

MELTON AMENDMENT C146 & C147 – PLUMPTON AND KOROROIT PSPs

EXPERT REPORT

22 November 2016



CONTENTS

1	INTRODUCTION	1
2	EXECUTIVE SUMMARY	4
3	TERMINOLOGY	5
4	ESTIMATE METHODOLOGY	6
5	ESTIMATE ASSUMPTIONS	7
6	ESTIMATE EXCLUSIONS	8

APPENDICES

APPENDIX A	INSTRUCTIONS & GUIDE TO EXPERT EVIDENCE
APPENDIX B	CURRICULUM VITAE – PETER GILL
APPENDIX C	CURRICULUM VITAE – SIAN MCKENNA
APPENDIX D	COST ESTIMATE

1 INTRODUCTION

1.1 DECLARATION

- 1.1.1 *I, Peter Gill, am the National Infrastructure Manager of WTP Australia Pty Ltd (WTP), an Australian owned quantity surveying practice, an Associate of the Australian Institute of Quantity Surveyors, and an industry practitioner of over 33 years' experience, 10 of which have been in Australia. My curriculum vitae is attached as Appendix A.*
- 1.1.2 *This report has been prepared jointly with Sian McKenna, an Associate Quantity Surveyor of WTP, and an industry practitioner of over 20 years' experience, 17 of which have been in Australia. Sian's curriculum vitae is attached as Appendix B.*
- 1.1.3 *We have prepared this joint report and have made all enquiries which we believe are desirable and appropriate. No matters of significance which we regard as relevant have to our knowledge, been withheld in making this statement.*
- 1.1.4 *In preparing this report we have had regard to the duties and responsibilities set out in Division 2 of Part 31 of the Uniform Civil Procedure Rules 2005 (UCPR) and we agree to be bound by the Expert Witness Code of Conduct in Schedule 7 of the UCPR. We have also had regard to the Guide to Expert Evidence.*
- 1.1.5 *This report does not purport to prove facts. All references to facts are to be read as references to assumed facts. Facts have been assumed for the purpose of carrying out the cost estimates and reaching the conclusions contained within this report. When a fact has been assumed based on the readings of a document, a reference to that document is generally provided to that document in the relevant section of this report.*
- 1.1.6 *We have used the reference material briefed to us in the Letter of instruction from Harwood Andrews dated 14 November 2016 regarding Proposed Amendments C146 and C147 to the Melton Planning Scheme, Plumpton and Kororoit Precinct Structure Plans.*
- 1.1.7 *We understand that the immediate use of this statement is for VIC Court Proceedings between Melton City Council (Council) and the Victorian Planning Authority (VPA).*

22 November 2016

Date



Mr Peter Gill



Mrs Sian McKenna

1.2 EXPLANATION OF EXPERTISE

- 1.2.1 Our primary role over the past ten years has been to provide independent estimator advice to both private and government clients. In simple terms, our role is to provide independent assurance/validation that the estimates submitted as a representation of the construction costs for projects are market-related and relative to those that would be received in a competitive tendering environment.
- 1.2.2 Between us, we are personally responsible for the accuracy and quality of between fifty (50) and seventy (70) cost estimates each year. Specific examples of projects that have relevance to the options that have been considered in this report are as follows:

PROJECT NAME	CLIENT	COMPLETION DATE	RELEVANCE TO THE REPORT
Ballart Rail Corridor	PTV	2016	This project involves the installation of pedestrian bridges along the Ballart Corridor
Pittwater Council ATS Naomi O'Brien	DLA Piper Australia on behalf of Naomi O'Brien	September 2012	This project has relevance to the assessment of quantities and to the scope of stormwater drainage.
Western Distributor	Transurban	2014/15	Provision of P50/P90 risk adjusted cost estimates
Tulla Calder Widening	Transurban	2014	Provision of P50/P90 risk adjusted cost estimates
Level Crossing Removal Project – Project Options Report	LXRA	2015/16	Provision of P50/P90 risk adjusted cost estimates for 30 selected sites for various cost options
Level Crossing Removal Project – Reference Design Stage	LXRA	Current	Provision of P50/P90 risk adjusted cost estimates for 5 selected sites for the chosen Reference Design Option
Wyndham North	Wyndham City Council	2015	Expert costings evidence for Wyndham City
Melton Amendment C145 – Rockbank PSP AND DCP	Melton City Council	2016	Expert costings evidence for Melton City Council

- 1.2.3 Further, in our roles as Independent Estimators, the owners of the various projects make commercially sensitive information available. This information contains the Contractors' detailed cost makeups for all of the work activities that would be associated with these projects, including those submitted by subcontractors for the works that would not normally be carried out by the Principal Contractor. The costs for various different types of construction activities can therefore be tested (or 'benchmarked' as it is termed in the industry) against other projects with similar work activities to ensure that these costs are market-related and relative to those that would be received in a competitive tendering environment.

- 1.2.4 We receive regular feedback from our clients on the costs for the projects that we are required to validate in the form of tender prices and/or actual costs.

1.3 BRIEF DESCRIPTION OF THE MATTER

- 1.3.1 We have been instructed by Council to prepare an independent cost estimate in order to determine the cost difference between providing on road bike lanes and off road bike paths along secondary arterial roads.
- 1.3.2 Accordingly, WTP has prepared these respective cost estimates for both options outlined above, based upon a typical road segment of 500 linear metres.

