

# Traffix Group

## Traffic Engineering Evidence

Shenstone Park Precinct Structure Plan

Amendment C241 to the Whittlesea Planning  
Scheme

Prepared for  
Submitter 7

Instructed by  
Herbert Smith Freehills Lawyers

October 2020

G28875A-02A

**STATEMENT TO PLANNING PANELS VICTORIA BY HENRY TURNBULL, TRAFFIC ENGINEER**

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# 1. Executive Summary

## 1.1. Introduction

I have been retained by Herbert Smith Freehills Lawyers on behalf of Submitter 7 to undertake traffic engineering assessments and prepare traffic evidence in relation to Amendment C241 to the Whittlesea Planning Scheme, which seeks to introduce the Shenstone Park Precinct Structure Plan (PSP) which affects land on the south side of Donnybrook Road, to the east of the northeast railway line.

In preparing this report, I have relied upon the facts, matters and assumptions detailed in Appendix A.

## 1.2. Qualifications and Experience

Appendix A contains a statement setting out my qualifications and experience, and the other matters raised by "Planning Panels Victoria – Planning Panels – Expert Evidence".

Appendix B contains my CV.

## 1.3. Summary of Opinions

Having undertaken traffic engineering assessments of the proposed Amendment C241 to the Whittlesea Planning Scheme, I am of the opinion that:

- a) the location of IN-02 has been reinforced by the approval of a subdivision permit for the subject site such that it forms an appropriate cross-intersection with the Donnybrook-Woodstock PSP,
- b) the change to the wording of Requirement 53 allows for a more flexible access arrangement that will benefit commercial land fronting Donnybrook Road,
- c) the Primary Arterial Cross-section for Donnybrook Road is suitable for a service road arrangement,
- d) I recommend that the wording on the Primary Arterial Cross-Section be amended to allow for either a service road or frontage road,
- e) the proposed changes to the road network layout within the site provide a superior outcome to the original layout from land use, development and traffic engineering perspectives, and
- f) the proposed changes to the PSP will not result in any adverse traffic engineering impacts and should be adopted by the Panel as part of its recommendations.

## 2. Subject Site

Submitter 7 owns land located at 910 Donnybrook Road in Donnybrook, within the future Shenstone Park PSP area. The extent of the subject land is identified at Figure 1 below.

