Southern Integrated Transport Framework

Southern Metropolitan Region Final Advice

Enabling a wider range of people to access jobs, services and opportunities

Prepared by: GTA Consultants (VIC) Pty Ltd for Department of Transport (on behalf of Southern Metropolitan Partnership) on 09/06/2021 Reference: V199330

Issue #: E





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'In the spirit of reconciliation, we acknowledge, the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.'

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EXECUTIVE SUMMARY

The Southern Integrated Transport Framework ('SITF') aims to improve public transport and reduce social isolation in the Southern Metropolitan Partnership region, building on previous advice and local and regional plans and strategies, including Plan Melbourne and the South East Melbourne Integrated Transport Group ('SEMITG') South East Transport Strategy.

The Southern Metropolitan Partnership region ('the Southern region') comprises Cardinia Shire Council, Casey City Council, Kingston City Council, Frankston City Council, Greater Dandenong City Council and Mornington Peninsula Shire Council³.

SITF focuses on short-term, tactical proposals which build towards longer-term policy aspirations, such as operational efficiencies, road space allocation, new walk, cycle and/or bus networks or station area upgrades. While the project does not seek to create a 'blueprint' of major strategic road and rail investments, comprehensive public transport network route reviews or creation of policy direction, it provides an outline of priorities for shared focus and collaboration in the six local government areas of the Southern Metropolitan Region.

The findings of this study are not intended to be comprehensive or address every problem. Rather, the report outlines a number of key sub-regional priorities that the Partnership members can work on resolving together. This report is <u>not</u> a state government strategy, but third-party, independent advice based on direction provided by the Partnership. The details of projects are subject to state government process and inclusion in this report does not represent a commitment to funding projects. The findings do not necessarily preclude other investments or programs.

The project builds on previous work through additional analysis of demand-side and supply-side data to supplement and validate issues, workshops with Councils, Office for Suburban Development and Department of Transport, discussion with On-Road Policy, New Product Development and Metro South East Bus Planning representatives within Department of Transport ('DoT') and a workshop with the Southern Metropolitan Partnership to explore issues and validate findings.

The study embeds the premise that a wider view of 'community transport' beyond current services (with focus on certain eligibility criteria, such as age or disability) is likely to offer greater inclusion and access to a wider range of users, aligning with the findings of previous work.

The findings focus on six key priorities for the region, with thirteen proposals (in no particular order):

- 1. Connecting people to jobs in Dandenong South
- Proposal 1: Improve public transport connectivity from Hampton Park to Dandenong South, with a view to expand customer base and areas serviced (for example, through trial of on-demand public transport).
- Proposal 2: Improve access to/from Dandenong and Lynbrook Stations, including connection to Dandenong South buses. Also improve walk, cycle and bus access to other stations on the Cranbourne and Pakenham lines.
- 2. Delivering a flagship public transport service to the Mornington Peninsula
- Proposal 3: Build strong public transport trunks, for example, by building on recent DoT investment to transform route 788 into a flagship, 'train-like' trunk service on the Mornington Peninsula.
- Proposal 4: Formulate a multi-modal approach for accessing trunk routes, including feeder buses and active travel improvements.





3. Better connecting employment sites to people and stations in Pakenham

- Proposal 5: Support new Pakenham East station through information and infrastructure which enables better access.
- Proposal 6: Enhance access to key employment areas, including Pakenham East, Pakenham South and Pakenham Town Centre, such as by walking, cycling and enhanced bus services.
- 4. Better connecting people to hubs and jobs in Dandenong North and Springvale
- Proposal 7: Improve access to stations and key employment sites by bus, walking and cycling, including by improving infrastructure and information.
- 5. Organising to deliver better community transport services
- Proposal 8: Each Council is to consider what <u>business model</u> is most attractive from its perspective (i.e., how services are to be procured and managed in-operations), and how state government can support in these elements (e.g., outcome and output specification, procurement process, in-operation management / change management). Then, based on local needs, each Council is to develop tailored approaches with state government.
- Proposal 9: Each Council is to consider what <u>service delivery / technology platform model</u> is most attractive from its perspective (i.e., who will manage and deliver the services day-to-day) and how state government can support in these elements (e.g., operator staff management, fleet and operations, back-of-house operational IT, customer interface IT). Then, based on local needs, each Council is to develop tailored approaches with state government.

6. Working collaboratively on some sub-regional cross-cutting plans

- Proposal 10: Councils, state government and key stakeholders are to work together to deliver technically-excellent solutions that meet communities' needs – for example, improving trunk route services while enhancing access to stations, including enabling / responding to e-mobility (such as escooter and e-bikes). The combined value of aligned action across organisational boundaries helps to unlock the full benefits of strategic investment, especially in transport infrastructure.
- Proposal 11: Councils, state government and key stakeholders to co-advocate. Working together means greater likelihood of buy-in and better positioning for funding¹ through clear alignment of proposals across government and communities.
- Proposal 12: Councils, state government and key stakeholders to co-promote and co-inform, so that improvements and new services are clearly communicated to existing and potential users to maximise impact. This includes multi-modal and multi-touchpoint proposals - for example, informing access to trunk routes while promoting feeder services.
- Proposal 13: Councils, state government and key stakeholders to continue to work collaboratively to deliver the strategic cycling corridors (SCCs), which will improve accessibility. SCCs are already a government scheme and while other proposals are important, there is also the need to support what has already been planned and will deliver benefits to the region.

¹ Collaboration does not mean state commitment to funding from the outset. Funding will need to be secured through existing business case and funding application process, backed by more detailed analysis as part of the co-design process.



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1. INTRODUCTION

1.1. Background

1.1.1. Metropolitan Partnerships

Metropolitan Partnerships are advisory groups which enable local communities to engage directly with the Victorian government and advise on the top priorities for jobs, services and infrastructure. This advice helps inform government's decision-making. There are six *Metropolitan Partnerships* across Melbourne, distributed geographically, reflecting the unique needs and differences across communities and regions. Each *Metropolitan Partnership* comprises council CEOs, business and community leaders and government representatives.^{2,3}





The Southern Metropolitan Partnership region ('the Southern region') comprises Cardinia Shire Council, Casey City Council, Kingston City Council, Frankston City Council, Greater Dandenong City Council and Mornington Peninsula Shire Council³.

1.1.2. Previous Southern Metropolitan Partnership Advice

Improved transport connectivity and social outcomes have remained a consistent priority in the Southern region.

In 2017, the top priority for the region was for neighbourhoods to be "better connected to employment, education, recreation and services, with upgraded roads and higher frequency public transport"⁴.

In 2018, the key priority outcomes included 'connected public transport', 'youth engagement' and 'access to local jobs', with participants seeking an increase in "connectivity, access and frequency of current public transport networks, including the bus networks to support efficient mobilisation in the region"⁵.

Targeted forums in 2019 again reaffirmed "timely and reliable public transport connections" as a key priority, enabling "people to access employment, education and community infrastructure"⁶. The Partnership recommended that the region's low level of public transport servicing be complemented by more flexible (route / timing / service area) local transport options across all transport modes to further leverage the government's investment in major infrastructure while supporting the diverse communities in the region to better access local jobs, education and services³.

² Premier of Victoria. (2016, October 13). Metropolitan Partnerships to Help Suburban Communities Thrive. Retrieved from Premier of Victoria: The Hon Daniel Andrews: https://www.premier.vic.gov.au/metropolitan-partnerships-help-suburban-communities-thrive

³ Department of Transport. (2020). Engagement brief for the provision of Professional Advisory Services - Southern Integrated Transport Framework (SITF). Department of Transport

⁴ Department of Environment, Land, Water and Planning. (2017b). The 2017 Southern Assembly: Summary Report. Dept. of Environment, Land, Water and Planning, p. 3

⁵ Department of Environment, Land, Water and Planning. (2018). The 2018 Southern Assembly: Summary Report. Dept. of Environment, Land, Water and Planning, p. 1

⁶ Department of Jobs, Precincts and Regions. (2021, February 10). Southern Metropolitan Partnership. Retrieved from Suburban Development: https://www.suburbandevelopment.vic.gov.au/partnerships/metropolitan-partnerships/southern-partnership

The subsequent study Addressing Social Isolation in the Southern Metropolitan Region ('SMR') of Melbourne⁷ developed and tested priority recommendations to help address social isolation in the region, with transport emerging as a key priority area. Specifically, recommendations included:

- "Additional public transport (bus) routes across the SMR that focus on direct links into activity centres and public transport hubs"
- "Improve efficiency of services, more regular, demand-based services in terms of routes, frequency and operating times that better integrate with the existing public transport network"
- "Increase community transport services across the SMR in terms of coverage, frequency, and operating times"
- "Expanding the user groups who use community transport services".



1.1.3. Southern Integrated Transport Framework (this report)

The Southern Integrated Transport Framework ('SITF') aims to inform government decision making by highlighting some of the barriers to transport connectivity in the Southern region. This report should not be considered a full overview of all the transport issues and solutions in the region. The report aims to improve public transport and reduce social isolation, building on previous advice and local and regional plans and strategies, including Plan Melbourne and the South East Melbourne Integrated Transport Group ('SEMITG') South East Transport Strategy.

Specifically, the project aims to set out sub-regional shorter-term transport priorities and proposals to focus Council, Department of Transport ('DoT') and key stakeholder planning, collaboration and delivery. These focus areas aim to enable a wider range of people to access jobs, services and opportunities. The proposals in the report focus on the short-term, building towards longer-term policy aspirations.

Relative to previous advice and broader strategies, SITF links high-level strategic planning (like Plan Melbourne) and shorter-term, practical proposals, depicted visually in Figure 2.

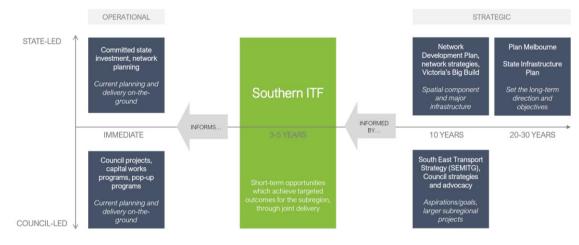


Figure 2: Role of the Southern ITF relative to other plans and strategies

⁷ SGS Economics and Planning. (2020). Addressing social isolation in the Southern Metropolitan Region of Melbourne. SGS Economics and Planning.

1.1.4. Scope

This project is about:

- Aligning sub-regional transport priorities
- Tactical proposals (3 5 years)
- Projects which address sub-regional issues (across Council borders)
- Issues which can be jointly resolved by Councils and state government
- Small number of key priorities that the partnership members can work on together
- Aligning objectives across actors

This project is not about:

- A 'blueprint' for all transport decisions
- Starting from a blank canvas
- Major strategic road and rail investments or infrastructure
- Comprehensive public transport network route reviews
- Changes which are not consistent with the current planning agenda, government direction/thinking or previous Partnership advice
- Long list of specific initiatives not aligned to broad regional priorities

The findings of this study are not intended to be comprehensive or address every problem. This report is not a state government strategy, but third-party, independent advice based on direction provided by the Partnership. The details of projects are subject to state government process and inclusion in this report does a commitment to funding projects. This report outlines strategic priorities for focus and collaboration, amongst broader initiatives. The findings do not preclude other investments or programs to resolve issues.