1.4 INSTRUCTIONS

- 1.4.1 We have been retained by Harwood Andrews on behalf of Melton City Council to provide independent expert opinion for Melton Amendments C146 and C147 to the Melton Planning Scheme – Plumpton and Kororoit Precinct Structure Plans.
- 1.4.2 We have been requested to determine the cost difference between providing on-road bike lanes and off-road bike paths along secondary arterial roads.
- 1.4.3 Specifically we are requested to prepare a cost estimate per linear metre for both options based upon:
- A typical road segment of 500 linear metres;
 - A 34 metre wide road reserve;
 - Road pavement composition in accordance with the functional layout plans and cost estimates for the Rockbank PSP;
 - The on-road option including road pavement width of 11 metres;
 - The off-road option including road pavement width of 7 metres, and a 2 x 3 metre wide concrete bike path;
 - The cross sections for secondary arterial roads at pages 101 and 102 in the Plumpton PSP and page 105 in the Kororoit PSP; and
 - Council's preferred alternative cross-section for the secondary arterial roads.

1.5 DOCUMENTS EXAMINED BY WT PARTNERSHIP

- 1.5.1 In preparing this report, we have been provided with, and have examined the following relevant documents:

AUTHOR	DATE(S)	REV NO.	DESCRIPTION
MPA	Received Nov 2016	Not stated	Cross-section 3 for secondary arterial roads, as per page 101 of the Plumpton PSP
MPA	Received Nov 2016	Not stated	Cross-section 4 for secondary arterial roads, as per page 102 of the Plumpton PSP
MPA	Received Nov 2016	Not stated	Cross-section 3 for secondary arterial roads, as per page 105 of the Kororoit PSP
Harwood Andrews	Received Nov 2016	Not stated	Scope as per Letter of instruction
MPA	April 2011	Rev 1	Engineering Design & Construction Manual for Growth Areas Standard Drawings Figure 006 'Typical Residential Footpath Cross Section'

2 EXECUTIVE SUMMARY

- 2.1 This report addresses the estimated costs in relation to the provision of bike lanes along secondary arterial roads.
- 2.2 For the purposes of this report, two options have been considered. One providing on-road bike lanes and one providing off-road bike paths.
- 2.3 We have provided cost estimates for these options using first principles estimating provided by ourselves.
- 2.4 In the absence of any design criteria provided, we have made assumptions as detailed in our cost estimates.
- 2.5 The cost estimates per linear metre for the bike path options are as follows:

WTP COST ESTIMATES										
Description	On Road Bike Lanes				Off Road Bike Path				Variance	
	Unit	Qty	Rate	Amount	Unit	Qty	Rate	Amount	Rate	Amount
Direct Costs	Lin. m	500	946.40	473,200.00	Lin. m	500	791.00	395,500.00	155.40	77,700.00
Indirect Costs (On Costs)	item	1	181,070.00	181,070.00	item	1	151,310.00	151,310.00	29,760.00	29,760.00
TOTAL ESTIMATED COST (Excl. GST)	Lin. m	500	\$ 1,308.54	\$ 654,270.00	Lin. m	500	\$ 1,093.62	\$ 546,810.00	\$ 214.92	\$ 107,460.00
GST @ 10%	Lin. m	500	130.86	65,430.00	Lin. m	500	109.36	54,680.00	21.50	10,750.00
TOTAL ESTIMATED COST (Incl. GST)	Lin. m	500	\$ 1,439.40	\$ 719,700.00	Lin. m	500	\$ 1,202.98	\$ 601,490.00	\$ 236.42	\$ 118,210.00

- 2.6 The cost estimates per 500 linear metres (excluding GST) for the on-road bike lanes and the off-road bike path are \$654,220 and \$546,810 respectively, a difference of \$107,460 (being \$214.92 per linear metre).
- 2.7 The cost estimates per 500 linear metres (including GST) for the on-road bike lanes and the off-road bike path are \$719,640 and \$601,490 respectively, a difference of \$118,210 (being \$236.42 per linear metre).
- 2.8 A detailed breakdown of all our cost estimates are attached as Appendix D.

3 TERMINOLOGY

In this report we have adopted the following terminology:

- 3.1 **Base Cost Estimate** means that based on the available information, it is the current best in market estimate of the expected financial cost of delivering the project. It includes the Direct Costs, the Contractors Preliminaries and Contractor's Overheads and Margins.
- 3.2 **'Bottoms Up' Estimating Technique** means the breaking down of an item into its smallest work components e.g. formwork, reinforcement and concrete, estimating the cost and duration of each of these components and aggregating these costs into a full rate for the item.
- 3.3 **Construction Costs** means the sum of the Direct Costs, the Indirect Costs and the Contractors Margins.
- 3.4 **Contingency** means a provision for costed project risk in excess of the Base Cost Estimate. There are two types of risk that make up the provision for contingency – Inherent Risk and Contingent Risk.
- 3.5 **Contingent Risk** means the unmeasured items outside of the Base Cost Estimate due to unforeseen circumstances such as weather impacts, industrial issues, safety, planning approval conditions, design development, owner requirements, geotechnical investigations and potential claims from the Contractor.
- 3.6 **Contractors Preliminaries** means the best in market estimate of the expected cost for the contractor's fixed site costs, recurring site costs, profit margin and corporate overheads.
- 3.7 **Direct Costs** mean the best in market estimate of the expected cost for labour, plant items, materials and subcontract works.
- 3.8 **Escalation** means the anticipated variation in price of commodities or services over time as a result of factors such as inflation, market conditions, supply constraints, timeframes etc.
- 3.9 **'First Principles' Estimating Technique** means the most accurate method of estimating an item using the direct costs and durations of the required resources of labour, plant, materials and subcontractors to determine the full rate of the item.
- 3.10 **Indirect Costs** means the best in market estimate of the expected costs for recurring and non-recurring overheads.
- 3.11 **Nominal Cost** means the estimated Total Project Cost adjusted to reflect the effects of escalation.
- 3.12 **Owners Costs** means the best in market estimate of the expected costs for contracted professional staff, investigations, land costs and resumptions, authorities' fees, and owner supplied plant, equipment and materials.
- 3.13 **Project Cost Estimate** means the sum of the Base Cost Estimate, Contingency and Escalation where defined.
- 3.14 **Real Cost** means the estimated Total Project Cost adjusted to remove the effects of escalation.
- 3.15 **Recurring Overheads** means the best in market estimate of the expected costs for site facilities, plant and equipment required for site maintenance, commercial obligations, quality assurance and safety during the execution of the Works.

4 ESTIMATE METHODOLOGY

The methodology that we have assumed in the preparation of the estimates for the bike path options are as follows:

ON ROAD BIKE LANES

- 4.1 We commenced our cost estimate for the proposed on-road bike lanes by quantifying the various components that make up the estimate (i.e. area of pavement / linemarking, etc.).
- 4.2 All quantities are based upon the information / documentation examined by WTP (Section 1.5 refers).
- 4.3 We have prepared our cost estimate for the on-road bike lanes based on 'first principles' estimating techniques in-line with the information / documentation provided.
- 4.4 Our rates for the individual items that make up the on-road bike lane estimate have been benchmarked against rates from current projects of similar nature within our cost database.

OFF ROAD BIKE PATH

- 4.5 We commenced our cost estimate for the proposed off-road bike paths by quantifying the various components that make up the estimate (i.e. area of pavement / linemarking, etc.).
- 4.6 All quantities are based upon the information / documentation examined by WTP (Section 1.5 refers).
- 4.7 We have prepared our cost estimate for the proposed off-road bike path based on 'first principles' estimating techniques in-line with the information / documentation provided.
- 4.8 Our rates for the individual items that make up the off-road bike path estimate have been benchmarked against rates from current projects of similar nature within our cost database.

5 ESTIMATE ASSUMPTIONS

The assumptions that we have used in the preparation of the estimates for the bike path options are as follows:

ON ROAD BIKE LANES

- 5.1 Length of typical road segment to 500m.
- 5.2 There are 2No. bike lanes per length of road.
- 5.3 Width of typical on-road bike lane is 2m, comprising 1.5m wide bike lane plus 0.5m wide clearance zone.
- 5.4 Road pavement composition is in accordance with the cost estimates for the Rockbank PSP.
- 5.5 Allowance for Council Fees assumed to be 3.25% of total direct cost.
- 5.6 Allowance for Vic Roads Fees assumed to be 1% of total direct cost.
- 5.7 Allowance for Traffic Management assumed to be 3% of total direct cost.
- 5.8 Allowance for Environmental Management assumed to be 0.5% of total direct cost.
- 5.9 Allowance for Survey & Design assumed to be 5% of total direct cost.
- 5.10 Allowance for Supervision & Project Management (incl. margin) assumed to be 13% of total direct cost (8% for prelims & 5% for margin).
- 5.11 Allowance for Site Establishment assumed to be 2.5% of total direct cost.
- 5.12 Allowance for Contingency assumed to be 10% of total direct cost.

OFF ROAD BIKE PATH

- 5.13 Length of typical road segment to 500m.
- 5.14 There are 2No. bike paths per length of road.
- 5.15 Width of typical off-road bike path is 3m wide.
- 5.16 Concrete bike path design is as per Figure 006 'Typical Residential Footpath Cross Section' Engineering Design & Construction Manual for Subdivisions in Growth Areas.
- 5.17 Allowance for Council Fees assumed to be 3.25% of total direct cost.
- 5.18 Allowance for Vic Roads Fees assumed to be 1% of total direct cost.
- 5.19 Allowance for Traffic Management assumed to be 3% of total direct cost.
- 5.20 Allowance for Environmental Management assumed to be 0.5% of total direct cost.
- 5.21 Allowance for Survey & Design assumed to be 5% of total direct cost.
- 5.22 Allowance for Supervision & Project Management (incl. margin) assumed to be 13% of total direct cost (8% for prelims & 5% for margin).
- 5.23 Allowance for Site Establishment assumed to be 2.5% of total direct cost.
- 5.24 Allowance for Contingency assumed to be 10% of total direct cost.

