MANNINGHAM

COUNCIL MEETING

MINUTES

Date:	**Tuesday, 29 April 2025**
Time:	**7:00pm**
Location:	**Council Chamber, Civic Centre** **699 Doncaster Road, Doncaster**

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MANNINGHAM CITY COUNCIL
MINUTES OF THE COUNCIL MEETING
HELD ON 29 APRIL 2025 AT 7:00PM
IN COUNCIL CHAMBER, CIVIC CENTRE
699 DONCASTER ROAD, DONCASTER

The meeting commenced at 7.00pm.

PRESENT:
Councillor Deirdre Diamante (Mayor)
Councillor Andrew Conlon (Deputy Mayor)
Councillor Peter Bain
Councillor Anna Chen
Councillor Isabella Eltaha
Councillor Geoff Gough
Councillor Jim Grivas
Councillor Carli Lange
Councillor Laura Mayne

OFFICERS PRESENT:
Chief Executive Officer, Mr Andrew Day
Director City Planning & Liveability, Mr Andrew McMaster
Director Experience and Capability, Ms Kerryn Paterson
Director City Services, Ms Rachelle Quattrocchi
Director Connected Communities, Ms Lee Robson
Manager Integrity, Ms Carrie Bruce

1 WELCOME

The Mayor read an opening prayer and statements of acknowledgement.

2 APOLOGIES AND REQUESTS FOR LEAVE OF ABSENCE

There were no apologies.

3 PRIOR NOTIFICATION OF CONFLICT OF INTEREST

The Chairperson asked if there were any written disclosures of a conflict of interest submitted prior to the meeting and invited Councillors to disclose any conflict of interest in any item listed on the Council Agenda.

There were no disclosures made.

4 CONFIRMATION OF MINUTES

COUNCIL RESOLUTION

MOVED: CR JIM GRIVAS
SECONDED: CR LAURA MAYNE

That the Minutes of the Council Meeting held on 25 March 2025 be confirmed.

CARRIED UNANIMOUSLY

5 PRESENTATIONS

5.1 Lions Club of Warrandyte – Certificate of Appreciation on 50th Anniversary

The Mayor welcomed Don Hughes, Zeus and members from the Lions Club of Warrandyte to the meeting and wished the Club a very happy golden 50th anniversary.

The Mayor acknowledged the iconic Lions Op shop in Warrandyte from its humble beginnings in March 1975 noting that it still trades briskly today all whilst supporting our community, charities and an array of causes.

Recycling and up cycling the community's pre-loved items contributes much needed funding to various community organisations whilst also helping to save our planet. Centrally located in the heart of Warrandyte, within the historic township village precinct, the Op Shop also provides a place of connectivity for staff and visitors alike.

The Mayor presented a certificate of appreciation to Don Hughes, Vice President of Lions Club of Warrandyte to commemorate this marvellous achievement.

5.2 Varvara Athanasiou-Ioannou AM - 2025 Greek Herald Woman of the Year

The Mayor congratulated Templestowe resident Varvara Athanasiou-Ioannou AM on being named *The Greek Herald*'s 2025 Woman of the Year, acknowledging her outstanding contributions to education and inclusion.

Varvara migrated to Australia from Epirus, Greece at age 19, arriving without speaking English. Her resilience and passion for learning led to a successful career in education, including university lecturing on diversity and inclusion.

She founded the volunteer-run Food for Thought Network Inc over 20 years ago, which hosts quarterly forums on women's issues in work, family, health, language, and culture. During the pandemic, she launched the Greek Women and Friends Global Forum, which inspired the inaugural Global Women and Hellenism Conference in Greece in 2024, uniting global leaders to honour Hellenic women.

A published author, her book *HER VOICE: Greek Women and Their Friends*

shares stories of Hellenic women's lives and achievements. She has co-authored the Greek Curriculum Project and over 60 children's books for education departments in Victoria and South Australia, while also developing university courses on inclusion.

Through her lifelong advocacy, Varvara has influenced policy, nurtured emerging leaders, and built global networks. Her mission remains to empower women and give voice to the voiceless.

The Mayor congratulated Varvara on this wonderful achievement.

6 PETITIONS

6.1 Warrandyte Men's Shed

COUNCIL RESOLUTION

MOVED: CR CARLI LANGE
SECONDED: CR ANDREW CONLON

That the Petition with 102 signatories requesting Council to support permanent establishment of a Men's Shed in Warrandyte, be received and referred through to the appropriate Officer for consideration.

CARRIED UNANIMOUSLY

In accordance with sub rule 58.9 of the Governance Rules, the written responses to the petitions are attached on the following pages.

- Requesting Parking Signage along St Andrews Crescent and Spear Court, Bulleen;
- Proposal to remove the Aboriginal and Torres Strait Islander flags in Manningham and 'Welcome' and/or 'Acknowledgement of Country' from meetings or Council functions;
- Retain existing Carport at 18 Canara Street, Doncaster East.

Petition Name	Requesting Parking Signage along St Andrews Crescent and Spear Court, Bulleen
Council Meeting Date	25 March 2025
Council Meeting Item Number	Item 6.1
Response Date	8 April 2025 via email (attached below)

MANNINGHAM

Return Address:
PO Box 1
DONCASTER
VIC 3108

8 April 2025

[redacted]

Dear Mr Durrant,

Re: Petition to Manningham City Council – Residents of St Andrews Crescent and Spear Court, Bulleen.

I am writing in response to your petition which was tabled at the Council Meeting on 25 March 2025 regarding ongoing issues caused by North East Link (NEL) workers parking their vehicles in these local streets.

Manningham Council is aware of the recent and significant increase of parking issues in the residential streets opposite NELP's Bulleen Site. Manningham Council have been communicating with NELP and their contractor Spark, to understand why this issue has occurred and how this can be managed into the short and long term until project completion in 2028. Spark have confirmed that they have now closed the remaining section of parking within their compound to worker vehicles due to construction works in the site.

In the short term Council has:

- requested Spark manage the issue of their worker parking, and to meet their Project obligations to minimise parking impacts on residential streets and businesses. This is a state project and Council expect the state to manage their project impacts.
- Council's local laws team are also undertaking inspections of the area and issuing fines if cars are parked illegally – for example in situations where cars are parked too close to driveways, fire hydrants and intersections. Patrols have been occurring daily as resources allow.

Other options are also being considered by Council to address the Spark worker parking and these discussions with Spark are continuing.

A number of questions regarding North East Link parking were raised at the 25 February Council Meeting and these were responded to during this meeting. Recording available here: **https://www.manningham.vic.gov.au/events/council-meeting-25-february-2025** (from 31:00 minutes to 48:20 minutes).

Interpreter service
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MANNINGHAM

An Officer report was also tabled at the 25 March Council meeting and I encourage you to review the **Report** (refer to pages 9-18) and watch the Council Meeting. Recording available here: **https://www.manningham.vic.gov.au/events/council-meeting-25-march-2025** (from 27:30 minutes to 44:20 minutes). I hope doing so will reassure you that we are very aware of the current problems with worker parking in local streets and are looking at plans which we hope will assist our residents with this important issue.

Council has recently completed the community consultation on parking restrictions which was endorsed at the March Council meeting. This data is being reviewed by officers with a view to the implementation of parking restrictions as soon as possible. More information is available here - **https://yoursay.manningham.vic.gov.au/parking-restrictions-bulleen**

Council continues to encourage the community to raise any NELP related concerns directly with the Project and their contractors (Spark in this instance) so that they are accountable to the impact they are causing. The Project is obliged to collect data which demonstrates the impact they are having on the community, and demonstrating to the State government how they have responded to the concerns raised by the community.

Of course, Council will continue to advocate on residents' behalf to address matters such as these.

Yours sincerely,

Andrew McMaster
Director City Planning & Liveability

Petition Name	Proposal to remove the Aboriginal and Torres Strait Islander flags in Manningham and 'Welcome' and/or 'Acknowledgement of Country' from meetings or Council functions
Council Meeting Date	25 March 2025
Council Meeting Item Number	Item 6.2
Response Date	23 April 2025 via email (attached below)

MANNINGHAM

Return Address:
PO Box 1
Doncaster
Victoria 3108

23 April 2025

Ref: D25/26192

[redacted]

Dear Mr Grabham

Re: Petition to Manningham City Council

I am writing in response to your petition which was tabled at the Council Meeting on 25 March 2025.

The Australian Aboriginal flag and Torres Strait Islander flag are proclaimed flags under section 5 of the *Flags Act 1953*. Council endorsed the permanent flying of these flags in 2015. This was subsequently reviewed and reaffirmed by Council when it endorsed the Flying Flags in the Civic Precinct Policy. In accordance with the *Flags Act 1953* and the Australian National Flag Protocols, the Australian flag takes precedence over other flags when flown together.

The Welcome to Country, Acknowledgement of Country and the flying of the Aboriginal and Torres Strait Islander Flags are strategic elements to both the Australian Government and Victorian Government policy positions.

Manningham Council's use of the Welcome to Country ceremony, statement of Acknowledgement of Country and the flying of the Aboriginal and Torres Strait Islander flags are strategic elements of our *Council Plan* and endorsed *Manningham Reconciliation Action Plan*. As such Council is committed to their continued use.

Yours sincerely,

Lee Robson

Director Connected Communities

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Petition Name	Retain existing Carport at 18 Canara Street, Doncaster East
Council Meeting Date	25 March 2025
Council Meeting Item Number	Item 6.3
Response Date	10 April 2025 via email (attached below)

MANNINGHAM

Our Ref: Benf/25/03037

10 April 2025

[redacted]

Dear Sir / Madam,

18 Canara Street Doncaster East
Response to Petition to Manningham Council to retain existing carport.

I refer to your petition received by Council on 12 March 2025 concerning the above-mentioned matter. Your correspondence has been referred to me as the appropriate officer to respond.

As you are aware, the Building Notice dated 13 February 2025 was served on you in response to a complaint being received by Council alleging that your carport does not comply with the building regulations and that it was constructed without a building permit.

This action was taken because as a local government authority, Manningham Council is responsible for the administration and enforcement of the Building Act and Building Regulations to protect the community and with an emphasis on preventing harm from matters which may pose a risk to health and safety. In fulfilling these statutory obligations, Council is aware that compliance with all legislation is mandatory and will be administered in a fair, predictable and consistent manner.

Our investigation revealed that your original carport was removed, and a replacement carport was built in 2018. Council's records do not contain a record of a building permit being issued to allow for this removal / construction.

The new replacement carport built in 2018 was found to differ from the original carport in several areas, including the roof slope, the location of supporting posts and beams, and the adoption of a cantilever at the front of the carport. The new replacement carport was also found to contain several building regulation breaches including excessive spans and spacings of the structural members and structurally inadequate connections and bracing.

The Building Notice provided you with an opportunity to show cause in writing to the issues raised. I acknowledge receipt of your response to the Building Notice contained within the petition documents. Your response has been considered and you will soon receive a Building Order that will provide you with compliance options to address the identified breaches.

Please contact Council's Compliance Officer, [redacted] if you require any further information concerning the above matter.

Yours faithfully

RUSSELL MILLS
Municipal Building Surveyor

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普通话

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7 PUBLIC QUESTION TIME

7.1 E Biancon, Warrandyte

Q.1 What specific steps will Councillors take to ensure that this matter is not delayed any further and that a fair outcome is reached for a resident directly impacted by Council's own actions?

Ms Rachelle Quattrocchi, Director City Services thanked the resident for his question and responded that she appreciated that it had been a challenging time for the resident. Council officers have had a commitment to working to investigate and assist in resolving these issues. It is Council's understanding that several factors, events and site-specific complexities have contributed to the access issues of the site.

On the 26 of March 2025, Council contacted the resident and provided options based on Council's assessment of the claims received to assist in resolving the matter.

Council has subsequently received further correspondence and will review and respond shortly.

Q.2 As elected representatives of this community, how will Councillors ensure that the treatment of residents—especially in situations where safety, access, and property use are compromised by Council-led works—is aligned with the values of accountability, fairness, and public trust?

If a matter like this is allowed to continue unresolved, what message does that send to other residents about how seriously Council takes its responsibilities and the harm its decisions may cause?

Ms Rachelle Quattrocchi, Director City Services thanked the resident for his question and responded that the Council plan demonstrates our commitment to ensuring safety, access, accountability and fairness as key components of all works Council undertakes. Council has robust processes of governance, reviews and escalation to ensure a fair and reasonable position is achieved when assessing complex issues such as this.

Over a long period, Council has worked to resolve the matter considering various approaches to resolution (including a range of engineering, reinstatement, financial approaches) and have provided transparent correspondence detailing Council's position and options. Council will provide a response in writing to the most recent letter of 8 April 2025 later this week, following completion of a review of this matter by Council's CEO.

7.2 A & G Peron, Templestowe

Q.1 How will parking be resolved due to the lack of car spaces in our section of Glendale Ave (not the two wings that head on to Foote Street) as it is constantly used as a car park due to the builds in surrounding streets?

Ms Rachelle Quattrocchi, Director City Services thanked the resident for reaching out to Council with their concerns regarding the ongoing development and increased impacts of vehicle parking in Glendale Ave. She responded Glendale Ave is zoned General Residential Zone – Schedule 2 (GRZ2) and is located in the Design and Development Overlay Schedule 3 (DDO8-3).

Council's planning team continues to assess development proposals in line with the Manningham planning scheme as mentioned. Infrastructure capacity, and community feedback is also taken into consideration.

Q.2 Due to insufficient parking that is already at capacity, how will parking be sufficient and monitored once residents move into the completion of the build at Number 15, as more than 6 Dwellings cannot park on the road?

Ms Rachelle Quattrocchi, Director City Services responded that regarding vehicle parking, Council does recognise that increased demand can place pressure on available on-street spaces. Council is also aware that car parking and overdevelopment are common issues raised by other objectors to planning applications in this vicinity. The roadway is a public road and accessible to all road users unless otherwise restricted.

As such, Council's traffic team will undertake a traffic and parking survey. The results of this will allow Council to explore further options with the residents within the area in order to balance the needs of residents and the broader community.

One option as the resident noted, could be to consider the introduction of a residential parking permit scheme or similar. A permit system would require clear signage, enforcement, and ongoing administration to ensure this is fair and effective in its implementation.

Ms Quattrocchi assured the resident that their concerns have been formally noted and will be considered and council will make direct contact with you as part of any future parking adjustments.

Council will also keep the community informed of any proposed changes.

7.3 I Kost, Templestowe

Q.1 Is it possible to have permit parking on both sides due to the 6 townhouses being built at Number 15 Glendale Ave, given there are 26 bedrooms and the upcoming build of number 21 Glendale Ave, that compromises of 6, 2-Storey townhouses; therefore, we are extremely concerned of the congestion of vehicles and the parking issues that may occur? How will this be monitored?

Ms Rachelle Quattrocchi, Director City Services thanked the resident for his question and reiterated her response as per the previous questions, that Council's traffic team will undertake a traffic and parking survey to investigate some options and look at what some of the solutions could be, one of which could be residentaial parking permit or similar .

Ms Quattrocchi assured the resident that their concerns have been formally noted and Council officers will be in contact with the resident in regards to this matter and will keep informed residents.

7.4 R Sutton, Templestowe

Q.1 If Council are to enforce timed 8am-8pm in Glendale Ave, Templestowe and local residents are required to apply for and display a parking permit, why is it that if an issue occurs and we call Council after approximately 5pm, that we are forwarded to an external source (Call Centre) and Council is not informed of the issue until the next business day?

Q.2 In the case of this occuring on a Friday, is it Monday morning that Council is informed of any issues happening in the street?

Mr Andrew McMaster, Director City Planning and Liveability thanked the resident for their question and responded that after hours calls are sent to an external provider (Citizen Connect); that external provider then triages those calls and dependant upon the urgency, would relay them through to an after hours officer for attention. Mr McMaster said that he would follow up this question with a more detailed response to the resident in writing.

Mr McMaster stated that parking issues such as blocked driveways can be reported to Victoria Police. Mr McMaster said that if Council received regular reports of parking issues after hours, Council may have the capacity to roster officers to patrol those areas more frequently. Mr McMaster affirmed that he would check the number of reports Council has received in relation to this issue on Glendale Ave, and if it is found to be a recurring issue, Council would look at what it can do to support the permit scheme and residents in the area. Council will certainly endeavour to ease this issue and provide an effective solution.

7.5 M Chew
Timber Ridge, Doncaster

Q.1 What feasibility and consultation was done to identify that position next to the playground was the most appropriate position for this structure.

Mr Andrew McMaster, Director City Planning and Liveability thanked the resident for their question and responded that North East-Link Project works require Yarra Valley Water to re-locate an existing Pressure Reduction Station which is currently located next to the Eastern Freeway.

This project is not being managed by Council, but as a water corporation Yarra Valley Water has special powers to enter and occupy Council land for the installation of their assets.

Q.2 What consideration was given on the potential negative impacts on value of properties closets to the site, the proposed station is approximately 18m x 15m, and will be very close to a small number of properties, in some cases less than 20m.

Mr Andrew McMaster, Director City Planning and Liveability responded that Council understands the precise location of the Pressure Reduction Station in Timber Ridge reserve is preferred by Yarra Valley Water based on their assessment of areas available for the structure, proximity to existing water assets, and in order to avoid conflicting infrastructure. Council is not privy to any analysis on the impact on property values which may or may not be caused by this structure.

Council will liaise with the North East Link Project and Yarra Valley Water for the release of any information they have which is relevant to these questions, but strongly recommend all of Manningham Council residents to contact Yarra Valley Water or the North East Link Project with their specific construction queries related to this project.

8 ADMISSION OF URGENT BUSINESS

There were no items of Urgent Business this month.

9 PLANNING PERMIT APPLICATIONS

9.1 Planning Application PLN23/0496 at 449, 451, 453-455, 457, 459 & 461 Doncaster Road, Doncaster for the construction of 25 dwellings - 19 three-storey dwellings and 6 two-storey dwellings, construction of a front fence and alteration of access to a road in a Transport Zone 2.

File Number:	IN25/98
Responsible Director:	Director City Planning and Liveability
Applicant:	Human Habitats
Planning Controls:	Residential Growth Zone – Schedule 2 (RGZ2), Design and Development Overlay – Schedule 8-1 (DDO8-1)
Ward:	Tullamore Ward
Attachments:	1 Plans 2 Legislative Requirements

PURPOSE OF REPORT

This report provides Council with an assessment of the above planning permit application. This report recommends approval of the submitted proposal, subject to changes by way of permit conditions.

The application is being reported to Council for consideration in accordance with the Instrument of Delegation to Members of Council Staff – *any land outside the demarcated Activity Centre Zone (ACZ) pursuant to the provisions of the Manningham Planning Scheme where more than 20 dwellings are proposed.*

EXECUTIVE SUMMARY

Proposal

1.1 The application seeks approval for the construction of 19 three-storey dwellings and six two-storey dwellings, construction of a front fence and alteration of access to a road in a Transport Zone 2.

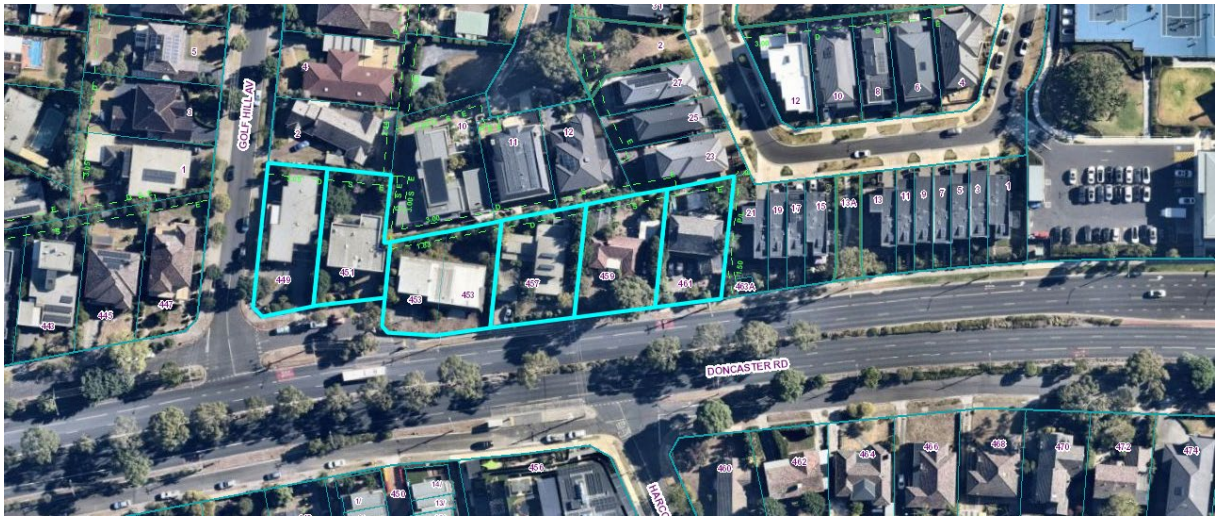
Dwellings 1-4 – Doncaster Road Frontage

Dwellings 9-15 – Doncaster Road Frontage

Dwellings 20-25 – Doncaster Road Frontage

Dwellings 1 and 5 - Golf Hill Avenue Frontage

1.2 The proposal spans across 6 lots and comprises 6 separate buildings. The total site area is 4313 sqm with a site frontage of approximately 127.53 metres and a maximum depth of 42.8 metres.



1.3 The development proposes two separate accessways. One accessway is located on Golf Hill Avenue to service Dwellings 1 to 15. The other, on Doncaster Road servicing Dwellings 16 to 25.

1.4 The proposal includes the provision of one visitor space.

1.5 Each dwelling is provided with 2 car spaces in the form of garages, pursuant to Clause 52.06-5 of the Manningham Planning Scheme.

1.6 Private waste collection from within the site is proposed.

1.7 One large tree (within the front setback of 459 Doncaster Road) is proposed to be retained on the site. No street trees are required to be removed.

Notification

1.8 Notice of the application was given over a two week period, which concluded on 18 December 2024.

1.9 To date, 5 objections have been received to the proposal. The objection concerns primarily relate to environmental impacts, overshadowing, overlooking, loss of energy efficiency, neighbourhood character / overdevelopment, visual bulk / excessive height, traffic issues and lack of visitor parking, loss of vegetation, strain on existing infrastructure, safety issues as a result of the proposed accessway on Doncaster Road, amenity impacts as a result of the bin storge area along the eastern boundary, potential damage to existing boundary fencing and residential noise, loss of affordable housing options.

Key issues in considering the application

1.10 The key issues for Council in considering the proposal relate to:

- Planning Policy Framework.
- Design and Built form.

- Car parking and traffic.

- Objector concerns.

Assessment summary

1.11 The development of the land for the construction of 19, three-storey dwellings and six, two-storey dwellings is consistent with the Planning Policy Frameworks, Zone, Overlay and relevant Particular Provisions of the Manningham Planning Scheme.

1.12 Subject to the recommended conditions, the proposal generally complies with the objectives of Clause 55 (Two or more dwellings on a lot and residential buildings - ResCode), the design requirements of Schedule 8 to the Design and Development Overlay (DDO8), the purpose and decision guidelines of the Residential Growth Zone, and is an appropriate response to its physical site context as well as its strategic policy context.

1.13 The proposed car parking arrangement is consistent with the requirements of Clause 52.06 (Car parking) of the Scheme.

Conclusion

1.14 The proposal is considered satisfactory and positively responds to the objectives of the Manningham Planning Scheme and compliance with the Clause 55 requirements. Minor changes are recommended through permit conditions which will further improve the development.

1.15 It is recommended that the application be supported subject to conditions.

COUNCIL RESOLUTION

MOVED: CR DEIRDRE DIAMANTE
SECONDED: CR ANNA CHEN

That Council:

A. Having considered all objections, issue a Notice of Decision to Grant a Permit in relation to Planning Application PLN23/0496 at 449, 451, 453-455, 457, 459 and 461 Doncaster Road Doncaster for the:

Construction of 19, three-storey dwellings and six, two-storey dwellings, construction of a front fence and alteration of access to a road in a Transport Zone 2

A permit is required under the following clauses of the planning scheme:

- **Clause 32.07-6 (Residential Growth Zone): Construct two or more dwellings on a lot**

- **Clause 32.07-6 (Residential Growth Zone): Construct or extend a front fence within 3 metres of a street**

- **Clause 43.02 (Design and Development Overlay): Construct a building or construct or carry out works**
- **Clause 43.02 (Design and Development Overlay): Construct or extend a front fence within 3 metres of a street**
- **Clause 52.29-2 (Land Adjacent to the Principal Road Network): Create or alter access to a road in a Transport Zone 2**

subject to the following conditions:

Amended Plans

1. Before the development starts, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be generally in accordance with the decision plans (prepared by Jesse Ant Architects, revision D, dated 26 November 2024), but modified to show:

Levels

Dwelling 5

a. The finished floor level of the ground floor, first floor and second floor lowered by at least 320mm to the satisfaction of the Responsible Authority.

Dwelling 6

b. The finished floor level of the ground floor lowered by at least 690mm to the satisfaction of the Responsible Authority.

c. The finished floor level of the first floor and second floor lowered by at least 320mm to the satisfaction of the Responsible Authority.

d. A raked ceiling to the second floor northern wall, to the satisfaction of the Responsible Authority.

Dwelling 7

e. The finished floor level of the ground floor lowered by at least 690mm to the satisfaction of the Responsible Authority.

f. The finished floor level of the first floor and second floor lowered by at least 320mm to the satisfaction of the Responsible Authority.

g. A raked ceiling to the second floor northern wall, to the satisfaction of the Responsible Authority.

Dwelling 8

h. The finished floor level of the ground floor lowered by at least 690mm to the satisfaction of the Responsible Authority.

i. The finished floor level of the first floor lowered by at least 320mm to the satisfaction of the Responsible Authority.

j. A raked ceiling to the first floor northern wall, to the satisfaction of the Responsible Authority.

Access

k. The difference between the finished floor level of adjacent garages do not exceed 150mm unless an alternative access arrangement is provided to the satisfaction of the Responsible Authority.

Overlooking

l. The first floor east facing windows of Dwellings 19 and 25 have a sill height of at least 1.7m above the finished floor level.

m. The north facing first floor balcony of Dwelling 7 screened in accordance with Standard B22 of Clause 55.04-6 (Overlooking) of the Scheme.

n. The ground floor decks of Dwellings 5 to 8 screened in accordance with Standard B22 of Clause 55.04-6 (Overlooking) of the Scheme.

o. A free standing trellis screen adjacent to the northern boundary fence, located along the driveway opposite Dwellings 9 to 15 to demonstrate compliance with Standard B22 of Clause 55.04-6 (Overlooking) of the Scheme.

Vegetation

p. The deletion of the deck south of Dwelling 22 and 23's living rooms.

q. Dwelling 22's entry and associated path/stairs relocated to the western side of the dwelling, to the satisfaction of the Responsible Authority.

Miscellaneous

r. The front fence does not exceed 1.8 metres at any point.

s. Solar protection measures above all north facing habitable room windows of all dwellings, to the satisfaction of the Responsible Authority.

t. Bollard lighting or the like to the common driveways.

u. Sensor lights provided to the entries of all dwellings.

v. All ground level habitable room windows within one metre of the common driveway has a sill height of at least 1.4 metres above the finished surface level of the common driveway.

w. An arbour or similar design treatment to the pedestrian path east of Dwelling 25.

x. A notation to indicate the visitor space is to be appropriately line marked and signposted.

y. The storage sheds for Dwellings 5 and 6 relocated away from site boundaries to the satisfaction of the Responsible Authority.

z. All relevant plan notations and any changes required by the Sustainable Management Plan approved as part of this permit.1

aa. The bin storage area along the eastern boundary relocated to the area between Dwellings 15 and 16 and subsequent removal of vegetation along the eastern boundary to the satisfaction of the Responsible Authority.

Endorsed Plans

2. The approved development must always accord with the endorsed plans unless modified with the prior written consent of the Responsible Authority.

Landscape Plan

3. Concurrent with the submission of development plans for endorsement under condition 1 of this permit, an amended landscape plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plan will be endorsed and will then form part of the permit. The plan must be generally in accordance with the submitted landscape plan (prepared by John Patrick Landscape Architects, revision A, dated 15/10/2024), but modified to show:

    a. Consistency with any relevant changes to the development layout as shown on the development plans endorsed under Condition 1 of this permit.
    b. Sectional details of all balcony planter boxes, including the soil volumes and depths and methods of planting and drainage.
    c. Details of the irrigation systems for all communal garden beds and lightweight planter boxes, to be controlled by sensors.
    d. All Australian Native species such as the *Corymbia citriodora* or *Corymbia eximia* to be substituted for species indigenous to Manningham.

Management Plan

4. Concurrent with the submission of development plans for endorsement under condition 1 of this permit, a Sustainability Management Plan (SMP) must be submitted to and approved by the Responsible Authority. When approved, the SMP will be endorsed and will then form part of the permit.

5. Concurrent with the submission of development plans for endorsement under condition 1 of this permit, an amended Waste Management Plan (WMP) must be submitted to and approved by the Responsible Authority. When approved, the plan will be endorsed and will then form part of the permit. The WMP must be generally in accordance with the waste management plan submitted with the application (prepared by Frater Consulting Services Revision 2 dated 22/07/24), but modified to show:

    a. Consistency with any relevant changes to the development as shown on the development plans submitted for endorsement under this permit;

6. Concurrent with the review of plans to be endorsed under Condition 1, a Tree Protection and Management Plan (TPMP) prepared by a suitable qualified Arborist, setting out how the trees to be retained will be protected during construction and which generally follows the layout of Section 5 of AS4970 'Protection of trees on development sites', must be submitted to the Responsible Authority. When approved the TPMP will be endorsed and form part of the permit. The TPMP must include:

a. A map of the ground floor development plan showing the TPZ and SRZ for all trees to be retained along with the location of protective fencing and/or areas where ground protection systems will be used.
b. Details of any proposed work within a TPZ and construction controls required to reduce the impacts to retained trees.
c. A statement advising any removal or pruning of Council owned trees must be undertaken by Council approved contractor.
d. An inspection timeframe (minimum frequency of every 3 months), with a compliance check list to be signed and dated by the developer's project arborist and project manager/foreperson.

7. Before the development starts, including demolition, a Construction Management Plan (CMP) must be submitted to and approved by the Responsible Authority using Manningham's CMP template. When approved the CMP will be endorsed and will then form part of the permit. The CMP must also consider the cumulative impacts of any nearby construction and roadworks, the location of car parking for construction workers and measures to minimise disruption to bus services on Doncaster Road to the satisfaction of the Responsible Authority.

8. The development and any measures to be implemented must always accord and comply with the management plans and reports endorsed under this permit, unless modified with the prior written consent of the Responsible Authority.

Vegetation

9. Except for vegetation shown on the endorsed plans to be removed, no vegetation may be removed, destroyed or lopped, unless with the written consent of the Responsible Authority.

10. All tree protection fencing must be maintained in good condition until the completion of the construction works on the subject land to the satisfaction of the Responsible Authority.

11. All contractors/tradespersons (including demolition workers) who install services or work near trees to be retained must be made aware of any tree protection measures required under this permit.

Reticulated Gas Service Mandatory Condition

12. Any new dwelling allowed by this permit must not be connected to a reticulated gas service (within the meaning of clause 53.03 of the relevant planning scheme). This condition continues to have force and effect after the development authorised by this permit has been completed.

Completion

13. The approved dwellings must not be occupied unless the development and all landscaping is completed generally in accordance with the endorsed plans to the satisfaction of the Responsible Authority.

14. The approved dwellings must not be occupied unless all screening measures are constructed, installed and maintained permanently in accordance with the endorsed plans and to the satisfaction of the Responsible Authority. Any non-permanent screening measures (such as obscure film or spray) must not be used in lieu of any required fixed and permanent screening measures.

15. All roof-top plant and services (including any hot water systems, but excluding solar panels) must be installed and maintained in appropriately screened areas, unless otherwise agreed in writing with the Responsible Authority.

16. Unless with the written consent of the Responsible Authority, any air-conditioning unit installed on a balcony or terrace must always stand at floor level and be positioned to minimise off-site visual impacts to the satisfaction of the Responsible Authority.

17. Unless with the written consent of the Responsible Authority, no air-conditioning unit may be erected on an external wall of the building at any time.

On-Site Stormwater Detention System

18. Before the development starts, an engineering plan for an on-site stormwater detention (OSD) system to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved the plan will be endorsed and will then form part of the permit. The plan must depict an on-site storm water detention storage or other suitable system (which may include but is not limited to the re-use of stormwater using rainwater tanks) that is designed in accordance with Council's **On-Site Stormwater Detention Guidelines (March 2021)** to the satisfaction of the Responsible Authority.

19. The approved dwelling/s must not be occupied unless the OSD system is installed and maintained in accordance with the engineering plan endorsed under this permit to the satisfaction of the Responsible Authority.

Drainage

20. Stormwater must not be discharged from the subject land other than to the legal point of discharge or other approved means to the satisfaction of the Responsible Authority. Before any connection is made to a Council maintained asset, a Connection to Council Drain Permit must be approved by the Responsible Authority.

21. The whole of the subject land, including landscaped and paved areas must be graded and drained to prevent ponding and to minimise overland flows onto adjoining properties to the satisfaction of the Responsible Authority.

Services

22. All services associated with the approved development, including water, electricity, gas, sewerage and telephone, must be installed underground, unless with the written consent of the Responsible Authority.

23. All pipes must be concealed, with the exception of roofing downpipes and external pipes associated with water tanks, which (where exposed) must be finished in a colour complementing the wall surface to the satisfaction of the Responsible Authority.

24. All common areas must be lit to the satisfaction of the Responsible Authority and all lighting must be located, directed, shielded and be of limited intensity so that no nuisance or loss of amenity is caused to any person within or beyond the subject land, to the satisfaction of the Responsible Authority.

Maintenance

25. All buildings, paved areas, drainage and landscaping must be maintained to the satisfaction of the Responsible Authority.

Car Parking and Access

26. Before the occupation of the approved development, all new vehicular crossing must be constructed as depicted on the endorsed plans and any redundant existing vehicular crossings must be removed and the kerb, channel, footpath and nature strip (as relevant) must be reinstated at the full cost of the owner and to the satisfaction of the Responsible Authority.

27. Before the occupation of the approved development, the visitor parking space must be line-marked and signposted to the satisfaction of the Responsible Authority.

28. All visitor car parking spaces, bicycle parking spaces, access lanes and driveways shown on the endorsed plans must be kept available for these purposes at all times to the satisfaction of the Responsible Authority.

Department of Transport and Planning Conditions

29. Prior to the commencement of use, all disused or redundant vehicle crossings must be removed, and the area reinstated kerb and channel to the satisfaction of the Responsible Authority and at no cost to the Head, Transport for Victoria.

30. Prior to the commencement of use, the sealed crossover and driveway are to be constructed to the satisfaction of the Responsible Authority and at no cost to the Head, Transport for Victoria. The crossover must be a minimum of 6m wide and include traffic signage at the exit from the driveway to restrict right turn movements.

31. Vehicles must always enter and exit the site in a forward direction.

Permit Expiry

32. This permit will expire if one of the following circumstances applies:

    a. The development is not started within two (2) years of the date of this permit; or
    b. The development is not completed within four (4) years of the date of this permit.

The Responsible Authority may extend the periods referred to if a request is made in writing by the owner or occupier either before the permit expires or in accordance with Section 69 of the *Planning and Environment Act 1987.*

CARRIED UNANIMOUSLY

2. BACKGROUND

2.1 An application for a planning permit (PLN23/0496) was lodged with Council on 15 December 2023.

2.2 Further information was requested by Council on 12 January 2024. The letter raised concerns with a number of aspects with the proposal, including the layout, built form, internal amenity, design detail, landscaping, car parking and access, services and trees.

2.3 An application to amend the proposal under Section 50 of the *Planning and Environment Act* 1987 was submitted on 12 August 2024. The application was amended pursuant to Section 50 of the Planning and Environment Act to reduce the number of dwellings from 29 to 25 and to seek approval for alteration of access to a road in a Transport Zone 2.

2.4 Following the Section 50 amendment, a second request for further information was sent on 9 September 2024. The letter raised similar concerns to the original letter, with the addition of concerns relating to the horizontal framing features to the streetscape and setback of built form to the eastern boundary.

2.5 A second Section 50 Amendment was submitted on 27 November 2024. It included a number of design changes including, but not limited to the reduction in the depth of the framing features to the southern and western façade of the dwellings and the lowering of finished floor levels of Dwellings 5 to 8.

2.6 Notice was given over a two-week period concluding on 18 December 2024.

2.7 A consultation meeting was held on 17 February 2025, attended by Councillors, Council Officers, the applicant, owners and objectors.

2.8 The statutory time for considering a planning application is 60 days, which fell on 13 February 2025.

2.9 The land title is not affected by any covenants or Section 173 Agreements.

3. THE SITE AND SURROUNDS

The site

3.1 The site comprises of six lots which are situated on the northern side of Doncaster Road and on the north-east corner of Golf Hill Avenue. The site is approximately 425 metres from the intersection of Doncaster Road and High Street and approximately 200m to the intersection of Doncaster Road and Heritage Boulevard, the main entrance into the Tullamore Estate.

3.2 A summary of the site features is included in the table below.

Site Summary	
Use	Residential (Dwellings)
Total Lot Size	4313sqm.
Topography	The site generally slopes down from east to west with approximately 8 metres of fall across the site.
Fencing	Front fencing varies between each lot. The front fences of each

	respective lot generally consist of high solid brick/timber fencing.
Vegetation	One large canopy tree is located within the front setback of 459 Doncaster Road. Otherwise, the site is generally void of significant vegetation.
Easements	The site is encumbered by a 3.05 metre wide easement, situated along the northern boundary of 449 and 451 Doncaster Road. The site is encumbered by a 1.83 metre wide easement, situated along the northern boundary of 453, 457, 459 and 461 Doncaster Road.
Footpath assets / access	There is a footpath adjacent to the western boundary (Golf Hill Avenue) and a footpath adjacent to the southern boundary (Doncaster Road). Two street trees are located on Golf Hill Avenue and three street trees on Doncaster Road. There is one crossover to Golf Hill Avenue, three crossovers to the Doncaster Road Service Road and three crossovers to Doncaster Road. A bus stop is located on Doncaster Road adjacent to 453-455 Doncaster Road.

The Surrounds

3.3 The site is within close proximity to a range of activity centres, including the Doncaster Hill Activity Centre, primary and secondary schools, open space and freeway connections. Bus services are provided on Doncaster Road and High Street which include routes 207, 284, 285, 907 and 908.

3.4 The site has direct abuttals with the following properties:

Direction	Address	Description
North	2 Golf Hill Avenue	This lot comprises a single storey white brick dwelling with an open carport and a pitched tiled roof. The dwelling is setback 3.92 metres from Golf Hill Avenue and 2.53 metres from the common boundary (southern boundary). The driveway and carport are positioned along the southern boundary of the lot with the primary secluded primary open space being located towards the rear of the dwelling.
	10 Iskandar Place	This lot comprises a double storey dwelling with render and cladding finishes and a flat roof. The dwelling is setback is 2.4 metres from the western boundary and 3.08 metres from the southern

		boundary. There is a 2.5 metre high hedge along the southern and western boundaries.
	11 Iskandar Place	This lot comprises a double storey dwelling setback 4.99 metres from the southern boundary. The secluded private open space is located to the rear of the dwelling. There is no significant vegetation located on the site.
	12 Iskandar Place	This lot comprises a large double storey rendered dwelling with a pitched tiled roof. The dwelling is setback 5 metres from the southern boundary. The secluded private open space is located to the rear of the dwelling.
	23 Silver Leaf Circuit	3.5 This lot comprises a double storey rendered dwelling with a pitched tiled roof. The dwelling is setback 2 metres from the southern boundary. The secluded private open space is located to the rear of the dwelling. 3.6 The dwelling is part of the Tullamore Estate.
East	21 Silver Leaf Circuit	3.7 This lot comprises a double storey dwelling. It utilises brick, render and cladding and flat roof. The dwelling is setback 1.9 metres from the western boundary and approximately 9 metres from the southern boundary. The secluded private open space is located to the western side of the dwelling. 3.8 The dwelling is part of the Tullamore Estate.

3.5 The zoning of the immediate area comprises of Residential Growth Zone for all lots abutting Doncaster Road and within the Tullamore Estate. The site also abuts the General Residential Zone - Schedule 1, to the north as demonstrated in the image below.

Figure: Zoning Map

3.6 The Tullamore Estate adjoins the subject site to the east and comprises three apartment buildings, a café, a recreation facility and a variety of single, double and three storey dwellings.

3.7 Immediately adjoining the subject site to the east are a number of double storey attached townhouses which front Doncaster Road. These dwellings are contemporary in design and have a flat roof form that utilises various materials such as brick, render and metal cladding. These dwellings are part of the Tullamore Estate.

3.8 The broader area generally comprises both single and double storey dwellings of various architectural styles. There are also three storey residential and non-residential buildings directly opposite to the south of the site.

4. THE PROPOSAL

4.1 The proposal is outlined on the following plans (prepared by Jesse Ant Architects, revision D, dated 26 November 2024) Attachment 1. These plans form the decision plans to be relied upon in this assessment.

4.2 The following supporting documents were submitted with the proposal:

- Waste Management Plan prepared by Frater Consulting Services, dated 30/10/2024;
- Arborist Report prepared by John Patrick Landscape Architecture dated 05/12/2023;
- Swept Paths prepared by Traverse Transport dated 15/10/2024;
- Landscape Plan prepared by John Patrick Landscape Architecture dated 15/10/2024;
- Sustainable Design Assessment prepared by Frater Consulting Services dated 30/10/2024;
- Planning Report prepared by Human habitats dated 13 December 2023;
- Traffic Report prepared by Traverse Transport dated 2 August 2024.

PROPOSAL SUMMARY	
Building details	Site area: 4313m^2 Site coverage: 49.4% Permeability: 32.8%
Proposed uses	Dwellings (Accommodation, no permit required for the use)

PROPOSAL SUMMARY	
Storeys	19 three – storey dwellings and 6 two-storey dwellings.
Maximum building height	11.2 metres.
Minimum front setback	Minor portion of Dwelling 4 is setback 4.85+ metres to the southern boundary (Doncaster Road).
Minimum side setbacks	3.33 metres to Golf Hill Avenue. 1.54 metres to the eastern boundary.
Minimum rear setback (North)	3 metres.
Bedrooms	13, three-bedroom dwellings 12, four-bedroom dwellings.
Car parking	2 car spaces for each dwelling and 1 visitor space. 51 car spaces in total.
Bicycle parking	One bicycle space per dwelling.
Proposed access	A new crossover on Golf Hill Avenue to service Dwellings 1 to 15. A new crossover on Doncaster Road to service Dwellings 16 to 25. There are six redundant crossovers that will be reinstated.
Building materials	Brick is utilised for the ground floor of each dwelling. A combination of render and metal cladding is applied to the first and floors.
Easements	The easement along the northern boundary is not proposed to be removed.
Trees and any removal	No significant trees are proposed to be removed. The large tree (Tree 25 and the street trees west of 453 Doncaster Road (Trees 13 and 14) are all proposed to be retained.

5. LEGISLATIVE REQUIREMENTS

5.1 Refer to Attachment 2 (Planning & Environment Act 1987, Manningham Planning Scheme, other relevant legislation policy).

5.2 A permit is required under the following Clauses of the Manningham Planning Scheme:

- Clause 32.07-6 (Residential Growth Zone): Construct two or more dwellings on a lot
- Clause 32.07-6 (Residential Growth Zone): Construct or extend a front fence within 3 metres of a street
- Clause 43.02 (Design and Development Overlay): Construct a building or construct or carry out works
- Clause 43.02 (Design and Development Overlay): Construct or extend a front fence within 3 metres of a street
- Clause 52.29-2 (Land Adjacent to the Principal Road Network): Create or alter access to a road in a Transport Zone 2

5.3 Planning Scheme Amendment VC267 was approved on 6 March 2025, introducing the Townhouse and Low-Rise Code and making various changes to Clause 55 of the Scheme.

5.4 As per the transitional provision under Clause 32.07-6 of the Scheme, this application is still being assessed under Clause 55 (ResCode) as applicable before the approval of Planning Scheme Amendment VC267 as it was received prior to 6 March 2025 and has not been amended.

6. REFERRALS

External

Department of Transport

6.1 Pursuant to Clause 52.29 and 66.03 of the Manningham Planning Scheme, the Department of Transport and Planning is a *determining* referral authority as the application seeks to create and alter access to a road in a Transport Zone 2 (Doncaster Road).

6.2 Transport for Victoria provided a response on 8 January 2024 and 24 February 2025. Transport for Victoria have stated that they have no objection to the proposal subject to conditions being included on the permit. The conditions requested by Transport for Victoria do not require any design changes to the proposal and primarily relates to the requirements for the construction of the new crossovers and the removal of redundant crossovers, as well as requiring vehicles to enter and exit the site in a forward manner. These will be included as permit conditions.

Internal

Infrastructure and Sustainable Operations Unit

6.3 Engineering advice was received on 24 March 2025. Their requirements will be included via permit conditions and footnotes as relevant.

6.4 Council's engineers have raised concerns with the level difference between adjacent garages which may result in safety concerns for future residents. Accordingly, a condition on the permit will require level changes to the garages of

some dwellings to ensure that the difference between adjacent garages does not exceed 150mm.

6.5 The above mentioned change can be achieved though reducing the finished floor level of the garages of a number of dwellings. Given the finished floor levels are to be lowered, this would not result in a detrimental impact to adjoining properties or the streetscape.

Statutory Planning Arborist

6.6 Arboricultural advice was received on 13 March 2025. The requirements will be included via permit conditions and footnotes as relevant.

6.7 The proposed design will result in an encroachment of approximately 20% of Tree 25's Tree Protection Zone, likely resulting in the loss of this tree given the lack of sufficient space, soil volume and root mass.

6.8 To reduce the impacts on Tree 25 to an acceptable level, the portico / raised deck opposite the living rooms of Dwellings 22 and 23 will be deleted and the entry path and front door to Dwelling 22 relocated to the western side of the building. This will be included as a permit condition.

6.9 These changes can be achieved without any significant design changes or internal amenity impacts to future residents. The deletion of the small decks to the living spaces in favour of retaining the large tree within the front setback of the site is a favourable outcome and ensures that the development complies with the landscape objectives of Clause 15.01-5-01L and Clause 55.03-8 of the Scheme.

6.10 The remaining trees within the subject site have low arboricultural value and there is no objection to their removal.

7. CONSULTATION / NOTIFICATION

7.1 Notice of the application was given by Council which concluded on 18 December 2024, by sending letters to the owners and occupiers of adjacent and nearby properties and by displaying 7 signs on the site frontages for a 2 week period.

7.2 To date, 5 objections have been received. Issues raised primarily related to:

- Environmental impacts as a result of urban heat island effect and lack of permeable land.
- Overshadowing.
- Overlooking.
- Loss of energy efficiency.
- Neighbourhood Character / Overdevelopment.
- Visual bulk / excessive height.
- Traffic issues and lack of visitor parking.
- Loss of vegetation.
- Strain on existing infrastructure.
- Safety issues as a result of the proposed accessway on Doncaster Road.

- Amenity impacts as a result of the bin storge area along the eastern boundary.
- Potential damage to existing boundary fencing.
- Residential Noise.
- Loss of affordable housing options. The objector has urged the Council or State Government to consider a 'community buy back scheme', which would provide affordable housing options through a structured payment plan.

7.3 A consultation meeting was held on 17 February 2025, attended by Councillors, Council Officers, the applicant, the owners and objectors. The applicant agreed to make some changes to the plans following the consultation meeting however officers advised that these changes should not be formalised through an amended Section 57 process due to the recently gazetted Amendment VC267 which introduced the new Townhouse and Low-Rise Code.

7.4 A set of discussion plans were informally sent through by the applicant which included a number of changes. These changes have informed our permit conditions, specifically in relation to the finished floor levels of the dwellings and the bin enclosure location.

7.5 The grounds of objection are considered within the assessment section and further responded to in Section 8 of this report.

8. ASSESSMENT

8.1 The site is located within the Residential Growth Zone – Schedule 2 and is subject to the Design and Development Overlay – Schedule 8-1.

8.2 The proposal has been assessed against the relevant state and local planning policies, the zone and overlay, and the relevant particular provisions and general provisions of the Manningham Planning Scheme.

8.3 The assessment is made under the following headings:

- Planning Policy Frameworks;
- Design and Built Form;
- Two or more dwellings on a lot and residential buildings (ResCode);
- Car parking, access and traffic;
- Objector concerns.

Planning Policy Frameworks

8.4 At both the state and local levels, relevant planning policy identifies the need for a greater mix of housing in Manningham, including medium and higher density residential developments. Policy also seeks to ensure that these developments are well designed, and focuses on locating higher density housing in close proximity to activity centres and along main roads and public transport routes.

8.5 Clause 16.01-1S (Housing supply), encourages higher density housing development on sites that are well located in relation to jobs, services and public transport.

8.6 Clause 16.01-R includes a number of strategies that encourage high density housing development on sites that are well located in relation to jobs, services and public transport as well as seeking to supply housing in areas for residential growth.

8.7 Clause 15.01-5L-02 of the Manningham Planning Scheme separates Manningham's residential land into four residential character precincts.

8.8 The subject site is located within Precinct 2: Residential Areas surrounding activity centres and Main Roads.

8.9 The objective of this precinct is "to promote substantial change that is high quality, contemporary and designed to provide a transition between sub-precincts in Precinct 2".

8.10 A substantial level of change is anticipated in Precinct 2. This is distinct from the other residential character Precincts 1, 3 and 4 which anticipate either incremental or minimal change only.

8.11 The strategies of Precinct 2 are as follows:

- Provide for contemporary architecture.
- Encourage use of varied and durable building materials in building facades that provide visual interest.
- Provide a graduated building scale and form from side and rear boundaries.
- Incorporate a landscape treatment that enhances the overall appearance of the development and any adjacent main road.
- Integrate car parking into the design of buildings and landform.
- Encourage the built form fronting Doncaster Road at the former Eastern Golf Course (Tullamore) to be of a scale that provides an appropriate transition to Doncaster Hill Major Activity Centre.

8.12 Precinct 2 areas are also covered by the Design and Development Overlay, Schedule 8 (DDO8), which outlines specific built form, car parking, landscape and fencing outcomes. These outcomes are intended to regulate the design of new developments in Precinct 2, to define what constitutes substantial change in the Manningham context and to achieve a preferred neighbourhood character.

8.13 Precinct 2 areas are further delineated into three sub-precincts. These sub-precincts dictate a tiered approach to the strategic policy intentions for substantial change, to ensure that the highest intensity development is appropriately located, and that appropriate transitions to incremental/minimal change areas are achieved by the larger built form.

8.14 The subject site is within the DDO8-1 Sub-precinct (Main Road). This sub-precinct supports apartment style development along main roads and on larger consolidated lots.

8.15 In addition to being affected by planning policy that encourages a substantial level of change, the site's location demonstrates that it is appropriate for a higher form of density than what currently exists, provided that an appropriate design outcome is achieved. This site is located within close proximity to the Doncaster Hill Activity Centre and adjoins a main arterial road which is serviced by bus routes and provides direct access to the Eastern Freeway.

8.16 The development of the land with an increased residential density is therefore appropriate when considering the strategic context of the site, in accordance with the Planning Policy Frameworks. The proposed density of one dwelling per 172m^2 is considered to achieve the substantial level of change that is intended by the policies, and the maximum site coverage and recommended number of storeys is not exceeded.

8.17 Despite meeting the high level strategic policies, the proposal must still meet the specific design objectives of the DDO8 and other relevant provisions of the Scheme. These provisions have all been assessed and detailed in the following paragraphs.

Design and Built Form

8.18 The proposal is consistent with the mandatory height requirement (13.5 metres) of the Residential Growth Zone.

8.19 The DDO8 outlines specific built form, car parking, landscape and fencing outcomes that should be achieved by a proposal, to meet its overall design objectives.

8.20 The following assessment is made against the specific built form, car parking, landscape and fencing requirements of the DDO8:

Design Element	Compliance
Building Height and Setbacks (Sub-Precinct Main Road DDO8-1)	
• Discretionary height of 11 metres as the minimum land size condition has been met (1800sqm)	Considered Satisfied The development has a maximum overall building height of 11.2 metres. The DDO8-1 has a discretionary building height of 11m. The proposal exceeds the discretionary height control by 200mm. This minor variation is considered appropriate as it will be visually negligible.
• Minimum front street setback is the distance specified in Clause 55.03-1 or 6 metres, whichever is the lesser.	Considered Satisfied The following dwellings encroach within the required 6 metre front setback to Doncaster Road. Dwelling 1 – 5.23m Dwelling 4 – 4.85m Dwelling 10 – 5.81m Dwelling 12 – 5.50m Dwelling 21 – 5.51m Given the angled frontage and irregular shape of the site, the above encroachments are limited to a small section of the dwellings and are considered acceptable.

	Although Dwellings 1 and 4 will encroach into the required setback, their location fronting the service road will not result unreasonable visual impacts to the overall Doncaster Road streetscape. A number of dwellings fronting Doncaster Road are setback in excess of 6 metres, which provides varied setbacks to avoid a continuous building line and provide visual interest to the streetscape. Sufficient space remains within the street setback for landscaping. The porches of the dwellings fronting Doncaster Road extend slightly forward of the respective front walls, which remains compliant with the DDO8 setback provision of the Scheme (which allows a maximum 2 metre encroachment).
Form	
• Ensure that the site area covered by buildings does not exceed 60 percent.	Satisfied The development has a site coverage of 49.4%.
• Provide visual interest through articulation, glazing and variation in materials and textures.	Satisfied The development incorporates a variety of colours and materials to provide visual interest. Materials include grey brick, grey tile, concrete look cladding, white and light grey render, dark grey metal cladding. These materials and colours provide different tones and textures for visual interest, whilst also complementing one another and the existing streetscape.
• Minimise buildings on boundaries to create spacing between developments.	Satisfied Buildings on boundaries have been completely avoided in order to provide spacing between developments.
• Where appropriate ensure that buildings are stepped down at the rear of sites to provide a transition to the scale of the adjoining residential area.	Satisfied The two and three-storey scale of the proposal in addition to the setbacks provide an appropriate transition to the adjoining dwellings. Conditions on the permit will require Dwellings 5, 6, 7 and 8 to be lowered by 300mm in order to improve the transition to the single storey built form of the adjoining property to the north. Although Dwellings 9 to 15 are 3 storeys

<table>
<tr><td></td><td>high, they are adjacent two large double storey dwellings to the north. They also have a generous setback to the northern boundary to provide stepping and reduce the extent of visual bulk.

Dwellings 16 to 19 are double storey in form and provide an appropriate transition to the adjoining double storey dwellings to the north.</td></tr>
<tr><td>• Where appropriate, ensure that buildings are designed to step with the slope of the land.</td><td>Satisfied
The levels and heights of the proposed dwellings step down in accordance with the slope of the land.</td></tr>
<tr><td>• Avoid reliance on below ground light courts for any habitable rooms.</td><td>Satisfied
No below ground light courts are proposed or required.</td></tr>
<tr><td>• Ensure the upper level of a two storey building provides adequate articulation to reduce the appearance of visual bulk and minimise continuous sheer wall presentation.</td><td>Satisfied
Continuous sheer walls have generally been avoided for the two-storey dwellings.

Material variation and fenestration are utilised to provide articulation between levels, especially where the first floor is minimally recessed from the ground floor below. The upper level is also adequately set back from external boundaries to reduce the appearance of visual bulk.</td></tr>
<tr><td>• Ensure that the upper level of a three storey building does not exceed 75% of the lower levels, unless it can be demonstrated that there is sufficient architectural interest to reduce the appearance of visual bulk and minimise continuous sheer wall presentation.</td><td>Considered satisfied
An assessment against the percentage of the upper levels of all three storey dwellings has been included in the table below.

<table><tr><td>Dwelling 1 – 69.7%</td><td>Dwelling 9 – 60.6%</td></tr><tr><td>Dwelling 2 – 88.1%</td><td>Dwelling 10 – 81.5%</td></tr><tr><td>Dwelling 3 – 84.3%</td><td>Dwelling 11 – 81.5%</td></tr><tr><td>Dwelling 4 – 70.8%</td><td>Dwelling 12 – 83.8%</td></tr><tr><td>Dwelling 5 – 73.9%</td><td>Dwelling 13 – 83.8%</td></tr><tr><td>Dwelling 6 – 82.5%</td><td>Dwelling 14 – 81.5%</td></tr><tr><td>Dwelling 7 – 82.6%</td><td>Dwelling 15 – 58.4%</td></tr></table>
As outlined above, the second floor of a number of dwellings exceed 75% of the first floor, however, it is considered that the development has a high level of architectural interest in order to reduce visual bulk and provide visual interest to the streetscape and surrounding properties though material variation and design features such as framing features and cantilevering. Further to that, the upper levels are generously setback from site boundaries to reduce the appearance of visual bulk.

The second floor of Dwellings 20-24 are around 108%-115% of the first floor, however</td></tr>
</table>

	these Dwellings present as two storey to Doncaster Road and the adjoining property to the east. The dwellings only present as three storey internally due to the slope of the land and protrusion of the garage above the existing natural ground level.
• Integrate porticos and other design features with the overall design of the building and not include imposing design features such as double storey porticos.	Satisfied The porticos and the framing features are appropriately integrated with the overall design of the development. Although a number of dwellings appear to have a two storey portico, they double as a balcony to the first floor above. The porticos are framed by either vertical or horizontal framing features which provide visual interest.
• Be designed and sited to address slope constraints, including minimising views of basement projections and/or minimising the height of finished floor levels and providing appropriate retaining wall presentation.	Satisfied subject to conditions The levels and heights of the dwellings are suitably stepped in accordance with the slope of the land. As previously discussed, Conditions on the permit will require the finished floor levels of Dwellings 5, 6, 7 and 8 to be lowered in order to further ensure that the development responds to the slope of the land and result in the lowering of the overall building heights.
• Be designed to minimise overlooking and avoid the excessive application of screen devices.	Satisfied subject to conditions Subject to conditions discussed in the assessment of Clause 55.04-6 (Overlooking) of the Scheme, overlooking impacts will be suitably minimised without excessive screening.
• Ensure design solutions respect the principle of equitable access at the main entry of any building for people of all mobilities.	Satisfied The dwelling entries can mostly be accessed via minimal steps.
• Ensure that projections of basement car parking above natural ground level do not result in excessive building height as viewed by neighbouring properties.	Not applicable No basement is proposed.
• Ensure basement or undercroft car parks are not visually obtrusive when viewed from the front of the site.	Satisfied Parking is provided at ground level. Garage openings do not face the street to dominate the streetscape presentation.
• Integrate car parking requirements into the design of buildings and landform by encouraging the use of undercroft or basement parking and minimise the use of open car park and half basement parking.	Satisfied Car parking has been appropriately integrated into the design of the buildings. Fenestration has been included to the garage doors and landscape treatments are proposed to provide further visual interest.
• Ensure the setback of the	Satisfied

basement or undercroft car park is consistent with the front building setback and is setback a minimum of 4.0m from the rear boundary to enable effective landscaping to be established.	Parking is provided at ground level. Nonetheless, there are sufficient opportunities for landscaping within the rear setback for effective landscaping.
• Ensure that building walls, including basements, are sited a sufficient distance from site boundaries to enable the planting of effective screen planting, including canopy trees, in larger spaces.	Satisfied Sufficient setbacks for screen planting and provision of canopy trees are provided. Council's Statutory Planning Arborist is satisfied that sufficient space remains in the front of each dwelling fronting Doncaster road for the planting and establishment of a canopy tree. A condition on the permit will require an updated landscape plan to be submitted to include canopy trees.
• Ensure that service equipment, building services, lift over-runs and roof-mounted equipment, including screening devices is integrated into the built form or otherwise screened to minimise the aesthetic impacts on the streetscape and avoids unreasonable amenity impacts on surrounding properties and open spaces.	Not applicable No lifts or roof-mounted services are proposed.
Car Parking and Access	
• Include only one vehicular crossover, wherever possible, to maximise availability of on street parking and to minimise disruption to pedestrian movement. Where possible, retain existing crossovers to avoid the removal of street tree(s). Driveways must be setback a minimum of 1.5m from any street tree, except in cases where a larger tree requires an increased setback.	Satisfied A new crossover is proposed on each of Golf Hill Avenue and Doncaster Road. There are six redundant crossovers that will be removed and reinstated, three of which are located on the service road. Accordingly, the proposal improves the availability of on street parking, particularly in front of 449 and 451 Doncaster Road. A condition on the permit will require a notation to state that the existing crossover to 453 Doncaster Road is to be removed and reinstated. No street trees are required to be removed. The subject site is located within the Principal Public Transport Network (PPTN) area and therefore there is no requirement in the Manningham Planning Scheme for the provision of visitor car parking spaces. One visitor car space has however been provided adjacent to Dwellings 17/18.

• Ensure that when the basement car park extends beyond the built form of the ground level of the building in the front and rear setback, any visible extension is utilised for paved open space or is appropriately screened, as is necessary.	Not applicable
• Ensure that where garages are located in the street elevation, they are set back a minimum of 1.0m from the front setback of the dwelling.	Not applicable There are no garages located within the street elevation.
• Ensure that access gradients of basement carparks are designed appropriately to provide for safe and convenient access for vehicles and servicing requirements.	Not applicable Car parking is provided at ground level. Nonetheless, gradients are required to be assessed in accordance with Clause 52.06-9 (Car parking) of the Scheme.
Landscaping	
• On sites where a three storey development is proposed include at least 3 canopy trees within the front setback, which have a spreading crown and are capable of growing to a height of 8.0m or more at maturity.	Satisfied 19 canopy trees are proposed within the Doncaster Road frontage. These trees have a spreading crown and are capable of growing to at least 8 metres at maturity.
• Provide opportunities for planting alongside boundaries in areas that assist in breaking up the length of continuous built form and/or soften the appearance of the built form.	Satisfied subject to conditions Standard conditions will require screen planting to be at least 0.5 metres in height at the time of planting, and capable of reaching at least 3 metres at maturity. To further improve screen planting outcomes further, conditions will require the rearrangement of services (storage) to maximise available space along the side and rear boundary fences.
Fencing	

• A front fence must be at least 50 per cent transparent.
 	
• On sites that front Doncaster, Tram, Elgar, Manningham, Thompsons, Blackburn and Mitcham Roads, a fence must:
 	
  • not exceed a maximum height of 1.8m
 	
  • be setback a minimum of 1.0m from the front title boundary
	Satisfied subject to conditions
	The front fence is generally 1.8 metres in height, however there are small sections of brick that are approximately 2 metres in height. A condition on the permit will require the fence to be reduced in height so as to not exceed 1.8 metres at any point.
	
	For the most part the fence is at least 50% transparent, however there are solid sections of the fence. This is considered acceptable, as the solid brick sections are generally limited to the mailboxes/area.
	
	The fence is setback 1 metre from the title

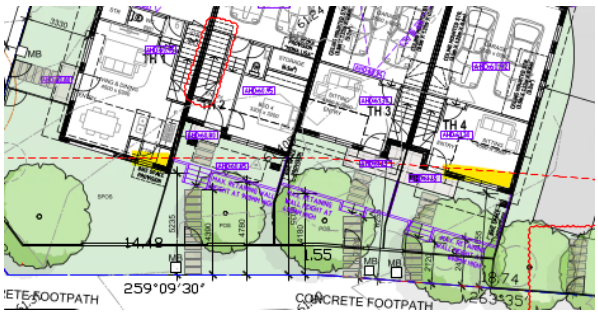
and a continuous landscaping treatment within the 1.0m setback must be provided.	boundary along Doncaster Road to enable a continuous landscape treatment in front of the proposed fence.

