with full parallel and partial protection parallel crossings to advise drivers who are turning that they must give way to pedestrians. These signs are typically only installed for a period of 3 months but they are a low cost option to improve pedestrian safety and could easily be installed permanently.

### **Cycling facilities**

From the schematic in consultation leaflet it would appear that at the eastern end of Murray Street, approaching Thomas Street, the cycle lane will terminate and direct cyclists onto the footway. There is a note stating that the cycle lane will connect with the future shared path proposed in the Cycle Plan 2029. No details have been provided to confirm when the footpath will be converted to a shared path and this project does not appear to be in the Implementation Program 2012-2017 for the Cycle Plan 2029. It is therefore unclear what cyclists will be expected to do in the interim.

It would also be useful to know the widths of proposed general traffic lanes and on-road cycle lanes. Without this information we are unable to comment on the adequacy of the facilities.

In addition, the leaflet suggests that signal modifications will help to create a more cycle friendly street but no information has been provided to confirm what these modifications will be.

### **Traffic impacts**

The consultation leaflet highlights the conversion of a number of streets to two way operation but the leaflet does not provide information about the anticipated traffic impacts of this specific proposal. As such, we are unable to comment on the proposal from a traffic circulation, operation and efficiency perspective.

Whilst the leaflet is intended for general public consumption, it would have been helpful for stakeholders to have access to the results of traffic modelling undertaken for the proposal to provide an indication of the likely impacts on both Murray Street and the wider road network from the redistribution of traffic. It is also necessary to know the revised traffic signal timings to better understand the potential impacts on all road users.

In addition, the schematic notes that there will be significant changes to the road layout and freeway access around Elder Street; is it envisaged that more traffic will use Murray Street to access the Freeway?

The Royal Automobile Club of WA (Inc.)  
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[rac.com.au](http://rac.com.au)



We trust that our comments will be given due consideration and we look forward to receiving the City's response to our queries. Should you wish to discuss any of the above please do not hesitate to contact RAC on 9436 4903 or via email at [advocacy@rac.com.au](mailto:advocacy@rac.com.au).

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