6 ESTIMATE EXCLUSIONS

The exclusions that we have used in the preparation of the estimates for the on road / off road bike path options are as follows:

- 6.1 Cost of pavements to arterial roads inclusive of kerbs, drainage, landscaping and street lighting
- 6.2 Allowance for site remediation
- 6.3 Contamination removal
- 6.4 Relocation of existing services
- 6.5 Underpinning of adjacent footings
- 6.6 Rock excavation
- 6.7 Works outside the site boundary
- 6.8 Adjoining owner issues
- 6.9 Loss of income and associated costs from affected tenancies
- 6.10 Negotiated contracts / Construction management
- 6.11 Financing costs
- 6.12 Cost escalation in construction prices beyond November 2016
- 6.13 Cost escalation until construction
- 6.14 Cost escalation until completion
- 6.15 Legal costs
- 6.16 GST



APPENDIX A

INSTRUCTIONS & GUIDE TO EXPERT EVIDENCE

Our ref: 4TED 21506258
Contact: Tessa D'Abbs
Direct Line: 03 9611 0117
Direct Email: tdabbs@ha.legal
Principal: Greg Tobin

Level 5, 707 Collins Street
Melbourne VIC 3008

DX 30970

PO Box 633
Collins St West VIC 8007

T 03 9620 9399
F 03 9620 9288

ABN 98 076 868 034

harwoodandrews.com.au

14 November 2016

Peter Gill
WT Partnership

Email: pgill@wtpartnership.com.au

Subject to Legal Professional Privilege

Dear Peter,

**Amendments C146 and C147 to the Melton Planning Scheme
Plumpton and Kororoit Precinct Structure Plans**

We confirm we act on behalf of Melton City Council (**Council**) in relation to the above Amendments.



We have been instructed to brief you to:

1. Review this letter and the enclosed brief of documents to advise if you are in a position to provide expert costings evidence on behalf of Council; and
2. Provide a fee proposal to prepare an expert witness statement and present evidence on Council's behalf at the hearing in relation to the costing matter of concern to Council detailed under the heading 'Scope' below.

Council is scheduled to appear at the hearing on Tuesday 6 December and the morning of Wednesday 7 December. We request that you maintain availability at those times. The hearing will take place at Planning Panels Victoria, Hearing Room 1 at 1 Spring Street, Melbourne.

Expert witness reports are required to be circulated by close of business on Monday 21 November 2016. We request that you provide us with a draft copy of your report before it is finalised.

Background

The Victorian Planning Authority (**VPA**) is the planning authority in respect of the Amendments. The Panel hearing will consider the Amendments concurrently.

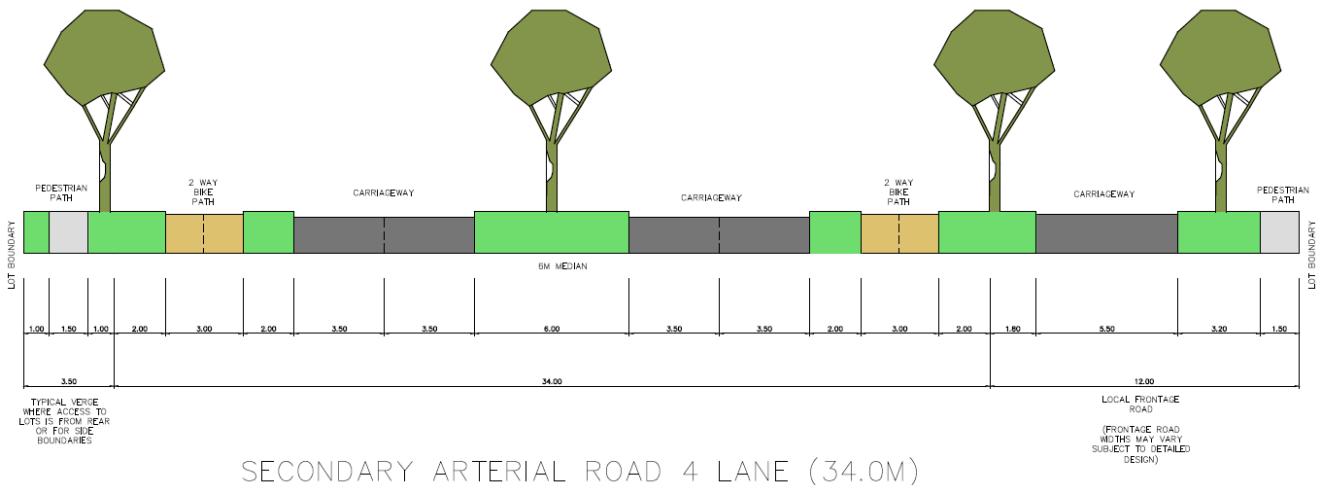
A new Infrastructure Contributions Plan (**ICP**) system was recently introduced into the *Planning and Environment Act 1987*. The VPA has advised an ICP will be developed for these PSPs. The VPA has not provided Council with any costings to inform its consideration of ICP issues to date.

Scope

You are requested to determine the cost difference between providing on-road bike lanes and off-road bike paths along secondary arterial roads.

