

Traffix Group

Amendment C407 to the Melbourne Planning Scheme

Planning Panels Victoria

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Date of Statement: 24th January, 2021

Prepared for: VPA

Instructed by: Harwood Andrews

STATEMENT TO THE ADVISORY COMMITTEE APPOINTED BY THE MINISTER FOR PLANNING IN RELATION TO AMENDMENT C407 OF THE MELBOURNE PLANNING SCHEME BY CHARMAINE DUNSTAN, TRAFFIC ENGINEER

Document Control

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Executive Summary

- 1 This evidence statement provides an assessment of the traffic engineering and transport planning aspects of the proposed Arden Structure Plan and Amendment C407 to the Melbourne Planning Scheme. My assessment has been completed independently as instructed by Harwood Andrews on behalf of the Victorian Planning Authority.
- 2 The Draft Amendment proposes to introduce planning controls to implement the Arden Structure Plan, August 2021 (the Structure Plan). The proposed controls include:
 - rezoning of land to the Special Use Zone;
 - application of overlays including the Design and Development Overlay, the Buffer Area Overlay, Environmental Audit Overlay, Development Contributions Overlay, Public Acquisition Overlay and Parking Overlay;
 - revised local planning policy.
- 3 The Background Report describes the transport vision for Arden as follows:

The Arden Vision establishes Arden as an exemplar of best-practice sustainability, where at least 60 per cent of trips are made by public transport; 30 per cent by walking and cycling; and no more than 10 per cent by private vehicle. This vision has been carried through to the final Arden Structure Plan, with refinements implemented following four VPA-commissioned reviews of the precinct's proposed transport strategies, each with a specific focus, as summarised below. The central location of Arden makes it a highly attractive place for future residents and workers. However, the congested surrounding road network presents major challenges and questions as to whether this level of development is able to be successfully supported if a 'Business as Usual' approach to transport is adopted.
- 4 In completing the Arden Structure Plan, the VPA has commissioned extensive studies of Arden and the transport challenges it faces. Of particular relevance to transport is the Arden Precinct Parking Plan. This plan provides detailed analysis, justification and a strategy for managing car parking within Arden, with the key goal of achieving a 90% sustainable transport mode share.
- 5 One of the outcomes of the Arden Precinct Parking Plan (of direct relevance to the planning control changes within this amendment) is the proposed Parking Overlay. The Arden Precinct Parking Plan sets out two key objectives for the Parking Overlay:
 - Limit the provision of car parking to a level that will strongly assist in achieving the 90% sustainable transport mode share target.
 - Maximise the efficiency of the car parking provided and minimise the negative impacts of car parking.
- 6 Limiting the number of car spaces provides a limit on the practical number of vehicle trips that can be made to and from Arden. I am satisfied with the detailed justification and analysis provided within the various transport strategies in determining the car parking rates.

- 7 There are several potential urban planning benefits from having a smaller number of car spaces in publicly accessible, consolidated car parking facilities, namely:
- The number of vehicle access points can be reduced. This limits the impacts of vehicle access on the transport network including:
 - Minimising breaks in the footpath, maximising pedestrian amenity and reducing pedestrian-vehicle conflict points.
 - Reduces conflicts with cycling infrastructure and creates fewer cyclist-vehicle conflict points.
 - Offers urban design benefits (such as increased active frontages).
 - Fewer carparks are provided overall, maximising developable area for other more productive land uses.
 - It makes better use of smaller sites that cannot efficiently provide on-site car parking.
- 8 My instructions from Hardwood Andrews (on behalf of the VPA) are summarised as follows:
- Review the background material, exhibited documentation and submissions relevant to transport planning matters.
 - Provide my opinion on the following key questions:
 - Are the proposed car parking rates in the Parking Overlay justified?
 - Are there any recommendations I would make in regard to future monitoring and review of the proposed Parking Overlay?
 - Provide my response to the submissions related to transport planning matters.
- 9 The key conclusions of my review are as follows:
- a) Arden Vision, the Structure Plan and the supporting transport studies/strategies each place an appropriate weight on sustainable transport modes above private car-based travel to cater for the transport needs of Arden.
 - b) Arden will form an extension of the CBD, with CBD levels of access to public transport, cycling infrastructure and it will be highly walkable. The 90% sustainable transport mode share target outlined in the Structure Plan is an important objective to managing the transport impacts of the redevelopment of Arden. I am satisfied that this mode share target is realistically achievable by 2050, providing that appropriate infrastructure is put in place and the range of initiatives outlined in the Arden Precinct Parking Plan are also implemented (policy, infrastructure, etc).
 - c) The Parking Overlay (PO) is a key tool that will assist in achieving the 90% sustainable transport mode share target. The two key objectives of the Parking Overlay are:
 - i. To limit car parking as a tool (one of many) to achieve the desired mode split of 90% sustainable transport modes and 10% private car usage within Arden.
 - ii. To encourage car parking to be provided in an unbundled format in consolidated carparks. This maximises the efficiency of the car parking provided and limits the negative impacts of car parking on building design, community cost, urban form and impacts of vehicle access on the local street network.

- d) The exhibited Parking Overlay had several shortcomings and did not address the two key objectives for the Overlay defined by the Arden Precinct Parking Plan. The most significant was that the permit triggers for car parking were unclear and did not reflect the intent of the Arden Parking Precinct Plan and supporting strategies/studies. This lack of clarity had flow-on effects to the other sections of the exhibited Parking Overlay, in particular the application requirements and decision guidelines.
- e) The Part A Parking Overlay has substantially altered the exhibited Parking Overlay. The Part A Parking Overlay reflects my advice to the VPA and in my view accurately reflects the intent for the Parking Overlay set out in the Arden Precinct Parking Plan.
- f) The Parking Overlay can be summarised as follows:
- i. A permit is required to provide any car parking on a site.
 - ii. The maximum car parking rate for all uses is zero.
 - iii. Car parking can be provided on a site and is subject to a comprehensive set of application requirements and decision guidelines. This includes the car parking rates recommended in the Parking Plan, as a guide as to what level of car parking may be appropriate in circumstances where it is provided. I am satisfied that the Parking Overlay provides adequate flexibility to allow on-site car parking to be provided in applications where it is appropriately required.
 - iv. Car parking if provided, it is encouraged to be in the form of consolidated/public parking (but not limited to) and adaptable to future technology and reuse.
 - v. It provides additional requirements for car parking plans and carpark design requirements that are relevant to planning for Arden.
- g) One modification is required to the Part A Parking Overlay. Paragraph 120 should be reworded to state 'all car spaces are to be capable of accommodating electric vehicle charging infrastructure'. The current wording has a typographical error and does not convey the intent of this requirement. It is my view that all car spaces should be capable of providing EV charging in the future (maximising adaptability), instead of mandating a set percentage of spaces to be fitted with EV.
- h) The Parking Overlay should be reviewed every 5 years, as recommended in the Arden Precinct Parking Plan. Assuming the controls are implemented in mid-2022, a review in mid-2027 would be appropriate. This would be:
- i. approximately 2 years after the metro station opens,
 - ii. at a point in time I would expect more certainty around the nature and timing of the high capacity public transport route(s) proposed in Arden,
 - iii. some information available from the market (received planning permit applications and other feedback) that would indicate what sort of impact the parking controls were having on development, and
 - iv. there will be more certainty around the onset of widespread use of electric vehicles, autonomous cars and other innovations in transport technology.
- i) It would be useful to include the Arden Precinct Cross Sections (August, 2021) as a reference document to the Parking Overlay. Impacts on the transport network from off-

street car parking is a key consideration in the Parking Overlay, both in whether a carpark on the site is acceptable and to the design of this carpark (i.e. access location).

- j) The Arden Precinct Cross Sections (August, 2021) Incorporated Document is consistent with the Structure Plan and is a useful addition to the planning controls as it will provide clear guidance on how to integrate future developments with the future transport network (a key theme of the various transport plans/strategies).
- k) The Design and Development Overlays each include maps outlining 'Traffic Conflict Frontages' where vehicle access to abutting land should be avoided. I have some concerns regarding the application of these frontages:
 - i. Some frontages will not have traffic lanes in future (examples: Fogarty Street extension, Queensbury Street) and could not be used for access in any case.
 - ii. Some frontages function more as linear open space (example: Munster Terrace).
 - iii. In several cases abutting roads are designated as 'high capacity public transport routes', where efficiency of operation of public transport may be comprised by vehicle access (example: Laurens Street).
 - iv. There are frontages that abut parks and there is no 'road'.
 - v. Some lots are left with no options but access to a 'traffic conflict frontage', which provides limited guidance as to what outcome would be preferred. The Part A PO controls do include decision factors that would allow vehicle access to a traffic conflict frontage in that case.
 - vi. There are two 'future modal interchange' locations where access should not be permitted. In particular, the frontages abutting the Arden Street interchange do not have any access restriction.
- l) My recommendation is that the VPA review the application of traffic conflict frontages and cross check these with the proposed road cross sections and Plan 4 of the Arden Structure Plan.
- m) The Part A DDOs have removed reference to car stackers as a design preference that was in Table 7 or 8 (Adaptable Buildings). This aligns with my recommendations as:
 - i. Mechanical parking increases the yield of car parking for a given footprint, which is not a primary goal of the controls (to minimise car parking).
 - ii. Mechanical systems generally impose a variety of spatial requirements (additional height clearances, pits, large footprints, etc.) that can be contradictory to the intent of providing adaptable carparks and they are generally not able to be used by casual users (i.e. cannot be used for public car parking, a goal of the parking controls).
- n) The Arden Movement and Parking Study recommends 5% of all off-street parking should be allocated to car share spaces. Table 2 in the exhibited version of the SUZ includes a requirement for car share vehicles to be provided at a rate of 1 space per 25 dwellings. This is not consistent with the intent of the PO (to provide no car parking wherever possible on a site-by-site basis) and also inconsistent with rate in the parking strategy.

- o) The Part A version of the SUZ does not include any car share requirement, and no specific requirement is included in the PO. In my view, the controls should require 5% of any off-street car spaces provided to be allocated to car share vehicles.
- p) The requirement for 5% of provided car spaces to be car share vehicles could be in the SUZ or PO. This is a legal/planning question that I do not have a definitive opinion on.
- q) The transport-related submissions comment on a broad range of topics. Many of these submissions refer to matters that are not relevant to the proposed planning controls being introduced by Amendment C407 in that they focus on local infrastructure changes or design detail (rather than high-level planning). However, they demonstrate strong support for sustainable transport outcomes.
- r) The submission made by the City of Melbourne regarding the Parking Overlay raised reasonable concerns with the exhibited version of the Parking Overlay. I took these into consideration in forming my preliminary recommendations to the VPA, which resulted in the revised Part A Parking Overlay. In my view, the revised Part A Parking Overlay addresses Council's principal concerns.

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1. Introduction

- 10 Draft Amendment C07Melb has been prepared by the Victorian Planning Authority (**VPA**) on behalf of the Minister for Planning.
- 11 It seeks to implement the Arden Precinct Structure Plan (the **Structure Plan**) within the Melbourne Planning Scheme. The Structure Plan divides the Arden Precinct into four sub-precincts – Arden North, Arden Central – Innovation, Arden Central – Mixed-Use and Laurens Street.
- 12 The primary controls within Amendment C407 that are of most relevance to transport planning are:
 - Application of Schedule 14 of the Parking Overlay (PO14)
 - Schedule 7 to Clause 37.01 (Special Use Zone)
 - The Design and Development Overlays (DDO80-83)
 - Inserting the following key documents into the Planning Scheme:
 - Arden Structure Plan, August 2021
 - Arden Parking Precinct Plan, August 2021
 - Arden Precinct Cross Sections, August 2021
- 13 Supporting the transport planning aspects of the Structure Plan are several detailed transport strategies and studies. I have had regard to these background documents in formulating my opinions.

2. Statement of Witness

2.1 Qualifications and Experience

- 14 My name is Charmaine Chalmers Dunstan. I am a Director of Traffix Group Pty Ltd practicing from Level 28, 459 Collins Street, Melbourne.
- 15 My qualifications and membership of professional associations are as follows:
- i. Bachelor of Civil Engineering (Honours), Monash University, Clayton
 - ii. Masters of Traffic, Monash University
 - iii. Member, Engineers Australia (IEAUST)
 - iv. Fellow, Victorian Planning & Environmental Law Association
- 16 I have over 25 years' experience as a Traffic Engineering and Transport Planning consultant with Traffix Group Pty Ltd and formerly Turnbull Fenner Pty Ltd. My experience also includes a number of local government appointments which involved acting in the role of Council's Transport Co-Ordinator or Senior Traffic Engineer.
- 17 I have experience and expertise in traffic management, transportation planning, road safety planning and engineering, parking management and strategy development, and development impact assessment of a broad range of land-use developments within established metropolitan, regional and growth areas.

2.2 Project Team

- 18 Leigh Furness (Director) assisted with the review and analysis of the draft amendment material, transport planning analysis and the preparation of this statement.

2.3 Scope of Work

- 19 This statement specifically reviews the transport engineering implications of Amendment C407 to the Melbourne Planning Scheme. The Amendment seeks to implement the Arden Structure Plan, August 2021.
- 20 I have been instructed by Harwood Andrews, on behalf of the VPA to provide expert evidence in relation to transport issues related to the amendment. I received further specific instructions in an email dated 13th January, 2022 that directed me to:
1. *Are the proposed parking rates justified having regard to all relevant considerations, including the Arden Vision, proposed land uses, the anticipated development yield, dwelling diversity, and the future operability of the road network;*
 2. *Are there recommendations that you would make with respect to future monitoring and review of the proposed parking provisions;*
 3. *Additionally, please review and respond thematically to the submissions made to the Amendment.*

2.4 Key Tasks

- 21 The scope of my engagement has included the following tasks:
- i. review of supporting documentation,
 - ii. review of the site location and the surrounding transportation network,
 - iii. review of Council and State policies and other relevant documents,
 - iv. review of the proposed Planning Scheme Amendment and supporting documentation, including:
 - the exhibited material
 - the VPA’s Part A submission and amended planning controls,
 - v. review of the potential transport impacts of the amendment,
 - vi. review of submissions, and
 - vii. preparation and giving of Expert Evidence in accordance with Planning Panels Victoria – Guide to Expert Evidence.

2.4.1 Experiments

- 22 I am generally familiar with the project area and land use patterns, having worked on numerous projects and studies in Arden and North Melbourne over the course of my career.

2.4.2 Reference Documents

- 23 The following key documents are relied upon in formulating this statement:
- i. Arden Vision – Final, 2018
 - ii. The Exhibited versions of the Amendment Documentation, in particular:
 - Special Use Zone – Schedule 7
 - Parking Overlay Schedule 14
 - DD080 Arden Innovation
 - DD081 Arden Central Mixed Use
 - DD082 Arden North
 - DD083 Laurens Street
 - iii. The Part A versions of the controls and other documents circulated by the VPA on 17th January, 2022
 - iv. Proposed Incorporated Documents:
 - Arden Structure Plan - August 2021 Part 1 & 2
 - Draft Development Contributions Plan - August 2021
 - Cross Sections - August 2021

- Arden Precinct Parking Plan (Stantec, formerly GTA) – August 2021
- v. Various proposed Planning Scheme Maps
- vi. Various technical and background reports exhibited with the Amendment:
 - Active Transport Investigation AECOM – August 2021
 - Arden Urban Renewal Precinct Transport Capacity Study (Stantec) – August 2021
 - Arden Precinct Parking Plan Part 2: Evidence Base (Stantec) – August 2021
- vii. Other supporting reports cited in various transport studies and strategies:
 - Tram Option Feasibility Study (AECOM) – November 2021
 - City of Melbourne Transport Strategy 2030
 - Integrated Transport and Access Review (Stantec) – Final, 2013
- viii. The Melbourne Planning Scheme
- ix. Planning Practice Note 57 – The Parking Overlay (PPN57)
- x. Submissions to the Advisory Committee.

3. Proposal

- 24 Amendment C407 applies to land within the Arden Precinct as shown in Figure 1.
- 25 The precinct is generally bound by Macaulay Road to the north, Macaulay Road and Dryburgh Street to the east, Upfield railway line to the south/south-west and Citylink (toll road) and Langford Street to the west. The Arden Structure Plan area is bordered by West Melbourne to the south-east, North Melbourne to the east and lies south of the Macaulay urban renewal precinct.
- 26 The explanatory report for Amendment C407 describes the rationale for the changes as follows:

Arden is identified as a 'Major urban renewal precinct' in Plan Melbourne 2017-2050 alongside Macaulay, Fishermans Bend (Lorimer, Montague, Sandridge and Wirraway), Docklands, E-Gate, Dynon and Flinders Street Station to Richmond Station Corridor. The strategic importance of Arden is also widely acknowledged and well understood by the community, industry and government.

Comprising approximately 44.6 hectares, the Arden precinct is located west of North Melbourne's established residential area and south of the Macaulay urban renewal precinct.

The Arden Vision, 2016 confirmed shared State and local government intentions for the precinct and built on the City of Melbourne's 2012 Arden-Macaulay Structure Plan and on existing Victorian and local government policies that guide economic, social and environmental outcomes for urban renewal.

It outlines objectives and strategies to achieve the eight key directions of the Arden Vision. The draft Arden Structure Plan aligns with other planning projects including planning for Macaulay, West Melbourne, the Moonee Ponds Creek and the West Gate Tunnel Project.

The Arden Structure Plan aspires to deliver approximately 34,000 jobs and around 15,000 residents by 2051. The amendment gives effect to the Arden Vision which underwent public consultation in 2016 and was finalised 2018. The vision sets out eight key directions to guide the precinct's future land use vision and urban structure. The Amendment implements the objectives and strategies from the Arden Structure Plan and the Arden Vision.

The Amendment introduces planning provisions to implement the Planning Policy Framework regarding the growth of Melbourne, delivering a framework for development in the renewal precinct by enabling new urban development and associated infrastructure and open space provision.



Figure 1: Arden Precinct Map (Source: Arden Precinct Structure Plan)

- Amendment C407 seeks to implement the Arden Structure Plan and include the Arden Structure Plan as a reference document within the Melbourne Planning Scheme.
- The Amendment proposes to make the following changes to the Melbourne Planning Scheme, with the controls most directly relevant to transport matters highlighted in **Blue**:
 - Amends the Municipal Strategic Statement at Clause 21.04 (Settlement) to show Arden as an urban renewal area that is separated from Macaulay.
 - Amends the Municipal Strategic Statement at Clause 21.13 (Urban Renewal Areas) to include policy basis and objectives specific to Arden.