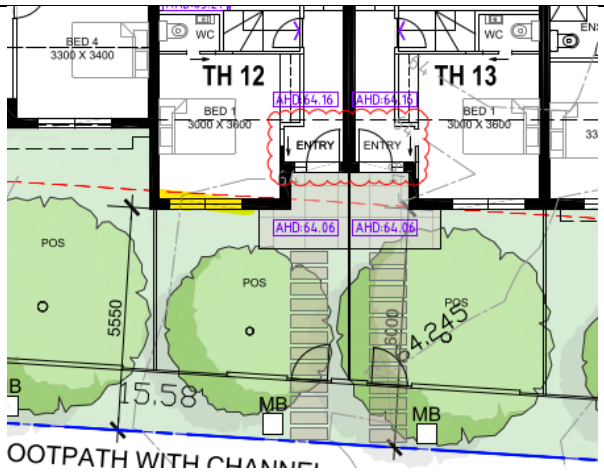
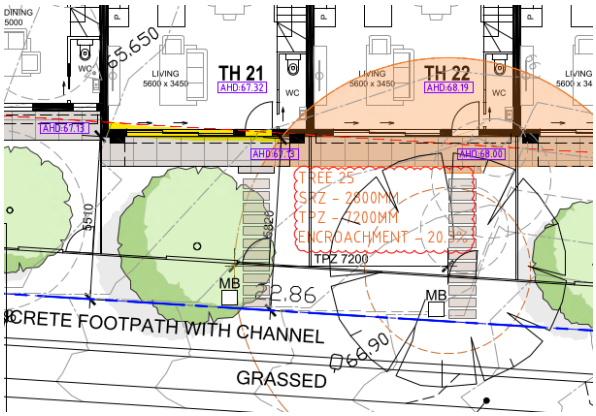
Two or more dwellings on a lot and residential buildings

8.21 Clause 55 (Two or more dwellings on a lot and residential buildings) of the Scheme is commonly referred to as 'ResCode', and sets out various objectives and standards that a proposal must and should meet (respectively).

8.22 An assessment against Clause 55 is provided in the table below:

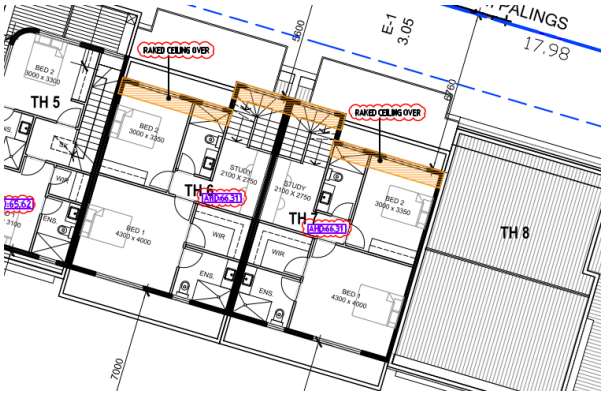
Objective	Compliance
55.02-1 – Neighbourhood Character • To ensure that the design respects the existing neighbourhood character or contributes to a preferred neighbourhood character. • To ensure that development responds to the features of the surrounding area.	Standard Met • As identified by the relevant planning policy, a substantial level of change is anticipated for this site. The preferred neighbourhood character as set out by the DDO8 is for highly articulated contemporary forms, with a range of visually interesting materials and facades. • The proposed design is considered to respond positively to the preferred neighbourhood character. • The development offers an appropriate design response to the street and surrounding properties. • There is sufficient space for landscaping along the side and rear boundaries and within the front setback. • The use of a mix of building materials including brickwork, render and cladding will ensure the development is complementary to the character of the area. • The flat roof is reflective of the roof form of recently constructed dwellings in the immediate area.
55.02-2 Residential policy • To ensure that residential development is provided in accordance with any policy for housing in the State Planning Policy Framework and the Local Planning Policy Framework, including the	Standard Met • The proposal responds to the relevant local planning policy including the preferred outcomes for Precinct 2 and the Sub-Precinct Main Road as discussed in an earlier section of this assessment.

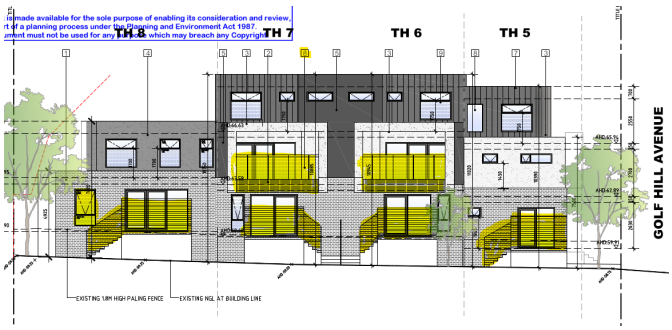
Municipal Strategic Statement and local planning policies. • To support medium densities in areas where development can take advantage of public transport and community infrastructure and services.	
55.02-3 Dwelling Diversity • To encourage a range of dwelling sizes and types in developments of ten or more dwellings.	Standard Met • A range of dwelling types and sizes have been provided. 13, three-bedroom dwellings and 12, four-bedroom dwellings are proposed. . 12 dwellings will have a bedroom and bathroom at ground floor.
55.02-4 Infrastructure • To ensure development is provided with appropriate utility services and infrastructure. • To ensure development does not unreasonably overload the capacity of utility services and infrastructure.	Standard Met subject to conditions • No concerns have been raised by Council's Infrastructure and Sustainable Operations Unit relating to the capacity of the existing infrastructure to support the proposed development. • The development has access to all reticulated services, including sewerage, drainage, electricity and gas. • The development will not unreasonably exceed the capacity of utility services and infrastructure. • A permit condition will require the provision of an on-site storm water detention system to limit permissible discharge and alleviate capacity concerns for existing drainage.
55.02-5 Integration with street • To integrate the layout of development with the street.	Standard Met • All dwellings provide adequate pedestrian and vehicle links to Doncaster Road.
55.03-1 Street setback • To ensure that the setbacks of buildings from a street respect the existing or preferred neighbourhood character and make efficient use of the site.	Considered Met • As discussed in the DDO8 assessment, the encroachment of some of the dwellings into the front setback is considered acceptable given the angular alignment of the proposal and as the encroachments are minimal due to the irregular shape of the front boundary. 

	 
55.03-2 Building Height • To ensure that the height of buildings respects the existing or preferred neighbourhood character.	Standard Met • The proposed maximum building height of 11.2m metres does not exceed the allowable maximum building height of 13.5m as required by the Residential Growth Zone. • The DDO8-1 has a discretionary building height of 11 metres. The proposal exceeds the discretionary height control by 200mm. This minor variation is considered to be appropriate as it will be visually negligible.
55.03-3 Site coverage • To ensure that the site coverage respects the existing or preferred neighbourhood character and responds to the features of the site.	Standard Met • The site coverage of 49.4% is well below the 60% maximum.
55.03-4 Permeability and stormwater management • To reduce the impact of increased stormwater run-off on the drainage system. • To facilitate on-site stormwater infiltration. • To encourage stormwater management that maximises the retention and reuse of	Standard Met • The proposed site permeability of 32.8% exceeds the 20% minimum amount required. • As outlined above, an on-site detention system will be required via conditions. • The proposal achieves a 100% STORM score through the provision of 2x 20,000L water tanks underneath the driveway.

stormwater.	
55.03-5 Energy efficiency • To achieve and protect energy efficient dwellings and residential buildings. • To ensure the orientation and layout of development reduce fossil fuel energy use and make appropriate use of daylight and solar energy.	Satisfied subject to conditions • Due to the orientation of the site, not all dwellings can be oriented to have north facing living rooms and secluded private open space areas. • There does not appear to be any solar protection devices to the ground floor, first floor and second floor north facing windows to all dwellings. Accordingly, a condition on the permit will require solar protection measures to be provided above the north facing windows of all dwellings. • A standard condition will require all relevant notations to be added to plans in accordance with the submitted sustainable design assessment.
55.03-6 Open space • To integrate the layout of development with any public and communal open space provided in or adjacent to the development.	Not applicable • No communal open space areas are provided for this development.
55.03-7 Safety • To ensure the layout of development provides for the safety and security of residents and property	Standard Met subject to conditions • There are no apparent safety or security issues with the proposed development. Passive surveillance to the shared driveway is provided by the dwellings. • Dwelling entries are not obscured from the common driveway or street, and secure parking is provided by enclosed garages with roller doors. A condition on the permit will require bollard lighting or the like to the common driveway areas. Sensor lights are provided above the garage entries. A condition will require that sensor lights be provided above all porch entries to provide additional illumination.
55.03-8 Landscaping • To encourage development that respects the landscape character of the neighbourhood. • To encourage development that maintains and enhances habitat for plants and animals in locations of habitat importance. • To provide appropriate landscaping. • To encourage the retention of mature vegetation on the site.	Standard Met • There are adequate setbacks and soil volumes for the provision of meaningful landscaping including screen planting and canopy trees. Opportunities will be improved by previously discussed conditions for the relocation of sheds where possible. A condition will require the submission of a revised landscape plan. Additionally, standard tree protection measures will be required to be implemented for existing trees on adjoining properties to minimise construction impacts.
55.03-9 Access • To ensure the number and	Standard Met • The width of the Doncaster Road frontage

design of vehicle crossovers respects the neighbourhood character.	exceeds 20m and therefore the accessways must not exceed 33% of the street frontage. The proposed width of the accessway is 6.15m (4% of the street frontage) and therefore complies with the standard. • The width of the Golf Hill Avenue frontage exceeds 20m and therefore the accessways must not exceed 33% of the street frontage. The proposed width of the accessway is 6.16m (15% of the street frontage) and therefore complies with the standard.
55.03-10 Parking location • To provide convenient parking for resident and visitor vehicles. • To protect residents from vehicular noise within developments.	Satisfied subject to conditions • Each dwelling is provided with 2 car spaces. • Dwellings 1 to 19 are provided with parking at ground level and Dwellings 20 to 25 are provided with semi basement garages. Access from the garages to the ground floor of Dwellings 20 to 25 are provided through stairs within the garages. • There are a number of ground level habitable room windows that are within 1.5 metres of the common driveway. The sill height of these windows have not been depicted on the plans. Accordingly, a condition on the permit will require all ground level habitable room windows within 1 metre of the common boundary to have a sill height of at least 1.4 metres above the finished surface level of the common driveway. • The subject site is located within the Principal Public Transport Network (PPTN) area and therefore there is no requirement in the Manningham Planning Scheme for the provision of visitor car parking spaces. The proposal however has provided one onsite visitor car space adjacent to Dwellings 17 & 18.
55.04-1 Side and rear setbacks • To ensure that the height and setback of a building from a boundary respects the existing or preferred neighbourhood character and limits the impact on the amenity of existing dwellings.	Standard Met subject to conditions • Overall the development complies with all setbacks to side and rear boundaries with the exception to the following: • Dwellings 6 & 7 are required to be modified in height to comply with the required setback from the northern boundary of the site. As a consequence, the finished floor levels will be further reduced by approximately 300mm and a raked ceiling will be incorporated into the design to ensure that the dwellings comply with the standard. The applicant has confirmed these changes are achievable. This will be conditioned accordingly.

	
55.04-2 Walls on boundaries • To ensure that the location, length and height of a wall on a boundary respects the existing or preferred neighbourhood character and limits the impact on the amenity of existing dwellings.	Not applicable • There are no walls proposed on any boundaries.
55.04-3 Daylight to existing windows • To allow adequate daylight into existing habitable room windows	Standard Met. • The development is well setback from all shared boundaries. • All existing habitable room windows on adjoining lots are provided with a light court of a minimum dimension of 1 metre clear to the sky and a minimum area of 3 square metres to comply with the standard.
55.04-4 North facing windows • To allow adequate solar access to existing north-facing habitable room windows.	Standard Met • There are no existing north facing habitable room windows on an adjoining property within 3 metres of the common boundary.
55.04-5 Overshadowing open space • To ensure buildings do not significantly overshadow existing secluded private open space.	Standard Met • The shadow diagrams submitted indicate that there will be additional overshadowing to two adjoining properties by shadows cast beyond the boundary fence at 2pm and 3pm. However, these shadows only impact a small portion of the existing secluded private open space areas and the development complies with the requirements of the standard.
55.04-6 Overlooking • To limit views into existing secluded private open space and habitable room windows.	Satisfied subject to conditions • For the most part, all first floor and second floor north facing habitable room windows that are within 9 metres of adjoining secluded private open space areas or habitable rooms have obscure glazing or have a sill height of 1.7m in accordance with the standard. • The sectional diagram provided on TP31 demonstrates that the planter box appropriately limits overlooking from the balconies of

	bedroom 3 of Dwellings 10 to 14. • The first floor east facing windows of Dwellings 19 and 25 are highlight windows but their sill heights are not dimensioned. Accordingly, a permit condition will require dimensions to demonstrate a minimum sill height of 1.7 metres. • There appears to be overlooking from the north facing first floor balconies of Dwelling 6 & 7 into the secluded private open space and habitable rooms of 2 Golf Hill Avenue. A notation on the plans shows the balcony of Dwelling 7 as clear glazing. Accordingly, a condition on the permit will require the balconies to be screened in accordance with the standard. • There also appears to be overlooking from the raised ground floor decks and stairs of Dwellings 5 to 8 and from the kitchen of Dwelling 8 into the secluded private open space and habitable rooms of 2 Golf Hill Avenue. Accordingly, a condition on the permit will also require these decks to be screened in accordance with the standard.  NORTH ELEVATION - 2 • The 1.8 and 2 metre high boundary fence along the northern and eastern boundaries around Dwellings 5 to 8 appropriately limits overlooking from the open space areas into the habitable room windows and secluded private open space areas of neighbouring dwellings. • The driveway servicing Dwellings 9 to 15 is raised above the natural ground level at the boundary. As such, the northern boundary fence does not provide appropriate screening from the driveway. A condition on the permit will require a free-standing trellis along the northern boundary, with a height of 1.7 metres above the finished surface level of the driveway for the length of the driveway opposite Dwellings 9 to 15.
55.04-7 Internal views • To limit views into the secluded private open space	Standard Met • Internal elevations have been provided to demonstrate that views between dwellings within the development are limited in

and habitable room windows of dwellings and residential buildings within a development.	accordance with the standard.
55.04-8 Noise impacts • To contain noise sources in developments that may affect existing dwellings. • To protect residents from external noise.	Standard Met • There are no unusual mechanical plant or noise sources proposed. • Any heating & cooling and hot water systems installed for the proposed dwellings will be typical to residential areas and will not unreasonably impact the amenity of adjoining dwellings.
55.05-1 Accessibility • To encourage the consideration of the needs of people with limited mobility in the design of developments.	Standard Met • The entries to the dwellings are at ground level and would generally provide convenient access to those with limited mobility.
55.05-2 Dwelling entry • To provide each dwelling or residential building with its own sense of identity.	Standard Met • The primary entries of all dwellings facing Doncaster Road are visible and easily identifiable from the street. • A defined pedestrian path along the east side of Dwelling 25 provides pedestrian access to Dwellings 16 to 19. A condition on the permit will require an arbour or similar design treatment to this pedestrian path the ensure that in presents as an entry for the dwellings that remain obscured from Doncaster Road and to improve the sense of address.
55.05-3 Daylight to new windows • To allow adequate daylight into new habitable room windows.	Standard Met • All new windows within the development will receive adequate access to daylight in accordance with the standard.
55.05-4 Private open space • To provide adequate private open space for the reasonable recreation and service needs of residents.	Standard Met • Each dwelling provides the minimum required private open space of either an 8sqm balcony or a courtyard with convenient access from the respective living rooms.
55.05-5 Solar access to open space • To allow solar access into the secluded private open space of new dwellings and residential buildings	Considered Satisfied • Given the layout and scale of the development, not all dwellings could be designed with a north-facing private open space. • 8 of the 25 dwellings (Dwellings 1 to 4 and 10 to 14) have south facing private open space areas in the form of balconies. Whilst this is not ideal, it ensures that the development has an visually appealing presentation to the streetscape and reduces the extent of screening required to the balconies and living spaces. • On balance, it is considered that an acceptable portion of dwellings will receive sufficient solar acccess to the private open space areas.
55.05-6 Storage	Standard Met

• To provide adequate storage facilities for each dwelling	• Six cubic metres of externally accessible storage is provided to all dwellings, either as storage sheds within the open space areas, or cupboards adjacent to the garages.
55.06-1 Design detail • To encourage design detail that respects the existing or preferred neighbourhood character	Standard Met • The use of bricks, render finish and selected cladding is reflective of current architectural trends. • Appropriately sized windows will ensure the development has a well-articulated facade and presents appropriately to Doncaster Road and Golf Hill Avenue. • The first and second floor of all dwellings are appropriately stepped to provide articulation to adjoining properties. • The vertical and horizontal framing features complement the built form and provide for a visually appealing presentation.
55.06-2 Front fences • To encourage front fence design that respects the existing or preferred neighbourhood character.	Standard Met subject to conditions • The front fence is generally 1.8 metres in height. However, there are small sections that are approximately 2 metres in height. A permit condition will require the fence to not exceed 1.8 metres in height. • For the most part the fence is at least 50% transparent, however there are solid sections of the fence. This is considered acceptable, as these sections are generally limited to areas around mailboxes and at least 50% of the frontage has partially transparent fencing. • The fence is setback one metre from the Doncaster Road frontage to enable a continuous landscape treatment.
55.06-3 Common property • To ensure that communal open space, car parking, access areas and site facilities are practical, attractive and easily maintained. • To avoid future management difficulties in areas of common ownership.	Standard Met subject to conditions • The common property is easily identifiable and will be practical to maintain and manage. • A condition on the permit will require the visitor space to be appropriately signed. • A condition on the permit will require bollard lighting or the like along the driveways.
55.06-4 Site services • To ensure that site services can be installed and easily maintained. • To ensure that site facilities are accessible, adequate and attractive	Standard Met subject to conditions • There is sufficient room for facilities and services to be installed and maintained efficiently and economically. • Rainwater tanks are located underneath the driveways. • A condition on the permit will require the storage sheds to be relocated so as to be along the internal boundary fencing. This will provide additional space for screen planting along the northern boundary.

Car parking and traffic

8.23 Each dwelling is provided with 2 car spaces in the form of garages, pursuant to Clause 52.06-5 of the Manningham Planning Scheme.

8.24 The subject site is located within the Principal Public Transport Network area and therefore there is no requirement in the Manningham Planning Scheme for the provision of visitor car parking spaces. Notwithstanding that, one visitor space has been provided between Dwelling 17 and 18.

8.25 The removal of redundant crossovers within the Doncaster Road service road will improve the availability of on street parking, particularly in front of 449 and 451 Doncaster Road.

8.26 The carparking arrangement and designs complies with all Design Standards of Clause 52.06-9 of the Manningham Planning Scheme, except for Design Standard 3 (Gradients).

8.27 The proposal fails to comply with Design Standard 3 due to the level differences between adjacent garages. As discussed above, a condition on the permit will address this issue and ensure the development complies.

Objector issues / concerns

8.28 A response to the grounds of objection is provided below under the relevant category headings.

Environmental impacts as a result of urban heat island effect and lack of permeable land

8.29 The proposed site coverage of 49.4% is less than the maximum 60% requirement. Furthermore, the proposed site permeability of 32.8% exceeds the 20% minimum amount required. It is therefore not considered that there is excessive hard surfacing on the site. Sufficient space also remains across the site for planting which will aid in softening the extent of built form and hard surfacing.

8.30 Given the scale of the development and extent of land available for planting, it is not anticipated that there will be any impacts to adjoining properties as a result of the generation of heat.

Overlooking

8.31 Potential overlooking impacts as a result of the proposal have been assessed in detail. Permit conditions will also require compliance with the relevant standard.

8.32 The west facing windows and balconies of Dwellings 1 and 5 facing Golf Hill Avenue and are setback in excess of 9 metres to the existing dwellings to the west, separated by footpaths, nature strips and a road. These windows are therefore not required to be screened and comply with the relevant standard.

Construction impacts

8.33 A **permit condition** will require that a Construction Management Plan (CMP) to be prepared and submitted for assessment by Council prior to construction commencing on the site. The CMP will include a list of obligations that the construction process must adhere to, which can include the parking of trades vehicles and logistics for delivery trucks and machinery. Any breaches of the CMP during the construction process may result in enforcement action by Council.

8.34 The developer will be required to meet relevant Local Law and EPA practices to ensure that any impacts are mitigated, and compliance with Council's Works Code of Practice (June 2017) will also be required at all times.

Loss of energy efficiency

8.35 The extent of additional overshadowing to adjoining dwellings from the proposed development is limited and will not significantly affect the adjoining secluded private open space areas.

8.36 The submitted sustainability design assessment demonstrates that best practice sustainability and stormwater management standards can be achieved.

8.37 The provision of new dwellings that meet the current best practice standards for sustainability and stormwater management are considered to be an improved environmental outcome for the site.

Neighbourhood Character / Overdevelopment

8.38 As outlined in the assessments within this report, the proposal is considered to respond appropriately to the preferred neighbourhood character that anticipates a substantial level of change and for highly articulated contemporary form.

8.39 The increased residential density is in accordance with the substantial level of change anticipated by policy and the purpose of the Residential Growth Zone. The style and layout of the development is respectful of the existing development pattern and character of Doncaster Road. The development layout with detached buildings will blend in with the existing pattern of development further west of the site and avoids excessive width and massing to the street. The scale and design is also reflective of the townhouses as part of the Tullamore Estate immediately east of the site.

8.40 The two and three storey built form is consistent with surrounding properties and the maximum height complies with the relevant requirements.

8.41 Sufficient space is provided for the provision of meaningful landscaping including screen planting and canopy trees, which will respond to the character of the area.

8.42 The mix of building materials including brickwork, render and cladding will ensure the development is complementary to the character of the area and reflective of existing dwellings.

Visual bulk / excessive height

8.43 The proposal meets the relevant building height, setback, site coverage, and design detail provisions of the Scheme, as discussed in this report.

8.44 The dwellings are sited to respond to the slope of the land to avoid excessive building levels and overall heights. **Conditions on the permit** will require Dwellings 5 to 8 to be lowered by approximately 300mm and the northern walls to have a raked ceiling. This will further reduce the overall height and visual bulk of the dwellings.

8.45 Sufficient internal spacing is provided between the proposed buildings at all levels to minimise visual bulk and provide for landscaping to soften the appearance of the built form.

Traffic issues and lack of visitor parking

8.46 The proposal provides the required number of car parking spaces for residents in accordance with Clause 52.06 (Car Parking) of the Scheme.

8.47 One visitor space is provided within the site even though it is not a requirement under Clause 52.06, given the site is within the Principal Public Transport Network (PPTN) buffer area.

8.48 Council's Infrastructure and Sustainable Operations Unit does not have traffic concerns with the proposal.

8.49 The removal of redundant crossovers in the service road will improve the availability of on street parking.

8.50 Both driveways allow for two-way traffic, improving traffic flow by ensuring vehicles can enter and exit the subject site in a forward direction and avoiding the queuing of cars to access the subject site.

8.51 The provision of two crossover for the development will reduce the number of vehicle movements required for each access point and any potential traffic impacts.

Loss of vegetation

8.52 The land is zoned for residential purposes and there are no specific vegetation protection overlays applicable to the site. It is reasonable to assume some vegetation removal is required to enable the construction of the dwelling/s on the land. A **condition on the planning permit** will require a revised landscape plan to be submitted and endorsed as part of the planning permit.

8.53 No significant vegetation is required to be removed as part of the proposal. It is proposed to retain Tree 25, which is a large tree at the Doncaster Road frontage. The retention of this tree is considered a positive outcome.

8.54 The retention of this tree can be achieved through slight modifications to the development as discussed in this report.

8.55 Street trees 13 and 14 which are located at the eastern end of the Doncaster Road Service Road are also proposed to be retained.

Strain on existing infrastructure

8.56 Council's Infrastructure and Sustainable Operations Unit have raised no concerns relating to the capacity of existing services and utilities.

8.57 A **condition on the permit** will require an on-site detention system, which limits the rate of discharge from a site to the legal point of discharge. In limiting the discharge, it maintains the capacity in the existing Council drainage network to reduce flooding during extreme rainfall events.

Safety issues as a result of the proposed accessway on Doncaster Road

8.58 Council's Infrastructure and Sustainable Operations Unit have reviewed the proposed access arrangement and have raised no concerns relating to the crossover on Doncaster Road.

8.59 The application was also referred to the Department of Transport and Planning (DTP). DTP have provided their consent to the proposal subject to permit conditions.

8.60 The proposed crossover is sufficiently setback from the bus stop on Doncaster Road in front of the site.

8.61 The proposal will result in a reduction from three crossovers to only one crossover on Doncaster Road. This will leave ample space for any potential relocation of the bus stop in front of the site.

Amenity impacts as a result of the bin storge area along the eastern boundary

8.62 The communal bin storage area adjacent to the eastern boundary is setback 5.7 metres from the dwelling at 21 Silver Leaf Circuit. Given the large scale of the bin area and the close proximity to the neighbouring dwelling, this proposed location may result in amenity impacts.

8.63 Accordingly, a **condition on the permit** will require the bin storage area to be relocated between Dwellings 15 and 16. This can be achieved without any significant design changes.

Potential damage to existing boundary fencing

8.64 The development proposes to retain the 2 metre high eastern boundary fence.

8.65 The resident of 21 Silver Leaf Circuit is concerned that the removal of vegetation along the eastern boundary will result in impacts to the common boundary fence. Boundary fencing is ultimately a civil matter between adjoining property owners and is only a relevant consideration for this planning application insofar as it may be relied upon as a solution to limit potential overlooking.

8.66 A visual barrier of at least 1.8 metres in height is required on this boundary in order to appropriately limit overlooking from the proposed development. The boundary treatment notated on the plans meets this requirement.

8.67 Council will expect that the development (including fencing to the heights indicated on the plans) will be constructed in accordance with the endorsed plans.

Residential noise

8.68 Concerns have been raised regarding the potential noise generated from the dwellings after occupancy. The consideration of this planning application is confined only to the development of the dwellings, the residential use of the dwellings does not require a planning permit and is not a planning matter. Residential noise associated with a dwelling is considered normal and reasonable in an urban setting. Any future issues of amenity, if they arise should be pursued as a civil matter.

Loss of affordable housing options

8.69 An objection has raised concerns with the lack of affordable housing options in the area and urged the Council or State Government to consider a 'community buy back scheme' for providing affordable housing.

8.70 Council is committed to increasing the supply of affordable housing for members of our community on low to moderate incomes. Council adopted the Manningham Affordable Housing Policy in October 2023, which seeks a voluntary contribution of affordable housing for an application comprising 30 or more dwellings.

8.71 No voluntary contribution of affordable housing is sought under Council's policy given this development has less than 30 dwellings.

8.72 There is no planning requirement for affordable housing to be provided as part of this development.

8.73 Council does not offer any buyback scheme for the purchase of private properties to provide affordable housing.

9. CONCLUSION

9.1 The proposal is considered satisfactory and positively responds to the objectives of the Manningham Planning Scheme with a high degree of compliance particularly with respect to urban design, height, massing, car parking and traffic. Minor changes are recommended through permit conditions which will result in a fully compliant outcome.

9.2 For the reasons above, it is recommended the application be approved subject to conditions.

10. DECLARATION OF CONFLICT OF INTEREST

10.1 No officers involved in the preparation of this report have any general or material conflict of interest in this matter.

PROPOSAL FOR 25 DOUBLE AND TRIPLE STOREY TOWNHOUSES AT 449-461 DONCASTER ROAD, DONCASTER, VIC 3108

TOWN PLANNING DRAWING LIST:

TP00 - COVER SHEET
TP01 - SITE LOCATION PLAN
TP02 - NEIGHBORHOOD CHARACTER & SITE ANALYSIS
TP03 - DESIGN RESPONSE
TP04 - DEMOLITION PLAN & STREETSCAPES
TP05 - STREETSCAPES
TP06 - DEVELOPMENT SUMMARY
TP07 - SITE PLAN - GROUND FLOOR
TP08 - SITE PLAN - FIRST FLOOR
TP09 - SITE PLAN - SECOND FLOOR
TP10 - LOWER GROUND FLOOR PLAN -3
TP11 - GROUND FLOOR PLAN -1
TP12 - GROUND FLOOR PLAN -2
TP13 - GROUND FLOOR PLAN -3
TP14 - FIRST FLOOR PLAN -1
TP15 - FIRST FLOOR PLAN -2
TP16 - FIRST FLOOR PLAN -3
TP17 - SECOND FLOOR PLAN -1
TP18 - SECOND FLOOR PLAN -2
TP19 - SECOND FLOOR PLAN -3
TP20 - ROOF PLAN -1
TP22 - ROOF PLAN -2
TP22 - ROOF PLAN -3
TP23 - ELEVATIONS
TP24 - ELEVATIONS
TP25 - ELEVATIONS
TP26 - INTERNAL ELEVATIONS
TP27 - INTERNAL ELEVATIONS
TP28 - INTERNAL ELEVATIONS
TP29 - FENCE ELEVATIONS
TP30 - FENCE ELEVATIONS
TP31 - SECTIONS
TP32 - SECTIONS
TP33 - SHADOW DIAGRAMS
TP34 - SHADOW DIAGRAMS
TP35 - SHADOW DIAGRAMS
TP36 - SHADOW DIAGRAMS
TP37 - SHADOW DIAGRAMS
TP38 - 3D RENDER
TP39 - 3D RENDER

FOR COUNCIL RFI

Notes
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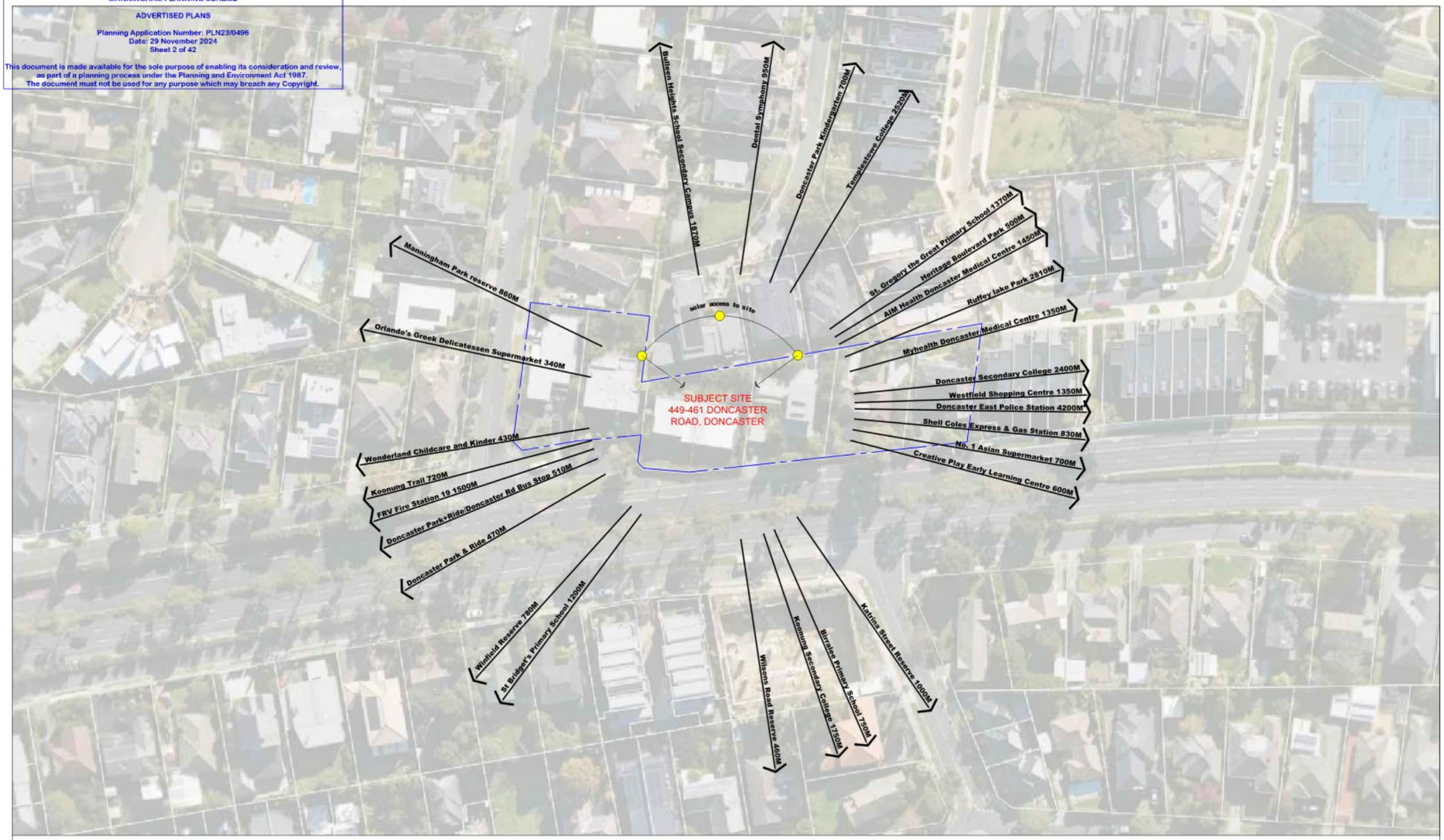
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: COVER SHEET

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP00
Date: 26-11-2024
Scale:
Drawn:
Checked:
Amendment: D



SITE LOCATION PLAN
SCALE 1:500 @ A1

FOR COUNCIL RFI

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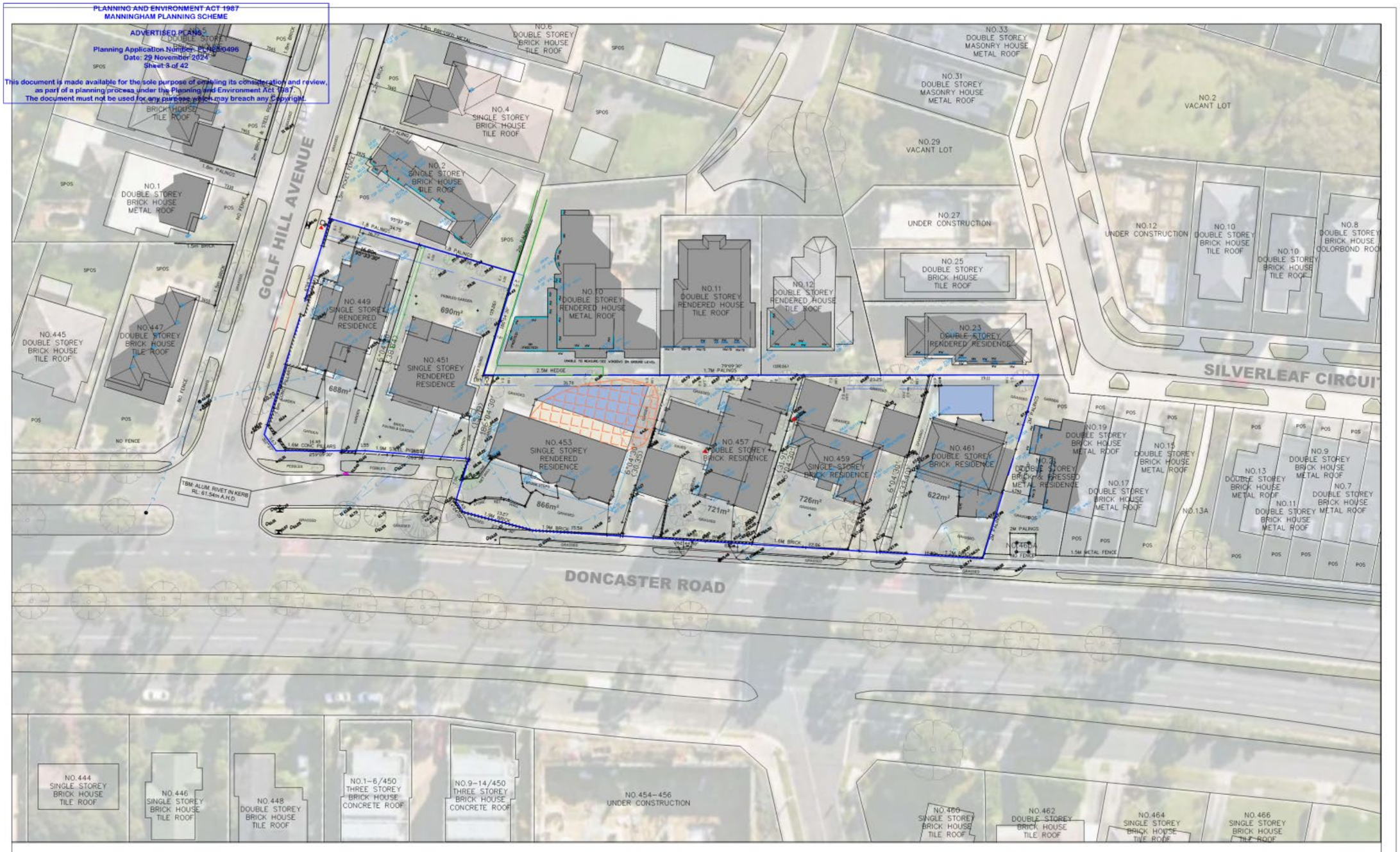

NEIGHBORHOOD CHARACTER
SCALE 1:300 @ A1

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: NEIGHBORHOOD CHARACTER

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP02
Date: 05-08-2024
Scale: 1:300
Drawn: ET/SL
Checked: AL /JW
Amendment: C

DESIGN RESPONSE
SCALE 1:300 @ A1

FOR COUNCIL RFI

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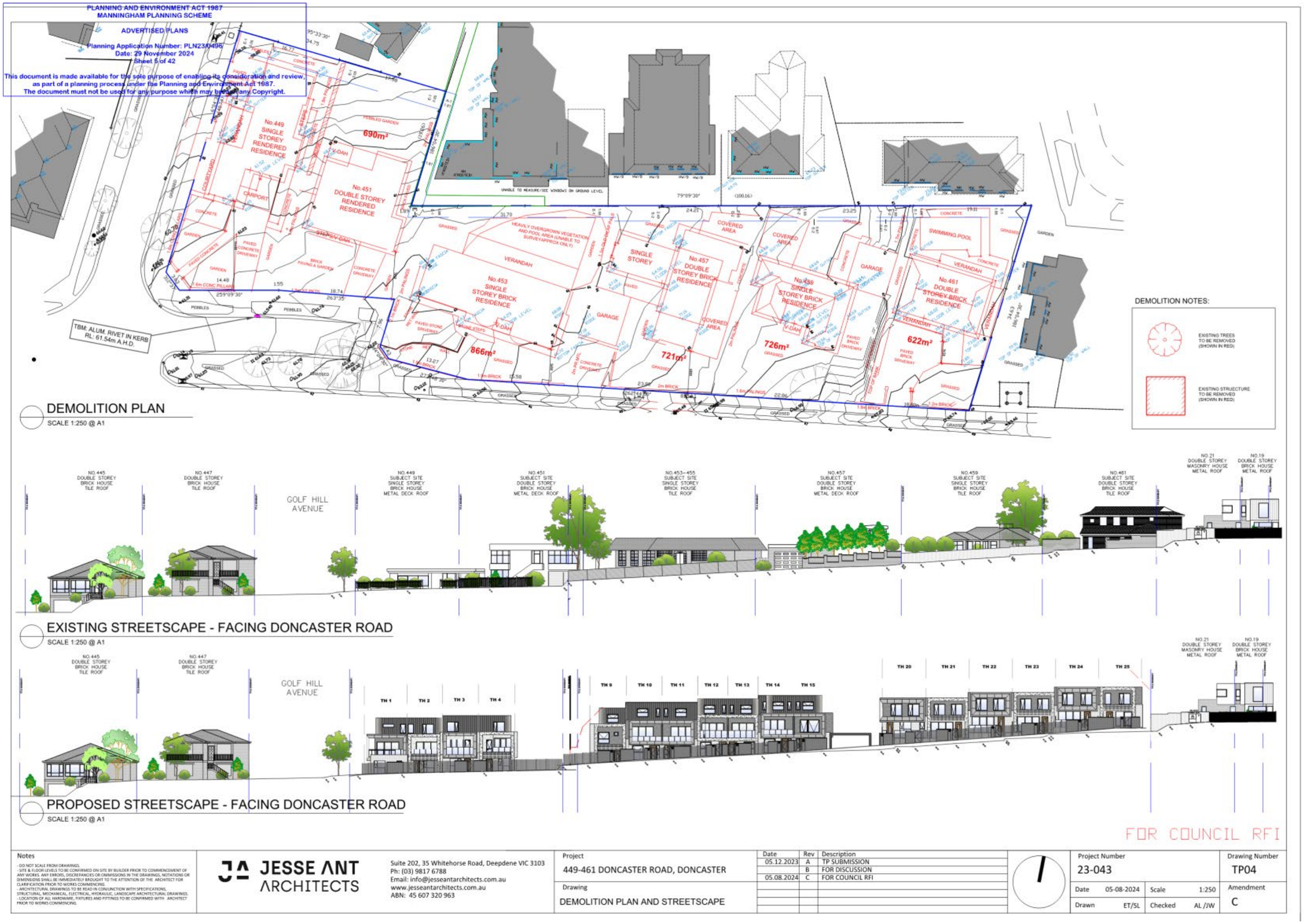
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: DESIGN RESPONSE

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP03
Date: 05-08-2024 Scale: 1:300
Drawn: ET/SL Checked: AL /JW
Amendment: C



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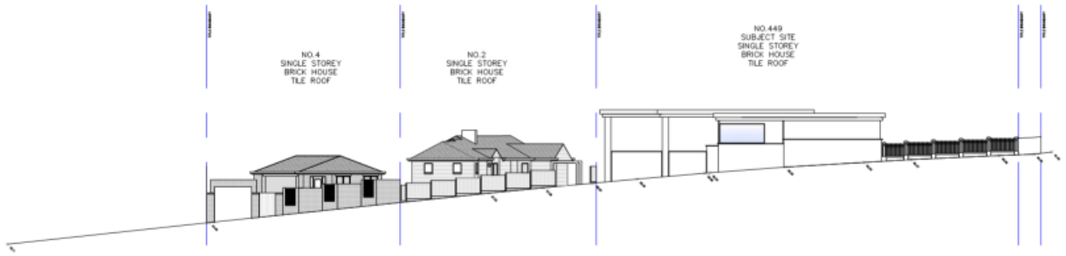
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: DEMOLITION PLAN AND STREETSCAPE

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP04
Date: 05-08-2024 Scale: 1:250
Drawn: ET/SL Checked: AL /JW
Amendment: C



EXISTING STREETSCAPE - FACING GOLF HILL AVENUE
SCALE 1:250 @ A1

PROPOSED STREETSCAPE - FACING GOLF HILL AVENUE
SCALE 1:250 @ A1

FOR COUNCIL RFI

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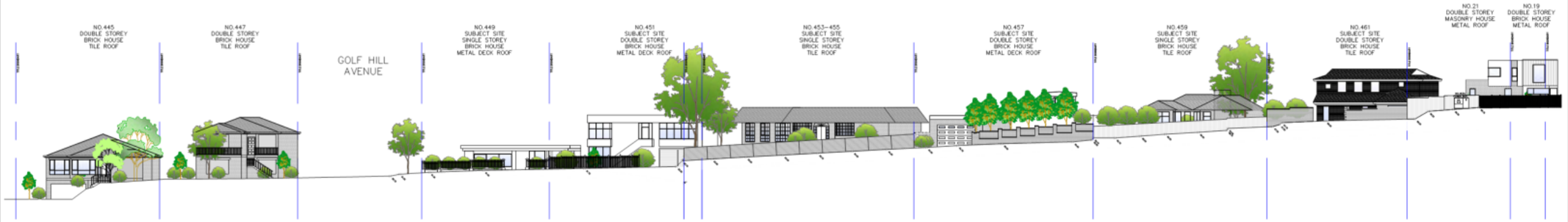
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: STREETSCAPE

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP05
Date: 05-08-2024
Scale: 1:250
Drawn: ET/SL
Checked: AL /JW
Amendment: C



EXISTING STREETSCAPE - SOUTH
SCALE 1:250 @ A1

PROPOSED STREETSCAPE - SOUTH
SCALE 1:250 @ A1

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: STREETSCAPE

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP05A
Date: 05-08-2024 | Scale: 1:250
Drawn: ET/SL | Checked: AL /JW
Amendment: C

DEVELOPMENT SUMMARY:

Total Site Area:	4321.0m²	
Total Site Coverage	2132.6m²	49.4%
Total Permeable Area	1414.9m²	32.8%
Total Driveway Area	910.5m²	21.1%
Total Garden Area:	1483.0m²	34.4%

TH1		
Ground Floor:	82.7m²	
First Floor Area:	67.3m²	81.4%
Second Floor Area	46.9m²	69.7%
Total Floor Area	196.9m²	
Balcony	14.0m²	
POS	98.1m²	
SPOS	50.7m²	

TH2		
Ground Floor:	65.7m²	
First Floor Area:	61.7m²	93.9%
Second Floor Area	54.4m²	88.1%
Total Floor Area	181.5m²	
Balcony	10.8m²	
POS	42.7m²	

TH3		
Ground Floor:	57.6m²	
First Floor Area:	56.1m²	97.4%
Second Floor Area	47.3m²	84.3%
Total Floor Area	161.0m²	
Balcony	8.5m²	
POS	39.3m²	

TH4		
Ground Floor:	58.8m²	
First Floor Area:	61.2m²	104.1%
Second Floor Area	43.3m²	70.8%
Total Floor Area	162.3m²	
Balcony	8.5m²	
POS	33.0m²	

TH5		
Ground Floor:	67.6m²	
First Floor Area:	62.0m²	91.7%
Second Floor Area	45.8m²	73.9%
Total Floor Area	175.6m²	
Balcony	8.4m²	
POS	71.0m²	
SPOS	22.9m²	

TH6		
Ground Floor:	76.8m²	
First Floor Area:	74.7m²	97.3%
Second Floor Area	61.6m²	82.5%
Total Floor Area	213.1m²	
Balcony	11.0m²	
POS	30.5m²	
SPOS	30.5m²	

TH7		
Ground Floor:	76.8m²	
First Floor Area:	74.7m²	97.3%
Second Floor Area	61.7m²	82.6%
Total Floor Area	213.2m²	
Balcony	11.0m²	
POS	30.7m²	
SPOS	30.7m²	

TH8 (Double Storey)		
Ground Floor:	105.2m²	
First Floor Area:	75.8m²	72.0%
Total Floor Area	181.0m²	
SPOS	50.7m²	
POS	75.8m²	

TH9		
Ground Floor:	66.0m²	
First Floor Area:	74.0m²	112.1%
Second Floor Area	44.9m²	60.6%
Total Floor Area	126.5m²	
Balcony	8.9m²	
POS	65.0m²	

TH10		
Ground Floor:	78.8m²	
First Floor Area:	72.6m²	92.1%
Second Floor Area	59.2m²	81.5%
Total Floor Area	210.6m²	
Balcony	15.3m²	
POS	40.6m²	

TH11		
Ground Floor:	77.3m²	
First Floor Area:	72.6m²	93.9%
Second Floor Area	59.2m²	81.5%
Balcony	15.3m²	
Total Floor Area	209.1m²	
POS	43.6m²	

TH12		
Ground Floor:	74.4m²	
First Floor Area:	69.9m²	93.9%
Second Floor Area	58.6m²	83.8%
Total Floor Area	202.9m²	
Balcony	14.1m²	
POS	29.1m²	

TH13		
Ground Floor:	74.4m²	
First Floor Area:	69.9m²	93.9%
Second Floor Area	58.6m²	83.8%
Total Floor Area	202.9m²	
Balcony	14.1m²	
POS	30.6m²	

TH14		
Ground Floor:	88.0m²	
First Floor Area:	82.9m²	94.2%
Second Floor Area	67.6m²	81.5%
Total Floor Area	238.5m²	
Balcony	13.8m²	
POS	38.5m²	

TH15		
Ground Floor:	89.8m²	
First Floor Area:	94.9m²	105.7%
Second Floor Area	55.4m²	58.4%
Total Floor Area	228.1m²	
Balcony	10.1m²	
POS	44.1m²	

TH16 (Double Storey)		
Ground Floor:	92.5m²	
First Floor Area:	88.9m²	96.1%
Total Floor Area	181.4m²	
SPOS	52.2m²	
POS	63.9m²	

TH17 (Double Storey)		
Ground Floor:	92.5m²	
First Floor Area:	88.9m²	96.1%
Total Floor Area	181.4m²	
SPOS	48.4m²	
POS	59.9m²	

TH18 (Double Storey)		
Ground Floor:	92.5m²	
First Floor Area:	88.9m²	96.1%
Total Floor Area	181.4m²	
SPOS	48.4m²	
POS	59.9m²	

TH19 (Double Storey)		
Ground Floor:	92.5m²	
First Floor Area:	83.8m²	90.6%
Total Floor Area	176.3m²	
SPOS	67.7m²	
POS	86.5m²	

TH20		
Lower Ground Floor	52.2m²	
Upper Ground Floor:	46.5m²	89.1%
First Floor Area:	55.6m²	119.6%
Total Floor Area	154.3m²	
Balcony	9.9m²	
POS	42.9m²	

TH21		
Lower Ground Floor	51.3m²	
Upper Ground Floor:	50.8m²	99.0%
First Floor Area:	58.7m²	115.5%
Total Floor Area	165.1m²	
Balcony	10.5m²	
POS	40.7m²	

TH22		
Lower Ground Floor	51.3m²	
Upper Ground Floor:	50.8m²	99.0%
First Floor Area:	58.7m²	115.5%
Total Floor Area	165.0m²	
Balcony	10.5m²	
POS	43.1m²	

TH23		
Lower Ground Floor	51.3m²	
Upper Ground Floor:	53.8m²	99.0%
First Floor Area:	58.7m²	115.5%
Total Floor Area	165.0m²	
Balcony	10.5m²	
POS	46.1m²	

TH24		
Lower Ground Floor	60.1m²	
Upper Ground Floor:	53.8m²	89.5%
First Floor Area:	58.7m²	109.1%
Total Floor Area	173.7m²	
Balcony	10.5m²	
POS	48.4m²	

TH25		
Lower Ground Floor	61.1m²	
Upper Ground Floor:	62.4m²	102.1%
First Floor Area:	67.6m²	108.3%
Total Floor Area	191.2m²	
Balcony	9.9m²	
POS	43.9m²	

FOR COUNCIL RFI

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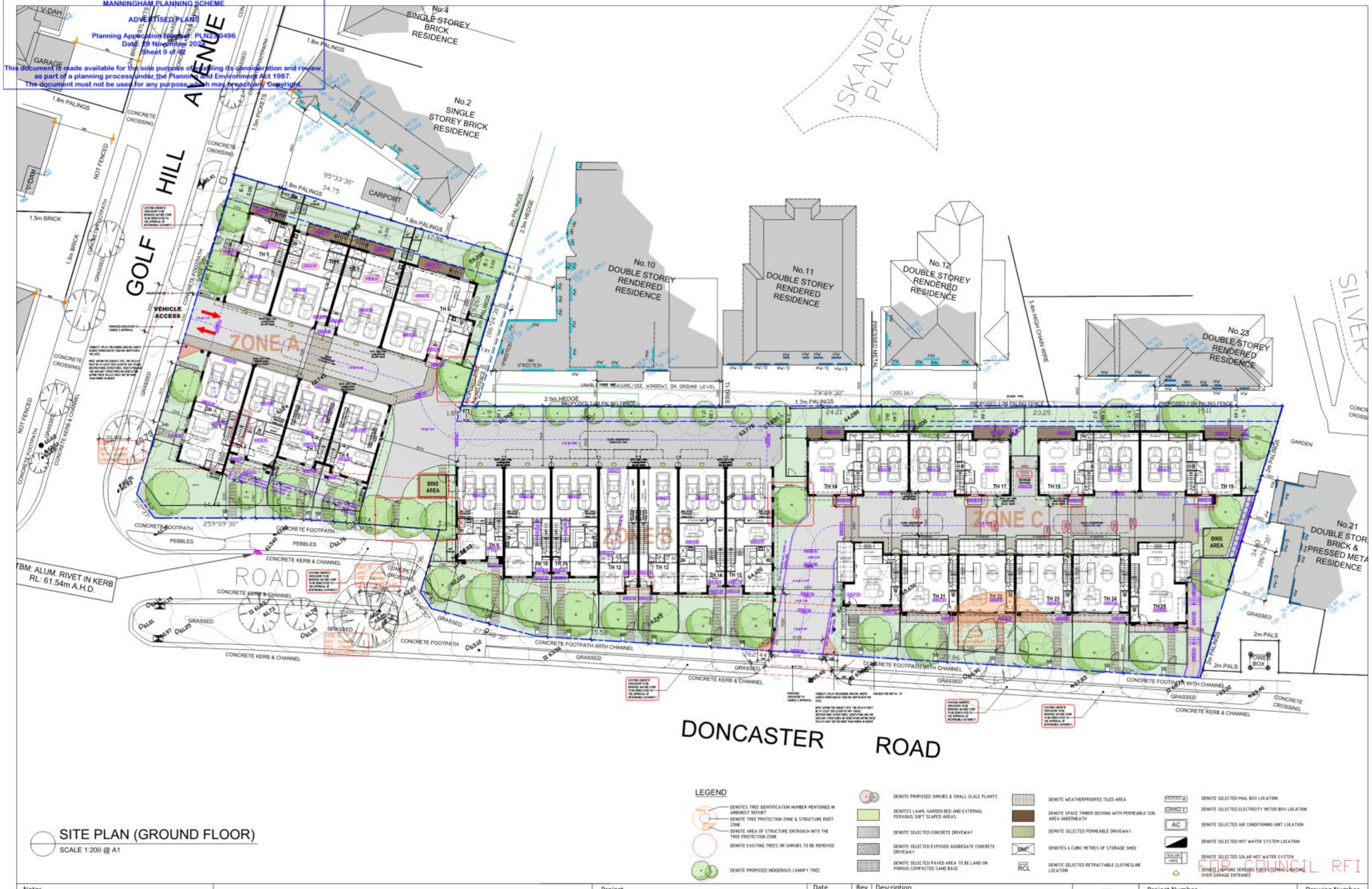
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: DEVELOPMENT SUMMARY

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP06
Date: 26-11-2024
Scale:
Drawn:
Checked:
Amendment: D



SITE PLAN (GROUND FLOOR)
SCALE 1:200 @ A1

LEGEND

- DENOTES TREE IDENTIFICATION NUMBER MENTIONED IN ARBORIST REPORT
- DENOTE TREE PROTECTION ZONE & STRUCTURE ROOT ZONE
- DENOTE AREA OF STRUCTURE ENCROACH INTO THE TREE PROTECTION ZONE
- DENOTE EXISTING TREES OR SHRUBS TO BE REMOVED
- DENOTE PROPOSED INDIGENOUS CANOPY TREE
- DENOTE PROPOSED SHRUBS & SMALL SCALE PLANTS
- DENOTES LAWN, GARDEN BED AND EXTERNAL PERVIOUS SOFT SCAPED AREAS.
- DENOTE SELECTED CONCRETE DRIVEWAY
- DENOTE SELECTED EXPOSED AGGREGATE CONCRETE DRIVEWAY
- DENOTE SELECTED PAVED AREA TO BE LAID ON PERVIOUS COMPACTED SAND BASE
- DENOTE WEATHERPROOFED TILED AREA
- DENOTE SPACE TIMBER DECKING WITH PERMEABLE SOIL AREA UNDERNEATH
- DENOTE SELECTED PERMEABLE DRIVEWAY
- DMC — DENOTES 6 CUBIC METRES OF STORAGE SHED
- RCL — DENOTE SELECTED RETRACTABLE CLOTHESLINE LOCATION
- DENOTE SELECTED MAIL BOX LOCATION
- DENOTE SELECTED ELECTRICITY METER BOX LOCATION
- AC — DENOTE SELECTED AIR CONDITIONING UNIT LOCATION
- DENOTE SELECTED HOT WATER SYSTEM LOCATION
- SOLAR HWS — DENOTE SELECTED SOLAR HOT WATER SYSTEM
- DENOTE LIGHTING SENSORS FOR EXTERNAL LIGHTING OVER GARAGE ENTRANCE

FOR COUNCIL RFI

Notes
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Email: info@jesseantarchitects.com.au
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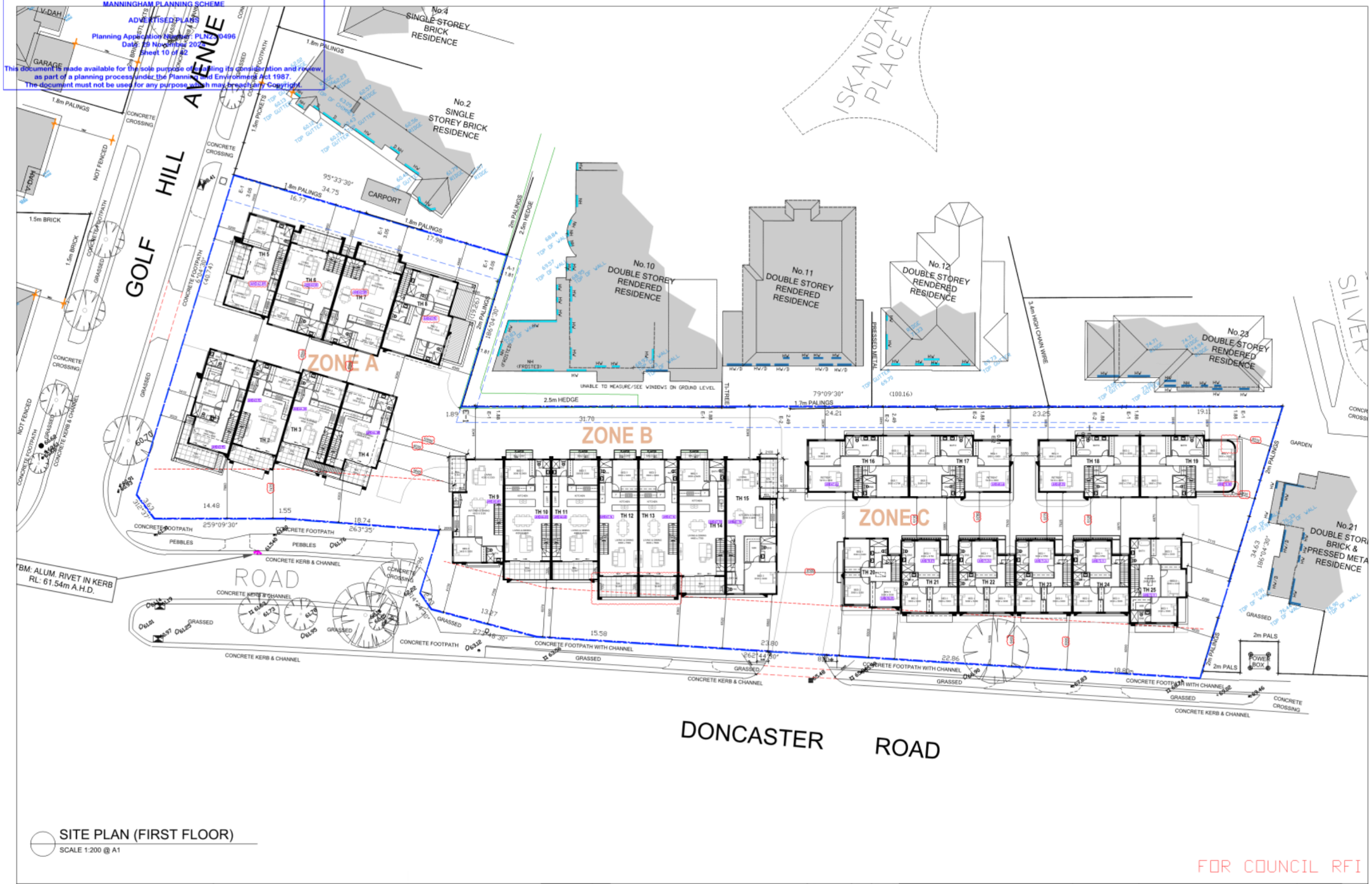
ABN: 45 607 320 963

Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SITE PLAN (GROUND FLOOR)

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP07
Date: 26-11-2024
Scale: 1:200
Drawn:
Checked:
Amendment: D



SITE PLAN (FIRST FLOOR)
SCALE 1:200 @ A1

FOR COUNCIL RFI

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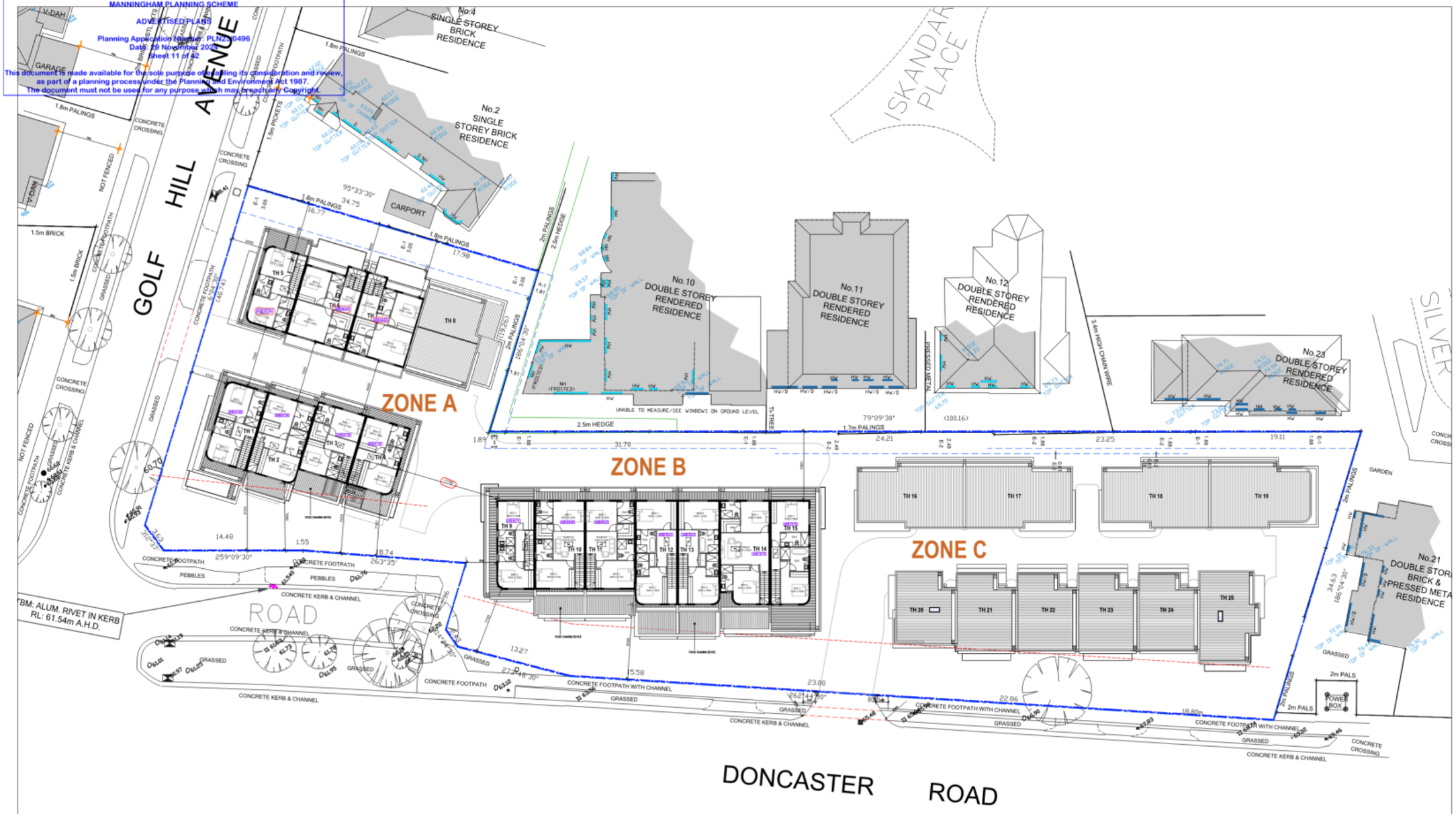
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SITE PLAN (FIRST FLOOR)

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
05.08.2024	B	FOR DISCUSSION
14.10.2024	C	FOR COUNCIL RFI
	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP08
Date: 26-11-2024
Scale: 1:200
Drawn:
Checked:
Amendment: D