Specifically, you are requested to prepare a cost estimate per linear metre for both options, based on:

- a typical road segment of 500 linear metres;
- a 34 metre wide road reserve;
- road pavement composition in accordance with the functional layout plans and cost estimates for the Rockbank PSP;
- the on-road option including road pavement width of 11 metres;
- the off-road option including road pavement width of 7 metres, and a 2 metre x 3 metre wide concrete bike path;
- the cross-sections for secondary arterial roads at pages 101 and 102 in the Plumpton PSP and page 105 in the Kororoit PSP; and
- Council's preferred alternative cross-section for secondary arterial roads below:



Fees

Our client will remain responsible for your fees. We request that any tax invoices be addressed to Legal Services, Melton City Council (LegalServices@melton.vic.gov.au), copied to Matthew Milbourne (matthewm@melton.vic.gov.au) and Sophie Thompson (sophiet@melton.vic.gov.au).

Documents

We have provided you with an electronic copy of the following documents:

- Planning Panels Victoria Guide to Expert Evidence
- Plumpton PSP (exhibition version)
- Kororoit PSP (exhibition version).

Please advise if you would like us to provide you with a hard copy of these documents.

If you have any queries or require any further information, please contact Tessa D'Abbs on 9611 0117.

We look forward to receiving your draft report.

Yours sincerely,

HARWOOD ANDREWS

Guide to Expert Evidence

Circulation of Expert Reports

Expert witness reports must be submitted five working days prior to the commencement of the Hearing, or another date directed by the Panel. An earlier date will be specified for more complex reports.

Parties must identify at the Directions Hearing, the evidence (if any) they will be calling at the Public Hearing.

Copies of witnesses' reports or statements must be circulated in accordance with Directions made at the Directions Hearing. If no specific directions are made, six copies of their reports or statements must be given to the Panel Coordinator at least five working days before the Hearing. Copies will be given to the Panel and to other parties as directed. Other people may obtain electronic copies by contacting the Panel Co-ordinator at Planning Panels Victoria (PPV) on 8392 6397.

A soft copy of reports should be provided as follows:

- as an unlocked 'pdf' or Microsoft Word format to PPV; and
- as a 'pdf' to the Planning Authority suitable for uploading in its website.

Before the Hearing, copies of witnesses' reports or statements will normally be available for perusal by submitters at the offices of the Planning Authority and PPV.

Expert's Duty to the Panel

An expert witness has a paramount duty to the Panel and not to the party retaining the expert.

An expert witness has an overriding duty to assist the Panel on matters relevant to the expert's expertise.

An expert witness is not an advocate for a party to a proceeding.

Content and form of Expert's Report

The report of an expert must include the following:

- the name and address of the expert;
- the expert's qualifications and experience;
- a statement identifying the expert's area of expertise to make the report;
- a statement identifying any other significant contributors to the report and where necessary outlining their expertise;
- all instructions that define the scope of the report (original and supplementary and whether in writing or oral); and
- the identity of the person who carried out any tests or experiments upon which the expert has relied on and the qualifications of that person.

Where an expert has prepared a report that has been used to inform the preparation of an amendment or proposal, the expert should not provide a revised version of that report. The expert should provide a brief report that includes:

- an unambiguous reference to the report, or reports that the expert relies upon;

- a statement identifying the role that the expert had in preparing or overseeing the exhibited report(s);
- a statement to the effect that the expert adopts the exhibited report and identifying:
 - any departure of the expert from the finding or opinions expressed in the exhibited report;
 - any questions falling outside the expert's expertise;
 - any key assumptions made in preparing the report; and
 - whether the exhibited report is incomplete or inaccurate in any respect.

Where a report has not been used to prepare an amendment or proposal, the report should include:

- the facts, matters and all assumptions upon which the report proceeds;
- reference to those documents and other materials the expert has been instructed to consider or take into account in preparing his or her report, and the literature or other material used in making the report;
- a summary of the opinion or opinions of the expert;
- a statement identifying any provisional opinions that are not fully researched for any reason (identifying the reason why such opinions have not been or cannot be fully researched); and
- a statement setting out:
 - any questions falling outside the expert's expertise, and
 - whether the report is incomplete or inaccurate in any respect.

The expert must declare at the end of the report:

'I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.'

Privacy

Expert witnesses need to be aware of their obligations under the *Information Privacy Act 2000*. Particularly when using personal information contained in submissions they have received as a third party.

Copies of witnesses' reports are usually posted on the Planning Authorities website. Where possible, the report of an expert should not refer to any individual submitter by name and if necessary, submitters should be referred to by submission number.

For more information on Privacy refer to the separate PPV **Guide to Privacy at Planning Panels Victoria**.

Where the expert changes his or her opinion on a material matter

An expert witness who changes an opinion on a material matter on the basis of another expert's report or for any other reason must communicate that change of opinion in writing to the party retaining the expert and that party must file with the Panel, notice of such change of opinion as soon as practicable.

Such a document must specify reasons why his or her opinion has changed.

Where the Panel directs expert witnesses to meet

Expert witnesses retained by parties are encouraged to meet to narrow any points of difference between them and to identify any remaining points of difference. The Panel may also direct that they meet.

If expert witnesses meet they must each set out in writing by a document filed with the Panel any agreed points and all remaining points of difference.

If any expert witness directed by the Panel to meet with any other expert is instructed not to reach agreement in respect of points of difference, the fact of such instructions must be reported in writing to the Panel by the expert witness.

Generally

Parties to a proceeding must ensure that any expert retained by them to provide a report for use in the proceeding is aware of the contents of this direction, at the time of such retainer.

Form of Report

Written material presented at the Hearing should be in the following form:

- Two-hole punched.
- Stapled, not bound.
- Photographs or other visual material should be presented in binders in A4 or A3 format, not on large boards. This makes the material easier to transport and file.