- Amends the Municipal Strategic Statement at Clause 21.14 (Proposed Urban Renewal Areas) to update references to Arden.
- Introduces a new local planning policy at Clause 22.28 (Arden Urban Renewal Policy) to provide guidance and assist with the exercise of discretion in the assessment of planning permit applications in Arden.
- Rezone land in the precinct from part Commercial 1 Zone (C1Z), Industrial 1 Zone (IN1Z), Industrial 3 Zone (I3Z), Mixed Use Zone (MUZ), and Public Use Zone 4 – Transport (PUZ4) to Special Use Zone (SUZ).
- Introduces a new Schedule 7 to Clause 37.01 (Special Use Zone) to ensure land use and development outcomes implement the Arden Structure Plan, August 2021.
- Delete Clause 43.02 – Design and Development Overlay, Schedule 26 (DDO26), Schedule 31 (DDO31), Schedule 32 (DDO32) and Schedule 63A8 (DDO63A8) from the precinct.
- Introduces a new precinct specific Schedule 80 to Clause 42.03 (Design and Development Overlay) to align built form controls with the preferred character and vision for the Arden Central Innovation sub-precinct.
- Introduces a new precinct specific Schedule 81 to Clause 42.03 (Design and Development Overlay) to align built form controls with the preferred character and vision for the Arden Central Mixed-Use sub-precinct.
- Introduces a new precinct specific Schedule 82 to Clause 42.03 (Design and Development Overlay) to align built form controls with the preferred character and vision for the Arden North sub-precinct.
- Introduces a new precinct specific Schedule 83 to Clause 42.03 (Design and Development Overlay) to align built form controls with the preferred character and vision for the Laurens Street sub-precinct.
- Delete Schedule 12 to Clause 45.09 (Parking Overlay) from the precinct.
- Introduces a new Schedule 14 to Clause 45.09 (Parking Overlay) (PO14) to encourage sustainable transport patterns and the provision of alternative forms of parking.
- Applies the new Public Acquisition Overlay (PA08) in favour of Department of Transport for the purposes of key road extensions on land at:
 - 215 Arden Street, North Melbourne
 - 215-227 Arden Street, North Melbourne
 - 217 Arden Street, North Melbourne
 - 229-235 Arden Street, North Melbourne
 - 29-47 Laurens Street, West Melbourne
 - 49-63 Laurens Street, North Melbourne
 - 5/233 Arden Street, North Melbourne
 - 8/49-63 Laurens Street, North Melbourne

- Applies the new Public Acquisition Overlay (PA09) in favour of Department of Transport for the storage of water to mitigate the flooding risk of significant storm events on land at:
 - 208-292 Arden Street, North Melbourne
 - 2-52 Gracie Street, North Melbourne
 - 2-54 Green Street, North Melbourne
 - 49 Henderson Street, North Melbourne
 - 54-60 Gracie Street, North Melbourne
 - 62-70 Gracie Street, North Melbourne
 - 63-119 Langford Street, North Melbourne
 - Introduces a new Schedule 1 to Clause 44.08 (Buffer Area Overlay) to manage use and development within the moderate risk buffer area of the Citywide Asphalt Plant.
 - Introduces a new Schedule 2 to Clause 44.08 (Buffer Area Overlay) to manage use and development within the medium risk buffer area of the Citywide Asphalt Plant.
 - Amends Schedule 3 to Clause 45.06 (Development Contributions Plan Overlay) (DCPO3) to enable implementation of the Arden Development Contributions Plan, August 2021.
 - Amend the boundary of the DCPO3 to apply the overlay consistent with the precinct boundaries by:
 - Including allotments south of Macaulay Road, between Langford St and Boundary Road and delete the Development Contributions Plan Overlay (DCPO2) associated with the Macaulay precinct from these properties.
 - Delete the DCPO3 from allotments south of Victoria Street, which are included in the West Melbourne precinct area.
 - Applies the Environmental Audit Overlay to land in the precinct shown on Map 1.
 - Amends the Schedule to Clause 66.04 to require referral of certain permit application to be given to the Environmental Protection Agency, Melbourne City Council and Secretary to the Department of Transport until 31 December 2026, and thereafter VicTrack.
 - Amends the Schedule to Clause 66.06 to require notice of certain permit applications to be given to the gas pipeline licensee.
 - Amends the Schedule to Clause 72.03 to reflect the introduction of the Planning Scheme Map4BAO and deletion of Planning Scheme Map 7DCPO.
 - Amends the Schedule to Clause 72.04 to include a new incorporated document titled Arden Parking Precinct Plan, August 2021, Arden Precinct Cross Sections, August 2021 and Arden Development Contributions Plan, August 2021.
 - Amends the Schedule to Clause 72.08 to include a new background document titled Arden Structure Plan, August 2021.
- 29 The primary controls most relevant to transport planning are:
- Application of Schedule 14 of the Parking Overlay (PO14)

- Schedule 7 to Clause 37.01 (Special Use Zone)
- The Design and Development Overlays (DDO80-83)
- Inserting the following key documents into the Planning Scheme:
 - Arden Parking Precinct Plan, August 2021
 - Arden Precinct Cross Sections, August 2021
 - Arden Structure Plan, August 2021

30 I have also had regard to the VPA's Part A submission, which made changes to the proposed controls and the Arden Structure Plan. From a transport planning perspective, the Parking Overlay changed significantly from the exhibited version to align with my preliminary recommendations to the VPA.

4. Planning Context

4.1 Arden Vision

31 The Arden Vision (2018) was prepared by the State Government and City of Melbourne in 2018 to establish an aspirational framework for a future Structure Plan.

32 The vision for Arden is that:

Arden will be a new destination for Melbourne, setting the standard for urban renewal. It will contribute to a future Melbourne that is not only the world's most liveable city, but also one of the most forward-looking.

33 Other passages of the vision include (those quoted most directly relate to transport planning):

With its rapid rail connections to the Parkville National Employment and Innovation Cluster, the Central Business District and Melbourne's western suburbs, Arden is ideally placed to be an international innovation and technology precinct.

This new employment hub will be pivotal to the growth of Victoria's knowledge economy and advancing Melbourne's strengths as a progressive, innovative and connected local and global city.

It will become a new neighbourhood of Melbourne with quality and affordable housing, a thriving network of open spaces, active transport links, and adaptable community facilities, schools and workspaces. Arden will be at the forefront of sustainable development, embracing new ways to live, learn, work and travel in an energy efficient district.

34 In relation to transport, Arden Vision stated that:

Arden will provide direct and efficient connections in and around the precinct through safe and attractive public areas. This will include active and public transport networks that will complement the new Arden Station.

35 Arden Vision went through a process of consultation with the community, stakeholders and government partners and set down 8 key directions for renewal of the precinct (bold added for emphasis):

- Transforming Arden
- **Designing a distinctive place**
- Embedding sustainable change
- Accommodating diverse communities
- **Prioritising active transport**
- Investing in community infrastructure
- Celebrating water
- Creating diverse open spaces.

- 36 In relation to designing a distinctive place, the Vision includes the objective that “the street network will be stimulating, attractive and safe, providing connections to active transport, open space and views to key landmarks”.
- 37 The Vision set out three planned outcomes for prioritising active transport:
 - Given its geography and limited road access, by 2051 the mode share of all trips to Arden could be:
 - 60 per cent public transport,
 - 30 per cent active transport (walking and cycling), and
 - 10 per cent private vehicles.
 - Residents will have access to day-to-day destinations within 20 minutes by active transport (walking and cycling) or public transport. This is the concept of a 20-minute neighbourhood envisioned by Plan Melbourne, with an emphasis that day-to-day destinations are accessible by sustainable transport.
 - Pedestrians and cyclists have priority on key streets.
- 38 The above planned outcomes, together with the target set for population and employment, sets a key foundation for the transport planning within Arden, as shown in the figure below.

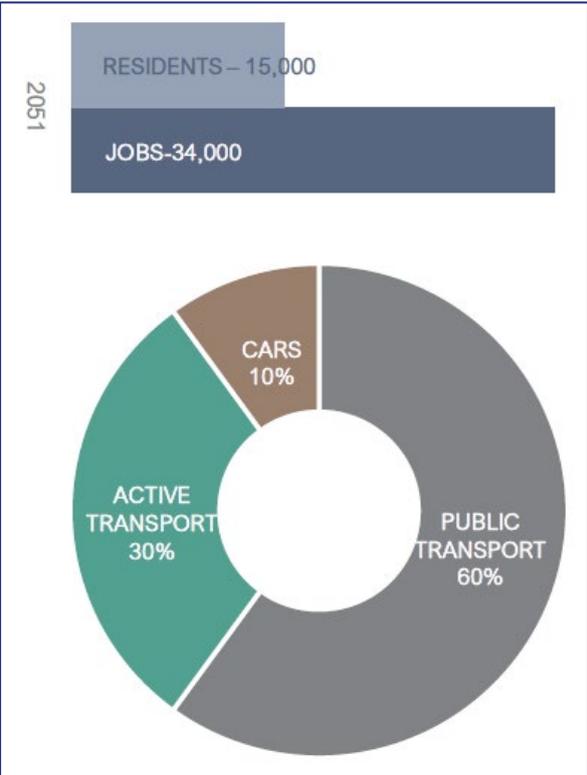


Figure 2: Arden Vision Targets (Figure sourced from Arden Movement and Parking Study)

- 39 These targets have been carried through into the Arden Structure Plan and form the fundamental basis for the transport planning completed by the VPA.

4.2 Arden Structure Plan

- 40 The Arden Structure Plan builds on the earlier Arden Vision (2018). The plan sets out 9 key themes. These themes are essentially the same as those contained within Arden Vision, with the addition of delivering Arden at theme 9:
1. Transforming Arden
 2. Designing a Distinctive Place
 3. Embedding Sustainable Change
 4. Prioritising Active Transport
 5. Celebrating Water
 6. Creating Diverse Open Spaces
 7. Accommodating Diverse Communities
 8. Investing in Community Infrastructure
 9. Delivering Arden
- 41 There are a total of 31 objectives, falling under the 9 themes. Theme 4 'Prioritising Active Transport' has 4 objectives, namely:
- *Objective 15 - Provide space for high capacity public transport capable options and improving transport links connecting Arden into the expanding central city.*
 - *Objective 16 - Provide safe, direct and connected protected cycling routes through and to the precinct.*
 - *Objective 17 - New and existing streets will be pedestrian friendly and provide comfortable, green links between open spaces and public transport routes and enhance the quality of the public realm.*
 - *Objective 18 - Minimise the impact of car parking and associated vehicular movements through Arden.*
- 42 Plan 4 of the Structure Plan presents Arden's Transport Network in 2051 in some detail and is reproduced below. The Part A version of the Structure Plan is essentially the same, with one minor update to be included:
- Update plan 4 Arden's Transport Network 2051 to include one way traffic loop from Straker St anticlockwise to Langford St and Gracie St.*

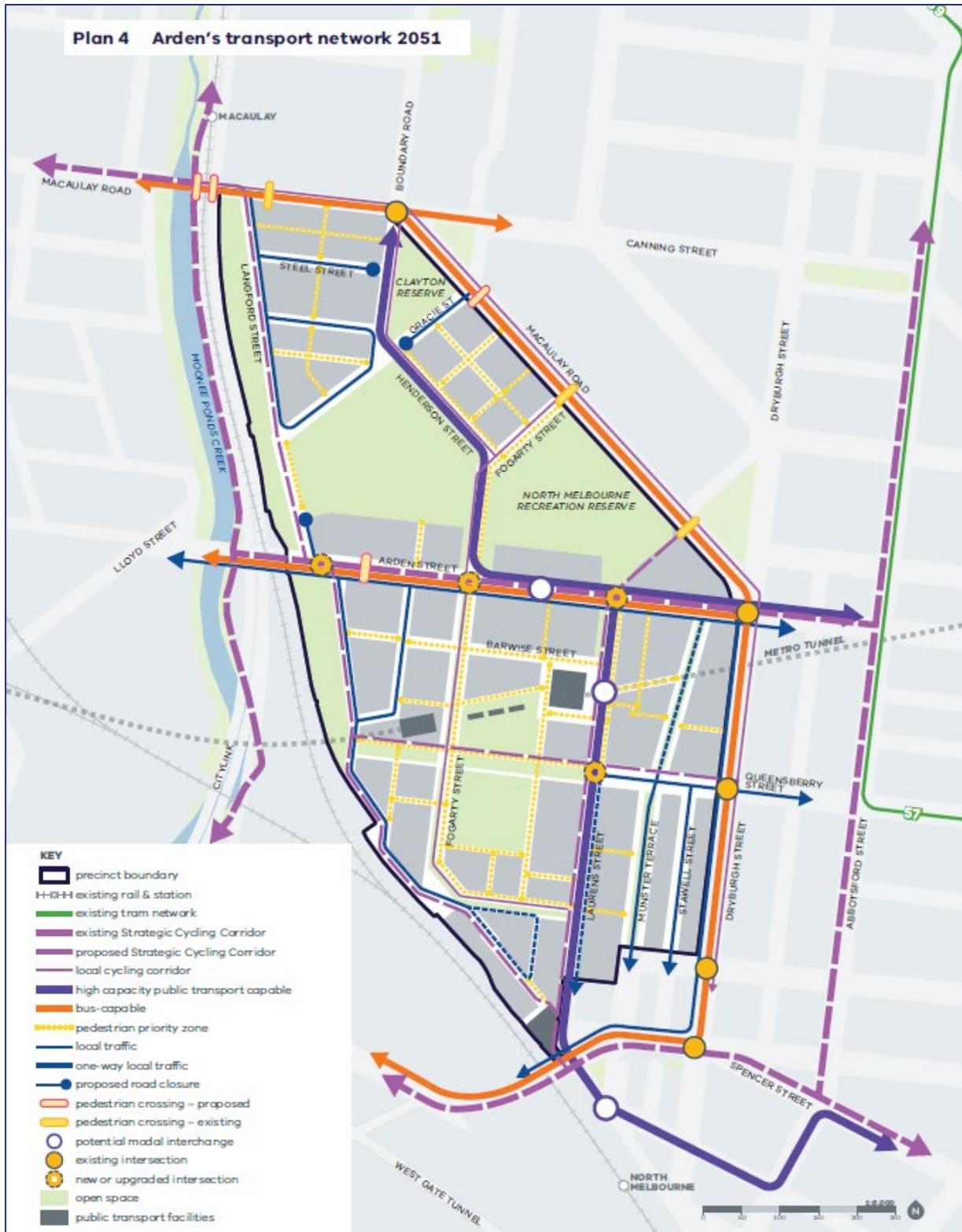


Figure 3: Arden Transport Network 2051 (Arden Structure Plan)

4.3 Existing Transport Context

43 Figure 4 provides a context plan for the existing transport network servicing Arden. The transport context of Arden is explored in more detailed within this section.

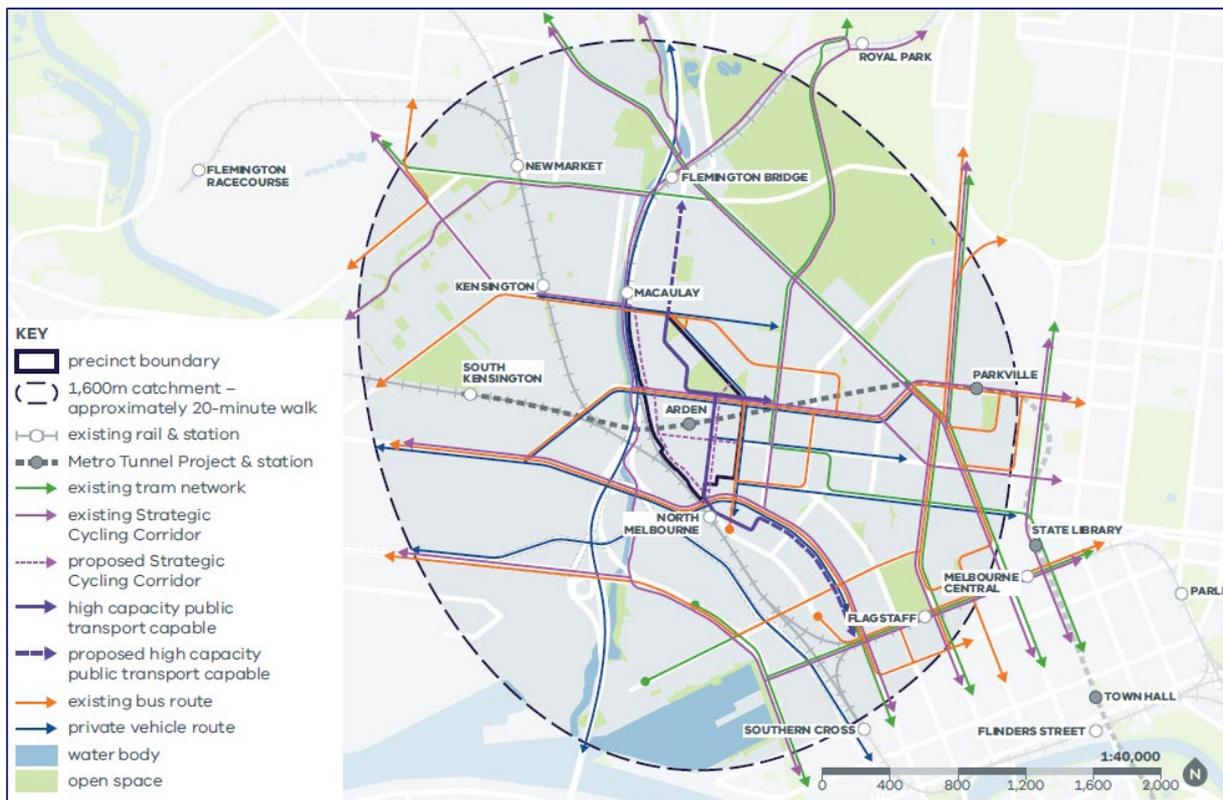


Figure 4: Arden Transport Context (Source: Arden Structure Plan)

Road Network

- 44 The area is well serviced by arterial road connections and is near CityLink/Tullamarine Freeway and future West Gate Tunnel connections. However, the arterial road network is highly congested in peak hours (see Figure 9 on page 28), making access to Arden difficult in peak periods.
- 45 The key arterial roads servicing the Precinct are:
- Arden Street
 - Macaulay Road (DoT Arterial Road)
 - Boundary Road (DoT Arterial Road)
 - Dryburgh Street (DoT Arterial Road)
 - Dynon Road/Spencer Street (DoT Arterial Roads)
- 46 According to the Arden Parking Precinct Plan, Arden provides approximately 557 on-street car spaces, including:
- Arden Central 93 spaces

- Arden North 176 spaces
 - Laurens Street 288 spaces
- 47 On-street parking currently provides for a mixture of short-term and unrestricted parking, with fewer parking controls generally located within the northern parts of Arden.