SITE PLAN (SECOND FLOOR)
SCALE 1:200 @ A1

FOR COUNCIL RFI

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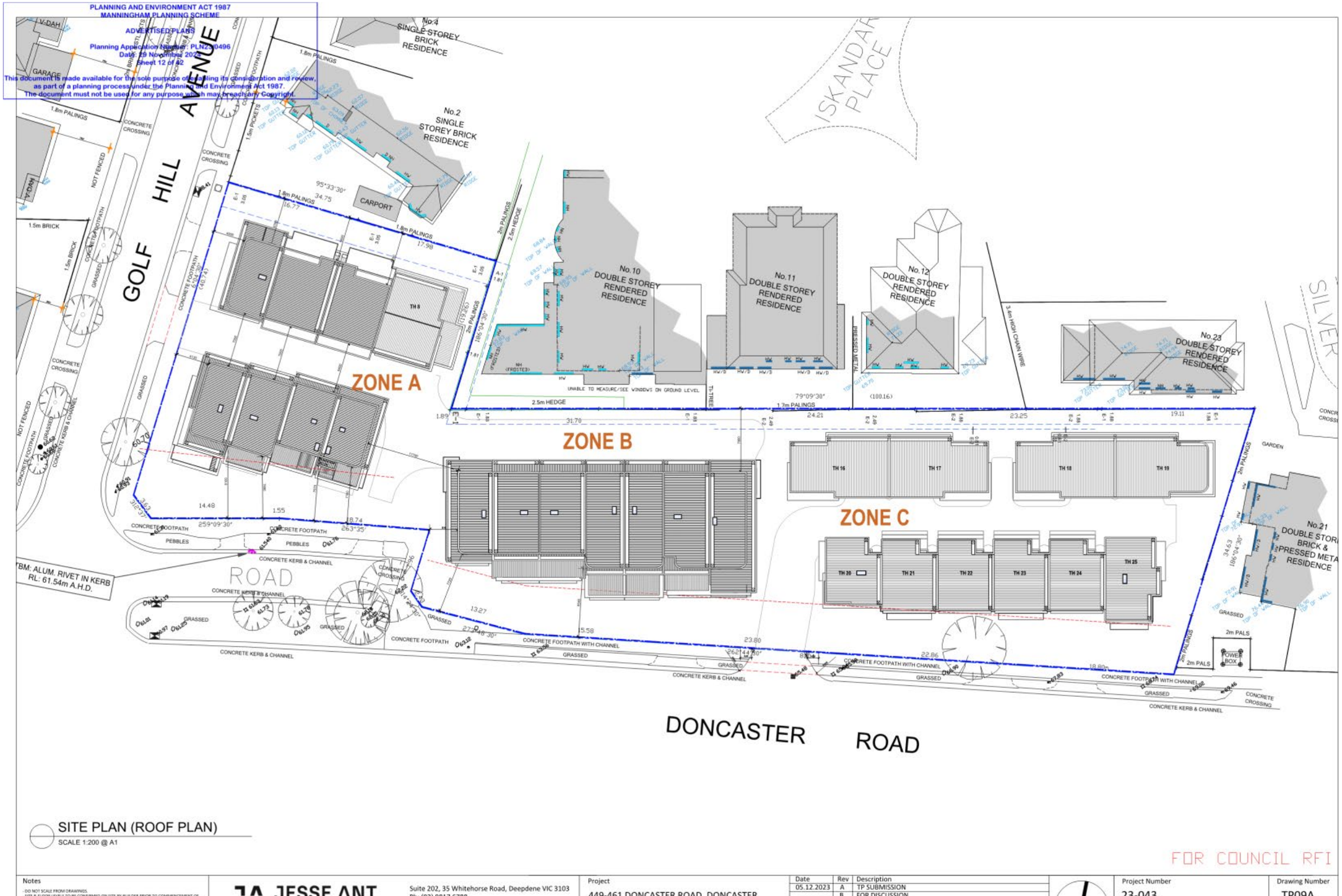
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SITE PLAN (SECOND FLOOR)

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP09
Date: 26-11-2024
Scale: 1:200
Amendment: D
Drawn
Checked



SITE PLAN (ROOF PLAN)
SCALE 1:200 @ A1

FOR COUNCIL RFI

Notes						
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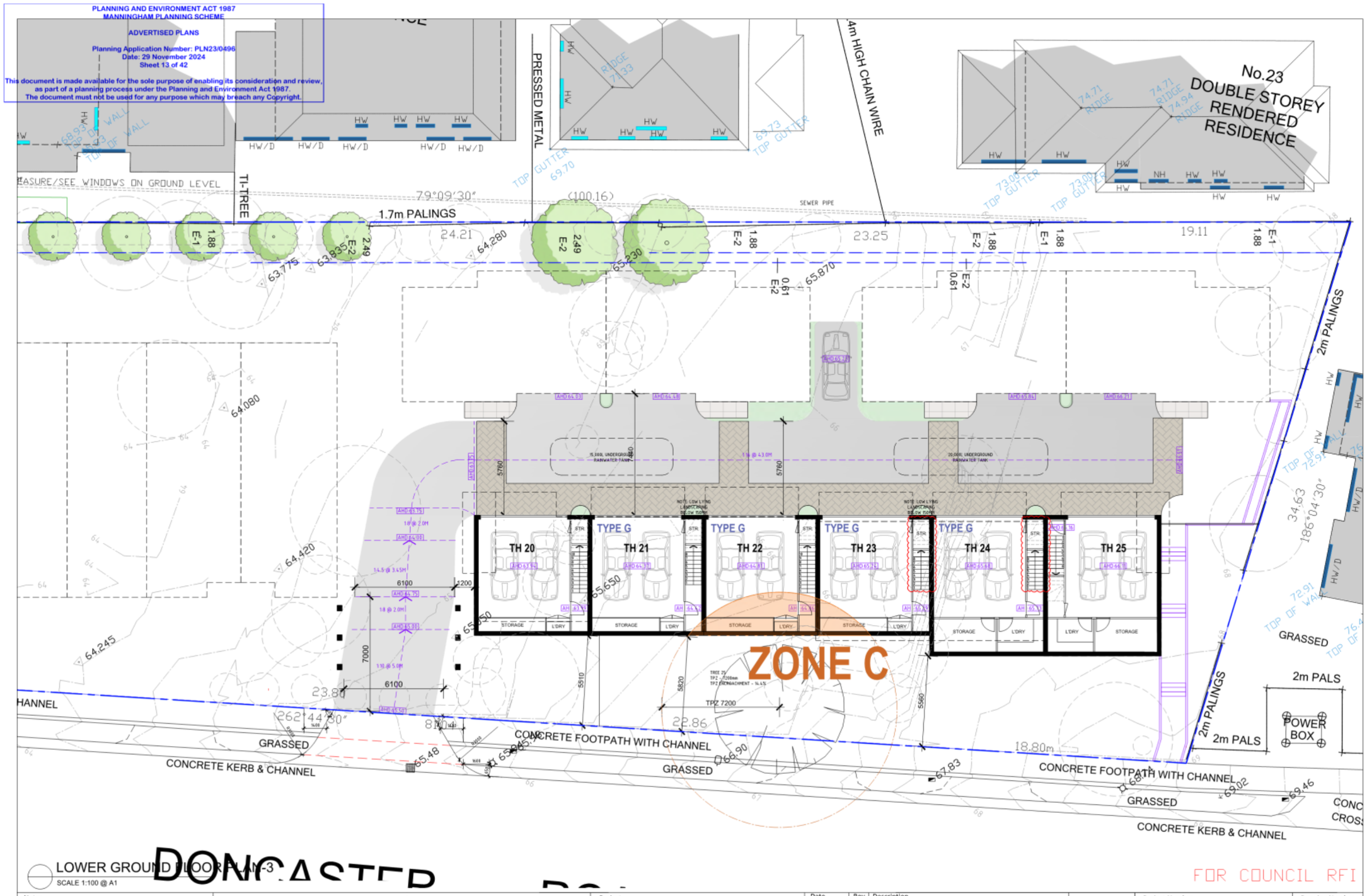

Notes		Project	Date	Rev	Description	Project Number	Drawing Number
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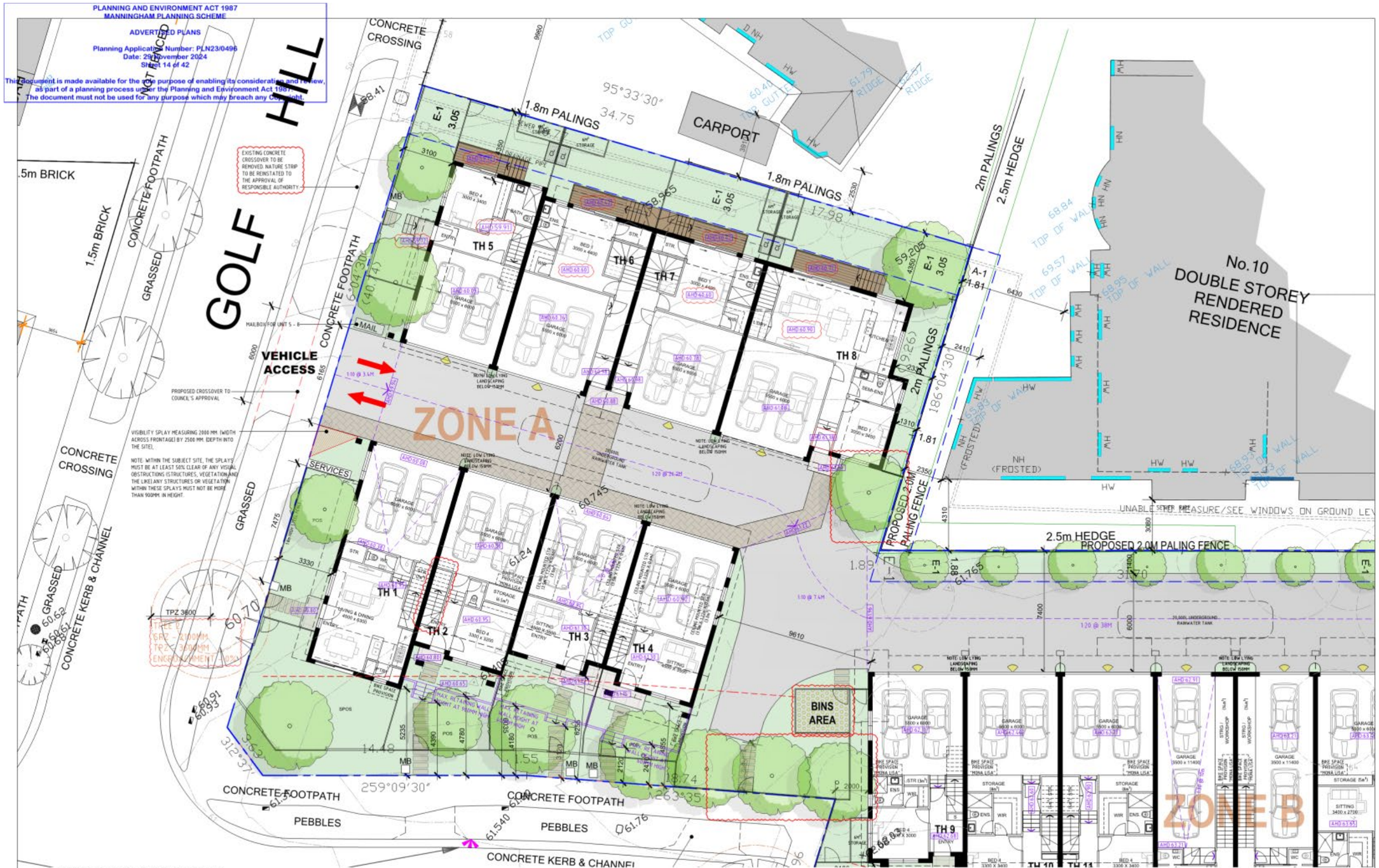
		Drawing		B	FOR DISCUSSION	Date 26-11-2024 Scale 1:100	Amendment
		LOWER GROUND FLOOR PLAN-3	05.08.2024	C	FOR COUNCIL RFI	Drawn Checked	D
			14.10.2024	D	FOR COUNCIL RFI		



GROUND FLOOR PLAN-1
SCALE 1:100 @ A1

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: GROUND FLOOR PLAN - 1

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
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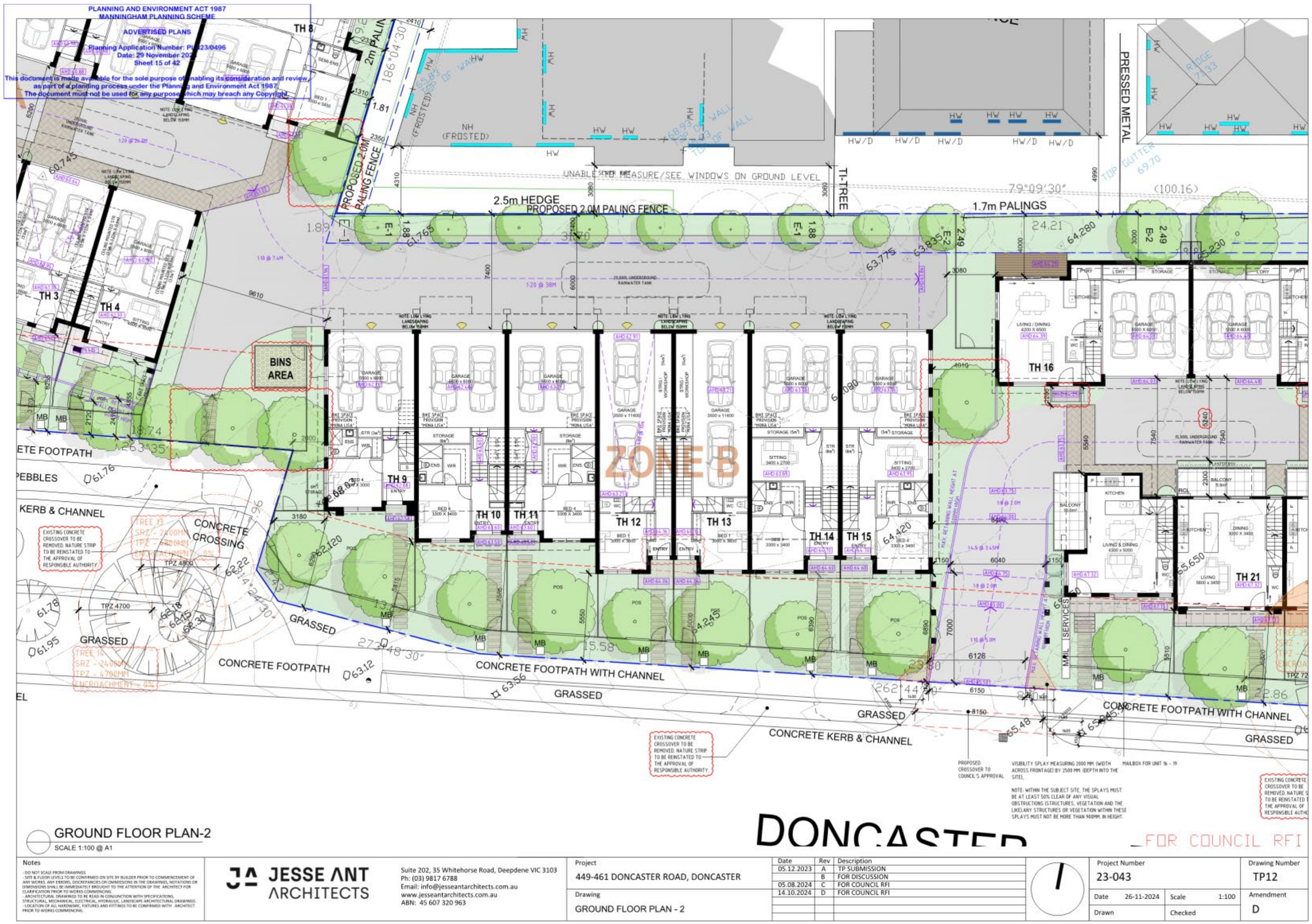
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP11
Date: 26-11-2024
Scale: 1:100
Drawn:
Checked:
Amendment: D


PLANNING AND ENVIRONMENT ACT 1987
MANNINGHAM PLANNING SCHEME
ADVERTISED PLANS
Planning Application Number: PLN23/0496
Date: 29 November 2024
Sheet 15 of 42
This document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any Copyright.
2.5m HEDGE
PROPOSED 2.0M PALING FENCE
1.7m PALINGS
UNABLE TO MEASURE/SEE WINDOWS ON GROUND LEVEL
PRESSED METAL
TI-TREE
BINS AREA
ZONE B
TH 3
TH 4
TH 8
TH 9
TH 10
TH 11
TH 12
TH 13
TH 14
TH 15
TH 16
TH 21
CONCRETE FOOTPATH
CONCRETE FOOTPATH WITH CHANNEL
CONCRETE KERB & CHANNEL
CONCRETE CROSSING
GRASSED
EXISTING CONCRETE CROSSOVER TO BE REMOVED. NATURE STRIP TO BE REINSTATED TO THE APPROVAL OF RESPONSIBLE AUTHORITY
PROPOSED CROSSOVER TO COUNCIL'S APPROVAL
VISIBILITY SPLAY MEASURING 2000 MM (WIDTH ACROSS FRONTAGE) BY 2500 MM (DEPTH INTO THE SITE).
NOTE: WITHIN THE SUBJECT SITE, THE SPLAYS MUST BE AT LEAST 50% CLEAR OF ANY VISUAL OBSTRUCTIONS (STRUCTURES, VEGETATION AND THE LIKE).ANY STRUCTURES OR VEGETATION WITHIN THESE SPLAYS MUST NOT BE MORE THAN 900MM IN HEIGHT.
MAILBOX FOR UNIT 16 - 19
GROUND FLOOR PLAN-2
SCALE 1:100 @ A1
DONCASTER
FOR COUNCIL RFI
Notes
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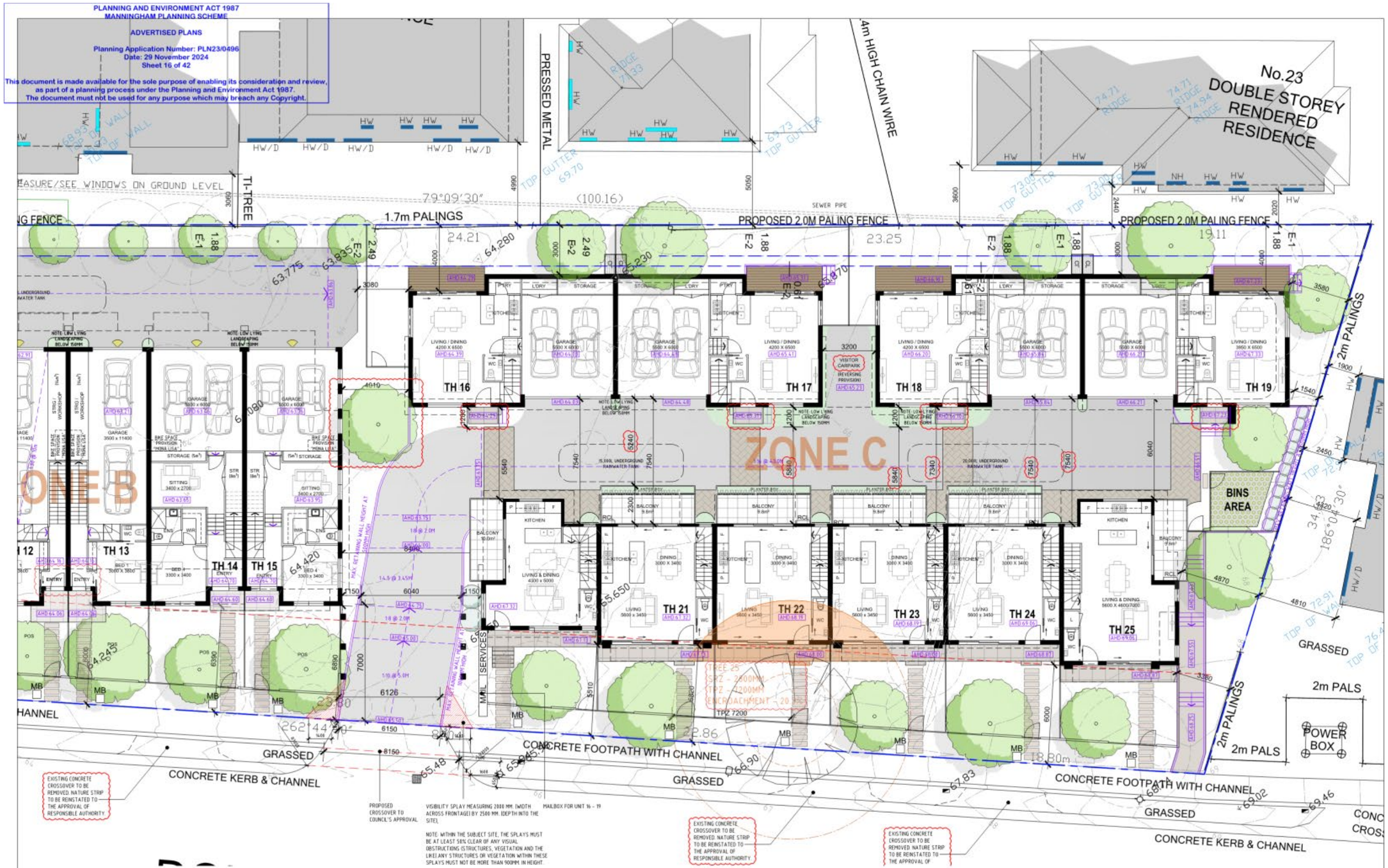
Project
449-461 DONCASTER ROAD, DONCASTER
Drawing
GROUND FLOOR PLAN - 2
Date Rev Description
05.12.2023 A TP SUBMISSION
B FOR DISCUSSION
05.08.2024 C FOR COUNCIL RFI
14.10.2024 D FOR COUNCIL RFI
Project Number
23-043
Drawing Number
TP12
Date 26-11-2024
Scale 1:100
Drawn
Checked
Amendment
D



GROUND FLOOR PLAN-3
SCALE 1:100 @ A1

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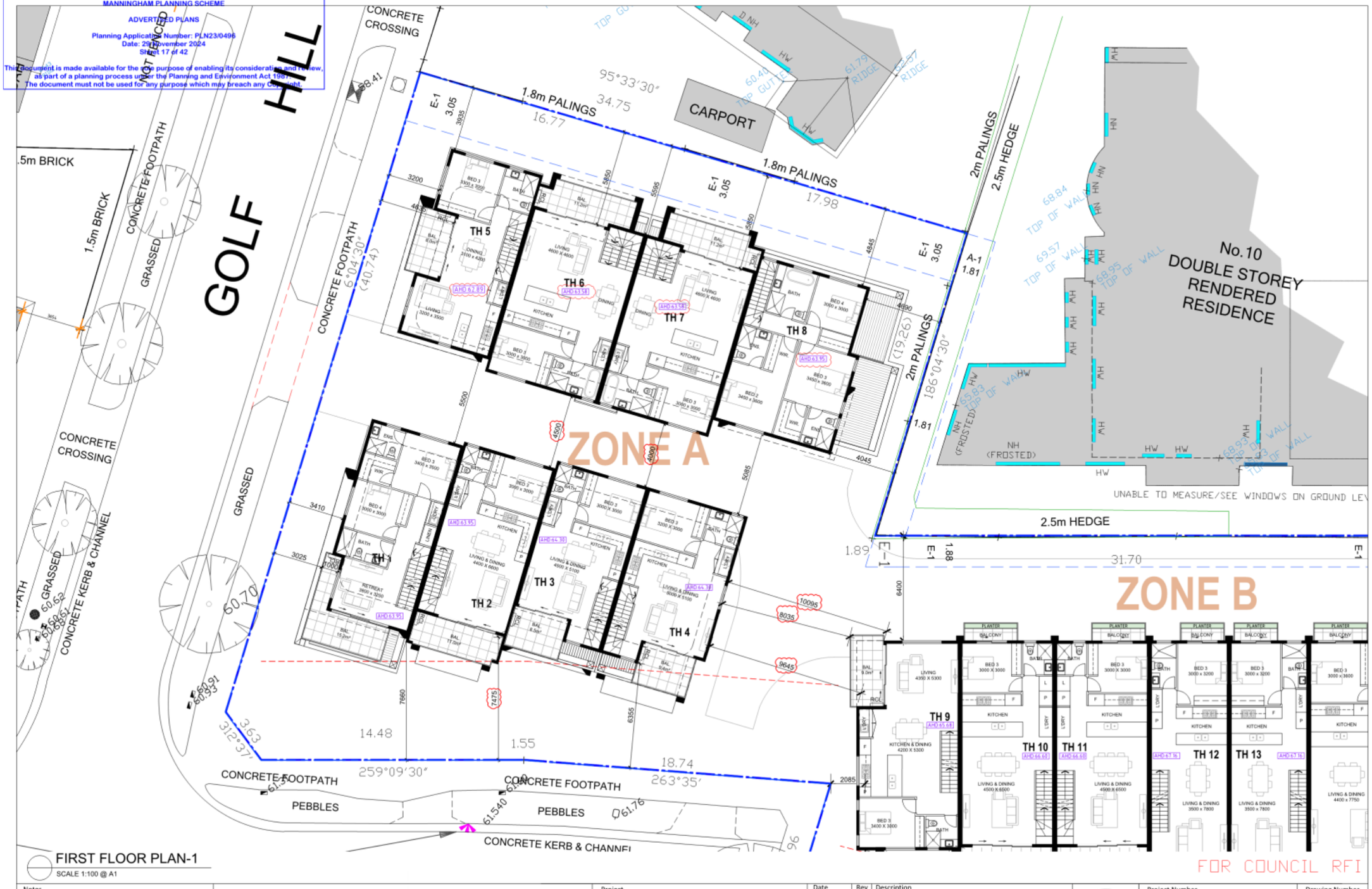
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: GROUND FLOOR PLAN - 2

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP13
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D



FIRST FLOOR PLAN-1
SCALE 1:100 @ A1

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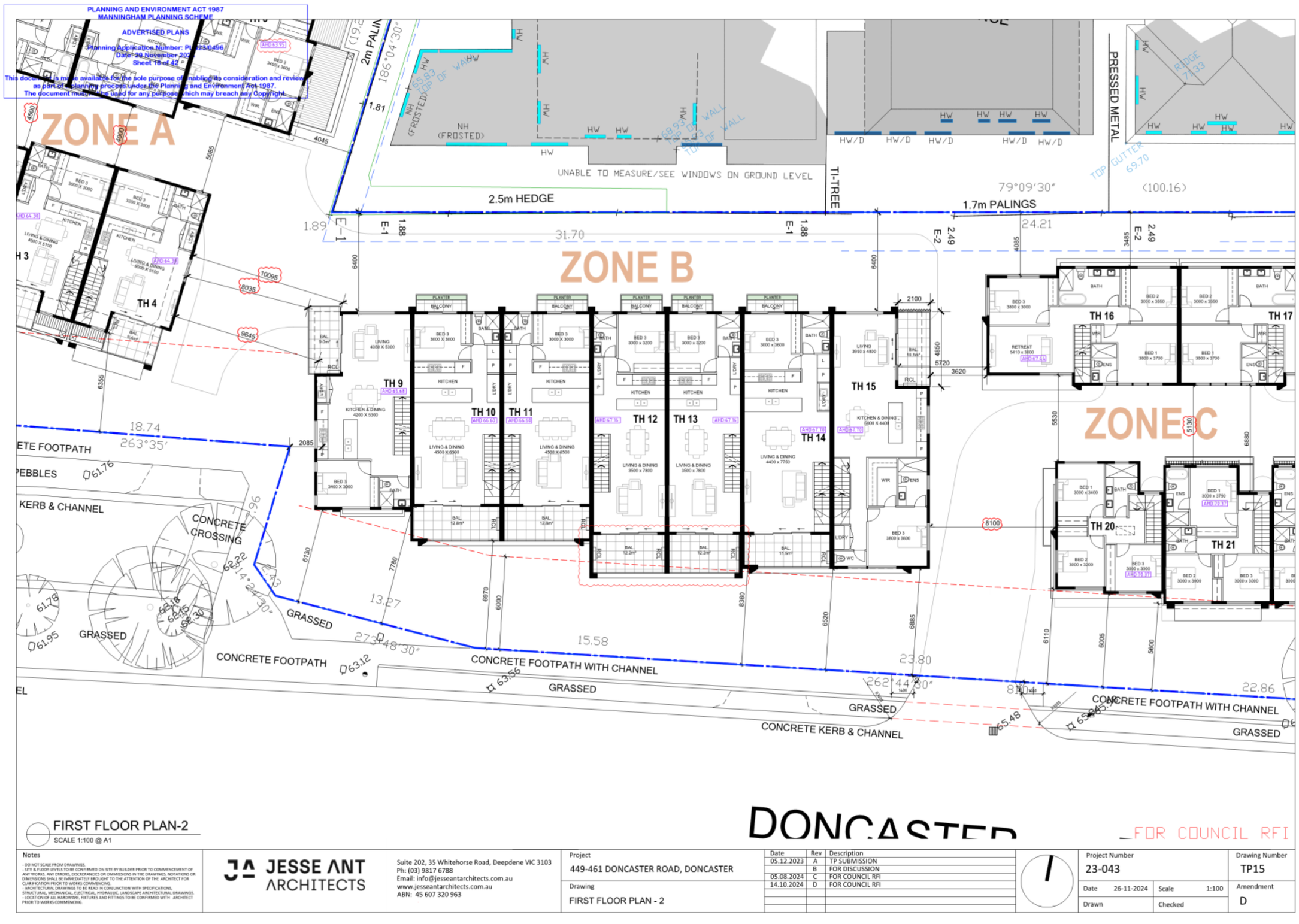
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: FIRST FLOOR PLAN - 1

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP14
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D



DONCASTER

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: FIRST FLOOR PLAN - 2

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP15
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D

FIRST FLOOR PLAN-3
SCALE 1:100 @ A1

DONCASTER

FOR COUNCIL RFI

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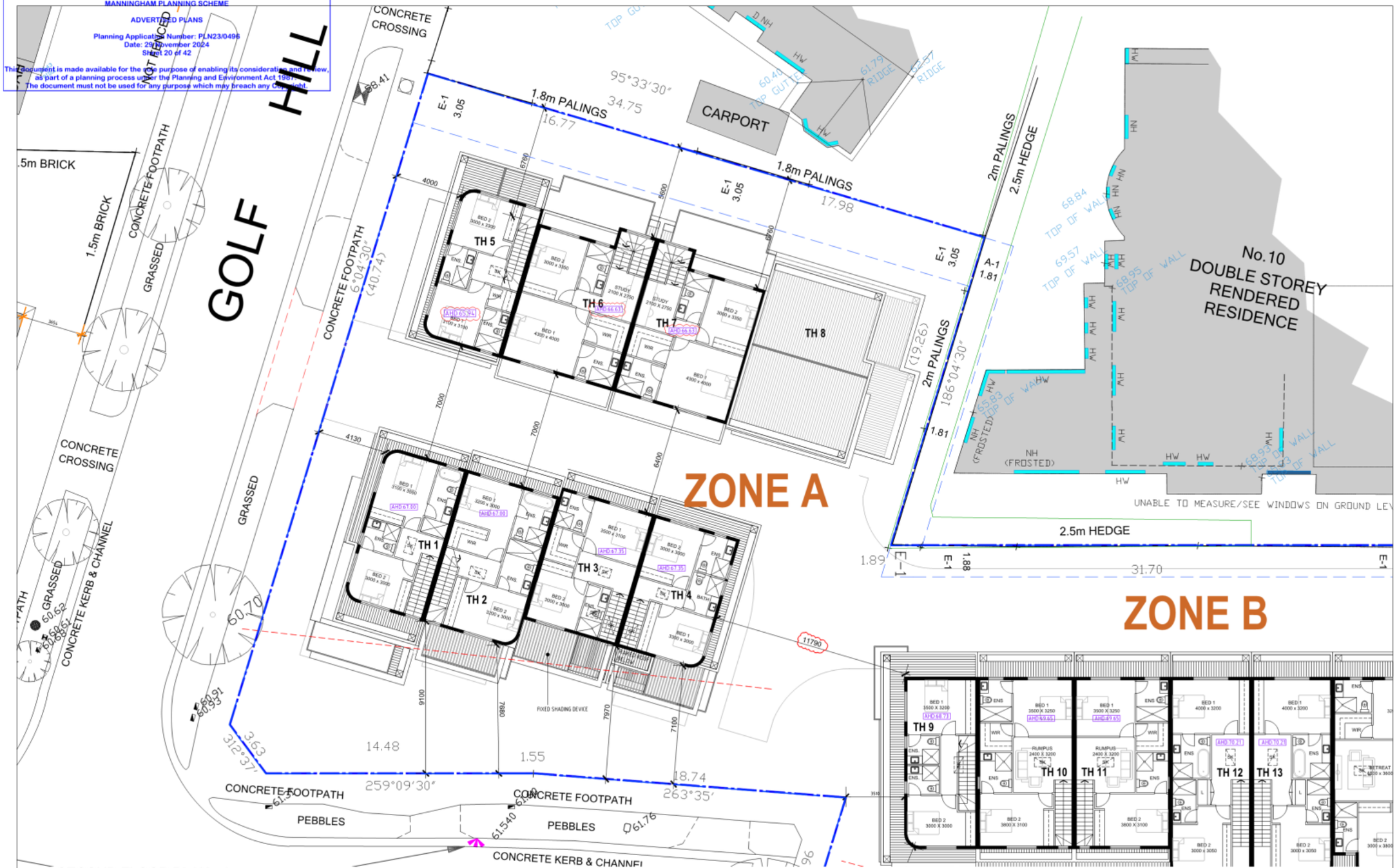
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: FIRST FLOOR PLAN-3

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP16
Date: 26-11-2024
Scale: 1:100
Amendment: D
Drawn
Checked



SECOND FLOOR PLAN - 1
SCALE 1:100 @ A1

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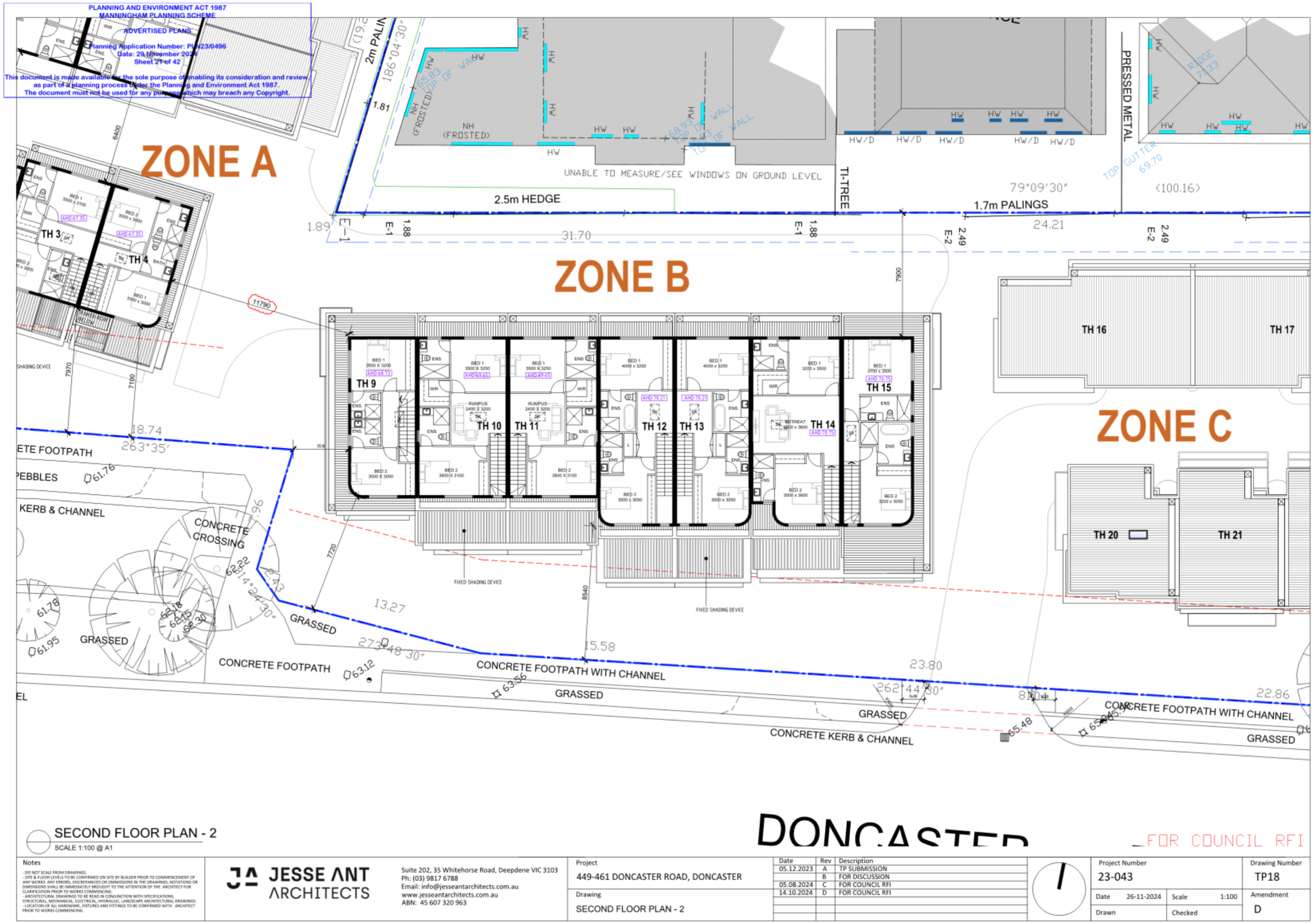
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SECOND FLOOR PLAN - 1

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP17
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D



SECOND FLOOR PLAN - 2
SCALE 1:100 @ A1

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FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SECOND FLOOR PLAN - 2

Date	Rev	Description
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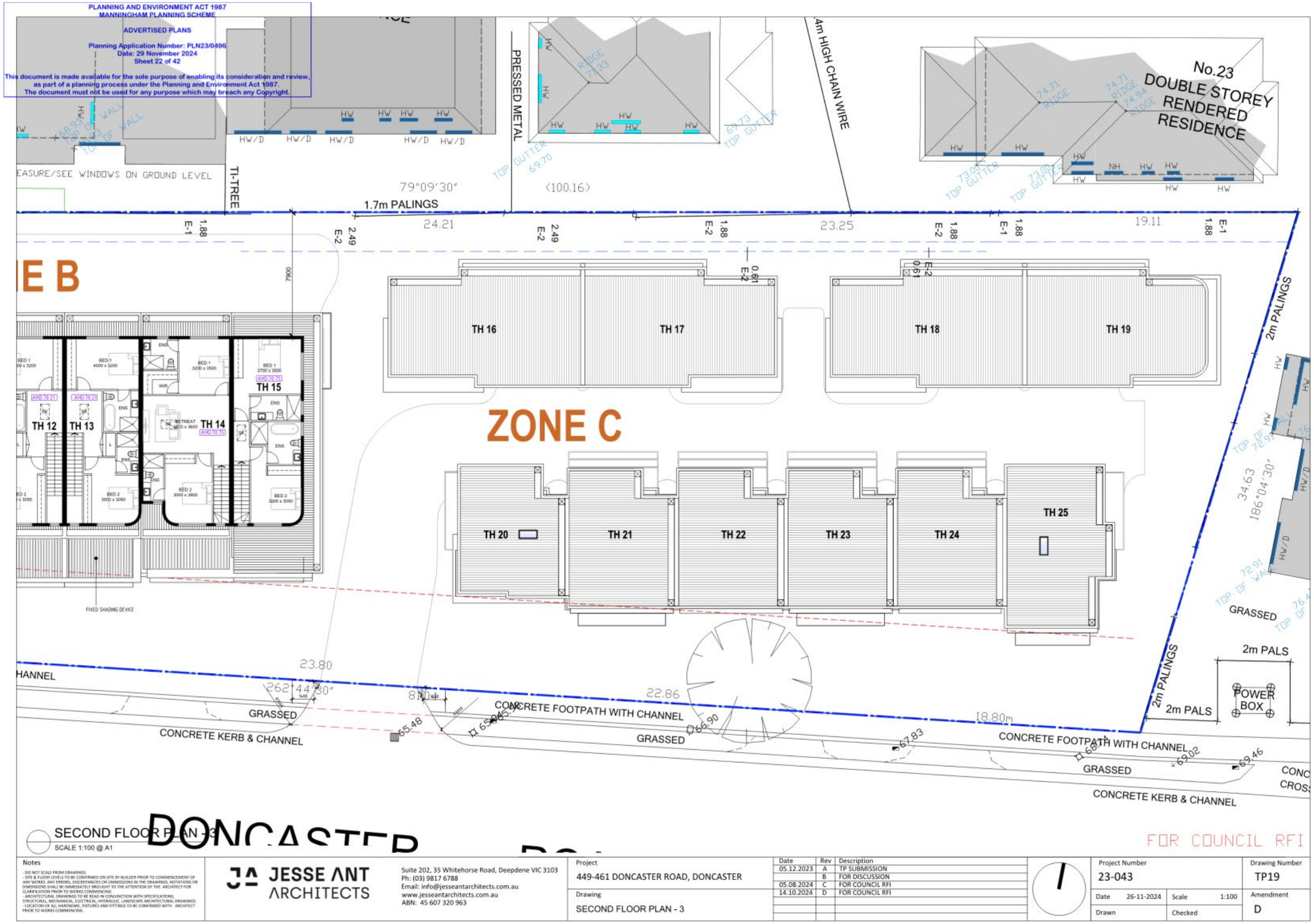
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP18
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D



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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SECOND FLOOR PLAN - 3

Date	Rev	Description
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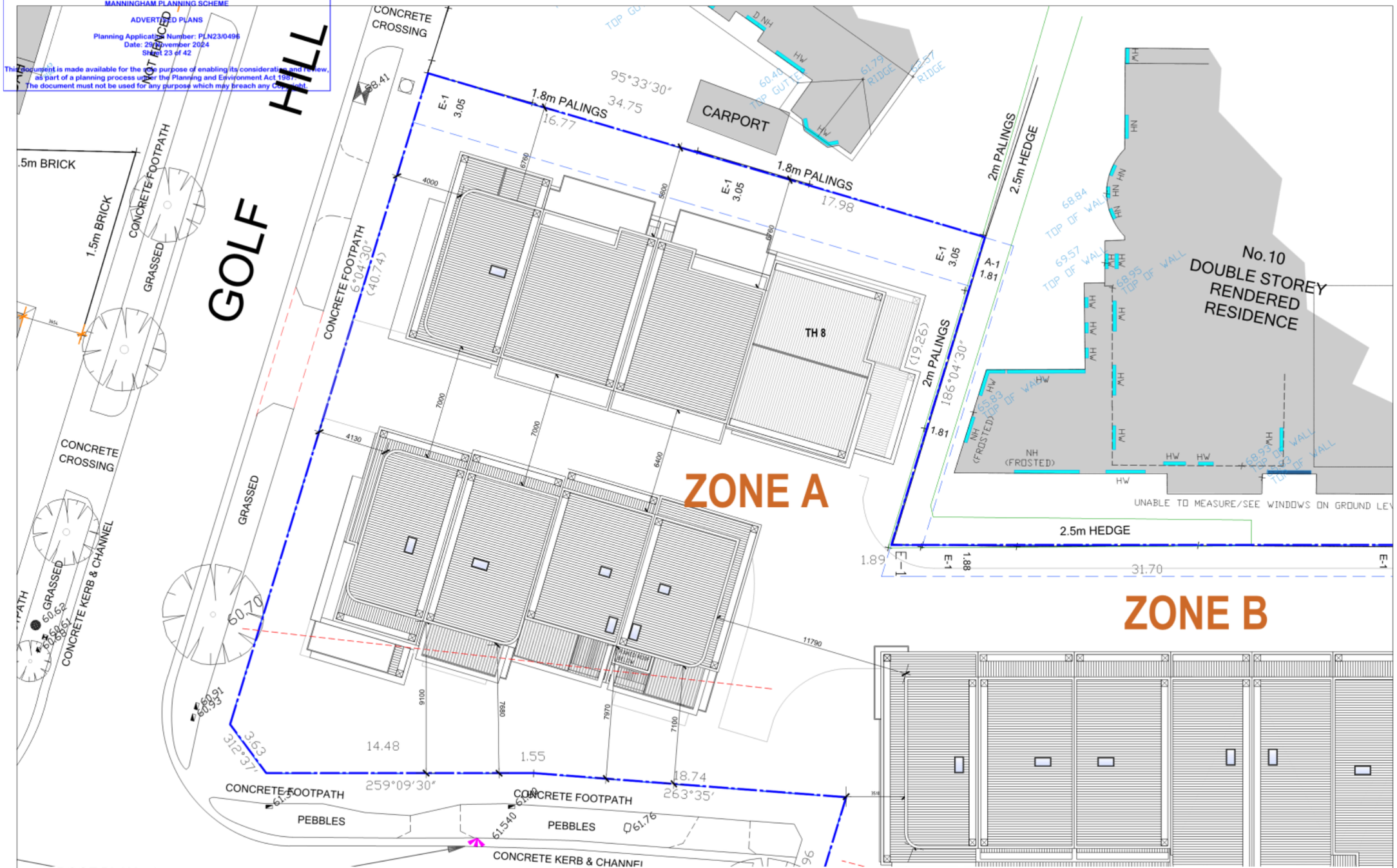
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP19
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D



Notes
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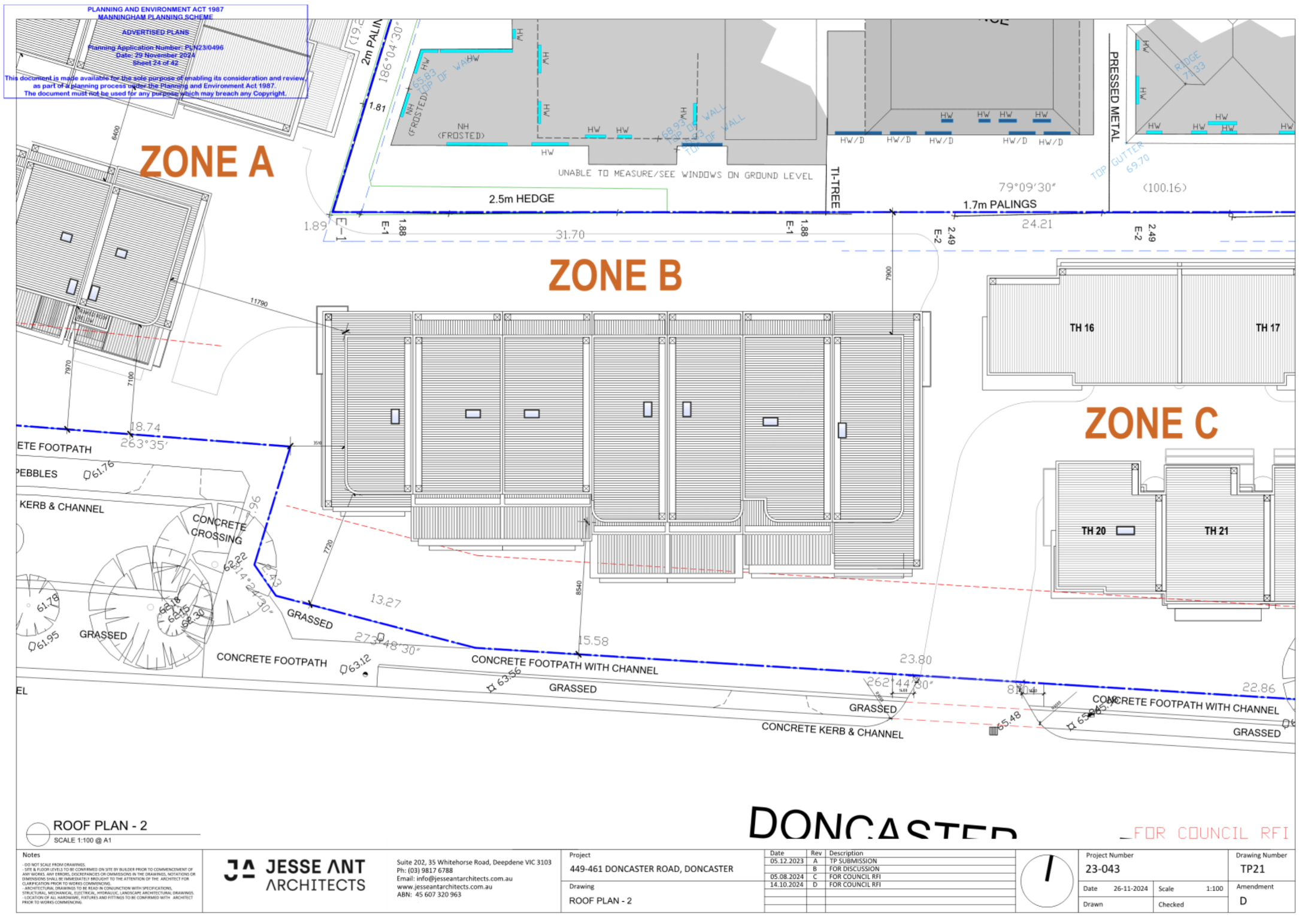
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: ROOF PLAN- 1

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP20
Date: 26-11-2024
Scale: 1:100
Amendment: D
Drawn
Checked


PLANNING AND ENVIRONMENT ACT 1987
MANNINGHAM PLANNING SCHEME
ADVERTISED PLANS
Planning Application Number: PLN23/0496
Date: 29 November 2024
Sheet 24 of 42
This document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any Copyright.
ZONE A
ZONE B
ZONE C
2m PALIN
186°04'30"
1.81
NH (FROSTED)
UNABLE TO MEASURE/SEE WINDOWS ON GROUND LEVEL
2.5m HEDGE
1.7m PALINGS
PRESSED METAL
TI-TREE
79°09'30"
(100.16)
24.21
31.70
1.89
E-1
1.88
E-2
2.49
TH 16
TH 17
TH 20
TH 21
11790
7970
7100
18.74
263°35'
ETE FOOTPATH
PEBBLES
KERB & CHANNEL
CONCRETE CROSSING
GRASSED
CONCRETE FOOTPATH
CONCRETE FOOTPATH WITH CHANNEL
CONCRETE KERB & CHANNEL
13.27
15.58
23.80
22.86
262°44'30"
273°48'30"
ROOF PLAN - 2
SCALE 1:100 @ A1
DONCASTER
FOR COUNCIL RFI
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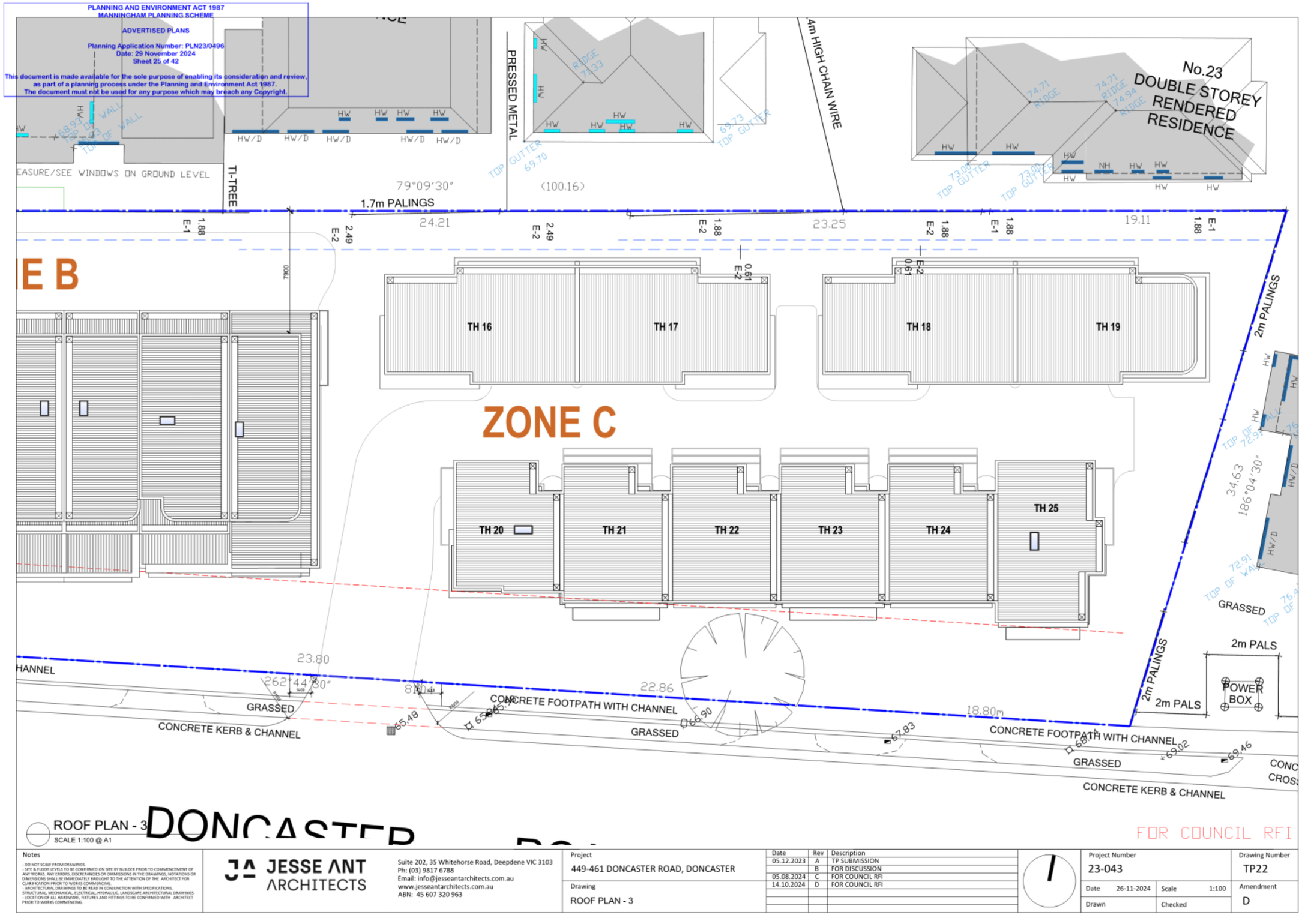
ABN: 45 607 320 963
Project
449-461 DONCASTER ROAD, DONCASTER
Drawing
ROOF PLAN - 2
Date | Rev | Description
05.12.2023 | A | TP SUBMISSION
B | FOR DISCUSSION
05.08.2024 | C | FOR COUNCIL RFI
14.10.2024 | D | FOR COUNCIL RFI
Project Number
23-043
Drawing Number
TP21
Date 26-11-2024
Scale 1:100
Drawn
Checked
Amendment
D



ROOF PLAN - 3
SCALE 1:100 @ A1

DONCASTER

FOR COUNCIL RFI

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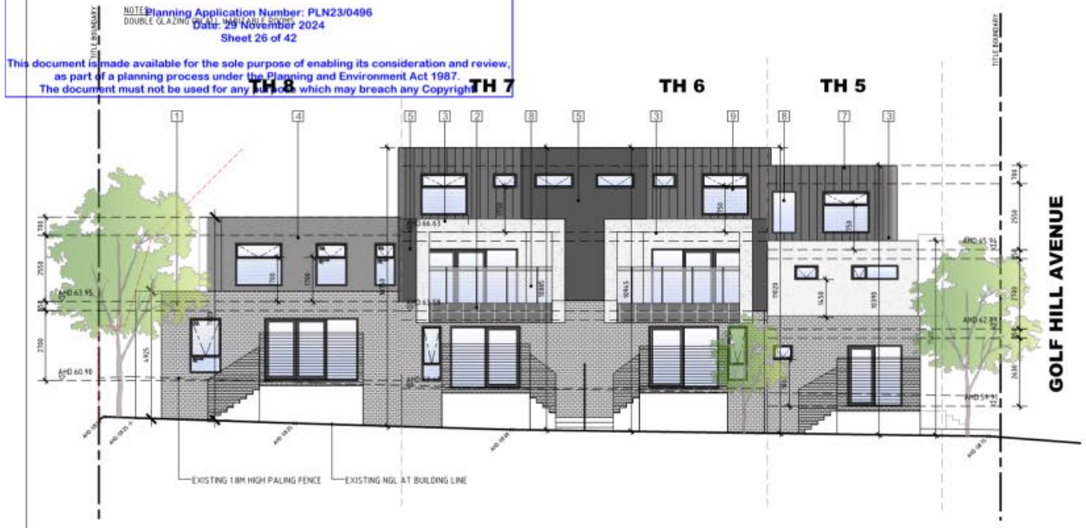
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: ROOF PLAN - 3

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

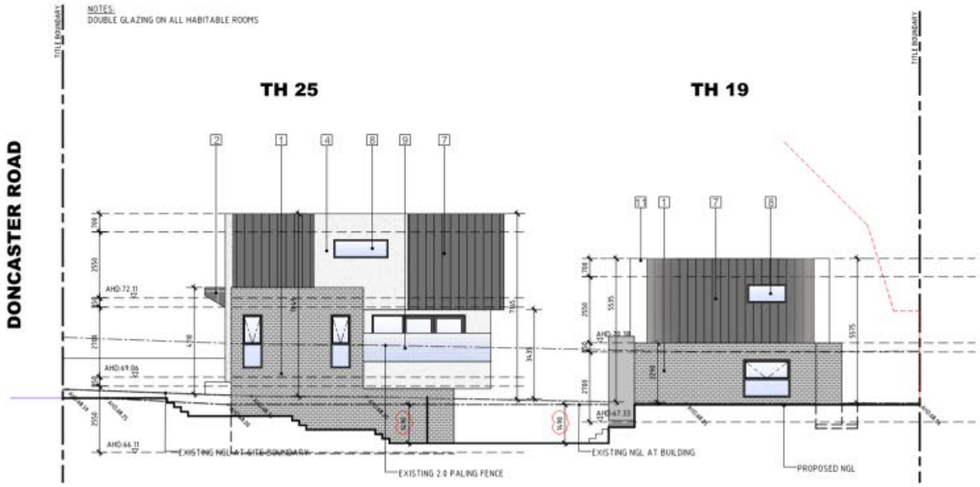
Project Number: 23-043
Drawing Number: TP22
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D



NORTH ELEVATION - 2
SCALE 1:100 @ A1

WEST ELEVATION
SCALE 1:100 @ A1

SOUTH ELEVATION - 1
SCALE 1:100 @ A1



EAST ELEVATION
SCALE 1:100 @ A1

MATERIAL SCHEDULE

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: ELEVATIONS

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP23
Date: 26-11-2024
Scale: 1:100
Amendment: D
Drawn
Checked

DOUBLE GLAZING ON ALL HABITABLE ROOMS

SOUTH ELEVATION - 2
SCALE 1:100 @ A1

SOUTH ELEVATION - 2
SCALE 1:100 @ A1

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: ELEVATION

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
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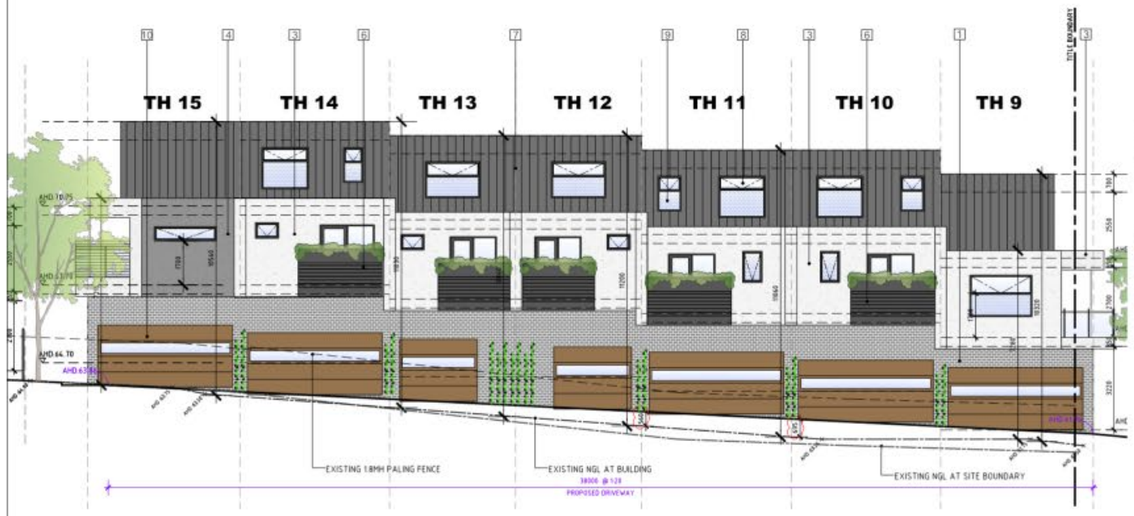
14.10.2024	D	FOR COUNCIL RFI

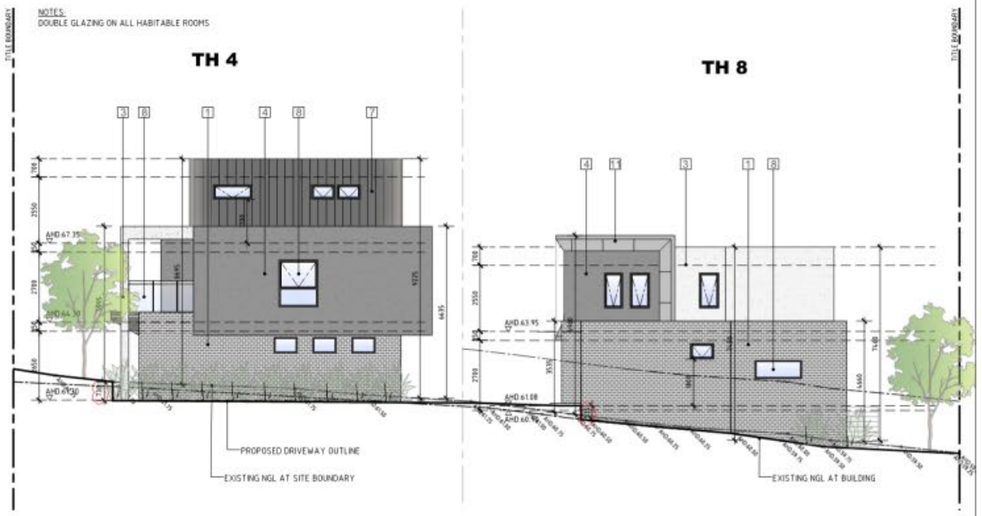
Project Number: 23-043
Drawing Number: TP24
Date: 26-11-2024
Scale: 1:100
Drawn:
Checked:
Amendment: D