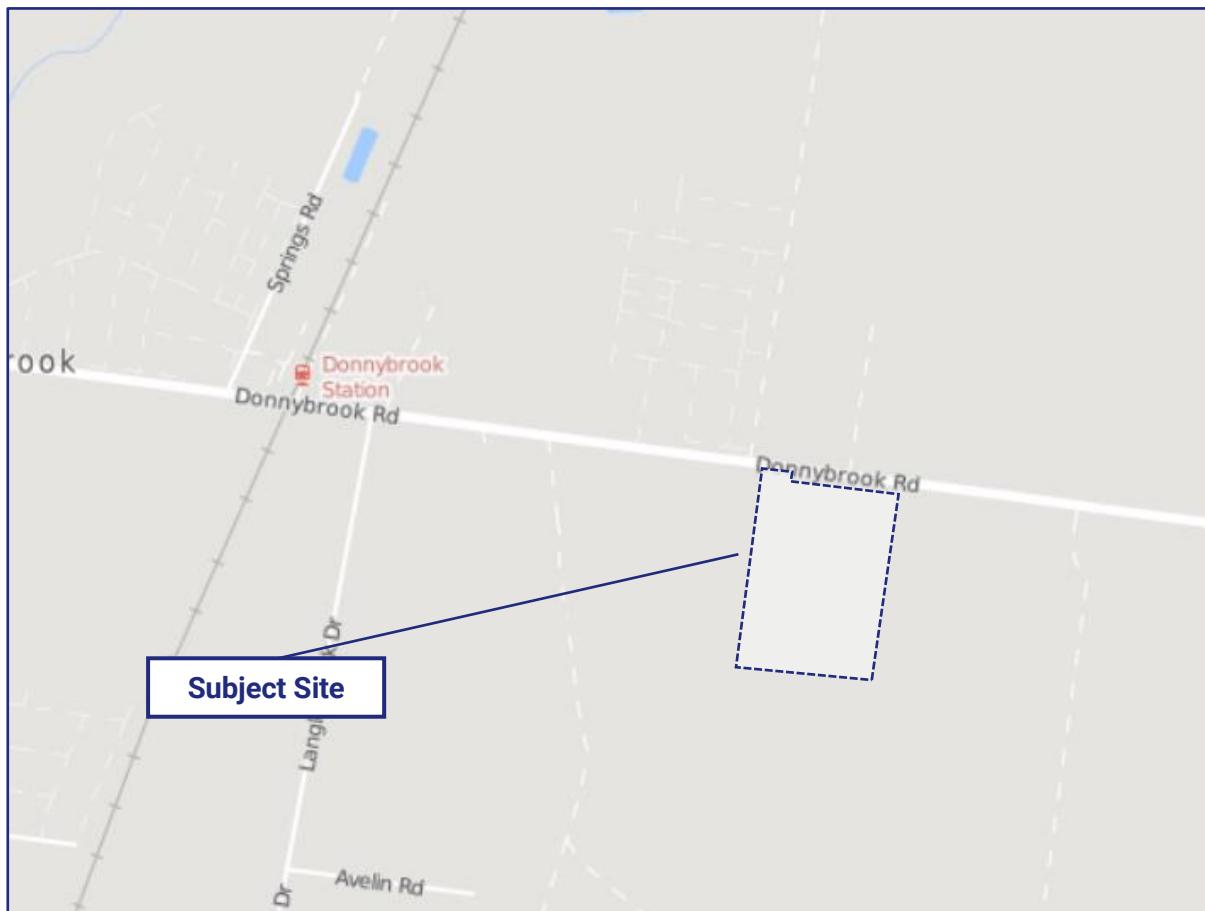


Figure 1: Subject Site

The subject land has a total area of approximately 12.14 hectares and a frontage to Donnybrook Road of approximately 300m.

### 3. Amendment C241 – Shenstone Park PSP

Amendment C241 to the Whittlesea Planning Scheme has been prepared by the Victorian Planning Authority (VPA) and applies the Shenstone Park Precinct Structure Plan (PSP) to land on the south side of Donnybrook Road and to the east of the northeast railway line. The PSP boundaries are shown in Figure 2 below.