1.1.5. Study Method

The study has been prepared by GTA, now Stantec, with MRCagney and Llewellyn Prain ('the project team') for DoT, managing the project on behalf of the Southern Metropolitan Partnership. It has involved:

- Five months of collaborative working between all Councils, Office for Suburban Development, the Department of Transport and the project team.
- Review of previous work, strategies and policies (including *Plan Melbourne*, *SEMITG South East Transport Strategy*, Infrastructure Victoria papers, *Addressing Social Isolation in the SMR of Melbourne* and others), culminating in a *Regional Strategy Review* report with key issues.
- Analysis of a range of demand-side and supply-side data to supplement and validate issues, including demographics, travel patterns, community transport inventory and PT catchments.
- Follow up one-on-one discussion with four Councils to further discuss issues and current public and community transport state-of-play.
- Discussion with representatives from Department of Transport On-Road Policy, New Product Development and Metro South East Bus Planning to understand and test policy and direction.
- Development of a *Public and Community Transport Review* report distilling key themes and issues into a set of priorities for focus. Opportunities for feedback following deliverables.
- Further engagement with representatives from Department of Transport New Product Development and Metro South East Bus Planning to discuss and test direction.
- Second workshop with Councils, Office for Suburban Development and Department of Transport (January 2021) to test findings.
- Workshop with Southern Metropolitan Partnership (February 2021) to introduce and test findings.
- Development of an *Integrated Transport Framework* (this report), bringing together the findings of the above and building further detail around implementation.

MRCagney provided engagement support as it relates to community transport and technical input and Llewellyn Prain provided direction and guidance around community engagement for implementation.

1.2. Key directions

1.2.1. Common themes

Review of previous strategies, plans and Partnership work found seven common themes prominent across the Southern region and validated through workshops.

- Social inclusion and access to services: a key driver for the study, commonly in reference to elderly people, young people, diverse communities, people without a car/licence or who choose not to drive and connecting isolated growth/rural areas and areas with little/no public transport provision (e.g., Cardinia). Previous work identified on-demand services, redeployment of community transport, taxis and rideshare as potential solutions.
- Access to jobs and linking residents to work: access to key employment centres (including Monash National Employment and Innovation Cluster (NEIC) and Dandenong NEIC) a common theme, especially by bus, as well as better access to stations and interchanges. Plan Melbourne also pursues better access to NEICs, major activity centres and other areas with high or growing job densities.
- Managing the impacts of growth: concerns around the impacts of rapid growth on key road and rail corridors and subsequent impacts on access to jobs and services, including dependence on roads due to type of jobs, staggered start times and dispersed industrial precincts.
- Supporting local living, place, sense of community and healthy living: enabling people to have greater choice in the way of travel (including young people, older people and people without access to a car/licence or choose not to drive), improve health and liveability outcomes.
- **Supporting tourism while managing impacts:** particularly in relation to Mornington Peninsula, but a subregional issue in terms of access providing an alternative to driving.
- Supporting freight and the economy while managing impacts: working together across boundaries and linking people to jobs in industrial areas.
- Improving safety and security: both road and personal safety, including, for example, while walking, cycling and waiting for the bus. Safety around train stations and public transport was raised as a concern, especially at Pakenham, Dandenong, Springvale, Noble Park and Yarraman.

This report is cognisant of the impacts of COVID-19. According to an Infrastructure Australia study, travel has reduced (especially by public transport) and while there has been some 'bounce back', there is expected to be a persistent level of working from home and shift to car travel to some degree. However, there is also a large cohort of the population that is unable to work from home, population growth is expected to continue (even under a 'severe' COVID recovery scenario)⁸, and increasing digitisation, localisation and innovation provide new opportunities. The Infrastructure Australia study notes several future directions for consideration, including (amongst others) better demand matching on services, pop-up and permanent bike lanes, more on-demand and mobility services, more transport services in local areas, all day timetables and opportunities for customer engagement – which are consistent with the proposals outlined in this report.⁹

⁸ Charles-Edwards, E., Bernard, A., Wilson, T., & Wohland, P. (2020). How will COVID-19 impact Australia's future population? A scenario approach. Queensland Centre for Population Research.

⁹ Infrastructure Australia. (2020). Infrastructure beyond COVID-19: A national study on the impacts of the pandemic on Australia. Infrastructure Australia.

1.2.2. Key context and directions

These key themes were explored further through conversations with Councils, Department of Transport and further research and analysis. The key findings, and implications for the study, are captured below.

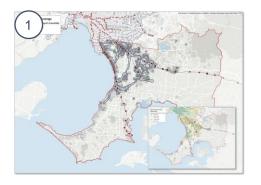


Image: Areas within 400 – 800m of 'good' public transport services (frequency 20 mins or less)²⁶

There are large gaps in public transport across the Southern region – 47% of the population lives outside of 'good public transport' catchments.²⁶ Many key destinations are also outside of good public transport catchments, such as Dandenong South, Mornington Peninsula, parts of Pakenham and Officer and growth areas in Casey.

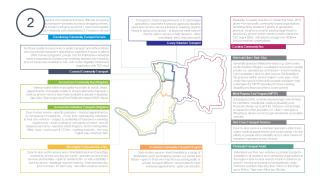


Image: Snapshot of current community transport and other private transport services – see p. 24⁵¹

There are many community transport services operating in the region, some operated by Councils, others privately. Generally, the services are highlyspecialised and cater for specific functions and are based on eligibility criteria – for example, for older people or people with a disability.



Image: Share of various groups as a proportion of total population in the Southern Metro Region⁷

However, there is a wider group who may not have access to a car/licence, be able to drive or seek travel choice, for example, young people, diverse populations, low income or unemployed populations or wider population (such as workers).

Image: Key transport-related recommendations from the Addressing Social Isolation report⁷

This report takes a wider view of 'community transport' as 'transport accessible to the community', including public transport. This approach is likely to offer greater inclusion, including for people who fall outside of the 'criteria' and aligns with a key recommendation in the *Addressing Social Isolation in the SMR* report.



Image: Summary of characteristics of various public and community transport service types

Global investment and innovation in public transport also continues to accelerate, with solutions that have the potential to help people access services. There are lots of different options (ride share, trunk bus, Council shuttles) but clarity is needed as to the 'best fit' in the Victorian context.

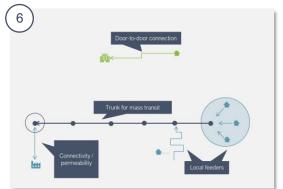
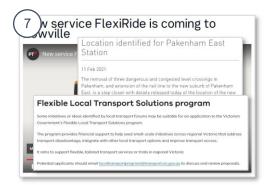


Image: Visual summary of different types of transport functions – trunk vs local feeder vs door-to-door

DoT seeking a transport system that is simple, connected, accessible, reliable, safe and supports a productive and growing economy¹⁰. DoT sees the bus network as 'trunk routes' (mass transit), 'local transport' (efficient local access) and 'connectivity' (integration). Changes to existing services need to improve upon customer <u>and</u> operator outcomes.



Currently, DoT is investigating the role of innovative technologies as part of its suite of Transport interventions to support an integrated transport networks (i.e., trial of on-demand bus service in Rowville called 'FlexiRide'). These trials will inform DoT policy. The state government is investing now – for example, new stations, on-demand trials, route upgrades, procurement and innovation.^{11,19,46}



There is an opportunity to leverage experience from current programs and capitalise on investment.

Starting small and building towards policy objectives provides quick benefits to the community and economy and can reduce cost impacts. Short-term projects like operational improvements, trials, walking and cycling projects can build the case for broader investment, including different audiences and areas.

¹⁰ Department of Transport. (2019). Simple, connected journeys: our strategic plan 2019-23. Melbourne: Department of Transport, p. 5

¹¹ Department of Transport. (n.d.a). Local transport in Victoria. Retrieved from Department of Transport: https://transport.vic.gov.au/our-transport-future/ourprojects/regional-victoria/regional-network-development-plan/local-transport-in-victoria

2. PRIORITY ISSUES AND PROPOSALS TO ADDRESS THEM

Identification of priorities and proposals was based on a process of review, conversations and evidence, as outlined in Section 1.1.5. Parts A and B of the study provide further detail into the technical and analytical underpinnings to this report. This report outlines six key priorities and thirteen proposals to improve public transport and enhance social inclusion through transport in the Southern Metropolitan Partnership region.

2.1. Connecting people to jobs in Dandenong South

2.1.1. Introduction

- Dandenong South is one of the city's most significant employment precincts, home to more than 40,000 jobs¹² and forming part of the broader Dandenong National Employment and Innovation Cluster.¹³
- The region is home to several major employers, including Mondelez, Jayco, Alstom, Corex Plastics, Visy Industries and IVECO Trucks Australia, as well as several major distribution centres.^{13,14}

"This area is a key destination for workers in Melbourne's south east growth corridor, particularly the adjoining City of Casey, which has a net shortage of jobs" – Greater Dandenong Advocacy Issues¹⁵

2.1.2. What is the problem?

- Access to the precinct is largely dependent on driving. Many areas in Dandenong South are outside of good quality public transport catchments and existing services are relatively infrequent, including for early morning shift workers. As a result, 97% of employees in the area drive to work.¹⁶
- In particular, there is limited connectivity to the adjacent residential areas, including Hampton Park, Keysborough and growth areas in Casey. Many of these areas have higher proportions of culturally and linguistically diverse people, higher proportions of disengaged youth, higher relative disadvantage and lower levels of car ownership.¹⁷

"Poor access to the adjoining residential growth areas which have a net shortage of jobs. This adversely impacts outcomes for the region's liveability and social inclusion, effectively locking out a proportion of the potential workforce – Greater Dandenong Post-COVID Recovery Strategy"¹⁴

"Infrequent and limited-route public transport options, limiting access to employment, particularly for young employees / apprentices reliant on alternative transport. This constrains its potential to fully contribute to the region's liveability and social inclusion"- Greater Dandenong Advocacy Issues¹⁵

¹² GTA analysis based on Australian Bureau of Statistics (2016) Census of Population and Housing 2016 – Counting Employed Persons Aged 15 Years and Over by Place of Work (POW) in Destination Zones (DZN) within Dandenong South [Census TableBuilder], accessed February 2021.

¹³ Department of Environment, Land, Water and Planning. (2017a). Plan Melbourne. Department of Environment, Land, Water and Planning.