NORTH ELEVATION - 1
SCALE 1:100 @ A1



NORTH ELEVATION - 1
SCALE 1:100 @ A1

DONCASTER ROAD



EAST INTERNAL ELEVATION
SCALE 1:100 @ A1

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: NORTH ELEVATION 1

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
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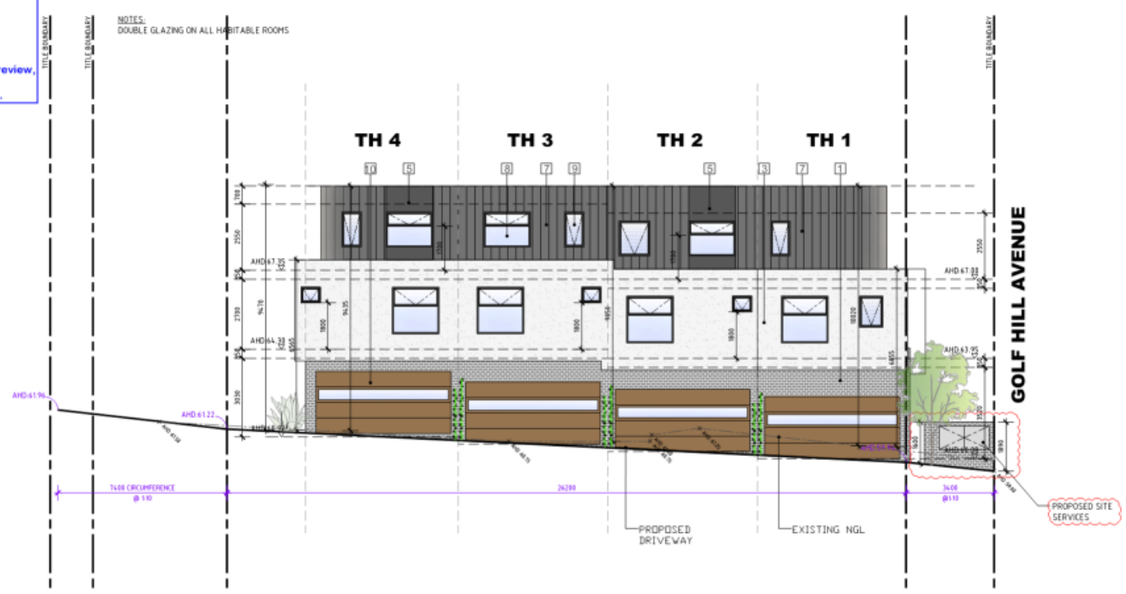
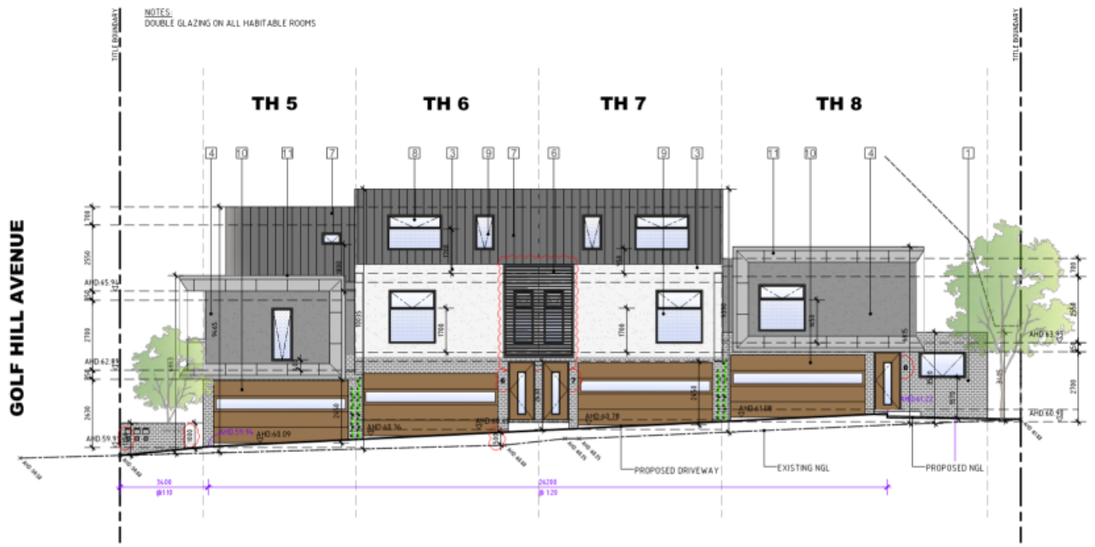
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP25
Date: 26-11-2024
Scale: 1:100
Amendment: D
Drawn
Checked



TH 1-4 INTERNAL ELEVATION
SCALE 1:100 @ A1



TH 5-8 INTERNAL ELEVATION
SCALE 1:100 @ A1

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: INTERNAL ELEVATION

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
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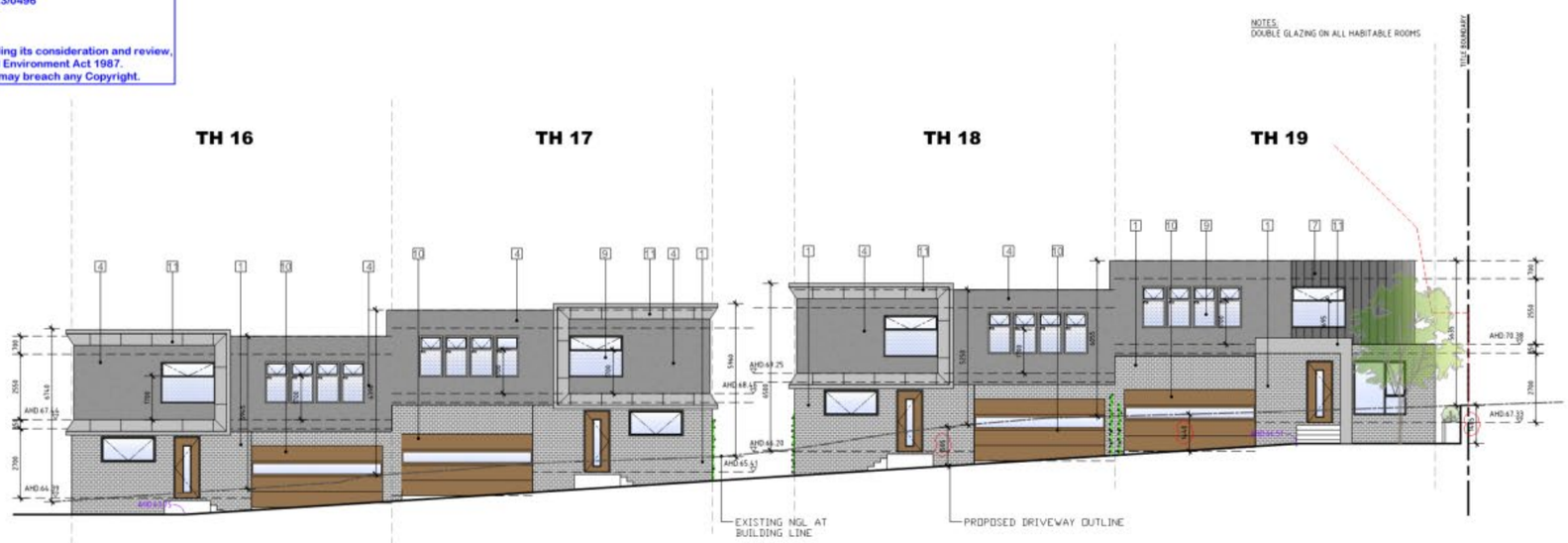
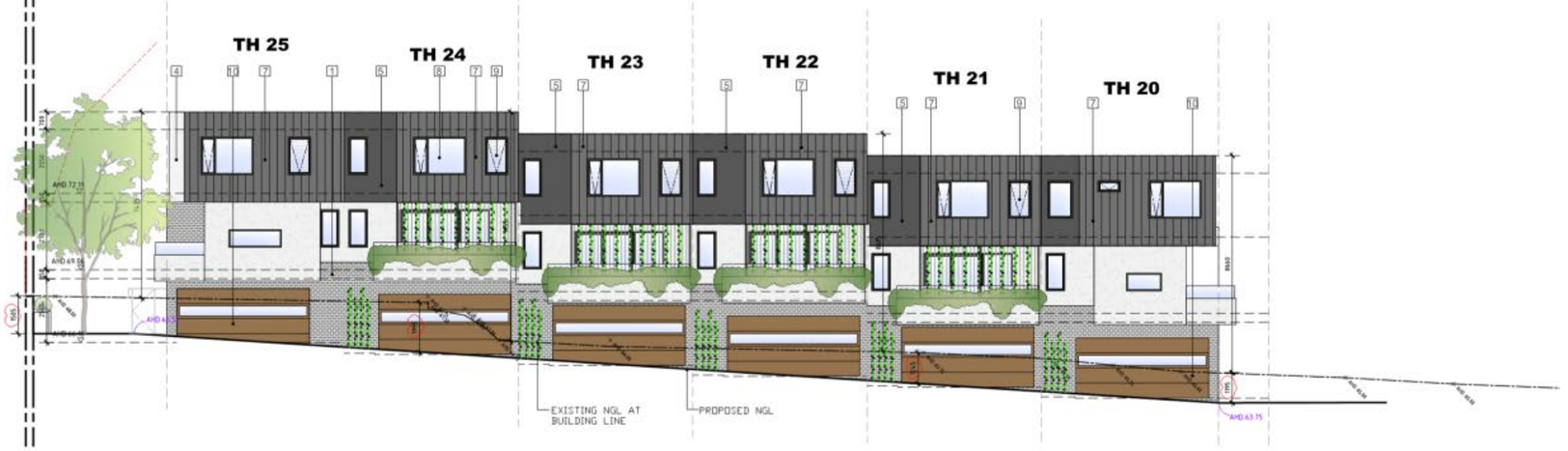
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP26
Date: 26-11-2024
Scale: 1:100
Drawn:
Checked:
Amendment: D



TH 16-19 INTERNAL ELEVATION
SCALE 1:100 @ A1



TH 20-25 INTERNAL ELEVATION
SCALE 1:100 @ A1

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: INTERNAL ELEVATION

Date	Rev	Description
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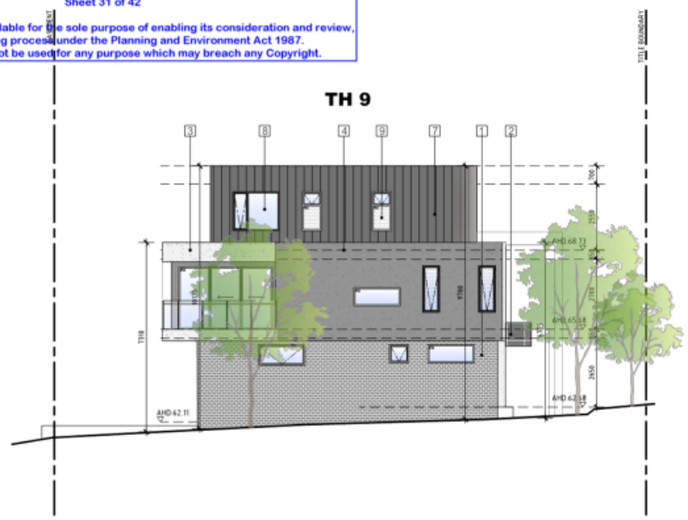
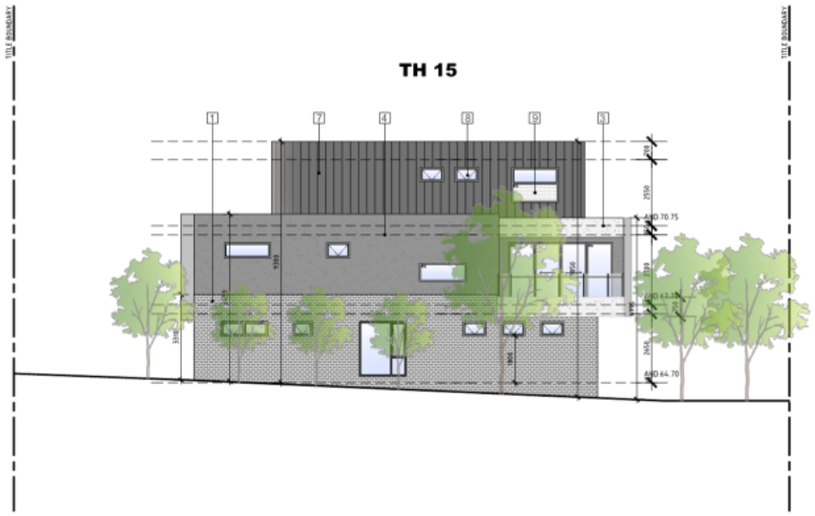
14.10.2024	D	FOR COUNCIL RFI

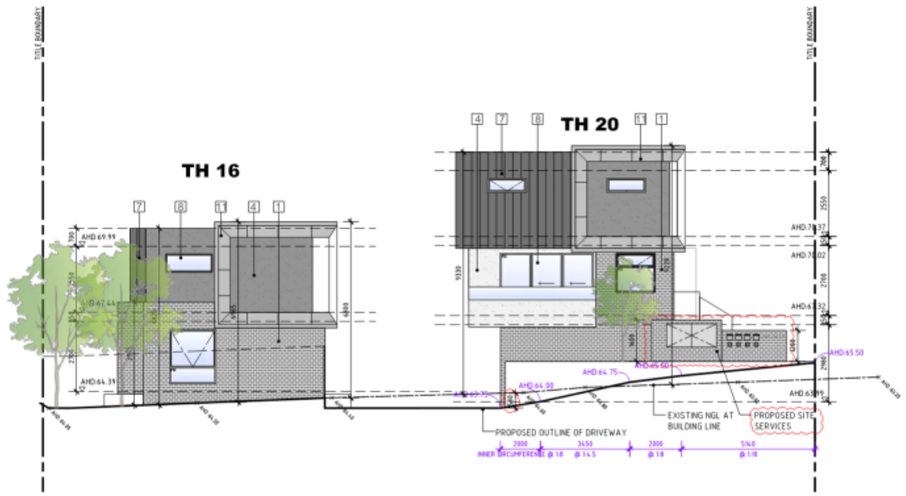
Project Number: 23-043
Drawing Number: TP27
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D



TH 9 INTERNAL ELEVATION
SCALE 1:100 @ A1



TH 15 INTERNAL ELEVATION
SCALE 1:100 @ A1



TH 16 AND 20 INTERNAL ELEVATION
SCALE 1:100 @ A1

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: INTERNAL ELEVATION

Date	Rev	Description
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05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP28
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D

WEST ELEVATION FENCE
SCALE 1:100 @ A1

SOUTH ELEVATION FENCE 1
SCALE 1:100 @ A1

MATERIAL SCHEDULE

MATERIAL 1: SELECTED GREY FACE BRICK
MATERIAL 2: TILE FACE - NATURAL GREY STONE
MATERIAL 3: SELECTED RENDER OFF WHITE CW CHIP
MATERIAL 4: RENDER FINISH - LIGHT GREY
MATERIAL 5: RENDER FINISH - CHARCOAL
MATERIAL 6: CHARCOAL ALUMINIUM LOUVRES SCREEN
MATERIAL 7: SELECTED VERTICAL GREY CLADDING
MATERIAL 8: CLEAR GLAZING
MATERIAL 9: FIXED OBSCURE GLAZING
MATERIAL 10: SELECTED TIMBER LOOK SECTIONAL LIFT GARAGE DOOR
MATERIAL 11: SELECTED FEATURE CONCRETE LOOK CLADDING
DRIVEWAY CONCRETE
ALUMINIUM SLAT FENCING, CHARCOAL COLOUR

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: ELEVATIONS

Date	Rev	Description
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05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP29
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D

SOUTH FENCE ELEVATION 2
SCALE 1:100 @ A1

SOUTH FENCE ELEVATION 2
SCALE 1:100 @ A1

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: ELEVATION

Date	Rev	Description
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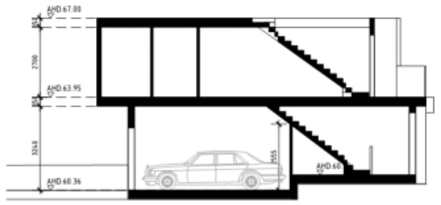
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP30
Date: 26-11-2024
Scale: 1:100
Drawn:
Checked:
Amendment: D

TH 2

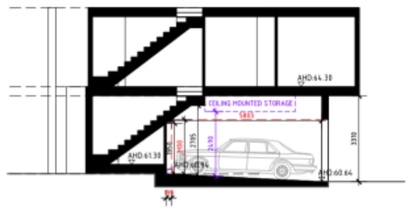


TH 2 SECTION
SCALE 1:100 @ A1

TH 4

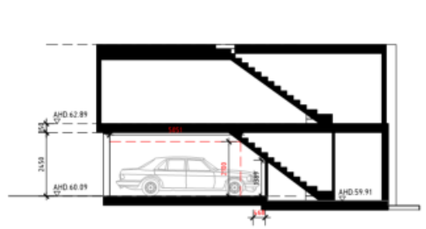
TH 4 SECTION

TH 3



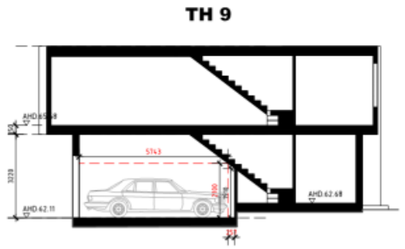
TH 3 SECTION
SCALE 1:100 @ A1

TH 5

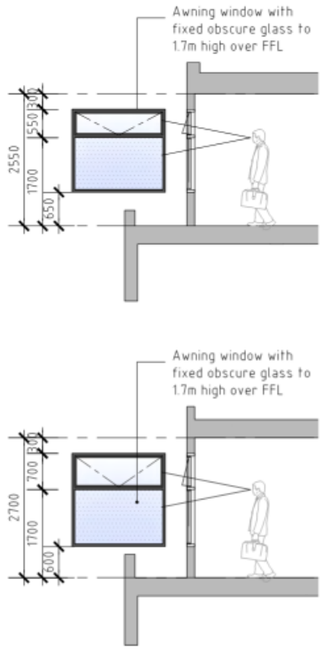


TH 5 SECTION
SCALE 1:100 @ A1

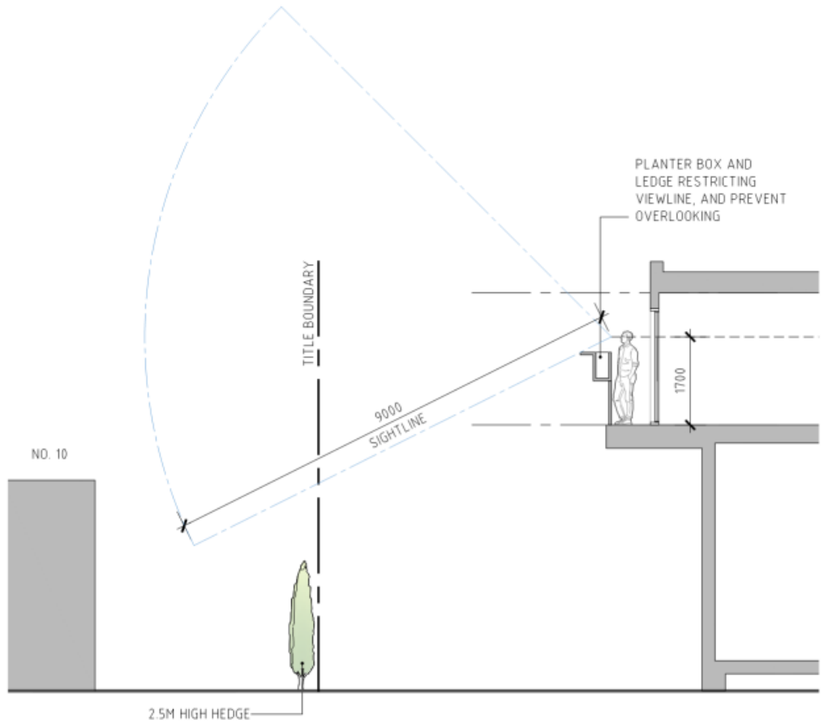
TH 9



TH 9 SECTION
SCALE 1:100 @ A1



OVERLOOKING DIAGRAMS
SCALE 1:50 @ A1



OVERLOOKING DIAGRAMS - TH10-TH14
SCALE 1:50 @ A1

FOR COUNCIL RFI

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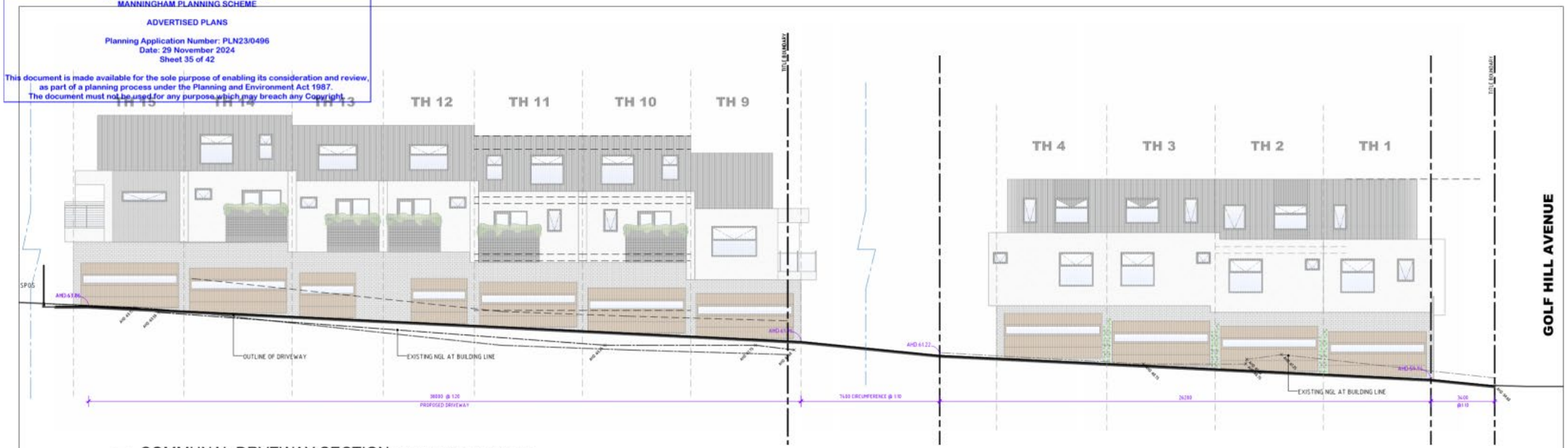
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SECTIONS

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP31
Date: 26-11-2024
Scale: 1:100
Drawn
Checked
Amendment: D



COMMUNAL DRVEWAY SECTION (FROM GOLF HILL AVENUE)
SCALE 1:100 @ A1

COMMUNAL DRVEWAY SECTION (FROM DONCASTER ROAD)
SCALE 1:100 @ A1

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SECTIONS

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP32
Date: 26-11-2024
Scale: 1:100
Amendment: D
Drawn
Checked

SHADOW DIAGRAM SEP 22 9 AM
SCALE 1:150 @ A1

	NO.10 ISKANDAR PLACE	NO.21 SILVER LEAF CIRCUIT
POS AREA (>3 METER)	119.0M²	140.0M²
UN-SHADOWED POS AREA (EXISTING)	119.0M² (100.0%)	140.0M² (100.0%)
UN-SHADOWED POS AREA (PROPOSED)	119.0M² (100.0%)	140.0M² (100.0%)

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SHADOW DIAGRAMS

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP33
Date: 26-11-2024
Scale: 1:150
Amendment: D
Drawn
Checked

SHADOW DIAGRAM SEP 22 12PM
SCALE 1:150 @ A1

	NO.10 ISKANDAR PLACE	NO.21 SILVER LEAF CIRCUIT
POS AREA (>3 METER)	119.0M²	140.0M²
UN-SHADOWED POS AREA (EXISTING)	119.0M² (100.0%)	140.0M² (100.0%)
UN-SHADOWED POS AREA (PROPOSED)	119.0M² (100.0%)	140.0M² (100.0%)

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SHADOW DIAGRAMS

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP34
Date: 26-11-2024
Scale: 1:150
Drawn:
Checked:
Amendment: D

SHADOW DIAGRAM SEP 22 1PM
SCALE 1:150 @ A1

	NO.10 ISKANDAR PLACE	NO.21 SILVER LEAF CIRCUIT
POS AREA (>3 METER)	119.0M²	140.0M²
UN-SHADOWED POS AREA (EXISTING)	116.3M² (97.7%)	131.2M² (93.7%)
UN-SHADOWED POS AREA (PROPOSED)	116.6M² (97.9%)	128.7M² (91.9%)

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SHADOW DIAGRAMS

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP35
Date: 26-11-2024
Scale: 1:150
Drawn:
Checked:
Amendment: D

	NO.10 ISKANDAR PLACE	NO.21 SILVER LEAF CIRCUIT
POS AREA (>3 METER)	119.0M²	140.0M²
UN-SHADOWED POS AREA (EXISTING)	112.8M² (94.7%)	105.1M²(75.0%)
UN-SHADOWED POS AREA (PROPOSED)	110.5M² (92.8%)	111.8M² (79.8%)

SHADOW DIAGRAM SEP 22 2PM
SCALE 1:150 @ A1

FOR COUNCIL RFI

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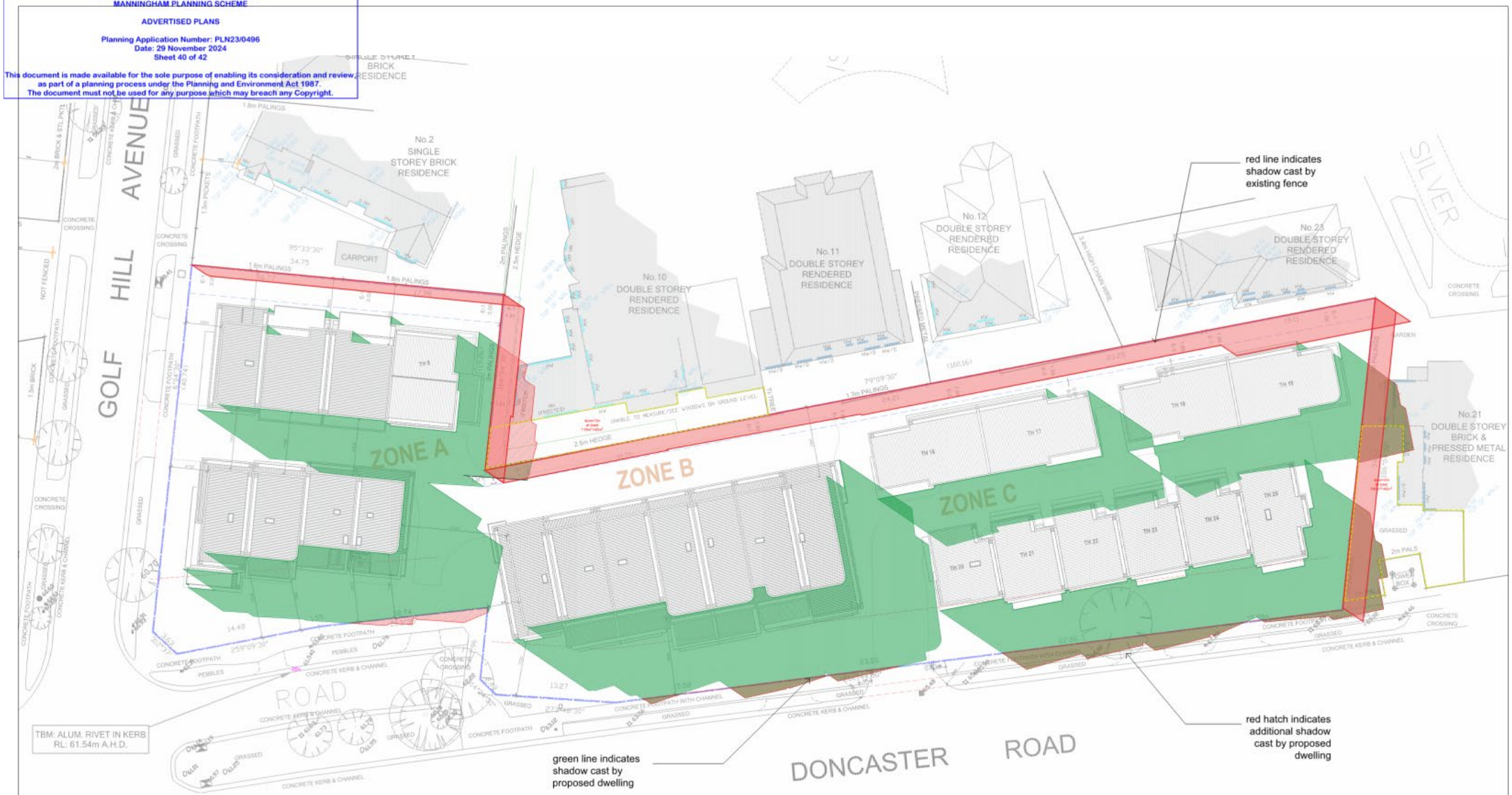
Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SHADOW DIAGRAMS

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP36
Date: 26-11-2024
Scale: 1:150
Drawn:
Checked:
Amendment: D



SHADOW DIAGRAM SEP 22 3PM
SCALE 1:150 @ A1

	NO.10 ISKANDAR PLACE	NO.21 SILVER LEAF CIRCUIT
POS AREA (>3 METER)	119.0M²	140.0M²
UN-SHADOWED POS AREA (EXISTING)	99.5M² (83.6%)	69.4M² (49.5%)
UN-SHADOWED POS AREA (PROPOSED)	96.4M² (81.0%)	79.6M² (56.9%)

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: SHADOW DIAGRAMS

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP37
Date: 26-11-2024
Scale: 1:150
Drawn
Checked
Amendment: D

ZONE A FRONT FACADE
NTS

ZONE A LEFT FACADE
NTS

ZONE B FRONT FACADE
NTS

ZONE C FRONT FACADE
NTS

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: 3D RENDER

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP38
Date: 26-11-2024
Scale: NTS
Amendment: D
Drawn
Checked

ZONE A REAR FACADE
NTS

ZONE B REAR FACADE
NTS

ZONE C RIGHT FACADE
NTS

ZONE C REAR FACADE
NTS

FOR COUNCIL RFI

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Project: 449-461 DONCASTER ROAD, DONCASTER
Drawing: 3D RENDER

Date	Rev	Description
05.12.2023	A	TP SUBMISSION
	B	FOR DISCUSSION
05.08.2024	C	FOR COUNCIL RFI
14.10.2024	D	FOR COUNCIL RFI

Project Number: 23-043
Drawing Number: TP39
Date: 26-11-2024
Scale: NTS
Drawn
Checked
Amendment: D

LEGISLATIVE REQUIREMENTS

PLANNING AND ENVIRONMENT ACT 1987 (THE ACT)

The *Planning and Environment Act 1987* is the relevant legislation governing planning in Victoria. The Act identifies subordinate legislation in the form of Planning Schemes to guide future land use and development.

Section 60 of The *Planning and Environment Act*, requires the Responsible Authority to consider the following before deciding on an application:

- *The relevant planning scheme;*
- *The objectives of planning in Victoria;*
- *All objections and other submissions which it has received;*
- *Any decision and comments of a referral authority which it has received; and*
- *Any significant effects which the responsible authority considers the use or development may have on the environment or which the responsible authority considers the environment may have on the use or development.*

Section 61(4) of the Act makes specific reference to covenants. Under Section 61(4) of the *Planning & Environment Act 1987* the Responsible Authority must not issue a planning permit that would result in a breach of a registered restrictive covenant.

MANNINGHAM PLANNING SCHEME

Clauses of the Manningham Planning Scheme the Responsible Authority must consider:

- Planning Policy Framework
- Clause 32.07 Residential Growth Zone, Schedule 2
- Clause 43.02 Design and Development Overlay, Schedule 8
- Clause 52.06 Car Parking
- Clause 52.29 Land Adjacent to the Principal Road Network
- Clause 65 Decision Guidelines

Zones

Clause 32.07 Residential Growth Zone, Schedule 2

The purpose of the General Residential Zone is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To provide housing at increased densities in buildings up to and including four storey buildings.*
- *To encourage a diversity of housing types in locations offering good access to services and transport including activity centres and town centres.*
- *To encourage a scale of development that provides a transition between areas of more intensive use and development and other residential areas.*
- *To ensure residential development achieves design objectives specified in a schedule to this zone.*
- *To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.*

A Planning Permit is required to construct two or more dwellings on a lot and to construct a front fence within 3 metres of a street.

A building must not be constructed for use as a dwelling or a residential building that exceeds the maximum building height specified in a schedule to this zone.

Schedule 2 to the Residential Growth Zone does not specify a maximum building height requirement for a dwelling or residential building.

If no maximum building height is specified in a schedule to this zone, the building height should not exceed 13.5 metres.

A building may exceed the maximum building height by up to 1 metre if the slope of the natural ground level, measured at any cross section of the site of the building wider than 8 metres, is greater than 2.5 degrees.

Any buildings or works constructed on a lot that abuts land which is in a General Residential Zone, Neighbourhood Residential Zone, or Township Zone must meet the requirements of Clauses 55.03-5, 55.04-1, 55.04-2, 55.04-3, 55.04-5 and 55.04-6 along that boundary.

Overlays

Clause 43.02 Schedule 8 to the Design and Development Overlay
The design objectives are as follows:

- *To increase residential densities and provide a range of housing types around activity centres and along main roads.*
- *To encourage development that is contemporary in design that includes an articulated built form and incorporates a range of visually interesting building materials and façade treatments.*
- *To support three storey, 'apartment style', developments within the Main Road sub-precinct and in sub-precinct A, where the minimum land size can be achieved.*
- *To support two storey townhouse style dwellings with a higher yield within sub-precinct B and sub-precinct A, where the minimum land size cannot be achieved.*
- *To ensure new development is well articulated and upper storey elements are not unduly bulky or visually intrusive, taking into account the preferred neighbourhood character.*
- *To encourage spacing between developments to minimise a continuous building line when viewed from a street.*
- *To ensure the design and siting of dwellings have regard to the future development opportunities and future amenity of adjoining properties.*
- *To ensure developments of two or more storeys are sufficiently stepped down at the perimeter of the Main Road sub-precinct to provide an appropriate and attractive interface to sub-precinct A or B, or other adjoining zone.*
- *Higher developments on the perimeter of sub-precinct A must be designed so that the height and form are sufficiently stepped down, so that the scale and form complement the interface of sub-precinct B or other adjoining zone.*
- *To ensure overlooking into adjoining properties is minimised.*
- *To ensure the design of carports and garages complement the design of the building.*
- *To ensure the design of basement and undercroft car parks complement the design of the building, eliminates unsightly projections of basement walls above natural ground level and are sited to allow for effective screen planting.*
- *To create a boulevard effect along Doncaster Road and Manningham Road by planting trees within the front setback that are consistent with the street trees.*
- *To encourage landscaping around buildings to enhance separation between buildings and soften built form*

Permit Requirement

- *A permit is required to construct or carry out works.*

- *A permit is required to construct or extend a front fence within 3 metres of a street, if the fence is associated with 2 or more dwellings on a lot or a residential building.*

Building Height & Setbacks

- Any building or works must comply with the requirements set out in Table 1 and 2 of this Schedule.
- For the purposes of this Schedule, the Maximum Building Height does not include building services, lift over-runs and roof mounted equipment, including screening devices.
- For the purposes of this Schedule, balconies, terraces, and verandahs may encroach within the Street Setback by a maximum of 2.0m, but must not extend along the width of the building.

Table 1

Sub-Precinct	Maximum Building Height	Condition regarding minimum land size	Street setback
DDO8-1 (Main Road) Sub-precinct	11 metres provided the condition regarding minimum land size is met. If the condition is not met, the maximum height is 9 metres, unless the slope of the natural ground level at any cross section wider than eight metres of the site of the building is 2.5 degrees or more, in which case the maximum height must not exceed 10 metres.	1,800 square metres must be all in the same sub-precinct. Where the land comprises more than one lot, the lots must be consecutive lots which are side by side and have a shared frontage	For two or more dwellings on a lot or a residential building: • Minimum front street setback is the distance specified in Clause 55.03-1 or 6 metres, whichever is the lesser • Minimum side street setback is the distance specified in Clause 55.03-1
DDO8-2 (Sub-precinct A)	11 metres provided the condition regarding minimum land size is met. If the condition is not met, the maximum height is 9 metres, unless the slope of the natural ground level at any cross section wider than eight metres of the site of the building is 2.5 degrees or more, in which case the maximum height	1,800 square metres must be all in the same sub-precinct. Where the land comprises more than one lot, the lots must be consecutive lots which are side by side and have a shared frontage.	For two or more dwellings on a lot or a residential building: • Minimum front street setback is the distance specified in Clause 55.03-1 or 6 metres, whichever is the lesser • Minimum side street setback is the distance

	must not exceed 10 metres.	specified in Clause 55.03-1

Planning Policy Framework

The relevant sections of the Planning Policy Framework are as follows:

Clause 15.01-1L (Safer neighbourhoods - Manningham) seeks to facilitate buildings, subdivisions, street layout, car parks and public open space that are safe.

Strategies towards achieving this are identified as follows:

- *Design buildings to provide informal surveillance of adjacent open space.*
- *Create private and public open space areas that are accessible, functional and safe.*
- *Locate playgrounds in areas that are clearly visible to guardians and residents and avoid locating playgrounds behind buildings or in secluded areas.*
- *Design landscaping of public spaces to provide clear and unobstructed views.*
- *Utilise landscaping with low shrubs or ground covers to increase effectiveness of natural surveillance.*
- *Avoid the planting of trees and shrubs with dense foliage near pathways.*
- *Avoid rear lane ways and pedestrian tunnels unless adequate surveillance opportunities for these areas can be incorporated into the design.*
- *Locate automatic teller machines where there are clear sightlines in the public realm.*
- *Design and locate buildings, including car parks, to promote public safety by:*
    - *Maximising visibility and sightlines to and from public and communal spaces.*
    - *Avoiding hidden car spaces, blind corners and areas of potential entrapment.*
- *Design pedestrian entrances to be clearly visible from streets and public areas, to provide shelter and to provide a transitional space between the public and private realm.*
- *Ensure development and landscaping surrounding open car parks provide casual surveillance opportunities.*
- *Provide clear directional signage within car parks and at entry and exit points.*
- *Encourage open and transparent fences along street frontages and public areas to allow surveillance and visibility.*
- *Design buildings to discourage external roof access.*
- *Encourage the use measures to manage graffiti and vandalism.*
- *Avoid enclosing public spaces that adjoin private property.*
- *Ensure streetscapes:*
    - *Are attractive.*
    - *Clearly define areas for pedestrian and vehicle movement.*
    - *Provide natural surveillance and visibility for pedestrians, drivers and occupants of adjacent land*

Clause 15.01-2S (Building Design) seeks to achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.

Strategies towards achieving this are identified as follows:

- *Ensure a comprehensive site analysis forms the starting point of the design process and provides the basis for the consideration of height, scale, massing and energy performance of new development.*
- *Ensure development responds and contributes to the strategic and cultural context of its location.*

- *Minimise the detrimental impact of development on neighbouring properties, the public realm and the natural environment.*
- *Improve the energy performance of buildings through siting and design measures that encourage:*
    - *Passive design responses that minimise the need for heating, cooling and lighting.*
    - *On-site renewable energy generation and storage technology.*
    - *Use of low embodied energy materials.*
- *Ensure the layout and design of development supports resource recovery, including separation, storage and collection of waste, mixed recycling, glass, organics and e-waste.*
- *Encourage use of recycled and reusable materials in building construction and undertake adaptive reuse of buildings, where practical.*
- *Encourage water efficiency and the use of rainwater, stormwater and recycled water.*
- *Minimise stormwater discharge through site layout and landscaping measures that support on-site infiltration and stormwater reuse.*
- *Ensure the form, scale, and appearance of development enhances the function and amenity of the public realm.*
- *Ensure buildings and their interface with the public realm support personal safety, perceptions of safety and property security.*
- *Ensure development is designed to protect and enhance valued landmarks, views and vistas.*
- *Ensure development considers and responds to transport movement networks and provides safe access and egress for pedestrians, cyclists and vehicles.*
- *Encourage development to retain existing vegetation.*
- *Ensure development provides landscaping that responds to its site context, enhances the built form, creates safe and attractive spaces and supports cooling and greening of urban areas.*

Clause 15.01-2L (Environmentally Sustainable development – Manningham) seeks to achieve best practice in environmentally sustainable development from the design stage through to construction and operation.

Strategies

- *Facilitate development that minimises environmental impacts.*
- *Encourage environmentally sustainable development that:*
    - *Is consistent with the type and scale of the development.*
    - *Responds to site opportunities and constraints.*
- *Adopts best practice through a combination of methods, processes and locally available technology that demonstrably minimise environmental impacts.*

Energy performance

- *Reduce both energy use and energy peak demand through design measures such as:*
    - *Building orientation.*
    - *Shading to glazed surfaces.*
    - *Optimising glazing to exposed surfaces.*
    - *Inclusion of or space allocation for renewable technologies.*

Integrated water management

- *Reduce total operating potable water use through appropriate design measures such as water efficient fixtures, appliances, equipment, irrigation and landscaping.*
- *Encourage the appropriate use of alternative water (including greywater, rainwater and stormwater).*

- *Incorporate best practice water sensitive urban design to improve the quality of stormwater runoff and reduce impacts on water systems and water bodies.*

Indoor environment quality

- *Achieve a healthy indoor environment quality, including thermal comfort and access to fresh air and daylight, prioritising passive design over mechanical heating, ventilation, cooling and lighting.*
- *Reduce indoor air pollutants by encouraging use of low-toxicity materials.*
- *Minimise noise levels and noise transfer within and between buildings and associated external areas.*

Transport

- *Design development to promote the use of walking, cycling and public transport, in that order; and minimise car*
- *dependency.*
- *Promote the use of low emissions vehicle technologies and supporting infrastructure.*

Waste management

- *Promote waste avoidance, reuse and recycling during the design, construction and operation stages of development.*
- *Encourage use of durable and reusable building materials.*
- *Ensure sufficient space is allocated for future change in waste management needs, including (where possible) composting and green waste facilities.*

Urban ecology

- *Protect and enhance biodiversity by incorporating natural habitats and planting indigenous vegetation.*
- *Reduce urban heat island effects through building design, landscape design, water sensitive urban design and the*
- *retention and provision of canopy and significant trees.*
- *Encourage the provision of space for productive gardens, particularly in larger residential developments.*

Clause 15.01-4S (Healthy neighbourhoods) policy objective seeks to create neighbourhoods that foster healthy and active living and community wellbeing.

Strategies towards achieving this are identified as follows:

- *Design neighbourhoods that foster community interaction and make it easy for people of all ages and abilities to live healthy lifestyles and engage in regular physical activity by providing:*
    - *Connected, safe, pleasant and attractive walking and cycling networks that enable and promote walking and cycling as a part of daily life.*
    - *Streets with direct, safe and convenient access to destinations.*
    - *Conveniently located public spaces for active recreation and leisure.*
    - *Accessibly located public transport stops.*
    - *Amenities and protection to support physical activity in all weather conditions.*

Clause 15.01-5S (Neighbourhood character) policy objective is to recognise, support and protect neighbourhood character, cultural identity, and sense of place.

Strategies towards achieving this are identified as follows:

- *Support development that respects the existing neighbourhood character or contributes to a preferred neighbourhood character.*

- *Ensure the preferred neighbourhood character is consistent with medium and higher density housing outcomes in areas identified for increased housing.*
- *Ensure development responds to its context and reinforces a sense of place and the valued features and characteristics of the local environment and place by respecting the:*
    - *Pattern of local urban structure and subdivision.*
    - *Underlying natural landscape character and significant vegetation.*
    - *Neighbourhood character values and built form that reflect community identity.*

Clause 15.01-5-01L (Landscaping Manningham) policy strategies are as follows;

- *Provide landscaping to soften built form and the appearance of large areas of car parking, accessways and development.*
- *Incorporate indigenous planting and canopy trees.*
- *Provide setbacks to enable the retention of canopy trees and landscape treatments along road frontages roadside boundaries and interfaces with adjoining sites to complement the boulevard theme and character of the area.*
- *Retain existing vegetation and canopy trees along road frontages.*
- *Retain native vegetation where possible or, incorporate new native vegetation into landscaping.*
- *Support landscaping that provides visual interest to commercial uses and carparking areas to the surrounding area*

Clause 15.01-5L-02 (Neighbourhood character)

This policy outlines the division of Manningham into four Residential Character Precincts. The precincts seek to channel increased housing densities around activity centres and main roads where facilities and services are available. In areas which are removed from these facilities a lower intensity of development is encouraged. A low residential density is also encouraged in areas that have identified environmental or landscape features.

The site is within Precinct 2 – Residential Areas Surrounding Activity Centres and Along Main Roads.

This precinct applies to the areas surrounding activity centers and along main roads

The Precinct 2 objective is to promote substantial change that is high quality, contemporary and designed to provide a transition between sub precincts in Precinct 2.

Precinct 2 strategies are as follows;

- *Provide for contemporary architecture.*
- *Encourage use of varied and durable building materials in building facades that provide visual interest.*
- *Provide a graduated building scale and form from side and rear boundaries.*
- *Incorporate a landscape treatment that enhances the overall appearance of the development and any adjacent main road.*
- *Integrate car parking into the design of buildings and landform.*
- *Encourage the built form fronting Doncaster Road at the former Eastern Golf Course (Tullamore) to be of a scale that provides an appropriate transition to Doncaster Hill Major Activity Centre.*
- *Support development as follows:*
    - *Apartment-style developments along main roads and on larger, consolidated lots in DDO8-1 - Sub-Precinct Main Road.*
    - *Apartment-style development of two-storeys, or three-storeys on larger consolidated lots, in DDO8-2 - Sub-Precinct A.*
    - *Low-rise development of one and two-storeys in DDO8-3 - Sub-Precinct B.*

The site is located within the **Main Road Sub-Precinct.**

Clause 16.01-1S (Housing Supply) policy objective is to facilitate well-located, integrated and diverse housing that meets community needs.

Strategies towards achieving this are identified as follows:

- *Ensure that an appropriate quantity, quality and type of housing is provided, including aged care facilities and other housing suitable for older people, supported accommodation for people with disability, rooming houses, student accommodation and social housing.*
- *Increase the proportion of housing in designated locations in established urban areas (including under-utilised urban land) and reduce the share of new dwellings in greenfield, fringe and dispersed development areas.*
- *Encourage higher density housing development on sites that are well located in relation to jobs, services and public transport.*
- *Identify opportunities for increased residential densities to help consolidate urban areas.*
- *Facilitate diverse housing that offers choice and meets changing household needs by widening housing diversity through a mix of housing types.*
- *Encourage the development of well-designed housing that:*
    - *Provides a high level of internal and external amenity.*
    - *Incorporates universal design and adaptable internal dwelling design.*
- *Support opportunities for a range of income groups to choose housing in well-serviced locations.*
- *Plan for growth areas to provide for a mix of housing types through a variety of lot sizes, including higher housing densities in and around activity centres*

Clause 19.03-3L (Wastewater, drainage and stormwater management – Manningham) policy objective is to provide safe and efficient wastewater, drainage and stormwater management systems.

Strategies towards achieving this are identified as follows:

- *Ensure that any land use or development that may increase water runoff from a site either:*
    - *Detains stormwater on site.*
    - *Undertakes or assists with off-site works to maintain or increase drainage capacity.*
- *Promote the on-site detention, absorption of stormwater through*
    - *The use of permeable paving, pebble paths, lawns and gardens.*
    - *Capture and reuse functions within detention systems.*
- *Encourage natural biological filtration systems in areas of high sediment or nutrient run-off, including roadside developments and subdivisions.*
- *Support the use of pollutant traps to prevent garbage entering the waterways.*
- *Ensure development connects to mains water.*
- *Encourage connection to sewer where available and within reasonable proximity.*

Particular Provisions

Clause 52.06 Car Parking

Pursuant to Clause 52.06-5, car parking is required to be provided at the following rates:

- *1 space for 1 and 2 bedroom dwellings.*
- *2 spaces for 3 or more bedroom dwellings.*

No residential visitor car parking spaces are required for any part of the land identified as being within the Principal Public Transport Network Area.

Clause 52.06-9 outlines various design standards for parking areas that should be achieved.

Clause 52.29 Land Adjacent to the Principal Road Network
The purpose of this clause is:

- *To ensure appropriate access to identified roads.*
- *To ensure appropriate subdivision of land adjacent to identified roads.*

A permit is required to create or alter access to a road in a Transport Zone 2.

General Provisions

Clause 65 Decision Guidelines
This clause outlines that before deciding on an application, the responsible authority must consider, as appropriate:

- *The Municipal Planning Strategy and the Planning Policy Framework.*
- *The purpose of the zone, overlay or other provision.*
- *Any matter required to be considered in the zone, overlay or other provision.*
- *The orderly planning of the area.*
- *The effect on the amenity of the area.*
- *Whether the proposed development is designed to maintain or improve the quality of stormwater within and exiting the site.*
- *The degree of flood, erosion or fire hazard associated with the location of the land and the use, development or management of the land so as to minimise any such hazard.*

10 CITY PLANNING AND LIVEABILITY

10.1 Development of recreational bike facilities - Pump Tracks, BMX & Mountain Bike Trails

File Number: IN25/274

Responsible Director: Director City Planning and Liveability

Attachments: 1 Draft Recreational Bike Facilities Plan

PURPOSE OF REPORT

To present Council with the Draft Recreational Bike Facilities Plan (The Plan) which includes recommendations to develop a network of recreational cycling facilities across Manningham over the next 10-15 years and seek endorsement on the commencement of community consultation on the Plan.

EXECUTIVE SUMMARY

During the Covid pandemic there was a rise in makeshift dirt jumps and bike tracks across Manningham parks and reserves. In response, Council engaged with the community about opportunities for BMX and Mountain Bike (MTB) Trails (including options to retain the makeshift facilities) as well as creating other recreational activities for young people in our parks. The community interest in recreational and MTB riding dates back many years with Council's *Active for Life Recreation Strategy 2010-25, including an action for Council to 'engage with Parks Victoria to determine the need to formalise the MTB facility at Candlebark Park'. During the development of the 'Sports Facility Development Plan Stage 2, 2023', we heard from 284 children, young people, parents, sports clubs and the wider community who actively use our park network. There was clear demand for improved BMX and MTB facilities.*

Internal stakeholder meetings identified the damage illegal jumps cause to bushland areas and meetings with external agencies such as Parks Victoria and Melbourne Water also indicated support for the creation of formal facilities to manage pressure on environmentally sensitive areas. In 2023, Council engaged independent technical experts to complete a feasibility study which explored whether recreational cycling facilities such as MTB trails, pump tracks, jump parks or skills tracks could be successfully located in nine shortlisted sites spread across the municipality.

The feasibility study has informed the preparation of the Draft 'Recreational Bike Facilities Plan' (Draft Plan) which presents the recommendations of the study to the community with a view to testing community support for the development of recreational bike facilities across Manningham over the next 10-15 years. Council endorsement is sought to commence community consultation on the Draft Plan. Following consultation, the Draft Plan will be finalised giving consideration to community feedback, and presented to Council for endorsement.

COUNCIL RESOLUTION

MOVED: CR CARLI LANGE
SECONDED: CR ISABELLA ELTAHA

That Council:

A. endorse the Draft Recreational Bike Facilities Plan, for community consultation;

B. Note that following consultation, the Plan will be updated taking into account community feedback, before being subject to a future Council meeting seeking final endorsement.

CARRIED UNANIMOUSLY

2. BACKGROUND

2.1 Manningham Council currently has very limited recreational bike riding infrastructure, being a novice dirt jump facility located at Wonga Park Reserve, Wonga Park (in need of upgrade), a BMX facility at Stintons Reserve, Park Orchards and a small cluster of unsanctioned MTB trails at Candlebark Park, Templestowe (Parks Victoria land).

2.2 During Covid, there was a proliferation of illegal jumps built by the community which also demonstrated a demand for these types of facilities. The development of these informal jumps created unacceptable risks to Council and were removed. This was mainly due to non-compliance in how the jumps were constructed, and adverse biodiversity impacts to surrounding bushland. Consultation was undertaken on the Blackburn Dirt Jumps site before they were removed, and Council asked for community suggestions for alternate sites, providing a commitment at the close of the consultation to construct purpose-built facilities across Manningham in future.

2.3 Internal stakeholder meetings also identified the damage illegal jumps cause to bushland areas and meetings with external agencies such as Parks Victoria and Melbourne Water indicate support for the creation of formal facilities in appropriate locations to relive pressure on environmentally sensitive areas.

2.4 Parks Victoria confirmed they would not undertake any further development to Candlebark Park due to limited resources. Parks Victoria have dedicated MBT sites at Lysterfield Park and the Dandenong Ranges to service the Eastern Region of metropolitan Melbourne, including Manningham residents.

2.5 The community expressed interest in MTB riding through the development of Council's *Active for Life Recreation Strategy 2010-25* (and the 2019 Review). The community have since made specific requests for various styles of bike riding facilities, including dirt jumps, pump tracks, flow trails and MTB trails through the development of the *Sports Facility Development Plan, Stage 2.* Further details on these different types of riding infrastructure can be found in Attachment 1 section 2.4: Types of Facilities.

2.6 Extensive consultation was undertaken for the development of the *Sport Facility Development Plan, Stage 2, 2023*. 284 children, young people, parents, sports clubs and members of the wider community who actively use our park network participated in the engagement activities. Surveys were open to the whole community via Council's Your Say Page, as well as targeted consultations with organisations and groups to gather detailed information about relevant sports.

2.7 Of the 284 participants, 33.5% provided feedback on MTB and Dirt Jump facilities (this was the second highest group that participated in the survey, the highest was basketball at 37.8% comparatively). 14% provided feedback on BMX related facilities (the fourth highest group of 12 sports that were represented). This high level of participation indicates an interest in improved facilities for these groups as well highlighting an existing lack of adequate provision.

2.8 The Park Orchards BMX Club were engaged in the survey around the existing BMX facilities at Stintons Reserve and provided feedback around how the existing track and facility could be improved. The Warrandyte MTB Club was also engaged on the Candlebark Park trails (Parks Victoria land) and Wonga Park dirt jumps, providing feedback on how these facilities could be improved as well as suggestions for alternate locations where new trails could be developed, particularly for younger riders. A high number of responses indicated a desire to have facilities constructed in Park Orchards, however an even geographical spread of facilities is considered preferable. Both clubs also suggested ways to encourage more people to ride and get active.

2.9 Council regularly receives community feedback to upgrade or provide more BMX and Dirt Jump facilities and there have been ongoing requests for more facilities or requests to remove illegal facilities that the community have developed on record since 2013, demonstrating an ongoing demand for purpose-built facilities.

2.10 An internal working group with members from City Design, Community Projects and Planning and Climate Emergency and Environment was established following the adoption of the *Sports Facility Development Plan, Stage 2* to address action 21 '*Consider the development of pump tracks at suitable locations'* (see paragraph 4.1).

2.11 Council officers from the working group commissioned an independent feasibility study in March 2023 to undertake detailed analysis on nine identified sites across the municipality to determine their suitability for bike riding infrastructure and make recommendations on what type of infrastructure could be accommodated there. One of the potential sites (Windella Quadrant) was discounted immediately for unsuitability as it is in a flood prone area, and the study focused on the eight remaining sites.

2.12 The feasibility study has informed the preparation of the 'Draft Recreational Bike Facilities Plan' (Draft Plan) provided as Attachment 1 to this report.

2.13 The internal working group have guided the development of the work, and the proposed recommendations to ensure a balanced approach to the planning at each site, considering the broader needs of our community such as space for passive and active recreation, protection of environmental assets and use for alternate activities.

3. DISCUSSION / ISSUE

3.1 The feasibility study provides a series of recommendations to guide the development of recreational cycling infrastructure at eight sites across Manningham. These recommendations will be tested with the community through consultation on the Draft Plan. The Draft Plan will then be finalised based on community feedback and presented to Council for endorsement.

3.2 The feasibility study confirmed evidence of the growing demand for recreational bike facilities such as BMX, Pump Tracks and MBT within Victoria and Australia as well as growing female participation in the sport. The Draft Plan has been developed for the proposed community consultation which presents the identified sites, recommendations and schematic concepts.

3.3 The nominated sites were selected by the internal working group based on community suggestions from consultation undertaken for the S*port Facility Development Plan Stage 2* and the Blackburn Dirt Jumps. Consideration was also given to site conditions to accommodate recreational cycling infrastructure such as site topography, proximity to residences, existing vegetation, connection to existing cycling infrastructure such as shared paths and existing park amenities. They also eliminated sites where there were known competing recreational demands, or which had already been earmarked for other recreational facilities. There were limited suitable sites and while the list is not exclusive, it is unlikely other sites can be developed due the nature of these types of facilities and the requirements to accommodate them.

3.4 Detailed analysis (site and desktop) was conducted on each of the shortlisted sites to provide a broad assessment of their conditions and suitability for development. The feasibility study examined surfacing, safety, benefits, costs and maintenance of various bike facilities, with regards to site constraints and appropriateness of various bike facilities. The sites were analysed and scored based on six criteria, and all sites were rated against each other for prioritisation. The criteria were:

- Physical site conditions and technical considerations - appropriate terrain, shape, tenure and vegetation.
- Access and transport - Proximity of shared use path, pedestrian footpaths and connections to transport nodes or parking availability.
- Passive surveillance, security and safety - The sites visual prominence and passive surveillance opportunities, ease of access for emergency vehicles, safe entry from busy roads.
- Supporting amenities such as water, public toilets, shade, food and drink.
- Impact on surrounding land use, including an analysis of existing facilities, environmental conditions and residents living in close proximity to the proposals– i.e. consideration was given to the site being a sufficient distance from an incompatible use, and the noise and visual impact to surrounding residents.
- Site context, with consideration given to whether the site is in close proximity to other similar or proposed facilities, and whether there is planning that supports the inclusion of a bike facility such as a masterplan.

3.5 An overview of the recommendations in the feasibility study including the sites, proposed recreational cycling infrastructure and scale for development is provided in the table below.

Table 1 Overview of proposed recommendations for new recreational cycling infrastructure

Site	Priority	Facility and Focus	Scale
Morris Williams Reserve, Bulleen	1	A pump track facility Beginner, intermediate and advanced users. The facility can be designed to include trails of varying difficulty.	Local
Fitzsimons Reserve, Templestowe	2	A set of flow trails A facility to accommodate most levels and allow for user progression.	Regional
Jenkins Park, Templestowe	3	Learn to ride track and a bike playground. A beginner/junior user focus.	Community
Zerbes Reserve, Doncaster East	4	Skills trail and bike playground A beginner use focus facility that could be incorporated into the play space.	Community
Wonga Park Reserve, Wonga Park	5	Hybrid flow/jump line/trail A beginner/intermediate use course that upgrades the existing facility.	Community
Stintons Reserve, Park Orchards	6	Pump Track Beginner, intermediate and advanced users can be accommodated through the design of the track. This track may be designed as a technical track suitable for racing as a supporting facility to the BMX track.	Local
St Clems Reserve, Doncaster East	7	Urban MTB Trail Focus on beginner and intermediate user groups.	Community
Katrina Gully Reserve, Doncaster	8	Flow Trails To accommodate most users and allow for user progression.	Community

3.6 The type of infrastructure proposed for these sites is distinct from a formal traffic school model and is solely intended for recreational purposes. Where some sites may provide learn to ride opportunities, it will not be in a formal setting.

3.7 The feasibility study has identified scope and prioritisation order of the sites which has informed officers as to what can be achieved at each site and potential timing for delivery. However, this priority order is also flexible to respond to timing for other works within the site, and also in response to external funding opportunities. Council will make the final decision on prioritisation and timelines for implementation as part of the annual capital works program budget process.

3.8 A landscape plan is being developed for Fitzsimons Reserve, which includes a proposed MTB flow trail facility. There is also capital budget to deliver the project in the 25/26FY. Therefore, it is anticipated that this will be the first site delivered following endorsement of this Plan. This will allow the implementation of a facility soon after the adoption of The Plan, and demonstrate Council's commitment to the project.

3.9 While Fitzsimons Reserve is prioritised second on the list seen in Table 1, it can be more readily delivered in the coming financial year than the first ranked site, Morris Williams Reserve. This is because there is already community engagement planned for Fitzsimons Reserve (as part of the development of the landscape plan). It is also a less complex site, given it is not surrounded by residences and there is broad support from external agencies including Parks Victoria, AusNet and Melbourne Water, as well as the Warrandyte MTB Club. There are also plans to consult on a public toilet facility at Morris Williams and it would be more prudent to deliver a recreational bike facility there following this.

3.10 There are numerous benefits to providing recreational cycling facilities for our community including, opportunities for fun and skills development as well as positive social, health and well-being outcomes and community building by creating inclusive spaces that all members of our diverse community can use and enjoy. The encouragement of bike riding at a young age is also an opportunity to ingrain the value of cycling and could lead to greater mode shifts for active transport across our communities in future.

4. COUNCIL PLAN / STRATEGY

4.1 This Project is aligned to the key council strategies and the Council Plan:

- *Active for Life Recreation Strategy*, 2010-25 (Reviewed 2019) Outcome 1.5 - Ensure facility provision for a diverse range of active recreation opportunities, 3) Engage with Parks Victoria to determine the need to develop a MTB facility at Candlebark Park.; and

- *Sports Facility Development Plan* Stage 2 endorsed on 28 March 2023, Action 21 Consider the development of pump tracks at suitable locations across the municipality, with further consideration to creating a balance in the number of pump tracks and dirt jumps provided.

    - This work aligns with the consultation findings from the development of that plan (see paragraphs 2.3-2.5).

4.2 Manningham Council Plan alignment:

- Goal 1.1, A healthy, resilient and safe community

    - Improve access to attractive, leisure and recreation destinations across the municipality by embracing the 20-minute neighbourhood.

- Goal 2.1 Inviting places and spaces
- Goal 2.2 Enhanced parks, open space and streetscape
- Goal 2.4 Well maintained and utilised community infrastructure
    - Proactively plan, upgrade and improve or recreational facilities to ensure they are maintained and accessible for a broad range of community uses.

5. IMPACTS AND IMPLICATIONS

5.1 Gender Impact Assessment

- A GIA has been prepared for the development of this work and GIA's will also be developed for specific projects during the implementation of the plan.

5.2 Finance / Resource Implications

- There is commitment in the 10-year Capital Works Program budget to design and deliver recreational bike infrastructure. The feasibility study and Draft Plan will assist in the scoping and prioritisation to inform capital works budget allocations in the 10-year program.
- Costings of the projects will need to be further developed as the projects are designed and detailed for implementation.
- There will also be ongoing maintenance costs that need to be budgeted. The Draft Report includes a nominated maintenance rate schedule and timeframes for this to occur; with 1-3% of development costs projected as an annual maintenance fee and renovation costs of between 5-10% potentially required every 5 years. These facilities have a life span of approximately 20 years, dependant on the materiality and site conditions of each facility.
- Discussions have occurred and will continue with relevant internal teams including, Parks and Natural Environment, and Sustainable Engineering to ensure a best value approach for Council. Councils with similar facilities have also been approached to understand how facilities are developed and managed, and what kind of capital investment, maintenance requirements and associated costs are allocated within Council budgets. This includes, Banyule, Boroondara, Maroondah, Moonee Valley, Monash, Nillumbik, Stonnington, Whitehorse and Yarra Ranges.

6. IMPLEMENTATION

6.1 Communication and Engagement

Is engagement required?	Yes A Community Engagement Plan has been developed for the project. The project will reference previous engagement undertaken as part of the Sports Facility Development Plan Stage 2 and Blackburn Dirt Jumps (see paragraph 2.3 to 2.5).
Stakeholder Groups	1.Youth 2. Residents 3. Recreational cycling groups (including Warrandyte MTB Club and Park Orchards BMX Club). 4. External agencies including Parks Victoria, Melbourne Water, AusNet and others depending on project location. 5. Internal stakeholders including; Recreation, Environment, Parks and Infrastructure. 6. Adjoining LGA's and LGA's with recreational cycling infrastructure that has been developed or is in planning for development. 7. Local schools, Manningham Youth Forum and Manningham's Recreation and Sport Advisory Committee.
Where does it sit on the IAP2 spectrum?	Consult
Approach	Presentation to relevant advisory groups Communication material (letter drops, website info, signs, social medial posts etc) Survey/Poll

6.2 Timelines

Meeting	Date	Purpose
Council	29 April 2025	Endorse commencement of community consultation.
Community engagement	Mid-May to mid-June 2025	Inform the community of the proposed bike facilities and seek their input into the draft recommendations. This will include a survey to gauge their support for the list of sites and associated recommendations.
Assessment of community submissions	June – July 2025	Assess community submissions and update The Plan as required.
SBS	5 August 2025	Present the final 'Recreational Bike Facilities Plan',
Council	26 August 2025	Endorsement of the 'Recreational Bike Facilities Plan'.

7. DECLARATIONS OF CONFLICT OF INTEREST

No officers involved in the preparation of this report have any general or material conflict of interest in this matter.

Draft Recreational Bike Facilities Plan 2025

Site assessments and recommendations

Interpreter service **9840 9355**

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MANNINGHAM

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Acknowledgement of country

Manningham Council acknowledges the Wurundjeri Woi-wurrung people as the Traditional Owners of the land and waterways now known as Manningham.

Council pays respect to Elders past, present and emerging, and values the ongoing contribution to enrich and appreciate the cultural heritage of Manningham.

Council acknowledges and respects Australia's First Peoples as Traditional Owners of lands and waterways across Country, and encourages reconciliation between all.

Statement of recognition of diverse cultures (statement of diversity):

Manningham Council also values the contribution made to Manningham over the years by people of diverse backgrounds and cultures.

COMMON GROUND

Manningham Council acknowledges the background research and analysis undertaken by independent technical experts, Common Ground Trails in the preparation of this report.