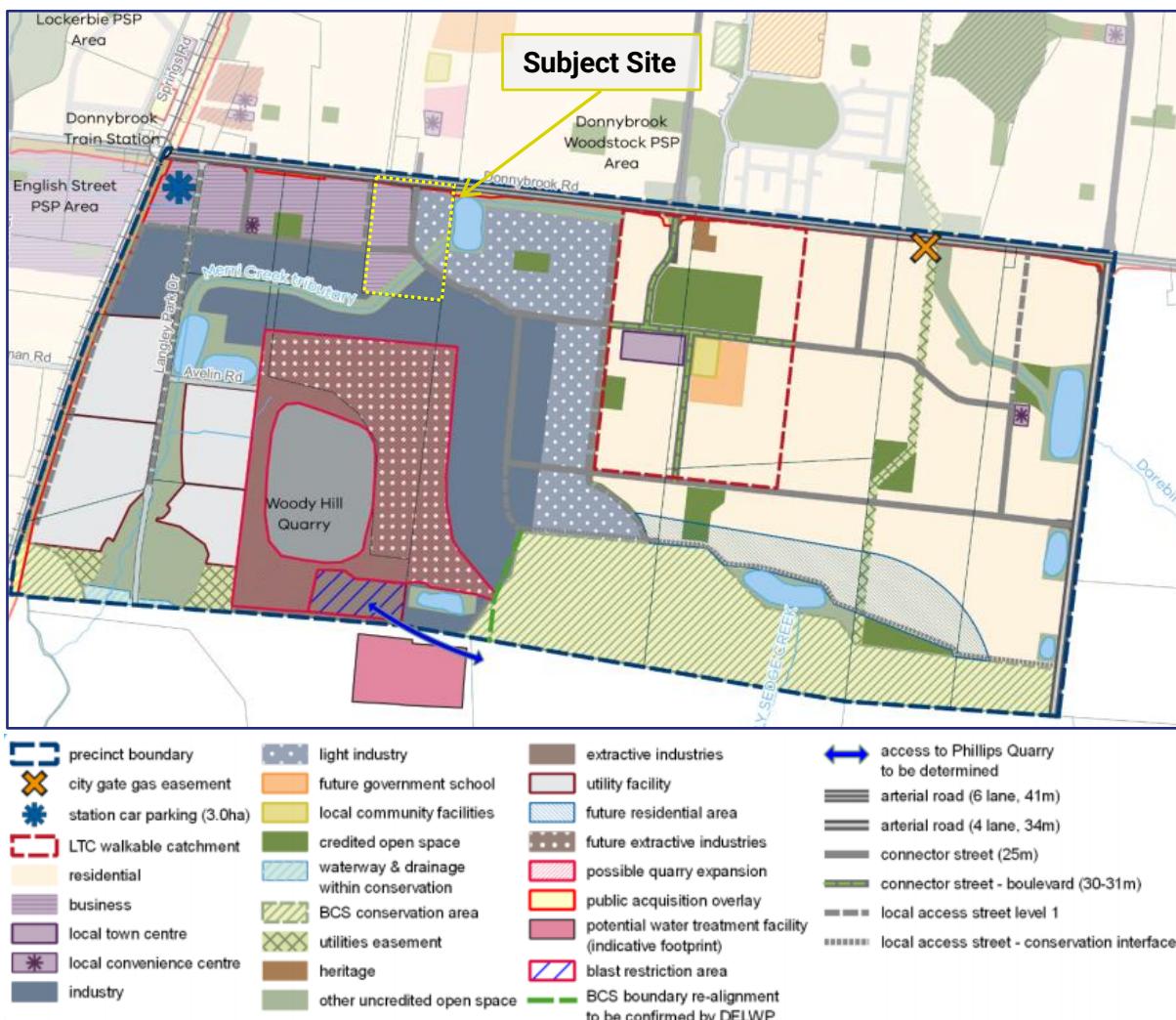


Figure 2: Shenstone Park PSP

## 4. Submission

Submitter 7 made a submission<sup>1</sup> in response to the exhibited PSP.

The issues raised within that submission are broadly summarised as follows:

- Realign waterways and connector streets to better encourage the employment uses sought under the PSP,
- Permitting shop land uses for the convenience of surrounding workers of the commercial and industrial zones,
- The location of the retarding basin to the east of the subject site is appropriate,
- Woody Hill Quarry should be included in the land budget to ensure that they are not exempt from ICP charges.
- Blast buffer concerns,
- Vehicle access to commercial development from Donnybrook Road should be provided with greater flexibility.

The transport related submission items and initial VPA's responses are provided in Table 1 below.

*Table 1: 910 Donnybrook Road Submission and the Initial VPA Responses*

Submission	Initial VPA Response to Submission
<p>The proposed layout restricts the size and configuration of future lots, and development that could be achieved on these lots. Also, the PSP area is not suitable for major Industrial Land development.</p> <p>We suggest that the proposed land uses, connector roads and waterway be redesigned to allow for a more logical and legible development outcome. Our proposed redesign includes:</p> <ul style="list-style-type: none"><li>• Realignment of the waterway along the subject area's eastern and southern boundaries;</li><li>• Identifying the entire subject area as Business on Plan 3 of the PSP and as a result, apply the Commercial 2 Zone within Table 1 of Schedule 7 to the Urban Growth Zone (UGZ7) across the entire subject area;</li><li>• Extending the north-south connector road to the southern boundary of the subject area (just above the realigned waterway) and straightening out the east-west connector roads.</li></ul>	<p>Further economic assessment required for responding to this submission line item.</p> <p>VPA to undertake further work.</p>

<sup>1</sup> Submission made by Tract Consulting

# Traffic Engineering Evidence

Amendment C241 to the Whittlesea Planning Scheme

Submission	Initial VPA Response to Submission
Requirement 53 requires vehicle movements and access to properties fronting arterial roads, including Donnybrook Road to have internal loop road and/or rear laneways. This requirement may not be a suitable traffic and development response for each lot/development proposal abutting Donnybrook Road and it is recommended that this requirement be reworded to allow for greater flexibility, or removed entirely.	Further discussion with infrastructure and transport consultant to finalise response to this submission.

I note that Submitted 10 in their submission to the VPA also raised concern regarding the access to the commercial land adjacent to Donnybrook Road and suggested that the PSP be amended to include access by a service road.