¹⁴ City of Greater Dandenong. (2020). Post COVID Recovery Strategy: Key Projects 2020. City of Greater Dandenong, p. 33

¹⁵ City of Greater Dandenong. (2018). 2018 State Election Advocacy Issues. City of Greater Dandenong, p. 26

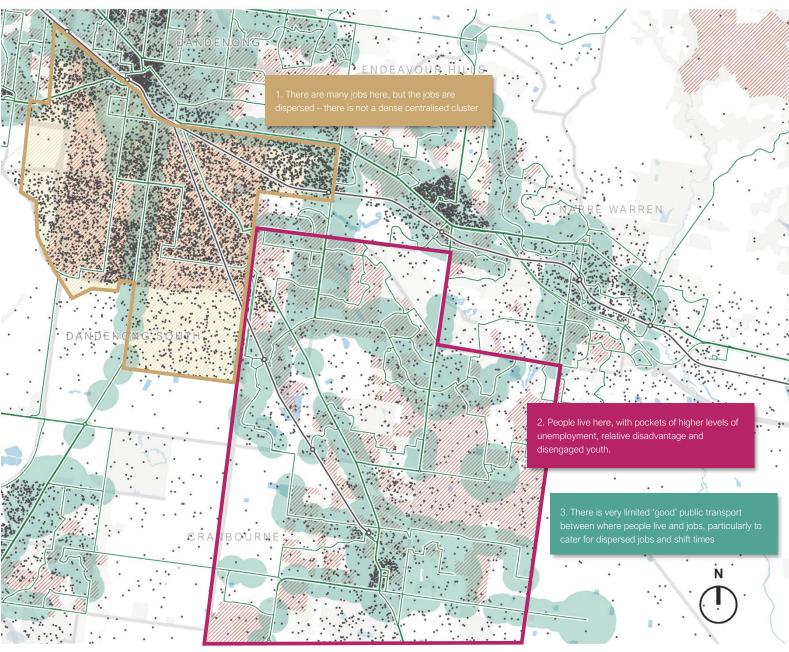
¹⁶ GTA analysis based on Australian Bureau of Statistics (2016) Census of Population and Housing 2016 – Counting Employed Persons Aged 15 Years and Over by Place of Work (POW) in Destination Zones (DZN) within Dandenong South by Method of Travel to Work (MTW15P) [Census TableBuilder', accessed February 2021. Includes 'taxi', 'car as driver', 'car as passenger', 'truck' and 'motorbike/scooter'. Excludes 'worked at home', 'did not go to work', 'non stated', 'not applicable'.

¹⁷ GTA analysis based on Australian Bureau of Statistics (2016) Census of Population and Housing 2016 for average cars per dwelling, people not fluent in English, disengaged youth and SEIFA index of relative disadvantage [ABS TableBuilder], accessed November and December 2020

PRIORITY ISSUES AND PROPOSALS TO ADDRESS THEM

MAP 1 - CONNECTING PEOPLE WITH JOBS IN DANDENONG SOUTH





Legend

- Areas of more frequent public transport
- MAreas of higher unemployment
- Dandenong National Employment and Innovation Cluster Built up areas
- Jobs (1 dot represents 10 jobs)
- Rail line / station
- Bus routes

Map data based on Department of Transport, Department of Environment, Land, Water and Planning, Public Transport Victoria, Australian Bureau of Statistics, Plan Melbourne and other sources, used under CC BY 4.0 (https://creativecommons.org/licenses/by/4.0/), custom analysis and styling applied.

2.1.3. Proposals

- **Proposal 1:** Improve public transport connectivity to Dandenong South, with a view to expand customer base and areas serviced (for example, through trial of on-demand public transport from Hampton Park).
- **Proposal 2:** Improve access to/from Dandenong and Lynbrook Stations, including connection to Dandenong South buses. Also improve walk, cycle and bus access to other stations on the Cranbourne and Pakenham lines.

Overview of On-Demand Public Transport

What is on-demand (or 'demand responsive') public transport?

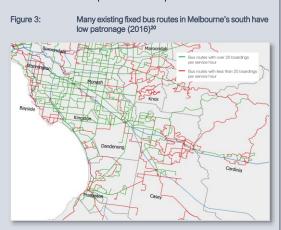
- Customers request a ride from one place ('origin') to another ('destination') either by booking in advance or when ready to travel, depending on the service.
- A vehicle (or several vehicles) will take the most efficient route to pick up and drop off passengers who have requested a ride unlike a 'typical' fixed bus service, the route varies based on demand.
- The services generally carry multiple passengers (unlike a taxi or standard Uber services, which are booked for one passenger or a private group) and are available for use by anybody in the community (though usership can be targeted)¹⁸.

What is the opportunity?

• In areas where there is limited public transport, on-demand provides an option for people without a car or who seek an alternative to driving. On-demand services are also well-suited to growth areas as they are flexible to the available road network and can provide a 'bridging' service until fixed route services become more viable. Compared to private transport (such as taxis and Ubers), on-demand public transport is also generally more affordable for passengers, as the service is subsidised. For example, the FlexiRide service in Rowville uses myki for payments and costs the same as a public transport fare¹⁹.

Accessibility is built-in to the fleet, enabling the vehicle to pick up and drop off passengers at any safe location and (depending on structure) negating the need for stop infrastructure.

 In some areas already served by public transport, many fixed routes run well below a viable or target level of use, particularly in areas which have lower population densities which require circuitous routes to provide coverage. There are several examples in



¹⁸ Based on L.E.K. Consulting. (2019). On-Demand Public Transport: Key Learnings from Global Pilots. L.E.K. Consulting.

¹⁹ PTV. (n.d.). New service FlexiRide is coming to Rowville. Retrieved from Public Transport Victoria: https://www.ptv.vic.gov.au/footer/about-ptv/improvements-andprojects/bus-and-coach/new-service-flexiride-is-coming-to-rowville/

PRIORITY ISSUES AND PROPOSALS TO ADDRESS THEM

Melbourne's south, such as near Pakenham and Narre Warren (refer Figure 3)²⁰. Replacing inefficient fixed routes with an on-demand solution can provide a more efficient and targeted service, reduce travel or wait times for customers and/or reduce operating expenses.

What are the challenges?

- Traditional on-demand transport has generally been hyper-local (i.e., community services run through a centralised booking system) or over-hyped (i.e., open-ended origins and destinations, with high cost to service). As a result, these services have a reputation as high-cost per user and resource-intensive to operate.
- Compared to traditional public transport, an on-demand service requires a booking system to enable customers to request a ride and to calculate the most efficient route for the driver. The booking system needs to be approachable and include a range of options for booking (i.e., for customers who are unable to use, or prefer not to use, an app).
- Changes to existing bus services can be politically challenging and requires careful consultation with the community.
- Change takes time previous applications recommend a sufficient trial periods to allow for change in customer behaviour before evaluating success and good marketing/communication and visibility of the service is essential¹⁸.

Figure 4:

How does the modern environment for on-demand resolve these challenges?

- Significant investment from technology companies has resulted in a range of booking systems and routing solutions, providing ability to scale.
- The use of phone apps for services (including booking transport) has become commonplace over the past decade. For example, Uber launched services in Australia in 2012²¹ and the app is now widely used.

On-demand continues to develop, with advances in technology and trials in Australia²²



- Alternative booking methods remain an option for those without access to a smartphone or would prefer an alternative for example, the FlexiRide trial in Rowville can be booked by phone or a phone app¹⁹.
- Understanding of success factors has evolved success is now about good planning, consultation and the 'right' on-demand solution.

In summary, on-demand offers many advantages in the right context – safer and faster outcomes for customers and lower costs for government. However, the area is still highly innovative and so more prework is needed, including investment in consultation and communications – not dissimilar to a major project.²²

²⁰ Infrastructure Victoria. (2018). Five year focus: immediate actions to tackle congestion. Infrastructure Victoria, p. 38, based on Transport for Victoria 2016 patronage data

²¹ Australian Government. (2018). Australia's Tech Future: delivering a strong, safe and inclusive digital economy. Department of Industry, Science, Energy and Resources. Retrieved from https://www.industry.gov.au/data-and-publications/uber-in-

australia#:~:text=Uber's%20launch%20in%20Australia%20in,resistance%20from%20the%20taxi%20industry.

²² Image sources: (Keoride, n.d.), (PTV, n.d.), (Via Transportation Inc, n.d.), (The Routing Company, n.d.) – refer reference section

2.1.4. What could a solution look like?

- Trial of a targeted on-demand service between Hampton Park and key employment areas in Dandenong South. Initially, the service would provide flexible pick-up from the Hampton Park area and drop-off at specific stops at/near key employers in Dandenong South.
- Stop-based drop-off reduces costs compared to an open-ended approach, similar to FlexiRide.
- Detailed development of the proposal requires consultation with key employers to gauge interest and inform best operational times (i.e., to align with shift starts/finishes).
- As the trial progresses, the intention is to expand audience to other key employee residential areas, including Dandenong, Lynbrook, Narre Warren South, Cranbourne and surrounds (i.e., Cranbourne East), Clyde North, Keysborough and Doveton. Expansion could also include adjacent railway stations such as Dandenong Station and Lynbrook Station to enable connection from further afield.
- There is an opportunity to reduce reliance on circuitous or inefficient fixed route bus services by redeploying resources or funding into scaling up on-demand services, or reducing costs.
- More broadly, improve access to stations on the Cranbourne and Pakenham lines to enable workers to travel to key interchanges and hubs (such as Dandenong station). From these hubs, existing buses and, later, potentially on-demand services can provide the last mile connection to Dandenong South.
- Improve quality of interchange, information and safety at adjacent interchange stations at Dandenong and Lynbrook. This includes suitable facilities, such as secure bike parking, as well as embedding strong accessibility and connectivity into station/stop planning, such as minimising conflicts between users, reducing distance between modal interchanges and providing facilities commensurate to usage.

2.1.5. Rationale

- The importance of the region as a hub for jobs has been raised in numerous strategies and plans, including Plan Melbourne, SEMITG South East Transport Strategy and advocacy pieces.
- These areas are home to higher proportions of people who work in Dandenong South. About a quarter of Dandenong South workers live in the above suburbs, more than 10,000 people.²³
- These areas have higher proportions of low car ownership, low income households, culturally and linguistically diverse communities, relative disadvantage and disengaged youth.²⁴
- There is currently no direct public transport service between Hampton Park and Dandenong South. A trip that takes 15 minutes by car can take 50 60 minutes by public transport.²⁵
- More generally, outside of the rail corridor, these areas can have poor or absent public transport coverage. Where services exist, they are often circuitous local routes and, in some cases, operate at a frequency of 30 minutes or less, even in the morning peak hour.²⁶
- Many routes in the area, particularly circuitous routes, achieve less than 20 boardings per service hour, a benchmark of economic viability.²⁷
- On-demand services may improve outcomes for both the community and for operational expenditure.

²³ GTA analysis based on Australian Bureau of Statistics (2016) Census of Population and Housing 2016 – Counting Employed Persons Aged 15 Years and Over by Place of Work (POW) in Destination Zones (DZN) within Dandenong South [Census TableBuilder], accessed February 2021.

²⁴ GTA analysis based on Australian Bureau of Statistics (2016) Census of Population and Housing 2016 for average cars per dwelling, people not fluent in English, disengaged youth and SEIFA index of relative disadvantage [ABS TableBuilder], accessed November and December 2020

 $^{^{\}rm 25}$ Google Maps for sample address in Hampton Park to sample address in Dandenong South.