Further Information

Further information about Planning Panels Victoria can be found on the department's website:

<http://www.dtpli.vic.gov.au/planning/panels-and-committees>



APPENDIX B
CURRICULUM VITAE – PETER GILL

PETER GILL

STATE DIRECTOR- INFRASTRUCTURE

PETER UNDERSTANDS THE KEY ELEMENTS INTRINSIC TO SECURING SUCCESSFUL PROJECT OUTCOMES.



PERSONAL DETAILS

YEARS OF EXPERIENCE: 32

COUNTRIES WORKED: Australia, South Africa, United Kingdom

QUALIFICATIONS & AFFILIATIONS: Higher National Diploma, Durban Technicon, South Africa

MSc, Engineering, Surveying and Space Geodesy, UK

Associate Member, Australian Institute of Quantity Surveyors

Registered Building Practitioner (Quantity Surveying)

Peter has significant cost and contract management experience, with particular expertise in project cost management on roads construction and maintenance, cost planning and independent auditing of infrastructure projects, cost management of waste water treatment schemes, and cost planning of building projects.

Peter is responsible for overseeing infrastructure projects in both Victoria and nationally. Before relocating to Australia in 2005 Peter worked in the UK and South Africa on a broad and diverse range of infrastructure and construction projects. Peter's particular skills are in Risk Management and program level risk quantifications.

PROFESSIONAL EXPERIENCE

MAJOR PROJECTS:

Aviation

Airport Drive Development Project

Centre Road Lane Widening, Melbourne Airport

Cardinia Shire Airport Development Plan

Melbourne Airport Third Runway (RDP)

Western Sydney Airport (NSW)

Western Sydney Airport Rail – Technical Advisory Role

Industrial

220kV/66kV Power Supply to Wonthaggi Desalination Plant

Metro & CBD Security of Supply

Mining, Oil & Gas

AGL Remediation Advice – Coal Power Stations, Gas and Renewable Energy

Queanbeyan to Jerrabomberra Gas Pipeline (NSW)

Upgrading Fire Fighting facilities for Caltex, Total, Shell and BP – Port Elizabeth (RSA)

Ports & Marine

Bunbury Port Development (WA)

Channel Deepening – Swanston Dock Upgrade

Dalrymple Bay Coal Terminal Port Expansion (QLD)

Port of Melbourne, Various projects

- Intermodal Freight Terminal Project
- Appleton Dock Cargo Shed
- Appleton Dock Pile & Deck Rehabilitation
- Station Pier Building Piles Rehabilitation
- Swanson Dock Crane Rail & Concrete Deck Rehabilitation
- Port Community Interface Works
- 26-31 South Wharf Rehabilitation

Queenscliff Harbour Observation Tower

Shipping Channel Navigation Aids

Webb Dock (3T) Project

Rail

Ballarat Rail Corridor Upgrade

Broadmeadows Transit City

Dynon Port Rail Link

East West Rail Link and Tarneit Line

Geelong Transit City

Level Crossings Removal Authority Stages 1 & 2

Melbourne Metro

Metro West Signalling

MR3 Franchising and Infrastructure Renewals

Next Generation Regional Trains (NGRT)

Regional Rail Link

SAMI Upgrade

Seaford Rail – Whole of Life Costing (SA)

South Morang Rail Extension

Sunbury Electrification

Transport Access Programme (NSW)

Wodonga Rail Bypass

Yarra Trams Maintenance Depots

Roads

Transurban Western Distributor Proposal

CityLink Tullamarine Widening Project (CTW)

East West Link Stage 1 – Tender Preparation

Federation Square East Deck

Great Western Highway (NSW) – Cost Planning

Harbour Link and South Link Projects (NSW)

Infrastructure for 690 properties in Umlazi (RSA)

M4 Managed Motorways (NSW) – Cost Planning

Monash Freeway Widening – Independent Estimator

Monash CityLink Westgate Upgrade – Independent Estimator

Nata to Kazungula Road Upgrade (Botswana)

Oxley Highway Bridges (NSW) – Cost Planning

Project Sunrise

State Forest Road Upgrade & Maintenance (RSA)

South Road Superway (SA) – Whole of Life/NPV Costs

Tenterfield Bypass (NSW) – Cost Planning

WestConnex Stage 3 - M4 - M5 Link and Southern Connector

WestLink Planning Study – Cost and Risk Advice

Woolgoolga to Ballina Upgrade (NSW) – Independent Review

Water & Sewer

ACTEW Regulatory Submission (ACT)

ACTEW Procurement Advice (ACT)

Barwon Water Capital Works Alliance

Brighton & Hove UWWTW PRO4 Alliance (UK)

Desalination Plant Wonthaggi (VIC)

ETP Tertiary Treatment

Fishermans Bend Infrastructure Project

Ford UWWTW Scheme (UK)

Gold Coast Water – Pimpama WTW Pumping Station (QLD)

Littlehampton & Bognor Regis to Ford UWWTD Pipeline (UK)

Melbourne Water

- Eastern Treatment Plant – additional Aeration Tank
- ETP Tertiary Treatment Upgrade
- Water Resources Alliance
- Waterways Alliance

Merrimac Augmentation (QLD)