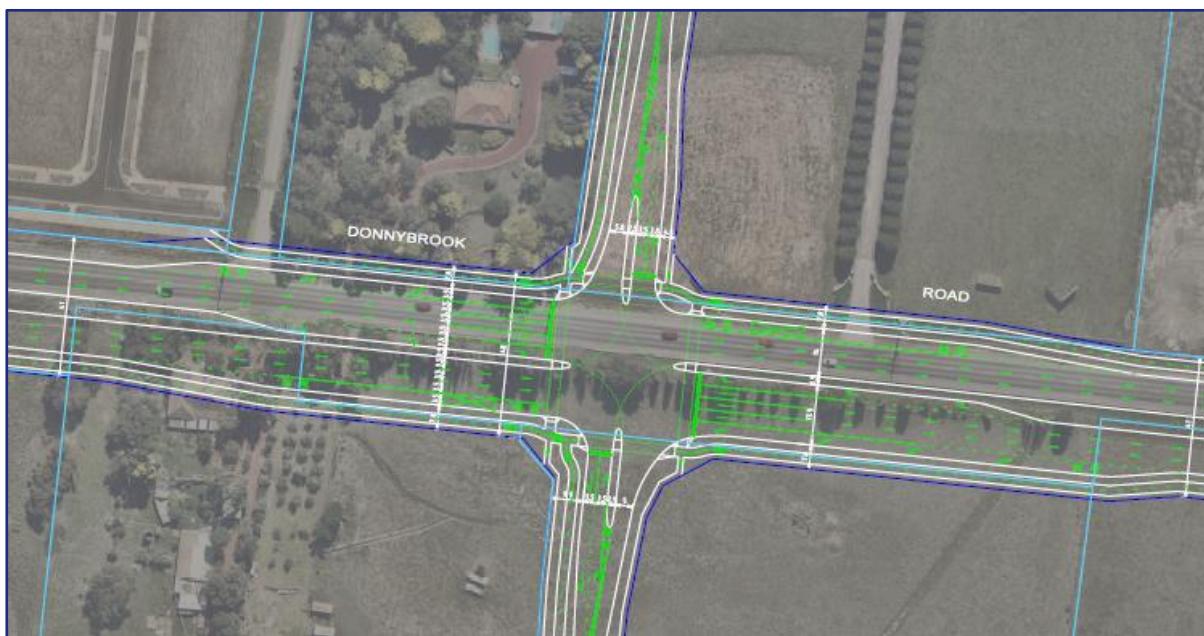
## 5. Traffic Engineering Opinions

### 5.1. Donnybrook Road/North-South Connector Road – IN-02

A permit was recently issued by VCAT for a two-lot subdivision of the land at 910 Donnybrook Road (Permit No: 718907 dated 22<sup>nd</sup> September 2020). As part of the subdivision, it was required that the proposed intersection (known in both the Donnybrook-Woodstock PSP and draft Shenstone Park PSP as IN-02) would be located wholly within one land parcel.

Traffix Group has completed a design for the intersection as part of Condition 2 of the permit and this design locks in the formation of a signalised cross intersection. This is consistent with the Donnybrook-Woodstock PSP to the north and the proposed Shenstone Park PSP.

The ultimate intersection design which shows a duplicated Donnybrook Road carriageway and appropriate land splays on the southeast and southwest corners is shown at Figure 3 below.



*Figure 3: Donnybrook Road/North-South Connector Road – IN-02*

It is significant to note that the subdivision permit allows for a minor boundary realignment to facilitate any necessary changes at the detailed design stage.

## **5.2. Donnybrook Road Access to Commercial Development**

One of the submissions made by Tract on behalf of 910 Donnybrook Road Pty Ltd was for the review of R53 of the proposed Shenstone Park PSP. Specifically, the submissions stated:

*Requirement 53 requires vehicle movements and access to properties fronting arterial roads, including Donnybrook Road to have internal loop road and/or rear laneways. This requirement may not be a suitable traffic and development response for each lot/development proposal abutting Donnybrook Road and it is recommended that this requirement be reworded to allow for greater flexibility, or removed entirely*

I understand that following discussions with the VPA, Requirement 53 has been amended as part of a number of agreed changes to the PSP (see PPV Document 25a).