²⁶ GTA analysis of PTV GTFS data, used under Creative Commons Attribution 4.0 International (CC BY 4.0), https://creativecommons.org/licenses/by/4.0/

²⁷ Infrastructure Victoria. (2018). Five year focus: immediate actions to tackle congestion. Infrastructure Victoria, p. 38, based on Transport for Victoria 2016 patronage data

2.2. Delivering a flagship service on the Mornington Peninsula

2.2.1. Introduction

- The Mornington Peninsula is home to more than 150,000 people²⁸, with both areas of high relative advantage and disadvantage.
- Although Mornington, Rosebud and Hastings are 'major activity centres', many jobs and services are located Frankston, as the nearest metropolitan hub. Frankston also serves as they key gateway to jobs and services in broader Melbourne and many people travel up the coast for work^{29,30}.
- Council has declared a climate emergency and environmental sustainability is a key focus are for Council, including shifting to more sustainable modes of travel for locals and visitors.

2.2.2. What is the problem?

- 'Good' public transport is very limited in the Mornington Peninsula, with most services operating at a frequency of every 20 minutes or worse, even in the morning peak hours. South of Mornington, many services run at a frequency of every 30 minutes or worse³¹.
- As a result, much travel is largely car-dependent more than three quarters of people drive to work (as a proxy for broader travel patterns) and less than three per cent of people take public transport to work, despite almost 16-30% of the population living within the catchment of the region's key trunk bus route 788^{28,32}.
- Many people do not have access to a car, with pockets of low car ownership in Mornington, Rye, Rosebud and Dromana. Similar areas also have pockets of lower household incomes, higher relative disadvantage and older populations³³.

"We have the second lowest provision of public transport per person in metropolitan Melbourne. This impacts not just the Peninsula community at large but the vulnerable and socially disadvantaged members, who all need better access to vital services..." – Better Buses for Mornington Peninsula³⁴

"We need better bus links to allow residents to access jobs, education and essential services, including health facilities, as well as community activities" – Better Buses for Mornington Peninsula³⁴

"Massive disconnect with very good rail services hitting the wall with hourly bus services, e.g., Frankston rail and various local bus services" – Addressing Social Isolation in the Southern Metro Region⁷

²⁸ Australian Bureau of Statistics. (2020, October 30). 2016 Census QuickStats - Mornington Peninsula (S). Retrieved from Australian Bureau of Statistics: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/LGA25340#:~:text=ln%20the%202016%20Census%2C%20there,up%2 00.8%25%200f%20the%20population.&text=The%20median%20age%20of%20people,Government%20Areas)%20was%2046%20year

²⁹ Department of Environment, Land, Water and Planning. (2017a). Plan Melbourne, Department of Environment, Land, Water and Planning, p. 53

³⁰ GTA analysis based on Australian Bureau of Statistics (2016) Census of Population and Housing 2016 – Counting Employed Persons Aged 15 Years and Over by Place of Work (POW) and Place of Usual Residence (UR) [Census TableBuilder], accessed October 2020 to February 2021.

³¹ GTA analysis of PTV GTFS data, used under Creative Commons Attribution 4.0 International (CC BY 4.0), <u>https://creativecommons.org/licenses/by/4.0/</u>. 'Good' public transport for this purpose of this study taken as 800m catchment from stops with a frequency of less than 10 minutes and 400m from stops from a frequency of 10 to 20 minutes.

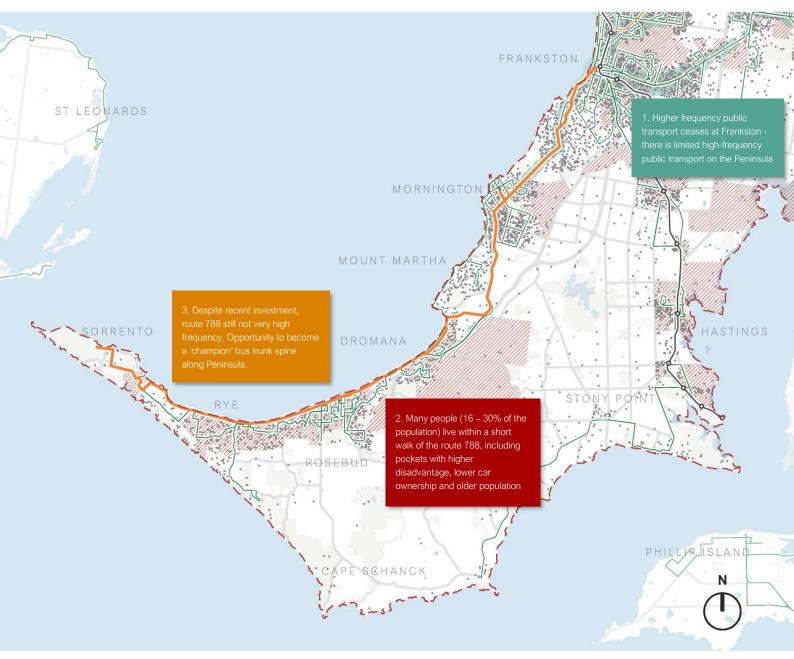
³² GTA analysis of PTV GTFS data, used under Creative Commons Attribution 4.0 International (CC BY 4.0), <u>https://creativecommons.org/licenses/by/4.0/</u> and Australian Bureau of Statistics population data (2016) Census of Population and Housing 2016 – Population by Place of Usual Residence (UR) [Census TableBuilder], accessed October 2020 to February 2021. Range reflects catchment of 400m to 800m radius of stops, with population distributed randomly.

 ³³ GTA analysis based on Australian Bureau of Statistics (2016) Census of Population and Housing 2016 for average cars per dwelling, proportion of low income households, proportion of population aged over 70 and SEIFA index of relative disadvantage [ABS TableBuilder], accessed November and December 2020
 ³⁴ Mornington Peninsula Shire. (n.d.). We're calling for better buses for the Mornington Peninsula. Mornington Peninsula Shire, p. 2

PRIORITY ISSUES AND PROPOSALS TO ADDRESS THEM

MAP 2 - DELIVERING A FLAGSHIP SERVICE ON THE MORNINGTON PENINSULA





Legend

- Areas of more frequent public transport
- M Areas of higher relative disadvantage
- Built up areas Residents (1 dot represents 50 people)
- --- Rail line / station
- Route 788 bus
- Smartbus routes
- Other bus routes

Map data based on Department of Transport, Department of Environment, Land, Water and Planning, Public Transport Victoria, Australian Bureau of Statistics, Plan Melbourne and other sources, used under CC BY 4.0 (https://creativecommons.org/licenses/by/4.0/), custom analysis and styling applied.

2.2.3. Proposals

- **Proposal 3:** Build strong public transport trunks, for example, by building on recent DoT investment to transform route 788 into a flagship, 'train-like' trunk service on the Mornington Peninsula.
- **Proposal 4:** Formulate a multi-modal approach for accessing trunk routes, including feeder buses and active travel improvements.

Context: recent bus service upgrade announcement

The state government provided funding for "network reform and service upgrades on the Mornington Peninsula in the Victorian Budget 20/21³⁵. These changes include:

- Realignment of route 887 between Rosebud and Frankston to run via the Mornington Peninsula Freeway.
- Route 788 upgraded from 40-50 minute frequency to a 30 minute frequency on weekdays and a 40 minute frequency on weekends.
- Extension of Route 781 to Dromana.

Planning for these changes will commence in early 2021.^{36,37}

While the investment is welcomed, the Peninsula still lacks a 'champion' service to generate demand for public transport. Evolving Route 788 to a high-frequency service can enable better connections from other services (such as train in Frankston, or other bus routes), providing a better level of service for users and 'train-like' confidence and clarity.

2.2.4. What could a solution look like?

- State government and Council to work together and develop the Route 788 to a 'turn-up-and-go', 'champion' service.
- Potential to initiate the service uplift between Frankston Station and Mornington as a trial, with view to
 extend to Rosebud or Dromana as hubs and interchanges to other services, based on proven success.
- There is an opportunity to reduce reliance on circuitous or inefficient fixed route bus services by redeploying resources or funding into scaling up route 788 service frequency or improving feeder connections.
- There is a dual responsibility between Council and state government in progressing the service enhancements, as well as enabling these service enhancements through suitable infrastructure. This could kerb build-outs, better walking and cycling access and facilities (such as bicycle parking at bus

https://www.facebook.com/BrayneForNepean/videos/213524043483237/?__xts__%5B0%5D=68.ARBrqg5zoYC3O6XbrJ82b-N7eBl4pzSaCpXZfaq5n1hhxYFAUjxsz8_eA7z1ebmAJCrHKH0HEVK7dEsL5fp8yjVu8kLlxvAWR9LUQMzQP3QLYcgeB43xx3q_gOt6gVIPbedCxGSJriaTi5InG-1HjgwVTZvgUZi3Kwa9W_6bz0pDevCHEVd4mGI-2UPYRDQ513ygXyPQo-QEPGPGmp3r9vu_326w-v3GaH_6D4zh63cPLMojNtkWxFQvraMKXEg-5F702ZOrx4jy2zVbXwtwXPrJqmGYOJ6IzzAahUygOfqy_uhP8pI4FAcE5qNP82TbjO53i2lpZp53_F88wVTgpoXltMXeJ0aqUf3FJFsdKnUr9L3E3oiElhvEhckaRld7uCnuBK IFfhm_67rJpcl8VrZhKN3Yt_0DetGIB8URps05Em5OMMCorN0Tdtw&_tn_=H-R

³⁵ State of Victoria. (2020). Victorian Budget 20/21: Putting people first - Service Delivery Budget Paper No. 3. Melbourne: State of Victoria, p. 128.

³⁶ Brayne, C. (2020, December 3). Post retrieved from Facebook:

³⁷ Parker, P. (2020, December 8). *Timetable Tuesday #99: The upgraded Mornington Peninsula bus network (and some enhancements)*. Retrieved from Melbourne on Transit: https://melbourneontransit.blogspot.com/2020/12/timetable-tuesday-99-upgraded.html

stops) and suitable facilities at Frankston Station for the volume of buses and to enable smooth bus-rail interchange for users. This may also include exploring opportunities to improve access across the Peninsula to the route 788 corridor.

2.2.5. Rationale

- Potential to change the perception of bus travel along the Peninsula to a natural 'extension of the Frankston line' and build momentum for public transport demand along a key corridor.
- Serves resident population, including areas with higher relative disadvantage, low car ownership and higher proportions of households with low income.
- Also serves tourism market as a viable alternative for travel to key townships on the Peninsula.
- Aligns with Council's declaration of a climate emergency and environmental sustainability as a driver for mode shift away from car travel to public transport and more active modes.