Disclaimer: Common Ground Trails Pty Ltd and its employees are not qualified to provide legal, medical or financial advice. Accordingly, detailed information in this report will require additional professional consultation.

MANNINGHAM

1. Executive Summary

To address a growing demand for recreational cycling opportunities, Manningham Council is proposing the development of recreational bike facilities tailored to our community's needs. This project focuses on the establishment of formal facilities across Manningham over the next 10-15 years, to provide all members of our diverse community an opportunity to enjoy the social, physical, and mental health benefits of cycling.

1.1 Recreational cycling in Manningham

Recreational cycling facilities such as dirt jumps, pump tracks, flow trails and mountain bike trails are becoming increasingly popular, however there are limited facilities in Manningham to meet this demand.

Manningham Council currently has:

- Novice dirt jump facility located at Wonga Park Reserve, Wonga Park
- BMX facility at Stintons Reserve, Park Orchards
- Small cluster of unsanctioned mountain bike trails at Candlebark Park, Templestowe on Parks Victoria Land

Over the past decade, Council has received consistent requests from our community to improve facilities at existing sites and/or for a greater diversity of facilities across the municipality. This includes during consultations for various Council strategies and park upgrades or from active members of the community contacting Council to provide their feedback.

During Covid, there was a proliferation of illegal dirt jumps built by the community and during consultation around the Blackburn Jumps, Council provided a commitment to investigate the potential for the development of formal recreational cycling facilities across Manningham in the future.

Manningham Council has identified eight potential sites to provide facilities such as pump tracks, BMX bowls, dirt jumps and Mountain Bike Trails (MBT) for our community.

This report provides recommendations to develop a future network of recreational cycling facilities across the municipality.

2 Introduction

2.1 Background

Manningham Council has had continued demand for various styles of recreational bike riding infrastructure, specifically dirt jumps, pump tracks, flow trails and mountain bike trails. During the development of Council's *Sports Facilities Development Plan Stage 2*, we received a high level of community feedback for such facilities and Council made a commitment to investigate opportunities to provide purpose-built facilities across the municipality.

Eight sites were assessed to determine the feasibility of accommodating recreational bike facilities. Independent technical experts, Common Ground Trails undertook the study on Council's behalf. The sites have been analysed based on the physical characteristics, supporting infrastructure as well as the projected growth and demographics in the surrounding area. They have then been scored and prioritised for development.

2.2 Objectives of the study

- To understand the current and anticipated participation trends in the use of recreational bike facilities across Manningham.
- Application of site analysis and Common Ground multi-criteria analysis to assess each of the eight identified sites to determine suitability.
- Determine the type and scale of the proposed mountain bike and/or BMX style facility suited to each site.
- Prioritise development of each of the sites.
- Develop cost estimates for the design, construction, and ongoing maintenance of the mountain bike and/or BMX style facility at each proposed site.

2.3 Benefits of recreational cycling

Recreational bike facilities such as dirt jumps, pump tracks, flow trails and mountain bike trails are important because they provide accessible, fun, and skill-building cycling experiences for people of all ages and abilities, improving bike handling, balance, and overall technical proficiency while promoting physical activity and community engagement, especially through the nature of pump tracks which allow riders to learn key skills without needing high speeds or complex terrain.

The development of recreational bike facilities and engaging in these activities can deliver environmental, economic, health and social benefits to individuals and communities.

Skill development:

All these facilities, particularly pump tracks, excel at teaching essential bike handling skills like cornering, weight distribution, and body positioning, which can translate to better riding on any type of terrain.

Inclusivity:

Pump tracks are designed to be accessible to riders of all skill levels, from beginners to advanced, making them a great place to learn and practice new techniques.

Fun factor:

The flow and rhythm of riding these tracks can be highly enjoyable and addictive, encouraging regular participation.

Community building:

Shared spaces like pump tracks and trails can foster a sense of community among cyclists of different backgrounds, creating opportunities to learn from each other and socialise.

Physical benefits:

Cycling on BMX tracks, pump tracks, and mountain bike trails provides a great workout, improving cardiovascular health, muscle strength, and coordination.

Mental health benefits:

Engaging in these activities can be a stress reliever and contribute to overall mental wellbeing.

Economic benefits:

MTB and BMX facilities can provide economic benefits generated through spending by riders visiting a region for the purpose of riding their bike.

Environmental benefits:

MTB riders are renown for the volunteer contribution they make towards trail care and maintenance with many trail networks in Victoria and throughout Australia the recipient of hundreds of volunteer hours. The planned development of MTB trails can also provide environmental benefit by increasing community ownership and ensuring trails do not compromise environmentally sensitive areas.




2.4 Types of facilities

2.4.1 Mountain Bike Trails

A mountain bike trail comes in various forms. While large networks typically reside outside of urban areas it is not uncommon for urban areas with adequate density to have some trail networks within parkland or reserves, such as in Candlebark Park. These are typically focused on either transport for leisure/commuting purposes or specifically for the recreation/sport of mountain biking. They provide relatively easy access for the local population. These networks are typically smaller and compact networks or loops that cater to a shorter ride rather than all day epics.

Trails come in a range of forms catering to different users and interests. These include:

- Trail that is typically 2 - 3m wide, often dual use, with no technical trail features that allow people to experience the trail environment. Examples include rail trails.
- Trail in a natural environment that contains technical trail features in both the uphill and downhill sections of the trail, usually single direction and mountain bike specific. Trail corridors typically vary depending on trail type 800 - 2000mm wide with clearing requires up to 2200 - 2400mm above trail.
- Flow trail could be considered a trail that has features for the user to utilise gravity and pump as much as pedal for speed generation. Flow trails have a freestyle focus.

Downhill specific trail caters to a small group of users and requires an adequate amount of vertical topography. A downhill trail usually contains significant technical trail features and is mountain bike specific. There is usually a shuttle option or other access method back to the top of the trail given a typical downhill bike is very uneconomical to pedal uphill

Figure 1 Parks Victoria Mountain Bike Trail examples

2.4.3 Pump Tracks

A pump track is a 1-3-metre-wide track that can be used for bicycle, skateboard, in-line skates and scooter riders to practice skills on a series of features, such as berms and rollers placed in quick succession.

Figure 2: Pump Track example, Chadwick Reserve, Dingley Village

Essentially, they are scaled down BMX tracks which do not require pedalling. 'Pump' refers to the action made by riders pushing down with their arms and legs to manoeuvre the bike or board over features to maintain momentum without pedalling or pushing-off the ground. Typically, tracks can be ridden continuously with different combinations of features linked to provide a varied challenge. Bike handling skills can be transferred to other mountain bike tracks.

Well-designed pump tracks cater for all abilities, with all features roll-able for beginners, and allowing for progression to pumping, and even jumping for more advanced riders. Riding a pump track is easy and children are typically comfortable using them within 10-20 minutes.

A well-designed pump track provides enough challenges to stay attractive for years, with the rollers and berms able to be combined and transitioned in different directions, creating opportunity for skilled riders to do jumps and manoeuvres. Pump tracks can be made from natural soil, hardened surfaces, wood, fiberglass, concrete or asphalt.

Historically pump tracks were constructed from natural soil blends and required significant ongoing maintenance. More recently, world's best practice is tending toward lower maintenance surfacing techniques and materials, such as asphalt, which are inclusive for a larger user base of wheeled-sports including skateboarding, scooters, in-line skates and non-off-road bikes.

Pump tracks do appeal to a group of the mountain bike community within the urban context.

Within the world of pump tracks there are varying styles of tracks including pump trails, pump tracks and pump parks. While use is predominantly recreation-based competition and racing is becoming more common. Pump tracks are often associated with other urban facilities such as skate parks or form a part of a broader wheeled sports facility referred to as a Challenge Park.

Figure 3: Pump track example, Albany Challenge Park, Western Australia

2.4.4 Jump Parks

Jump parks typically feature a series of tracks with jumps of various size and technicality in multiple lines to accommodate a range of rider abilities.

Provision of jump tracks is a vital inclusion allowing for progression for young people through to adults who seek an alternate and often more challenging experience than a pump track. Jumps are developed so that they allow for progression while always keeping safety in mind. Featuring all types of jumps including table-tops, gaps, step-ups, step-downs and hips, with features linked so riders flow immediately from one to the next. Ideally, a rider will not have to brake between jumps.

Figure 4: Jump Park examples - Dyoondalup Bike Park, WA

Well-designed jump tracks offer a wide variety of challenges, from easy rollers to big jumps. A diversity of lines will allow riders to build their skills gradually and will create a park that is fun for all abilities. Typically, jump lines are arranged side-by-side with increasing difficulty, all starting at a common roll-in hill and traveling in the same direction.

Jump tracks are primarily constructed of soil, however jump take offs and landing (impact) areas are being made from hardened surfaces, such as wood, concrete, asphalt and rubber matting. This significantly reduces ongoing maintenance and improves the rideability and safety of the facility.

There are two distinct styles of jump parks that cater to different styles of jumping. Broadly put this could be described as a jump park for BMX riders and another for MTB riders however there is a large amount of crossover. The shape, material and upkeep vary slightly between them.

Figure 5: Jump trail example - Clarence Mountain Bike Park, Mornington, Tasmania

2.4.5 Skills Track

Skills tracks/trails/parks feature man-made technical trail features that test the skills of a rider and allow them to try features that they may encounter on trails in the region. Typical features may include log rollovers, log rides, balance planks, rock drops and other technical features. They can also incorporate street features such as rails and wall rides, or freeride stunts like ladder bridges, skinnys, teeters and drops.

Importantly all features are built with progression in mind allowing users to start small and build their confidence up to larger features.

Successfully executed skills park areas feature a diverse range of materials and can look like well landscaped areas or 'nature play' areas with natural features such as timber, logs and rocks.

Figure 6: Skills Park example, Southside Mountain Bike Skills Park, Cairns

2.5 Facility Classification

Table 1: Facility Classification

Community Facility *2.5km radius catchment*	Local Facility *5km radius catchment*	Regional Facility *10km radius catchment*	State Facility *Unrestricted catchment*
Community level facilities are designed to service the community in the immediate vicinity or are supplementary to existing experiences offered at a location. They are small scale, minimal budget projects that typically create opportunity for introductory experiences and skills development for beginners.	A local level facility is intended to service Manningham residents. Users may travel within the City to access the facility. Multiple local facilities should be strategically distributed across the municipality. Facilities incorporate basic design, simple detail and are value for money. They should be an engaging facility for all level of users with progression promotion for both beginner and intermediate users. Local facilities should be constructed within recreation spaces while adjacent to existing infrastructure, this will then provide the capability of holding small local events, competitions and workshops.	A regional level facility will be attractive to a wider market and will attract users from outside the immediate area. Regional facilities provide a greater level of satisfaction and a desire for residents to return to the same location. These facilities incorporate more technical design elements, increased detail and will be of higher cost depending on technical features and supporting infrastructure. Development around existing infrastructure greatly reduces the cost of regional facilities. There will be an opportunity to host larger events, competitions and workshops.	State level facilities capture a much broader market, with individuals traveling great distances to participate. These facilities will attract all user groups from beginners and new participants through to elite riders. Significant capital expenditure is required to develop a State level facility, but there are major opportunities for return on investment. Competitions will draw spectator crowds, opportunities for facility and equipment hire. There is also opportunities for private enterprise in areas such as hospitality, coaching and private sporting clubs within the facility. State facilities require a significant investment in supporting infrastructure such as car parking, ablutions, shower facilities, food and beverage; therefore, require a significant parcel of land.

2.6 Support infrastructure

Table 2: Infrastructure requirements

Key Requirements	Community	Local	Regional	State
Toilets			✓	✓
Changing facilities and showers				✓
Drinking water	✓	✓	✓	✓
Designated emergency access			✓	✓
Designated spectator viewing and seating			✓	✓
Food and beverage outlets				✓
Lighting				✓
Parking and drop off			✓	✓
Proximity to major community centre			✓	✓
Rubbish bins	✓	✓	✓	✓
Shelter / Shade			✓	✓

The following table provides an outline of the required supporting infrastructure at each type of facility. This is more of a guide as to what should be included however every site needs to be assessed and designed based on its unique characteristics.

2.7 Provision of facilities in Manningham

2.7.1 Creating variety

Distributing bike facilities across Manningham will ensure facilities are accessible to all Manningham residents, encourage active transport like riding a bike to a nearby facility, prevent an influx of users to a particular destination and provide a differing challenge and experience across the City. Depending on the level of investment, there are opportunities to design and construct facilities that meet growing demand and encourage new users to participate in riding a bike.

A varying classification of bike facilities will influence the number of users. Developing large-scale, leading-edge facilities will see an influx of riders from outside and within Manningham. The recommendations within this report are directed at servicing the Manningham residents first, but at the same time creating facilities that are exciting, create a desire for continual and repeat use and benefit from economic gains by encouraging visitors into the City.

In suitable locations the opportunity of grouping MTB and BMX facilities with other facilities to create a Challenge Park should be considered. A Challenge Park is most rewarding for the user and generally the most successful facility when considering wheeled sports use. Multi-disciplinary sites allow for introductory experiences and skills progression.

A single discipline community MTB and/or BMX facility is well placed with non-cycling activities to provide an alternative experience whilst other family members are participating in activities such as team sports.

2.7.2 Site selection

Different facilities require different characteristics suitable to their intended use. The key physical constraints include topography, suitable soil conditions, the ability to execute suitable drainage, enough space to accommodate the mountain bike facility including vegetation protection, and infrastructure such as service poles, pits, furniture, shelters etc.

2.7.3 Multi-criteria assessment

Sites were analysed based on six criteria to provide a broad assessment of the conditions that would determine them suitable for development. Each criterion was then scored, and all sites were rated against each other for prioritisation. The assessment can be seen in the table below.

Table 2 Multi Criteria Assessment Scoring

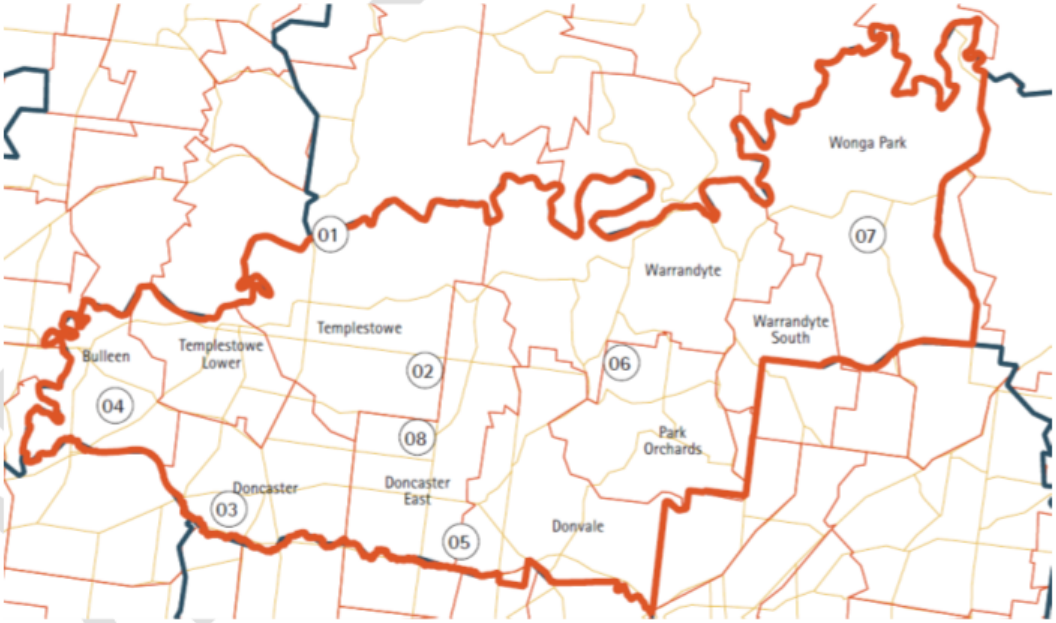
Criteria (Rated out of 5) 5/5 Excellent 4/5 Good 3/5 Fair 2/5 Poor 1/5 Very Weak 0/5 Non existent	Fitzsimons	Jenkins	Katrina Gully	Morris Williams	St Clems	Stintons	Wonga Park	Zerbes
Physical site condition and technical considerations								
Is the site suitable for any classification of bike facility up to a State facility	3	3	2	3	2	3	3	3
Does the site contain appropriate terrain/geology/hydrology for bike facility development	5	3	3	4	4	5	3	4
Is the shape of the suite suitable to accommodate a bike facility	5	4	3	5	2	5	3	3
Is the tenure of the site suitable to allow deliverability of a bike facility	5	5	5	5	5	5	5	5
Are the flora/fauna/cultural/phytophthora hygiene constraints suitable to allow the development of a bike facility	3	4	4	5	3	4	3	2
Access and Transport								
Are there pedestrian/footpath connections from transport nodes to the site	5	5	2	5	3	0	2	4
Is there a safe drop off area or adequate parking at the site	4	3	1	4	2	4	5	5
Is the site in proximity to a Shared Use Path	5	5	5	5	5	0	2	5
Passive Surveillance, Security and Safety								
Is the site visually prominent with good passive surveillance from other park users	3	5	3	5	5	2	4	5
Are emergency services a short distance from the site	4	4	4	5	5	4	3	5
Is there ease of access for emergency vehicles	4	5	1	5	4	5	4	5
Does the location enable safe entry to and from the site and allow for adequate setbacks from busy roads	5	5	5	5	5	5	5	3
Supporting Amenities (Water, Toilets, Shade, Food and Drink)								
Are associated amenities such as public toilets, water, shade, existing and available or cost effective to install	3	5	3	3	2	4	5	5
Impact on Existing Facilities, Environment, Adjoining uses and users								
Is the site located a sufficient distance from nearby incompatible use, activities or services	5	4	2	4	3	5	4	3
Is the site located such that noise and visual impacts for surrounding residents could be minimised	5	4	1	4	2	5	3	4
Context								
Is the site located in proximity to other similar existing or proposed facilities	5	3	4	5	3	5	5	4
Is there any existing planning that support the inclusion of a bike facility	0	0	0	0	0	5	5	0
TOTAL (max possible score is 85)	**69**	**67**	**44**	**72**	**55**	**66**	**64**	**65**
% Score	81%	78%	52%	84%	64%	77%	75%	76%

ASSEMENTS

Assessments of identified locations

3 Assessment sites

01. Fitzsimons Reserve
02. Jenkins Park
03. Katrina Gully (Koonung Creek Linear Park)
04. Morris Williams Reserve
05. St Clems Reserve
06. Stintons Reserve
07. Wonga Park Reserve
08. Zerbes Reserve



It is important to note that the proposals shown below are preliminary schematics only and are subject to further planning, community consultation outcomes and design work. The proposals will be developed in accordance with best practice standards to enhance the existing reserves and provide broad community benefit. The proposals will also be considered in the context of delivering other recreational facility priorities and projects. They are presented in order of their scoring.

3.1 Morris Williams Reserve, Bulleen

Morris Williams Reserve is well utilised reserve with strong community ownership of the park. It contains multiple complementary facilities including a playground, basketball pad, open space for picnics, a dog off leash area, a large playing field. It also has significant and mature vegetation across the site and is near Yarralean Preschool. Some existing dirt mounds were created by local bike riders for jumping and indicate demand for a facility here.

Recommendation: Pump track facility **Scale:** Local

Figure 7: Precedent imagery - Pump Tracks

Figure 8 Morris Williams Reserve Existing Site Features and Identified Subject Site

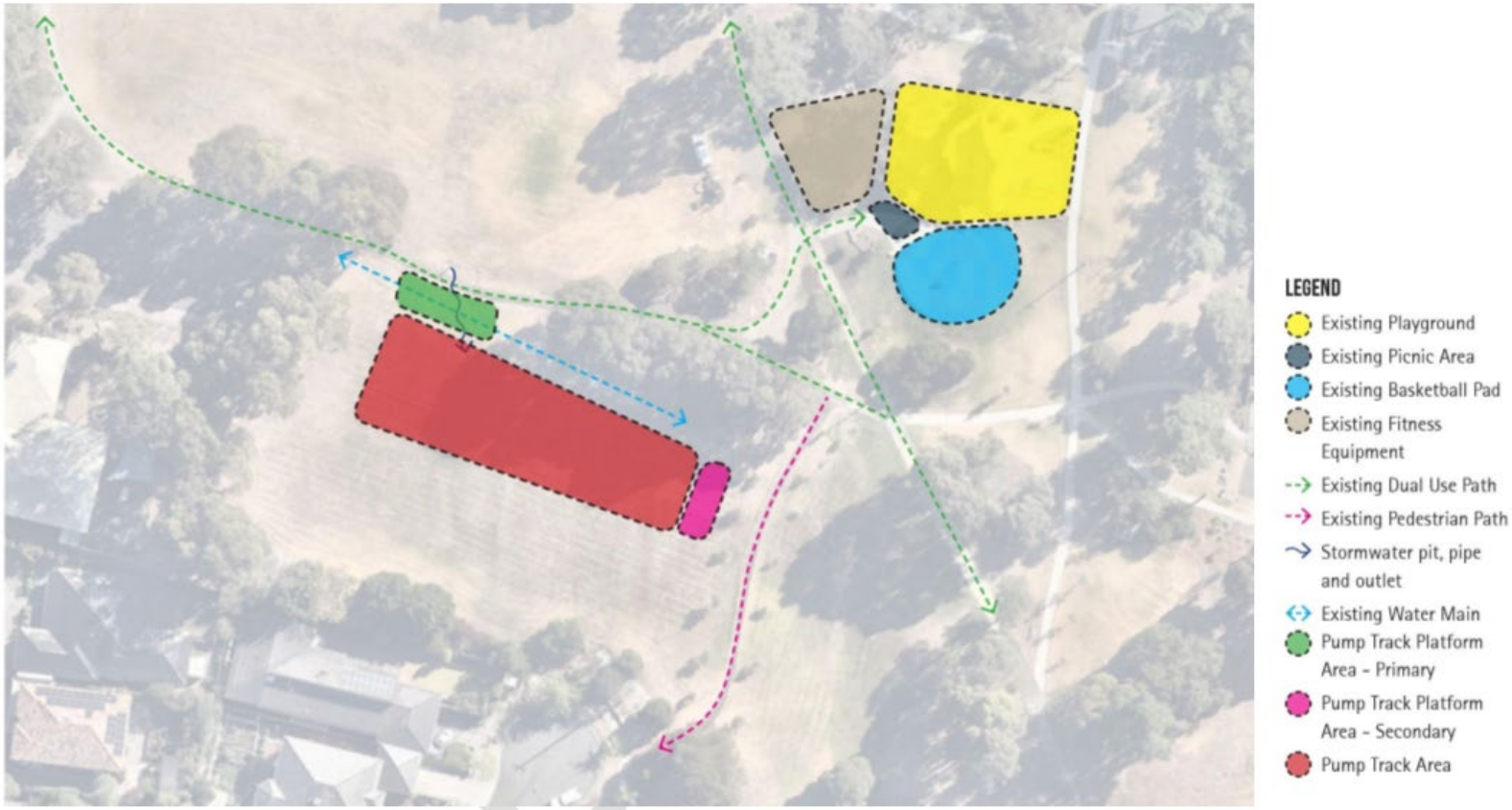


Figure 9 Morris Williams Reserve Indicative Site Development Plan

3.2 Fitzsimons Reserve, Templestowe

Fitzsimons Reserve is a large reserve used predominantly for passive and informal recreation activities. It is adjacent to Candlebark Park and Westerfolds Park and forms part of the Yarra Valley Parklands. The Main Yarra Trail intersects the reserve, and the perimeter path is popular with walkers, trail runners and bike riders. There is evidence of an unsanctioned trail network within the site and the adjacent parklands indicating demand for a bike facility here. The site is bounded on the north and west by the Yarra River and the nearby canoe facilities lend itself to an adventure focus.

Fitzsimons Reserve has significant overhead powerlines running through the site. While this would present little constraint to the development of a bike facility on the ground, there may be easement constraints that impact the ability for this corridor to be developed.

Recommendation: Flow trail facility **Scale:** Regional

Figure 10: Precedent imagery Flow Trails

Figure 11 Fitzsimons Reserve Existing Site Features and Identified Subject Site

Figure 12 Fitzsimons Reserve Indicative Design Development

3.3 Jenkins Park, Templestowe

Jenkins Park is a significant district reserve and habitat corridor that has an existing range of facilities and open space to support both active and passive uses. There are complementary facilities including a playground, exercise equipment and an informal cricket wicket. They are connected by a looping shared use path, part of which has lighting. There is also an internal pedestrian path which can also cater to wheeled sports equipment.

The topography and shape of the open space limit its ability to provide suitable areas for formal ball sports. There is significant planting within the site that provides both habitat and amenity.

Recommendation: Bike Playground **Scale:** Community

Figure 13 Precedent imagery Bike Playgrounds

LEGEND

- Subject Site
- 01. Carparking
- 02. Playground
- 03. Toilets
- 04. Drainage Corridor
- 05. Exercise Equipment
- 06. Dual Use Path
- 07. Pedestrian Path
- 08. Cricket Wicket
- 09. Reserve Boundary

Figure 14 Jenkins Reserve Existing Site Features and Proposed Subject Site

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Figure 15 Jenkins Reserve Indicative Design Development Plan

3.4 Zerbes Reserve, Doncaster East

Zerbes is a large reserve that provides a range of facilities including a sporting oval, pavilion, cricket nets, Girl Guides Hall, nature playground, passive open space, war memorial and bushland reserve. It is a valued asset to the local community and due to its multiple functions, requires careful consideration and a high level of consultation on any future development and introduction of activities like a bike facility.

There is an opportunity to form a unique nature-based playground with a combined bike playground and skill facility. The facility should be small in scale to minimise any adverse environmental impacts. Zerbes Reserve is a valued asset to the local community and due to its multiple functions, requires careful consideration of any future development.

Recommendation: Bike Playground + Skill Facility **Scale:** Community

Figure 16 Precedent Imagery Natural Bike Playground and Skills Track

LEGEND

- Subject Site
- 01. Vehicular Access Point
- 02. Pedestrian Access Point
- 03. Oval
- 04. Pavilion
- 05. Girl Guides Hall
- 06. Scout Hall
- 07. Cricket Nets
- 08. Carparking
- 09. Playground
- 10. Bushland
- 11. Open Space Grass
- 12. Reserve Boundary
- 13. Toilets

Figure 17 Zerbes Reserve Existing Site Features and Identified Subject Site

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Figure 18 Zerbes Reserve Indicative Design Development

3.5 Wonga Park Reserve, Wonga Park

Wonga Park Reserve is an active precinct with multiple facilities for active sport use such as two ovals, one with a pavilion, netball courts, cricket nets, a network of paths, the Wonga Park Tennis Club, playgrounds and one of Council's dirt jump tracks. It is surrounded by pockets of high priority remnant vegetation that is of state significance. Development in the park is guided by the *Wonga Park Reserve Masterplan*, 2022 to direct the development of the reserve.

The direction from the masterplan is to upgrade the existing dirt jumps to provide graded challenges and provide improved amenity around the facility and better signage and access to it.

Recommendation: Upgrade **Scale:** Community

Figure 19 Precedent imagery - sealed dirt jump / flow trail facility

LEGEND

- Subject Site
- **01.** Site Access Point
- **02.** Oval
- **03.** Netball Courts
- **04.** Cricket Nets
- **05.** Burch Memorial Kindergarten
- **06.** Wonga Park Community Cottage
- **07.** Existing Dirt Jumps
- **08.** Vegetation/Bushland
- **09.** Wonga Park Hall
- **10.** Wonga Park Tennis Club
- **11.** Carparking
- **12.** Playground
- **13.** Reserve Boundary

Figure 20 Wonga Park Existing Site Features and Identified Subject Site

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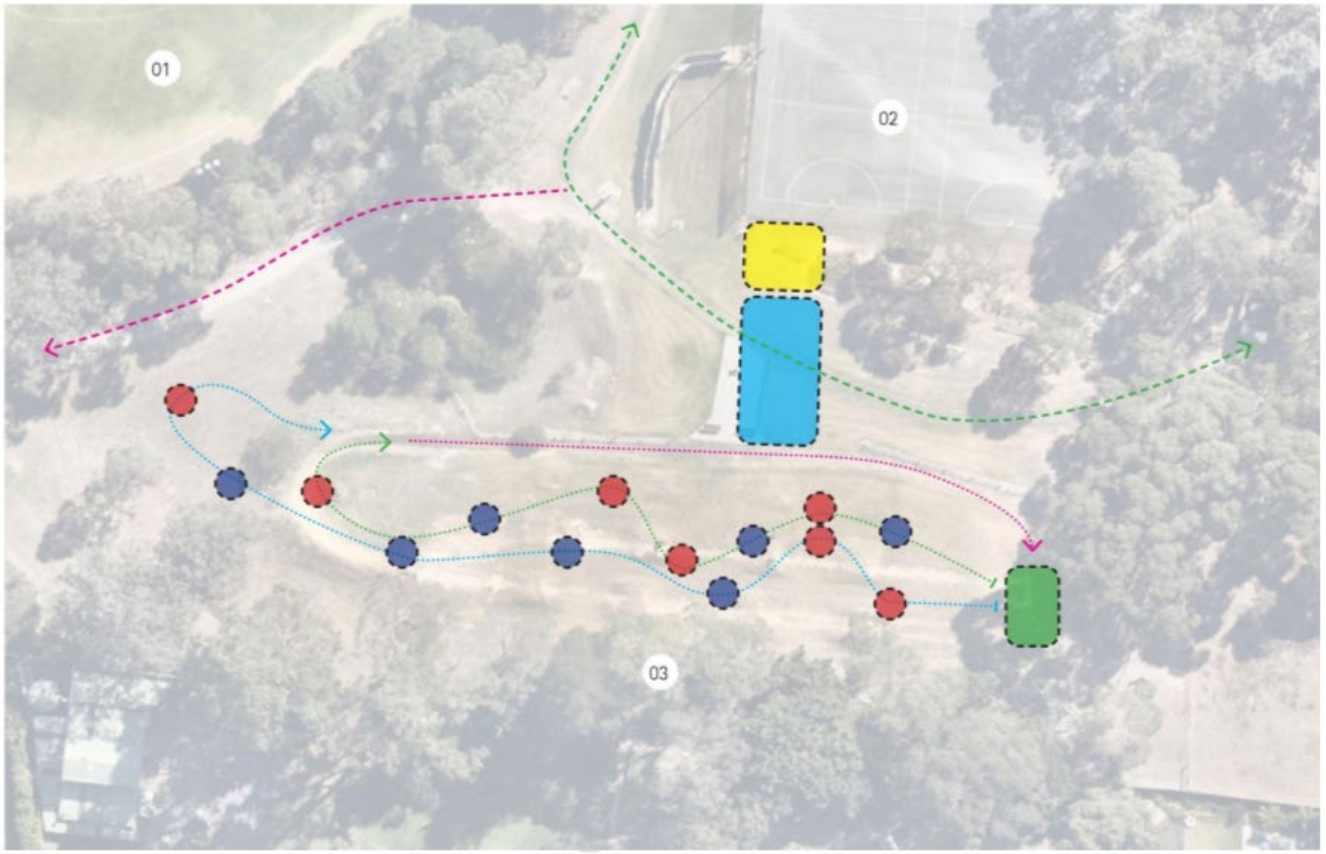

Figure 21 Wonga Park Reserve Indicative Design Development

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3.6 Stintons Reserve, Park Orchards

Stintons Reserve has three existing active functions including the Park Orchards BMX Club Facility, the football oval and the greyhound slipping track. The reserve also contains a picnic area with a shelter and BBQs. The other half of the reserve is high value indigenous bushland that is considered high priority conservation. The Reserve is in a low-density portion of Manningham and has no connecting cycle or pedestrian paths, and most users would have to drive to the reserve.

A bike facility would benefit from the shape of the site, topography and infrastructure. The facility could also support the adjoining State Competition BMX track.

Recommendation: Pump Track **Scale:** Community

Figure 22 Precedent imagery pump tracks

LEGEND

- Subject Site
- **01.** Access Point
- **02.** Football Oval
- **03.** BMX Track
- **04.** Greyhound Slipping Track
- **05.** Picnic Area
- **06.** Carparking
- **07.** Conservation Bushland
- **08.** Leachate Ponds
- **09.** Reserve Boundary

Figure 23 Stintons Reserve Existing Site Features and Indicative Subject Site

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Figure 24 Stintons Reserve Indicative Design Development Plan (subject to the Draft Masterplan endorsement)

3.7 St Clems Reserve, Doncaster East

This linear reserve is an attractive park that provides a habitat link north of the Koonung Creek Linear Park as well as a shared use path linking to the Koonung Creek Trail. It extends along a natural drainage corridor that contains pockets of open space that are spatially separated by pockets of mature vegetation. The site is easily accessed from multiple points allowing ease of access for local residents as well as good passive surveillance across the site from adjoining residences.

There is potential opportunity for an urban trail across the length of the reserve, however the cost may outweigh the benefit.

Recommendation: Urban flow trail **Scale:** Community

Figure 25 Precedent imagery urban flow trails

LEGEND

01. Access Point
02. Playground
03. Tunstall Road Pre-School
04. Dual Use Path
05. Reserve Boundary

Figure 26 St Clems Reserve Existing Site Features

Figure 27 St Clems Indicative Design Development Plan

3.8 Katrina Gully, Doncaster

Katrina Gully is a park of two spaces, the southern active space, and the northern passive space. The southern side contains pathways, playground and fitness equipment, a basketball pad, picnic areas and shade structures. The passive space to the north is open grassland with parkland tree planting. The reserve is part of the Koonung Creek Linear Park and Trail.

The topography of the open space area in the northern side lends itself to a flow trail facility which could be integrated in with the existing active space in the south. This will include a facility suitable to a broad range of users that could access the site from the Trail.

Recommendation: Flow trail **Scale:** Community

Figure 28 Precedent imagery flow trails

LEGEND

01. Playground
02. Shade Sail Picnic Area
03. Basketball Pad
04. Wetland Area
05. Dual Use Bridge
06. Dual Use Path
07. Pedestrian Path
08. Reserve Boundary
09. Fitness Station

Figure 29 Katrina Gully Reserve Existing Site Features

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Figure 30 Katrina Gully Reserve Indicative Design Development

IMPLEMENTATION AND DELIVERY

4 Recommendations

The table of recommendations below provides an overview of the recommendations at each site and indicative costings.

Table 3 Summary of Final Recommendations

Location	Priority	Facility	Focus	Scale	Indicative Cost
MORRIS WILLIAMS RESERVE	1	A pump track facility with suitable support infrastructure. The facility can comfortably be designed to connect to the existing path network including the shared use path.	This facility can accommodate beginner, intermediate and advanced users and gives bike riders a specific location to ride to beyond the existing path networks.	Local	$ 475,000
FITZSIMONS RESERVE	2	A set of flow trails with a starting trailhead and a catchment at the base of the site would be an appropriate bike facility at this site	At minimum a beginner, intermediate and difficult descending flow trails with a single return trail would be included. This will accommodate most users and allow for user progression. If room permits in design then extreme features may be included.	Regional	$ 550,000
JENKINS PARK	3	Learn to ride track and a bike playground with supporting infrastructure	A beginner/junior user focus to best align with the existing user group of the adjacent play space.	Community	$ 418,000
ZERBES RESERVE	4	Skills trail and bike playground	A beginner use focus integrated with the current playspace.	Community	$ 330,000
WONGA PARK RESERVE	5	Hybrid flow/jump line/trail	A beginner / Intermediate use course to supplement the current dirt jumps.	Community	$ 385,000

STINTONS RESERVE	6	Pump Track	This facility can accommodate beginner, intermediate and advanced users. This track may be designed as a technical track suitable for racing as a supporting facility to the BMX track.	Local	$ 640,000
ST CLEMS RESERVE	7	Urban MTB Trail	Provide a trail that runs the longitudinal length of the reserve. It is anticipated it would be a single trail with optional features at opportune locations with varying degrees of challenge. It would focus on the beginner and intermediate user groups.	Community	$ 275,000
KATRINA GULLY (KCLP)	8	Flow Trails	This facility could contain a beginner, intermediate and difficult descending flow trails with a single return trail. This will accommodate most users and allow for user progression.	Community	$ 440,000

4.1 Next steps and implementation

The recommended next steps include progressing each location through appropriate development processes including:

- Further investigations (where required)
- Community consultation
- Development of Concept Plans for each proposed facility/site

The recommendations will be considered in the context of other recreation facility priorities and projects, funding availability and any strategic work that underpins the development of each site such as strategies, masterplans and management plans.

4.2 Capital costs

Annual budget bids will be put forward as part of the Council budget cycle. Indicative costs for the proposed facilities are provided in Table 4 – Summary of Final Recommendations. CPI will need to be applied for the year in which the project is planned to be delivered. Council will need design by industry specific designers and professional contractors to implement the work. It will be important to have community buy in where projects are proposed so they can become valued community resources.

4.3 Ongoing costs

Once a bike facility is established, it is essential to understand the ongoing upkeep required to maintain the facility to a safe and functional condition. A management plan should be developed for each site prior to proceeding to outline the required maintenance, resources, annual budgets and asset lifespan information. It is estimated that bike facilities outlined in the assessment, if designed and constructed to best practice principles, meeting the required tolerances and specifications of current industry standards, will have a functional life of approximately 15 years before major repairs, renovation or renewal is needed. Regular maintenance is also extremely important to ensure the function and relevance of the facilities.

The table below provides an estimate for ongoing maintenance of recreational cycling infrastructure.

Table 4 Ongoing maintenance rates

	% of original cost	Tasks
Ongoing maintenance (annual)	1-3%	Ongoing maintenance includes minor repairs, inspecting for defects and ensuring the facility is safe for use.
Renovation (5 years)	3-5%	Major renovation to rectify any significant issues
Renovation (10-15 years)	5-10%	Major renovation to rectify any significant issues
End of life (20 years)	100% plus inflation	Full replacement

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10.2 Manningham's Submission to Infrastructure Victoria's Draft 30 Year Infrastructure Strategy

File Number: IN25/281

Responsible Director: Director City Planning and Liveability

Attachments:
1 Draft Strategy - Victoria's 30 Year Infrastructure Strategy
2 Manningham's Submission to Infrastructure Victoria's Draft 30 Year Infrastructure Strategy

PURPOSE OF REPORT

This report outlines the approach and content of Manningham's submission to Infrastructure Victoria's Draft 30 Year Infrastructure Strategy, developed by Council officers with informal Councillor feedback, and seeks Council's post-lodgement endorsement of the submission .

EXECUTIVE SUMMARY

On 4 March 2025, Infrastructure Victoria released a draft version of their refreshed 30 Year Infrastructure Strategy (the draft strategy). The draft strategy was on consultation until 28 April 2025.

A submission on behalf of Manningham Council was prepared by the Integrated Planning team, which was internally consulted on to ensure it addresses all relevant Council-wide priorities. The submission was also informed by the recommendations of Manningham's Community Panel, to ensure current community sentiment was considered.

The submission is to be lodged online to Infrastructure Victoria on the closing date of 28 April 2025.

Infrastructure Victoria will use the feedback received during the consultation period to prepare a final version of the strategy between May and October 2025. The final strategy will then be tabled in the Victorian Parliament in late 2025.

COUNCIL RESOLUTION

MOVED: CR ANNA CHEN
SECONDED: CR CARLI LANGE

That Council:

A. Endorse Manningham's submission to Infrastructure Victoria's draft 30 Year Infrastructure Strategy, lodged on 28 April 2025.

B. Note that the final strategy will be tabled in the Victorian Parliament in late 2025.

CARRIED UNANIMOUSLY

2. BACKGROUND

2.1 Infrastructure Victoria is an independent advisory body for the Victorian State Government. Infrastructure Victoria conducts research on infrastructure issues, provides advice to government, and prepares Victoria's 30-year Infrastructure Strategy.

2.2 Victoria's 30 Year Infrastructure Strategy is a guidance document for the State Government, which informs public infrastructure decisions. Every 2 to 5 years, the strategy is refreshed and goes through a consultation process. Once finalised, the strategy will be tabled in the Victorian Parliament in late 2025.

2.3 The strategy was previously refreshed in 2016 and 2021, at which time Council lodged a submission during the consultation periods.

2.4 Our 2021 submission commended Infrastructure Victoria for undertaking the refresh following key learnings from the COVID-19 pandemic and outlined support for various recommendations. Our submission also highlighted some suggested improvements, including:

2.4.1 Prioritising public transport improvements prior to any congestion pricing being implemented on roads.

2.4.2 Specifically referencing Bus Rapid Transit (BRT) in recommendations on reshaping the bus network.

2.4.3 Noting that Manningham requests Doncaster to be included in Stage 1 of the Suburban Rail Loop.

3. DISCUSSION / ISSUE

3.1 Manningham's submission to the 2025 draft strategy is structured to follow the structure of the strategy itself – for clarity and legibility. Ideally, this will increase the chance of our submission being meaningfully incorporated into the final version of the strategy by Infrastructure Victoria.

3.2 The submission provided an opportunity for the relevant Council service units to comment on all 43 proposed recommendations and the 7 'future options' proposed by Infrastructure Victoria in the draft strategy.

3.3 When seeking comments from relevant service units to inform the submission, the below questions were posed to promote thoughtful analysis:

3.3.1 Is there any content and/or recommendations (or 'future options') that you disagree with?

3.3.2 Is there any content and/or recommendations (or 'future options') that you'd like to express support for?

3.3.3 Can you link any of your key advocacy or other work priorities to any of the content and/or recommendations (or 'future options')?

3.3.4 Are there any gaps in the draft strategy that should be addressed?

3.4 All internal feedback gathered from relevant service units was used to ensure the submission accurately represents all Council priorities. Feedback previously received for the Council-wide submission to 'Plan for Victoria' was also relied upon to assist in the preparation of the submission.

3.5 Additionally, while timing of the consultation period did not permit external consultation – the submission has incorporated multiple recommendations from the Manningham Community Panel's final report to ensure the submission aligns with current community sentiment. The submission also refers to numerous existing Council strategies and policies – all of which have been through external community consultation prior to publishing.

3.6 The overall tone of the submission is generally supportive of Infrastructure Victoria's initiatives, with constructive feedback offered where necessary and key considerations for Manningham strongly highlighted.

4. COUNCIL PLAN / STRATEGY

4.1 Contributing to the State's planning for adequate long-term infrastructure roll-out is essential to improving Manningham's liveability. This aligns with the Liveable Places and Spaces theme of the Council Plan.

4.2 Having a say on this important strategy that the State will use as an advisory document is integral to ensuring Council receives adequate support for infrastructure roll-out. This aligns with the goal for a financially sustainable Council that manages resources effectively and efficiently, under the theme of a Well Governed Council.

5. IMPACTS AND IMPLICATIONS

5.1 Finance / Resource Implications

The submission is being prepared using internal resources and expertise.

6. IMPLEMENTATION

6.1 Communication and Engagement

Is engagement required?	Yes
Stakeholder Groups	1. Councillors 2. Executive Management Team 3. Relevant Council service units
Where does it sit on the IAP2 spectrum?	Collaborate
Approach	Email communications to relevant service units, including targeted questions to assist in preparing comments. Formal report to Executive Management Team – with invitation for engagement/participation via email or other

	means. Report for feedback by Councillors at a briefing session, with invitation for engagement/participation via email or other means.

6.2 Timelines

4 March 2025 – Consultation on the draft strategy opened, and officers commenced work on Manningham's submission.

7 March 2025 – Councillor Bulletin noted the release of the draft strategy and sought feedback from Councillors.

3 April 2025 – Executive Management Team review of the draft strategy and draft submission.

15 April 2025 – Item presented to Councillors for briefing and review of the draft submission.

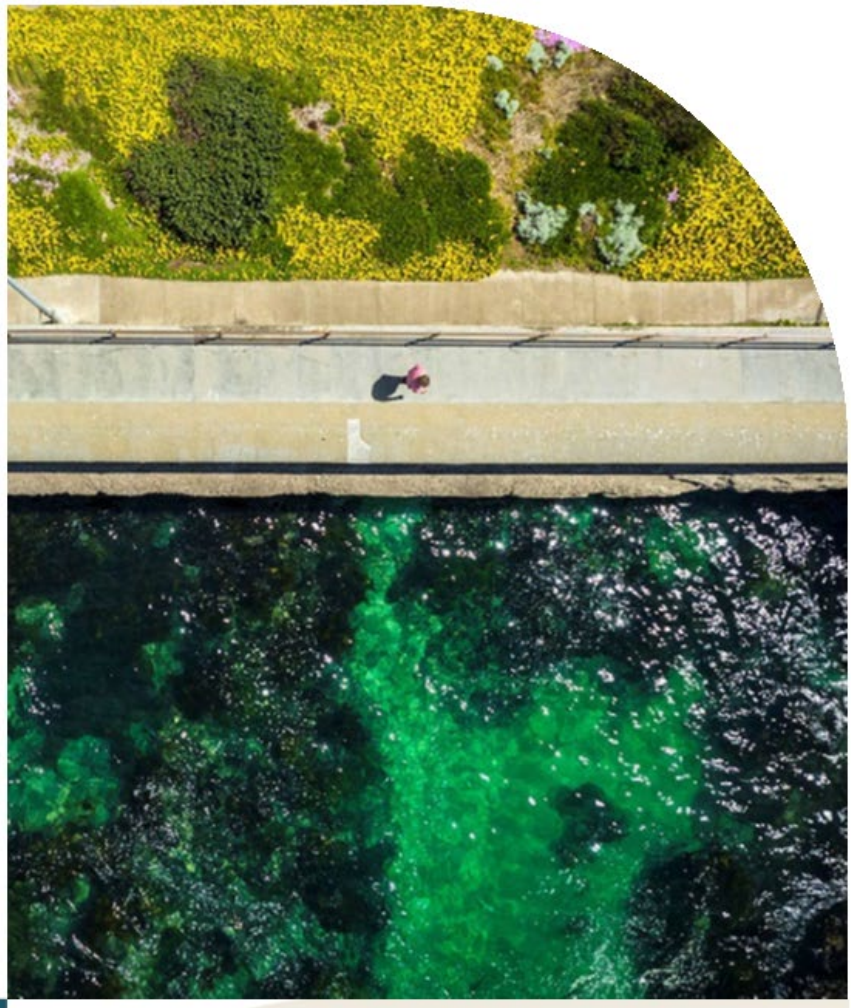
22 April 2025 – Final feedback on the draft submission due from Councillors.

28 April 2025 – Final submission lodged on the Engage Victoria website.

29 April 2025 – Council to formally endorse the submission at the April 2025 Council meeting.

7. DECLARATIONS OF CONFLICT OF INTEREST

No officers involved in the preparation of this report have any general or material conflict of interest in this matter.



INFRASTRUCTURE VICTORIA

March 2025

Victoria's draft 30-year infrastructure strategy

About us

Infrastructure Victoria is an independent advisory body with 3 functions:

- preparing a 30-year infrastructure strategy for Victoria, which we review and update every 3 to 5 years
- advising the government on specific infrastructure matters
- publishing research on infrastructure-related issues.

Infrastructure Victoria also helps government departments and agencies develop sectoral infrastructure plans.

Infrastructure Victoria aims to take a long-term, evidence-based view of infrastructure planning, and we inform community discussion about infrastructure provision.

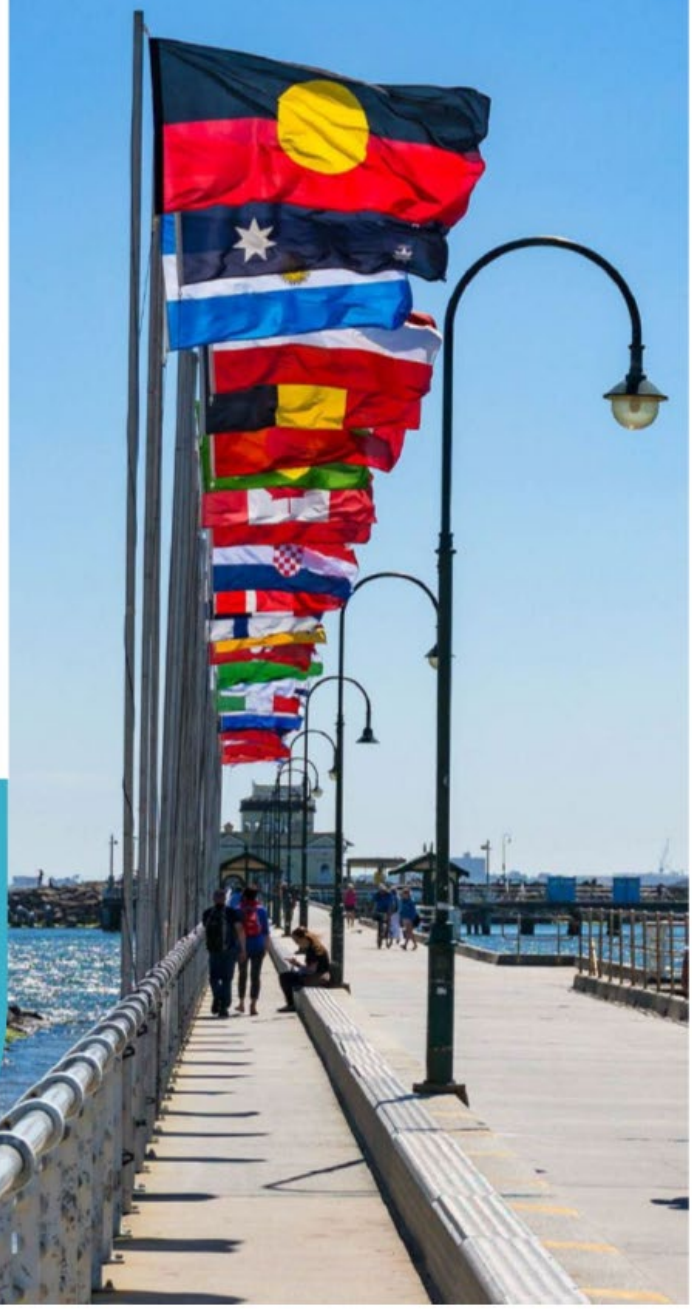
Infrastructure Victoria does not directly oversee or fund infrastructure projects.

Main cover image: Warrnambool Breakwater, Gunditjmara Country. Photographer: Robin Sharrock.

Secondary image: Royal Park, Melbourne, Wurundjeri Country, Photographer: Pete Glenane.

Acknowledgement

Infrastructure Victoria acknowledges the Traditional Owners of Country in Victoria and pays respect to their Elders past and present, as well as Elders of other First Peoples' communities. We recognise that Victoria's infrastructure is built on land that has been managed by Aboriginal people for millennia.



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Summary

Infrastructure helps Victorians live prosperous, purposeful lives

Every Victorian depends on infrastructure. They use roads or rail to reach work, study and services. They use public facilities and spaces to learn, play, exercise, socialise and receive care. And they depend on infrastructure to get energy and water to their homes, and to connect with each other by phone and internet.

We consulted Victorians on the infrastructure goals most important to them. They told us they want infrastructure to help them access opportunities and stay healthy and safe. They want it to help Victoria's natural environment to thrive. And they want it to enable a more productive economy, minimise the ongoing effects of climate change and protect them from risks.

This updated draft 30-year infrastructure strategy provides recommendations to the Victorian Government to help achieve these goals. No single draft recommendation will address the hopes of all Victorians, nor can infrastructure solve all of Victoria's challenges. But our draft recommendations aim to meet the infrastructure needs of current and future Victorians. When governments provide people with the infrastructure they need, communities become more resilient and able to thrive.

We considered existing and new infrastructure in our recommendations

Our draft recommendations include infrastructure policies, reforms and projects that will bring long-term benefits.

Since our last strategy in 2021 the Victorian Government has invested in major infrastructure projects. It has built new roads and rail, improved access to healthcare by building and upgrading hospitals, and separated trains from traffic by removing level crossings. We reviewed the recommendations in the 2021 strategy and found that the government has implemented or made progress on more than 80% of them.

Victoria already has a lot of high-quality infrastructure, including world-class cultural and sporting facilities. But there are areas where existing infrastructure does not meet Victoria's needs, such as in social housing, public transport, and community infrastructure like libraries and aquatic centres. To develop our recommendations, we researched the biggest challenges and opportunities facing Victoria's infrastructure. We analysed these alongside existing government policy directions and recent developments to identify the infrastructure priorities where Victorian Government action is most needed to make a difference.

Our draft recommendations respond to these immediate needs in Victoria's largest cities and regional areas. They also identify ways to harness population growth and help the Victorian Government sustainably plan for the infrastructure that communities will need over the coming decades. Well-managed population growth can bring new skills into Victoria's economy, enhancing economic prosperity and making Victoria a better place to live.

Infrastructure can help to overcome Victoria's future challenges

The Victorian Government will need to use its infrastructure to overcome some major challenges over the next 30 years. Victorians will need infrastructure to work in a warmer, drier climate and withstand more extreme weather events. And as Victoria's population grows and changes, more Victorians will need to use many types of infrastructure. The shape of Victoria's cities affects how quickly the government can provide this infrastructure. It is often more expensive to deliver infrastructure in new suburbs on the outskirts of Victoria's cities, compared to upgrading existing infrastructure in established suburbs.

The Victorian Government has already set out some ambitious targets. It is investing in projects and changing policies to help achieve a target of 800,000 new homes by 2034. It has set energy targets of 95% renewable electricity generation by 2035. And it has committed to net zero emissions by 2045. Victoria will

need to move quickly to achieve these targets, and the government will need to make large investments in partnership with the Australian Government and private investors.

However, the Victorian Government cannot build everything, everywhere, all at once. Rising debt levels and high material and labour costs make it more important than ever for governments across Australia to carefully prioritise and deliver new infrastructure. The government can find smarter and more efficient ways to use existing infrastructure and maintain its assets. This can help prioritise sustainability and equity in how resources are allocated and used. For example, it can change public transport fares to encourage better use of the transport network, or use digital technologies to improve care and ease demand on public hospitals. Digital technologies can also improve productivity by helping government better design, build, operate and maintain Victoria's infrastructure.

This strategy is a foundation for action

Delivering the draft recommendations in this strategy will help to create a prosperous, more inclusive and sustainable Victoria over the next 30 years. The recommendations can help the government create a more productive economy in which people and businesses prosper. Public transport, roads and digital infrastructure help Victorians access well-paid jobs, services and other opportunities. Infrastructure helps businesses create the goods and services that drive economic growth and enables them to send these goods across Victoria and beyond.

The government does not need to start implementing all our draft recommendations immediately. But many recommendations can be delivered quickly and at low cost. Others can be delivered in stages. In some cases, delaying action will cost more in the long run. The Victorian Government can partner with local governments, the Australian Government, and the private and not-for-profit sectors to help fund and operate the infrastructure we recommend.

We estimate that the total cost of implementing all 43 draft recommendations is around $60 billion to $75 billion. Almost three quarters of this is attributable to a small group of capital-intensive projects to improve social housing, kindergartens, schools, public transport and hospitals. A long-term infrastructure strategy can help achieve a stable investment profile. Our cost estimates allow the government to make informed decisions about infrastructure investment, project sequencing and delivery timelines.

The Victorian Government could reduce its costs of implementing the draft recommendations to around $55 billion by partnering with the Australian Government and other organisations, along with smarter use of existing government land. This includes an average of approximately $5 billion of infrastructure spending by the Victorian Government each year for the next 10 years. Our draft recommendations can then generate over $155 billion worth of benefits and help achieve the goals of Victorians.

We have listed each draft recommendation under one of our 6 infrastructure strategy objectives. These objectives reflect the goals that Victorians told us they value. Most draft recommendations advance more than one objective across different infrastructure sectors. Some draft recommendations focus on Victoria's largest cities or regional towns, others are statewide.

Infrastructure projects and policies are an investment for the long term. And yet the future remains uncertain. Changes in demand and capacity will affect the types of infrastructure that Victorians need most. This strategy aims to meet this challenge by making draft recommendations that produce good results in different possible futures. These draft recommendations can help the Victorian Government make informed decisions about infrastructure investment. They focus on the outcomes that Victorians want and set out Victoria's future infrastructure needs.

Summary of recommendations and future options

This strategy contains 43 draft recommendations and 7 future options that span across infrastructure sectors.

Recommendations propose actions for the Victorian Government to start in the next 5 years. They are projects, policies and reforms that Victoria will need before 2030 or actions that help government plan early for long-term challenges. The *Infrastructure Victoria Act 2015* requires the Victorian Government to respond to our recommendations.

Future options are projects, policies and reforms that Victoria will likely need over the next 30 years but do not necessarily require government action in the next 5 years. The Victorian Government does not have to respond to future options.

Victorians have good access to housing, jobs, services and opportunities

#	Recommendation / Future option
1	**Build more social housing** Consistently invest in new social housing to provide more Victorians on low incomes with access to a secure and affordable home.
2	**Facilitate markets and invest in kindergarten infrastructure** Facilitate markets for private and not-for-profit investment in kindergarten infrastructure. Share regularly updated information about the demand for and supply of kindergarten places. Publish priorities for government investment to deliver kindergartens in communities that will have the greatest need.
3	**Plan and deliver expanded and new schools** Identify schools to expand and confirm areas that will need new schools. Fund expansions of existing schools and begin delivery of new schools. Minimise costs by expanding the built capacity of existing schools and building larger new schools.
4	**Expand TAFE in Melbourne's growth areas and some large regional centres** Expand TAFE campuses in Melbourne's west, north and south-east growth areas, and some large regional centres, to train more students to fill skills gaps, especially in construction, energy and health.
5	**Build libraries and aquatic centres for Melbourne's growing communities** Fund councils to plan and build libraries and aquatic recreation centres in Melbourne's growth areas.
6	**Make government infrastructure more accessible** Complete priority public transport stop upgrades to meet legal accessibility requirements and fund further upgrades. Provide better public information on accessibility in government buildings.

7	**Rezone locations near existing infrastructure for more home choices** Change all relevant planning schemes to rezone for more homes in Victoria's cities and reach housing targets. More homes should be close to public transport and open space, with good access to services.
Future option	**Mandate more affordable homes near existing infrastructure** Choose a mechanism to mandate more housing that is affordable for low-income households and close to public transport, open space and services.
Future option	**Phase out residential stamp duties** Over the long term, phase out residential stamp duties and phase in residential land tax.
8	**Extend Melbourne's trams to encourage more new homes nearby** Increase services on key tram routes in activity centres that have been designated for additional housing development. Complete a detailed assessment of tram extensions in Melbourne's established suburbs. Start building extensions in areas that can support more new homes. Rezone land around the extended tram lines so more homes are built.
9	**Run faster bus services, more often, in Victoria's largest cities** Run buses more often, for longer hours, and give buses priority on the road. In stages, straighten out existing bus routes so they are fast and direct.
10	**Build a new bus rapid transit network** Complete a detailed assessment, reserve the required land, and build a new bus rapid transit network. Start with routes that connect train stations and busy destinations in Melbourne's north, west, and south-east, and extend the new Eastern Busway along Hoddle Street.
11	**Extend metropolitan trains and run more services in Melbourne's west** Extend and electrify metropolitan trains to Melton. Reallocate trains that serve Melton to other areas in Melbourne's west and regional Victoria. Assess delivery of a new train station at Altona North accompanied by land rezoning.
12	**Run more bus and coach services in regional Victoria** Deliver more bus services in regional cities. Run more V/Line coach services to better connect small towns to regional cities. Start with routes that improve access to jobs, education and healthcare.
13	**Make off-peak public transport cheaper and simplify regional fare zones** After upgrading the myki ticketing system, charge lower fares for off-peak travel on Victoria's buses, trains and trams. Simplify fares and reduce the number of regional fare zones.

Victorians are healthy and safe

#	Recommendation
14	**Make local streets safer for children and communities** Reduce speed limits to 30km/h on local streets, starting in places that children often visit including around schools, playgrounds, childcare centres and kindergartens.
15	**Build safe cycling networks in Melbourne and regional cities** Continue building protected and connected cycle corridors across Victoria. Publish updates to the strategic cycling corridor network.

16	**Help government schools share their grounds** Prioritise which government school sports fields and facilities could deliver the greatest benefits if they were shared with local communities outside school hours. Give these schools extra help for maintenance if they voluntarily share their grounds outside school hours. Offer funding for upgrades to incentivise shared access outside school hours.
17	**Invest in maintenance, upgrades and expansions of community health facilities** Develop and fund 5-year priorities for Victorian Government investment in community health facilities.
18	**Build more residential alcohol and other drug treatment facilities** Plan and start building residential rehabilitation and withdrawal facilities to meet the demand for alcohol and other drug treatment.
19	**Invest in digital healthcare** Expand digital healthcare to improve the quality of care and ease demand on public hospitals. Deliver a statewide medical image sharing system and a statewide virtual care service that remotely monitors suitable patients at home.
20	**Upgrade critical public hospital infrastructure** Define the scope and timeframes to upgrade the Royal Melbourne Hospital and begin the first stage of construction. Continue with upgrades at the Alfred and Austin hospitals.
21	**Better use prisons and invest more in health facilities and transition housing** Use prison capacity to move people to facilities that meet their needs. Invest more in prison health facilities and post-release transition housing. Close old prisons that are underused and expensive to keep.

Aboriginal people have self-determination and equal outcomes to other Victorians

#	Recommendation
22	**Invest in secure homes for Aboriginal Victorians** Fund a 10-year program to build social homes for Aboriginal Victorians and provide secure and sustainable tenancies. Work with Aboriginal housing providers and Traditional Owner corporations to develop capacity across the Aboriginal housing and homelessness sector.
23	**Fund better health and wellbeing infrastructure for Aboriginal Victorians** Fund and start health and wellbeing infrastructure projects for Aboriginal Community Controlled Organisations (ACCOs). Provide additional annual funding to further develop the skills and capacity of health and wellbeing ACCOs to plan, develop and deliver new and upgraded infrastructure in a self-determined way. Establish an interim fund for minor works and repairs until a self-determined perpetual infrastructure fund is introduced.

Victoria has a thriving natural environment

#	Recommendation / Future option
24	**Reduce greenhouse gas emissions from infrastructure** Adopt carbon values and measure carbon in infrastructure projects to reduce emissions.
25	**Advance integrated water management and use more recycled water** Work with partners to fund and deliver integrated water management projects. Determine the costs and benefits of introducing recycled drinking water in Melbourne and Geelong and build a pilot recycled drinking water facility. Deliver a community education campaign on the need for more water sources.
Future option	**Plan for and invest in manufactured water** Plan for and invest in manufactured water. Return more water to Traditional Owners and the environment.
26	**Better use government land for open space and greenery** Fund actions to better connect open spaces to each other and plant more trees and shrubs in urban areas. Give Victorians access to more public land in fast growing suburbs. Target at least 30% tree canopy and shrub cover on public land.

Victoria is resilient to climate change and other future risks

#	Recommendation
27	**Better prepare infrastructure for climate change** Fund high-priority, cost-effective infrastructure adaptation actions when climate adaptation action plans are updated in 2026. Produce an energy sector adaptation plan.
28	**Use new flood maps to revise planning schemes** Produce a common set of flood projections based on the latest climate data. Use this information to update flood studies and maps and apply them in planning schemes. Minimise building in areas at high risk of flooding.
29	**Coordinate faster delivery of key energy infrastructure** Fast-track key energy projects and coordinate enabling infrastructure. Establish a unified energy transition project pipeline and conduct annual progress assessments. Create a central energy transition coordinator to align priorities, improve transparency and manage risks.
30	**Improve environmental assessments and site selection for energy projects** Reform environmental assessments and help energy project proponents select good sites.
31	**Invest in home, neighbourhood and big batteries for more energy storage** Create new support for home batteries and provide incentives to encourage people to join a virtual power plant. Expand the neighbourhood batteries program, or similar. Facilitate more investment in big batteries for the transmission network.
32	**Determine long duration energy storage needs** Determine the most efficient policy or investment options to provide enough long duration energy storage to meet Victoria's needs.

33	**Develop regional energy plans, guide transition from fossil gas and maintain reliable gas supply** Develop an energy plan for electrification and gas use that meets each region's needs and prepare gas infrastructure decommissioning for homes and some businesses. Secure gas supplies to meet demand. Set a renewable gas target and support renewable gas production.
34	**Speed up household energy efficiency and electrification** Require efficient electric space heating and hot water when people replace their heaters at end-of-life and support low-income households to go all-electric. Complete social housing energy upgrades, including electrification. Require Victorian homeowners to disclose the energy efficiency of their homes at the time of sale or lease.