Requirement 53 now reads as follows:

- a) *Vehicular movement and access to residential properties fronting primary arterial roads must be from internal loop roads, and/or rear laneways to the satisfaction of the responsible authority.*
- b) *Vehicle access to properties fronting Donnybrook Road to the Employment Area must be from service roads, internal roads or rear laneways.*
- c) *Development within the Employment Area must engage positively with the frontage of Donnybrook Road and the LTC and include a high quality landscaped interface, to the satisfaction of the responsible authority.*

The changes to the wording of this requirement allow for greater flexibility regarding access to different land uses.

Specifically, I am of the view that access to the commercial land fronting Donnybrook Road should be possible via a service road and the changes that have been made to the draft PSP allow for this outcome.

The service road should be provided with the same cross-sectional elements as the Streetscape Cross-Section for the Primary Arterial Road (6 lane – Donnybrook Road), shown at Figure 4, and I recommend that the wording on the cross-section be amended to read “SERVICE ROAD OR LOCAL FRONTAGE ROAD”.

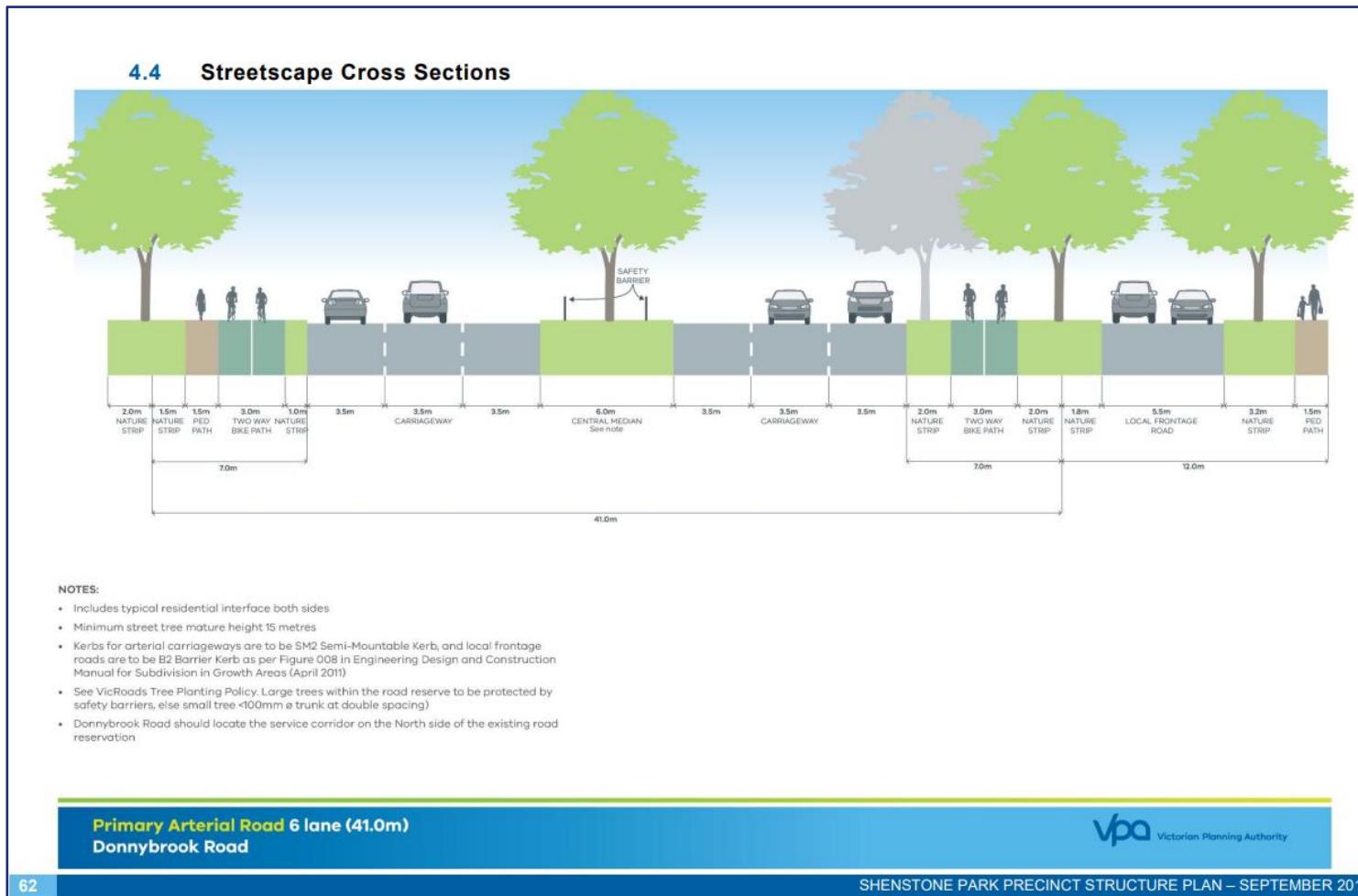


Figure 4: Excerpt of Primary Arterial Cross-Section from Draft Shenstone Park PSP (Exhibited)

## 5.3. Amendments to Road Network Layout

The road network layout outlined in the draft Shenstone Park PSP is shown at Figure 5.



Figure 5: Draft Shenstone Park Road Network Layout

The amended road network layout which is preferred by 910 Donnybrook Road Pty Ltd (prepared by Tract Consulting) is provided at Figure 6.

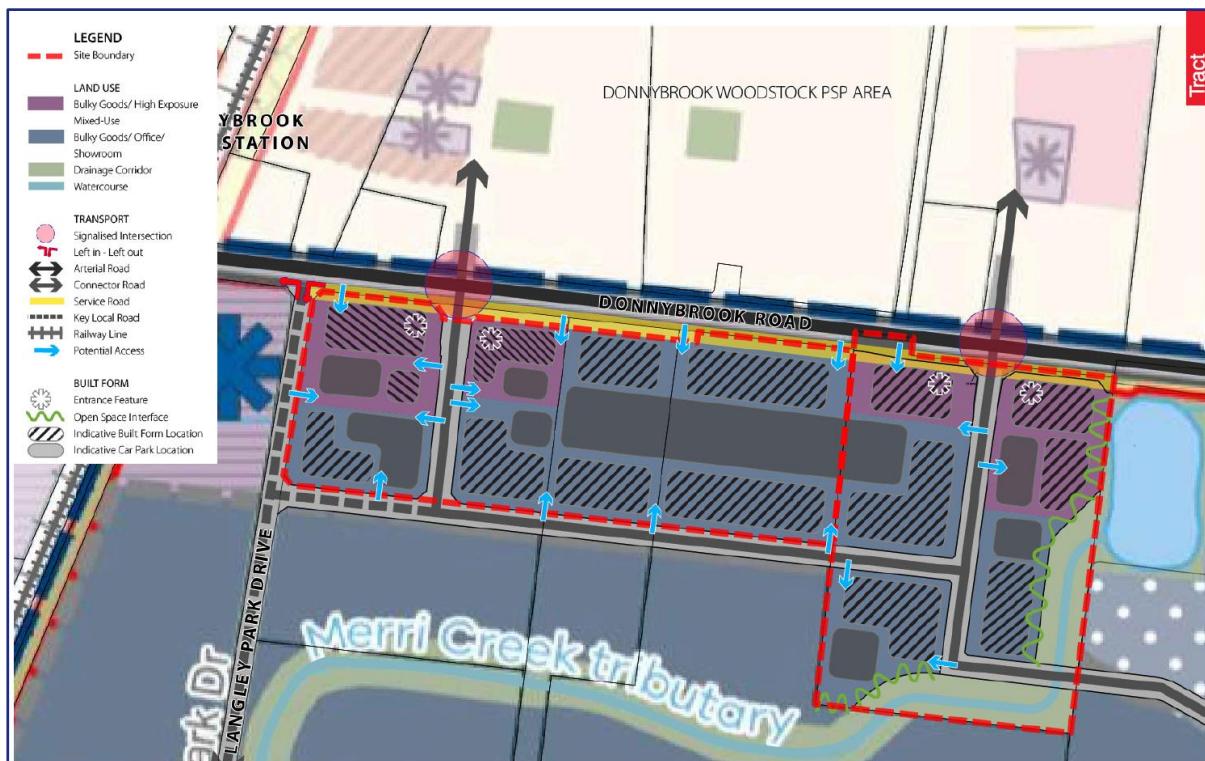


Figure 6: Proposed Alternate Road Network Layout

The main change to the road network relates to the north-south connector road which forms the southern leg of IN-02. The proposal extends the road further south towards the southern boundary of 910 Donnybrook Road. The realignment of the road is proposed in conjunction with the realignment of the waterway to run along the site's eastern and southern boundaries.