2.3. Better connecting employment sites to people and stations in Pakenham

2.3.1. Introduction

Pakenham is home to more than 45,000 residents and many jobs across several key employment precincts³⁸. The area continues to grow, with Pakenham East announced as a new suburb in January 2021, home to 7,200 additional homes and 1,300 new jobs.³⁹ There is also substantial recent growth in neighbouring Officer, with many new development areas now fully established.⁴³

Figure 5: Aerial images showing growth in the Officer area (left – April 2016, right – March 2021)⁴⁰





- According to the SEMITG South East Transport Strategy, the Officer-Pakenham Industrial Precinct is a state-significant industrial area and the Pakenham South Employment Precinct is an emerging hub.⁴¹
- Pakenham station will be rebuilt and a new Pakenham East station will be constructed as part of Level Crossing Removal works, scheduled to open in 2023/24.⁴⁵

2.3.2. What is the problem?

- Industrial precincts have no public transport coverage and are unapproachable by walking or cycling, despite many jobs being located within a short walk (12-25 minutes, 1-2 kilometres) from townships and rail stations. This limits access to jobs for people without a car.
- More broadly, many bus routes in Pakenham are infrequent, circuitous feeder routes with many
 operating at a frequency of every 30 minutes or worse, even in the morning peak hour. As a result,
 many routes are poorly utilised, with fewer than 20 boardings per service hour, and more than three
 quarters of people living in Pakenham travel to work by car.^{38,42}
- There have been no new public transport services introduced to the region since 2014 to service a growing population.⁴³ There is also limited public transport connecting rapidly-developing areas (such as Officer) to jobs in Pakenham and metropolitan areas.⁴⁴

³⁸ Australian Bureau of Statistics. (2017, October 23). 2016 Census QuickStats. Retrieved from Australian Bureau of Statistics: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC22015?opendocument

³⁹ Premier of Victoria. (2021, January 2). New Suburb For Melbourne's South East. Retrieved from Premier of Victoria: The Hon Daniel Andrews: https://www.premier.vic.gov.au/new-suburb-melbournes-south-east

⁴⁰ Images sourced from Nearmap, 19 April 2016 and 12 March 2021

⁴¹ Jacobs. (2018). South East Transport Strategy. Melbourne: Jacobs, p. 6

⁴² GTA analysis of PTV GTFS data, used under Creative Commons Attribution 4.0 International (CC BY 4.0), https://creativecommons.org/licenses/by/4.0/

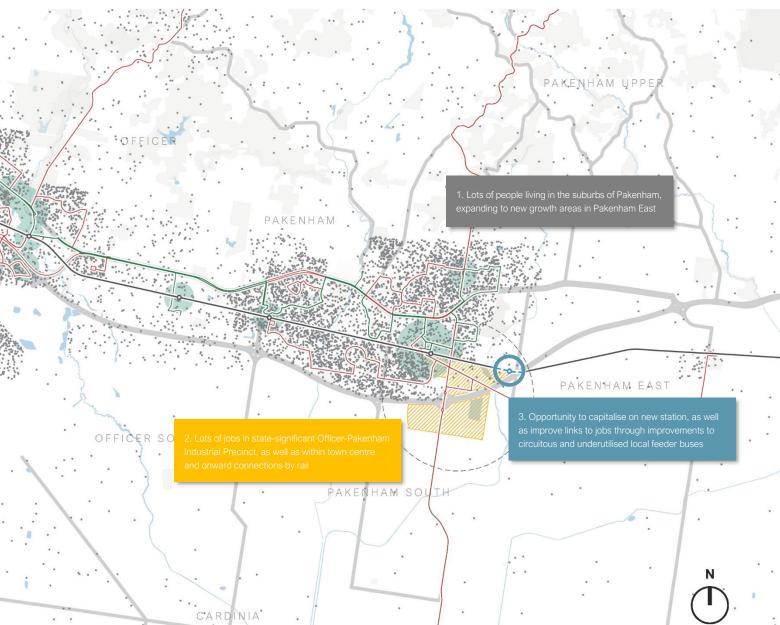
⁴³ Feedback provided by Cardinia Shire Council

⁴⁴ PTV. (2016). Local Area Map - Shire of Cardinia. Retrieved from PTV: https://www.ptv.vic.gov.au/assets/default-site/more/maps/Local-areamaps/Metropolitan/f8a4ef286e/8_Cardinia_LAM.pdf

PRIORITY ISSUES AND PROPOSALS TO ADDRESS THEM

MAP 3 - CONNECTING EMPLOYMENT AREAS TO STATIONS AND PEOPLE IN PAKENHAM





Legend

- Areas of more frequent public transport
- 🥢 Key industrial precincts
- (_) 20 25 minute walk (2km)
 - Built up areas
- Residents (1 dot represents 10 people)
- --- Pakenham East station (in planning)
- --- Rail line / station
- Services with more than 20 boardings per service hour
- Services with less than 20 boardings per service hour

Map data based on Department of Transport, Department of Environment, Land, Water and Planning, Public Transport Victoria, Australian Bureau of Statistics, Infrastructure Victoria, Plan Melbourne and other sources, used under CC BY 4.0 (https://creativecommons.org/licenses/by/4.0/), custom analysis and styling applied.

2.3.3. Proposals

- **Proposal 5:** Support new Pakenham East station through information and infrastructure which enables better access.
- **Proposal 6:** Enhance access to key employment areas, including Pakenham East, Pakenham South and Pakenham Town Centre, such as by walking, cycling and enhanced bus services.

Context: new Pakenham East Station announcement

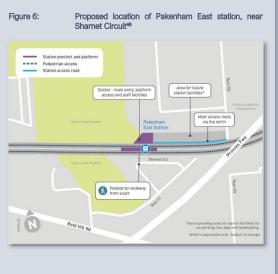
In 2020, it was announced that three level crossings would be removed in Pakenham at McGregor Road, Main Street and Racecourse Road by 2023/2024.

As part of the project, it was announced that Pakenham Station would be rebuilt as a new, premium station with upgraded facilities and improved security. A new station was also announced at Pakenham East, two kilometres further east of Pakenham station.⁴⁵

In February 2021, the Pakenham East station location was confirmed between Deep Creek and the Princes Freeway, with the southern access connecting to the Pakenham East Industrial Precinct at Sharnet Circuit.⁴⁶

With a station at each end, the majority of the Pakenham East Industrial Area will be within one kilometre (10 – 12 minute walk) of a railway station, providing a strong opportunity to enable walking and public transport to work and opening opportunities for employment for those without access to a car/licence.

However, parts of the industrial precinct have no footpaths, or footpaths on only one side of the road. Many streets are dead-ends or circuitous and the station location is also separated from the broader industrial precinct by Deep Creek, with only one crossing at Bate Close.



2.3.4. What could a solution look like?

 Build up supporting infrastructure to enable walking and cycling between Pakenham East station and the Pakenham East employment area, including connectivity from future residential areas on the north side of the station. Supporting infrastructure includes better footpath provision, connectivity, permeability, information and suitable facilities, such as secure bike parking.

⁴⁵ Level Crossing Removal Project. (2020, December 2). Two new stations and Pakenham level crossing removals fast-tracked. Retrieved from Level Crossing Removal Project: https://levelcrossings.vic.gov.au/media/news/two-new-stations-and-pakenham-boom-gate-removals-fast-tracked

⁴⁶ Level Crossing Removal Project. (2021, February 11). Location identified for Pakenham East Station. Retrieved from Level Crossing Removal Project: https://levelcrossings.vic.gov.au/media/news/location-identified-for-pakenham-east-station

PRIORITY ISSUES AND PROPOSALS TO ADDRESS THEM

- Also enhance access to key job precincts (including Pakenham East, Pakenham South and Pakenham Town Centre) from residential areas and stations, such as by walking and cycling and/or enhanced bus services - for example, by reviewing and improving inefficient fixed route services, or replacing conventional bus services locally where an alternative (i.e., on-demand) could improve customer and operational outcomes.
- Review connectivity of services as part of network planning, such as location of bus bays, interchange experience, navigation and timing.
- Councils and DoT to continue to work with Victorian Planning Authority (VPA) and developers on infrastructure planning as part of Precinct Structure Planning process, with a focus on public transport infrastructure to enable bus transport and capacity for growth in pedestrian and cycle access.
- Consider improved access to Pakenham from more remote centres Koo Wee Rup and Lang Lang as a next phase.

2.3.5. Rationale

- New and upgraded stations provide a catalyst to change the way people travel, capitalising on state investment and enabling people from further afield (i.e., neighbouring municipalities) to access jobs
- Many bus routes in the Pakenham area are circuitous and underutilised⁴⁷ opportunity to review and improve inefficient fixed route services with on-demand services between Pakenham residential areas and the town centre/rail stations.
- Infrastructure Victoria has recommended an overhaul of "existing bus services, expanding successful routes and replacing poor performing routes with low cost, customer-responsive services" in its advice to government, *Five Year Focus*.⁴⁷
- Link from Pakenham to Pakenham South is a Strategic Cycling Corridor (SCC), but does not have commensurate facilities.⁴⁸

⁴⁷ Infrastructure Victoria. (2018). Five year focus: immediate actions to tackle congestion. Infrastructure Victoria, p. 6

⁴⁸ Department of Transport. (n.d.b). Strategic Cycling Corridors. Retrieved from Department of Transport: https://transport.vic.gov.au/getting-around/walking-andcycling/strategic-cycling-corridors

2.4. Better connecting people in Dandenong North and Springvale to hubs and jobs

2.4.1. Introduction

- The area to the north and west of Dandenong (Keysborough, Noble Park, Springvale and Dandenong North) has a very high proportion of culturally and linguistically diverse communities, lower car ownership and higher relative disadvantage.
- The area is located between two of Melbourne's key employment areas Monash NEIC and Dandenong NEIC. Springvale and Sandown Park have been recognised as key residential catchments for the Monash NEIC, the largest concentration of employment outside of the CBD. Other areas have potential to connect to Dandenong or Dandenong South.⁴⁹

"For many of our residents, public transport is the only option. Residents may be young, old, unwilling or unable to drive, or simply unable to afford a car." – Greater Dandenong Public Transport Advocacy Statement⁴⁹

2.4.2. What is the problem?

- Several communities have limited or infrequent public transport services, including Noble Park North, Springvale South and Keysborough. Many of the local routes are circuitous and run at a frequency of 30 minutes or worse, even in the morning peak hour. As a result, these areas lack direct connections to education and employment.⁴⁹
- Some recent investment in the area provides opportunities to improve access and connectivity, including the new Noble Park Station and Djerring Trail (as part of the Level Crossing Removal Project) and funding for a new bus route in Keysborough⁵⁰.

"Some areas of Greater Dandenong, particularly Noble Park, Keysborough and Springvale South, have a greater proportion of [residents unable or unwilling to drive] than anywhere else in Victoria." – Greater Dandenong Public Transport Advocacy Statement⁴⁹

"Areas of Noble Park North, Noble Park, Keysborough, Keysborough South and Springvale South lack direct connections to education and employment opportunities." – Greater Dandenong Public Transport Advocacy Statement⁴⁹

⁴⁹ City of Greater Dandenong. (n.d.). Greater Dandenong Public Transport Advocacy Statement. City of Greater Dandenong.