Victoria has a high productivity and circular economy

#	Recommendation / Future option
35	**Prepare and publish infrastructure sector plans to shape Victoria's cities** Agree a set of assumptions for future population, jobs and land use for more compact cities. Require each department that owns infrastructure to develop an infrastructure sector plan as soon as possible, based on these assumptions, and publish strategic-level plans. Use the finished sector plans to decide infrastructure project funding.
36	**Reform infrastructure contributions** Simplify Victoria's infrastructure contribution schemes to cover all types of housing developments and reflect the cost of infrastructure in different development settings.
37	**Improve asset management of all government infrastructure** Fund asset managers to better understand the condition, use and performance standards of all government infrastructure. Use this information to develop asset management strategies and prioritise funding.
38	**Prepare for more recycling and waste infrastructure** Identify places for new recycling and waste infrastructure and publish them in the next update to the *Victorian recycling infrastructure plan*. Plan for waste and recycling sites together with other commercial and industrial land. Make changes to planning controls to allow for facilities where they are needed.
39	**Use digital technologies to better design, build, operate and maintain government infrastructure** Pilot digital technologies on government infrastructure projects and report on their progress. Use building information modelling on major infrastructure and housing projects. Improve capabilities in government agencies and review procurement processes to promote greater use of digital technologies.
40	**Use modern traffic control technology for efficient and safe journeys** Further extend modern traffic control technology like sensors and cameras along arterial roads in Victoria's largest cities. Begin expanding smart motorways into Melbourne's growth area freeways.
Future option	**Charge people fairly to use roads** Introduce road charges that help manage congestion and improve productivity. Consider options such as car parking levies, off-peak freeway tolls, congestion pricing trials, or road user charging for all motorists with lowered fixed road charges. Work with the Australian Government on road pricing options.

41	**Make rail freight competitive, reliable and efficient** Develop and publish a 30-year integrated rail freight network plan and fund a 10-year rail freight maintenance program. Develop a freight network coordination policy.
42	**Encourage off-peak freight delivery in urban areas** Prepare for growing freight volumes in urban areas by piloting an off-peak freight delivery program in a high-density area of Melbourne. If successful, expand off-peak delivery for more productive and sustainable freight movement.
Future option	**Plan for more efficient and sustainable urban freight** Develop a network of urban freight delivery precincts in Melbourne to improve freight productivity and reduce emissions.
43	**Create and preserve opportunities for future major infrastructure projects** Create and preserve opportunities to build major infrastructure projects which might be required in the long term. This includes expanding desalination capacity, City Loop reconfiguration, extending and electrifying metropolitan trains to growth areas in Melbourne's north and south-east, Melbourne Metro 2, the Bay West port, the outer metropolitan road and rail corridor and connecting western intermodal freight terminal.
Future option	**Reconfigure the City Loop for more frequent and reliable trains** Reconfigure the City Loop by splitting 2 City Loop tunnels into 2 separate cross-city train lines. Build around 3 kilometres of new train tunnels and upgrade related power and signalling. Increase service frequency on the Craigieburn, Upfield and Frankston lines.
Future option	**Extend metropolitan trains to growth areas in Melbourne's north and south-east** Extend and electrify metropolitan trains to Clyde and towards Kalkallo to support growth in new suburbs.

Victoria's infrastructure strategy objectives

We consulted Victorians on the objectives

We asked Victorians to help us shape the objectives of this updated infrastructure strategy. They told us about infrastructure goals that are important to them. We first consulted Victorians on updating this strategy in 2023.[1] The consultation feedback informed the following objectives, as shown in Figure 1.

Figure 1: Victoria's infrastructure strategy objectives are equally important

Source: Infrastructure Victoria, *Strategy objectives engagement report*, 2023, p 5, accessed 5 September 2024.

We engaged with the community and stakeholders in several ways:

- We hosted a Young People's Forum to hear from Victorians aged between 15 and 25, because a 30-year infrastructure strategy will most affect their futures.
- We heard from regional Victorians at stakeholder workshops and learnt directly from local community representatives about their distinct infrastructure challenges and opportunities.
- We held discussions with First Peoples' representatives including Registered Aboriginal Parties and Aboriginal Community Controlled Organisations, who shared the perspectives and goals of Victoria's First Peoples.
- We consulted with experts in different infrastructure sectors and government departments to get accurate and up-to-date information about Victoria's infrastructure.

- We captured the views and ideas of everyday Victorians in an online consultation and heard their concerns about climate change, growing populations, urban change and local projects.

See section – How we developed the draft strategy and our *Strategy objectives engagement report* for more information on our strategy engagement and methodology.

These objectives can help guide Victoria's future

We used 6 objectives to guide the development of our draft recommendations. These objectives helped us prioritise the most important issues for Victorians. They helped us navigate the trade-offs involved in recommending infrastructure projects and policies to help steer Victoria's future.

We then used the 6 objectives to structure this updated draft strategy. Each section has draft recommendations for the Victorian Government.

The draft recommendations can help Victoria achieve these objectives. Many draft recommendations support multiple objectives. These draft recommendations provide practical advice to the Victorian Government to help ensure infrastructure meets Victoria's current and future needs.

Victoria faces challenges in achieving these objectives

Infrastructure is vulnerable to the impact of climate change and other risks

Victorians have recently faced the challenges of bushfires and floods. Climate change means Victoria will have more extreme weather events.[2]

Since we released *Victoria's infrastructure strategy 2021–2051*, Victorians have continued to live through the health and economic impacts of a global pandemic. Geopolitical tension and instability have affected Victoria, along with broader global economic challenges. Catastrophic events can happen suddenly and have devastating impacts.

Governments need to plan, build and maintain Victoria's infrastructure to be resilient to climate change and other risks. The Victorian Government has committed to net zero emissions by 2045.[3] Infrastructure is needed to achieve this target. It supports Victoria's transition to renewable energy generation.[4]

Climate change also threatens many of Victoria's natural ecosystems. Building infrastructure can further harm the natural environment. But governments can avoid this impact through planning for and designing infrastructure that minimises disruption to the natural environment. Healthy ecosystems provide many benefits to people and wildlife. Protecting and increasing vegetation helps to improve air and water quality, reduce soil erosion and increase biodiversity.[5]

A growing population places more demand on infrastructure

Victoria's population is growing faster than the national average.[6] By 2055, the government projects Victoria's population will reach up to 11.5 million.[7] This means Victoria's population will grow by about one million people each decade, for the next 3 decades.

Population growth places extra demands on Victoria's infrastructure. But harnessing this growth can help build a more prosperous economy and society. Well-planned, efficient and targeted infrastructure can help Victoria benefit from population growth.

A growing population can make it easier for businesses to find workers with the right skills.[8] Businesses also have access to more customers, helping to grow the economy and make it more productive.[9] People moving here from other countries can also make Victoria more culturally diverse and vibrant.[10]

Planning for future growth means Victoria can make the most of its unique regions.[11] Well-planned population growth can help Victoria continue to compete in the global economy.[12]

Governments can only build so much infrastructure

The high cost of materials makes new infrastructure more expensive to deliver.[13] Australia also does not have enough skilled workers to build its current pipeline of housing, energy and transport infrastructure.[14]

The Victorian Government expects its net debt will reach over $150 billion by mid-2025.[15] This debt may restrict future budget spending. The government will need to carefully prioritise its infrastructure investment to deliver what Victorians need most.

But there are also things the government can do without building more infrastructure. For example, it can better plan for the infrastructure it needs and investigate ways to improve the use of existing infrastructure. Government can also use more digital technologies, including artificial intelligence.[16] This can improve the productivity of Victoria's infrastructure and has wider benefits to people, businesses and Victoria's economy.[17]

The current shape of Victoria's cities makes it less efficient to deliver infrastructure

The shape of Victoria's cities influences Victorians' quality of life.[18] More compact cities – where people live and work closer together – are better for the economy, people and the environment.

Victoria's cities have historically expanded outwards. Landowners built new homes in new suburbs on city edges. But these places do not always have good access to infrastructure, sometimes for many years after homes are built. Spread out cities affect the ease with which Victorians can access health and social services.[19] They limit people's options to travel for work and study and restrict where they can rent or buy an affordable home.

Spread out cities cost the Victorian Government more.[20] Building infrastructure in new suburbs on a city's fringes can be up to 4 times more expensive than adapting existing infrastructure in established suburbs.[21] Continuing to build on the fringes of Victoria's cities also negatively impacts the natural environment and leads to lower social outcomes and economic benefits.[22]

More compact cities can give Victorians the best chance of living close to family and friends, jobs, education, shops and services.[23] It can also mean businesses have more opportunities to find skilled workers and be closer to markets and their customers.[24]

Have your say

Every decision on infrastructure shapes Victoria's future. Your input will help shape Victoria's infrastructure strategy for the next 30 years. The draft strategy provides recommendations to the Victorian Government and Parliament on how to deliver new infrastructure where it is needed most and get the best use from the state's existing infrastructure.

We are seeking your feedback and evidence on our draft recommendations. Get involved in our public consultation at: https://engage.vic.gov.au/victorias30yearinfrastructurestrategy.

The updated infrastructure strategy will be tabled in the Victorian Parliament at the end of 2025.

Victorians have good access to housing, jobs, services and opportunities

Victorians can access housing, jobs, services, and opportunities to develop their capabilities, support their wellbeing, connect with other people, and take part in civic, community and cultural life.

Infrastructure influences how Victorians live

Victorians interact with infrastructure every day. It includes the roads they use to get to work, the education facilities that help them to learn and grow, and the health facilities where they receive care.

Infrastructure provides Victorians with essential services like the pipes that supply their water and the lines that supply their electricity. It also supports people and communities to connect at libraries, parks and community facilities.

Victorians told us they want transport infrastructure that better connects them with opportunities.[25] People preferred more space for public transport, cycling lanes and walking paths over road space for cars.[26]

But some people who live in Melbourne's growth areas and regional Victoria said they cannot easily access services and opportunities.[27] Victorians also mentioned the negative impacts of high housing costs, particularly for people experiencing disadvantage.[28]

Access to high-quality transport infrastructure varies across Victoria

Different types of transport can help people get to the places they need to go. Victorians take over 14 million trips every day.[29] They may be driving long distances, taking public transport to central locations, or making local trips by walking or cycling.

Public transport, walking and cycling help ease traffic congestion and can sometimes be faster than driving.[30] This is especially the case for inner city office workers who catch public transport to work. But in some parts of Victoria people have few alternatives to driving.[31] They also may have to deal with delays if roads need repairs or because of big transport projects.[32] It can be hard for people to access jobs in middle and outer suburbs, like people working in retail, hospitality, schools, hospitals, and factories.[33] Jobs in these areas typically have fewer public transport services.[34] If people cannot or do not drive, some might struggle to get to work, services and education.[35]

Victorians might not make a trip at all if public transport has few services each day or if the fare is too high.[36] Women, young and older people might not use public transport if they do not feel safe.[37] Many Victorians only have access to infrequent and indirect bus networks to get to jobs, services, education and recreation.[38]

Walking or riding a bike can be good for shorter trips, but in some places people might not feel safe.[39] Some people, including women and gender-diverse Victorians may find streets, public parks and trails unsafe, especially when walking.[40]

Established suburbs have good access to infrastructure, but many Victorians cannot afford to live in them

People who live in established suburbs often have more infrastructure like public transport, schools and libraries near their home.[41] The Victorian Government has a target for 70% of new homes to be built in these suburbs.[42] When people live closer to existing infrastructure, jobs and services, they have better health.[43] They spend less time travelling to work and other daily activities.[44] This means more time spent with family or doing social activities.[45] More than half of people living in Melbourne's inner suburbs have opportunities to get involved in cultural and creative experiences, compared to less than 40% in new suburbs.[46]

But homes in Melbourne and regional cities' established suburbs are expensive to buy and rent.[47] People with moderate and low incomes find it hard to afford to live in these suburbs.[48] Planning rules can make it difficult for property owners and developers to build new homes in places which have good existing infrastructure. Most homes that Victorians can afford are in new suburbs.[49] These places are only slowly getting public transport services, childcare and education facilities, libraries and aquatic centres.[50]

Access to infrastructure is worth investing in

Good access to infrastructure has social, economic and environmental benefits. Children who participate in high-quality early childhood education, and then regularly attend school and complete year 12, have better health and employment outcomes.[51] They also have higher incomes across their lives than those who do not.[52]

Getting to jobs can be easier when they are in places with existing transport options. Infrastructure also lets businesses connect with customers, markets and skilled workers. Businesses can have productivity benefits worth up to $193 billion.[53] If people can live in places that already have good infrastructure access, Victoria does not need to build so many homes in new suburbs. The edges of cities and towns can remain as farms producing Victoria's food or natural habitats for animals and plants.[54]

Some Victorians need access to specific types of infrastructure and services. Easily getting in and out of buildings with government services is especially important for people with mobility challenges. This is even more critical in regional Victoria, where a higher proportion of people have disabilities.[55]

Some people cannot find homes they can afford to rent in Melbourne, and in regional centres like Ballarat, Bendigo and Geelong.[56] Social housing can provide them with a safe and secure home.[57] Its social and economic benefits can be up to 1.25 more than the costs of meeting their housing needs.[58]

Draft recommendation 1

Build more social housing

> Consistently invest in new social housing to provide more Victorians on low incomes with access to a secure and affordable home.

Victoria needs more social housing

Between 2016 and 2021, homelessness in Victoria increased by 24% to over 30,000 people.[59] Without government investment, more people will experience homelessness and financial hardship. More people will also live in inadequate housing. This affects people's health, wellbeing, relationships and job opportunities.[60]

Victorians are finding it harder to afford a suitable, secure and safe home. More households are paying more than 30% of their income in rent, and Victoria does not have enough rental homes available for people on low incomes.[61] Just 1% of Victorian rentals are affordable for households on income support.[62]

Social housing can give low-income households long-term security because rent is more affordable. It also offers a secure home to households in crisis, such as those experiencing homelessness or fleeing family violence.[63]

Victoria does not have enough social housing for all the people who need it. Over 51,000 households were on the waiting list for social housing in June 2024.[64] The Victorian Government's initial Big Housing Build is coming to an end after funding 9,300 new social homes.[65] Even with this, social housing will make up only 2.8% of homes in Victoria compared to a national average of 4%.[66] This is the lowest of any Australian state or territory. Victoria needs an additional 60,000 social homes to meet the backlog of demand for homes.[67] Building this number will also get Victoria closer to reaching the national average.[68]

A 15-year program to build social housing can provide benefits to Melbourne and regional Victoria

We recommend that the Victorian Government fund a 15-year program to build around 4,000 social homes each year. This gives certainty to Homes Victoria and registered housing providers to secure land, develop supply chains and find workers. New social housing should be built in places close to jobs, transport and services, both in Melbourne and regional Victoria. Priority should be given to housing for Victorians on low incomes who have recently experienced homelessness, family violence or have other special needs.

Building 60,000 social homes will be expensive, but it is achievable when delivered as a program over 15 years. More social housing will help lower healthcare costs, increase productivity, and cut demand for support services.[69] For example, every $1 spent to eliminate youth homelessness alone can return an estimated $2.80 in benefits to the Victorian community.[70]

The Victorian Government can partner with organisations to develop and manage social housing

Upfront investment is the most cost-effective way to fund social housing.[71] The Victorian Government, not-for profit and for-profit organisations finance, develop and manage social housing.[72] The new program should fund both Homes Victoria and registered housing providers. The Australian Government also funds social housing in Victoria through the National Agreement on Social Housing and Homelessness.[73]

The government can build more public housing on well-located government land. It can fund community housing providers to build more homes by expanding the Social Housing Growth Fund.[74] It should also partner with Aboriginal housing providers to build homes for Aboriginal Victorians (see draft recommendation 22).[75]

The 15-year program will reduce homelessness and housing stress in Victoria, but it will not end it. As the population grows, the government will need to keep investing in social housing. It can create a long-term pipeline to deliver more social homes over time.

Cost range, timing and funding

We estimate that building 60,000 new social homes will cost $19 billion to $30 billion over 15 years.[76] We assume that the Victorian Government can fund $18 billion to $29 billion, around 95% of overall costs.

General Victorian Government revenue can partly fund this draft recommendation. But it does not need to do it alone. We have assumed the Australian Government will fund the remaining 5% of costs.[77]

This cost to the Victorian Government can be further reduced by up to $6 billion to $9.5 billion, assuming all new social homes can be built on land that government already owns, or on land owned by local government or not-for-profit housing organisations.

Starting in 2026 will allow the Big Housing Build investment to continue. This will improve efficiency and give certainty to all partners involved in planning, funding and delivery. Our commissioned report *Digital technologies and infrastructure productivity* found that building information modelling for public housing might provide Victoria with $1.9 billion in benefits by 2055, or $76.5 million each year (see draft recommendation 39).[78]

We estimate that each new home will cost $240,000 to $580,000, depending on size and location.[79] Building on land that government already owns will be cheaper, reducing the cost of each home by $25,000 to $300,000. Government can maximise the availability of public land to build social housing by identifying and prioritising suitable sites and streamlining transfers between public land owners. Strategic planning and development can also help to deliver better value and more diverse housing models, maximising the use of available land.

The Victorian Government can continue to use funding as part of public private partnerships and ground lease models so that not-for-profit and private sectors can build social and private homes in mixed developments.[80]

Maintaining these social homes will cost around $500 million each year. Rents collected, which will be set at around 25% to 30% of tenants' income, can cover some operational costs.[81] The Victorian Government does not currently fund regular maintenance of social housing and its financial sustainability is under review.[82]

We also recommend building more social housing for Aboriginal Victorians in this infrastructure strategy. See draft recommendation 22 for further detail on social homes specifically for Aboriginal Victorians. The cost of draft recommendation 22 is included as a component of the total cost to build social homes in this recommendation.

Draft recommendation 2

Facilitate markets and invest in kindergarten infrastructure

> Facilitate markets for private and not-for-profit investment in kindergarten infrastructure. Share regularly updated information about the demand for and supply of kindergarten places. Publish priorities for government investment to deliver kindergartens in communities that will have the greatest need.

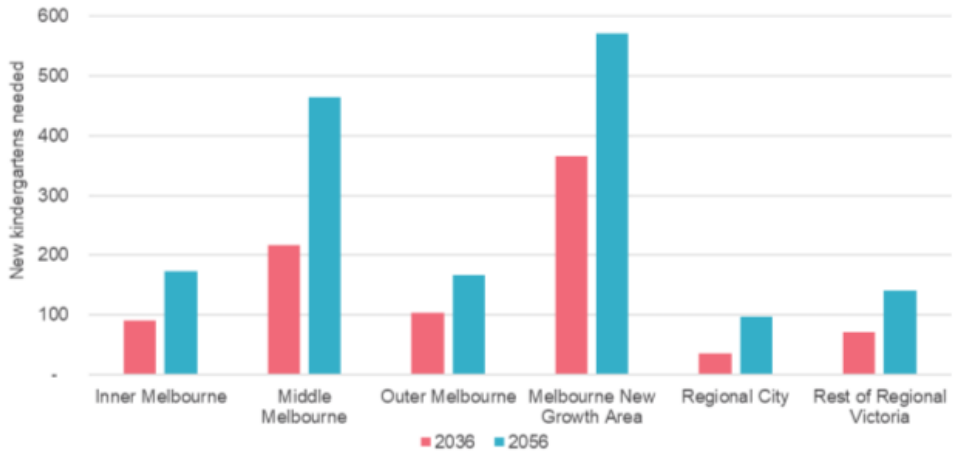
Early years education improves children's lives

Children who attend quality early childhood education have better life outcomes.[83] For every $1 invested in early childhood education, the community receives $2 of value.[84] This is because those children will have better skills, earn more, and use fewer health, welfare and justice services during their lives.[85]

The Victorian Government started offering free kindergarten to all 3-year-olds for at least 5 hours a week from 2022, increasing to 15 hours by 2029. It will offer all 4-year-olds a 30-hour weekly program by 2036.[86]

Victoria needs more kindergartens to meet future demand for these longer hours. We estimate that Victoria will need around 900 new kindergartens by 2036 (see Figure 2).[87] This is a big undertaking, but it can be achieved through a variety of providers and funding sources.

Figure 2: Victoria needs more kindergartens



Source: The Centre for International Economics, *Part 2: kindergarten provision projection*, report to Infrastructure Victoria, 2024, p 18, accessed 17 December 2024.

Active market facilitation is needed

Private businesses, not-for-profit organisations and local governments all deliver kindergarten programs. This combination provides different options for the diverse needs of families and children. The government can make its funding more effective by focusing on areas where other providers are unlikely to build new kindergartens.

The Victorian Government should do more to facilitate delivery of this infrastructure in a market with so many different providers. This involves building trusted and open relationships with private and not-for-profit providers, and local governments, to encourage information sharing.

The government should provide timely information about the demand for and supply of kindergarten places. It should update the information regularly. This can encourage planning and investment from all sectors. The current kindergarten infrastructure and services planning process is a good start.[88] To make it timely and accessible, the government should develop this into an online platform that combines statewide information from all sectors.

Good market facilitation will allow:

- providers and local governments to decide where and when they invest
- more lead time before projects start to align co-investment, such as from local governments
- time to collaborate on building design, such as integrated hubs that house other government services alongside kindergartens.

Target government investment in places with the greatest need to deliver better outcomes

The Victorian Government should publish clear priorities for where it will direct its kindergarten investment over the next 5 years. It should adapt these plans as other providers' activities become clear. This should include deciding which school sites will host government-funded kindergarten infrastructure to avoid duplicating any existing or planned facilities.

Targeted investment will deliver more infrastructure where it is most needed. This includes funding for lower-income areas, Melbourne's new suburbs and regional centres.[89] It also includes grants to local government and not-for-profit providers.

Cost range, timing and funding

We estimate that facilitating and investing in around 900 new kindergartens will cost around $17 billion from all funding sources.[90] We assume that the Victorian Government will be responsible for between 300 and 600 of these facilities.[91] We estimate that this will cost the Victorian Government $3.9 billion to $7.2 billion over 10 years, noting that the level of government contribution for kindergarten infrastructure differs by sector.

If the government needs to buy land for these kindergartens, it may cost $2.2 billion to $3.8 billion extra.[92] Co-locating kindergartens with schools and other services on public land can avoid or reduce these land costs.

The Victorian Government can build new kindergartens or give grants to local government and not-for-profit providers. General government revenue can fund new kindergartens. Local government, not-for-profit and private operators can fund the rest. The Australian Government has announced a $1 billion Building Early Education Fund which can also fund some new and expanded kindergartens in areas of need, including in outer suburbs and regional areas.[93] Using public private partnerships can help share costs, as happened in the 2008 to 2018 Victorian school building programs.[94]

We estimate costs include $5 million to $10 million over 10 years for Victorian Government staff to help develop markets for private and not-for-profit groups. They can oversee, monitor and take responsibility for the whole kindergarten education system. This includes predicting demand, looking at infrastructure needs each year, and showing where new kindergartens should go.

Once built, these new kindergartens will cost $200 million to $300 million a year to maintain.

Draft recommendation 3

Plan and deliver expanded and new schools

> Identify schools to expand and confirm areas that will need new schools. Fund expansions of existing schools and begin delivery of new schools. Minimise costs by expanding the built capacity of existing schools and building larger new schools.

More schools are needed to accommodate Melbourne's growth

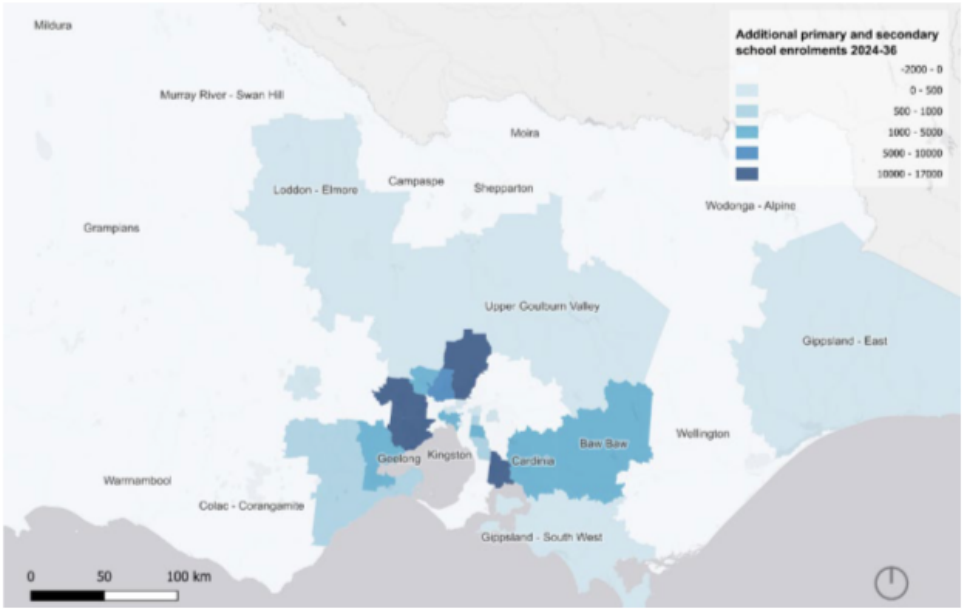
A good education provides people with more life choices. School infrastructure supports teachers, parents and the wider school community to deliver good teaching and learning outcomes.[95]

The Victorian Government has almost completed its 2018 promise to open 100 new schools, with 75 schools already open and 25 to open by 2026.[96] But it has not announced plans or funding to deliver new schools after 2026.

We used official 30-year population forecasts to examine Victoria's future government school needs (see Figure 3).[97] If the population grows as forecast, public schools will need many more places to accommodate all students. Some schools in inner Melbourne and new suburbs are already running out of space for more students.[98]

The government can meet this demand in different ways. It can add more portable buildings, build new classrooms in existing schools, or design new schools of different sizes. This affects how many schools Victoria will need and how much they will cost.

Figure 3: Victoria will have more primary and secondary students in 2036, especially in new suburbs



Source: The Centre for International Economics, *Part 1: primary and secondary schools provision projection*, report to Infrastructure Victoria, 2024, accessed 12 December 2024; Infrastructure Victoria, *Learning for life: preparing kindergarten, school and TAFE infrastructure for the future*, 2024, p 25, accessed 12 December 2024.

Some existing schools have space to grow

Schools can expand in different ways depending on where they are. Many government schools have space to grow. The government should plan for new students in existing schools before building new ones, wherever possible. Our modelling shows this might accommodate almost half of Victoria's enrolment growth by 2036.[99]

But some schools in inner and middle Melbourne do not have space for more buildings. They need to expand through multi-storey buildings on site to enrol more students. Adding buildings at existing schools is often cheaper than building new schools. New schools also cost more to build in established suburbs where land and construction costs are higher.[100]

We estimate that adding extra buildings at existing schools would cost $1.5 billion to $3.3 billion, depending on how many relocatable classrooms the schools need.[101] This would avoid government spending up to $2.4 billion in construction and land costs for new schools by 2036.[102]

Transparent planning and funding for future schools is needed

We modelled 4 scenarios that looked at how many new schools Victoria might need and where existing schools have space to grow. Our model estimates that between 35 and 60 new schools will be needed by 2036, depending on the size and distance between schools.[103] These are in addition to the new schools the government has already committed to. Nearly all will be in Melbourne's new suburbs.[104]

We estimate a further 85 to 145 new schools are likely to be needed by 2056.[105] Local area planning will need to determine future school locations. This is to ensure the government meets its legislative requirements that all students can access their local school.

The Victorian Government should plan, fund and acquire land for new schools now. Transparency about land acquisition and timing will give local governments, non-government schools and communities time to participate in the planning and design of new schools to best meet community needs.

Cost range, timing and funding

We estimate that planning and delivering expanded and new schools will cost around $5.7 billion over 10 years for implementation and capital works. This includes both the cost to expand existing schools and build new, larger schools. Land is around a third of the total cost for new schools on average, and up to half of the total cost in inner Melbourne.[106]

This draft recommendation can be funded through general government revenue. The Victorian Government has established systems and processes to plan and build schools and can use existing staff to carry out this work. Similar to draft recommendation 2, there are opportunities to spread costs by using public private partnerships, like in the delivery of schools built in Victoria in 2008 to 2018.[107] The Australian Government can fund some of this through recent programs like the Schools Upgrade Fund.[108]

Once complete, these new schools will cost $170 million to $220 million a year to maintain.

Draft recommendation 4

Expand TAFE in Melbourne's growth areas and some large regional centres

> Expand TAFE campuses in Melbourne's west, north and south-east growth areas, and some large regional centres, to train more students to fill skills gaps, especially in construction, energy and health.

TAFEs provide training to meet Victoria's skills needs

The *Victorian skills plan* estimates there will be 352,000 new workers in Victoria by 2026.[109] Almost half will require vocational qualifications.[110] Australia has growing shortages in trades, forecast to peak at 203,000 workers in 2025.[111] The healthcare sector also has skilled worker shortages, including aged and disability carers.[112]

Victoria's transition to renewable energy is expected to need 10,000 new workers every year until 2030.[113] These workers, including electricians and plumbers, will need construction and trades skills. They will also need new specialist skills, such as in battery storage or wind farms.

TAFE institutes train workers for these sectors. This helps Victoria's economy grow and become more productive.[114] TAFEs educate people at all stages of life and provide career paths to improve life outcomes. People who do not finish school have fewer job choices and opportunities.[115] TAFEs provide training for thousands of students, including those who have left school early or want to re-train for a different sector.

The Victorian Government expanded the Free TAFE program in 2024.[116] This means more students are enrolling. We found that 22% of adults would likely enrol in TAFE in the next 5 years.[117] TAFEs will need more space to train more students.

Victoria's TAFEs need more space for construction, energy and healthcare training

Many people living in Melbourne's growth areas and regional Victoria cannot access a TAFE campus that offers a suitable course in their local area.[118] For example, TAFE campuses in Werribee and Berwick offer limited construction and trades training. By 2036, we estimate Victoria's TAFEs will need about 20% more space to deliver the expected enrolments in all sectors.[119] This is on top of government commitments for new campuses in Melton and Sunbury.[120]

Melbourne's new growth areas are projected to have the largest increase in demand for construction and healthcare training. This training needs space due to its in-person and specialised nature. Students use equipment to learn practical skills in real work settings.[121] More classroom space is needed to teach more students.

We estimate that TAFEs in Melbourne's growth areas will need over 125,000 square metres of extra space to deliver training in construction, energy and healthcare combined. TAFEs in Geelong, Ballarat, Bendigo and the Latrobe Valley will together need around 50,000 square metres of extra space to meet future demand.[122]

TAFEs can expand to deliver more training

By 2030, the Victorian Government should fund the extra space needed at TAFEs in Melbourne's growth areas and large regional centres. This will improve access to construction, trades and healthcare training, so more people can attend a campus closer to home.

The government should work with TAFE institutes to confirm the best places to expand. They should choose places where TAFEs have space to grow. These should be close to public transport so people can get there easily, and also near jobs and services. Potential campuses include:

- Victoria University in partnership with Gordon TAFE – Werribee
- Chisholm TAFE – Berwick
- Melbourne Polytechnic – new campus in northern growth suburbs
- Gordon TAFE – Geelong or a new campus in outer Geelong or the Surf Coast
- Federation University – Ballarat
- Bendigo Kangan Institute – Bendigo
- Gippsland TAFE – Latrobe Valley.

Cost range, timing and funding

We estimate that expanding TAFEs will cost $1.9 billion to $2.5 billion over 10 years. General government revenue can fund this draft recommendation. The Victorian Government can also source additional funding through the Australian Government's National Skills Agreement.[123]

This includes the cost of building new teaching spaces at existing TAFE campuses in Melbourne's growth areas, and in Ballarat, Bendigo and the Latrobe Valley. This cost range assumes the Victorian Government does not need to buy more land.

Many TAFE institutes hold substantial amounts of land.[124] Some may not need it all for future growth. In these circumstances, some TAFEs might reduce the size of some campuses or consolidate their assets on a smaller site. The government can use any proceeds from selling land to help fund more infrastructure.

Once built, new TAFE facilities will cost $50 million to $75 million each year to maintain.

Draft recommendation 5

Build libraries and aquatic centres for Melbourne's growing communities

> Fund councils to plan and build libraries and aquatic recreation centres in Melbourne's growth areas.

Libraries and aquatic centres provide essential services to growing communities

Libraries help people learn important skills, participate in the economy and connect with each other.[125] Aquatic recreation centres promote health, wellbeing and water safety.[126]

Communities in Melbourne's new suburbs are young, diverse and growing quickly.[127] These areas also experience hotter temperatures and fewer people take part in sport and the arts.[128]

Libraries and aquatic centres provide services tailored to local needs. These places offer information in different languages and build identity and community.[129] They provide refuge from the heat and reduce the higher drowning risk for Australians born overseas.[130] They also provide spaces for creative, cultural and physical activity.[131] These services improve health and wellbeing which reduces government costs.[132]

Every $1 spent on an aquatic centre in a capital city has $3.70 in benefits.[133] Libraries deliver $2 to $4.30 in benefits for every $1 of investment.[134]

Access to libraries and aquatic centres is unequal and getting worse

Access to libraries and aquatic centres is still not equal.[135] There is one library for every 62,000 residents in Melbourne's growth areas. In established suburbs, there is one library for every 30,000 people (see Figure 4). Similarly, growth areas have one aquatic centre for every 82,000 residents, compared to every 58,000 people in established suburbs.[136] Growth area residents risk poorer health, wellbeing, social inclusion and learning outcomes.

Some councils, including Wyndham and Whittlesea, have created small library spaces that provide basic services.[137] These are a good idea, but they do not provide the same level of services for growth areas as libraries in other parts of Melbourne.

Planning and investment in new or expanded facilities should start now

Planning should start now for facilities in all 7 growth area councils. This work should assess existing capacity and identify future needs. It should consider opportunities to co-locate or share use with other services and councils. The Victorian Government should fund service planning for each council of up to $200,000 for aquatic centres and $100,000 for libraries.

Our analysis shows that Melton, Casey, Wyndham and Cardinia urgently need a new or expanded library. Residents in Melton, Wyndham and Casey also have poor access to aquatic centres. Rapid population growth will make this worse.[138]

Local councils own and operate libraries and aquatic centres. These facilities are costly to build and upgrade.[139] In the past, the Victorian Government provided large grants for aquatic centres and funding for libraries. But now its funding is not enough to meet the need for regional scale infrastructure in growth areas.[140]

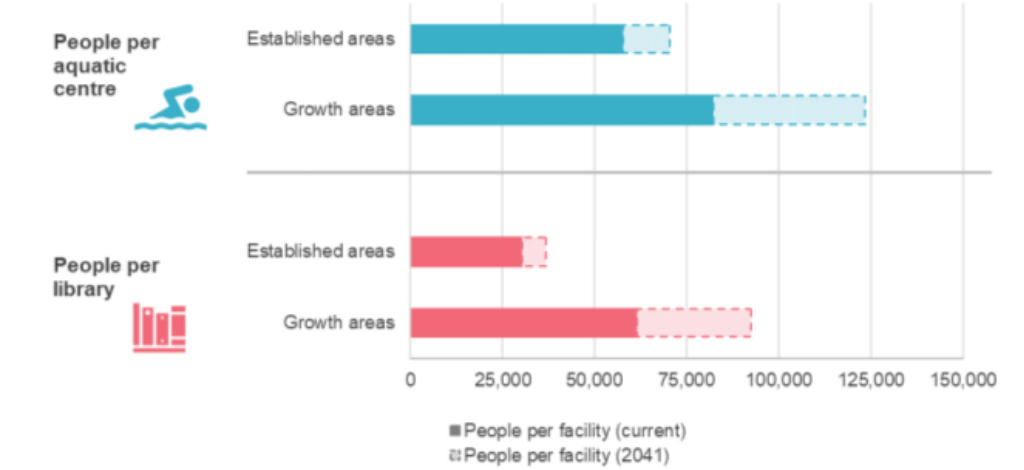
The Victorian Government should contribute up to a third of the cost to build or expand core components of the facilities, such as pools, with local and Australian governments covering the rest.[141]

Councils can fund any extra recreational or commercial spaces the community might need. This includes combining facilities like meeting rooms and gymnasiums with libraries and swimming pools to cross subsidise operational costs and provide benefits to the community. Staging delivery to expand functions over time can also reduce upfront costs.

Australian Government grants are also available, like the Thriving Suburbs Program.[142] Councils can apply for sustainability grants to reduce their operational costs.[143] Facilities should be energy efficient to minimise ongoing running costs.[144]

Co-location can also reduce costs, address local needs and realise further benefits.[145] For example, Warrnambool's public library is on the South West TAFE campus. The shared location avoids duplicating services. It also improves community access to the services available at TAFE.[146]

Figure 4: Melbourne's growth areas will need more aquatic centres and libraries



Source: Infrastructure Victoria analysis of local government data from Life Saving Victoria and Public Libraries Victoria, confirmed through desktop review and stakeholder consultation. Life Saving Victoria, *Victorian public pools register*, website, n.d., accessed 21 November 2024; Public Libraries Victoria, *Directory of public library services in Victoria*, State of Victoria, 2024, accessed 21 November 2024.

Cost range, timing and funding

We estimate that building core components of new libraries and aquatic recreation centres will cost $300 million to $500 million in implementation and capital works. These costs can be split into 2 stages. With funding shared across all levels of government, we assume this draft recommendation will cost the Victorian Government $100 million to $160 million.

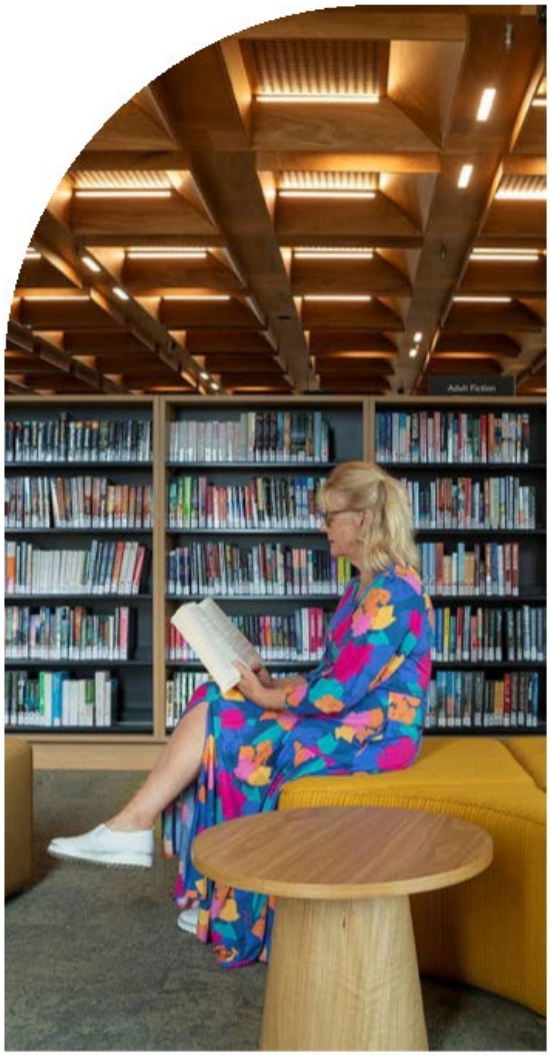
The Victorian Government can implement the first stage of this draft recommendation for around $2 million. This covers grants to the 7 growth area councils for strategic planning, including opportunities to share facilities in neighbouring councils.

Strategic planning should happen across groups of local governments. For example, 50 metre pools for competition can serve more than one council area, while 25 metre pools can support local swimming lessons and wellbeing. General Victorian Government revenue can fund this stage.

The second stage includes grants to local governments for up to a third of the cost to deliver core components of new or improved libraries and aquatic centres in growth areas. This includes contributions for

3 new aquatic centres and 4 new libraries. We estimate grants of around $25 million for each aquatic centre and $10 million for each library. We estimate that it will cost less than $1 million to administer the grants using existing staff. General Victorian Government revenue and other infrastructure contributions (see draft recommendation 36) can fund this stage.

Our cost estimate excludes buying land as we have assumed local governments will prioritise using land they own. Local governments will also be responsible for operational costs.



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Draft recommendation 6

Make government infrastructure more accessible

> Complete priority public transport stop upgrades to meet legal accessibility requirements and fund further upgrades. Provide better public information on accessibility in government buildings.

The Victorian Government funds infrastructure and services for all Victorians to use. But not everyone can access them. Over 1 million Victorians have a disability.[147] Many people with disability have challenges using transport and accessing services.[148] One in 5 Victorians with disability require help or have difficulty using public transport. One in 8 cannot use public transport at all.[149]

People experience different mobility challenges in their life. This includes people with injuries, people using prams and older people. Those who face barriers to services have a higher risk of social isolation, unemployment and poor health.[150]

Most public transport is still inaccessible

The Victorian Government missed the 2022 legal deadline to make all public transport stops accessible.[151] Almost half of regional and one-third of Melbourne's bus stops are not wheelchair accessible.[152] Over 70% of tram stops are not level access.[153] When tram stops are upgraded to level access, they reduce pedestrian injuries from road accidents by 81%.[154] The government is upgrading 8 stops a year.[155] At this rate, it will take 155 years to complete.[156]

The government is required to make all trains and trams accessible by 2032.[157] Over half of trams are not accessible, with steps and high floors.[158] The government is building 100 low-floor trams to start running from 2025, but it needs to replace 186 more.[159]

The government has published a prioritisation framework to identify the most important transport accessibility upgrades.[160] It has not funded these yet. The government should fund the highest priority stop upgrades and aim to finish them by 2030. By 2030, it should also approve funding for the next wave of accessibility upgrades.

Better information can help people manage barriers to access

In Victoria, 26% of people with disability have difficulty accessing buildings or facilities.[161] The Victorian Government's universal design policy outlines design principles that can improve accessibility for new buildings.[162] But many existing buildings are still not accessible.

Accessibility information allows people to decide how they travel outside their home. It lets them know what to expect before going to a new place. Parks Victoria publishes accessibility information for 17 local, state and national parks.[163] Melbourne's SmartBuses have real-time information and trams have brightly coloured QR codes to deliver audio information to blind and low vision people.[164] But not all government services do this.

In 2022, the government audited TAFE campuses to identify potential upgrades.[165] It should assess all buildings that deliver government services by 2030. The findings should inform published accessibility information for government buildings and services. For example, Canada's Rick Hansen Foundation runs an accessibility rating system that awards more points for features that improve access.[166] Information on building accessibility should be developed with people living with disability and updated as upgrades are made.

Cost range, timing and funding

We estimate this draft recommendation will cost around $1.5 billion over 10 years.

This includes up to $1.5 billion for bus and tram stops. The Victorian Government can also spend $1 million to $5 million on an information tool that explains how to access all government buildings and services. General government revenue can fund this draft recommendation.

People in wheelchairs can already use more than 50% of Victoria's bus stops.[167] We estimate upgrading the rest will cost $200 million to $300 million. The cost of upgrading tram stops is likely to be substantially higher.[168] The Victorian Government can explore building innovations like modular or pre-built parts to reduce costs and speed up installation for the remaining bus and tram stops.[169]

Draft recommendation 7

Rezone locations near existing infrastructure for more home choices

> Change all relevant planning schemes to rezone for more homes in Victoria's cities and reach housing targets. More homes should be close to public transport and open space, with good access to services.

More compact cities deliver more benefits

Our research in *Choosing Victoria's future* found that Victorians will be better off in more compact cities.[170] Compact cities have more homes closer to jobs and services. They have stronger economies and create more high-paid, secure jobs. By 2056, we estimate a more compact city can generate $9 billion more in economic activity, and Victorians can earn an extra $5 billion in wages and profits, compared to a spread out city.[171]

For decades, Victorians have built more homes in new suburbs than in established ones. Planning rules limit the number of homes that developers can build in established suburbs.

Most middle suburbs in Melbourne and Victoria's regional cities are very low-density neighbourhoods compared to other cities of similar size.[172] They do not have many housing options apart from detached homes and a few townhouses.[173] Heritage controls also make it hard to build new homes in these areas.[174]

Compact cities use less land and make better use of infrastructure.[175] They allow people more affordable home choices in more places. People have more transport options to easily reach work, schools, shops and services.[176] They can walk or cycle to more places, which encourages them to do so more often.[177] This helps keep people healthy. It also reduces air pollution and greenhouse gas emissions from transport.[178]

Rezoning allows more homes to be developed near existing infrastructure

The Victorian Government is developing activity centre plans to guide planning rule changes in and around some of Melbourne's activity centres, but there is an opportunity to do more.[179] It should develop plans and then rezone other areas close to public transport and open space that also have enough infrastructure for more people to live there. The inner and middle suburbs of Victoria's cities already have good access to infrastructure, including schools and parks.[180] Rezoning these places will allow developers to build more homes near existing infrastructure.

The government has reviewed access to jobs, services and public transport in and around activity centres.[181] But growing suburbs might need other infrastructure like open space.[182] The government should prioritise these criteria to find the best places for more homes. It can exclude sites with high heritage or environmental value. It has committed to setting housing targets for each local government area to help guide development. It can do this in Victoria's biggest cities first: Melbourne, Geelong, Ballarat and Bendigo.

The Victorian Government should consult with local governments on the plans, zoning changes and any necessary infrastructure upgrades. It should then change statutory planning controls in priority locations to allow more homes.

Rezoning should be bundled with other development incentives

Changing planning zones does not guarantee that developers will build more homes.[183] The government can offer incentives to developers in rezoned locations. It is already speeding up planning approvals in activity centres.[184] It can also give rights to develop unused air space above train stations or car parks, or finance brokerage to share risk among project investors.

The government has not typically monitored the effects of zone changes on home building. It should measure and report how well these and earlier changes generate more new homes in good locations and keep monitoring the impact of rezoning to identify potential future changes.

Cost range, timing and funding

We estimate that this draft recommendation will cost $1 million to $5 million to implement over 5 years. This includes reviewing existing zoning around public transport and other amenities, developing rezoning criteria, consulting with communities and local government, amending the planning scheme and monitoring growth in housing. Existing staff can carry out much of this work.

The cost of rezoning can be funded through general government revenue.

Rezoning may also create indirect benefits and costs to government and landowners. For example, rezoning is likely to increase the land value and require upgrades to existing infrastructure to support more housing. However, we found that building infrastructure in new growth areas can cost up to 4 times more than in established suburbs.[185] Where new infrastructure is needed, redesigned infrastructure contribution schemes can help to offset the cost of new infrastructure (see draft recommendation 36).

Future option

Mandate more affordable homes near existing infrastructure

> Choose a mechanism to mandate more housing that is affordable for low-income households and close to public transport, open space and services.

More Victorian households are struggling to find an affordable home

Many low-income households in Victoria are finding it hard to afford a home. Rent in the private market is often too expensive.[186] Affordable housing helps people avoid poverty, allows more businesses to hire local workers and supports more inclusive places.[187]

Housing is generally considered affordable for low-income households when it costs less than 30% of their income. This helps them avoid housing affordability stress.[188] In 2021, Melbourne's inner and middle suburbs had a shortage of 71,600 rental homes affordable for low-income households. Ballarat, Bendigo and Geelong had a combined shortage of 8,700 homes.[189] Current affordable housing approaches are inconsistent across Victoria, need project-specific negotiations, and do not produce enough homes.[190]

Our research in *Choosing Victoria's future: 5 urban development scenarios* shows that more compact cities can help more people find an affordable home in different places.[191] These cities have more homes closer to existing infrastructure.[192] They offer more travel options, so people can easily get to work, schools, shops and services.[193]

In *Our home choices: how more housing options can make better use of Victoria's existing infrastructure*, we show that most homes in established suburbs of Melbourne are unaffordable for households even on moderate incomes.[194] Many households must move to new suburbs and these often require more expensive new infrastructure.[195]

The government can encourage more affordable housing to better use existing infrastructure

When the Victorian Government is rezoning locations near existing infrastructure for more home choices (see draft recommendation 7), it can consider how to make housing more affordable for low-income households.[196] When rezoning, it can require developers to return some of the benefit of higher land values by building affordable homes.[197]

The government can do this first in inner and middle Melbourne, Geelong, Ballarat and Bendigo so developers build new affordable homes in places with existing infrastructure. More low-income households might then afford to live close to existing public transport, services and open space. This might improve their health and wellbeing by giving them better access to jobs.[198]

The Victorian Government can use different approaches to encourage developers to build more affordable homes near existing infrastructure. For example, it can require developers to include affordable homes in their housing developments or make cash contributions.[199] The government can also buy land and combine it with land it already owns to build affordable homes. South Australia and New South Wales are taking a similar approach (see case study – Affordable homes in other Australian jurisdictions).

To help determine which approach will work best in Victoria, the Victorian Government can:

- work with developers, local governments and registered community housing providers to decide how to include affordable homes in new developments while making sure the development is financially viable
- decide who is eligible for an affordable home

- explore how homes can stay affordable to low-income households over time (for example, affordable housing in the United States needs to stay affordable for at least 30 years)[207]
- model how many affordable homes can be built in rezoned areas by capturing some of the higher land value from rezoning
- trial the preferred affordable housing approach on government-owned land, including in state-led precincts and activity centres
- find ways to develop underused public land and combine lots in rezoned locations for affordable homes.

Cost range, timing and funding

We estimate this future option will cost $1 million to $5 million. General government revenue can fund this future option.

This includes costs for government staff to consult and model the impact of policy to decide on the best approach. It also includes costs to trial the approach.

The Victorian Government has already set up the Development Facilitation Program which fast-tracks project approvals for developments where 10% of new homes are affordable.[208] This can help to achieve housing targets as part of *Victoria's housing statement*.[209]

Case study

Affordable homes in other Australian jurisdictions

Governments across Australia are exploring ways to increase the supply of affordable homes. Schemes can include homes to buy or rent, or a combination of both.[200]

The South Australian Government introduced the *Housing plan for South Australia* in 2005. The scheme requires 15% of homes in large residential developments to be affordable. Initially, the requirement applied to government land releases in outer suburbs, but the policy now applies to urban renewal sites. Over the 10 years to 2015, the scheme delivered 5,485 affordable homes, around 17% of new supply in major residential projects.[201] These include a mix of social and affordable rental homes as well as low-cost home ownership.[202]

In New South Wales, the City of Sydney requires all developers to contribute towards affordable rental housing. This helps make sure that low-income households can still afford to live and work in the city.[203] Developers can include affordable homes in their projects or make a cash contribution instead.[204] Community housing providers then manage the rental homes. They also receive the cash contributions.[205] The scheme has delivered around 900 social homes in Ultimo-Pyrmont. It is expected to deliver over 300 affordable homes in Sydney's Green Square.[206]

Future option

Phase out residential stamp duties

> Over the long term, phase out residential stamp duties and phase in residential land tax.

Stamp duty influences home choices, infrastructure costs and use

Stamp duty is a tax on the transfer of land ownership, collected by the Victorian Government when people sell residential property.

Stamp duty pushes people to live in new suburbs, creating higher infrastructure costs to government. It discourages people from moving into different homes as their lives change. Instead, stamp duty encourages homebuyers to look for a larger 'forever home'.[210] These homes are often only affordable in new suburbs. Providing infrastructure for homes in new suburbs is more expensive than in established suburbs.[211] This means stamp duty increases infrastructure costs to government.

Stamp duty adds strain to transport infrastructure. It is a penalty for moving house to be close to family or for a new job.[212] It may prevent some people from moving, which means they need to travel further than they otherwise would.[213] This creates more congestion and crowding on the transport network which is costly for the government to address.

Replacing stamp duty with a residential land tax can improve economic productivity

The Victorian Government can phase out stamp duties on residential properties over time. This would remove the upfront tax on buying a home and encourage homebuyers to look for a house that suits their current needs. It would also make it easier for people to move to places where jobs are available. This makes it easier for businesses to attract staff, improving economic productivity.[214]

To make up for the tax revenue lost from stamp duty, the government can expand land tax to cover all residential properties.[215] Land tax is a yearly charge based on land value rather than a single upfront payment. It can provide a steadier revenue stream for governments and does not deter people from moving house.[216]

Modelling suggests that replacing stamp duty with land tax can increase home ownership rates among young people.[217] Land tax can also encourage higher housing densities, encouraging cities to be more compact.[218] Providing infrastructure for a more compact city is more efficient, and cheaper for government.[219] This means moving to a land tax can help reduce the cost of providing infrastructure to service new housing.

The government is already making some changes to stamp duties. Over 10 years, a land tax will replace stamp duty for commercial and industrial properties.[220] The government is also expanding stamp duty concessions for off-the-plan apartments, townhouses and units for a 12-month period.[221] Removing stamp duty for all residential properties would complement these measures, making it easier for people to buy and sell a home.

Phasing out stamp duty can be done over the long term

Stamp duty is a major source of government revenue. Stamp duties raised $8.3 billion in the 2023–24 financial year.[222] Transitioning away from stamp duty to land tax needs to be carefully phased over the long term to avoid disruptions to government revenue and the housing market.[223]

There are several sensible transition paths for the Victorian Government to choose from.[224] For example, the ACT Government is gradually reducing stamp duty rates while increasing land tax over 20 years.[225] This is a good model for the Victorian Government to consider.

Cost range, timing and funding

We estimate that it will cost $1 million to $5 million to action this future option. General government revenue can fund this work.

The cost includes developing a legislative impact assessment, consulting with stakeholders, and undertaking processes to amend and adopt new legislation. Our estimate allows for expanding government systems to allow for an increase in residential land tax collection, while also phasing out residential stamp duties. The government can use existing staff to do this work.

Draft recommendation 8

Extend Melbourne's trams to encourage more new homes nearby

> Increase services on key tram routes in activity centres that have been designated for additional housing development. Complete a detailed assessment of tram extensions in Melbourne's established suburbs. Start building extensions in areas that can support more new homes. Rezone land around the extended tram lines so more homes are built.

Trams can support more homes in inner and middle Melbourne

The Victorian Government wants to build 800,000 homes over the next decade, with 70% in established suburbs.[226] Building in these areas can improve access to jobs, schools, shops, and services.[227] It can also make better use of Victoria's existing infrastructure.[228] Yet only half of new homes approved in the past 2 years have been in established suburbs.[229]

Some tram routes serving activity centres that have been designated for additional housing development are already crowded at peak times.[230] Adding services can encourage more homes while helping reduce crowding, road congestion and transport emissions.[231]

The government should add around 300 more services a week on key routes where more homes are planned and trams are already very busy, like routes 86, 96 and 109.[232] It should run more evening and weekend tram services so people who live near tram lines are less dependent on cars and new housing developments do not require as many parking spaces.[233]

Extending tram lines in established suburbs can make the most of Melbourne's tram network and encourage more development.[234] This can encourage developers to build homes along the entire route, not just the new extensions.[235] Expanding the tram network is much cheaper than expanding the train network in established suburbs, which can involve expensive tunnelling.[236]

Extending the tram network and improving services to the government's priority precincts and activity centres can also encourage residential and commercial development. Tram services do not reach some of these places that can provide more new homes, like Fishermans Bend, Moorabbin and Chadstone.[237]

The government should deliver priority tram extensions to encourage new homes

The Victorian Government should complete a detailed assessment of tram extensions in Melbourne's established suburbs. We have prioritised 8 tram extensions for the government to start building by 2030 (see Figure 5). We chose these based on their potential to encourage new homes, improve access to jobs and increase public transport use. The priority projects are:

- Arden trams:
  - Swanston Street to Kensington
  - Spencer Street to Flemington Bridge
- Fishermans Bend trams:
  - Anzac train station to Fishermans Bend North
  - Southern Cross Station to Fishermans Bend South
- Middle suburbs tram extensions:
  - East Malvern to Hughesdale via Chadstone
  - East Brighton to Moorabbin
  - Melville Road to Batman train station in Coburg

- Wattle Park to Burwood East.

The 4 tram extensions in the middle suburbs could encourage around 32,000 new homes in these areas and increase daily public transport boardings by 17,500.[238] Building new homes in established suburbs could save over $1 billion in public infrastructure costs compared to building in new outer suburbs.[239]

These projects will connect people to trains at East Malvern, Moorabbin, Batman and the future Burwood station on the Suburban Rail Loop. Access to other activity centres in middle suburbs could improve by up to 9%.[240] Residents' trips would be up to 5% quicker and they could access nearly 15,000 more jobs in 45 minutes.[241] The 2 Fishermans Bend tram extensions could improve access to the area by 19%.[242]

Extending tram lines will only encourage development if supported by planning rules. The government should update local planning schemes to enable more homes around the new tram extensions and at the end of the existing tram lines (see draft recommendation 7).

Cost range, timing and funding

We estimate that it will cost $4 billion to $5.5 billion to extend tram lines. General government revenue can fund this work, and public transport fares can help offset the operating costs of the upgrades.

The Victorian Government can also seek additional funding from the Australian Government. The Australian Government has previously funded similar projects, such as the Canberra and Gold Coast light rail projects.[243]

Our cost estimates are over 5 years and include:

- $1 billion to $1.4 billion for 2 tram extensions in Fishermans Bend
- $1 billion to $1.4 billion for 2 tram extensions in Arden
- $1.5 billion to $1.9 billion for 4 tram extensions in Melbourne's middle suburbs
- $450 million to $600 million for additional rolling stock and power upgrades on tram routes 86, 96 and 109.

Costs include all infrastructure and additional rolling stock. Each tram line can be extended separately, and costs range between $200 million and $1 billion each.

We have provided a broad cost range as the projects can be implemented in various ways to provide best value for money. This requires further analysis by the Victorian Government. Our cost estimates are approximate for each upgrade.

Extended tram lines will then cost government $30 million to $40 million each year to operate all extended lines. This includes asset renewal of the tram corridor and rolling stock. It also includes maintenance costs. Running more services on existing key tram routes, and additional evening and weekend trams where more housing is planned will cost an additional $40 million to $60 million each year.

Figure 5: Tram extensions can make the most of Melbourne's tram network, and support priority precincts and activity

	Tram routes with extensions	Additional weekday public transport boardings Year 2031	Year 2041
	Arden tram extensions (Routes 3, 5)	**14,600**	**17,000**
→	Route 3 (west) – Kensington to Malvern East	4,900	5,200
→	Route 5 – Malvern to Flemington Bridge Station	9,700	11,800
	Fishermans Bend tram extensions (Routes 11, 67)	**13,100**	**33,000**
→	Routes 11 – West Preston to Fishermans Bend South (Plummer Street)	3,900	15,500
→	Routes 67 – Carnegie to Fishermans Bend North (Turner Street)	9,200	17,500
	Middle suburbs tram extensions	**16,100**	**17,500**
→	East Malvern to Hughesdale via Chadstone (route 3 (south) – Melbourne Uni to Hughesdale via Chadstone)	4,800	5,600
→	Melville Rd to Batman Station in Coburg (route 58 – Toorak to Batman)	1,800	2,000
→	East Brighton to Moorabbin (route 68 – Kew to Moorabbin)	4,500	4,700
→	Wattle Park to Burwood East via Burwood SRL train station (route 70 – Docklands Stadium to Burwood East Tally Ho)	5,000	5,300

Source: Infrastructure Victoria.

Draft recommendation 9

Run faster bus services, more often, in Victoria's largest cities

> Run buses more often, for longer hours, and give buses priority on the road. In stages, straighten out existing bus routes so they are fast and direct.

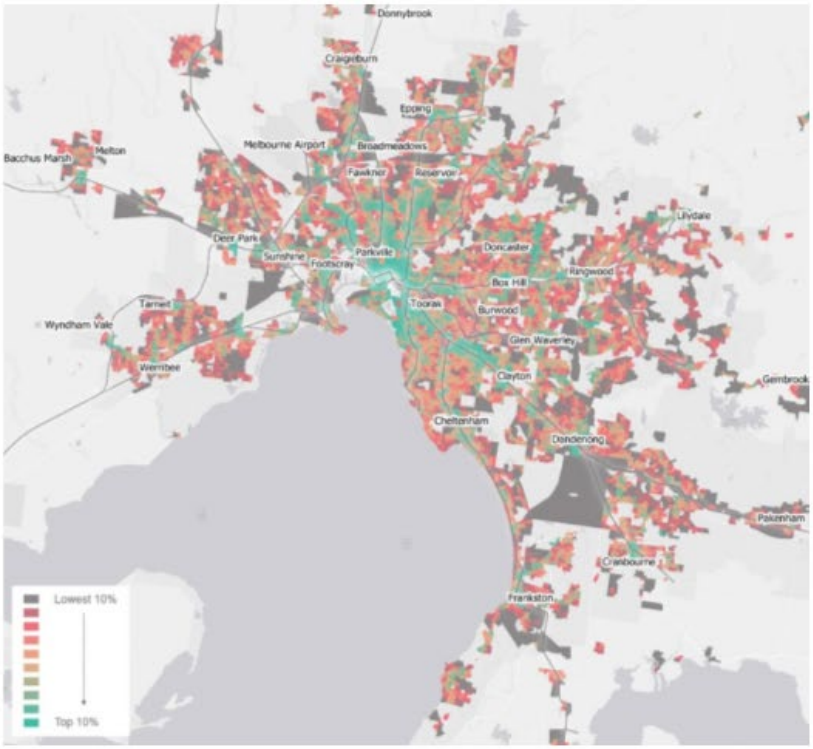
Bus services can be much better

Many Melbourne and regional city bus services have not changed much since they began.[244] The Victorian Government rarely revises bus services to match changes in people's needs and travel destinations.

More people use buses when they offer better quality services.[245] More than a third of Melburnians have never caught the bus, even though 8 out of 10 homes are within 400 metres of a bus stop.[246] The most disadvantaged areas commonly have the least public transport, most often in growth areas (see Figure 6).[247]

High-frequency bus services are key to supporting growing communities, including new activity centres as part of Victoria's housing statement.[248] About a third of Melburnians wait more than 20 minutes for a public transport service on an average weekday.[249] The wait is even longer for people living in Ballarat, Bendigo and Geelong.[250]

Figure 6: Outer and new growth areas commonly have the least public transport services



Public transport service provision per population per area. Source: Infrastructure Victoria analysis of General Transit Feed Specification (GTFS) and population data. See Infrastructure Victoria, *Fast, frequent, fair: how buses can better connect Melbourne*, 2023, p 79, accessed 11 November 2024.

Buses should run more often, start earlier and finish later

The Victorian Government should start running buses more often. Upgraded services should mean that by 2030, 80% of people in Melbourne, Geelong, Ballarat, and Bendigo live within 800 metres of a public transport service that arrives at least every 20 minutes.[251] More frequent buses mean people wait less to catch connecting public transport services.

Our research found that more frequent bus services in Melbourne deliver around $1.40 in benefits for every dollar spent.[252] The benefits of running buses more often are similar to any one of Victoria's big road or rail projects, but they are far cheaper.[253]

Buses should start earlier in the day and finish later in the evenings, especially on weekends. This helps shift workers in industries like retail and healthcare, who need to get to work early or return home late at night. Our community research showed that people prefer bus services to run between 6am and 11pm every day.[254] It also means people can get to train stations, shopping and entertainment precincts more easily.[255]

Bus routes should be more direct for faster travel times

Many of Victoria's bus routes are indirect.[256] Routes have been designed to be as close as possible to people's homes.[257] This slows down buses as they wind through local streets. Traffic also delays buses. If nothing changes, buses on 84% of Melbourne routes will run slower by 2036.[258]

The Victorian Government should redesign bus routes. This can start in north and north-east Melbourne, where the government has already consulted the community on bus route changes.[259] The government should give buses priority on the road to improve travel times. This can include new bus lanes and traffic signal priority for buses.[260]

These changes will have a big impact for many Victorians who experience poor bus services today.[261] They can immediately make buses more attractive to use. People will be able to use cars less, save money, and lower their transport emissions.[262]

Cost range, timing and funding

We estimate that improving bus services in Victoria's largest cities will cost $1 billion to $1.5 billion over 5 years. General government revenue can fund this draft recommendation.

Better bus services in Victoria's largest cities can be delivered as a series of separate smaller packages over time, rather than a single project.

Our cost estimate includes $0.8 billion to $1.2 billion to create around 100 kilometres of new bus lanes.[263] We also include $200 million to $300 million for minor upgrades to the road network to support new bus routes. This includes new bus stops, and intersection upgrades like traffic signalling and short bus lanes to prioritise buses. The Victorian Government can upgrade traffic signalling for buses at the same time as it improves traffic control systems on arterial roads (see draft recommendation 40).