By providing this change, the subject site benefits from providing developable land further away from the Woody Hill Quarry buffer zones and provides more efficient land shapes and sizes in the southern portion of the site.

In my opinion, the original road network layout provides an undesirable outcome by providing a long curved section of the connector road. Curved sections of road often provide poor sightlines having regard to the curvature and the location of tree planting and accordingly, the proposed change to straight sections with 90-degree bends provides a better traffic engineering outcome.

Furthermore, the 90 degree bend will provide a natural slow point which will assist with traffic calming measures for the road. The GTA modelling for the section of the network shows fewer than 4,000 vpd and the formation of an effective T-intersection where the connector road turns with access to the land zoned for employment will not result in any adverse impacts.

## **6. Conclusions**

Having undertaken traffic engineering assessments of the proposed Amendment C241 to the Whittlesea Planning Scheme, I am of the opinion that:

- a) the location of IN-02 has been reinforced by the approval of a subdivision permit for the subject site such that it forms an appropriate cross-intersection with the Donnybrook-Woodstock PSP,
- b) the change to the wording of Requirement 53 allows for a more flexible access arrangement that will benefit commercial land fronting Donnybrook Road,
- c) the Primary Arterial Cross-section for Donnybrook Road is suitable for a service road arrangement,
- d) I recommend that the wording on the Primary Arterial Cross-Section be amended to allow for either a SERVICE ROAD OR LOCAL FRONTAGE ROAD,
- e) the proposed changes to the road network layout within the site provide a superior outcome to the original layout from land use, development and traffic engineering perspectives, and
- f) the proposed changes to the PSP will not result in any adverse traffic engineering impacts and should be adopted by the Panel as part of its recommendations.

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



HENRY H TURNBULL, RFD  
B.E.(Civil), M.I.E.Aust., M.I.T.E., F.V.P.E.L.A.

27<sup>th</sup> October, 2020



# Appendix A

## PPV Guide to Expert Evidence

## **Statement of Witness**

**Name**

Henry Hume Turnbull

**Position**

Principal Consultant, Traffix Group

**Address**

Level 28, 459 Collins Street  
MELBOURNE  
VICTORIA 3000

**Qualifications**

My qualifications and membership of professional associations are as follows:-

- Bachelor of Civil Engineering, University of Melbourne
- Life Member, Institute of Transportation Engineers
- Member, Institution of Engineers, Australia
- Life Fellow, Victorian Planning & Environmental Law Association

**Experience**

I have approximately 44 years' experience in Engineering including:

- ten years Country Roads Board of Victoria,
- two years with TTM Consulting, and
- thirty two years with Turnbull Fenner Pty Ltd/Traffix Group Pty Ltd.

Additional activities and appointments include:-

- Sessional member, Planning Panels Victoria (1982-2017)
- Member, Priority Development Panel (2004 - 2010)
- Councillor, Shire of Euroa (1980-1983)  
Shire President (1982-1983)
- President, Victorian Planning and Environmental Law Association (1999-2002)  
Life Fellow, Victorian Planning and Environmental Law Association (2003)
- Bail Justice (Victoria)

### **Area of Expertise**

I have substantial experience and expertise in major road design and construction, contract administration, road construction material and construction methods, development impact assessment, including traffic generation and parking generation characteristics, traffic management and general traffic engineering, road safety and transportation planning.

I was a member of the former Ministers for Planning Advisory Committees making a review of Clause 52.06 (Car Parking) that led to changes being incorporated into the scheme on 5th June, 2012.

### **Disclosure of Interests**

Neither Henry Turnbull or Traffix Group have any private relationship with any parties involved in this Amendment. Both have worked with the various consultants and the City of Whittlesea on a number of other projects in the past.

These involvements have not impacted on my ability to provide impartial Expert Evidence to the Panel.