Figure 5: Locality Plan (Source: Melway)

Public Transport

- 48 Arden is presently serviced by the following public transport services (also shown in Figure 6):
- Three train stations:
 - North Melbourne Station is located just outside of the far southern point of Arden. It functions as a major interchange, servicing the Werribee, Sunbury, Craigieburn and Upfield Lines.
 - Macaulay Station on the Upfield Line is located at the north-west corner of Arden.
 - Kensington Station on the Craigieburn line is located 500m west from the edge of Arden.
 - Three bus services:
 - Route 401 between Parkville and North Melbourne Station (shuttle bus service).
 - Route 402 along Macaulay Road.
 - Route 403 along Arden Street.

- The Route 57 Tram on Abbotsford Street, which is less than 200m from Arden. Tram Routes 19, 58 and 59 are located to the east and north-east of Arden.

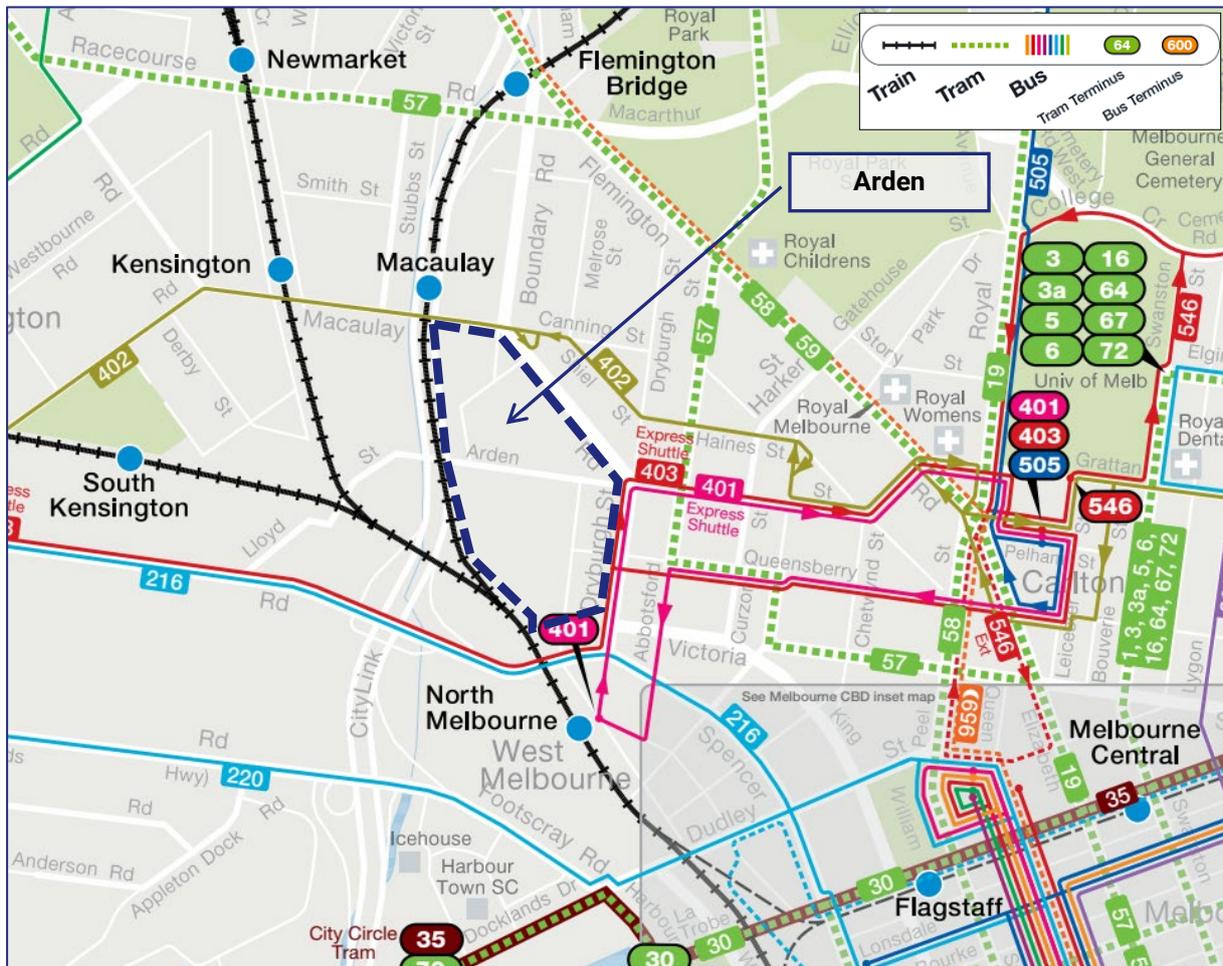


Figure 6: Public transport map (Source: PTV)

Active Transport Modes

- 49 The currently available walking and cycling infrastructure provides:
- A reasonable network of on and off-road cycling infrastructure. Most of the on-road cycling infrastructure is not fully protected.
 - Due to the relatively dense street network in the area surrounding Arden, Arden is well connected to abutting areas from a pedestrian accessibility perspective.

4.3.1 Future Infrastructure Projects

- 50 Arden is shaped by two significant transport infrastructure projects of metropolitan significance:
- The Melbourne Metro Tunnel (often referred to as Melbourne Metro 1)
 - The West Gate Tunnel Project
- 51 Arden Station is one of 5 new stations under construction as part of the Melbourne Metro Project, which provides a new high-capacity rail link under central Melbourne. The project provides additional rail capacity through new services and the ability for other rail lines to accommodate additional services, including the Upfield Line adjacent to the precinct. Melbourne Metro is due for completion in 2025.
- 52 The completion of this project significantly improves Arden’s access to the metropolitan rail network and accessibility to a much broader area of Melbourne.
- 53 A project overview of how Melbourne Metro and the Suburban Rail Loop link Melbourne is shown in the figure below.

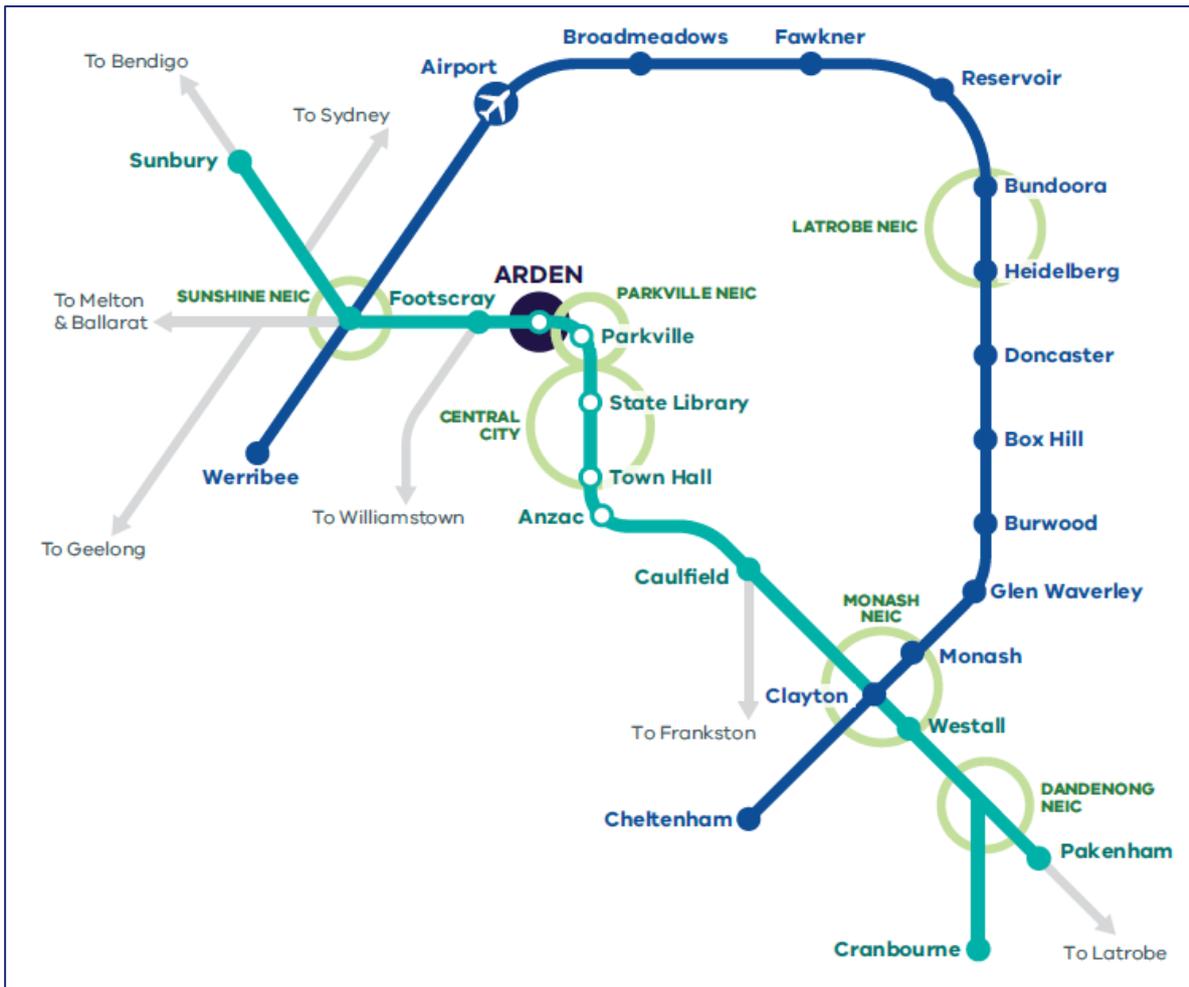


Figure 7: Melbourne Metro Rail improvements (Source: Arden Structure Plan)

54 The West Gate Tunnel provides a second freeway standard river crossing and alternative to the West Gate Bridge. The project increases access to the Port of Melbourne and the central city’s inner northwest, including Arden. An overview map of the eastern end of the project is shown in the figure below. The West Gate Tunnel Project is not due for completion until 2024 at the earliest.

55 The Arden Precinct Plan details the potential impact of the project on Arden:

The associated transport modelling undertaken as part of the West Gate Tunnel Project and presented in the Environmental Effects Statement, identifies an approximately 50% increase on existing volumes on east-west roads such as Arden Street (ex. 6,000vpd), Victoria Street (ex. 6,000vpd) and Queensberry Street (ex. 3,000vpd). As these roads are already near to capacity, much of this traffic is forecast to be outside of the peak period.

56 The completion of the West Gate Tunnel will further improve Arden’s access to the Metropolitan Freeway network and general accessibility by road.



Figure 8: West Gate Tunnel Project Overview (Source: West Gate Tunnel EES)

5. Review of Key Transport Studies/Strategies

5.1 Arden Urban Renewal Precinct Transport Capacity Study

- 57 The Arden Urban Renewal Precinct Transport Capacity Study (the **Capacity Study**) was initially completed by GTA Consultants in 2019, before the Arden Precinct Parking Plan in 2021. I understand that the 2021 version is essentially the same as the 2019 version (minor typographical edits). This document provides a background understanding of the transport challenges facing Arden.
- 58 The Capacity Study found that the road network servicing Arden is highly congested and is expected deteriorate further by 2051. This is based on analysis of the State-wide Victorian Integrated Transport Model (S-VITM) for 2016 and 2051. The analysis of the 2016 model found that the arterial road network is currently at or near saturation and this deteriorates in the 2051 model.

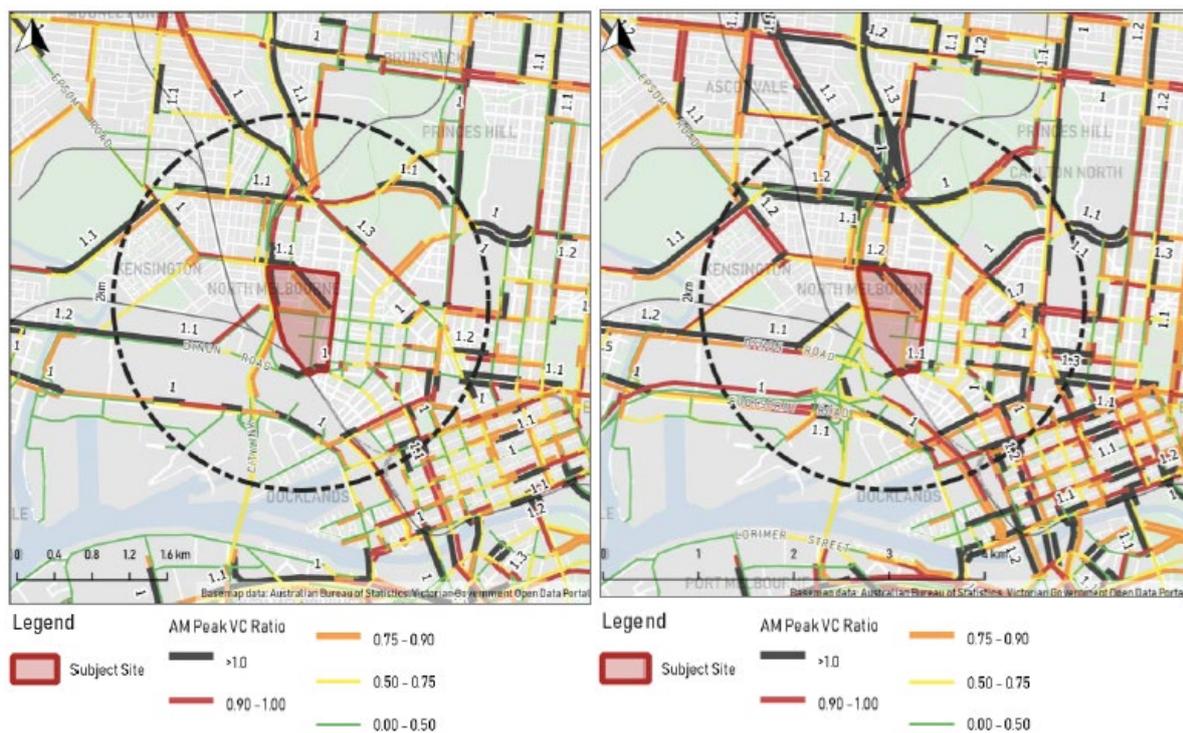


Figure 9: 2016 (left) and 2051 (right) AM Traffic Conditions (Source: Figures 3.2 and 3.3 of the Arden Urban Renewal Precinct Transport Capacity Study)

- 59 The S-VITM model was used to analyse the likely travel modes for future residents and employees within Arden, which considers factors such as maximum travel time/distance and population catchments. This assessment analysed the likely proportions of trips in the AM peak hour by walking, cycling, public transport and private car by 2051.

- 60 The report notes that the 2051 modelling assumes high quality public transport, walking and cycling facilities are provided and providing this infrastructure is a critical component to achieving the mode share forecasts.
- 61 The key outcome of this analysis is summarised in the following table and figures and includes a comparison to the Arden Vision mode share targets.

Mode	Employment (ingress)		Residents (egress)		Total	
Public Transport	10,700	60%	3,400	53%	14,100	58%
Walking	470	3%	486	8%	956	4%
Cycling	1,200	7%	400	6%	1,600	7%
Private Vehicle	4,000	22%	500	8%	4,500	18%
Internal (walking)	1,595	9%	1,595	25%	3,191	13%
Total	17,965		6,4381		24,347	

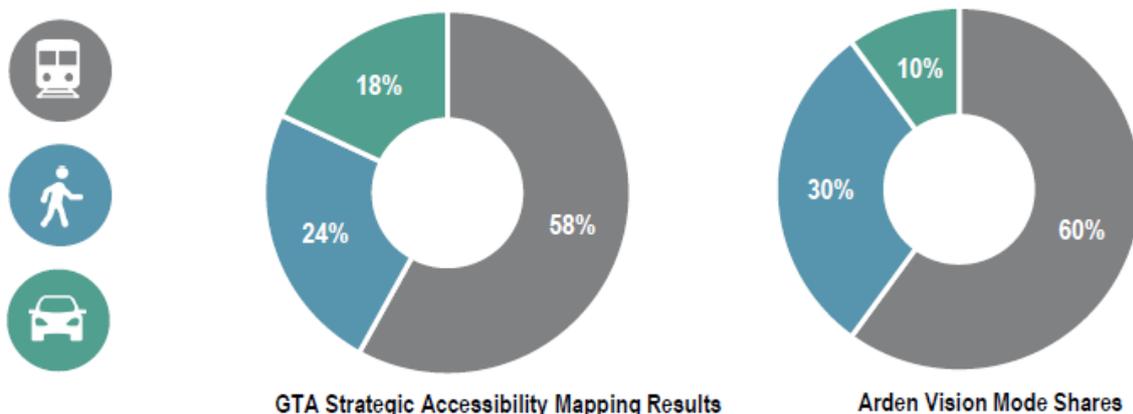


Figure 10: Key Strategic Access Mapping Summary (Table 3.1 and Figure 3.10 of the Arden Urban Renewal Precinct Transport Capacity Study)

- 62 The most important aspect of this analysis is that without intervention, the mode share target of 90% of trips by sustainable transport modes would not be achieved, with 18% of trips completed by private car (vs a target of 10%). The modelling shows that most of the private car trips would be associated with employees travelling to Arden (4,000), compared to residents leaving the area (500). It follows that targeting employee mode share (and also attracting employment that is less reliant on private car travel) is critical to achieving Arden Vision. While it is acknowledged that the 2051 mode share is almost double the 10% target, it represents a low level of car use.
- 63 The report acknowledges that there are challenges in achieving the mode share target of 10% by private car. The report provides an overview of current mode share (2016) for various inner-city suburbs which are a comparable distance to Arden (although slightly closer to the CBD). This data shows that car as a mode share equates to 21-31% of journey to work trips as shown in the table below.

Table 1: Current Mode Share for Inner City Suburbs ABS Census 2016 (Arden Urban Renewal Precinct Transport Capacity Study)

Suburb	Distance From GPO (approx.)	Sustainable Transport	Car	Other
Docklands	1.5km	75%	24%	1%
Carlton (Vic.)	1.6km	78%	21%	1%
Southbank	1.6km	77%	22%	1%
Fitzroy (Vic.)	1.9km	71%	27%	1%
West Melbourne	2.1km	75%	24%	1%
North Melbourne	2.2km	71%	27%	2%
Parkville (Vic.)	3.1km	68%	31%	1%

Source: Fishermans Bend Planning Panel review

Table 5.2: Current Mode Share for Inner City Suburbs (ABS Census 2016)

Noting: 'sustainable transport' is defined as walking, cycling and public transport trips. For the purposes of this assessment of Census data, we have extended upon this definition to also include 'Car as passenger'. This category will likely comprise predominantly carpooling passengers in a shared vehicle. Carpooling could be categorised as sustainable in that the trip does not contribute any additional impact on the transport network or in terms of environmental sustainability (i.e. emissions using a shared vehicle). 'Worked from home' responses are also considered, in this analysis of Census data, as sustainable transport, as this speaks to reducing the need for travel. All other categories ('taxi', 'truck', 'motorbike' and 'other') are classified as 'other'. 'Did not go to work' responses have been excluded from the analysis.