⁵⁰ Martin Pakula. (2019, July 19). Delivering a new bus service for Keysborough South. Retrieved from Martin Pakula: Member for Keysborough: http://www.martinpakula.com.au/news/delivering-a-new-bus-service-for-keysborough-south/

PRIORITY ISSUES AND PROPOSALS TO ADDRESS THEM

MAP 4 - BETTER CONNECTING PEOPLE IN DANDENONG NORTH AND SPRINGVALE TO HUBS AND JOBS





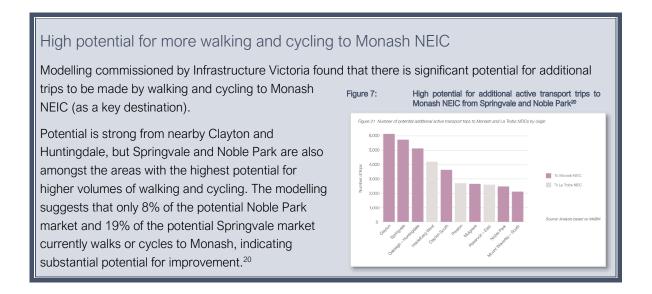
Legend

- Areas of more frequent public transport
- Areas of higher relative disadvantage
- Monash and Dandeong National Employment and Innovation Clusters Built up areas
- Residents (1 dot represents 50 people)
- -- Rail line / station
- Key bus routes for Monash and Dandenong NEICs
- Other bus routes
- -- Primary Strategic Cycling Corridor
- -- Secondary Strategic Cycling Corridor

Map data based on Department of Transport, Department of Environment, Land, Water and Planning, Public Transport Victoria, Australian Bureau of Statistics, Plan Melbourne and other sources, used under CC BY 4.0 (https://creativecommons.org/licenses/by/4.0/), custom analysis and styling applied.

2.4.3. Proposals

• **Proposal 7:** Improve access to stations and key employment sites by bus, walking and cycling, including by improving infrastructure and information.



2.4.4. What could a solution look like?

- The Djerring Trail is a primary Strategic Cycling Corridor with good potential to form the spine of an offroad active transport corridor between Dandenong and Monash NEIC, including Springvale and Noble Park. Improve access to/from the Djerring Trail, including enabling and delivering the Strategic Cycling Corridors which connect to the Djerring Trail from Keysborough and Noble Park North and completing connection to Dandenong CBD.
- Work with neighbouring Monash City Council to improve access to/from the Djerring Trail to key destinations in the Monash NEIC, including Monash University and hospital precinct via SCCs.
- Improve access to rail stations and key bus corridors (including by walking, cycling and bus) providing
 access to Dandenong CBD, Dandenong South and Monash NEIC and employment centres beyond
 (e.g., CBD, Cardinia), including from Dandenong North, Keysborough, Noble Park, Noble Park North,
 Springvale and Springvale South. This includes providing facilities (such as parking or stop
 infrastructure) that enable safe, comfortable and convenient access across all stages of the journey.

2.4.5. Rationale

- Infrastructure Victoria has prioritised "active transport investments to high potential areas" in its advice to government, *Five Year Focus*, including trips to the Monash NEIC from Springvale.⁴⁷
- Improving access to stations and linking people to jobs and services by public transport are amongst the key priorities outlined in the Greater Dandenong Public Transport Advocacy Statement.

"The most common peak hour trip made by Keysborough South residents is to drive and park at a station. 60% of residents would try the bus if it provided a direct route to a station" – Greater Dandenong Public Transport Advocacy Statement⁴⁹

PRIORITY ISSUES AND PROPOSALS TO ADDRESS THEM

2.5. Organising to deliver better community transport services

2.5.1. Introduction

- Currently, 'community transport' often refers to transport for specific needs or users, which are not catered for by conventional transport networks. These types of services are mostly funded by Council and many are also operated by Council.
- A mix of services are delivered, including services which are dependent on volunteers.
- Services are mostly based on eligibility criteria, for example, by age and mobility barriers.
- Some services require booking well in advance of travel, for example, some services require one week's notice.
- While there are specific services in each local government area, there are broader offers through commercial operators, including State government subsidies to users and operators.

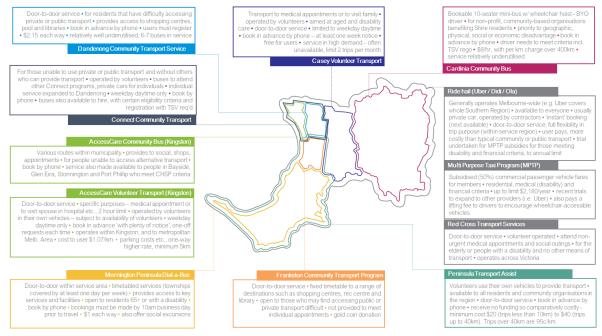


Figure 8: Snapshot of current community and private transport services in the Southern region⁵¹

2.5.2. What is the problem?

• Councils' feedback is that they find providing existing community transport challenging, let alone delivering improvements, by themselves. That is, Councils are not 'geared up' to be transport providers.

⁵¹ MPTP, Red Cross Transport Services, Connect Community Transport, Connect (Dandenong), Kingston Community Bus, Kingston Volunteer Transport, Kingston Transport Guide, Mornington Peninsula Community Transport, Mornington Peninsula Dial-a-Bus, Peninsula Transport Assist, Greater Dandenong Community Transport Service, MPTP Trial with Uber in Geelong, Casey Volunteer Transport, Cardinia Bus Eligibility and Availability, VTCTA Provider List, plus conversations with Councils. Focus on Council-operated services + key private operators.

Meanwhile, state government has growing capabilities in procurement and IT which represent opportunities.

- Improving customer experience is important, but the current service delivery models have limits for example, the extent to which volunteers can deliver more services, or adoption of a technology platform required to reduce wait time between booking and travel.
- Councils recognise that improving inclusion and accessibility for the community is not solely down to 'community transport' - there needs to be joined-up thinking between 'regular' public transport and 'specific needs' transport.
- Current community transport based on a 'specific needs' model is highly-differentiated between Councils. There may be benefit from considering how best to reduce any confusion cross-boundary, with greater awareness of the services / branding although such an issue is best resolved once the core issue of 'who and how to provide' is further developed.

2.5.3. Proposals

Given Councils represent all members of their communities and mostly fund these services, they are uniquely placed to consider their role in providing community transport moving forward. This includes what level of services are provided, whether they are for specific needs/users or a broader usership and opportunities to leverage partnerships and resources. Specifically:

- Proposal 8: Each Council is to consider what <u>business model</u> is most attractive from its perspective (i.e., how services are to be procured and managed in-operations), and how state government can support in these elements (e.g., outcome and output specification, procurement process, in-operation management / change management). Then, based on local needs, each Council is to develop tailored approaches with state government.
- Proposal 9: Each Council is to consider what <u>service delivery / technology platform model</u> is most attractive from its perspective (i.e., who will manage and deliver the services day-to-day) and how state government can support in these elements (e.g., operator staff management, fleet and operations, back-of-house operational IT, customer interface IT). Then, based on local needs, each Council is to develop tailored approaches with state government.

2.5.4. What could a solution look like?

- Supporting Proposal 8, the Councils should consider and liaise with DoT on where in the spectrum of options they wish to explore further and develop. This can range from 'as they are today' to 'consolidate all services into a single organisation'.
- This report does not recommend a 'one-size-fits-all' reform solution. It is recognised each Council will need time to consider each of its current community transport services, in view of its own customers, dynamics and resourcing considerations, and come to a preferred pathway, which can then be discussed and explored with DoT. There will need to be a journey, including any compromises needed to arrive at the most appropriate answer, potentially unique to each service / Council. Any changes would be 'opt in'. Engagement will be required with existing service users, as well as the wider community, in how reform should take place. All issues considered, it would be too blunt for this report to insist that all community transport services will have to adopt a single set of business model going forward.

Potential (theoretical) spectrum for procurement and management approach

It is likely that a hybrid option will be acceptable and practical from both local and State perspectives, with the extent of DoT involvement at each level to be discussed, explored, and agreed, on a council-bycouncil, and case-by-case basis. There should not be a 'one size fits all' solution, to best reflect local circumstances. Example of the spectrum illustrated below, noting that neither 'as today' nor 'over to DoT' are likely to be the best course of action.

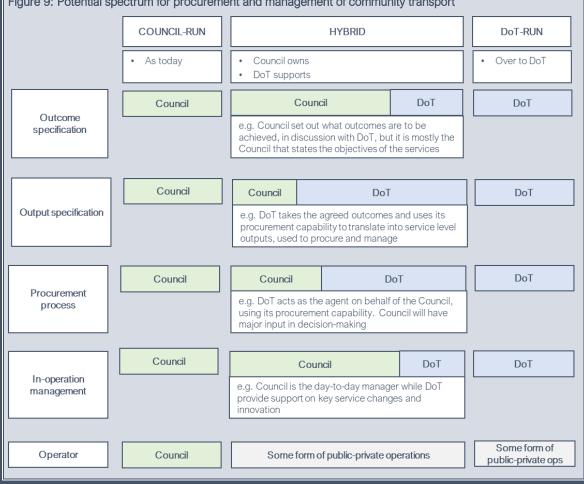


Figure 9: Potential spectrum for procurement and management of community transport

- Supporting Proposal 9, the Councils should consider and liaise with DoT on how to deliver and operate the services, beyond procurement.
- Again, this report does not prescribe a 'one-size-fits-all' reform solution, but asks each council to consider each of its community transport services, then explore with the DoT on leveraging its capabilities based on the Council's preferred path. There will inevitably be compromises along the journey, reflecting council's own political dynamics, user, and community engagement outcomes, as well as inter-government discussions on role splits.

Potential (theoretical) spectrum for service delivery approach

Depending on Council's own considerations, from technical resourcing to political perspectives, there could be a range of ways through which services are delivered, with greater or lesser Council involvement. The role of DoT is also to be explored and agreed depending on Council preferences which have to be internally confirmed first, within each council, on each of its services. DoT can have a range of roles and extent of input with respect to operation management, change management, IT provision and integration both for operational equipment and customer-facing interfaces (e.g., website and app). DoT can be the direct IT provider with service operator, building on its platforms or integrating with DoT's platform. Any technical solutions will need to follow initial political considerations on the range of models, for example, whether some options are politically unacceptable, and hence need to be ruled out through Council's internal political process. As an example, 'all to market' may not be acceptable, and hence some form of public-private partnership with DoT supporting change management and IT may best be explored.