Running more bus services will cost the government $550 million to $750 million each year to operate. This includes purchasing and maintaining the bus fleet and depot upgrades. Public transport fares can help offset the operating costs of improved bus services.

Draft recommendation 10

Build a new bus rapid transit network

> Complete a detailed assessment, reserve the required land, and build a new bus rapid transit network. Start with routes that connect train stations and busy destinations in Melbourne's north, west, and south-east, and extend the new Eastern Busway along Hoddle Street.

Melbourne needs a new type of public transport service

Melbourne's growth has led to many new homes on the edges of the city, often far away from train lines.[264] People who live in these areas have no fast public transport alternative to driving. This limits their travel options.[265]

This problem will only get worse as Melbourne's population grows. The city's roads will struggle to handle more traffic.[266] Even with new and wider roads, motorists face a 46% increase in road congestion between 2026 and 2036.[267] Road congestion is predicted to be particularly high in growth areas in Melbourne's north and west.[268]

Melbourne is well suited to a new bus rapid transit network. These services already run in other Australian cities like Sydney, Brisbane and Adelaide.[269] Services would use large buses that run along dedicated or separated lanes. Buses would stop at stations with platforms, real-time information, shelter and seating.[270] We recommend that buses run every 5 minutes during peak hours and every 10 minutes at other times.[271]

Bus rapid transit routes can support travel in outer and new growth suburbs

The Victorian Government should begin planning for bus rapid transit by completing a detailed assessment of routes. It should then secure land and build the network.

We have prioritised 5 routes to progress by the early 2030s, based on how many people we expect to use the services. These include Tarneit to Maribyrnong, Point Cook to Watergardens, Melton to Broadmeadows, Huntingdale to Upper Ferntree Gully and Endeavour Hills to Southland (see Figure 7).[272] Together, these routes could attract over 57,000 new daily boardings by 2036.[273]

The government should also prioritise bus rapid transport corridors in Melbourne's north to offer another transport choice to access jobs and services.

Bus rapid transit infrastructure can be delivered at a fraction of the cost of trams or trains to these areas.[274] Our analysis of possible bus rapid transit routes in Melbourne shows that they deliver benefits of at least $2.60 for every dollar invested.[275] This includes travel time savings to passengers worth around $1.5 to $2.1 billion.[276]

We highlighted another 5 routes that can be delivered after the early 2030s in our report *Fast, frequent, fair: how buses can better connect Melbourne*.[277]

New infrastructure can speed up existing services, reduce emissions and encourage development

The Eastern Busway will be Melbourne's first bus rapid transit corridor, but it ends at Hoddle Street.[278] The government should make the most of its investment by completing a detailed assessment to extend the busway along Hoddle Street. This will improve reliability and efficiency for buses travelling from suburbs like Doncaster and Templestowe. These suburbs are in Melbourne's only local government area with no train or tram line.[279]

Bus rapid transit will provide faster and more frequent public transport options. It can reduce Melburnians' reliance on cars and connect with the city's train services.[280] It can also drive down transport emissions to help achieve Victoria's target of net zero emissions by 2045.[281]

International evidence shows that bus rapid transit can encourage more compact development along public transport routes.[282] It can help attract investment in the priority precincts the government identified in *Victoria's housing statement*.[283]

Figure 7: Melbourne is well suited to a bus rapid transit network that runs along dedicated lanes

Source: Infrastructure Victoria, *Fast, frequent, fair: how buses can better connect Melbourne*, 2023, p 63, accessed 31 October 2024.

Cost range, timing and funding

We estimate that building the first 5 bus rapid transit routes and extending the Eastern Busway will cost $3 billion to $3.5 billion over 5 years.[284] General government revenue can fund this draft recommendation. Public transport fares can help partially offset the cost of operating the new bus rapid transit network. The Victorian Government can also source additional funding from the Australian Government.[285]

This cost range includes $200 million to $900 million to build each of the bus rapid transit routes, depending on the route selected. We estimate extending the Eastern Busway will cost $500 million to $1.4 billion, depending on its final design. Each route can be delivered as a separate project, rather than all routes together, without adding to the cost.

Bus rapid transit services will then cost $75 million to $90 million every year to operate.[286]

Draft recommendation 11

Extend metropolitan trains and run more services in Melbourne's west

> Extend and electrify metropolitan trains to Melton. Reallocate trains that serve Melton to other areas in Melbourne's west and regional Victoria. Assess delivery of a new train station at Altona North accompanied by land rezoning.

Melbourne's western growth areas are growing but they have little public transport

New suburbs in Melbourne's west are growing rapidly. By 2041, over 860,000 people are expected to live there, an increase of almost 450,000 since 2018.[287] But these places do not have good roads or public transport.[288]

The metropolitan train network does not reach many of these communities. They have few bus services, and regional trains that pass through are increasingly crowded.[289] As a result, many residents must drive to work, school or other activities. In Melbourne's outer suburbs and new growth areas, 63% of residents drive to work compared to 32% in inner Melbourne.[290]

More car use means busier roads and lower air quality.[291] It can also put households who have no other transport options in financial stress.[292] Residents might have to take lower-paid jobs that do not match their skills because of poor access to public transport.[293]

Extending the train network can deliver better public transport for new suburbs

The Victorian Government should extend the metropolitan train network to Melton, Mount Atkinson and Deer Park. These places have strong population growth and plans for a metropolitan activity centre, including the new Melton Hospital.[294]

By 2030, the government should:

- extend metropolitan train services from Sunshine to Melton by electrifying the Melton line
- build 2 additional tracks (quadruplicate) from Sunshine to Caroline Springs to allow for faster Geelong, Ballarat and Wyndham Vale V/Line services
- build 2 new train stations at Thornhill Park (Paynes Road) and Mount Atkinson (Hopkins Road) to support communities without rail access.

We prioritised Melbourne's west for more rail services based on projected passenger numbers, current and future road congestion, access to areas with high job growth, and alignment with government policies and plans like the National employment and innovation clusters and future metropolitan activity centres.[295]

More frequent services on these train lines, including the extensions, can help meet the travel needs of residents in Melbourne's west. For example, Melton residents could access 18,000 more jobs within 60 minutes travel time.[296]

To deliver these benefits, the government should upgrade power and signalling on train lines and increase train capacity to reduce waiting times.[297] It could prioritise this work alongside the planned $143 million upgrade to the Sunshine Station precinct.[298]

The extensions would reduce congestion and travel times on many roads and trains during morning peak hours, including the Western Freeway.[299] Our modelling shows that they would result in up to 16,300 more train boardings and around 9,000 fewer car trips each day by 2041.[300]

Train line extensions can provide network-wide benefits

The Melton line electrification and extension allows trains that serve Melton to be reallocated to other areas. It also allows V/Line trains to skip many existing stations, potentially making services to Ballarat and Geelong faster.

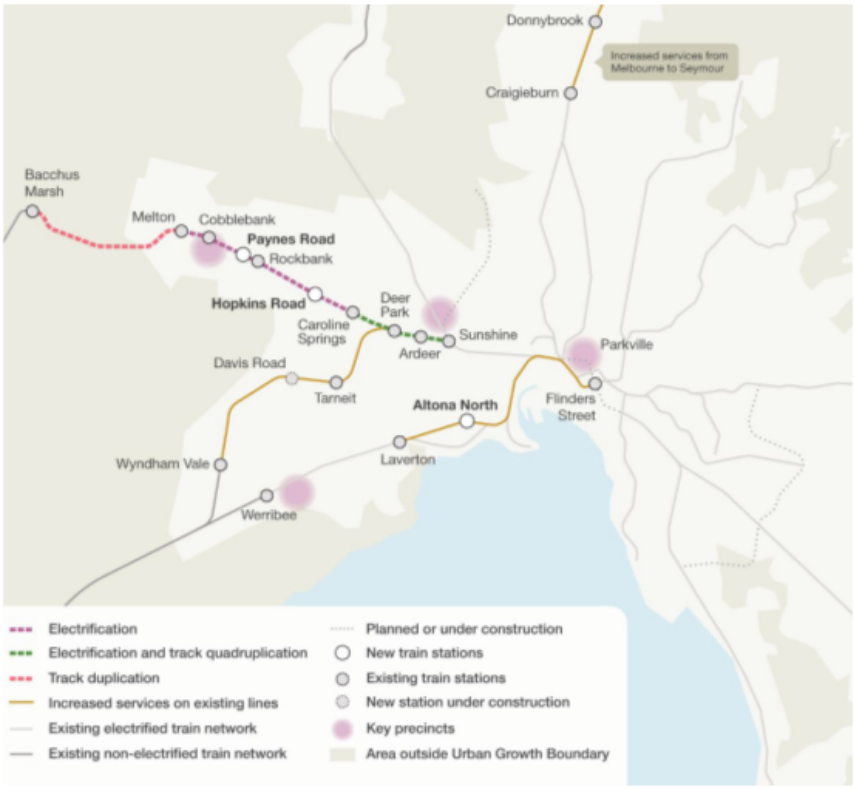
The government should assess where this is most needed. Our analysis suggests that the Wyndham Vale and Seymour corridors are a priority. For example, moving weekday Melton V/Line services to the Wyndham Vale corridor would provide a 10 minute service for stations like Tarneit and halve waiting times.[301] This would be a first step in extending and electrifying these services.

A new station in Altona North can improve access to services and encourage new homes in Melbourne's inner west

Newport to Laverton via Altona North is the longest gap between stations on the metropolitan train network.[302] Altona North is a key activity centre. A station there would triple the number of jobs residents can reach in 45 minutes and reduce travel times to the activity centre by around 10%.[303] More services would need to operate to serve the station, providing benefits to passengers from Footscray to Newport and Laverton to Werribee.[304]

Our draft recommendation to extend Melbourne's trams to encourage more new homes nearby (draft recommendation 8) highlights that transport infrastructure investment can encourage more housing. Rezoning land around a new Altona North station can have the same effect. The government should update local planning schemes to enable more homes around the new station.

Figure 8: Extending metropolitan trains helps to better connect places with strong population growth



Source: Infrastructure Victoria

Table 1: Additional weekday train boardings at stations on line segments (with train extensions)

Train extension	Year 2031	Year 2041
Electrify and quadruplicate the Melton line and build 2 new train stations: Thornhill Park (Paynes Road) and Mount Atkinson (Hopkins Road)	3,500	10,100
More services on the Wyndham Vale and Seymour corridors	3,100	4,700
New train station at Altona North	1,000	1,500

Cost range, timing and funding

We estimate that this draft recommendation will cost $4 billion to $5.5 billion by 2030. The Victorian Government can consider a mix of funding mechanisms, including value capture. General government revenue is likely to be a major funding source. Public transport fares can help offset operating costs. The Victorian Government can also seek additional funding from the Australian Government.[305]

Our cost estimates include:

- $3.9 billion to $5 billion to upgrade the Melton line
- $150 million to $250 million for a new station at Altona North on the Werribee line.

The cost includes upgrading the train line and buying new rolling stock. Our cost ranges are broad as each extension or upgrade can be implemented in various ways to provide best value for money. Each cost estimate is approximate and based on 2020 estimates adjusted to reflect today's higher costs.[306] The train line extension and new station can be done as separate projects. Overall costs will require further analysis by the government.

We estimate this draft recommendation will then cost government $60 million to $80 million each year to operate. This includes maintenance and asset renewal of the train corridor and rolling stock.

Draft recommendation 12

Run more bus and coach services in regional Victoria

> Deliver more bus services in regional cities. Run more V/Line coach services to better connect small towns to regional cities. Start with routes that improve access to jobs, education and healthcare.

Regional public transport helps connect people to education, healthcare and jobs

Regional Victorians travel far to jobs, education, healthcare and other services which are mostly located in regional cities.[307] Many people rely on cars to reach these places.[308]

But not everyone can afford to own a car.[309] Others cannot drive, like some young people, older Victorians and people with a disability. They rely on public transport to travel independently.[310]

If people use public transport more, they can save money and Victoria will produce fewer greenhouse gas emissions.[311] But our modelling confirms that many regional Victorians struggle to access services by public transport.[312]

Many transport services do not reach the places people need, including TAFEs, universities, hospitals and health centres.[313] Around 90% of young people living in rural and regional Victoria cannot access their TAFE or university by public transport. Even when they can, they often have to leave classes early or wait a long time to get home.[314]

Better public transport can improve access to education and help young people stay in regional areas.[315] It can connect people to jobs and help fill labour shortages.[316] It can help older people stay independent and mobile.[317]

Public transport in regional cities can better meet local needs

The Victorian Government should deliver more bus services in regional cities, starting in Shepparton, Wodonga, Mildura, Wangaratta, Horsham and Bairnsdale. This complements our draft recommendation to run more bus services in Victoria's largest cities (see draft recommendation 9).

These are regional cities where bus services are infrequent and indirect.[318] These cities provide health, education and social services to their wider region. They are also home to a high share of people with limited access to transport, low-income households, Aboriginal Victorians and older people.[319] New suburbs in Shepparton and Wodonga have no bus services at all.[320]

Few weekend and night buses mean that young people miss out on work and social opportunities.[321] Many people in Mildura say they need buses that run from 7am to 9pm on weekdays, and after 9pm on Friday and Saturday nights.[322] The government should consult with communities, councils and bus operators in the other regional cities to identify transport needs and then run services to meet them.

Running buses more often and for longer hours will add up to 250 new services each day in larger cities and around 30 new services each day in smaller cities.[323]

Local communities need better access to regional cities

For many towns, V/Line coaches are the only public transport to regional cities. But they often do not run when people need them.[324] For example, morning services can arrive too late for classes, work or medical appointments. Sometimes people have just 40 minutes before their only return service leaves.[325]

The Victorian Government should improve existing V/Line coach services. It should add stops, extend existing routes and fund extra services to improve access to regional cities.

It should start with routes like Bendigo to Wangaratta, Geelong to Bendigo via Ballarat, and Wodonga to Kerang. Communities on these routes need access to jobs, education and healthcare in regional cities but have limited public transport services. The government should run 6 services each day from Geelong to Bendigo, and 3 services each day from Bendigo to Wangaratta and Wodonga to Kerang.[326]

Figure 9: The Victorian Government should improve regional bus and V/Line coach services

Source: Infrastructure Victoria

Cost range, timing and funding

We estimate that this draft recommendation will cost $100 million to $150 million over 5 years. General government revenue can fund this draft recommendation. Public transport fares can help offset the operating costs of more regional services.

Our cost range includes new bus stops and transport hubs to support new bus and coach services. These can be delivered as a series of separate smaller packages rather than one project.

More bus and coach services in regional Victoria will then cost government $25 million to $40 million each year to operate. This includes purchasing and maintaining the bus fleet and depot upgrades.

Draft recommendation 13

Make off-peak public transport cheaper and simplify regional fare zones

> After upgrading the myki ticketing system, charge lower fares for off-peak travel on Victoria's buses, trains and trams. Simplify fares and reduce the number of regional fare zones.

Cheaper off-peak fares are a simple first step for Victoria's upgraded myki

Public transport fares influence travel behaviour.[327] Victoria's fares can be changed to encourage better use of the transport network and deliver the most benefit to Victorians.

More people travel during peak hours than off-peak. This puts pressure on roads and public transport. Buses, trains and trams are often crowded in peak times but underused at other times.[328] Victorians typically drive instead of taking public transport on weekends.[329]

Lower off-peak fares can encourage motorists to catch public transport instead. There are many benefits including less congestion and fewer emissions.[330] Cheaper off-peak fares can also help to defer costly infrastructure upgrades.[331]

We found that changing the way people pay for public transport might remove over 31 million car trips. It might also provide about $520 million in value each year and reduce peak hour crowding equivalent to 27 trains.[332] Our research showed that bus passengers can increase by up to 19% for every $1 discount.[333] More public transport users can help offset the revenue impact of cheaper fares.[334]

Off-peak fares benefit low-income earners

The Victorian Government should adopt off-peak fare discounts when it has upgraded the myki ticketing system.[335] This will reduce crowding on peak hour services by rewarding people who travel at quieter times. It will also benefit low-income earners, who make 45% of off-peak trips.[336]

Currently people travelling at quieter times pay the same price as those travelling during peak hours.[337] In our modelling, a 50% discount was enough for people to change their travel time and mode of transport.[338] V/Line passenger numbers grew rapidly when regional fares were capped in 2023.[339] This shows that cheaper fares attract users. The government can set the rules for off-peak discounts so that people make travel choices that benefit everyone.

Simple fares have the greatest impact

When fares are complex, travellers can end up paying more.[340] Our research found that off-peak fares were the easiest to understand.[341] To reduce complexity and make public transport fairer, the government should replace Early Bird train-only fares with off-peak discounts that apply to all public transport modes. Passengers should be able to switch between trains, trams and buses at the same fare.

In regional Victoria, the government should simplify fare zones. The regional fare cap reduced prices for long-distance trips to Melbourne, but it had little impact on shorter trips between regional cities and towns.

Reducing the number of regional fare zones will help to lower the cost of these trips. It will reinforce the regional fare cap in providing more affordable travel in regional Victoria. It can be delivered when the upgraded myki system is rolled out in regional areas.[342]

Over time, refine the off-peak discount and pair with service upgrades

Off-peak discounts are a first step to improving Victoria's public transport fares. We identify further reforms in *Fair move: better public transport fares for Melbourne* including cheaper fares for buses at all times. The government can implement these after assessing the impact of off-peak fares.[343]

Importantly, more people will catch public transport if fare reform is matched with service upgrades. This includes running more buses in Victoria's largest cities (see draft recommendation 9) and improving regional bus and coach services (see draft recommendation 12).

Cost range, timing and funding

We estimate that it will cost up to $1 million a year to improve public transport fares. General government revenue can fund this draft recommendation. Existing government staff can do this work.

The cost range includes detailed modelling of public transport fares, tracking the impact of fare changes to the public transport network, and refining fares. Changes to public transport fares can be made using Victoria's upgraded myki ticketing system.[344] Victoria has previously trialled off-peak fares, suggesting this feature can be implemented again at minimal cost.[345]

Fare reform can reduce revenue to government from public transport users depending on the fares adopted. But more public transport users, especially in off-peak periods, can help to partially offset any revenue loss from cheaper fares. Shifting public transport demand away from peak periods can also help the government defer capital upgrades like new tunnels, costing substantially more than any change in fare revenue.[346]

Victorians are healthy and safe

Victorians achieve and maintain good physical and mental health. They are safe from harm.

Victoria's health challenges are growing

Keeping Victorians healthy and safe helps create a productive and thriving society. Good health allows Victorians to work, learn and engage fully with their communities.[347] This adds to Victoria's social wellbeing and economic prosperity.[348]

Victoria faces several health challenges. These include an ageing population and rising health costs.[349] An ageing population has led to a rise in the frequency of chronic health conditions such as cancer, diabetes, dementia and heart disease.[350] These complex, long-term conditions can place more demand on health services.

In 2022–23 there were 564,886 potentially avoidable presentations to emergency departments in Victoria that could have been managed in primary or community health.[351] Many of these were related to chronic conditions.[352]

Victorians' health is influenced by where and how people live and work.[353] A person's social circumstances can also affect their health.[354] Social exclusion, low incomes and limited access to education and other services can worsen their health outcomes throughout their life.[355]

Infrastructure can help to reduce these risks. Buildings like hospitals and community health facilities provide access to essential healthcare services. Public open spaces such as parks and sports fields, and walking and cycling paths give people opportunities for exercise.[356] Digital technologies can also offer new ways to connect people with the services they need.[357]

Infrastructure can help prevent illness and injury

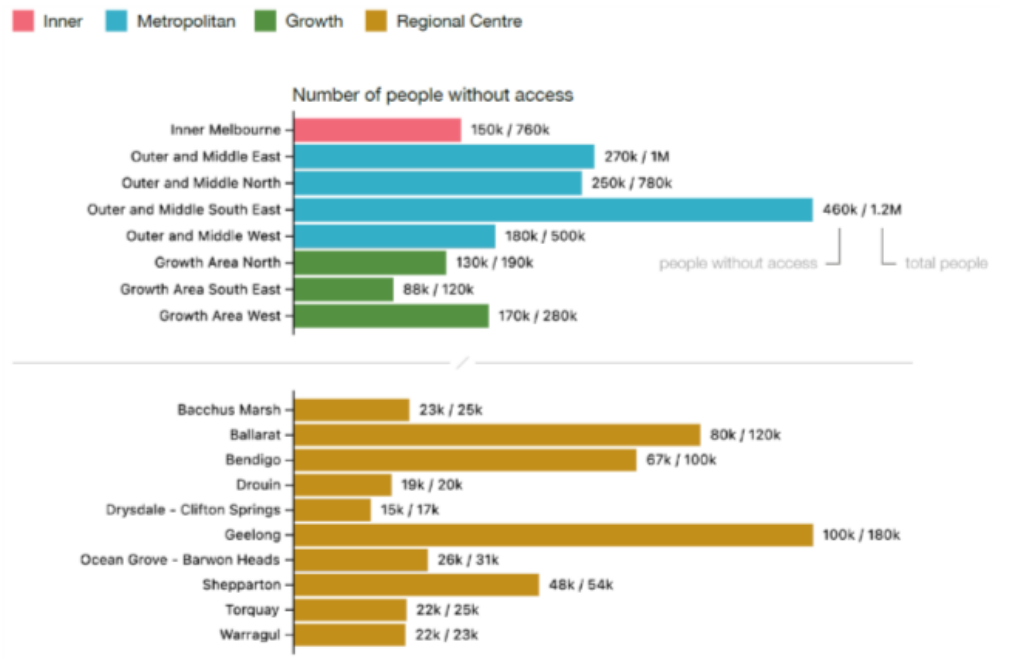
Preventive health measures can save money and help reduce demand on the hospital system.[358] Reducing risky lifestyle factors could prevent almost 40% of disease.[359] Many chronic diseases are linked with diet and physical activity.[360]

Access to the right types of infrastructure can help Victorians be healthier and happier.[361] Outdoor sports facilities, walkable neighbourhoods and areas that are safe to cycle in can increase physical activity and social connection.[362]

For every $1 invested in walking and cycling infrastructure, the community receives $13 in health, economic and environmental benefits.[363] Investing in walking and cycling can reduce noise and pollution while lowering the risk of conditions like heart disease, stroke and diabetes.[364] By encouraging healthy lifestyles, infrastructure can help reduce demand on public hospitals.[365]

But not everyone has the same access to open space and sports fields (see Figure 10). Some Victorians have limited opportunities for outdoor exercise, potentially increasing their risk of developing chronic disease.[366]

Figure 10: Many Victorians cannot access outdoor sports fields within a 10 minute walk



Source: Arup, *Social infrastructure accessibility mapping – outdoor sport fields*, report to Infrastructure Victoria, 2024, p 3, accessed 6 December 2024.

Access to health infrastructure in Victoria is unequal

Access to healthcare in Victoria also varies depending on where people live. For example, people living in outer suburbs and regional areas sometimes have fewer services, less consistent care and must travel further to reach them.[367] Chronic diseases and unintended overdose deaths are more common among people living in regional areas.[368] These risks are worse among some groups including First Peoples and culturally diverse communities.[369]

Community health services provide primary and preventive healthcare targeted to Victorians who are experiencing poverty or homelessness.[370] This can include vital dental services, mental health services and support for people to manage ongoing chronic conditions like type 2 diabetes.[371]

Victoria's prisons also provide healthcare and mental health services.[372] These services help prisoners rehabilitate and reduce reoffending.[373]

Improving access does not always mean building new hospitals and other infrastructure. Innovative service models and digital technology can transform service delivery. Digital healthcare can help public hospitals work more efficiently and ease demand on limited infrastructure.[374] For those in regional areas, digital healthcare can allow patients to receive care closer to home, reducing patient travel and costs.[375] There are also opportunities to better use prisons to improve community safety outcomes.

Draft recommendation 14

Make local streets safer for children and communities

> Reduce speed limits to 30km/h on local streets, starting in places that children often visit including around schools, playgrounds, childcare centres and kindergartens.

Slower local streets reduce road trauma

Victoria's neighbourhoods should be safe for people to travel and for children to play. Local streets that encourage walking and cycling can help achieve this. However, many roads are not safe for pedestrians or bike riders. An average of 35 pedestrians die each year in Victoria.[376]

Road trauma is a leading cause of death for children aged 1 to 14 in Australia.[377] Seven children die each year on Victoria's roads.[378] Nearly 300 children a year are seriously injured, mostly on local roads with speed limits of 50km/h.[379]

Slower speeds make streets safer.[380] They have little effect on travel times by car.[381] A pedestrian hit by a car at 50km/h has an 85% chance of dying, and a 40% chance at 40km/h. At 30km/h, this falls to 10%.[382] Some councils already have lower speed limits for safety. For example, the City of Yarra introduced 30km/h zones in the suburbs of Fitzroy and Collingwood.[383]

The Victorian Government should update its speed limit policy and work with local governments to update speed limit signs to set 30km/h limits, starting with local streets around places that children often visit. Schools, playgrounds, childcare centres and kindergartens should all have lower speed limits around them (see Figure 11).[384] The current 40km/h speed zone only applies to schools and some other busy areas.[385] The changes should apply to streets with current speed limits of 50km/h or less.

The Victorian and local governments can lower speed limits on more local streets over time to improve pedestrian safety. But we do not recommend these changes to roads with speed limits above 50km/h. These roads transport people in trams and buses and goods in commercial vehicles.

Research shows that reducing speed limits works better when combined with changes to local street infrastructure.[386] This helps more drivers stick to the speed limit so people can walk and cycle safely. Many local streets do not have safe crossing points. Governments can trial upgrades to infrastructure on streets where speeds have been reduced to show how these changes benefit the community.

More active travel is good for people's health and the environment

Most parents are worried about traffic and road safety, and do not let their children walk or cycle alone.[387] Instead, they drop off and pick up their children by car.[388] This has led to historically low levels of walking and outdoor play.[389] If children walk and ride bikes more, this will reduce obesity and social isolation.[390]

The lower speed limit will increase physical activity and help Victoria achieve the government's target of 25% of trips by active travel by 2030. Switching one trip a day from car to cycling can also save each person half a tonne of greenhouse gas emissions a year.[391] Schools, playgrounds, childcare centres and kindergartens are often close to people's homes. These trips are the easiest for people to switch from cars to walking and cycling.

Figure 11: Simple changes can make Victoria's streets safer

Source: Infrastructure Victoria

Cost range, timing and funding

We estimate that making local streets safer for children and communities will cost $35 million to $45 million. This includes the cost of changing speed limit policy and working with local governments to install speed limit signs.

General government revenue and ongoing road safety improvement programs, such as those run by the Transport Accident Commission and Australian Government, can fund this draft recommendation.[392] Government can also use funding attached to Victoria's Road Safety Action Plan.[393] To increase the benefits from this draft recommendation, these funding sources could be used to improve footpaths and add crossings and other infrastructure to slow cars down.

Local government upgrades to streets, footpaths, parks and drainage can also contribute to local streets being safer and easier for drivers to stick to speed limits.

Draft recommendation 15

Build safe cycling networks in Melbourne and regional cities

> Continue building protected and connected cycle corridors across Victoria. Publish updates to the strategic cycling corridor network.

Few Victorians ride bikes, even for short trips

In Melbourne, 60% of people's trips are under 5 kilometres. Despite many of these trips being well-suited to a short bike ride, less than 2% of them are made by bicycle.[394] Many people do not ride because they are worried about their safety.[395]

Between 2020 and 2022, with more people cycling during the COVID-19 pandemic, 57% more bike riders were seriously hurt on Victorian roads compared to the years before.[396] One in every 4 serious road crashes in Australia involves a bike rider.[397]

Victoria has a disconnected, low-quality cycling network.[398] Bike lanes can be too narrow, blocked by parked cars, or end suddenly.[399] Lanes are often not separate at dangerous intersections.[400] Riders can feel unsafe when cycling close to cars and other vehicles.[401] Women riders in particular can feel unsafe on quiet streets at night.[402]

The Victorian Government has a target for people to make 25% of their trips by bike or on foot.[403] More people owning cars, more car trips and busy roads make this target harder to reach.

More bike riding can reduce congestion

Using bikes is a healthy and cheap way to travel.[404] It has few greenhouse gas emissions and can help meet net zero targets.[405] Up to 5 times more people can travel on bike lanes each hour compared to car lanes.[406] Bicycle infrastructure can deliver almost $5 in benefits for every $1 invested.[407]

Separated bike infrastructure helps more people to choose a bike over their car, including young people, women and less confident riders.[408] People using micromobility transport like electric scooters are also safer with separated bike infrastructure.[409] More than 75% of Victorians are interested in riding if they can use bike lanes separated from car traffic.[410]

A network of safe cycling corridors will encourage more people to ride

Victoria already has a strategic cycling corridor plan.[411] It is a blueprint for a safe and high-quality 2,768 kilometre bicycle network.[412] But the government is only building small sections of this network as part of major transport projects.[413] Just 13% of Victorians live within a 2 minute ride of roads with a protected bike lane.[414] Together with safer local streets (see draft recommendation 14), bicycle corridors can encourage more cycling, both locally and for longer trips.[415]

The Victorian Government should build priority bicycle corridors in the strategic cycling corridor network. It should build 10 corridors in Melbourne and a network of cycle corridors in 6 regional cities, including Geelong, Ballarat, Bendigo, Wangaratta, Wodonga and Castlemaine by 2035 (see Figure 12). This will create more than 180 kilometres of continuous safe bike connections (see Table 2).[416] It includes adding separated bike lanes, wayfinding, lighting and protected bike infrastructure at intersections.[417]

We have chosen these corridors based on the places people travel to, connections to existing bike infrastructure, accident hotspots and local government priorities.[418] These corridors will encourage more cycling trips and can replace around 40,000 car trips every day.[419]

Regional Victoria only has a small strategic cycling corridor network.[420] In Melbourne, some corridors can be adjusted or expanded as the city grows. The government should continue to plan and consult on the network and publish updates every 3 years, particularly for regional Victoria.

Table 2: Length of new and upgraded cycling corridors

Type of change	Length
New cycling infrastructure (including providing protected bike infrastructure at intersections)	94km
Upgraded painted cycling lanes to separated cycling infrastructure	40km
New wayfinding and lighting to existing cycling corridors	53km
Total	*187km*

Figure 12: The Victorian Government should deliver bikeways in Melbourne and a network of cycle corridors in regional Victoria

Source: Infrastructure Victoria 2024

Cost range, timing and funding

We estimate that building a safe cycling network in Melbourne and regional cities will cost $400 million to $600 million over 10 years. This network can be built as a series of separate smaller packages.

General government revenue can partly fund this draft recommendation, or government can use funding attached to Victoria's Road Safety Action Plan.[421] The Victorian Government can also seek funding from the Australian Government's national Active Transport Fund.[422] We assume Australian Government funding will help to reduce the cost of this draft recommendation to the Victorian Government by $10 million to $20 million.

Bike paths vary in complexity. Based on recent projects, building new bike paths can cost from $500,000 to $5 million a kilometre.[423] These costs range from a protected cycling corridor to comprehensive place-making redevelopment that includes pedestrian and public transport access, and landscaping works.

Our cost estimate includes construction of a protected cycling corridor, including physical barriers, traffic signal upgrades and new cycle pavements, depending on the location. It does not include additional place-making works.

To increase the benefits from this draft recommendation, Victorian and Australian governments can also give grants to councils to build safe cycling paths between local destinations and the new cycling corridors.[424] These grants are not included in our cost estimate.

Draft recommendation 16

Help government schools share their grounds

> Prioritise which government school sports fields and facilities could deliver the greatest benefits if they were shared with local communities outside school hours. Give these schools extra help for maintenance if they voluntarily share their grounds outside school hours. Offer funding for upgrades to incentivise shared access outside school hours.

Sharing school grounds can help more Victorians stay healthy, active and social

Our research report, *Getting more from Melbourne's school grounds: sharing places for play and exercise*, shows that sharing school grounds in some places means many more people can walk to a local outdoor recreation facility.

This is especially true in Melbourne's north, west and outer south-east.[425] These places have fewer sports fields for each person than inner suburbs and people must travel further to reach one.[426] They are also places where children participate less in organised sport, and where communities have worse health outcomes.[427]

The Victorian Government can give local communities more access to outdoor recreation facilities. This can help people stay active, healthy and socially connected.[428]

Schools are often centrally located in suburbs within easy walking distance. Many communities already have out of school hours access to outdoor recreation facilities at their local government school. But around a third of government schools do not allow use after hours or on weekends.[429] In some places, communities have few other nearby options for informal sports and recreation.

Melbourne will need more spaces for recreation as its population continues to grow.[430] We estimate the total land value of Melbourne's government school courts and ovals is $6.6 billion.[431] The Victorian Government can help communities get more benefit from these valuable public assets by offering support for schools to share their grounds outside school hours.

Government can help schools share their grounds

Some schools might hesitate to share their grounds because of concerns about damage to school property.[432] The government should support schools to manage this risk in areas where sharing grounds will make the biggest difference. It should provide additional funding to the Department of Education to help schools manage extra maintenance and other costs if they voluntarily share their grounds outside school hours.

Some school grounds might not be ready for community use.[433] The government should encourage these schools to open to the community outside school hours by offering grants to upgrade facilities. This can include better infrastructure such as extra lighting, sports field upgrades or new toilets.

In priority areas, and depending on local needs, the government should offer grants for up to $2 million per school to ensure grounds have enough facilities for community use. This can deliver around $10 million worth of outdoor facilities to communities that need them most.[434]

Most local governments support shared use of school grounds outside school hours.[435] Grants for improved facilities should depend on local governments agreeing to partner with schools to help maintain school grounds for out-of-hours use.

Cost range, timing and funding

We estimate that helping schools share their grounds will cost $1 million to $40 million over 5 years. General government revenue can fund this draft recommendation.

Many schools can share their grounds with local communities immediately without the need to upgrade facilities. However, there are also benefits in investing in upgrades for schools in priority locations. The upper limit of $40 million for this draft recommendation allows for 20 priority schools to upgrade their sports fields, lighting and toilet facilities for after-hours use, and other community infrastructure like seating.[436]

Maintenance costs will rise as more people use school grounds that are open to the public. However, this small increase is relatively low compared to the overall cost of maintaining a school. We estimate it will cost about $1 million a year for 70 schools to be kept open.

As improvements in open space will benefit local communities, the Victorian Government can explore opportunities to jointly fund maintenance costs with local governments.

Draft recommendation 17

Invest in maintenance, upgrades and expansions of community health facilities

> Develop and fund 5-year priorities for Victorian Government investment in community health facilities.

Community health services target Victorians at most risk of poor health

Access to healthcare varies across Victoria, with some people facing more challenges. Some groups have worse access, such as Aboriginal Victorians, refugees and asylum seekers, and culturally diverse Victorians.[437] People in disadvantaged places are more likely to get sick, injured or die earlier.[438]

Community health services focus on supporting Victorians at most risk of poor health and that have the highest economic and social needs.[439] They tailor different preventive, primary healthcare and social care services to meet local community needs.[440] These services can include general practice, dental, nursing, allied health, mental health and wellbeing, alcohol and drug, disability, aged care, carer and parenting support. Some also help with employment and housing services.[441]

All community health services in Victoria deliver the Victorian Government's community health program. This program provides allied health, counselling and nursing services. Those eligible to use the program include concession card holders, people with a low or medium income, refugees, people who are homeless, children in care, and Aboriginal and Torres Strait Islander people.[442]

Preventive healthcare is very beneficial. Many interventions achieve good results at relatively low cost, with some returning over $14 in benefits for $1 spent.[443] Reducing lifestyle factors like smoking, obesity, poor diet, high blood pressure and high alcohol use might prevent up to 38% of disease.[444]

There are 78 community health services in Victoria, split into 2 types.[445] Twenty-four are independently managed. These are registered community health services. The other 54 community health services are part of government organisations that also provide hospital and other public health services.[446] These are integrated community health services.

Statewide community health investment priorities are needed

Our research found there is unmet need for community health services. Many people who had used a community health service reported long wait times to get an appointment.[447] But 45% of eligible Victorians had not used these services in the last 5 years.[448]

The Victorian Government has not consistently funded community health facilities, and many are outdated and poorly maintained. In some cases, failing facilities limit the ability to provide services.[449]

The Victorian Government should invest in community health facilities to deliver quality community health services. It should fund new sites, expansions, upgrades, maintenance and minor works.

The government should develop statewide investment priorities covering at least 5 years. These should be informed by community needs, type of community health organisation, and the condition, capacity and ownership of existing infrastructure.

The government should then commit funding for the first 5 years of these priorities. While government priorities should cover all community health services, our research suggests registered community health facilities need more urgent investment.

Cost range, timing and funding

We estimate that investing in community health facilities will cost $150 million to $300 million, with funding committed and works commenced within 5 years. General government revenue can fund this draft recommendation. The government should seek co-funding from community health services and other organisations where possible.

Our cost estimate is based on addressing infrastructure needs of registered community health services. It does not include costs beyond the first 5 years.

Our cost estimate also includes Victorian Government implementation costs of $4 million to $6 million to work out the condition of all existing community health facilities, plan, consult and determine statewide investment priorities. Future infrastructure funding decisions should depend on the outcomes of this work.

Draft recommendation 18

Build more residential alcohol and other drug treatment facilities

> Plan and start building residential rehabilitation and withdrawal facilities to meet the demand for alcohol and other drug treatment.

Victoria's alcohol and other drug treatment is not meeting demand

Alcohol and other drug use affects the wellbeing of many Victorians. High levels of use are linked to health problems, violence and disadvantage.[450] The social and economic costs of addiction in Australia are estimated to be $35.5 billion a year.[451] Treating alcohol and drug use can return around $4.60 in benefits for every $1 invested.[452] These benefits include reducing crime.[453]

Demand for alcohol and other drug treatment has gone up since the COVID-19 pandemic.[454] Alcohol and drug-related ambulance attendances have grown over the past decade.[455] Drug overdose deaths were the highest ever recorded in 2022.[456] More Victorians are being treated for addiction, but access is unequal and the system is not keeping up with demand.[457]

Waitlists have increased by around 40% since the pandemic.[458] The average wait time between assessment and treatment was 42 days in 2023–24, double the government's target of 20 days.[459] Wait times for residential rehabilitation can be up to 90 days.[460] This is on top of the wait for assessment. Long wait times can cause people to give up on treatment.[461]

Residential rehabilitation and withdrawal services are an effective form of treatment

Residential withdrawal facilities support people to safely withdraw from alcohol or drug dependence in a supervised setting.[462] Residential rehabilitation facilities provide therapeutic treatment for people who have undergone withdrawal but have not yet overcome their addiction.[463] Services can benefit from purpose-built facilities that create safe and effective treatment environments.[464]

Residential rehabilitation is effective at supporting recovery from addiction.[465] Research suggests it is particularly effective at reducing long-term methamphetamine and heroin use.[466] For some, their home or social circumstances may not provide the right conditions for rehabilitation.[467]

Alcohol and other drug use affects some communities more than others

Harmful drug and alcohol use contributes to the gap in health outcomes for First Peoples.[468] Aboriginal Victorians make up 10% of people receiving treatment, but 1% of Victoria's population.[469] They face barriers in accessing culturally safe treatment in mainstream facilities.[470] This can contribute to further harm.[471]

Regional Victorians also face challenges. They are more likely to die from an unintended overdose than people living in Melbourne.[472] People living in rural areas are more likely to drink alcohol at dangerous levels.[473] Patients spend more time travelling to access treatment.[474] The government is building new residential facilities in regional areas, but some regions still have none, including Great South Coast, Goulburn and Wimmera Southern Mallee.[475]

The government should build new facilities for communities that need them

Victoria has the second lowest number of residential rehabilitation beds per person in Australia. It provides 0.7 beds per 10,000 people compared to 1.0 in Queensland and 1.2 in New South Wales.[476] Victoria needs at least 200 extra beds to bring it in line with the national average.[477]

The Victorian Government should plan and start building more residential alcohol and other drug treatment facilities to target at least 200 extra rehabilitation beds. It should prioritise communities with demonstrated need but low access, including First Peoples and regional Victorians. Rehabilitation and withdrawal services can be co-located to provide greater value.

The government should design and deliver facilities for Aboriginal Victorians in partnership with First Peoples' communities and Aboriginal Community Controlled Organisations so that they are culturally safe and responsive.

Cost range, timing and funding

We estimate that building new facilities for 200 more rehabilitation beds will cost around $100 million over 10 years. We used costs from recently built facilities in Gippsland, Wangaratta and Corio.[478] General government revenue can fund this draft recommendation. We assume the Victorian Government can minimise costs by repurposing existing government land, so land costs are not included in our estimate.[479]

The cost range also includes government staff and consultancy costs to plan and develop the facilities.

We estimate the new facilities will cost $5 million to $7.5 million a year to maintain.

Draft recommendation 19

Invest in digital healthcare

> Expand digital healthcare to improve the quality of care and ease demand on public hospitals. Deliver a statewide medical image sharing system and a statewide virtual care service that remotely monitors suitable patients at home.

Victoria's health system is under pressure from population growth, an ageing population and more complex, chronic illnesses.[480] Building and upgrading hospitals alone will not be enough to meet growing demand.

Digital technology can make hospital infrastructure work more effectively. It can provide better care for patients while easing pressure on public hospitals.[481] Virtual care can be more comfortable for patients and save hospitals at least $1,000 per patient.[482]

Better information sharing can improve healthcare services

Victoria's digital health transformation is uneven. Some of Victoria's health services still use paper-based records.[483] Others use different electronic medical record systems, which do not always communicate well with each other.[484] Better sharing of health information improves patient care by giving doctors and nurses faster access to important information.[485] This can reduce readmissions and the cost of care for hospitals.[486]

The Victorian Government plans to roll out electronic medical records to all public hospitals so they can share records digitally.[487] But there are other opportunities to share information. For example, clinicians cannot easily share medical images across health services.[488] They might need to repeat tests if they cannot access past results.[489] For some scans, this can expose patients to unnecessary radiation.[490]

The Victorian Government should fund and deliver a statewide medical image sharing system. Medical image sharing can improve care, reduce unnecessary tests and save costs for hospitals and patients.[491] Other states have already introduced similar systems.[492]

Virtual care can improve quality and access to healthcare

Virtual care is already changing how Victorians access healthcare (see case study – Virtual emergency care in Victoria). Virtual care is the remote delivery of health services using digital technology. This includes phone or video telehealth consultations and remote monitoring of patients.[493]

Patients can receive care at home, reducing time spent travelling or in hospital.[494] Telehealth already saves Australian patients around $895 million each year through less travel time and waiting.[495] Expanding virtual care can increase hospital bed capacity, improve patient satisfaction and outcomes, and save money.[496]

Patients suitable for remote monitoring are given devices and sensors that track health data like blood pressure, heart rate or glucose levels.[497] Doctors or nurses can intervene if a patient's health is declining, potentially keeping them out of hospital.[498] Many health services, like Austin Health and Loddon Mallee Health Network, already monitor some patients remotely.[499]

The government's Better at Home initiative has funded many home-based care programs, but use of remote monitoring technologies is still limited.[500] A statewide service will ensure fair access, provide consistent service quality and allow greater efficiencies.

The Victorian Government should design and fund a statewide virtual care service to monitor patients at home. This should include a statewide digital platform for remote monitoring. It can introduce the service in stages, for example by clinical pathway or region.

A statewide service can focus on patients with chronic conditions, including heart disease, lung disease and diabetes.[501] This would ease demand on health infrastructure.[502] Chronic conditions are a leading cause of preventable hospital visits.[503]

When expanding digital healthcare, the government should fund change management and staff training. Expanding virtual care may also require changes to funding models. This is already being considered nationally.[504]

Cost range, timing and funding

We estimate that expanding digital healthcare will cost $100 million to $200 million over 5 years. This is in addition to existing hospital funding. General government revenue can fund this draft recommendation. Expanding virtual care may also require changes to hospital and health service funding models. Our estimated costs do not include this.

Setting up medical image sharing and virtual care will each cost $50 million to $100 million. This includes establishing a software platform, training staff and a dedicated team to support implementation of new systems across all health services over 3 years. The government should aim for full implementation of these systems by 2030.

Running these systems will cost a further $25 million a year. This includes $5 million for medical image sharing and $20 million for virtual care. These costs include software platform licenses, patient monitoring devices, staff tablets and running a help desk. Our costs assume virtual care supports approximately 4,000 Victorians each week.

Case study

Virtual emergency care in Victoria

The Victorian Virtual Emergency Department (Virtual ED) shows the potential of statewide virtual care services to reduce pressure on hospitals and improve access to healthcare in regional areas. The Virtual ED is a 24-hour statewide service run by Northern Health that allows nurses and doctors to assess patients with non-life-threatening emergencies through video calls.[505]

Doctors can provide patients with electronic scripts, refer them to other health services or direct them to attend an emergency department in person.[506] Patients can contact the Virtual ED directly or be referred from residential aged care, urgent care centres or other healthcare providers.[507] Patients can access expert medical advice for urgent problems without attending a hospital. This can be particularly effective for people living in regional and rural Victoria, who often travel long distances to access care.

The Virtual ED also provides clinical support for paramedics, potentially avoiding unnecessary ambulance transfers.[508]

Early evaluation of the Virtual ED found that 86% of patients using the service did not need to then attend an emergency department.[509] One academic study found there were cost savings from avoided emergency presentations in an earlier virtual emergency department pilot in Victoria.[510] These findings are supported by evaluations of similar virtual emergency department trials in Australia and internationally.[511]

Draft recommendation 20

Upgrade critical public hospital infrastructure

> Define the scope and timeframes to upgrade the Royal Melbourne Hospital and begin the first stage of construction. Continue with upgrades at the Alfred and Austin hospitals.

Some of Victoria's major tertiary hospitals need renewal

Public hospitals provide many essential healthcare services, including emergency care, surgeries, and treatment for chronic and acute illnesses.[512] One objective of the *Health Services Act 1988* is for all Victorians to have access to an adequate range of essential health services.[513]

Victoria's hospitals face rising demands from an ageing population and an increase in chronic diseases, service delivery costs and workforce challenges.[514] By 2051, around one-fifth of Victorians will be 65 or over.[515] About 80% of people in this age group have at least one chronic health condition, and 28% have 3 or more.[516] Hospitals must be able to meet these changing demands.

Audits show that some of Victoria's largest public hospitals have been in urgent need of renewal since at least 2017, including the Royal Melbourne, Alfred and Austin hospitals.[517] In some instances, maintenance issues have affected the quality of care.[518] This can make it harder to deliver modern, high-quality care and result in higher long-term costs.[519]

These hospitals provide essential healthcare services to Victorians. This includes complex and specialised care.[520] For example, the Royal Melbourne Hospital provides intensive care for patients after major surgeries or trauma.[521] The Austin hospital specialises in liver transplants and has a state-of-the-art spinal cord unit that services all of Victoria and Tasmania.[522] The Alfred hospital is one of the busiest emergency centres in Australia and has Victoria's only 24-hour, all-weather helipad.[523]

Government action and coordination is required to plan for hospital infrastructure

In 2022, the Victorian Government committed funding to start redeveloping the Royal Melbourne Hospital. This funding was to build a new facility at Arden and prepare the Parkville site for future upgrades.[524] The government has since announced that the facility at Arden will not go ahead.[525] It has not yet provided details on the updated scope of works or timeframe to redevelop Parkville.

The government announced funding in the 2024/25 Victorian Budget to upgrade Austin Health's emergency department and to help maintain operating theatres, intensive care and inpatient units at the Alfred hospital.[526] While this will help address some immediate needs, both hospitals are likely to still require major capital works.[527]

The Victorian Government should announce the scope and timeframes for redeveloping the Royal Melbourne Hospital's facilities in Parkville and begin these upgrades. It should also announce timing and funding for the further renewal at the Alfred and Austin hospitals.

Facility design should be flexible so they can adapt as service demands change.[528] Staging delivery of major hospital upgrades will help to address construction workforce shortage issues. It will also help manage cost, timing and other project risks.[529]

Cost range, timing and funding

We estimate hospital upgrades will cost $6 billion to $8 billion over the next 10 years. This cost is in addition to funding that the government has already announced.[530]

General government revenue can fund the hospital upgrades. The Victorian Government can also consider alternative funding sources, like leasing parts of hospitals to businesses who then provide services for hospital staff, consultants, patients and visitors. Other funding sources include property income, provision of other services, donations and bequests. The government can use funding models like public private partnerships and ground lease models to enable private financing and delivery of hospital upgrades.[531]

This cost range includes renewing or replacing ageing infrastructure like existing buildings, plant and equipment at the Royal Melbourne, Alfred and Austin hospitals. The Victorian Government might expand these hospitals at the same time, but at additional cost. We estimate that operational costs are unlikely to increase following these upgrades, given existing infrastructure is inefficient and already has high maintenance costs.

The government should aim by 2030 to define the scope, timeframes and funding of hospital upgrades and begin the first the first stage of construction on the Royal Melbourne Hospital. Funding for this draft recommendation might be spent beyond the 10-year period from 2026 to 2036, depending on construction industry availability and the need to coordinate with hospital operations and other projects on-site.

Draft recommendation 21

Better use prisons and invest more in health facilities and transition housing

> Use prison capacity to move people to facilities that meet their needs. Invest more in prison health facilities and post-release transition housing. Close old prisons that are underused and expensive to keep.

Victoria's prisons are costly to operate, and underused

Prisons are costly to build, run and keep. The Victorian Government spent $1.5 billion on prisoner support and services in 2022–23.[532] Costs have grown by 67% over 8 years.[533] In 2018–19, prison numbers peaked at 8,044 prisoners.[534] The government built extra prison infrastructure to meet expected demand, including the new Western Plains Correctional Centre.[535] The government will start using this prison in 2025.[536]

However, Victoria's prisons are underused. Since 2019–20 prisons have been less than 90% full. In 2022–23, 21% of male prison beds and 38% of female prison beds were empty.[537] Dhurringile Prison closed in 2024.[538] Port Phillip Prison will close in 2025.[539] The Victorian Government should review capacity needs and close other prisons that are unsuitable and expensive. Closed prisons can be repurposed.

Some prisons can be repurposed for other justice services

First Peoples face entrenched systemic racism.[540] Legislative and policy decisions continue to contribute to the over-representation of First Peoples in Victoria's prisons.[541] They are 18 times more likely to be in prison than non-Aboriginal Victorians.[542] Prisons can cause lifelong harm to First Peoples.[543]

The Wulgunggo Ngalu Learning Place is a joint initiative between the Victorian Government and Aboriginal people at a former prison in Gippsland. It is a culturally safe place for Aboriginal men completing community correction orders.[544] The government should consider whether Dhurringile or Port Phillip prisons can be repurposed for other justice services.

Victoria needs more facilities to help prisoners transition into the community

Victoria's prisons are not designed to rehabilitate people.[545] Almost half of adult prisoners return within 2 years of release.[546] Some prisoners also find it difficult to access healthcare.[547] At its worst, this has led to preventable deaths in custody.[548]

Previous reviews recommend the government provide better access to healthcare and mental health services in prisons.[549] This can help prisoners rehabilitate and reduce reoffending.[550] The Victorian Government should use prison capacity to provide more health and mental health services in prisons.

Many people leaving prison are at high risk of becoming homeless. But prisoners released into stable housing are much less likely to reoffend.[551] Research shows that putting people in prison can cost 23 times more than providing them with housing support.[552]

Victoria has some places that help prisoners transition into the community. For example, the Maribyrnong Community Residential Facility provides temporary housing for around 40 men leaving prison.[553] Baggarrook provides culturally safe housing and services for up to 6 Aboriginal women as they transition back into the community.[554]

Evidence shows that these facilities work. For example, men supported by the Maribyrnong Community Residential Facility are 30% less likely to reoffend.[555] But there are not enough places in transition housing to meet demand.[556] The government should expand post-release transition facilities so more people can access them.

Cost range, timing and funding

We estimate this draft recommendation will cost $150 million to $230 million over 10 years for implementation and capital works. General government revenue can fund this draft recommendation. In some cases, proceeds from selling land or operational cost savings from closing prisons can help to offset the overall cost to government.

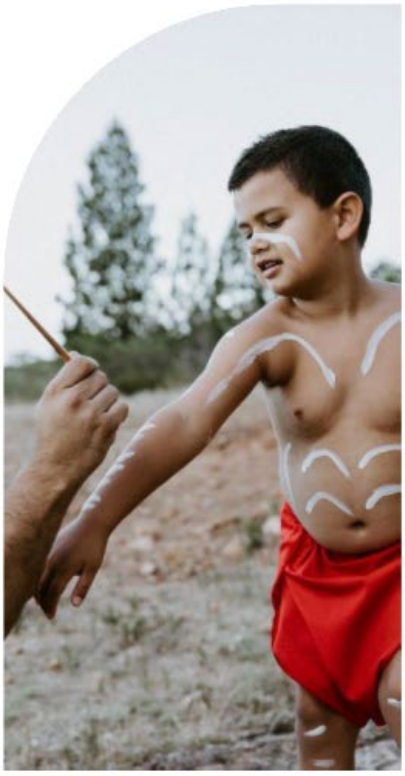
The Victorian Government could spend up to $1 million for a business case to close underused prisons and use existing systems and staff to do this work as a first stage. The government should aim to close underused prisons by 2030.

Most of the cost of this draft recommendation is to build post-release transition homes and expand health services in existing prisons. We estimate the homes will cost $100 million to $150 million, and renovations for health services will cost $50 million to $80 million.

New post-release transition homes will need $3 million to $5 million a year for maintenance.

Aboriginal people have self-determination and equal outcomes to other Victorians

Victoria's Aboriginal people have the power and resources to make decisions about their services, infrastructure, communities and future. Victoria has closed the gap in outcomes between Aboriginal and Torres Strait Islander people and other Victorians. Victorian infrastructure reflects respectful engagement with Aboriginal communities, draws on their knowledge, and celebrates their history, culture and values.



Aboriginal people were Victoria's first infrastructure builders

First Peoples have practised their law, lore, customs and languages in Victoria for tens of thousands of years. They have nurtured Country through their spiritual, cultural, material and economic connections to the land, water and resources.[557] In all regions of Victoria, Traditional Owners express a strong connection to Country and emphasise its importance to wellbeing and cultural identity.[558]

Aboriginal peoples were Victoria's first infrastructure builders.[559] For example, the Gunditjmara people farmed and harvested kooyang (short-finned eels) and other fish by cultivating ancient lava flow channels. This infrastructure is one of the world's oldest freshwater aquaculture systems. Gunditjmara clans also built clusters of stone houses to establish villages along the Budj Bim Cultural Landscape.[560]

European settlement brought about devastating changes for First Peoples. The colonial system excluded First Peoples from the places they traditionally occupied and disrupted their culture and kinship systems.[561] The construction of roads, railways, ports and telegraph lines enabled settlers to expand further into Victoria, without the agreement of First Peoples. Dispossession resulted in social exclusion, institutionalisation and disadvantage for Aboriginal Victorians.[562]

The consequences continue to play out in the lives of Aboriginal Victorians today. They have lasting effects on First Peoples' health, housing, employment and education outcomes, and in their interactions with the criminal justice system.[563] Aboriginal people still experience more disadvantage than non-Aboriginal people on most indicators.[564]

All the objectives of this draft strategy are relevant to Victorian Aboriginal communities. But the unique cultures and histories of First Peoples call for a specific objective. Infrastructure planning, design, delivery, operation and maintenance offer opportunities for Aboriginal self-determination, to improve outcomes for Aboriginal Victorians and to protect and heal Country.[565]

Self-determination requires a different approach to infrastructure planning and delivery

Victorian Traditional Owners are diverse and have different hopes and goals. But all want to practice culture through relationships to Country.[566] This can be caring for waterways, managing living cultural heritage, traditional burning or accessing culturally significant places.[567] People making decisions about land, water and infrastructure must understand and respect Traditional Owner aspirations and goals. Culture and Country need to be preserved for future generations.[568]

Self-determination describes First Peoples' right to have control and authority over their own lives.[569] It can mean different things to different communities in different contexts.[570] When applied to infrastructure, it empowers Aboriginal communities to own, design and control infrastructure for their social, economic and cultural needs.

Each infrastructure policy and project that affects culture and Country needs the early, direct and ongoing involvement of Traditional Owners.[571] We have worked with First Peoples and Aboriginal organisations to develop the draft recommendations on infrastructure goals most important to them.[572]

Victoria is working towards Aboriginal self-determination through Treaty negotiations. A Treaty provides a path for First Peoples in Victoria to negotiate the transfer of power and resources. It means that First Peoples will have control over decisions that affect their lives, culture and Country.[573] Treaties can deliver meaningful reform for Aboriginal Victorians.[574] It promises Traditional Owners increased autonomy as well as increased involvement in infrastructure projects undertaken on Country.[575]

The First Peoples' Assembly of Victoria is the independent body representing First Peoples in Victoria's Treaty process. It has been operating since 2019. Assembly members are democratically elected representatives from Traditional Owners in all areas of the state. The Victorian Government will negotiate Statewide Treaties and local Traditional Owner Treaties over time. Statewide Treaty negotiations opened in November 2024.[576]

Infrastructure continues to be built on and use materials derived from the traditional lands of First Peoples in Victoria, but decisions are still made without their involvement. This can lead to infrastructure that damages Country and does not deliver prosperity or meet their cultural needs.[577] This can also make existing injustice and inequality worse.[578]

The Victorian Government has committed to closing the gap in life outcomes between Aboriginal people and other Victorians.[579] To do this, it must share decision-making powers with First Peoples.[580] This means partnering with Traditional Owners, Aboriginal organisations and representative bodies to design and deliver policies, services and infrastructure. It will require governments to work with these organisations to build capacity over time.[581] Strong, ongoing relationships and openness are essential.[582]

Infrastructure can help close the gap for Aboriginal Victorians

Infrastructure can connect Aboriginal people to family and community and support connections to Country. It can reflect Aboriginal culture in its planning and design.[583] It can also help improve economic, health and wellbeing outcomes for Aboriginal Victorians by improving access to jobs and services.[584]

First Peoples have significantly less access to affordable, secure and quality housing, but a safe and secure home is essential for good health and wellbeing.[585] It also supports access to employment, education and training.[586]

The Aboriginal population in Victoria is growing at an average annual rate of 3.8%, more than double the 1.6% growth rate of the broader population.[587] Aboriginal Victorians already need many extra homes just to meet existing demand. They will need more healthcare, mental health and other services, along with infrastructure that can support service delivery in a culturally safe way.[588] This means facilities where First Peoples can feel safe, and free from challenge or denial of their identity and experience.[589] It includes creating spaces that celebrate Aboriginal cultures and acknowledge the Country on which they are located.[590]

Victorian ACCOs are best placed to provide effective services for First Peoples while also supporting Aboriginal employment and self-determination. But many ACCOs that provide health and wellbeing services operate in buildings that are in poor condition. In some cases, this limits their ability to provide services.[591] Our research shows that First Peoples' transport access to health and wellbeing ACCOs is limited in almost every region in Victoria.[592]

Our draft recommendations support self-determination and better outcomes for Aboriginal Victorians in the housing, health and wellbeing sectors. Elsewhere in this draft strategy we consider responses to improve access to culturally safe and appropriate facilities (see draft recommendations 18 and 21) and to return more water to Traditional Owners (see future option – Plan for and invest in manufactured water).

Draft recommendation 22

Invest in secure homes for Aboriginal Victorians

> Fund a 10-year program to build social homes for Aboriginal Victorians and provide secure and sustainable tenancies. Work with Aboriginal housing providers and Traditional Owner corporations to develop capacity across the Aboriginal housing and homelessness sector.

Housing outcomes for Aboriginal Victorians are worse than for other Victorians

Housing outcomes are worse for Aboriginal people than for other Australians. Only 10% of First Peoples households own their home outright compared to 30% for all Australians. One third of First Peoples are in social housing compared to 3% of all Australians.[593] By 2041, Victoria will have more than 60,000 Aboriginal households, up from around 34,000 in 2021.[594]

Aboriginal Victorians face discrimination that makes it difficult for them to secure private rental homes.[595] They also have fewer opportunities to own a home.[596] Aboriginal Victorians are 13 times more likely to seek homelessness support than non-Aboriginal people.[597] More than 5,000 Aboriginal households are already on Victoria's waiting list for social housing.[598] This is around 1 in 6 Aboriginal households.

A safe, secure, affordable and culturally appropriate home is essential for good health and wellbeing.[599] Stable housing can help close the gap in life outcomes for Aboriginal Victorians.[600]

Aboriginal housing providers need funding certainty to deliver secure homes

Mana-na-worn-tyeen maar-takoort: every Aboriginal person has a home is Victoria's self-determined housing policy framework.[601] It lays the foundation for housing and homelessness reform to benefit Aboriginal Victorians.[602] The Victorian Government has endorsed the framework.[603]

Mana-na-worn-tyeen maar-takoort sets a target to build at least 5,000 social homes by 2036.[604] The Victorian and Australian governments funded around 1,000 new social homes for Aboriginal Victorians over the 4 years to 2026–27. This is below the number of homes the framework calls for.[605] It also falls well short of the number of Aboriginal households already in need of a home.

The Victorian Government should fund a 10-year program to build at least 300 Aboriginal-owned social homes each year. This is in line with *Mana-na-worn-tyeen maar-takoort* targets.[606] The scale of need is greater, but this will make a meaningful difference in housing outcomes for Aboriginal Victorians. It will contribute towards our draft recommendation to build more social housing (see draft recommendation 1).

Aboriginal housing providers deliver housing services and culturally appropriate, affordable and secure homes to Aboriginal Victorians. But they must compete for funding with larger, non-Aboriginal service providers.[607] Like many other parts of the social services and housing sectors, contracts are too short to allow Aboriginal housing providers to plan and deliver services that meet community needs.[608] This limits the support they can provide.

Many Aboriginal Victorians experience significant disadvantage. This can make it difficult for some tenants to meet their responsibilities once they have a home.[609] The government should fund Aboriginal housing providers to deliver tenancy support to help people stay in their homes and avoid homelessness.[610]

Housing responses should be led by Aboriginal people

Aboriginal self-determination requires housing responses that are led by Aboriginal people. Aboriginal housing providers are best placed to provide culturally appropriate, affordable and secure homes to their communities. The government should work with Aboriginal housing providers, Traditional Owner

corporations and Aboriginal Trusts to expand the capacity of the Aboriginal housing sector to develop and manage more homes and housing services.[611] This can include home ownership programs and initiatives to create intergenerational wealth in the Aboriginal community and reduce future reliance on social housing.

Cost range, timing and funding

We estimate that building 3,000 social homes will cost $1.5 billion to $2 billion over 10 years. We assume that the Victorian Government can fund $1.4 billion to $1.9 billion, around 95% of overall costs. These cost estimates are already included as a component of the total cost to build social homes in draft recommendation 1.

General government revenue can partly fund this draft recommendation. But it does not need to do it alone. We have assumed that the Australian Government will fund the remaining 5% of costs.

This cost to the Victorian Government can be further reduced by up to $400 million to $500 million, assuming all new social homes can be built on land the government already owns, or on land owned by local government, Aboriginal housing providers, Aboriginal Trusts or other not-for-profit housing organisations.

Government can maximise the availability of public land to build social housing by identifying and prioritising suitable sites and streamlining transfers between public land owners. Strategic planning and development can also help to deliver better value and more diverse housing models.

We used costs at the higher end of the range from draft recommendation 1. This is because Aboriginal households tend to be larger than non-Aboriginal households and experience crowding at higher rates. There is significant need for more homes with 3 and 4 bedrooms in good locations.[612] This estimate includes $15 million to $20 million a year for tenancy support services and for the Aboriginal housing sector to build skills to develop and manage more homes.[613]

Once complete, new homes for Aboriginal Victorians will need around $30 million each year for maintenance. Housing rental payments collected from tenants can contribute. These payments are capped at between 25% and 30% of household income, including wages and government payments.[614] The Victorian Government can also ask the Australian Government for more funding.[615]

Treaty negotiations could consider powers and resources required to build and maintain social homes for Aboriginal Victorians.