- 64 The 2016 data presents a snapshot in time and does not reflect that the share of private car trips has consistently fallen within inner Melbourne over the last 15-20 years. The table below shows journey to work data for employees working in Docklands and Southbank. These CBD-adjacent (or CBD extensions) have experienced densification in recent years and seen a consistent trend of lower mode share by private vehicles.

Table 2: Journey to Work Data - Place of Work within Docklands and Southbank SA2 Areas

Location	Travel Statistic	Year			Change 2011-2016 (2006-2016 for combined)
		2006*	2011	2016	
Docklands	Total Employees	-	28,000	51,000	+23,000
	% Car as Driver	-	32%	24%	-8%
	% All other modes	-	68%	76%	+8%
Southbank	Total Employees	-	30,000	34,000	+4,000
	% Car as Driver	-	45%	39%	-6%
	% All other modes	-	55%	61%	+6%
Southbank + Docklands*	Total Employees	32,000	58,000	85,000	+53,000
	% Car as Driver	46%	39%	30%	-16%
	% All other modes	54%	61%	70%	+16%

Notes:

1. In 2006, Southbank and Docklands were the same statistical area in the Census
2. Does not include workers who worked at home, did not go to work or no method of travel stated.

- 65 There is a similar trend for residents living within Docklands and Southbank, as detailed in Table 3.

Table 3: Journey to Work Data - Place of Residence within Docklands and Southbank State Suburbs

Location	Travel Statistic	Year			Change 2011-2016 (2006-2016 for combined)
		2006 Combined*	2011	2016	
Docklands	Total Residents	-	3,000	5,000	+2,000
	% Car as Driver	-	34%	25%	-9%
	% All other modes	-	66%	75%	+9%
Southbank	Total Residents	-	6,000	10,000	+4,000
	% Car as Driver	-	29%	23%	-6%
	% All other modes	-	71%	77%	+6%
Southbank + Docklands*	Total Residents	7,000	9,000	15,000	+8,000
	% Car as Driver	35%	31%	24%	-11%
	% All other modes	65%	69%	76%	+11%

Notes:

1. In 2006, Southbank and Docklands were the same statistical area in the Census
2. Does not include residents who worked at home, did not go to work or no method of travel stated.

- 66 This trend is not confined to CBD adjacent areas. Richmond is approximately 3km from the Melbourne CBD (Arden is approximately 2.5km). This is also an area where residential densities have gradually risen, and employment trends continue to change (generally away from industrial uses), without any significant transport infrastructure changes. The changes in travel patterns of employees working within Richmond is shown in the table below.

Table 4: Journey to Work Data - Place of Work within Richmond SLA

Mode of Travel	Year				Change 2001-2016
	2001	2006	2011	2016	
Car as Driver	73%	67%	61%	56%	-17%
Car as Passenger	5%	4%	4%	3%	-2%
P/Trans	15%	19%	24%	28%	+13%
Motorcycle	0%	1%	1%	1%	+1%
Bicycle	1%	2%	3%	4%	+3%
Walked	5%	6%	6%	7%	+2%
Other	1%	1%	1%	1%	-
Total	100%	100%	100%	100%	

67 It is reasonable to consider that a similar mode shift would also occur over the 30-year timeframe of Arden.

The key conclusion of the Capacity Study was that:

Currently, car mode share for journeys to work from Arden is 60%. As land use intensifies, typically car mode share declines. We estimate the mode share could be 30% with the denser land use following redevelopment, or down to 18% but no lower unless a package of interventions are developed and implemented.

68 The Capacity Study recommends that a package of solutions be implemented to deliver the 90% sustainable transport vision, which included limiting the number of car spaces provided within Arden.

5.2 The Arden Precinct Parking Plan

69 The Arden Precinct Parking Plan (the **Parking Plan**) is broken into two parts:

- The Precinct Parking Plan itself
- The evidence base that informs the Precinct Parking Plan (the **Evidence Base**)

70 These two documents are discussed together.

71 The Parking Plan sets out two key strategies in relation to the provision of car parking for new developments within Arden:

- Limits on the provision of off-street car parking (imposed via the Parking Overlay) to achieve the mode share targets as part of the Arden Vision.

- Controlling how off-street parking is delivered, owned and operated in order to maximise the efficiency of the car parking provided.

These are discussed in turn.

5.2.1 Mode Share Target and Limits on car parking

72 Fundamental to the strategy of the Parking Plan is the 90% sustainable transport mode target. The Parking Plan assumes that the 10% car mode share target is achieved and then considers what support is required from a transport planning perspective to achieve this target. It includes the following table highlighting how the mode share target compares to the 2016 journey to work data by resident and employee for Melbourne CBD, which is a reasonable comparison given Arden is planned as an extension of the CBD.

Location	Sustainable Transport	Car
Arden (proposed)	90%	10%
Melbourne CBD Resident	88%	12%
Melbourne CBD Employment	80%	20%

Source: ABS Census 2016, Method of Travel to Work by Place of Residence
For the purposes of this analysis, sustainable travel is taken as any trip that is not made as either a car driver or car passenger.

73 Like the analysis in the Transport Capacity Study, it shows that the mode share targets are within reach (particularly in the context of the Arden Vision being achieved by 2051). This analysis again points towards targeting lower car use by employees as being an important target.

74 The Precinct Parking Plan then reviews what level of car parking would be required to meet the car parking needs of employees and residents, based on the 10% target being achieved.

- For employees, this means:
 - Adopting the assumption of 34,000 jobs, as per the Arden Vision
 - 85% of employees would travel to work each day
 - The average car occupancy rate was 1.15 (i.e. car pooling).

This results in a need for 2,500 car spaces. Applying this to an overall floor area estimate of 790,888m² across Arden, the car parking rate for non-residential parking is 0.32 car spaces per 100m².

Comparing this to the earlier analysis in the Transport Capacity Study, there is a relationship between the strategic transport modelling (which forecast 4,000 employee trips by car, which significantly contributed to the higher 18% car mode share) and limiting employee parking to 2,500 car spaces for a 10% mode share.

- For residents, the calculations are more complex. Just because a resident owns a car, does not necessarily mean that they would use it to travel to work. This is especially true within the Melbourne CBD where the average car ownership in 2016 was 0.45 cars per

dwelling, resulting in a mode share by residents for journey to work trips of only 12%. The Movement and Parking Study recommends a parking rate of 0.3 car spaces per dwelling overall, resulting in 2,050 car spaces required for 6,280 apartments (to accommodate 15,000 people).

The final step was to breakdown the average of 0.3 car space per household across dwelling sizes. This assumed the mix of apartment types matches the current apartment mix in the Melbourne CBD, resulting in:

- 1-bedroom 0.2 spaces per dwelling
- 2-bedroom 0.3 spaces per dwelling
- 3-bedroom 0.5 spaces per dwelling

- 75 These maximum car parking rates provide a de-facto car parking cap that is intrinsically linked to the mode share targets of Arden.
- 76 The Evidence Base also included some further commentary on other uses:
- A full-line supermarket with Arden is likely and that supermarket operators prefer some level of on-site car parking.
 - The hospital would require 300 car spaces¹ and preferably these car spaces would come from the overall 'parking budget' for Arden. Some car spaces would be specifically required for key staff, emergency use or shift workers.
- 77 Rather than prescribing specific rates for key land uses, the Parking Plan recommends that suitable decision guidelines be included within the Parking Overlay to allow specific land uses to be provided with car parking, if required. This issue is discussed further in the Parking Overlay section of this report (Section 6).

¹ There is an inconsistency between Pages 56 and 72 of Precinct Parking Plan, which suggest 300 or 1,100 car spaces are required for the Hospital. In both cases, the Plan suggests that these car spaces should be included within the parking budget for Arden.

5.2.2 The Supply of Car Parking

- 78 The second part of the off-street parking strategy is maximising the efficiency of the car parking constructed within Arden. The Parking Plan outlines that:
- Providing off-street car parking comes with a financial cost, \$30,000-40,000 per car space for an above-ground space and \$45,000-75,000 for a basement car parking space. Providing car parking is a financial cost that increases the cost of housing and development in general.
 - Private car parking is inflexible. A private car space is allocated to a user and is 'used' whether the owner is actively parking a car in it or not. An empty car space does not provide any active benefit to the area.
 - If car parking was provided in an unbundled format (not individually owned), car parking can be more easily shared between users (residents, employees, visitors).
 - It is asserted that the sharing car parking could save approximately 1,000 car spaces as:
 - Residents and employees added together and parking in allocated parking would generate a total demand for 4,550 car spaces (2,500 employee and 2,050 resident car spaces), as per the calculations above at paragraph 74.
 - At peak demand times in a mixed-use area, parking demand peaks around 10-11am.
 - This is the peak time for employee parking, therefore a demand for 2,500 car spaces.
 - Resident parking demand is lower at around 55%, resulting in a demand for 1,015 resident car spaces (6,820 apartments, 0.3 cars/dwelling, 90% dwelling occupancy rate, 55% car parking demand rate).
- 79 There are several potential urban planning benefits from having a smaller number of consolidated car parking facilities:
- The number of vehicle access points can be reduced. This limits the impacts of vehicle access on the transport network including:
 - Minimising breaks in the footpath, maximising pedestrian amenity and reducing pedestrian-vehicle conflict points.
 - Reduces conflicts with cycling infrastructure and creates fewer cyclist-vehicle conflict points.
 - Offers urban design benefits (such as increased active frontages).
 - Fewer carparks are provided overall, maximising developable area for other more productive land uses.
 - It makes better use of smaller sites that cannot efficiently provide on-site car parking.
- 80 Finally, by directly charging the user of the car parking for its use, this provides a direct incentive to minimise car use by residents and employees. The user is exposed to the cost of the car parking, rather than the cost being hidden indirectly (that is, a 'sunk-in cost' such as through the cost of the dwelling). The cost of parking is another tool that assists to lower private car use towards the 10% mode share target.

5.2.3 Other Recommendations Relevant to the Planning Controls

81 The Parking Plan includes other recommendations in relation to other forms of parking:

- Bicycle parking should be provided at the following minimum rates:

Land Uses	Employee/Resident	Visitor/Customer
Residential	1 per bedroom	2 per 5 dwellings
Commercial	1 to each 100sqm NFA	4 minimum, plus 1 to each 100sqm NFA

- Off-street parking should be capable of being retrofitted for electric vehicle charging, with 5% of all spaces provided with electric vehicle charging.
- At least 5% of off-street parking should be set aside for car share vehicles.
- 5% of all parking spaces should be provided for use by people with disabilities.

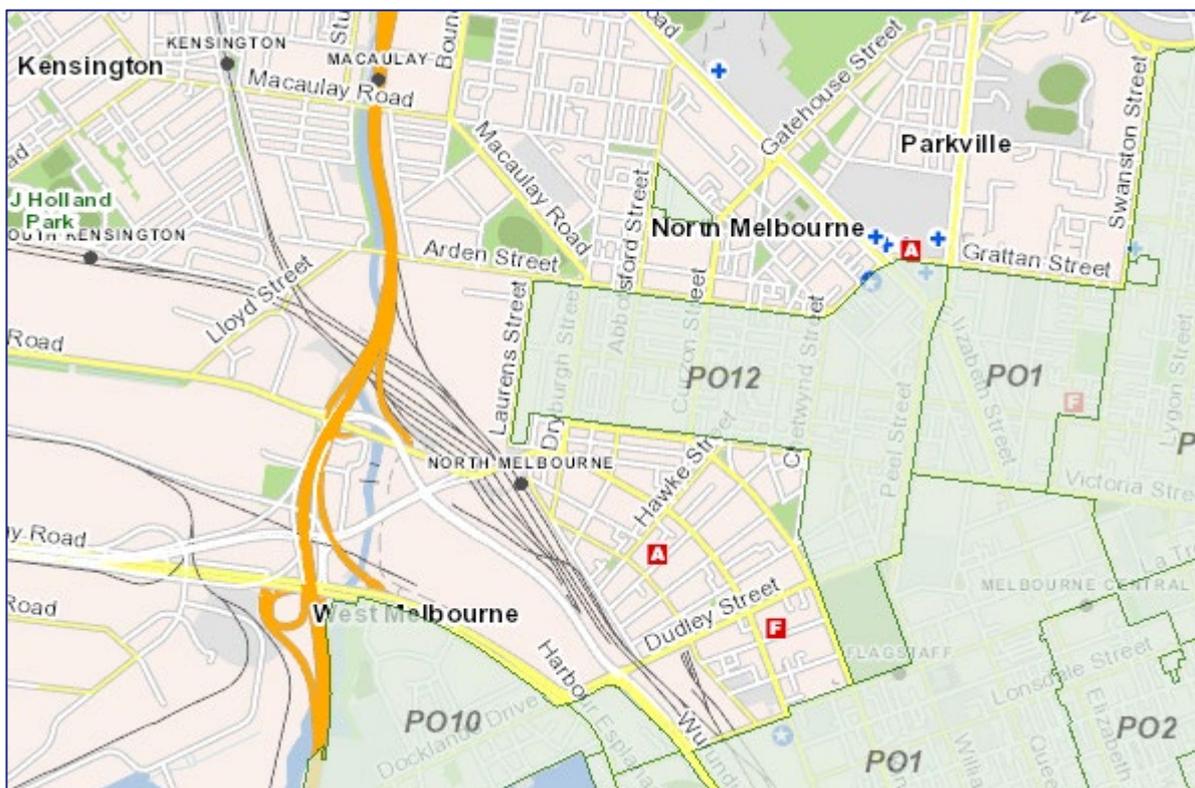
82 The Parking Plan also makes recommendations in relation to on-street car parking. These recommendations have limited direct relevance to the Planning Scheme controls, but are important to understand the overall car parking strategy (to constrain car parking to prioritise sustainable transport modes). These include:

- On-street parking will be reduced within Arden (up to 50% in Arden North and Laurens Street), principally to make way for better pedestrian and cycling facilities.
- All on-street parking is recommended to be limited by time-restrictions and paid parking. The time limit recommended is 30 minutes.
- Around 100 on-street loading zones should be provided.
- Ride hailing zones near intersections should be considered (for taxi/rideshare services).
- Parking permits for affected residents will need to be considered.
- Parking restrictions surrounding Arden will need to change to prevent overspill parking in adjacent areas.
- Parking around the station should be limited to drop-off/pick-up areas with no commuter parking.

6. The Parking Overlay

6.1 Current Parking Controls that Apply in Arden

- 83 The existing car parking controls that apply to Arden is a mixture of 'default' parking rates of Clause 52.06, with a small section east of Laurens Street located within Schedule 12 to the Parking Overlay. This is shown at Figure 11 below.
- 84 The entirety of Arden lies within the Principal Public Transport Network Area (PPTN) and the lower Column B car parking rates of Clause 52.06-5 apply to the Precinct. The only exception is the P012 area east of Laurens Street, which sets a different car parking requirement for dwellings only. This schedule sets a maximum car parking rate of 1 per dwelling (irrespective of size and type). The Column B car parking rates of Clause 52.06-5 continue to apply to all other uses under P012.



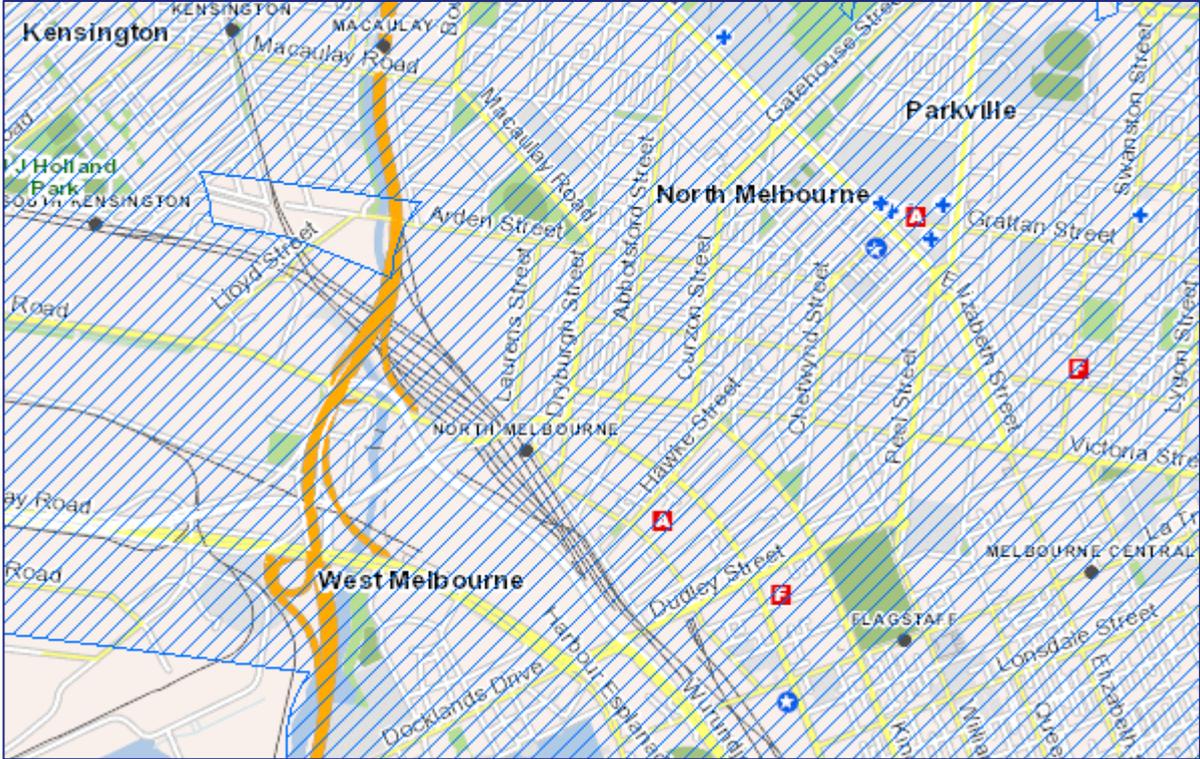


Figure 11: Existing Parking Overlays in green (above) and extent of PPTN in blue (below)

6.2 Review of the Parking Overlay as Exhibited

- 85 The Part A Submission by the VPA seeks to replace the exhibited Parking Overlay with a revised Parking Overlay (the **Part A PO**). My opinions on the revised Part A PO are set out at Section 6.3
- 86 My review of the exhibited PO identified several concerns/comments, which are discussed below. My review also considered the relevant submissions by the City of Melbourne on the exhibited PO.
- 87 My primary concern was that Parking Overlay as exhibited did not meet the intent of the Arden Precinct Parking Plan (the Parking Plan). The flow of logic that the Parking Plan seeks to apply when determining on car parking is set out at Figure 3.2 of the Parking Plan, which is reproduced below.