Figure 10:	Poter	ntial spectrun	n for	se	ervice delivery ap	oproach		
	PUBLIC	PRIVATE PLATFORM			PUBLIC PLATFORM	FRANCHISED	OUTSOURCED	MARKET
	Astoday	Council runs Private operator integrated with I			Council owns DoT's kit Private operator runs	Council lets mgt contract Private sector's kit	Council lets contract Private sector staff and fleet	State provides incentives All to market
Management	Council	Council	D o T		Council DoT Private operator	Council DoT Private operator	Council DoT Private operator	Private operator
Front-line staff	Council / volunteers	Council / volunte	ers		'TUPE staff'	'TUPE staff'	Privately hired	Private operator
Fleet & ops	Council	Council			Public asset under private operations	Public asset under private operations	Privately acquired / owned / leased	Private operator
Operational IT	Council	Private operator	D o T		DoT	Private operator T	Private operator T	Private operator
Customer interface IT	Council	Private operator	D o T		DoT	Private o operator T	Private operator D o T	Private operator

2.5.5. Rationale

• Recognise that existing community transport is insufficient, yet Councils are not best placed and fullyequipped to deliver further services and improvements. Meanwhile, state government has the procurement and IT capabilities that can assist with local community transport, which ties into Flexible Local Transport Solutions program.

- Each service and each Council have its own dynamics, in terms of user and community perspective, as well as Council resources and political nuances. Therefore, there should not be a dictation on exactly how each service in each council should be reformed / whether Councils should include additional services. The end solution will have to work based on multiple considerations.
- This report recommends a direction for action, rather than exact specifications of how community transport should be ultimately provided.
- Meanwhile, current interpretation of 'community transport' largely refers to eligibility-based services. An
 emphasis of this report is on such services not being the sole answer to delivering community needs,
 but that wider public and active transport have significant roles in improving inclusion and access to
 opportunities.

2.6. Working better together

2.6.1. Introduction

- Users value high-quality services, journey opportunities and travel experience.
- Their journeys often involve a range of assets and services owned and operated under the jurisdiction of different government organisations.
- Journey-making is not solely an issue of 'hard' attributes such as journey time and frequency, but also 'soft' issues such as information and comfort.
- Therefore, all parties have a role to play to improve transport and deliver the region's objectives.

2.6.2. What is the problem?

- The problems for the region are already articulated in prior sections, related to specific geographies and approach for managing and operating community transport.
- It is important that when delivering those items, parties work together to deliver the best outcomes.

2.6.3. Proposals

- Proposal 10: Councils, state government and key stakeholders are to work together to deliver technically-excellent solutions that meet communities' needs – for example, improving trunk route services while enhancing access to stations, including enabling / responding to e-mobility (such as escooter and e-bikes). The combined value of aligned action across organisational boundaries helps to unlock the full benefits of strategic investment, especially in transport infrastructure.
- Proposal 11: Councils, state government and key stakeholders to co-advocate. Working together means greater likelihood of buy-in and better positioning for funding⁵² through clear alignment of proposals across government and communities.
- Proposal 12: Councils, state government and key stakeholders to co-promote and co-inform, so that improvements and new services are clearly communicated to existing and potential users to maximise

⁵² Collaboration does not mean state commitment to funding from the outset. Funding will need to be secured through existing business case and funding application process, backed by more detailed analysis as part of the co-design process.

impact. This includes multi-modal and multi-touchpoint proposals - for example, informing access to trunk routes while promoting feeder services.

• Proposal 13: Councils, state government and key stakeholders to continue to work collaboratively to deliver the strategic cycling corridors (SCCs), which will improve accessibility. SCCs are already a government scheme and while other proposals are important, there is also the need to support what has already been planned and will deliver benefits to the region.

2.6.4. What are the details?

• Section 3 further discusses effective engagement and design process.

2.6.5. Rationale

• Working together leads to better technical outcomes, leads to greater buy-in and paving path for multiple funding opportunities, and underpins further improvements.

3. STRENGTHENING ENGAGEMENT

3.1. Overview

3.1.1. Why is engagement critical?

- The proposals are not the end of the front-end planning process, but the beginning.
- For the proposals to be truly effective, delivering the intended impacts, addressing inclusion and accessibility barriers, it is crucial that the very people they intend to benefit are core to the development process.
- It is important to recognise the proposals in this report are often more complex than, and different from, 'typical' transport interventions, such as intersection upgrades, which are easier to plan and more readily comprehendible to the communities. Many of the proposals require innovation, trials, refinement, and change, and hence 'bringing consultation forward' to become 'engagement and co-design' is critical to eventual success.

3.1.2. What are the key principles?

- Typically, packages of works are consulted on individually. In practice, that would be the focus for 'engagement and co-design' at the local / area level. However, it is important to recognise the significance of the sum of the packages at the program-level; that individual and local proposals will lead to wider regional impacts. Therefore, there should be a lead body for regional-level engagement with the associated branding for example, led by the Metropolitan Partnership.
- It is recommended that the International Association of Public Participation (IAP2) principles are used as a guide to design the level of involvement of each targeted community in the final decision-making.
- Compared to a more typical transport proposal where briefing to and responses from the community may suffice, and given the complexity and targeted beneficiaries, it is recommended that a key principle behind 'engagement and co-design' is to use deliberative forums which are more impactful than general town-hall style briefings. The forums will call on community members to invest time and energy to understand the proposals and any trade-offs. These can be used to gain momentum behind scaling a particular investment, particularly for the more innovative / explorational schemes (for example, a new on-demand investment different from traditional fixed routes).

3.2. Approach applicable across priorities

3.2.1. What is the goal?

 Maximise knowledge and reach, so that decision-making is in the hands of the community who are intended to benefit from the proposals. This is different from a 'briefing and response' approach for securing 'buy-in', in that the communities are not merely buying into an already formulated plan, but are part of the formulation process from an earlier point than the more typical transport interventions.

- Contributors are channelled so as to best design solutions details, i.e., avoid the pitfalls of large town-hall style meetings.
- Achieve buy-in of the co-designed solutions, through robust process that leads to robust community-wanted results.

3.2.2. How to bring people in

- Use existing Councils' local knowledge, processes and links with identified community and stakeholder organisations. This is key for enabling the engagement progress.
- Use community engagement specialist(s) to maximise impact and acceptance, supported by transport specialist to ensure technical robustness. The key is 'supported by', not 'lead by' or 'briefed by'.
- Bring together a sample of representatives. Provide them with expert information and advice, enabling conversations, leading to clear recommendations, facilitated by engagement specialists. The key is 'facilitated by', not 'informed by' or 'briefed by'.
- Enrolment through a range of channels (and languages) e.g., libraries, shopping centres, kindergartens, disability services, health services, community hubs, and contact groups, with community engagement specialist working closely with Councils and the Partnership to develop plans and adapt proposals given community responses.

3.2.3. How to reach out and contact

- This is especially important for people not 'in forum'.
- Engage digitally including local groups' platforms, contact channels.
- Use Councils' own tools or the Engage Victoria website.
- Use letterbox drop / phone call in key suburbs especially for disengaged constituents.
- Including reaching out to isolated groups of people / facing barriers to employment, e.g., people who are unemployed, culturally and linguistically diverse (CALD) communities, people with disabilities, young people, Aboriginal and Torres Strait Islanders.

3.2.4. How to reach out and survey

- Use short surveys (look for a response to the project that is being implemented rather than general feedback).
- Use digital / online platforms effectively and sparingly, they are helpful but not the solution in their own right.
- Useful for engaging to understand behaviours and preferences, including service offerings, 'hard' and 'soft' attributes, trade-offs.
- Particularly useful when backed by demographic data to understand customer segmentation.
- Feed into the forum, via specialist data analysis results.

3.2.5. How to report back

- Keeping engagement promise, by linking to short term proposals in a transport space. Any changes will be gradual and over time.
- Report back recommendations and progress to participants and broader community.
- Demonstrate how concept / details designed are based on feedback and contributions.
- Key to downstream continuous improvement is to maintain engagement to maximise traction, usage, and sense of community ownership.

3.3. Specific issues most relevant to each priority areas

3.3.1. Dandenong South

- IAP2 engagement level empower, i.e., place decision-making in the hands of the community. For example, on-demand services need to have stops coded – this is an opportunity for users to shape the service.
- Clearly explain on-demand and benefits, including in comparison to existing fixed route services. Make sure the forum participants, who recognise themselves as the decision-makers, appreciate any trade-off between the two types of services.
- Engage with major employers as a matter of first priority given the initial emphasis of the proposal focusing on access to jobs, they will then access their employees.
- Particular emphasis on the unemployed and disadvantaged. This will take time.
- Place emphasis in the survey on current barriers, on-demand features and trade-offs.

3.3.2. Mornington Peninsula

- IA2 engagement level collaborate, i.e., work together to develop the trunk service offer, including improvements accessing the trunk service.
- Focus consultation on the aspiration for the future, not the problems (though the scheme will have to navigate challenges such as reallocation of parking).
- Clearly explain the benefits from flagship services and role of feeders, including getting people to the area in a more sustainable way tap into ideals of environmental contribution not how you solve a problem (i.e., reduce something).
- Ensure broad community engagement without diluting to 'no resolution', given the proposal is to focus first on one route. Keep people problem-focused, working off the basis of the concept, rather than 'starting from scratch'.
- Engagement emphasis on low car ownership areas, youth, elderly and the unemployed.
- Focus any surveys on barriers to using current and future trunk services, including both the bus service and the access network, key trade-offs to establish any quick-wins, including the role of active travel infrastructure and information.

3.3.3. Pakenham

- IAP2 engagement level empower, i.e., place decision-making in the hands of the community.
- Similar to Dandenong South in terms of engaging with employers, explaining on-demand concept and trade-offs.
- Also important is the role of active transport accessing and circulation within the area, connecting to stations and employment sites, both in terms of infrastructure and information.

3.3.4. Dandenong North

- IA2 engagement level collaborate, i.e., work together to develop the concept towards preferred solution details.
- Clearly explain the package of measures (instruments available) including the current lack of non-radial connectivity in the area to key sites, and the importance of linking to transport hubs.
- Engage with major sites e.g., Monash University and Monash Health as a matter of first priority given the emphasis on access to jobs.

- Particular emphasis on engaging with CALD / migrant groups, including students and unemployed youth.
- Place emphasis on the surveys with respect to current barriers, key features of on-demand, any barriers with on-demand relative to fixed-route services.

3.3.5. Community transport

- IAP2 engagement level empower, i.e., place decision-making in the hands of the community.
- Clearly explain the opportunities to modernise and redesign, that procurement and IT are part of the co-design process. Include forum as part of the co-design process.
- Existing users must be part of the forum, together with non-users (and hence need to reach out beyond current registered users). A key issue is likely to be balancing needs and potential real and perceived trade-offs.
- Important to understand (through reach out and surveys) why people do not use current services, including the elderly and health care card holders who may currently be eligible for use. Also need to gain inputs among other people who may have specialist transport needs and would like to have services beyond via government subsidies to commercial operators.
- Use surveys to establish what features that would constitute quick-win improvements, critical attributes that would improve satisfaction and usage. Also, engage to obtain feedback on perceptions / public acceptability with respect to a range of business / service models on how services are to be owned, governed and operated. Use that as part of the council's consideration on 'where on the spectrum' of potential options.

3.3.6. Working together

• Use these forums as part of the co-design, co-engage and co-promote program.