Northern Water Plant Geelong

Northern Sewerage Tunnel Stages 1 & 2

OPD1 Dewatering Infrastructure (SA)

Recycled Water Business Case – Yarra River and Eastern Options

South East Water

- US Alliance / Database Development
- Recycled Water Alliance
- Estimator System Development Initiative (ESDI)

Water Recycling Scheme – Yarra River & Eastern Options

Western Corridor Recycled Water O&M TOC Review (QLD)

Expert Witness

Barangaroo Development Authority ATS Jemena – Remediation Cost & Risk Advice

Auburn Maintenance Facility – Rail and Drainage Cost & Risk Advice

Melton Amendment Expert Witness

Moorebank ATS Tranlane – Road Access & intersection Cost Advice



APPENDIX C
CURRICULUM VITAE - SIAN MCKENNA

V V

SIAN MCKENNA

ASSOCIATE

SIAN'S EXTENSIVE EXPERIENCE IN MAJOR PROJECTS, ALONG WITH HER ADAPTABILITY AND PROFESSIONALISM, MAKES A GREAT ADDITION TO ANY PROJECT TEAM



PERSONAL DETAILS

YEARS OF EXPERIENCE: 22

COUNTRIES WORKED: Australia, United Kingdom

QUALIFICATIONS & AFFILIATIONS:

Bachelor of Science (Honours) (Quantity Surveying), Nottingham Trent University, UK

Associate Australian Institute of Quantity Surveyors

Treasurer (VIC/TAS) National Association Women in Construction

Sian joined WT Partnership in 1999 following a number of years working in the UK with major contractor, Balfour Beatty, as a Contract Administrator.

Sian has experience in a wide range of construction of varying size and complexity, throughout many sectors including commercial, industrial, residential, health, education and commercial office fitout.

Over the past 10 years Sian has gained significant cost engineering and cost management expertise with secondments to the Eastlink project, Melbourne Airport and Port of Melbourne.

As a leader of our Infrastructure team Sian's experience focuses on the provision of cost planning, cost management, financial reporting and risk management of major infrastructure projects.

PROFESSIONAL EXPERIENCE

MAJOR PROJECTS:

Roads

EastLink

Aviation and Ports

Melbourne Airport air side and land side infrastructure projects including:

A380 Runway Widening

Qantas Domestic Terminal

T2 (International) Expansion Project

T4 Domestic Terminal

Taxiway and Apron upgrades

Roads – Melrose Drive duplication

Roads - APAC Drive on ramp

Port of Melbourne Webb Dock Redevelopment - \$1 Billion

Civic & Government

Federation Square

Tarrawarra Museum of Art

Justice

Hammersmith Magistrates Court, London, UK

Corrs Chambers Westgarth Office Fitout, Bourke Place

Retail

DFO Retail Precinct, Spencer Street Station

Sport

MCG Northern Stand Redevelopment

VRC Flemington

Commercial

National Australia Bank Construction Risk
Department (Secondment)

Shell International HQ Refurbishment,
London, UK

Toyota Distribution Plant, Altona

Residential

Verve, 501 Swanston Street

Health

Williamstown Hospital Redevelopment
Stages 1 & 2



APPENDIX D
COST ESTIMATE

V

Melton Amendments C146 & C147 - Plumpton and Kororoit Precinct PSP
Cost Estimate Summary and Comparison



COMMERCIAL IN CONFIDENCE

	WTP COST ESTIMATES									
	On Road Bike Lanes				Off Road Bike Path				Variance	
Description	Unit	Qty	Rate	Amount	Unit	Qty	Rate	Amount	Rate	Amount
Direct Costs	Lin. m	500	946.40	473,200.00	Lin. m	500	791.00	395,500.00	155.40	77,700.00
Indirect Costs (On Costs)	item	1	181,070.00	181,070.00	item	1	151,310.00	151,310.00	29,760.00	29,760.00
TOTAL ESTIMATED COST (Excl. GST)	Lin. m	500	\$ 1,308.54	\$ 654,270.00	Lin. m	500	\$ 1,093.62	\$ 546,810.00	\$ 214.92	\$ 107,460.00
GST @ 10%	Lin. m	500	130.86	65,430.00	Lin. m	500	109.36	54,680.00	21.50	10,750.00
TOTAL ESTIMATED COST (Incl. GST)	Lin. m	500	\$ 1,439.40	\$ 719,700.00	Lin. m	500	\$ 1,202.98	\$ 601,490.00	\$ 236.42	\$ 118,210.00