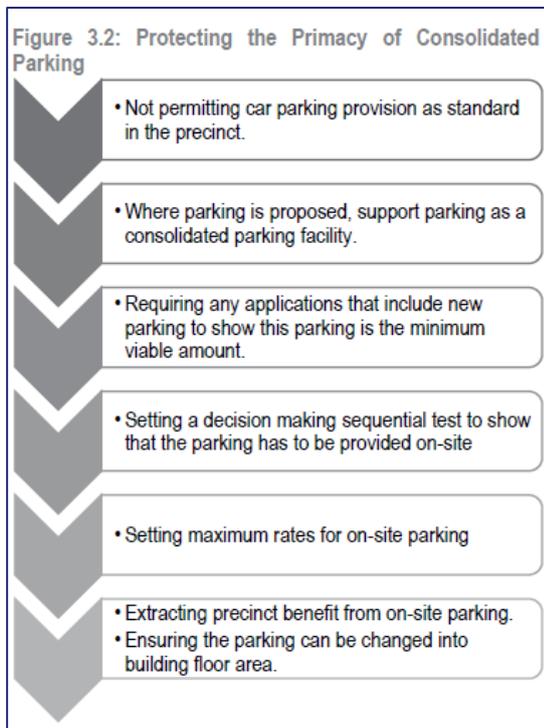


Figure 12: Figure 3.2 of the Arden Parking Precinct Plan

- 88 The order of preference in this decision-making process is that:
- no car parking is provided,
 - then if it is provided it should be in the form of a consolidated carpark,
 - do not over provide car parking, if it is provided, and finally
 - any carpark should be adaptable.
- 89 Car parking rates have a limited place in this decision-making flow chart, as the primary intent is to provide no car parking. My recommendations to the VPA and my comments below are based on my interpretation of what the Parking Plan is trying to achieve.

The Objectives of the Parking Overlay

- 90 I found the objectives of the Parking Overlay did not reflect the intent of the Parking Plan, specifically the intent to limit car parking in the first instance.

The car parking triggers within the Overlay were unclear

- 91 The exhibited Parking Overlay had multiple levels of car parking triggers that in my view did not sit well with the objectives of the Parking Plan and were confusing to interpret:
- At Section 2.0, a permit is required 'to provide car parking spaces as part of any use or development'.
 - At Section 3.0, 'if a use is specified in the table below, the maximum number of car spaces required for the use is calculated by multiplying the *Rate* specified for the use by the accompanying *Measure*'.
- 92 As originally worded, any application required a permit to provide car parking, but then at Section 3.0, required car parking rates were specified.
- 93 In my view, the maximum car parking requirement should be set as zero for all land uses. Any other requirement would not appear to capture the intent of the controls, because it would effectively allow any site to provide car parking as-of-right, up to the maximum amount. This is discussed further in my review of the Part A PO.

Application Requirements and Decision Guidelines

- 94 At Section 4.0 the application requirements and decision guidelines, lacked clarity as to the intent of what the Parking Overlay is seeking to achieve. In my view, this is a legacy of the conflicting nature of Sections 2.0 and 3.0 and that the Parking Overlay is intending what is a novel outcome for the Parking Overlay mechanism.
- 95 Following my recommendations to the VPA, these sections have been substantially revised in the Part A Parking Overlay. Accordingly, I have not commented on the exhibited version in any greater detail here.

Financial contribution requirement

- 96 I agree there should be no financial contribution requirement, as the intent is not to provide car parking in the first instance.

Requirements for a car parking plan and Design standards and Decision guidelines

- 97 As a transport planner, I found the originally written requirements to be unclear and some requirements needed moving to other sections. Similar to the application requirements and decision guidelines, I do not see a need to comment on these further.

6.3 Review of the Revised (Part A) Parking Overlay

98 The Part A Parking Overlay reflects my recommendations provided to the VPA to amend the Parking Overlay. The following sections provide my assessment of the Part A PO.

6.3.1 1.0 Parking objectives to be achieved

99 The following table sets out my comments on the Parking Objectives within the revised PO.

Table 5: Review of Parking Objectives

Parking Objectives	Response
<i>To implement the Arden Precinct Parking Plan.</i>	The planning for Arden proposes a unique set of parking controls and in my view, it is important that transport planners are directed to this key reference document to understand the intent of what the Overlay is trying to achieve. This is the most important objective and should be listed first.
<i>To encourage a travel mode shift toward 90 per cent of all trips to the precinct being by sustainable transport options.</i>	This is the critical transport planning objective of Arden and the Parking Overlay is an important tool to assist in achieving this target.
<i>To discourage the provision of on-site car parking on a site-by-site basis and encourage consolidated, publicly available carparks.</i>	As discussed at Section 5.2, the Parking Plan has two goals: 1. Limit car parking to assist in achieving the 90% sustainable transport target. 2. Maximise the efficiency of the car parking provided by providing consolidated, flexible car parking to achieve a range of other planning benefits. This objective reflects the second goal.
<i>To minimise the impacts of on-site car parking and vehicle access on the transport system and the public realm.</i>	Reducing the impact of car parking on the transport system and public realm is a key objective designed to support sustainable transport modes (walking, cycling and public transport). This includes the design and operation of vehicle access points.
<i>To provide for the future adaptation of car parking areas to other uses and innovations in transport technology and practice.</i>	Arden is a Precinct that is planned to develop over a 30-year period and it is important that the controls reflect that significant changes to transport technology and practice are likely to occur within that timeframe. Buildings planned

Parking Objectives	Response
	today will be in existence well beyond the planning horizon of the controls.

6.3.2 2.0 Permit Requirement

- 105 The new permit requirement in the Parking Overlay is as follows:
A permit is required to provide car parking spaces as part of any use or development.
- 106 The clear objectives of the Parking Plan is to encourage developments not to provide car parking in the first instance. The Part A PO clearly articulates this objective in a clear and concise manner.
- 107 While a permit is required to provide car parking, the following sections of the Parking Overlay provide the flexibility to allow car parking in appropriate circumstances.

6.3.3 3.0 Number of Car Parking Spaces Required

- 108 The Part A PO requires car parking as follows:
The maximum car parking rate for any land use is zero.
- 109 I support the working of Section 3.0. Any other requirement would not appear to capture the intent of the controls, because it would effectively allow any site to provide car parking as-of-right, up to the maximum amount. This requirement is clear and easily understandable.
- 110 This requirement does not mean that car parking cannot be provided, only that a permit is required to provide any car parking.
- 111 It is important to reference all land uses as otherwise I believe it would only relate to those uses listed in Column A, with other uses not listed being innominate uses with car parking provision to the satisfaction of the responsible authority.
- 112 Finally, the car parking rates listed in the exhibited Parking Overlay have been relocated to the decision guidelines, as discussed below.

6.3.4 4.0 Application requirements and decision guidelines for permit applications

- 113 The Part A PO includes application requirements and decision guidelines for applications that include car parking. The Parking Plan articulated that the provision of car parking could be appropriate in some instances. Given that Clause 52.06 includes decision guidelines to reduce car parking (and the PO is essentially seeking the reverse of this process), new application requirements and decision guidelines are appropriate.
- 114 The Part A PO reflects my recommendations to the VPA for a set of requirements and guidelines that fit with Sections 2.0 and 3.0. The table below reviews the application requirements and decision guidelines.

Table 6: Review of Application Requirements and Decision Guidelines

Application requirements and decision guidelines	Response
Application Requirements	
<p><i>An application to provide car parking must include:</i></p> <ul style="list-style-type: none"> • <i>A report that provides clear justification and analysis as appropriate to demonstrate:</i> <ul style="list-style-type: none"> ○ <i>How the provision of car parking achieves each of the objectives of this Overlay.</i> ○ <i>Whether the car parking is proposed as a consolidated, public carpark.</i> ○ <i>The quantity and proposed ownership of the car parking provided, and the extent of publicly accessible car parking spaces.</i> ○ <i>The purpose and need for car parking being provided on the site, including proportions of car share, bicycle, motorcycle, disabled and loading car parking spaces provided on the site.</i> ○ <i>Where private car parking is to be provided, the extent that the carpark could be adapted for use as a consolidated, public carpark.</i> ○ <i>The adaptability of the car parking to other land uses.</i> 	<p>The revised application requirements seek a report detailing and justifying why any car parking proposed on-site should be provided.</p> <p>If car parking is proposed, providing it in a flexible, efficient format (consolidated car parking) is a key objective of the Parking Plan.</p> <p>This is necessary information for the assessor of the planning application. Publicly accessible car parking would be preferred over private car parking within Arden.</p> <p>There may be specific land uses or businesses where providing car parking is critical to the operation or viability to the use. It is important that these land uses are not excluded from Arden if they are otherwise appropriate.</p> <p>However, the provision of car parking should not be at the detriment of sustainable transport modes, service requirements or priority car parking types.</p> <p>As public parking is preferred, the flexibility of being able to convert into a public carpark is an important consideration.</p> <p>Any car parking proposed should be convertible to another use.</p>

Application requirements and decision guidelines	Response										
<ul style="list-style-type: none"> ○ Whether existing on-street or consolidated off-street parking spaces are available within 250 metres of the site. ○ Whether public transport alternatives are available within 200 metres of the site. ○ Alignment with the Arden Movement Network Plan at Plan 4 Arden Transport Network 2051 of the Arden Precinct Parking Plan. ● A draft car parking plan responding to the Requirements at Clause 6 of this Schedule. 	<p>If there are not adequate alternative public/consolidated car parks available in the area, this may justify on-site car parking.</p> <p>A site that is not located in the immediate vicinity of public transport may require some car parking.</p> <p>Any proposed car parking should not compromise the future transport network. This includes its access location.</p> <p>Refer to later comments regarding Clause 6.</p>										
Decision Guidelines											
<p>The following decision guidelines apply to an application for a permit under Clause 45.09-2, in addition to those specified in Clause 52.06-7 and in this Parking Overlay Schedule. The responsible authority must consider, as appropriate:</p> <ul style="list-style-type: none"> ● Whether the objectives of this schedule have been met. ● The purpose of the car parking. ● The use of the land and the need for the car parking. ● Where private car parking is proposed, whether the car parking rates exceed those recommended as maximum rates in the Arden Precinct Parking Plan, as specified below: <table border="1" data-bbox="226 1729 836 2027"> <thead> <tr> <th>Use</th> <th>Rate</th> <th>Measure</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Dwelling</td> <td>0.2 spaces</td> <td>To each 1 bedroom dwelling</td> </tr> <tr> <td>0.3 spaces</td> <td>To each 2 bedroom dwelling</td> </tr> <tr> <td>0.5 spaces</td> <td>To each 3 or more bedroom dwelling</td> </tr> </tbody> </table>	Use	Rate	Measure	Dwelling	0.2 spaces	To each 1 bedroom dwelling	0.3 spaces	To each 2 bedroom dwelling	0.5 spaces	To each 3 or more bedroom dwelling	<p>These are all very relevant factors in the context of the Parking Plan.</p> <p>These car parking rates are set out in the Parking Plan. These rates have been determined based on the 90% mode share target.</p> <p>Limiting car parking to these targets would likely achieve the desired mode share, irrespective of the consolidated parking outcomes also sought for other planning reasons.</p> <p>While not appropriately located at Clause 3.0 of the Overlay, they remain very relevant considerations and provide guidance as to</p>
Use	Rate	Measure									
Dwelling	0.2 spaces	To each 1 bedroom dwelling									
	0.3 spaces	To each 2 bedroom dwelling									
	0.5 spaces	To each 3 or more bedroom dwelling									

Application requirements and decision guidelines			Response
All other uses (Other than Carpark)	3.2 spaces	To each 1000 sqm of gross floor area	what level of car parking would be appropriate within Arden.
<ul style="list-style-type: none"> Whether the car parking is provided as a consolidated car parking facility or is publicly accessible. Whether the site is located within 250m of an existing or proposed consolidated, publicly available car parking facility. Whether the car parking spaces are being provided as disabled persons spaces, car share or spaces used for loading. The availability and proximity of public transport in the locality and the timing of future improvements to the network. The extent to which the car parking could be adapted to allow for other uses in the future. The impact of the proposed car parking on local amenity, including pedestrian amenity and the creation of a high quality public realm. The impact of the vehicle access on bicycle, public transport and pedestrian infrastructure, on-street parking and loading facilities and traffic movements on the nearby road network. The Arden Precinct Parking Plan, August 2021. 			<p>A public carpark or consolidated facility is a desirable outcome due to the wider benefits and may be encouraged in the right location.</p> <p>The lack of alternative public car parking may be a reason to provide on-site car parking.</p> <p>Provision of private car parking at the expense of these key facilities may not be appropriate.</p> <p>The lack of proximate or near-term public transport may be a supporting reason to provide some car parking.</p> <p>Having adaptable car parking would be a supportive reason in the provision of any car parking.</p> <p>If a site has the option for vehicle access in a location with low impacts on the local road network/public realm, this may support the provision of car parking.</p> <p>This is the key reference document supporting the car parking controls.</p>

6.3.5 5.0 Financial contribution requirement

- 115 The Part A PO does not include a financial contribution requirement (as per the exhibited PO).
- 116 This is appropriate given that the intent of the controls is to limit the amount of car parking within Arden.

6.3.6 6.0 Requirements for a car parking plan

- 117 Given the unique objectives for the Parking Overlay, it is important that car parking plans must include additional details for the assessor to review the application against the decision guidelines of the Parking Overlay. The requirements are set out below.

In addition to the requirements of Clause 52.06-8, a car parking plan must contain the following:

- *The proposed allocation and ownership of the car parking provided and extent of public accessible car parking spaces.*
 - *Provide an indicative car park management framework detailing how any publicly accessible car parking spaces will operate to facilitate shared use, including car park security.*
 - *Details of how the vehicle access point(s) impact on the existing and future road network and on the public realm and pedestrian and cyclist safety.*
 - *Plans demonstrating how above-ground car parking can be adapted to alternative uses in the long-term.*
 - *Detail all car share, electric vehicle, bicycle, motorcycle, disabled and loading car parking spaces.*
 - *Details of how all car spaces provided can be adapted to provide electric vehicle charging.*
- 118 It is important for the plans to provide the above information to demonstrate how the application is responding to the application requirements and decision guidelines of Section 4.0. These requirements are consistent with my recommendations to the VPA.

6.3.7 7.0 Design standards for car parking

- 119 The exhibited PO included what I would describe as short list of logical requirements for the design of car spaces. However, it also incorporated numeric requirements for car share and DDA spaces, which in my view were not appropriately located.
- 120 There were also some design requirements included in the DDOs in relation to the design of carpark access points that in my view were more logically located in the Parking Overlay. Transport planners assisting on future development applications are more likely to find and respond to design requirements if they are included in the Parking Overlay (compared to a DDO).
- 121 The table below reviews the design standards for car parking in the exhibited PO.

Table 7: Review of Design Standards for Car Parking

Design Standards	Response
<p>The following design standards for car parking and other requirements for the design and management of car parking must be met, in addition to the matters that must be shown on plans prepared under Clause 52.06-9:</p>	<p>It should be noted that the 'default' design standards of Clause 52.06-9 also remain relevant.</p>
<ul style="list-style-type: none"> • Vehicle accessways, crossovers and carpark entries should not be constructed along streets identified as traffic conflict frontages. 	<p>This requirement is very important. Appropriately locating the carpark entrance is a key design consideration at the early stages of planning a new development. Leaving this requirement in the DDOs increases the chances that it will be overlooked in practice by a transport planner.</p>
<ul style="list-style-type: none"> • Vehicle access points wider than 6.1m should provide pedestrian refuges. 	<p>This requirement has been relocated from the DDOs to the PO in the Part A material. This is appropriate.</p>
<ul style="list-style-type: none"> • The layout and design of above ground car parking areas must allow for adaptation to alternative land uses. 	<p>This is another DDO requirement that is also more appropriately located here.</p>
<ul style="list-style-type: none"> • The layout and design of car parking areas should: <ul style="list-style-type: none"> ○ Include the provision for internal queuing and minimise the need for cars to queue on the street. ○ Allow natural ventilation. 	<p>These requirements were included in the exhibited PO, are reasonable and I see no reason to change these.</p>
<ul style="list-style-type: none"> • The location and design of car share bays should be: <ul style="list-style-type: none"> ○ Publicly accessible. ○ As close to the carpark entry as possible. ○ Well-lit and a short distance from an entry point, lift or staircase. 	

Design Standards	Response
<p><i>The following design standards for car parking and other requirements for the design and management of car parking should be met, in addition to the matters that must be shown on plans prepared under Clause 52.06-9:</i></p> <ul style="list-style-type: none"> <i>All car parks are to provide for to provide electric vehicle charging.</i> <i>A minimum of 5% of any car spaces provided designated as DDA spaces.</i> 	<p>Dot point one needs to be reworded due to a typographic error.</p> <p>My recommendation to the VPA was that all car spaces should be designed to be fitted for (but not with) electric vehicle charging. This means allowing for cabling, sub-station requirements, etc. While the widespread use of electric vehicles is not known, it is widely expected to be significantly earlier than the 2050 timeline of Arden Vision. In this context, it is my view that planning for electric vehicle charging (but not mandating installation right now) is appropriate.</p> <p>The requirement for 5% of car spaces to be DDA spaces is a recommendation of the Parking Plan.</p>

6.3.8 8.0 Decision guidelines for parking plans

122 The decision guidelines for parking plans within the Part A PO reflect my recommendations to the VPA. The full decision guidelines for parking plans are reproduced below:

The following decision guidelines apply to car parking plans under Clause 45.09, in addition to those specified in Clause 45.09, and elsewhere in the scheme which must be considered, as appropriate, by the responsible authority:

- The extent that the car parking is adaptable to alternative land uses, including possible consolidated public parking.*
- The accessibility of car share, electric vehicle, bicycle, motorcycle, disabled and loading car parking spaces.*
- Whether the car parking plan encourages sustainable transport use.*
- The impact of the proposed vehicle access on the existing or future transport infrastructure and local traffic management.*
- The impact of the number, width, location and design of new vehicular access points on the safety and quality of the pedestrian environment, pedestrian amenity and kerbside space for outdoor seating areas.*
- Whether alternative vehicle access to the site is constrained and no other access is possible.*

123 In my view, the decision guidelines respond to the key themes of the Parking Plan, which are:

- When car parking is provided, consolidated car parking is preferred,

- High value forms of parking (car share, disabled, etc.) should be prioritised when car parking is provided,
- To minimise impact on sustainable transport use, and
- The impact of the carpark access on the public realm and transport network should be minimised.