4. NEXT STEPS

4.1. Delivery plan

This plan is designed to provide a greater sense of what may be involved in each of the proposals above. Packages 2.1 to 2.4 have been developed as short-term steps towards longer-term policy aspirations. Many of the initiatives are designed to start small, or as a trial, with the intention to expand in terms of reach, audience and areas as success is proven. The indicative timing of the initiatives is outlined in Figure 11.

It is reiterated that this report is not a state government strategy, but independent advice, and that the details of projects are subject to government process. These steps do not represent endorsement, a commitment to funding or projects.

Figure 11:	Indicativo timina o	f initiatives (re	ocnoncibility in	brookote)
riguie i i.	Indicative timing o	1 11 11 11 11 11 11 11 11 11 11 11 11 1	coportoining in	Diackets)

First step (year 1-2)	Second step (year 3-4)	Third step (year 5+)
	connectivity from Hampton Park to D rviced (for example, through trial of or	-
 Secure funding for trial Further planning of services, including engagement with employers, determining stop locations, funding, operator, branding, operational hours, platform, approvals etc. (DoT with Councils and employers) Engagement and promotion of services (Joint) Commence trial service between Hampton Park and Dandenong South, focussed on Dandenong South workers in Greater Dandenong and Casey (DoT) Adapt trial based on findings (DoT) 	 If successful, expand trial to other areas, including Narre Warren South, Keysborough, Cranbourne and rail stations, adjusting model and audience based on trial findings If successful, investigate repurposing circuitous feeder routes into on-demand services 	 Scale up service into larger regional on-demand service, with large fleet of vehicles providing a high level of service across the Cranbourne – Dandenong – Keysborough corridor

Proposal 2: Improve access to/from Dandenong and Lynbrook Stations, including connection to Dandenong South buses. Also improve walk, cycle and bus access to other stations on the Cranbourne and Pakenham lines.

Enhance walk, cycle and bus connections to stations, including with supporting infrastructure (accessibility, bicycle parking, improved interchange), on the Cranbourne and Pakenham lines in Kingston, Greater Dandenong, Casey and Cardinia – ongoing (Councils for access outside of stations, DoT at stations)

				-	
•	Community engagement (Partnership) Detailed Planning of services, including route assessment, priority measures, supporting infrastructure, funding, branding etc. (DoT with Councils)	•	Roll out high frequency 'champion' service between Frankston and Mornington, including supporting changes at Frankston Station, stops, branding. Potential to economise where routes duplicate (DoT)	•	Incrementally deliver infrastructure which supports operation of a higher-frequency service, such as bus priority and kerb build-out stops (Councils) Evaluate service and review network options. Potential to economise other duplicate routes (DoT)
	posal 4: Formulate a multi-moda el improvements.	l app	roach for accessing trunk routes	, inclu	uding feeder buses and active
•	Walk cycle improvements to access stops (footpaths, crossings etc.) in Frankston and Mornington Peninsula (Councils)	•	Walk and cycle improvements to access stops (footpaths, crossings etc.) (Councils) Stop infrastructure and 'high- frequency' enabling works, such as bus build-outs, pick-up/drop-off spots in Frankston and Mornington		Review feeder bus route planning, identifying opportunities to improve feeder services to deliver better customer and operator outcomes - i.e., explore role of route 787 (DoT
			Peninsula (Councils)		
	posal 5: Support new Pakenham ess	Eas	Peninsula (Councils) t station through information and	infras	structure which enables bette
acc		•	i		
	ess Plan for enhanced walk / cycle connections in Cardinia to/from Pakenham East station, including footpaths, information and investigating new connections to		t station through information and		
Pro	Plan for enhanced walk / cycle connections in Cardinia to/from Pakenham East station, including footpaths, information and investigating new connections to the industrial precinct (Council) Plan for enhanced walk/cycle connection from residential areas to the north (Council)	• empl	t station through information and	nent (C	Council) ast, Pakenham South and

connections in Cardinia to tie in with new Pakenham station, including clear, accessible 'gateway' connection to town centre, with information (Council)		
oposal 7: Improve access to static proving infrastructure and informa	ons and key employment sites by bus ation.	, walking and cycling, including b

Packages 2.5 and 2.6 (proposals 8 -13) are more general and without timelines, focussing on 'how' Council, DoT and key stakeholders collaborate. Further details are provided in respective sections above.

This is intended to be a tactical plan to provide alignment and enable collaboration across a number of organisations over the next few years, therefore it is ideally updated in a few years to reflect any progress or changes, especially as it relates to emerging technology (e.g., on-demand services and e-mobility). The global transport ecosystem is fundamentally changing and therefore the response also needs to be agile and more responsive to these changes.

5. REFERENCES

Australian Bureau of Statistics. (2017, October 23). 2016 Census QuickStats. Retrieved from Australian Bureau of Statistics:

https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC2 2015?opendocument

Australian Bureau of Statistics. (2020, October 30). *2016 Census QuickStats - Mornington Peninsula (S)*. Retrieved from Australian Bureau of Statistics:

https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/LGA2 5340#:~:text=In%20the%202016%20Census%2C%20there,up%200.8%25%20of%20the%20pop ulation.&text=The%20median%20age%20of%20people,Government%20Areas)%20was%2046%2 0year

Australian Government. (2018). Australia's Tech Future: delivering a strong, safe and inclusive digital economy. Department of Industry, Science, Energy and Resources. Retrieved from https://www.industry.gov.au/data-and-publications/uber-inaustralia#:~:text=Uber's%20launch%20in%20Australia%20in,resistance%20from%20the%20taxi% 20industry.

Charles-Edwards, E., Bernard, A., Wilson, T., & Wohland, P. (2020). *How will COVID-19 impact Australia's future population? A scenario approach.* Queensland Centre for Population Research.

City of Greater Dandenong. (2018). 2018 State Election Advocacy Issues. City of Greater Dandenong.

- City of Greater Dandenong. (2020). Post COVID Recovery Strategy: Key Projects 2020. City of Greater Dandenong.
- City of Greater Dandenong. (n.d.). *Greater Dandenong Public Transport Advocacy Statement*. City of Greater Dandenong.
- Department of Environment, Land, Water and Planning. (2017a). *Plan Melbourne.* Department of Environment, Land, Water and Planning.
- Department of Environment, Land, Water and Planning. (2017b). *The 2017 Southern Assembly: Summary Report.* Department of Environment, Land, Water and Planning.
- Department of Environment, Land, Water and Planning. (2018). *The 2018 Southern Assembly: Summary Report.* Department of Environment, Land, Water and Planning.
- Department of Environment, Land, Water and Planning. (n.d.). *Plan Melbourne*. Melbourne: Department of Environment, Land, Water and Planning.
- Department of Jobs, Precincts and Regions. (2021, February 10). Southern Metropolitan Partnership. Retrieved from Suburban Development: https://www.suburbandevelopment.vic.gov.au/partnerships/metropolitan-partnerships/southernpartnership
- Department of Transport. (2019). *Simple, connected journeys: our strategic plan 2019-23.* Melbourne: Department of Transport.
- Department of Transport. (2020). Engagement brief for the provision of Professional Advisory Services -Southern Integrated Transport Framework (SITF). Department of Transport.

- Department of Transport. (n.d.a). *Local transport in Victoria*. Retrieved from Department of Transport: https://transport.vic.gov.au/our-transport-future/our-projects/regional-victoria/regional-networkdevelopment-plan/local-transport-in-victoria
- Department of Transport. (n.d.b). *Strategic Cycling Corridors*. Retrieved from Department of Transport: https://transport.vic.gov.au/getting-around/walking-and-cycling/strategic-cycling-corridors
- Infrastructure Australia. (2020). Infrastructure beyond COVID-19: A national study on the impacts of the pandemic on Australia. Infrastructure Australia.
- Infrastructure Victoria. (2018). *Five year focus: immediate actions to tackle congestion*. Infrastructure Victoria.
- Jacobs. (2018). South East Transport Strategy. Melbourne: Jacobs.
- Keoride. (n.d.). How it works. Retrieved from Keoride: https://nsw.keoride.com.au/northern-beaches-booking
- L.E.K. Consulting. (2019). On-Demand Public Transport: Key Learnings from Global Pilots. L.E.K. Consulting.
- Level Crossing Removal Project. (2020, December 2). *Two new stations and Pakenham level crossing removals fast-tracked*. Retrieved from Level Crossing Removal Project: https://levelcrossings.vic.gov.au/media/news/two-new-stations-and-pakenham-boom-gate-removals-fast-tracked
- Level Crossing Removal Project. (2021, February 11). *Location identified for Pakenham East Station*. Retrieved from Level Crossing Removal Project: https://levelcrossings.vic.gov.au/media/news/location-identified-for-pakenham-east-station
- Martin Pakula. (2019, July 19). *Delivering a new bus service for Keysborough South*. Retrieved from Martin Pakula: Member for Keysborough: http://www.martinpakula.com.au/news/delivering-a-new-bus-service-for-keysborough-south/
- Mornington Peninsula Shire. (n.d.). *We're calling for better buses for the Mornington Peninsula*. Mornington Peninsula Shire.
- Parker, P. (2020, December 8). *Timetable Tuesday #99: The upgraded Mornington Peninsula bus network (and some enhancements)*. Retrieved from Melbourne on Transit: https://melbourneontransit.blogspot.com/2020/12/timetable-tuesday-99-upgraded.html
- Premier of Victoria. (2016, October 13). *Metropolitan Partnerships to Help Suburban Communities Thrive*. Retrieved from Premier of Victoria: The Hon Daniel Andrews: https://www.premier.vic.gov.au/metropolitan-partnerships-help-suburban-communities-thrive
- Premier of Victoria. (2021, January 2). *New Suburb For Melbourne's South East*. Retrieved from Premier of Victoria: The Hon Daniel Andrews: https://www.premier.vic.gov.au/new-suburb-melbournes-southeast
- PTV. (2016). Local Area Map Shire of Cardinia. Retrieved from PTV: https://www.ptv.vic.gov.au/assets/default-site/more/maps/Local-areamaps/Metropolitan/f8a4ef286e/8_Cardinia_LAM.pdf
- PTV. (n.d.). New service FlexiRide is coming to Rowville. Retrieved from Public Transport Victoria: https://www.ptv.vic.gov.au/footer/about-ptv/improvements-and-projects/bus-and-coach/newservice-flexiride-is-coming-to-rowville/

REFERENCES

- SGS Economics and Planning. (2020). Addressing Social Isolation in the Southern Metropolitan Region of Melbourne. SGS Economics and Planning.
- State of Victoria. (2020). *Victorian Budget 20/21: Putting people first Service Delivery Budget Paper No. 3.* Melbourne: State of Victoria.
- The Routing Company. (n.d.). *How it works*. Retrieved from The Routing Company: https://theroutingcompany.com/#how-it-works
- Via Transportation Inc. (n.d.). *Because bus size shouldn't matter*. Retrieved from Via Transportation Inc: https://ridewithvia.com/resources/multimedia/because-bus-size-shouldnt-matter/





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