Melton Amendments C146 & C147 - Plumpton and Kororoit Precinct PSP



Cost Estimate - On-Road Bike Lanes

COMMERCIAL IN CONFIDENCE

		On Road Bike Lanes				
Description	Detail	Unit	Qty	Rate	Amount	Comments
Cleaning & Grubbing		item	2,000.00	2.50	5,000.00	
Earth Works	Cut, place & compact & disposal (for boxing)	m3	1,440.00	30.00	43,200.00	
Pavement	Construct deep strength pavement (Arterial Pavement), including wearing course (720mm depth)	m2	2,000.00	165.00	330,000.00	Pavement composition (as per Rockbank PCP): - 40 thk wearing course AC14 asphalt, - 105 thk intermediate course AC20 asphalt, - 75 thk base course AC20 asphalt , - 100 thk upper subbase Class 2 Crushed Rock, - 130 thk lower subbase Class 3 Crushed Rock - 270 thk Class 3 Crushed Rock capping layer
Kerb & Channel	Type SM2	m	-	-	N/A	Part of arterial road construction costs - no cost differential between options
Drainage	Subsoil drains	m	-	-	N/A	
	Drainage pits (max. 1.5m depth)	No.	-	-	N/A	
	Drainage pipe 375 dia.	m	-	-	N/A	
	Drainage pipe 450 dia.	m	-	-	N/A	
Miscellaneous	Coloured non-skid surface topping	m2	1,500.00	50.00	75,000.00	
	Line marking	m2	2,000.00	5.00	10,000.00	
	Chevron line marking 500mm wide	m	1,000.00	10.00	10,000.00	
Landscaping	Topsoil & grass to naturestrips	m2	-	-	N/A	Part of arterial road construction costs - no cost differential between options
Lighting	Street lighting	No.	-	-	N/A	
Subtotal - Direct Costs		Lin. m	500.00	\$ 946.40	\$ 473,200.00	
Council Fees	3.25% of cost of works	item	1.00	3.25%	15,400.00	% driven item
VicRoads Fees	1% of cost of works	item	1.00	1%	4,740.00	% driven item
Traffic Management	3% of cost of works	item	1.00	3%	14,200.00	% driven item
Environmental Management	0.5% of cost of works	item	1.00	0.5%	2,400.00	% driven item
Survey & Design	5% of cost of works	item	1.00	5%	23,660.00	% driven item
Supervision & Project Management	13% of cost of works	item	1.00	13%	61,520.00	% driven item (allow 8% for prelims & 5% for margin - total 13%)
Site Establishment	2.5% of cost of works	item	1.00	2.50%	11,830.00	% driven item
Contingency	10% of cost of works	item	1.00	10%	47,320.00	% driven item
Subtotal - Indirect Costs		Lin. m	500.00	\$ 362.14	\$ 181,070.00	
TOTAL ESTIMATED COST (Excluding GST)		Lin. m	500.00	\$ 1,308.54	\$ 654,270.00	
GST @ 10%		item	1.00	65,430.00	65,430.00	
TOTAL ESTIMATED COST (Excluding GST)		Lin. m	500.00	\$ 1,439.40	\$ 719,700.00	

Melton Amendments C146 & C147 - Plumpton and Kororoit Precinct PSP



Cost Estimate - Off-Road Bike Paths

COMMERCIAL IN CONFIDENCE

		Off Road Bike Path				Comments
Description	Detail	Unit	Qty	Rate	Amount	
Cleaning & Grubbing		item	3,000.00	2.50	7,500.00	
Earth Works	Excavate, compact and disposal of material off site	m2	3,000.00	6.00	18,000.00	Local disposal assumed
Road Pavement	Construct deep strength pavement (Arterial Pavement), including wearing course (720mm depth)	m2	-	-	N/A	Part of arterial road construction costs - no cost differential between options
Kerb & Channel	Type SM2	m	-	-	N/A	
Bike path	Construct concrete bike path	m2	3,000.00	85.00	255,000.00	based on 'Typical Residential Footpath Cross Section' Figure 006 Engineering Design & Construction Manual
Drainage	Subsoil drains	m	-	-	N/A	Part of arterial road construction costs - no cost differential between options
	Drainage pits (max. 1.5m depth)	No.	-	-	N/A	
	Drainage pipe 375 dia.	m	-	-	N/A	
	Drainage pipe 450 dia.	m	-	-	N/A	
Miscellaneous	Line marking	m2	3,000.00	5.00	15,000.00	
Landscaping	Topsoil & grass to naturestrips	m2	-	-	N/A	Part of arterial road construction costs - no cost differential between options
Lighting	Allow for street lighting including conduits & cabling	Item	1.00	100,000.00	100,000.00	@ 50m centres
	Subtotal - Direct Costs	Lin. m	500.00	791.00	395,500.00	
Council Fees	3.25% of cost of works	item	1.00	3.25%	12,860.00	% driven item
VicRoads Fees	1% of cost of works	item	1.00	1%	3,960.00	% driven item
Traffic Management	3% of cost of works	item	1.00	3%	11,870.00	% driven item
Environmental Management	0.5% of cost of works	item	1.00	0.5%	1,980.00	% driven item
Survey & Design	5% of cost of works	item	1.00	5%	19,780.00	% driven item
Supervision & Project Management	13% of cost of works	item	1.00	13%	51,420.00	% driven item (allow 8% for prelims & 5% for margin - total 13%)
Site Establishment	2.5% of cost of works	item	1.00	3%	9,890.00	% driven item
Contingency	10% of cost of works	item	1.00	10%	39,550.00	% driven item
	Subtotal - Indirect Costs	Lin. m	500.00	302.62	151,310.00	
TOTAL ESTIMATED COST (Excluding GST)		Lin. m	500.00	\$ 1,093.62	\$ 546,810.00	
	GST @ 10%	item	1.00	54,680.00	54,680.00	
TOTAL ESTIMATED COST (Excluding GST)		Lin. m	500.00	\$ 1,202.98	\$ 601,490.00	



wtpartnership.com.au

Oceania | Asia | Europe | North America