6.3.9 9.0 Background Document

- 124 This section lists the Arden Precinct Parking Plan, August 2021. This is unchanged from the exhibited version of the Parking Overlay and is appropriate.
- 125 It may be worth also including the Arden Precinct Cross Sections, August 2021 as an additional reference document. This would assist in directing readers to the Cross Section plans, which would be useful when making determinations on where vehicle access should be located.

6.4 Monitoring and Review of the Parking Overlay

- 126 Practice Note 57 includes the following guidance in relation to review and monitoring the Parking Overlay controls:

The characteristics of a precinct often change over time, affecting local parking conditions. It is important that the Parking Overlay is regularly monitored and reviewed to ensure it continues to reflect the precinct's actual parking requirements, and is consistent with future plans for the precinct.

It is recommended that any Schedules to the Parking Overlay are reviewed concurrently with the council's Municipal Strategic Statement to ensure the specified car parking rates still reflect the car parking demand for each land use.

- 127 The Parking Plan recommends a 5-year review period for the Parking Overlay for the lifetime of the Arden Structure Plan. In my view this is appropriate.
- 128 Assuming the controls are implemented in mid-2022, a review in mid-2027 would be appropriate. This would be:
- approximately 2 years after the metro station opens,
 - at a point in time when I would expect more certainty around the nature and timing of the high capacity public transport route(s) proposed in Arden,
 - when some information available from the market (received planning permit applications and other feedback) that would indicate what sort of impact the parking controls were having on development, and
 - when there will be more certainty around the onset of widespread use of electric vehicles, autonomous cars and other innovations in transport technology.

7. Review of the Proposed Road Cross Sections

- 129 The Arden Precinct Road Cross Sections (the Cross Sections) is proposed to become an incorporated document in the Planning Scheme. This document provides detailed cross sections for key roads within Arden.
- 130 The cross sections illustrate a CBD style road network. At a high level, I am comfortable with the direction of the plans which emphasise public transport, cycling facilities and pedestrian priority on all roads. This is entirely consistent with the direction of the Structure Plan and Arden Vision.
- 131 I am comfortable that the Road Cross Sections should be included as an incorporated document because of the strong guidance it provides to new development proposals. It is significantly easier to integrate new buildings with the streetscape when a concept plan of the future road network is available. This includes the location of vehicle and service access, which are critical elements to determine at the commencement of new projects.
- 132 The extent of my review does not include a detailed investigation as to whether delivery of the road network outlined is fit for purpose to serve Arden. My review involved checking whether the various strategic documents, plans and planning controls were consistent and would deliver the transport network outlined in Plan 4 of the Structure Plan (see Figure 3 on page 22 of this statement).
- 133 I am satisfied that the proposed cross sections are consistent with Plan 4 of the Structure Plan.
- 134 However, I did find some inconsistencies between the Cross Sections and the access controls proposed as part of the DDOs. This is discussed further in the following section.

8. Review of Key Planning Scheme Controls

- 135 This section of my evidence reviews the key planning controls related to transport planning matters and provides my views on the same.
- 136 This review is based on the exhibited material. The changes to the transport-related controls in the Part A material was generally not material.
- Where a change was made in the Part A submission that was not substantial in nature, this has been highlighted in **Blue**.
 - Where a change was more substantial, I have separated my review into two sections.

8.1 The Design and Development Overlays (DDO80-83)

- 137 Each of the DDOs contain similar design requirements in relation to traffic engineering matters. These are discussed below, with comments made on a by-exception basis, rather than commenting on every point related to transport planning.
- 138 At Table 6 or 7 (Public interface and design detail), each DDO specifies the following:

Design Element	Requirement
Traffic conflict frontages	<p>Vehicle and loading bay ingress or egress points, should not be constructed on a traffic conflict frontage as identified in Map 4.</p> <p>Vehicle access, crossovers and entries to parking should include intermediate pedestrian refuges if the vehicle access or crossover is more than 6.1 metres.</p>

- 139 The second part of the requirement (crossover widths) has been deleted in the Part A material and relocated to the PO. I agree with this change.
- 140 In relation to the traffic conflict frontages, I have several observations to make:
- There are no issues with the requirement to avoid traffic conflict frontages, however I do have some queries regarding the application of the traffic conflict frontages on the maps in certain areas. Some of these frontages apply to roads that:
 - Will not have traffic lanes in future (examples: Fogarty Street extension, Queensbury Street) and could not be used for access in any case.
 - Function more as linear open space (example: Munster Terrace).
 - Are designated as ‘high capacity public transport routes’, where efficiency of operation of public transport may be comprised by vehicle access (example: Laurens Street).
 - Or do not exist (within parks)
 - Some lots are left with no options but access to a ‘traffic conflict frontage’, which provides limited guidance as to what outcome would be preferred. The Part A PO controls do include decision factors that would allow vehicle access to a traffic conflict frontage in that case.

- 141 Some streets/locations where vehicle access should sensibly be strongly discouraged (or potentially prohibited) do not have any specific control. An area where any form of vehicle access should be strictly prohibited would be around the locations for a 'future modal interchange' on Arden Street and Laurens Street. These are highlighted in the figures below. At these locations, vehicle access would compromise the design and operation of any future modal interchange and in my view should be sensibly eliminated.



Figure 13: Modal interchanges

- 142 Given that some roads highlighted either do not exist or are not planned with traffic lanes, there is a question whether there should be two levels of control, a 'must' not take access frontage and a 'should not' take access frontage.
- 143 The Tables overleaf reviews each of the 'Map 4's provided within the DDOs and makes comments as appropriate. In completing this review, I have cross-checked the DDO maps with the proposed Road Cross Sections and Plan 4 of the Arden Structure Plan. As noted at paragraph 140, I have found some inconsistencies with these maps.

Review of DDO Map 4 (All 4 DDOs)

DDO80 – Arden Central

Map 4: Weather Protection and Traffic Conflict Frontage

Arden Street between Fogarty and Laurens is a 'potential modal interchange' in the Structure Plan and access should be prohibited

Barwise Street appears to be more appropriate for vehicle access than Arden Street, which is shown as having a potential modal interchange in this location on Plan 4 of the Structure Plan.

Fogarty and Laurens Street are not shown with traffic lanes in the Arden Precinct Cross Sections

There does not appear to be a road here, rather a park only. This should be reviewed for consistency

There is no traffic lane shown on Cross Section 8 of Arden Precinct Cross Sections.

No traffic lane on Queensberry Street, Cross Section 11 of Arden Precinct Cross Sections August 2021

No traffic lanes shown on Laurens Street - only a High-Capacity Public Transport Route. See Cross Section 14 of Arden Precinct Cross Sections August 2021

0 25 50 75 100 m

N

Review of DDO Map 4 (All 4 DDOs)

DDO81 – Arden Central Mixed Use



Review of DDO Map 4 (All 4 DDOs)

DDO82 – Arden North



Review of DDO Map 4 (All 4 DDOs)

DDO83 – Laurens Street



144 Table 7 or 8 (Adaptable Buildings), each DDO specifies that buildings should:

Element	Requirement
Adaptable Buildings	<p>Lower levels up to the height of the street wall</p> <p>At least 5.0 metres floor to floor height at ground level.</p> <p>At least 3.2 metres floor to floor height for other lower levels up to the height of the street wall associated with accommodation uses.</p> <p>At least 4 metres floor to floor height for other lower levels up to the height of the street wall associated with office uses.</p> <p>Any proposed parking structures above ground level must be designed to be sleeved with active uses to streets. These structures should incorporate appropriate floor to floor heights which are level to enable future adaptation including at least 2.8 metres floor to floor height. Mechanical parking systems to reduce the area required for car parking.</p>

145 I have no concerns with the requirements for a minimum floor to floor heights of sleeving of car parking, however in my view the next sentence should not require mechanical car parking as a design preference.

146 Mechanical parking increases the yield of car parking for a given footprint, which is not a primary goal of the controls. The primary objective is to minimise the provision car parking first, then minimising the impact of providing the car parking.

147 Mechanical systems generally impose a variety of spatial requirements (additional height clearances, pits, large footprints, etc.) that can be contradictory to the intent of providing adaptable carparks. For instance, the minimum height of a conventional two-level car stacker is in the order of 3.8m, an awkward height for adaptability unless it is on the ground floor.

148 Consistent with my advice above, the Part A DDOs have deleted the last sentence – “Mechanical parking systems to reduce the area required for car parking”.

6.0 Decision guidelines

Public Interface and Design Detail

- *Whether the proposed ingress and egress location is appropriate having regard to:*
 - *the intended use of that street and having regard to constraints for site access from other frontages.*
 - *the extent to which the proposed ingress or egress would conflict with pedestrians or cyclists.*
 - *be limited in number and consolidated to provide shared access to multiple buildings.*
 - *consider impacts on bicycle and public transport infrastructure, on-street parking and loading and unloading facilities.*

149 I am satisfied with these requirements. However, consideration should be given to referencing the Arden Precinct Cross Sections August 2021 as a decision point. This would direct decision makers to the key source document.

- 150 It should be noted that there is typographical error in DDO81 where the last bullet point is merged with the next paragraph.

8.2 Schedule 7 to Clause 37.01 – Special Use Zone

8.2.1 Exhibited Version of SUZ7

- 151 At 4.0 Buildings and Works, Schedule 7 to Clause 37.01 (SUZ7) sets out a series of requirements related to 'parking'. Specifically, for:
- Bicycle parking
 - Motorcycle parking
 - Car share spaces
- 152 These requirements are mandatory (by use of the word must). The bicycle parking, motorcycle parking and car share spaces must be provided.
- 153 As discussed previously, there is a contradiction between the exhibited Overlay (where a permit is required for any car parking in the exhibited version of the Overlay) and Clause 37.01 which mandates that some car share spaces are provided.
- 154 Under the exhibited controls, if a development proposed 50 apartments, it would have to apply for a permit to provide car parking for the 2 car share spaces that are mandated to be provided under Clause 37.01. There is a question as to whether it is desirable for any development to provide only two car spaces (given it would create a crossover and all the other constraints of providing car parking). It is preferred that whenever car parking is provided that it includes car share and disabled car parking, etc as a proportion of the spaces provided.

8.2.2 Part A Version of SUZ7

- 155 In the exhibited version of the controls, Clause 4.0 of the SUZ7 sets requirements for motorcycle parking and bicycle parking. There is now no car share requirement specified in the SUZ7 or PO, however the PO includes numerous references to encourage the provision of parking for car share vehicles.
- 156 The Arden Movement and Parking Study recommends 5% of all off-street parking should be allocated to car share spaces. This should be re-incorporated into the SUZ7 or Parking Overlay. My preference would be the Parking Overlay, however I am not a legal expert.
- 157 The requirements for motorcycle parking have been changed to should, rather than must. I agree with this change. The requirement is set at a rate of 1 space per 40 car spaces, which is consistent with the Parking Plan and exhibited version. I have no issues with this rate.
- 158 Bicycle parking remains a mandatory requirement (must). The rates required are consistent with the exhibited version and the Parking Plan and I am satisfied with the bicycle parking requirements.

9. Review of Submissions

- 159 The submissions related to transport planning matters are varied. Many submissions raise specific issues regarding certain transport infrastructure proposals at specific locations or streets.
- 160 Other submissions make recommendations related to specific parts of the planning controls, including the Parking Overlay.
- 161 In general, there is strong support for the prioritisation of sustainable transport modes including local projects related to public transport, cycling, walking infrastructure.
- 162 The following table provides a summary response to each submission made in relation to transport planning matters.

Table 8: Review of Submissions

Sub No.	Issue	Response
2, 70	Create a pedestrian/cycle bridge over Moonee Ponds Creek at Chelmsford Street. Support for additional pedestrian crossings of the Creek.	This is a matter for the City of Melbourne (CoM). I note that the Macaulay Road bridge is 180m north of this location and desire lines appear limited.
2	The Arden and Macaulay Road bridges are hazardous for cyclists and pedestrians.	Strategies 16.2 and 16.3 specifically reference providing safer and better cycling facilities along these roads.
2	The plan should recognise that the Upfield Line may be elevated along Langford Street and public open space provided underneath.	Noted. This project is a DoT issue and not within the planning controls.
62, 88, 107	Support for better public transport services.	Noted.
16, 30	The railway level crossings at Arden Street and Macaulay Road will need to be removed.	Noted. This project is a DoT issue and not within the planning controls. This issue was explored in the Transport Capacity Study by GTA and it was acknowledged that higher frequencies on the Upfield line post MMRP opening occur.

Sub No.	Issue	Response
		The Structure Plan and controls do not prohibit these level crossings from being removed.
5, 34, 47, 107	Cycling infrastructure within the precinct should be best practice. Cycling facilities should be separate (not shared) facilities.	I am satisfied that the Structure Plan, Arden Precinct Cross Sections and supporting strategies all strongly support cycling and best practice design. All key bicycle routes are shown as separate facilities (not shared paths).
5, 47	There should be significant bicycle parking facilities at railway stations, including Arden.	This is a matter of detailed design below the level of the structure plan or planning controls.
9	As I currently work at RMH - Royal Park Campus, car parking is a major problem. The option to public transport is unrealistic in this work environment. It is imperative that there is adequate car parking for all staff and patients, who will be frequenting the new precinct.	I agree that a Hospital may be a unique case in terms of car parking. The Parking Overlay would allow the flexibility to provide a large quantity of car parking to suit the unique needs of this use.
15	Residents without parking permits in small apartment blocks (built after 2007 are ineligible for permits) will experience a loss of public parking.	Yes they will. As the area changes, alternative transport options to the precinct will significantly improve and residents would have the opportunity to park in a parking precinct station.
56, 81, 85	Public transport services have not been adequately designed for. There should be a firm commitment to the delivery and timing of public transport infrastructure.	I am satisfied that the Structure Plan and associated planning controls appropriately plan for and protect future public transport services. It is a matter for the DoT whether trams or buses are adopted for the high capacity public transport link. The most important piece of infrastructure to delivering Arden, the Melbourne Metro and station will be open 'from commencement' of the redevelopment of the area. My preference is that there are firm commitments to the delivery of public transport services to provide certainty.

Sub No.	Issue	Response
18	Request better and safer pedestrian crossing facilities.	The Structure Plan and support documents strongly support better pedestrian outcomes.
	Use a mix of female, male, same sex and elderly traffic light signals to represent diversity and gender-equality	Many of these matters are below the level of the Structure Plan and a matter of design detail.
	Add bicycle traffic light buttons, to allow for bikes to ride first and improve traffic flow and safety	
	Covid friendly pedestrian buttons	
Proposed primary school <ul style="list-style-type: none"> o Ensure there's a school crossing o Allow for a dedicated, effective drop off area to avoid cars banking up and creating flow-on traffic jams o Ensure bicycle lanes and footpaths (for primary kids) from the primary school link into the dedicated bicycle lanes o Ensure footpaths are smooth to allow for scooters (many inner city children ride their scooters to school) 	Many of these issues are detailed design matters. The Structure Plan and support documents strongly focus on better cycling and pedestrian outcomes across the precinct.	
23, 66	Concerns regarding increased traffic congestion generally, including additional truck movements. Concerns regarding the long-term traffic impacts of the Arden Precinct proposal and the West Gate tunnel project on North/West Melbourne and Kensington.	The Structure Plan and supporting transport strategies are cognisant of the potential increase in traffic and strongly focused on reducing traffic impacts through street design and the Parking Overlay.
30	Travel targets and 20-min neighbourhood supported	Noted.
40 (CoM)	CoM broadly supports Arden's transport network as identified in the revised Structure Plan subject to minor amendments and additions to street sections.	Noted.
	CoM generally supports Arden's approach to car parking. However, to reflect the recommendations of Arden's Movement and Transport Study (GTA, 2021) an additional strategy should be included within the revised Structure Plan to contemplate the delivery of consolidated precinct parking in Arden Central.	I agree. The local policies have been changed to encourage this outcome and the Parking Overlay has been substantially reworked.
	The proposed Parking Overlay (PO) does not implement the proposed car parking strategy within the revised Structure Plan, the Precinct Parking Plan	I agree that the PO as originally worded required revisiting.

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	<p>and Movement and Parking Study. It incorrectly applies the, otherwise appropriate, maximum car parking rates, undermining the ability of the Parking Overlay to ensure an upper limit to the provision of parking in the precinct. This is an essential mechanism required to meet the Arden Vision for a mode share target of 90 per cent of trips by sustainable modes of transport.</p>	<p>The Part A PO in my view now supports the objectives of the Precinct Parking Plan and Movement and Parking Study.</p>
	<p>The provisions within the PO (and associated provisions) do not reflect its objectives to “discourage the provision of onsite car parking... and encourage consolidated, publicly available car parking” or the recommendations of the Movement and Parking Study and the Precinct Parking Plan. Issues that undermine the ability to implement this objective and facilitate the preferred parking outcome include:</p> <ul style="list-style-type: none"> o The PO does not provide incentives and disincentives to facilitate the preferred parking outcome, and in some cases preferences the delivery of the individual on-site car-parking while precluding the ability to deliver consolidated precinct car parking in contradiction of the PO objectives. o The PO does not correctly define the characteristics of the preferred parking outcomes required to achieve the strategic purpose of the car parking approach. o The PO does not include decision guidelines provided in the revised Structure Plan to vary individual on site car parking rates to maintain Arden’s car parking objectives and to discourage non-preferred parking types. o The DDOs do not include design standards provided in the revised Structure Plan to manage the impacts of car parking on the public realm and to incentivise preferred car parking types. 	<p>I agree that the PO as originally worded did not achieve the intent of the Parking Plan.</p> <p>However I support the revised Part A PO and I am satisfied that addresses the issues raised by CoM.</p>
	<p>Car parking rates for car share are contradictory across the proposed amendment. Car share rates within the SUZ7 should be removed in lieu of the five per cent requirement within the PO that reflects the incorporated Arden Precinct Parking Plan. Requirements for EV charging points should be updated to reflect the recommendations of the incorporated Arden Precinct Parking Plan and Movement and Parking Study, including that at least five per cent of spaces should provide EV charging equipment.</p>	<p>As exhibited, I agree that the car parking rates were contradictory.</p> <p>The Part A PO addresses these concerns.</p> <p>My recommendation (reflected in the PO) is that all car parking be EV ready, rather than only 5% (as this may raise retro-fitting issues at a later date).</p>
	<p>It is unlikely that the PSA will achieve the transport objectives of the revised Structure Plan and the interdependent objectives relating to sustainability and public realm.</p>	<p>Subject to the Part A changes and recommendations of my evidence, I believe the PSA will achieve the transport objectives of the precinct.</p>