### **Engagement and Scope of Report**

I was retained by Herbert Smith Freehills Lawyers on behalf of 910 Donnybrook Road Pty Ltd in September 2020 to undertake traffic engineering assessments and prepare traffic evidence in relation to Amendment C241 to the Whittlesea Planning Scheme, which seeks to introduce the Shenstone Park Precinct Structure Plan.

### **Facts and Assumptions**

As detailed in evidence.

### **Reference Documents**

I have reviewed the following documents as part of my assessment:

- Exhibited documentation for Amendment C241,
- Tract Submission for 910 Donnybrook Road Pty Ltd,
- VPA response to submissions,
- Shenstone Park PSP Strategic Transport Modelling Assessment report, GTA, 15 October 2020
- VPA Part A Submission 1069.1 Shenstone Park PSP,
- Relevant sections of the Whittlesea Planning Scheme, and
- Relevant experience.

### **Summary of Opinions**

See Conclusions section of the evidence statement.

**Provisional Opinions**

Not applicable.

**Identity of Persons Undertaking Work**

Henry H Turnbull as per the evidence statement.

Daniel Milder (Senior Traffic Engineer, Traffix Group) assisted with preparation of the evidence report.

**Report Completeness**

Final report.



# Appendix B

CV

# Henry Turnbull

## Principal Consultant



Henry Turnbull is the founding principal of Traffix Group.

Henry is highly regarded in the transport planning and traffic management industry for his specialist expertise and substantial experience. This includes metropolitan and regional traffic engineering, as well as transport planning at the strategic and development levels.

His experience and expertise in planning projects puts him in demand as an expert witness at the Victorian Civil Appeals Tribunal and Planning Panels.

### Professional History

Traffix Group	Since 1988
TTM Consulting Pty Ltd	1986 to 1988
Miller Huthwaite Ltd/ Peat Marwick Hungerfords	1982 to 1986
Country Roads Board	1972 to 1982

### Qualifications

Bachelor of Civil Engineering,  
Melbourne University

### Affiliations

Life Member, Institute of Transportation Engineers Australia

Member, institution of Engineers Australia

Life Fellow, Victorian Planning and Environmental Law Association (VPELA)

### Significant Appointments

Sessional Member Planning Panels Victoria (1982 – 2017)

Member Priority Development Panel (2004 – 2010)

Member Growth Areas Authority Expert Panels for Urban Planning and Urban Design (Appointed 2010)

### Key Activities

Councillor, Shire of Euroa (1980 – 1983) (Shire President, 1982 – 1983)

President, VPELA (1999 – 2002)

Bail Justice (Victoria)

### Areas of Expertise

#### Transport Planning (Traffic Impact Assessments):

- Preparation of Traffic Impact Assessment Reports (TIAR) and Evidence for presentation at VCAT and Planning Panels for a range of land-use developments.
- Other significant commissions include co-ordination of a development contribution plan for the City of Maribyrnong including extensive traffic investigations and assessments, preparation of Parking Precinct Plans, and TAC funding strategies and priority assessment for VicRoads – Northern Region.
- Preparation of transport planning studies and Integrated Travel Plans including consideration of sustainable transport modes and green travel plans, pedestrian access, bicycle paths, parking and access to public transport.
- Provision of advice on traffic engineering and transport planning issues for major infrastructure projects for government and private clients.
- Extensive stakeholder interaction and consultation with community bodies on technical transport issues and project planning issues.
- Management of numerous other projects including local and district management studies, heavy vehicle route assessments, pedestrians safety research, public transport passenger surveys and route studies, property rezoning and health care projects.

#### Strategic Planning & Statutory Planning

- Regularly appointed as a Planning Panel member by the Minister for Planning with over thirty years' experience as a sessional Planning Panel member. Relevant major Panels and Advisory Committees include Armstrong Creek Urban Framework Plan, Armstrong Creek North East Industrial Precinct Structure Plan, Traralgon Bypass, Webb Dock EES and Melbourne Airport Rail Link.
- Served successive Governments on Advisory Committees to assist with policy development, including the Priority Development Panel Steering Committee on the development of Practice Notes for Parking Precinct Plans, and the Advisory Committee reviewing Clause 52.06 Carparking in the VPPs.
- Significant experience and expertise in the provision of traffic engineering and transport planning advice to support the development of structure plans, site/precinct plans and development contributions plans.



**Traffix  
Group**