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45	<p>The biggest flaw with the Arden redevelopment is not linking the Upfield Line to the Metro Tunnel. Realign the Upfield Line (as an above ground line as it is today) to run closer to the Arden station and create a new Arden Station on the Upfield Line. This is just a no-brainer and a great way to connect the network.</p> <p>Otherwise, for those living on the Upfield Line corridor, passengers travelling to Arden will have to travel past the site, through the City Loop and change for a Metro Tunnel service. This will create an extra 15-20 minutes to the commute and is</p>	<p>The grade separation and future location of Macaulay Station are outside the scope of the planning controls and Structure Plan. It is a matter for DoT.</p>
47	<p>Consider reducing Arden Street to one lane both ways for motor traffic so that a protected bike lane can be constructed between Moonee Ponds creek and Courtney Street.</p>	<p>This is proposed as part of the Structure Plan, specifically the Arden Precinct Cross Sections incorporated document.</p>
	<p>Look at introducing new bus and tram routes in the area. Whilst there will be access to 2 stations in the precinct, trams and buses will be needed to connect homes, education precincts and workplaces.</p>	<p>This is proposed as part of the Structure Plan.</p>
	<p>Make it easy for people to interchange between North Melbourne Station and the new Arden station, with good signage.</p>	<p>The Structure plan proposes that these stations are connected by a high-capacity public transport route, a strategic cycling corridor and quality footpath connections.</p> <p>Signage is a matter of detail.</p>
	<p>Consider new pedestrian and cycling links between North Melbourne station and Docklands – maybe a new bridge. The nearby Moonee Ponds creek trail often floods after rainfall, so an alternative route would be helpful for cyclists and pedestrians.</p>	<p>This bridge would be outside of the Structure Plan area.</p>
50	<p>Support for the Parking Overlay.</p>	<p>Noted.</p>
54	<p>HIA notes at objective 18 and Arden’s principles for movement and parking, proposed residential car parking discretionary rates are substantially reduced from the provisions of Clause 52.06 Car parking.</p> <p>We question however why the methodology does not refer to housing above three bedrooms and what car parking rate would apply in this instance.</p>	<p>Noted.</p>
		<p>The Parking Overlay now sets car parking expectations for three or more bedroom dwellings.</p>

Sub No.	Issue	Response
56	<p>1. Firm commitments for Arden’s public transport network are needed now, particularly the tram infrastructure.</p>	<p>I agree that a firm timeline commitment would provide greater planning certainty. However, infrastructure delivery is a DoT issue.</p>
	<p>Building a major activity centre and intensive mixed-use development around the new Arden station on the Melbourne Metro (MM1) line is a worthy concept, but this is insufficient on its own and will not work properly unless a supporting tram and road-based public transport network is provided to “knit” the precinct into the wider inner Melbourne region. Arden Station alone cannot provide a public transport solution.</p> <p>The Precinct cannot operate as an “isolated island disconnected from its wider context”. People arriving at Arden station need to make connections to other destinations; and likewise people living and working in Arden will want to travel to destinations other than those directly along the MM1 line.</p>	<p>I agree a dense public transport network is required to transform Arden into an extension of the Melbourne CBD and the Structure Plan allows for this.</p>
	<p>Rail Futures believes appropriate extensions to the tram system are the ideal mode for additional public transport to and through the precinct. This needs to be planned and progressed starting now, because in just two or three years extensive development will be occurring in the Precinct and certainty is needed for all stakeholders to be assured about public transport. Planning for delivery of an extended tram network needs to begin now, not at some unspecified point in the future, to provide the necessary lead times.</p> <p>Detailed planning and commitment to public transport services in and around Arden is also mandated by the Transport Integration Act 2010, which requires land use planning and transport planning to be integrated. The exhibited structure plan is not integrated in that regard - it is a land use plan with only vague references to public transport.</p>	<p>The Arden Precinct Cross Sections incorporated document and the planning controls are specifically designed to protect future transit corridors through the precinct.</p>
	<p>2. The planning and land use objectives for Arden will not be realised without a quality public transport network. The plan seeks to establish the Arden precinct as a major contributor to a knowledge-based economy, reinforcing Melbourne as a centre for knowledge and innovation. This forms the entire context to future planning for the precinct. The provision of effective public transport connections to and within the precinct along with the intended land uses are key to the success of this vision. If land use planning is not integrated with effective public transport connections, this focus on innovation and knowledge will fail and lead to detrimental</p>	<p>Noted.</p>

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	<p>impacts, such as extensive car dependency. The plan seeks to foster mixed uses throughout the entire area. It allocates the largest percentage to large-scale institutional uses which seek to foster innovation mixed with retailing, followed by the area set aside for traditional mixed uses. Even the residential zone will allow mixed uses.</p> <p>This emphasis on mixed uses will generate substantial inflows of workers and service users, tourists, residents, shoppers and other visitors. This 44.6 hectare site is a substantial area which will generate large people and traffic movements, eventually catering for 34,000 jobs and 15,000 residents. The plan seeks to reserve two-thirds of its development for employment uses and one third for residential uses</p>	
	<p>High quality public transport connections will be essential to avoid large scale road car movements, congestion and associated detrimental impacts. The area currently has inadequate internal public transport connections. Without substantial improvement, the land uses will generate substantial road traffic making it impossible to achieve the mode-share target of 60 per cent public transport, 30 per cent walking and cycling, and 10 per cent private vehicle use within, to and from the precinct. The objective of establishing this area as a 20-minute neighbourhood will be unachievable.</p>	<p>I agree that high quality public transport is essential to the precinct. In my view, the planning controls plan for these links appropriately.</p>
	<p>The plan recognizes the importance of amenity and quality of place as important economic factors linked to innovation. Interesting, new and innovative uses will not locate in areas which are not attractive and do not work well.</p>	<p>Noted.</p>
	<p>The plan recognizes that “zoning needs to manage conflicting land uses and activities to ensure that this mix of uses creates the platform for innovation and activation and liveable places and spaces”. Yet almost all the site will allow development from 8-14 storeys to 30-40 storeys with a small area from 3-6 and 6-8 storeys. Such a range in building categories ignores the inevitable result that development will gravitate upward to the highest levels. This emphasis on high-rise is inconsistent with the objective to achieve a high-quality built environment. It will also inevitably lead to high vehicle movements to high-rise building car parks and an environment which is alienating and car dominated. This built form model contradicts the intentions of Objective 18 to minimise car parking and vehicle movements and conflict with pedestrian movements and other active transport.</p>	<p>I do not see a nexus between the size of development and high car use.</p> <p>Car use is far more directly linked to the nature of the transport system than the size and design of the building.</p>
	<p>Further, the Arden Plan stating that it is “too early to commit to a particular mode”, seems inconsistent with elements of</p>	<p>I am satisfied that the Arden Precinct Cross Sections incorporated document</p>

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	<p>the West Melbourne Structure Plan which does specify particular modes through extension of Smart Bus Routes 905-908 to Arden “via a Spencer Street central corridor”, later replaced by a tram service to Arden. The Arden and West Melbourne structure plans need to be consistent; and the Arden plan needs more detail on integration with other modes as well as linkages to other parts of Melbourne.</p>	<p>and the planning controls include appropriate transit corridors through the precinct.</p>
	<p>It will not be possible to achieve key aspects of the Structure Plan vision and objectives without a concerted investment in public transport. Notably:</p> <ul style="list-style-type: none"> ▪ The structure plan Vision includes targets for all trips to Arden to be 60% public transport, 30% walking and cycling and just 10% private vehicles. ▪ “Arden’s ambition is to deliver world class transport-oriented development that maximizes public and active transport use by providing a connected local transport network that promotes sustainable transport choices and moves away from on-site car parking, making it easier for people to choose not to own a car.” ▪ The Transport Vision is that “Arden will provide direct and efficient connections in and around the precinct through safe and attractive public areas. This will include active and public transport networks that will complement the new Arden Station.” ▪ The plan states that “Transport planning for the precinct is focused on delivering great streets for walking and cycling...a public realm prioritized for pedestrians, with limited opportunities for private vehicle circulation.” 	<p>I agree.</p>
	<p>Detailed planning for public transport connections in the Arden precinct needs to occur now, in tandem with land use planning, not postponed into the future. Public transport services into and around the precinct need to be planned and scheduled in advance and delivered in parallel with development, especially if the stated objective of 10% car usage is to be achieved.</p>	<p>The Structure Plan and Arden Precinct Cross Sections do provide detailed plans for the local transport network, including appropriate allowance for high quality public transport services.</p>
	<p>4. Specific Tram Network Proposals for Arden Rail Futures Institute (RFI) is concerned at the “glacial” progress and apparent lack of urgency within the Victorian Planning Authority (VPA) and Department of Transport (DoT) in finalising the Arden Structure Plan, inclusive of public transport connections that will complement and strengthen the role of Arden station. RFI also believes that tram is an appropriate mode for the precinct and will be for many years to come, linking as it will and adding important connectivity to significant parts of Melbourne’s iconic tram network in an environmentally sustainable way. Also relevant is that the older part of Melbourne’s existing tram fleet will be replaced</p>	<p>Noted.</p>

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	<p>by new vehicles during the coming decade. The Metro tunnel with its new station at ARDEN in the Arden precinct is expected to open in 2025 and it is imperative that basic tram connections be in place at that time linking both North Melbourne and Arden stations and also the existing CBD tram network.</p> <p>This submission provides a detailed plan and timeline for deliver of a future surface public transport network, including trams.</p>	<p>Noted.</p> <p>The detailed design, rollout and delivery of tram services is not within my area of expertise. However, I do support the concept of providing public transport services early in the delivery of the precinct and providing certainty of timelines.</p>
58	<p>This Submission relates to Section 5 – Prioritising Active transport, from Amendment C407melb of the Arden Structure Plan.</p> <p>Page 54 of the ‘Arden Structure Plan (Part 1 of 2) – August 2021’ contains a future transport map, titled ‘Plan 4 - Arden’s Transport Network 2051’</p> <p>This map shows Langford Street, which currently runs North-South between Arden Street and Macaulay Road, terminating less than 100m North of Arden Street.</p> <p>We, OMIC Australia, occupy the building on the corner of Arden Street and Langford Street. We are fortunate to have off-street parking, but the entrance is off Langford Street. The building entrance is also off the Langford Street carpark.</p> <p>We currently have many staff, clients, visitors and couriers that approach from the North, travelling South along Langford Street, in order to enter our Langford street carpark.</p> <p>If Langford street is closed, it will cause major disruption to our staff, clients, visitors and couriers. It will be very inconvenient if we have to approach from the South; especially for those having to turn right from Arden Street into Langford Street, against the flow of the city-bound morning traffic.</p> <p>Can the closure of Langford Street be re-considered? Or at least moved further North along Langford Street, so that Gracie Street is still an option for those approaching from the North?</p> <p>The map on page 54 is labelled ‘... 2051’.</p> <p>We are curious to know if it still goes ahead, when will this road closure take affect?</p> <p>Please don’t hesitate to contact me if you have any queries.</p>	<p>The Structure Plan proposes an upgraded intersection at Arden Street/Langford Street that would assist in access to Langford Street (noting that Arden Street will also be reconfigured).</p> <p>There is no exact timeline for this street to change. There would naturally be an extensive process at the time of proposed implementation to reassess impacts, feasibility and options.</p>
59	<p>Support for smaller roads, better design and limiting larger vehicles such as trucks, better traffic rules and limitations.</p>	<p>Noted.</p>

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67	Until public transport improves, the car will continue to be a key transport mode and lack of parking will impact on on-street parking.	<p>The Parking Precinct Strategy includes actions to address on-street parking impacts, including protecting existing residents.</p> <p>It is important that the Parking Overlay is applied early as buildings within the Precinct exist well beyond the planning horizon of the controls.</p>
68	Dryburgh Street must be reduced to a single lane in either direction in keeping with through traffic along Macaulay Road to the north and a linear park created similar to other streets in the Laurens Street sub-precinct.	Dryburgh Street is a RDZ1 and I understand has a continuing, important through-traffic function. There are no proposals to alter Dryburgh Street at this time.
73	<p>9. Fogarty Street cross-section</p> <p>Cross section 8 contained in the Arden Precinct Cross Section Incorporated Document, August 2021 suggests that the proposed Fogarty Street extension (which will impact our client's land at 215 Arden Street) will be in the order of 25 metres wide.</p>	<p>This land is subject to a PAO.</p> <p>Acquisition of this land would be subject to the usual compensation processes.</p>
76	All the buildings need appropriate levels of car parks and not rely on street parking. There cannot be any waving of these limits to protect that I can have guests over to my house.	The Arden area will substantially change over time and on-street parking will be reduced. Depending on the situation, visitors may have access to parking permits, parking in off or on-street parking areas or take alternative modes.
81	Concerns that freight delivery to the area has not been adequately planned for.	The Parking Precinct Strategy calls for on-street parking to be prioritised for loading activities. Loading bays are also likely to be provided on many key sites.
	<p>Objective 15</p> <p>This objective is too narrow. It needs to address connections with other NEICs and activity centres where complementary businesses or organisations may be located, particularly, Sunshine, Footscray and Fishermans Bend.</p>	I am satisfied with Objective 15. It is focused on planning the local area (rather than Metropolitan wide connections). Other sections of the Structure Plan provide regional context (and connections to wider areas of Melbourne).

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	<p>The strategies should also address:</p> <ul style="list-style-type: none"> Emerging energy technologies for buses – electric or hydrogen powered vehicles. 	<p>In my view the strategy does not need to. What powers the vehicles of the future does not materially impact the planning of Arden.</p>
	<p>Objective 15 and strategies: - The objective has been widened to refer to the West Melbourne Structure Plan, and more detail on service route connections. No mention of zero emissions buses.</p>	<p>Noted.</p>
	<p>- There is no indication of likely cross-sectional design of the key roads that are designated for those corridors.</p>	<p>The Arden Precinct Cross Sections August 2021 document provides this detail. This document will be incorporated into the Planning Scheme.</p>
	<p>Objective 16 Strategy 16.2 This needs to be divided into 2 separate strategies and reworded (highlighted) as follows: 1. Deliver a dense network of local feeder bike lanes to complement the Strategic Cycling Corridors 2. Provide bicycle access to and infrastructure at destinations within the precinct, including the proposed government primary school, community hubs and innovation hub It is important that bicycle parking and secure storage is available at the destinations – especially schools and other hubs where people may spend some length of time.</p> <p>Objective 16 and strategies: The objective now has a lot more detail, e.g. four strategic cycling corridors. Looks OK</p>	<p>I prefer the current wording of Strategies 16.1 and 16.2, which is:</p> <p><i>STRATEGY 16.1</i></p> <p><i>Facilitate the delivery of the Strategic Cycling Corridor along Arden Street and proposed additions to the SCC network along Queensberry Street, Langford Street and Laurens Street.</i></p> <p><i>STRATEGY 16.2</i></p> <p><i>Facilitate delivery of a dense network of protected local cycling corridors on Fogarty Street, Henderson Street, Boundary Road (south of Macaulay Road), Macaulay Road and Victoria Street to complement the proposed Strategic Cycling Corridors and provide bicycle access to destinations within the precinct.</i></p>
	<p>Objective 17 TCPA comments under Objectives 8 and 9 apply to this objective as well. TCPA has long advocated for a proper, planned separation of pedestrians and cyclists. This objective and these strategies need to recognise the amenity and safety benefits of managing safe separation even in shared spaces. Strategy 17.4 The public realm improvements need to consider how adjacent buildings face green spaces to benefit occupants' amenity. Strategy 17.5 See comments under Objective 10, Strategy 10.2.</p>	<p>When examining the Arden Precinct Cross Sections incorporated document, it is clear that key bicycle routes are provided with fully separated facilities and pedestrians do not share space with cyclists.</p> <p>Strategy 17.7 relates to reviewing the whole precinct.</p>

Sub No.	Issue	Response
	<p>Strategy 17.7 Make particular mention of the western boundary of Arden and Upfield rail corridors. The objective now has a lot more detail about access corridors, including roads. However, the objective and its strategies suggest that pedestrians and (slow moving) cyclists will share the “active transport” lanes.</p>	
	<p>Objective 18 Strategy 18.2 Include disabled parking in residential buildings. Strategy 18.3 Include key community hubs and stations. The objective now has a lot more detailed content. Strategy 18.2 mentions disabled parking. But TCPA’s advice to “Include key community hubs and stations” is not included. Arden’s principles for movement and parking section has been greatly enhanced with detailed points of objective. Looks OK.</p>	<p>Noted. Disabled parking is required by the PO.</p>
	<p>Objective 31 While a precinct infrastructure plan has been prepared, public transport within the precinct not included in the Appendix 2 plan despite their long lead times in planning and delivery</p>	<p>Investment in public transport infrastructure is a matter for the State Government and DoT. The planning controls make allowance for future public transport routes.</p>
82	<p>Prioritising Active Transport The Arden Precinct Parking Plan: Part 2 Evidence Base (August 2021, GTA, p 56) notes that rather than attempting to prescribe parking for anchor land uses, decision guidelines and design standards could be specified within a Schedule to the Parking Overlay. Removal of the proposed Schedule 14 to the Parking Overlay from the North Melbourne Recreation Reserve, which is located within the PPRZ and not the proposed Special Use Zone. Confirmation, and process, that NMFC will be consulted to determine the type of parking best suited to its core business and respective user groups.</p>	<p>Noted. NMFC is proposed to remain within PO14. The PO allows flexibility for unique land uses to provide appropriate car parking if it is needed.</p>
	<p>Prioritising Active Transport Different land uses and place functions each have their own unique ways in which parking is, and should be, managed. As each land use brings a different type of user, the management of parking needs to be altered accordingly to ensure a suitable balance for all users. Arden Precinct Parking Plan: Part 2 Evidence Base, GTA, August 2021, p 49 Arden North: The location of the north and northeast residential blocks are relatively isolated from the rest of the precinct. This lends them towards providing parking solely</p>	<p>Noted. All areas of Arden will be well within walking distance of Arden Station and the proposed High Capacity Public Transport services.</p>

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	<p>for those buildings. Arden Precinct Parking Plan: Part 2 Evidence Base, August 2021, GTA, p 74</p>	
	<p>It is recognised that Arden will become a highly sought-after place to work, live, recreate, visit and spend time. Accordingly, the Arden Vision establishes Arden as an exemplar of best-practice sustainability, where at least 60% of trips are made by public transport; 30% by walking and cycling; and no more than 10% by private vehicle. The Arden Precinct Parking Plan (August 2021, GTA) sets out a plan to best minimise the impact of car parking and associated vehicular trips in Arden. NMFC acknowledges that it is realistic to expect that some changes to the movement network will be required in Arden, with parking being a highly emotive and a sensitive issue for the community, coming at a cost (including environmental, social and financial), with trade-off between other priorities. Notwithstanding, there are several strategic assumptions and proposed Policy Measures and Controls that are of concern to NMFC in that they are not fit for purpose.</p>	<p>Noted.</p>

Sub No.	Issue	Response
	<p>The Arden Precinct Parking Plan: Part 2 Evidence Base (August 2021, GTA) looked at Land Use and User Types, with a focus on Residential, Retail, Commercial, Education and Service Economy. Examples are called out and parking supply scenarios considered. The Club understands that it does not have a “right to park”, however, the Club’s requirements also need to be considered on their own merits. Examples of NMFC User Group Parking Characteristics include (but are not limited to):</p> <ul style="list-style-type: none"> • Private vehicles, with resultant car parking <ul style="list-style-type: none"> - is important for player safety, wellbeing and risk mitigation, especially for the AFLW program and “highly” recognisable professional athletes - remains a necessary high performance load management tool - remains a necessary management tool for injured players and player rehabilitation • Paid parking, with cost escalation relative to the duration of stay will impact people from low socio-economic communities accessing The Huddle’s programs • Paid parking is considered detrimental for the Huddle’s volunteer workforce and women’s football program • Some of the Club’s core business, in particular, The Huddle and women’s football programs, operate outside of standard business hours • Time restricted parking creates complexities, in particular, on-field training, recovery, rehabilitation, sports science and sports medicine, strength and conditioning • Creating a supply constraint is unlikely to make other transport modes attractive due to the nature of the work of professional athletes • Need to ensure that NMFC is not placed at a competitive disadvantage relative to other AFL and AFLW Clubs due to the lack of suitable car parking provisions. 	<p>The Parking Overlay decision guidelines provide discretion to decision makers to allow specific uses to provide car parking. This may include NMFC and associated land uses for the reasons listed in the submission. This is not precluded by the Parking Overlay.</p>
	<p>The Arden Precinct Parking Plan: Part 2 Evidence Base (August 2021, GTA, p 56) notes that rather than attempting to prescribe parking for anchor land uses, decision guidelines and design standards could be specified within a Schedule to the Parking Overlay. NMFC must be consulted to determine the type of parking best suited to its core business and respective user groups. In this context, the Club requests that the proposed Schedule 14 to the Parking Overlay be removed from the North Melbourne Recreation Reserve, which is located within the PPRZ and not the proposed Special Use Zone. This will enable any future parking proposed within the boundaries of the Reserve to be considered having regard to Clause 52.06 of the Melbourne Planning Scheme and in the context of the Club’s unique parking requirements, as well as those of other uses located in the PPRZ.</p>	<p>I see no reason to exclude NMFC from the Parking Overlay and I am satisfied that the PO would allow NMFC to provide an appropriate level of car parking.</p>

Sub No.	Issue	Response
86, 91, 107	<p>Concerns around the proposal to re-open Laurens Street connection to Ireland Street underneath the Dynon Rd bridge. This includes reopening the road, consequential traffic impacts and loss of open space.</p> <p>Submission 107 recommends rebuilding the park within the Arden open space.</p>	<p>Connecting North Melbourne Station (future West Melbourne Station) to Arden via a high capacity public transport link is a logical transport planning outcome.</p> <p>Providing this link does not mean that this link would be open to general traffic.</p> <p>The loss of park area is not my area of expertise however the Structure Plan proposes additional park area within Arden.</p>
86	<p>The Arden plan does not consider the needs of the existing West Melbourne population. For example – how do our children travel safely to attend the new school? With your ‘pedestrian priority zoning’ you have completely overlooked how pedestrians from West and North Melbourne access and benefit from the new Arden precinct. You’re proposing to take away one of our few green spaces and public amenities AND not make it accessible for us to travel to benefit from the new Arden recreation areas and green space.</p> <p>These plans should be considering how the existing West Melbourne community benefits from the new development.</p>	<p>The Structure Plan, planning controls, various transport plans and the proposed road cross sections place a strong emphasis on pedestrian infrastructure, movement and safety. In my view these concerns are unfounded.</p>
89	<p>CityLink does not propose to make any submissions. However should submissions be made by others in relation to the CLPO, CityLink wishes to be advised of these in order to be provided with the opportunity to make further submissions and request to be heard before any Planning Panel or Advisory Committee considering the Planning Scheme Amendment, as relevant.</p>	<p>Noted.</p>
92	<p>Bicycle Network has reviewed the documentation and generally supports the amendments. One issue that may reward further investigation and development is that of the resilience of the bicycle network adjacent to and through the precinct in times of flooding. The Moonee Ponds Creek Trail, since the development and expansion of Docklands, now carries high numbers of bike commuter in the peak periods - around 1000 riders currently. When the Creek floods – a relatively frequent occurrence – the underpasses at the road crossings become inundated and as a consequence riders divert onto alternative routes along local streets. For example, we anticipate that Longford Street would be such a detour.</p> <p>It would be advantageous to the project of the precinct plans recognised the impact of these flooding events on rider</p>	<p>In my view this is a matter of design detail.</p> <p>The DCP includes funding for works to the Moonee Ponds Creek Trail.</p> <p>I agree Langford Street offers an alternative, parallel route to the Capital City Trail in the event of localised flooding.</p>

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	behaviour and ensured that they were accounted for in the plans.	
94	<ul style="list-style-type: none"> • Adequate and appropriate car parking will need to be provided for pregnant women and labouring women who are visiting the hospital • The no-through road at Langford Street should be considered regarding traffic and congestion, and the implications of congestion on access to the hospital by emergency vehicles" <p>Car parking</p> <p>Though there is emphasis placed on the use of public transportation within the Arden Precinct highlighted through the development of the new Metro Tunnel, it is important to note that a considerable cohort of patients at the Women's will require appropriate access to car parking services. In particular, maternity patients will be required to attend the hospital for antenatal appointments and to give birth. Due to the constraints of public transportation, it is anticipated that pregnant women and women in labour will largely travel to the hospital by car. Car parking planning surrounding the potential hospital site should take into consideration spatial aspects such as walking distance from the hospital, and capacity to meet demand.</p> <p>We understand that this recommendation contradicts 'Objective 18' in the Arden Structure Plan, however the provision of appropriate car parking for these Women's patients and their families is operationally critical and will impact the care delivery and health outcomes of our patients.</p>	<p>I agree that the hospital will need to provide adequate parking that caters for special needs groups.</p> <p>Langford Street is shown at Plan 4 of the Structure Plan as being closed-mid block at a location north of Arden Street, to prevent 'rat-running'. I agree that emergency vehicle access routes to the hospital are important.</p> <p>I agree. The Parking Overlay allows the flexibility that permits can be granted to provide car parking for key land uses. A hospital would be one of those uses that would be appropriate for a reasonable level of car parking to be provided for.</p>
94	<p>Langford St traffic</p> <p>The Women's understands that Langford Street (adjacent to the potential hospital site) is currently planned as a no-through road, and we therefore have some concerns regarding traffic and congestion along this road. As this road runs immediately alongside the hospital building, the safety of our people and patients should be considered regarding the diversion of traffic and prevention of congestion in this area. Additionally, traffic control considerations should ensure that critical access to the hospital site for emergency vehicles will not be prohibited at any time.</p>	<p>Langford Street is proposed to be closed north of the Hospital site (north of Arden Street), not adjacent to the hospital.</p>

Sub No.	Issue	Response
	<p>Safe pedestrian access between the potential hospital site and the adjacent open space should also be integrated into the traffic and access plans to promote access to open/green space among our people and patients."</p>	<p>Plan 4 of the Structure Plan shows pedestrian priority zones connecting the Hospital to the open space around Arden Station and there is a pedestrian crossing proposed linking the Hospital across Arden Street towards the open space north of Arden Street.</p>
95	<p>Arden should be connected to Melbourne Airport via direct cycling connections, with E-bikes and alternative luggage service (via Skybus) provided.</p>	<p>The Structure Plan and planning controls place a strong emphasis on cycling links to the nearby area. Planning metropolitan scale connections is outside the scope of these plans.</p> <p>This potential project is below the level of the planning controls and Structure Plan and more a matter of detail. The Structure Plan with its extensive bicycle links would not preclude this outcome.</p> <p>I would note that the Melbourne Airport Rail link will use the Metro Tunnel and the new station at Arden.</p>
96	<p>From Fencing Victoria:</p> <p>In summary our suggestions and feedback points are;</p> <ul style="list-style-type: none"> • Ensuring safe and inclusive places and access to public transport for the more vulnerable members, staff and family members using public transport needs to be further defined, objectives clarified and consultation sought. Impacts on these groups when accessing the SFC requires further definition and integration with the City of Melbourne and key user groups in the surrounding area." • Access to parking in the border precinct (including Arden, Fogarty, Green Streets and Macaulay Road) need to be further defined, planned, and managed through construction and in perpetuity. Presentation of an integrated circulation and parking strategy with the City of Melbourne would very much satisfy this need. 	<p>The Structure Plans place great emphasis on quality public spaces and transport links.</p>

Sub No.	Issue	Response
97	<p>The east bound lane of Adderley St be closed at Dudley St to prevent through traffic.</p> <p>Also, that no hard bike lane be constructed along Adderley St. That the complete closure of Adderley St at Dudley to motorized vehicles, and the reduction of the speed limit along Adderley St to 30kph would quieten the traffic to locals. This would increase the amenity for local traffic, cyclist, and pedestrians in both Adderley St neighborhood, and the Arden St precinct.</p>	<p>Adderley Street is outside of the Arden Precinct.</p>
99	<p>By virtue of Citywide’s long-established and complex operations on the land, it is not easily reconfigured to allow for on-site car parking provision retrospectively. Citywide relies on access to existing on-street car parking to support its use. In addition, the 24/7 operations require careful management of car parking, in terms of accessibility, availability and safety of workers attending the site. As development progresses over the coming years in Arden, existing on-street car parking is likely to be absorbed by new workers and residents who do not have access to on-site car parking.</p>	<p>Changing the on-street parking supply and restrictions (within and around Arden) will mean that on-street parking by employees will not be possible in the long-term.</p> <p>This will need to change to off-street parking and use of sustainable transport modes.</p>
	<p>Two of the purposes of the Parking Overlay are:</p> <ul style="list-style-type: none"> * To discourage the provision of on-site car parking on a site by site basis and encourage consolidated, publicly available carparks; and, * To encourage a travel mode shift toward 90 per cent of all trips to the precinct being by sustainable transport options." 	<p>I agree.</p>
	<p>The transport transition in the precinct will take some time. Whilst we do not have an objection to the application of the Parking Overlay on the Citywide Land, as development progresses and increased pressure is experienced on the on-street car parking, it would be appropriate for the Arden Structure Plan to recognise this situation and acknowledge the need for strategically significant land uses to have access to on-street car parking through a parking permit scheme implemented by the City of Melbourne. This approach would assist the transition to sustainable transport modes for longer-term development in Arden as well. It is not the case, with the time horizon of Citywide and the Asphalt JV to operate from the Citywide Land, that the controls should provide fleeting reference to these significant operations. A 10-year timeframe is sufficiently long in planning terms that the controls can be drafted with some certainty. The controls cannot be drafted to give effect to a 30-year vision from 'Day 1'. Things will change during the life of the Structure Plan, and it is generally the case that such controls are reviewed every 10 years or so in any event (and even more regularly as part of the legislated</p>	<p>Whether Parking Permits are granted by the City of Melbourne to Citywide is a matter for the Council.</p> <p>In my opinion this would not be in keeping with the direction of the controls. The Parking Plan includes actions to limit on-street parking to priority users and high value, short stay parking, not long-term employee parking.</p> <p>Access to the Citywide Depot will considerably improve with the opening of Melbourne Metro (which is essentially taking place at the start of the redevelopment of Arden). The uplift in access by public transport should reduce the need for employee parking.</p>

Sub No.	Issue	Response
	Planning Scheme review process which is incumbent on every municipality). For example, the Geelong CBD controls; the Chapel Vision Structure Plan; Epping Central Structure Plan.	It is my view that the Parking Overlay should be reviewed every 5 years.
101	<p>"Objective 15 Provide space for high capacity public transport capable options connecting Arden into the expanding central city.</p> <p>"The Property Council agrees with this objective. Where additional land is required for the provision of additional public transport nodes, this land should, where possible, be government-held land.</p> <p>Built around public node transport, Arden has an opportunity to not only create connections to the expanding city, but to be a precinct centralised around connectivity. However, the current Plan fails to adopt the principles of intensifying development around transport nodes."</p>	Noted.
	The station is catalyst infrastructure and creating density around the station and moving higher levels of density to parts of the precinct where transport connectivity is more accessible should be considered. A NSW government-backed study by Sydney firms Luti Consulting and Mecone Planning illustrated the significant effect public transport infrastructure has on nearby home values. The study analysed Sydney rail and found that houses within 400 metres of a train station experienced a 4.5 per cent increase in value. The value uplift lessened as the distance from the station increased, with houses 400 to 800 metres away attracting a 1.3 per cent price bump, and those 800 to 1600 metres away rising in value by only 0.3 per cent. ⁶ There is considerable evidence to suggest commercial properties following similar correlation between proximity to public transport and valuations. Further consideration should be given to improving densification around transport infrastructure. What infrastructure surrounds a station is particularly important in the context of commuter and resident safety. Currently the most direct routes to the western side of the station are via parkland, which creates safety challenges, particularly for non-peak hour commuters.	Noted, however the plans do propose density around Arden station.
	The Property Council supports objective 16 and the proposed strategies to deliver the objective.	Noted.
102	6. While a reduction in the standard car parking requirements is appropriate, the level of restriction included the Parking Overlay will have detrimental outcomes. Limiting	The Parking Overlay does not preclude certain apartment types providing additional parking, however high levels

Sub No.	Issue	Response
	3 bedroom apartments to 0.5 spaces will act to discourage dwelling diversity.	of private car parking is an outcome that the controls seek to avoid.
104	<p>Parking Overlay</p> <p>117. Consistent with the commentary about Schedule 83 to the Design and Development Overlay, the drafting of the new Schedule to the Parking Overlay requires further refinement to ensure it delivers on the aspirations of the Structure Plan. Importantly, it must provide clarity to landowners about the likely requirements in relation to the provision of car parking.</p> <p>118. For example, Clause 4.0 provide a suite of Application Requirements and decision guidelines that are unclear. Furthermore, Clause 7.0 Design Standards for car parking are unclear in how they are to be applied to new development"</p>	I agree that as exhibited, the Parking Overlay required refinement. The revised Part A Parking Overlay addresses these issues.

10. Conclusions

163 This statement provides my assessment of the transport planning aspects of Amendment C407 of the Melbourne Planning Scheme. My opinions are set out as follows:

- a) Arden Vision, the Structure Plan and the supporting transport studies/strategies each place an appropriate weight on sustainable transport modes above private car-based travel to cater for the transport needs of Arden.
- b) The 90% sustainable transport mode share target outlined in the Structure Plan is an important objective to managing the transport impacts of the redevelopment of Arden. I am satisfied that this mode share target is realistically achievable by 2050, providing that appropriate infrastructure is put in place and the range of initiatives outlined in the Arden Precinct Parking Plan are also implemented (policy, infrastructure, etc).
- c) The Parking Overlay (PO) is a key tool that will assist in achieving the 90% sustainable transport mode share target. The two key objectives of the Parking Overlay are:
 - i. To limit car parking as a tool (one of many) to achieve the desired mode split of 90% sustainable transport modes and 10% private car usage within Arden.
 - ii. To encourage car parking to be provided in an unbundled format in consolidated carparks. This maximises the efficiency of the car parking provided and limits the negative impacts of car parking on building design, community cost, urban form and impacts of vehicle access on the local street network.
- d) The exhibited Parking Overlay had several shortcomings and did not address the two key objectives for the Overlay defined by the Arden Precinct Parking Plan. The most significant was that the permit triggers for car parking were unclear and did not reflect the intent of the Arden Parking Precinct Plan and supporting strategies/studies. This lack of clarity had flow-on effects to the other sections of the exhibited Parking Overlay, in particular the application requirements and decision guidelines.
- e) The Part A Parking Overlay has substantially altered the exhibited Parking Overlay. The Part A Parking Overlay reflects my advice to the VPA and in my view accurately reflects the intent for the Parking Overlay set out in the Arden Precinct Parking Plan.
- f) One modification is required to the Part A Parking Overlay. Paragraph 120 should be reworded to state 'all car spaces are to be capable of accommodating electric vehicle charging infrastructure'. The current wording has a typographical error and does not convey the intent of this requirement. It is my view that all car spaces should be capable of providing EV charging in the future (maximising adaptability), instead of mandating a set percentage of spaces to be fitted with EV.
- g) The Parking Overlay should be reviewed every 5 years, as recommended in the Arden Precinct Parking Plan. Assuming the controls are implemented in mid-2022, a review in mid-2027 would be appropriate.
- h) It would be useful to include the Arden Precinct Cross Sections (August, 2021) as a reference document to the Parking Overlay.
- i) The Arden Precinct Cross Sections (August, 2021) Incorporated Document is consistent with the Structure Plan and is a useful addition to the planning controls as it will provide

clear guidance on how to integrate future developments with the future transport network (a key theme of the various transport plans/strategies).

- j) The Design and Development Overlays each include maps outlining 'Traffic Conflict Frontages' where vehicle access to abutting land should be avoided. I have some concerns regarding the application of these frontages and my recommendation is that the VPA review the application of traffic conflict frontages and cross check these with the proposed road cross sections and Plan 4 of the Arden Structure Plan.
 - k) The Part A DDOs have removed reference to car stackers as a design preference that was in Table 7 or 8 (Adaptable Buildings). This aligns with my recommendations as:
 - i. Mechanical parking increases the yield of car parking for a given footprint, which is not a primary goal of the controls (to minimise car parking).
 - ii. Mechanical systems generally impose a variety of spatial requirements (additional height clearances, pits, large footprints, etc.) that can be contradictory to the intent of providing adaptable carparks and they are generally not able to be used by casual users (i.e. cannot be used for public car parking, a goal of the parking controls).
 - l) The Arden Movement and Parking Study recommends 5% of all off-street parking should be allocated to car share spaces. The Part A version of the SUZ does not include any car share requirement, and no specific requirement is included in the PO. In my view, the controls should require 5% of any off-street car spaces provided to be allocated to car share vehicles.
 - m) The requirement for 5% of provided car spaces to be car share vehicles could be in the SUZ or PO. This is a legal/planning question that I do not have a definitive opinion on.
 - n) The transport-related submissions comment on a broad range of topics. Many of these submissions refer to matters that are not relevant to the proposed planning controls being introduced by Amendment C407 in that they focus on local infrastructure changes or design detail (rather than high-level planning). However, they demonstrate strong support for sustainable transport outcomes.
 - o) The submission made by the City of Melbourne regarding the Parking Overlay raised reasonable concerns with the exhibited version of the Parking Overlay. I took these into consideration in forming my preliminary recommendations to the VPA, which resulted in the revised Part A Parking Overlay. In my view, the revised Part A Parking Overlay addresses Council's principal concerns.
- 164 I have made all 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 Advisory Committee.



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