Draft recommendation 23

Fund better health and wellbeing infrastructure for Aboriginal Victorians

> Fund and start health and wellbeing infrastructure projects for Aboriginal Community Controlled Organisations (ACCOs). Provide additional annual funding to further develop the skills and capacity of health and wellbeing ACCOs to plan, develop and deliver new and upgraded infrastructure in a self-determined way. Establish an interim fund for minor works and repairs until a self-determined perpetual infrastructure fund is introduced.

Victorian ACCOs' holistic health and wellbeing care model is effective and can help close the gap

The Victorian and Australian governments have committed to closing the gap in outcomes for Aboriginal and Torres Strait Islander people.[616] But in 2023, health outcomes for Aboriginal Victorians continued to be worse than for non-Aboriginal people. This included higher rates of hospitalisation for preventable diseases and for alcohol and other drug-related harm. Aboriginal Victorians are reporting worse health than in previous years.[617]

The Victorian ACCO health and wellbeing model promotes social, emotional, physical and cultural wellbeing.[618] Governments endorse this model as holistic, integrated, strengths-based and trauma-informed. It includes health, family education, justice and aged care services. Health and wellbeing ACCOs that deliver services using this model help to close the gap.[619]

The standard of existing ACCO health and wellbeing infrastructure is poor, limiting service delivery

Demand for health and wellbeing ACCO services is increasing.[620] Their funding comes from many different programs, mostly through short-term grants. ACCOs do not have funding certainty to commit to major infrastructure projects.[621] Rare infrastructure funding only covers small projects and occasional repairs.[622]

The Victorian Aboriginal Community Controlled Health Organisation (VACCHO) recently assessed ACCO health and wellbeing infrastructure.[623] It found that 82% of buildings need to be fully or partially replaced in the next 15 years. Many of the buildings are not culturally safe for Aboriginal people (see box – Culturally safe building design). This can lead to people missing or not making appointments. It also limits service delivery.[624]

The assessment identifies the most urgent health and wellbeing infrastructure projects at a cost of $100 million to $150 million. These projects need to be underway by 2030.[625] The Victorian Government should fund and start these projects over the next 5 years.

ACCOs can only engage with their communities to plan services and facilities when they have funding certainty. This means the Victorian Government should provide additional annual funding to cover minor upgrades and maintenance for the 33 health and wellbeing ACCOs. This will allow ACCOs to maintain and upgrade existing infrastructure to a reasonable standard.

Aboriginal community-controlled infrastructure should remain in, or be transferred to, ACCO ownership. This respects Aboriginal self-determination. Ownership increases ACCO equity. It improves financial sustainability and enables service delivery to close the gap. ACCO building and maintenance services also provide economic development and employment opportunities for Aboriginal Victorians.

Self-determination requires reform in health and wellbeing ACCO infrastructure planning and delivery

The Productivity Commission found that closing the gap requires governments to share power with Aboriginal communities.[626] To action this, the government has committed to a business case for an ACCO perpetual infrastructure fund. This will support long-term, self-determined minor capital and maintenance works, infrastructure planning and management.[627]

VACCHO is the peak body for Aboriginal and Torres Strait Islander health and wellbeing in Victoria. It has the skills and capabilities to work with health and wellbeing ACCOs to place them at the centre of infrastructure planning, development and delivery. Future infrastructure delivery should consider expanding the role of ACCOs to plan and deliver projects, or partnership models that can build their resources and capability to do so.

This will ensure that upgraded and new infrastructure meets each ACCO's self-determined needs. It provides a pathway towards self-determined ACCO infrastructure governance and delivery beyond the first wave of priority projects. The government should fund this work until the perpetual infrastructure fund is established.

Culturally safe building design

Culturally safe building design is about amending or creating a built environment which is safe for Aboriginal and Torres Strait Islander people. Culturally safe buildings include:[628]

- natural light and air to incorporate Country into the building structure, so users of the building can hear, see or touch Country
- community, Elders and children's spaces, so users have their privacy and confidentiality maintained
- space for displays of Culture and cultural practices, whether Culture is incorporated into the building structure and buildings, to enable men's and women's business to be conducted
- connections to wraparound supports, therapeutic rooms and spaces to enable users to have their health and wellbeing appropriately addressed
- a community sense of legacy to a site.

Cost range, timing and funding

We estimate this draft recommendation will cost $270 million to $330 million over 5 years. This includes capital and implementation costs for the most urgent health ACCO facilities and the creation of a minor works and maintenance fund. This can be funded through general government revenue. The Victorian Government can seek additional Australian Government funding, although this has previously been generally directed to remote rather than Victorian projects.[629]

Capital costs for ACCO facilities range between small ($5 million to $10 million), medium ($20 million to $50 million) and large ($50 million to $80 million), using costs from similar projects.[630] The minor works and maintenance fund can provide $30 million a year to 2030 to deal with the urgent backlog of works.[631] The existing Aboriginal Community Infrastructure Program provides $10.2 million over 2 years for Aboriginal organisations to build new community infrastructure or to repair existing infrastructure.[632] This funding ends in June 2025.[633]

We estimate implementation costs of $4 million to $6 million a year for staff and consultants to plan, consult and support the delivery of infrastructure projects and the fund.

We expect all new and updated facilities to cost $3 million to $5 million each year to maintain.

Treaty negotiations could consider powers and resources required to build and maintain health and wellbeing infrastructure for Aboriginal Victorians.

Victoria has a thriving natural environment

Victoria's ecosystems are biodiverse and clean. Victoria does not pollute or put waste in the air, water, land, and natural ecosystems. This includes producing net zero greenhouse gas emissions. Greenhouse gases pollute Earth's atmosphere and contribute to dangerous climate change.

Victorians want healthy environments

Victoria's plants and animals need healthy ecosystems. Minimising waste and pollution helps rivers, waterways and oceans stay healthy. This benefits the fish, turtles and other aquatic life in these ecosystems. On land, parks and forests provide habitat to many of Victoria's mammals and birds. Some species are not found anywhere else in the world.[634] For example, the Leadbeater's Possum is found only in a small area of Victoria's central highlands and forests to the east of Melbourne.[635]

Victorians told us they want a thriving natural environment.[636] They identified reducing greenhouse gas emissions as a priority.[637] Victorians also value actions that help to keep Victoria's ecosystems biodiverse and clean. This includes keeping water for the environment, quickly reducing waste and encouraging more recycling.[638]

Building new infrastructure can threaten the environment. It can lead to the destruction of habitat or produce more pollution.[639] Using materials like concrete and steel for new infrastructure creates greenhouse gas emissions.[640] But infrastructure can also support and minimise harm to a healthy environment. Better using existing infrastructure and using recycled materials in maintenance and construction can keep emissions down.[641] Victoria's landfills will also have less waste.

Well-planned infrastructure can reduce environmental pollution and greenhouse gas emissions. Building infrastructure off-site and using pre-built parts can help.[642] How infrastructure runs can also lower air pollution from energy generation and transport. It can help keep water for the environment. These actions on emissions can increase productivity and lower costs (see section – Victoria has a high productivity and circular economy).

A thriving natural environment benefits Victorians

Communities value Victoria's natural environments.[643] People benefit when they can visit and explore natural areas. For example, access to parks can make Victorians healthier. This saves Victoria $80 million to $200 million of costs from illness each year.[644] The trees and soil in Victoria's parks also remove emissions from the air. They store at least 270 million tonnes of carbon.[645] This helps Victoria minimise the dangerous impacts of climate change.

Healthy environments have many other benefits. Victoria's forests filter rain before it flows into water catchments. Most of Melbourne's drinking water comes from forests in protected catchments.[646] These parks and forests save Victorian cities and towns about $33 million in water treatment costs each year. In rural areas this increases to $50 million each year.[647]

Thriving local environments also help local communities. For example, the Birrarung (Yarra River) has significant cultural value for Victoria's First Peoples.[648] It provides $730 million in economic benefits each year.[649] People can enjoy spending time near the river and using it for recreation.[650] Farmers also use the river's water. The trees along its banks remove emissions from the air.[651]

Victoria's natural ecosystems are in decline

The health of Victoria's ecosystems has declined since European settlement. Victoria has cleared more than half its native vegetation in the past 200 years.[652] Clearing still happens.[653] Other ecosystems are also in decline. For example, Australia's average sea temperature has risen by over 1 degree Celsius since 1900.[654] This has caused ocean acidification, which is impacting Victoria's marine ecosystems.[655]

Urban growth can lead to less biodiversity. Climate change and introduced pests can make this worse. More animal and plant species are at risk of becoming extinct.[656] But the decline in Victoria's biodiversity can be slowed and there is hope for many species. For example, scientists thought the Victorian grassland earless dragon was extinct as it was last seen in 1969.[657] They recently rediscovered the small lizard in native grasslands west of Melbourne.[658]

Climate change is an ongoing threat to Victoria's ecosystems

Victoria will become hotter and drier because of climate change. This will affect Victoria's parks, farmland and rivers. Bushfires have become more frequent in Victoria over the past 40 years.[659] They are likely to occur more often in the future.[660] In some places, this could cause entire ecosystems to collapse.[661]

Bushfires threaten Victoria's water security. Melbourne has historically relied on water from forested catchments. These areas are vulnerable to bushfires, which harm water quality and quantity.[662] Fires can lead to landslides, and soil and ash in water holding areas.[663]

Less water flowing down Victoria's rivers will impact their health. Some rivers in southern Victoria already need more water.[664] For example, the Moorabool River near Geelong is one of the driest in Victoria. In summer parts of it can dry out, leading to fish deaths.[665]

Infrastructure can contribute to a healthier environment

The Victorian Government can respond to these challenges. For example, Victoria can use new sources of water to meet future needs.[666] This means more water can stay in Victoria's rivers.

Traditional Owners have cared for Country and waterways for generations. Increasing Traditional Owner access to water supports economic independence and can improve wellbeing.[667] It also has many benefits for the environment and Victorian communities.[668]

Planting more trees and shrubs can help cool Victoria's cities.[669] It also increases shade, removes pollution and emissions from the air, reduces stormwater runoff and increases biodiversity.[670] Reducing the amount of waste Victorians produce means less rubbish ends up in Victoria's rivers, oceans and landfills. This further protects biodiversity.[671]

Elsewhere in this draft strategy we consider how other infrastructure sectors like energy can contribute to a healthier environment and meet future needs of Victorian communities (see section – Victoria is resilient to climate change and other future risks).

Draft recommendation 24

Reduce greenhouse gas emissions from infrastructure

> Adopt carbon values and measure carbon in infrastructure projects to reduce emissions.

Building and operating infrastructure produces emissions

Infrastructure contributes around 70% of Australia's greenhouse gas emissions.[672] Producing materials like cement and steel generates emissions.[673] Construction machinery often runs on fossil fuels. Buildings and infrastructure use energy when they run.

To reduce greenhouse gas emissions, governments and businesses can make swift and widespread changes to how they plan, build, maintain and reuse infrastructure. Victoria must reduce emissions generated when producing materials and building infrastructure to meet its emissions reduction targets. Acting now can reduce costs and improve productivity.[674] It can also promote innovation and grow jobs.[675]

Infrastructure investment decisions need to clearly consider emissions

Greenhouse gas emissions impose costs on the community. These costs include infrastructure damage from extreme weather.[676] A carbon value represents the cost of these emissions to society. Cost benefit analyses use a carbon value to estimate the impact of different projects and policies on emissions. This encourages governments and businesses to reduce emissions and invest in cleaner alternatives.

The government does not have a standard method to value carbon and existing guidance is out of date.[677] In our advice, *Opportunities to reduce greenhouse gas emissions of infrastructure,* we showed that Victoria can align its approach with other governments.[678] For example, Infrastructure Australia recommends carbon values of $56 a tonne in 2024, rising to $377 in 2050, to meet Australia's emissions reduction targets.[679] Australia's infrastructure and transport ministers support using these nationally consistent carbon values for projects over $100 million.[680]

State and territory governments need carbon values that reflect costs specific to their own emissions reduction targets. The Victorian Government should adapt the national approach and calculate carbon values that will meet Victoria's target of net zero emissions by 2045.[681]

Assessing emissions from infrastructure requires a standard approach

In Victoria, infrastructure cost benefit analyses do not always include consistent carbon values.[682] Project teams have little incentive to reduce emissions. They tend instead to focus on reducing monetary costs.

The Victorian Government should value carbon in infrastructure cost benefit analyses. This can encourage decision-makers to reduce carbon at the project planning stage when it has the greatest influence on outcomes (see Figure 13).[683] The New South Wales Government updated its requirements for valuing carbon and emission impacts in cost benefit analyses in 2024.[684]

The government should update its business case, procurement and contracting guidance to prioritise reducing emissions. It should include emissions reduction requirements in tenders and government contracts. If infrastructure projects measure and value carbon, options to reduce emissions can be compared.

The government can help build more low carbon infrastructure

The Victorian Government should prioritise non-build and low-build solutions. It should better use existing infrastructure or modify it before building new.

When it does build, the government should use more low carbon and recycled materials. These are not used widely, making them more expensive.[685] Government procurement practices can discourage low carbon options because they specify using certain designs and materials instead of performance outcomes.[686]

The government should work with industry to fast-track low-carbon materials. It should update standards and specifications to reflect required performance.[687]

Figure 13: Carbon reduction potential across different project stages

Source: Adapted from World Green Building Council, *Bringing embodied carbon upfront: coordinated action for the building and construction sector to tackle embodied carbon*, 2019, p 20, accessed 24 December 2024.

Cost range, timing and funding

We estimate that this draft recommendation will cost around $1 million and can be funded through general government revenue.

The cost includes working out Victoria's carbon value, developing supporting policies and updating procurement guidelines, contracts, standards and specifications.

Draft recommendation 25

Advance integrated water management and use more recycled water

> Work with partners to fund and deliver integrated water management projects. Determine the costs and benefits of introducing recycled drinking water in Melbourne and Geelong and build a pilot recycled drinking water facility. Deliver a community education campaign on the need for more water sources.

Integrated water management has many benefits

Integrated water management considers the supply of water, wastewater and stormwater services as a joint system. This can improve water security, public health, urban amenity and the environment.[688] It can also reduce flood risk, better protecting houses and infrastructure.

The Victorian Government partners with organisations such as local governments and water authorities to deliver integrated water management projects (see case study – Growing native plants with integrated water management).[689] Previous projects provided recycled water to farms on the Bellarine Peninsula and built wetlands that remove excess nutrients and sediment from stormwater flowing into Bendigo Creek.[690]

The government has set integrated water management targets. Current projects in Melbourne will create 67 billion litres of recycled water.[691] But together these projects only provide 68% of the 2030 alternative water for agriculture target and 80% of the 2032 environmental water target.[692] Many of the initiatives are not funded yet.

The Victorian Government should work with partners to fund and deliver planned integrated water management projects. It should also find more projects to meet 2030 targets. These projects are an opportunity for Victoria to use more recycled water and boost water security.

Victorians already use some recycled water

Recycled water is wastewater that is treated to make it safe for people to use.[693] Victorians use recycled water for agriculture, sports fields, parks, the environment and industry.[694] Some households use it in gardens, laundries and toilets.[695]

Recycling water reduces demand on other drinking water sources. It also reduces the amount of wastewater released into oceans and waterways.[696] This protects biodiversity.[697] But Victoria only reused 15% of its wastewater in 2021–22.[698]

Recycled drinking water is a further opportunity

Recycled water can be made safe to drink.[699] People in Singapore, Perth and over 30 other places drink recycled water.[700] The New South Wales Government is considering recycled drinking water in Sydney.[701]

Recycled drinking water would be new in Victoria. The Victorian Government should better understand recycled drinking water and consider whether to introduce it in Melbourne and Geelong. The government should determine the costs and benefits of using recycled drinking water by investigating how existing infrastructure can be used and what new infrastructure would be needed.

The government should also build a pilot recycled drinking water facility. Pilot facilities provide data on treatment requirements.[702] This can give regulators a better understanding of whether recycled water can meet drinking water regulations. These facilities also improve consumer understanding.[703] For example, water authorities in Sydney, Singapore and Silicon Valley have provided tours of recycled drinking water facilities.[704]

Recycled drinking water would be a big change. People are more likely to support it if they know their community needs more drinking water.[705] Consumer support for recycled drinking water also grows when people have more information.[706]

Many Victorians do not understand the need for more water sources

Victorians influence what their water corporations invest in.[707] But many Victorians do not know that water resources are under pressure from population growth and climate change.[708] Victoria will need more water sources that do not rely on rainfall (see future option – Plan for and invest in manufactured water).[709]

The government should deliver a statewide community education campaign on the need for more diverse water supply sources to improve water security. This should include information on the opportunity to use recycled drinking water.

Case study

Growing native plants with integrated water management

The Royal Botanic Gardens Cranbourne waters native plants using recycled water from the Eastern Treatment Plant. A one kilometre pipeline transfers recycled water to the gardens, saving 35 million litres of drinking water each year.[710]

The project helps the Royal Botanic Gardens Cranbourne respond to climate change and means that more drinking water will be available for Victorians to use. The Victorian Government provided funding for the project from the integrated water management program.[711]

Image: Royal Botanic Gardens Cranbourne

Cost range, timing and funding

We estimate this draft recommendation will cost around $300 million over 10 years. This includes a grant fund for integrated water management initiatives including a pilot recycled drinking water plant. General government revenue can fund this draft recommendation.

The integrated water management framework is a collaborative model funded jointly by partnering organisations. Victorian Government funding can encourage water authorities, local government and catchment management authorities to contribute more. Partnering organisations can also collect user charges to help recover some capital costs and ongoing infrastructure operation.

Our cost range includes $5 million to $10 million for technical studies on how Melbourne and Geelong can adopt recycled drinking water and to run community education programs. We estimate a pilot recycled drinking water plant will cost $30 million to $50 million. It would cost less than $1 million every year to maintain.

Future option

Plan for and invest in manufactured water

> Plan for and invest in manufactured water. Return more water to Traditional Owners and the environment.

Victoria will need more manufactured water

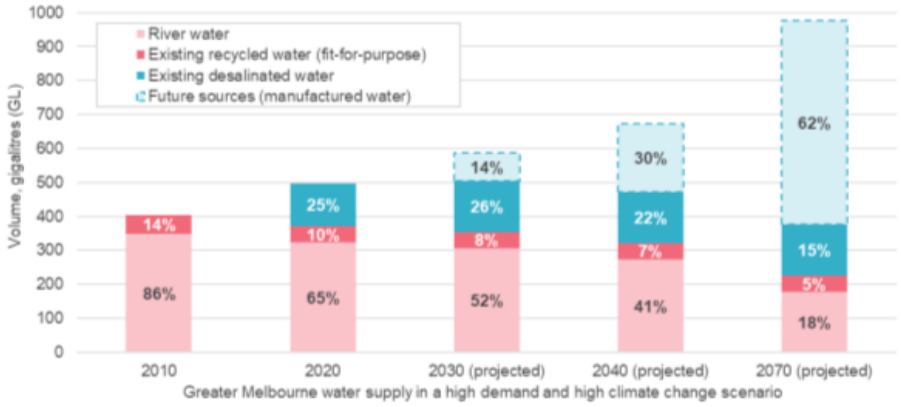
Water is needed for Victoria's communities, agriculture, the environment and Traditional Owners. Climate change means that Victoria will have less water flowing into rivers and dams as the climate becomes warmer and drier.[712] Manufactured water can help address these challenges.

Manufactured water sources include recycled water, treated stormwater and desalinated water. Recycled water is wastewater that has been treated to make it safe for people to use.

Victorians already drink manufactured desalinated water from the Victorian Desalination Plant.[713] They also use manufactured recycled water and stormwater treated to a lower standard for gardens, agriculture and industry.[714] This reduces demand on Victoria's other drinking water sources.

Up to 65% of Melbourne's water might need to be from manufactured sources in 2050. This is an increase from 2020, when 25% of Melbourne's water was desalinated and 10% was recycled (see Figure 14).[715]

Figure 14: Melbourne needs more manufactured water



Source: Infrastructure Victoria, adapted from Department of Environment, Land, Water and Planning, *Central and Gippsland region sustainable water strategy*, State of Victoria, 2022, p 37, accessed 26 September 2024.

Plan early for manufactured drinking water facilities

Melbourne's water supply might need to double within 50 years.[716] Bendigo and Geelong are likely to need more drinking water by 2040.[717] Manufactured water facilities can take up to 10 years to plan and build.[718] Preparing now means that more water will be available when Victorians need it.

The Victorian Desalination Plant was designed so that it can be expanded when Melbourne needs more drinking water.[719] The Victorian Government should develop a business case that considers expanding the plant (see draft recommendation 43).

But Melbourne will need even more water.[720] This can come from a new desalination plant or recycled drinking water facility. Recycled drinking water is likely to be cheaper.[721] It also uses less energy.[722] The Victorian Government should plan for and invest in other manufactured water sources before Victoria needs more drinking water.

Traditional Owners and the environment also need more water

Climate change will reduce how much water flows down Victoria's rivers.[723] Using manufactured water in Victorian cities and towns means that more water can stay in rivers.[724]

Rivers have cultural value for Traditional Owners.[725] But the way rivers have been managed since European settlement has undermined their cultural value and connection. Aboriginal people owned less than 0.2% of Victoria's water entitlements in 2022.[726] The exclusion of Traditional Owners in water management has prevented them from caring for Country.[727] The Victorian Government has committed to working with Traditional Owners to increase access to water entitlements.[728]

Victorian rivers also need more water to support a healthy environment for plants, fish and other animals.[729] Some rivers already dry out in summer, causing plants and animals to die.[730] The government has committed to returning almost 100 billion litres of water to the environment in the Central and Gippsland region.[731] But this is only 26% of the water these rivers need.[732]

Victoria needs to better use and manage water to improve cultural and environmental outcomes. The government should return more water to Traditional Owners and the environment. It has already returned 2 billion litres of water to the Gunaikurnai Land and Waters Aboriginal Corporation (see box – Returning water to Victoria's First Peoples).[733] In regions where water rights are fully allocated, the government can buy water entitlements for First Peoples' communities.[734] Manufactured drinking water is another opportunity to return water.

Returning water to Victoria's First Peoples

The Victorian Government returned 2 billion litres of water to the Gunaikurnai Land and Waters Aboriginal Corporation in March 2021.[735] Announced in November 2020, it was the first formal hand back of water rights to Traditional Owners in Victoria.[736]

The water can only be taken from the Mitchell River when river flows are high during July to October. The water helps restore traditional practices, protect cultural values, heal Country and support the Gunaikurnai people to gain economic independence.[737]

Cost range, timing and funding

We estimate that planning for manufactured water will cost $1 million to $5 million. General government revenue and user costs collected by water authorities can fund this future option.

Our estimate includes costs to undertake feasibility studies and develop business cases to provide Victorians with more manufactured water. Completing these studies between 2030 and 2032 can support strategic planning of the full water network and allow for projects to start construction by 2035 if required.

Our cost estimate for planning does not include the cost of investing in projects. We estimate that building manufactured water projects will cost in the billions of dollars. For example, the Victorian desalination project in the Wonthaggi region cost $3.5 billion to build in 2009.[738]

Draft recommendation 26

Better use government land for open space and greenery

> Fund actions to better connect open spaces to each other and plant more trees and shrubs in urban areas. Give Victorians access to more public land in fast growing suburbs. Target at least 30% tree canopy and shrub cover on public land.

Open space provides social, health and environmental benefits but it is under pressure

Open space can be parks, ovals, reserves and along streets. People have different opinions on the type of open space they want and how to use it.[739] Green open space helps people enjoy a more compact city.[740]

More people living in Victoria's cities puts pressure on open spaces. We estimate that Victorians will need 900 more hectares of open space by 2036.[741] Local governments are usually responsible for securing land for open space. Some funding comes from developer contributions. But land is expensive.[742] It can cost up to $3 billion to buy 900 hectares of land in urban areas.[743]

Connected open spaces support walking and cycling, reduce congestion and improve people's health.[744] They can also improve biodiversity and ecosystems by allowing safe travel for wildlife.[745] The existing open space network has gaps.[746] Many parks and trails are not connected to other open spaces. This limits their social, health and environmental benefits.

Governments can open up more land for public use

The Victorian and local governments own over 45,000 hectares of Melbourne's open space.[747] But public access to over 4,000 hectares of this land is restricted.[748]

The Victorian Government can better use public land for open space to support more compact cities (see Figure 15).[749] The *Open space for everyone* strategy already identifies actions to create a more connected open space network in Melbourne.[750] For example, Victoria can better use the 2,000 hectares in public golf courses. It can fund cemetery trusts to upgrade cemeteries for respectful use by communities.[751]

Regional cities also need better connections between open spaces.[752] The government should use regional infrastructure funding to help implement local governments' open space strategies.[753]

By 2030, the government should open at least 450 more hectares of public land where most population growth will happen. This is half the open space Victoria needs by 2036. It can start with fast growing suburbs in Melbourne, Geelong, Ballarat and Bendigo. The Pick My Park program, which encourages local communities to vote for new or upgraded parks, should prioritise connecting existing open spaces.[754]

The government should work with organisations such as Melbourne Water and schools to make more public land available for community use (see draft recommendation 16).[755] It should identify sources of maintenance funding for local governments and schools to care for new open spaces.

More trees and shrubs make open spaces better

Victoria's cities are getting hotter.[756] More vegetation lowers temperatures, keeps water in soils, improves air and water quality and helps manage flood risk.[757] People are more likely to use cool and shaded open spaces, but trees and shrubs cover only 22% of Melbourne's residential areas.[758] Developers remove vegetation when they build homes.[759] Plants on public land must then make up for fewer trees and shrubs on private land.[760]

The government has vegetation targets for public land in new suburbs.[761] It should set targets for Melbourne's established suburbs using Living Melbourne's target of 30% to 50% land covered by tree canopy and shrubs by 2050.[762] It can set targets for regional cities based on their greening strategies.[763]

Targets are most useful when they measure progress. The government should collect vegetation data so it can show how it is meeting its targets each year.[764]

Figure 15: Government can better use public land for connected open space

Source: Infrastructure Victoria

Cost range, timing and funding

We estimate that better using government land for open space and greenery will cost $10 million to $15 million over 5 years. General government revenue can fund this draft recommendation.

Half of our cost estimate is for staff to implement the government's *Open space for everyone* strategy and set targets for tree canopy and shrubs.[765] Existing government staff can lead this work.

The other half covers Victorian Government grants to local governments and organisations that look after public land like creek corridors, golf courses and cemeteries. These costs can be covered by the Victorian Government's $30 million Pick My Park program.[766] Local governments and organisations can then use the funding to make their open spaces more usable by improving paths, building toilets and planting trees. Regional councils can use Pick My Park funding to invest in their open space and greening strategies.

Organisations and communities in Melbourne can apply for grants to buy or maintain trees and shrubs.[767]

Victoria is resilient to climate change and other future risks

Victoria can minimise the impact of adverse future events. Victoria's greatest future risk is the impact of climate change, but it also faces risks of economic, technological, geopolitical, health or other environmental disasters and crises.

Climate change and other risks threaten Victoria's infrastructure

Victoria will change over the next 30 years. By 2055, extreme weather events will occur more often. The state will face more intense rainfall, more hot days, and higher sea levels.[768] Other risks could also affect Victoria, including economic volatility, ageing or obsolete technologies, geopolitical instability, health crises and environmental disasters.

These extreme weather events, crises and disasters disrupt daily life. They can destroy homes and challenge businesses.[769] A single event can happen in a matter of hours but change communities forever. Victorians have experienced these disruptions already, from pandemics to bushfires, droughts and floods.[770] Victorians' future health, safety and prosperity will be shaped by how governments and communities anticipate, mitigate and adapt to the impact of adverse events.

Victorians want their communities and environments to be resilient.[771] They recognise that climate change will affect their future. Stakeholders and community members told us they strongly support action on climate change.[772] Many called for urgent measures to reduce greenhouse gas emissions and to adapt infrastructure for the new climate.[773] They wanted infrastructure that protects people and nature from the impacts of climate change.[774]

Victoria can prepare now for an uncertain future

Victorians rely on services provided by essential infrastructure. This includes water, transport, healthcare, energy and communications.[775] Disruptions to infrastructure can have serious consequences for communities, businesses and governments.[776]

Climate change presents profound and far-reaching challenges for Victoria. It threatens infrastructure, including buildings, roads and power lines. Most of Victoria's infrastructure was not designed for the changing climate. If governments take no action, Victoria's infrastructure will fail more often, affecting communities and industries in every region.[777]

Climate change can harm people and businesses. Households and businesses will face higher insurance costs as homes and commercial buildings will need more maintenance and repair.[778] Some Victorians will be unable to afford these increases.[779] Farms will also be less productive and make fewer profits if they do not adapt.[780] Wheat crop yields could fall by 14% across Victoria.[781]

Victorians are already paying for climate impacts. Between 2007 and 2016, recovery from extreme weather events cost Victoria an average of $2.7 billion a year.[782] Heatwaves alone cost the Victorian economy $87 million each year.[783] This could grow to $179 million by 2030.[784]

One study estimated that climate change damage could reach $150 billion by 2050.[785] This includes costs from lower productivity, sea level rise and infrastructure damage.[786] It does not include the impact of pollution, bushfires, floods and biodiversity loss.[787] Some of these costs are locked in, but governments can avoid many future costs by acting now to reduce emissions and prepare for climate change.[788]

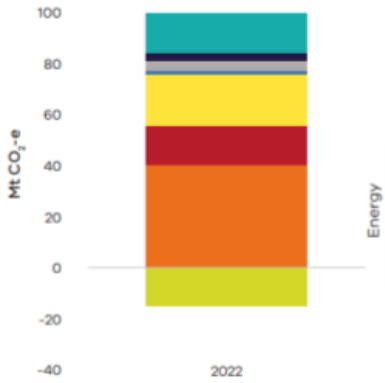
As natural hazards become more frequent and intense, adapting and investing in more resilient infrastructure is urgent.[789] In the past, governments have waited until infrastructure fails and then spent large amounts of money to fix it.[790] This has high economic, social and environmental costs.[791] Investing in infrastructure that can better withstand climate effects is often more cost-effective than repairing and rebuilding it.[792]

Victoria's transition to renewable energy relies on infrastructure planning and investment

Infrastructure contributes to Victoria's greenhouse gas emissions. Building new infrastructure creates emissions that harm the natural environment. We consider how Victoria can reduce emissions from infrastructure in draft recommendation 24.

Minimising the risks of climate change means acting to lower emissions. Fossil fuels such as oil, coal and gas are the main source of Victoria's emissions.[793] Almost half of energy sector emissions come from generating electricity (see Figure 16).[794]

Figure 16: Victorian emissions by sector and energy subsector, 2022



	Mt CO_2-e	Share
Agriculture	15.5	18.3%
Waste	3.2	3.8%
Industrial processes and product use	3.6	4.2%
Energy: Fugitive emissions from fuels	1.8	2.2%
Energy: Transport	19.7	23.3%
Energy: Fuel combustion	15.5	18.3%
Energy: Electricity generation	40.4	47.7%
LULUCF	-15.0	-17.7%
Total	84.7	100%

Source: Department of Energy, Environment and Climate Action, *Victorian greenhouse gas emissions report 2022*, State of Victoria, 2024, p 8, accessed 5 December 2024. Note: Land Use, Land-Use Change and Forestry (LULUCF).

Victoria will need more renewable energy infrastructure to meet its target of net zero emissions by 2045. Victoria's coal-fired power stations are also ageing. A balance of renewable energy generation and storage can replace them as they are retired. The Victorian Government has set targets to generate 65% of electricity from renewables by 2030, increasing to 95% by 2035.[795] It has also set storage targets.[796] This can help make Victoria's electricity system affordable, reliable and sustainable.[797]

Shifting to renewable energy means upgrading and building new infrastructure. Some existing infrastructure, such as coal-fired power stations, will no longer be used. Gas network infrastructure will also need to change as Victoria moves away from fossil gas in some sectors while still meeting the needs of industry and energy system security.[798]

Governments and the private sector are investing in new renewable electricity generation and storage, including offshore wind, to provide the energy Victoria needs.[799] VicGrid is planning for more transmission infrastructure to develop renewable energy zones, helping to connect new large-scale renewable electricity projects.[800]

The electricity sector's transition to net zero opens opportunities for the gas and transport sectors to decarbonise, as more Victorians switch to electric vehicles and energy-efficient electric appliances.[801] As more homes, businesses and vehicles electrify, Victoria's electricity use will increase by about 50% by 2036.[802]

The scale and pace of change required means Victoria will need to speed up and expand efforts to meet its emissions and energy targets. In doing so, the Victorian Government will need to work with Australian and state governments, energy market bodies and the private sector to bring about major change.

The government will also need to manage potential energy shortfalls due to extended periods of cloud cover or low wind, and increasingly variable demand for electricity as more people switch to electric vehicles and install rooftop solar. Without the right policy direction and investments, communities face a higher risk of blackouts and power outages.[803] Electricity prices might also rise.[804] Therefore, an orderly transition to a lower emissions energy network is in the long-term interests of consumers.[805]

Households can help with Victoria's renewable energy transition by using less electricity during peak times to take pressure off the electricity network.[806] Improving energy efficiency means Victorians will use less electricity to heat or cool their homes. It also makes homes more comfortable. Adding solar panels and batteries means that households can generate and store electricity as well.[807]

Draft recommendation 27

Better prepare infrastructure for climate change

> Fund high-priority, cost-effective infrastructure adaptation actions when climate adaptation action plans are updated in 2026. Produce an energy sector adaptation plan.

Victoria's infrastructure needs to handle extreme weather

Victoria's climate is changing rapidly. It is already 1.2°C hotter than when official Australian records began in 1910.[808] This means Victorians will have more intense storms and floods, more heatwaves and bushfires, and higher sea levels.[809] Climate change seriously threatens infrastructure, including buildings, roads and power lines.

Weather-related damage might cost Victoria nearly $1 trillion by 2100 if no one acts.[810] It can be cheaper to invest in infrastructure that can withstand more extreme weather than to repair and rebuild it.[811] More resilient infrastructure also helps keep people safe and well, and businesses and services running.[812]

The Australian Government spends 97% of its natural disaster funding on recovery and only 3% on prevention.[813] A shift to adaptation spending can break the cycle of low upfront investment and high repair and recovery costs.[814]

Investment in adaptation can be cost effective

Our work in *Weathering the storm: adapting Victoria's infrastructure to climate change* shows that the Victorian Government can take cost-effective adaptation action to reduce climate impacts on infrastructure.[815] Some adaptation measures returned over $5 in benefits for every $1 spent.[816]

But the government has not set aside funds for adaptation. Infrastructure managers are not confident the government will fund adaptation projects.[817] Managers are reluctant to use limited resources to look at climate risks and adaptation actions for no result.

Victoria's climate change strategy contains the government's adaptation priorities.[818] These set the focus for 7 sectoral adaptation action plans and 6 regional adaptation strategies. Together they outline government priorities to adapt to climate change. The *Climate Change Act 2017* requires government to produce new adaptation plans by 2026.[819]

The Victorian Government should set aside funds for its 2026 adaptation update. It should fund adaptation proposals that have strong business cases. Agencies should first work on high-risk assets to find the best solutions to manage these risks. They can ask for funds for bids that show a good return on investment.

This is like the approach in other countries, including New Zealand's NZ$419 million Crown Resilience Programme and Canada's CAD$200 million Natural Infrastructure Fund, which focuses on nature-based adaptation.[820]

Nature-based approaches to climate adaptation

Nature-based solutions for infrastructure are actions that protect, manage or restore ecosystems while also building resilience to climate change. For example, restoring forests can help reduce flooding and associated property damage following major storms.[821]

The energy sector needs its own adaptation plan

Power keeps homes and essential services running, including mobile phones and internet connections. These telecommunication services keep communities connected and updated during emergencies. Over 525,000 Victorians lost power after extreme winds in October 2021.[822]

The Victorian Government does not have an energy sector adaptation plan. The built environment plan includes some parts of the energy sector but not others.[823] It has few actions to improve energy infrastructure resilience, even though other adaptation action plans identify energy as essential to provide services.[824]

The government should create an energy adaptation plan in the 2026 update, to cover all parts of the energy sector. The new plan can build on the findings of the 2022 *Electricity distribution network resilience review*.[825] It should set out adaptation tasks for the government's energy agencies and regulators. It should also clarify the respective responsibilities of private businesses, governments, regulators and local communities in building resilience.[826]

The government can also better track and report whether its adaptation actions are working. This can help infrastructure managers make better decisions by providing the evidence they need.[827] They can learn from past efforts and change future programs to perform better. The Victorian Government should monitor and evaluate its adaptation action plans and publish the results.

Cost range, timing and funding

We estimate that better preparing infrastructure for climate change will cost $300 million to $500 million over 10 years. General government revenue can fund this draft recommendation.

Most of this cost is to fund infrastructure adaptation projects with a strong business case. It also includes up to $1 million in government costs to develop an energy sector adaptation action plan, as well as to better track and report on actions. We assume existing staff can do this work. General government revenue can fund this draft recommendation.

We have not estimated operational costs as these will vary depending on the specific adaptation measure. Business cases will ensure value for money from capital and operational costs.

Draft recommendation 28

Use new flood maps to revise planning schemes

> Produce a common set of flood projections based on the latest climate data. Use this information to update flood studies and maps and apply them in planning schemes. Minimise building in areas at high risk of flooding.

Floods pose risk to Victoria's infrastructure

Climate change means floods will damage more of Victoria's infrastructure, more often. The risks include flash floods, river floods and coastal floods. Properties in north central Victoria face the biggest risk from river floods in Australia.[828] Coastal communities are at risk from rising sea levels, high waves and erosion (see Figure 17).[829]

Floods and sea level rise are costly. The 2022 floods had Australia's highest ever insurance cost.[830] In Victoria, over 10,000 people claimed $489 million.[831] The Victorian Government's relief and recovery costs were nearly $2.5 billion.[832] Rising sea levels might cost Victoria $442 billion by 2100.[833]

Victoria's flood data is outdated and unreliable

If governments have good data about where floods might happen and how likely they are, they can better manage the risks.[834] Climate change means that past data is no longer a useful guide. Climate science is complex. Even when climate projections exist, people need expert knowledge to understand them. Climate scientists advise using several models to account for unknowns, and most people cannot decide which to use.[835]

Governments, businesses and communities find it hard to get flood modelling that incorporates climate projections.[836] Flood standards and sea level rise benchmarks are out-of-date.[837] Planners base decisions on inaccurate or outdated flood maps.[838] Councils gather and apply flood data in different ways. This results in a patchwork of partial information.[839] Without good information, councils approve buildings in flood risk areas. This makes flood damage to infrastructure and communities worse and increases costs and disruption.

Flood projections and maps should be updated

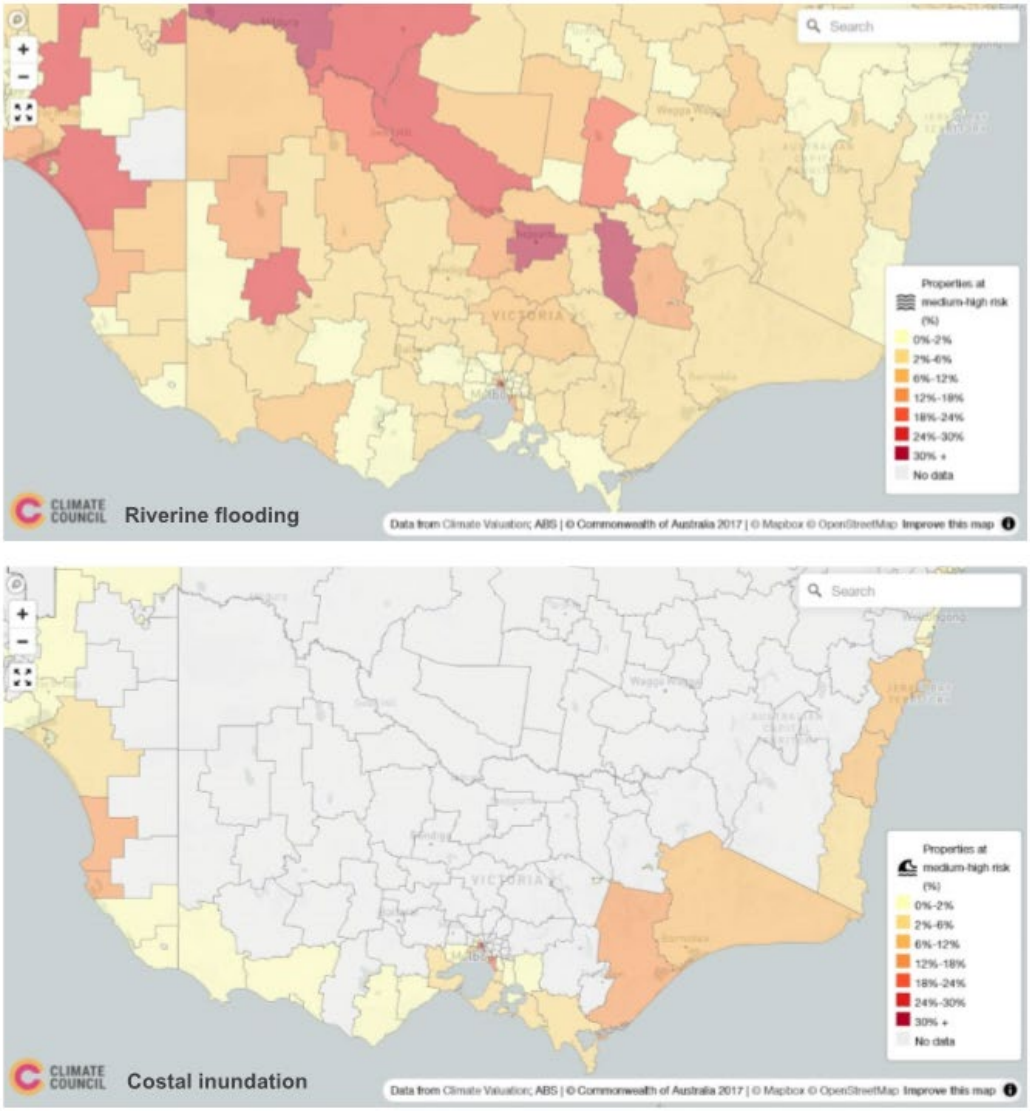
The Victorian Government should make consistent updates to flood projections, using the latest scientific data.[840] For example, Victoria's sea level rise benchmark should rise from 0.8 metres to 1.1 metres by 2100, in line with the Intergovernmental Panel on Climate Change's latest projections.[841] The projections should include higher frequency events, like a 2% or 5% chance of a flood each year, instead of only the 1% Annual Exceedance Probability flood standard.[842]

The government should coordinate flood studies and maps for all local government areas, and ensure they are regularly updated using the latest climate projections and any changes in land use to better understand flood risks.[843] It should then work with local governments to update planning schemes to reflect the most up-to-date flood information.[844] This includes updating flood data, overlays and zones in the planning provisions. Decision-makers can use the updated planning rules to minimise building in high-risk flood areas. They can also prepare for adaptation or retreat from at-risk areas where necessary.

Good climate data allows governments to develop adaptation plans and evaluate them.[845] New projections and maps should be easier to access, like maps already available for bushfire risks.[846] This will let people use the same information to make decisions. Ideally, the government can provide Victorians with detailed

local data to analyse individual sites.[847] People can use this to assess local area risks. They can then prioritise which infrastructure to adapt and where they should build.

Figure 17: Victorian properties at risk of riverine flooding and coastal inundation



Top figure: *Riverine flooding* – North central Victoria, near the Murray and Goulburn rivers, faces the highest risk of riverine flooding in Australia, with 3 in 10 homes in areas like Campaspe, Greater Shepparton and Moira at high risk in 2100 (medium emissions scenario).

Bottom figure: *Costal inundation* – Coastal communities, including Queenscliff and parts of Melbourne like Port Phillip and Kingston, face significant risks from rising sea levels, affecting almost 4 in 10 homes in 2100 (medium emissions scenario).

Source: Climate Council, *Climate risk map of Australia*, Climate Council website, 2 May 2022, accessed 24 December 2024.

Cost range, timing and funding

We estimate that this draft recommendation will cost $10 million to $15 million over 5 years. General government revenue can fund this draft recommendation.

These costs include the Victorian Government coordinating updates to flood projections, flood maps and planning schemes. The government will need to work with catchment management authorities and local government to incorporate local knowledge. Costs also cover using an advisory committee to develop flood modelling standards and fast-tracking planning scheme amendments.[848]

Our cost range includes around $2 million to make flood study data more accessible using existing tools like VicPlan.[849]

The Victorian Government does not need to provide additional funding to prepare flood studies. It has already provided funding to Melbourne Water and local governments for this purpose. Melbourne Water is committed to updating all of Melbourne's flood modelling by 2026.[850] Melbourne Water will then review flood models every 5 years.[851]

In regional Victoria, the Victorian Government has also already provided grants to local governments to undertake flood modelling and incorporate these results into planning schemes.[852] Updated climate change data is already available.[853]

Draft recommendation 29

Coordinate faster delivery of key energy infrastructure

> Fast-track key energy projects and coordinate enabling infrastructure. Establish a unified energy transition project pipeline and conduct annual progress assessments. Create a central energy transition coordinator to align priorities, improve transparency and manage risks.

Victoria needs new renewable energy and enabling infrastructure but faces challenges

Victoria needs to build a large amount of new renewable energy generation, storage and transmission infrastructure to reach its net zero emissions targets.[854] This task faces challenges including limited scale of private investment so far, rising costs, supply chain disruptions and long approval times. Some community opposition, policy uncertainty, and physical limitations such as restricted transmission connections and inadequate roads make the task harder.[855]

Workforce shortages are another challenge.[856] As other states develop renewable energy zones, Victoria faces competition for skilled construction and power system labour (see draft recommendation 4), potentially delaying projects and increasing costs.[857] A lack of resources within government can add to delays. Limited coordination between Australian and state governments can also lead to conflicting priorities and inefficiencies.

Delays in completing key energy projects can prevent Victoria from meeting its net zero emissions targets and lead to higher energy bills.[858] Major projects like the Victoria to NSW Interconnector West and the Western Renewables Link risk delays.[859] Changes in one part of the energy system affect others. For instance, delays in environmental approvals for port infrastructure affect offshore wind timelines (see case study – The Victorian Government plays a key role in offshore wind development).[860] Without coordinated management, inefficiencies, higher costs and delays can disrupt Victoria's path to net zero.[861]

The government can reduce the risk of delays and cost increases

The Victorian Government can reduce Victoria's energy transition risks by taking a greater role in identifying, prioritising and fast-tracking 'state significant' energy infrastructure projects. This includes enabling infrastructure like ports and roads. The government needs to build capacity and capability to do this, while also communicating the benefits of key energy projects to the community.

Expanding the Development Facilitation Program to include more 'state significant' projects is one way to fast-track key energy projects.[862] The government has already done this for renewable energy projects, and is planning to do the same for new gas projects.[863] The Victorian Transmission Investment Framework is seeking to reduce timelines for transmission investment decisions.[864] Environmental assessments also need reform (see draft recommendation 30). The government needs a well-resourced program to develop policy, identify projects and simplify assessments and approvals for all energy and enabling infrastructure.

The government should also create a live pipeline of key energy transition projects and enabling infrastructure, including network and transport infrastructure. This should outline project priority, location, budget, funding and timeline, as well as how it aligns with plans such as the Australian Energy Market Operator's *Integrated system plan*.[865]

The government should use the pipeline to regularly assess market capacity, especially workforce availability, to secure enough resources and investment for key projects. A live pipeline of key projects can also give confidence to private developers to invest, and allow the government to better engage with communities on project benefits and potential impacts.

A central energy transition coordinator can help

The Victorian Government should create a central energy transition coordinator to ensure 'state significant' projects across the electricity, gas and transport sectors are on track. The coordinator should develop the live pipeline, track project progress and assess what resources or actions are needed. It should publish annual progress assessments that identify where the government needs to take further action to help deliver key energy transition projects. It can work with the new investment coordinator-general to improve planning and communication between agencies.[866] This can build confidence in the transition among industry and communities.

The energy transition coordinator should provide assurance that energy transition policies are applied consistently across government. It should also monitor and provide advice on managing risks to achieving Victoria's emissions reduction targets, as well as legislated renewable energy, storage and offshore wind targets. It would not be responsible for project delivery or policy development.

An energy transition coordinator can reduce delivery risks and improve coordination between private sector developers, state and national governments.[867] Queensland, New South Wales and the USA use a similar central coordinator.[868]

Cost range, timing and funding

We estimate that this draft recommendation will cost $60 million to $80 million over 10 years. General government revenue can fund this draft recommendation.

Our cost range includes about $10 million for the Victorian Government to change how it assesses and approves large energy projects, and how it coordinates planning of supporting infrastructure for priority projects. This covers developing policy, identifying projects and implementing accelerated development pathways.

Our cost range includes $20 million to $25 million to develop a unified energy transition pipeline. This will be done by the central energy transition coordinator, to be established by 2027. The central energy transition coordinator can use existing Victorian Government staff and some newly recruited technical experts.

We also include costs of $3 million to $5 million per year for the ongoing role of the central energy transition coordinator once the pipeline has been developed. This covers the costs of tracking project progress against the live pipeline, publishing progress assessments, monitoring risks, and coordinating between Victorian and Australian government agencies and the private sector. The role of the central energy transition coordinator is likely to extend beyond 2035, however we have only included costs to 2035 as part of this draft recommendation.

Case study

The Victorian Government plays a key role in offshore wind development

Offshore wind can play a key role in Victoria's energy transition. Strong ocean winds spin turbines to generate electricity. Offshore wind farms run more often than onshore ones, producing more energy.[869] They save land, avoid competing land uses, and reduce visual and noise impacts on communities.[870] Without offshore wind, Victoria faces capacity constraints and supply shortages during peak times. That might increase electricity prices and reliance on energy imports.[871]

Victoria plans to build Australia's first offshore wind farms. The Victorian Government has legislated offshore wind energy targets of at least 2 gigawatts by 2032, increasing to 4 gigawatts by 2035 and 9 gigawatts by 2040.[872] Missing these targets risks higher emissions, and reduced energy reliability and affordability.[873]

Offshore wind is a new industry in Australia.[874] Building offshore is different from onshore projects. Sites are in remote locations with harsher environmental and engineering challenges.[875] The industry needs to develop local supply chains and port infrastructure to support large-scale projects.[876] This adds to high development costs when compared to onshore wind and solar.[877] It also makes coordinated infrastructure planning even more important.

Offshore wind depends on efficient supply chains and skilled workers.[878] Projects need specialised equipment like vessels and subsea cables. These have long lead times due to high global demand.[879] The Victorian Government can help reduce delays by coordinating supply chains, aligning project schedules with a unified pipeline and collaborating with other jurisdictions.[880]

Offshore wind farms need enabling infrastructure, including ports and transmission networks.[881] Ports must support the transport of large parts, like turbines and foundations.[882] Australia's port infrastructure is currently unsuitable for receiving and assembling offshore wind parts, as it needs significant upgrades.[883] Sensitive environments around ports pose additional challenges. In 2023, the Australian Government denied environmental approvals to develop the Port of Hastings due to the impact on protected wetlands.[884]

Developing suitable port infrastructure is a priority and requires strong coordination across Victorian and Australian government agencies. For example:

- Australia's Department of Climate Change, Energy, the Environment and Water oversees approval processes and environmental assessments for projects in Commonwealth waters and projects that potentially impact protected matters under Commonwealth law.[885]
- Victoria's Department of Transport and Planning plans and approves environmental assessments for local infrastructure.[886] The department also manages port infrastructure development for offshore wind projects.[887]
- Offshore Wind Energy Victoria, part of Victoria's Department of Energy, Environment and Climate Action, coordinates the work streams and engagement with communities, developers, investors and supply chains.[888]

Offshore wind farms require transmission infrastructure to deliver renewable energy to Victorian homes and businesses. VicGrid leads the development of transmission infrastructure to coordinate offshore wind connections. It uses shared infrastructure to avoid multiple builds.[889] Coordinating offshore energy zones will require ongoing collaboration with project proponents and planners.

Draft recommendation 30

Improve environmental assessments and site selection for energy projects

Reform environmental assessments and help energy project proponents select good sites.

Unpredictable environmental assessment processes cause project delays

Large-scale renewable energy projects face complex planning and approvals processes. Many energy projects require an environmental approval to assess their impact, such as an environment report or Environment Effects Statement (see box – Environmental approvals in Victoria and Australia).[890] After receiving a referral for environmental approval, the planning minister can decide whether the project needs an assessment, what form it should take and what information it requires.[891]

Project proponents often cannot predict these requirements in advance. This means they might have to commission extra studies or technical work. Sometimes the information requirements are unclear, and proponents spend time and money gathering irrelevant details. Alternatively, they might initially provide too little information, meaning further studies are needed.[892] These situations add cost and delays, and can risk a project's financial viability.[893] In some cases the process can take over 3 years.[894]

Environmental approvals in Victoria and Australia

An Environment Effects Statement (EES) is Victoria's most comprehensive environmental assessment. It is set by the *Environment Effects Act 1978*. An EES reviews the environmental, social and economic impacts of a development and includes mandatory public consultation.

After receiving a project referral, Victoria's planning minister decides whether a development needs an environment report, an EES, or neither. After the prescribed assessment is complete, the minister can recommend the project be rejected, approved, or approved with conditions.[895] But this recommendation is non-binding, and the major approval, such as a planning or building permit, can still be approved or rejected regardless.

Australian Government environmental approvals are conducted under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This legislation applies to projects that affect matters of national significance, such as World Heritage sites, or impact endangered species. Assessments under the EPBC Act also require public consultation. Australia's environment minister makes the final, legally binding decision and sets conditions to limit environmental harm.[896]

The EES and EPBC Act both assess environmental impacts but differ in scope, triggers and timelines.[897] In some cases, a single assessment can meet both EES and EPBC requirements.[898] However, the separate processes cause multiple assessments and delays. The proposed EPBC Act reform aims to better align national and state assessment processes, although the Australian Government has delayed delivery of some of the reforms while it consults with stakeholders.[899]

Streamlined approval processes can provide more clarity for energy projects

Victoria can streamline energy project assessments to reduce cost and delays.[900] This can help Victoria meet its energy targets. Renewable energy projects of state significance can use Victoria's Development Facilitation Program for faster approvals.[901] The government can further simplify assessments without compromising the quality of its environmental approvals.[902] Other states have made similar reforms.[903]

The Victorian Government has announced plans to speed up Environment Effects Statement processes.[904] It should reform environment approvals legislation and guidance to achieve the same level of environmental protection through a faster, more cost-effective and predictable process. The reforms should clarify required information and environmental management controls.

The reforms can:

- establish statutory timeframes for assessment and decision-making under the *Environment Effects Act 1978*[905]
- more clearly specify the scope and technical information needed for project assessment[906]
- assess a project's environmental benefits, such as its potential to reduce greenhouse gas emissions[907]
- more clearly state whether a project requires an Environment Effects Statement or an environment report (for example, an environment report can be appropriate for projects in renewable energy zones that have been pre-assessed for biodiversity impacts)[908]
- make environmental management conditions more consistent, so that projects with similar environmental impacts have comparable conditions imposed[909]

set agreed limits for design flexibility through the approval process to minimise the need for time-consuming amendments.[910]

The Queensland Government recently reformed its environmental approvals. It can now quickly identify and reject unacceptable projects, meaning resources are not wasted on assessing unsuitable projects (see case study – Queensland's recent reforms clarify planning and approvals).[911]

Case study

Queensland's recent reforms clarify planning and approvals

Queensland has changed its environment laws to increase consultation on resource projects, provide early clarity to proponents on unacceptable proposals and keep environmental impact statements up-to-date.[912]

The government can stop the planning process if a project poses serious environmental risks, affects significant environmental or cultural heritage areas, or does not meet legal standards. The reforms add an 'early no' step to the assessment process, allowing industry and the community to quicky learn if a project will not be approved as proposed. Proponents can no longer appeal directly to the minister.[913] Assessment reports expire after 3 years unless proponents apply to extend them, to ensure they include the most recent and relevant information.[914]

The reforms simplify Queensland's planning and approval process by quickly identifying and rejecting projects that are clearly unacceptable. This prompt decision-making saves time and money.

Choosing good sites can protect biodiversity and speed up approvals

The Victorian Government should give industry clearer information on environmental conditions and good sites. This can avoid biodiversity loss and project delays.[915]

The government has started to study the biodiversity impact of wind energy projects on brolga and bat populations.[916] It has published maps of these species' range and prepared guidelines on wind farm management techniques to better protect wildlife. The government can replicate this process for transmission, solar and battery projects, and expand it to assess impacts on other species. The draft *Handbook for the development of renewable energy projects in Victoria* is a good start.[917] The government should build on this over time.

VicGrid should use the biodiversity studies and guidelines in land use assessments for renewable energy zones.[918] This will allow project proponents to select sites that minimise project impacts and to mitigate impacts they cannot avoid.

Cost range, timing and funding

We estimate this draft recommendation will cost around $25 million over 5 years. General government revenue can fund this draft recommendation.

Our cost range includes existing government staff updating guidelines and preparing changes to legislation for environmental approvals, costing up to $6 million. It also includes around $20 million for the government to do further technical studies.

Draft recommendation 31

Invest in home, neighbourhood and big batteries for more energy storage

> Create new support for home batteries and provide incentives to encourage people to join a virtual power plant. Expand the neighbourhood batteries program, or similar. Facilitate more investment in big batteries for the transmission network.

Victoria is rapidly replacing its ageing coal-fired power plants to reduce emissions. This means reconfiguring electricity networks so homes and businesses have a stable renewable energy supply. But potential transmission project delays, inadequately managed extra distribution network loads and flows, or low battery storage uptake might mean Victoria misses its emissions reduction targets.[919]

Some renewable energy sources only generate energy on sunny or windy days. Batteries can store this energy and supply it when needed. They come in many sizes including small home systems, medium-sized batteries connected to the distribution network and large batteries connected to the transmission network.

Batteries can help Victoria's electricity network operations. They can help balance the electricity system by allowing two-way flows and improve the stability of energy supply.[920]

Using virtual power plants to coordinate consumer energy resources is a big opportunity

Consumer energy resources, like rooftop solar, electric vehicles and home batteries, have huge potential to reduce emissions. But they might strain the energy system if not coordinated.[921] For instance, charging electric vehicles during peak times might require extra new infrastructure. But charging when rooftop solar is available can avoid this.[922]

Networking home batteries to form a virtual power plant can help (see box – Virtual power plants). Virtual power plants respond quickly to changes in supply and demand, making power supply more reliable.[923]

Virtual power plants

A virtual power plant is not an actual power plant. It is a group of rooftop solar, batteries and smart devices like air conditioners or pool pumps that can be coordinated together to work like a traditional power plant.[924] Using a digital platform, a virtual power plant operator links the assets together and provides instructions on when to store and release power.

Virtual power plants can provide services like trading in wholesale markets, demand management and frequency control ancillary services which keep the electricity system operating within safe technical limits.[925] They can turn up storage when there is too much renewable energy in the system, and release stored energy when there is high demand.

Virtual power plants are not new. For instance, South Australia hosts the largest virtual power plant in Australia.[926] The initiative installed solar and home batteries on social housing properties with no upfront cost to tenants. The battery systems are centrally managed. In return tenants receive a lower electricity rate, access to clean energy and backup power in case of power outages.[927]

Coordinating consumer energy resources delivers other benefits to the energy system. Effective coordination of consumer energy resources might avoid around $10 billion in distribution networks investment by 2040 and $4.1 billion grid-scale investment across the National Electricity Market.[928] Virtual power plants are a mechanism that can support this.

Victoria's Solar Battery Loans program helps households buy small batteries but it ends in 2025.[929] The government should create new support for home batteries and provide incentives for people to join a virtual power plant. This will better connect and coordinate more home batteries, which benefits consumers and the network. The government should also keep implementing the *National consumer energy resources roadmap*.[930]

Mid-sized batteries can allow more rooftop solar and reduce emissions

Parts of Victoria's distribution network have limited capacity to host more rooftop solar.[931] Many homes have rooftop solar but no battery storage.[932] By 2035, Victoria might need 20 times more coordinated battery storage than it has today.[933]

Mid-sized batteries, also called neighbourhood batteries, store more solar power than individual home batteries. These batteries can store excess energy from home solar systems locally, which reduces strain on the energy grid.[934]

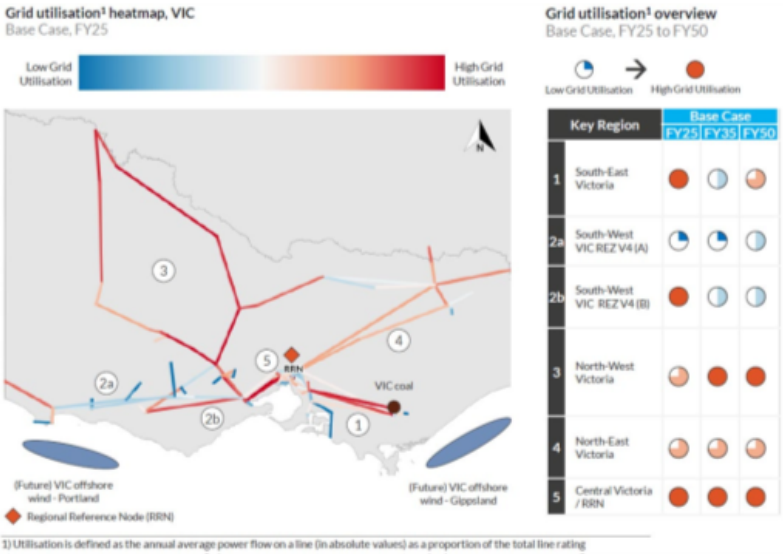
The government should invest in mid-sized batteries, such as by expanding the current neighbourhood batteries program to 2030. It should also work with distribution network businesses, retailers, battery operators and communities to trial new battery tariffs. For example, Ausgrid is supporting energy storage as a service in New South Wales by using a new tariff. This will allow customers to benefit from neighbourhood batteries without any upfront costs (see case study – Ausgrid trials neighbourhood battery tariffs).[935]

Big batteries can help with potential transmission risks

Victoria needs new infrastructure to transmit another 6 gigawatts of renewable energy by 2030. This rises to over 25 gigawatts by 2050.[936] The *Victorian transmission plan* will outline renewable energy zones and transmission projects to make this possible.[937] But even current transmission projects face delays from community concerns and supply chain issues.[938]

While not removing the need for more transmission capacity, big batteries can help by reducing transmission loads and providing backup power. The government should facilitate more investment in them now, as backup if major transmission projects are delayed. It should prioritise areas where transmission congestion is likely to remain a problem, such as north-west and central Victoria (see Figure 18).[939]

Figure 18: Victoria's transmission network is likely to experience congestion



Source: Aurora Energy Research, *Infrastructure Victoria energy transition analysis*, report to Infrastructure Victoria, 2024, p 22.

Cost range, timing and funding

We estimate that investing in batteries for more energy storage will cost $45 million to $85 million over 10 years. General government revenue can fund this draft recommendation.

Our cost range is made up of several parts:

- We estimate that supporting home batteries and providing incentives to join virtual power plants to 2030 will cost $20 million to $50 million.[940] Starting by 2026 means that incentives will continue beyond 2025, when the current Solar Battery Loan program ends.[941]
- Expanding the neighbourhood batteries program, or a similar program, to 2030 will cost an estimated $25 million to $35 million.[942]

We estimate the investment required in big batteries to be $300 million to $500 million by 2030. Actioning this by 2030 will better manage the risk of potential delays to transmission infrastructure. The Victorian Government should facilitate more private sector investment in big batteries, with costs added to electricity bills as happens now. The Victorian Government has also already committed $1 billion in funding to the State Electricity Commission to invest in areas where the market is uncertain, including for big batteries.[943]

Case study

Ausgrid trials neighbourhood battery tariffs

Ausgrid, a distribution network business in New South Wales, is implementing a trial tariff agreement with retailers providing an energy as a service retail plan.

Network tariffs are charges for transporting energy along the electricity network. They are imposed on retailers who then pass these charges through to customers. This is the network charge on the bill. Retailers are typically charged network tariffs for transporting a customer's solar energy to a neighbourhood battery, and again when the battery sends it back to the customer. This can make investing in neighbourhood batteries unattractive, and does not recognise the network benefits batteries can provide.

Energy as a service is a business model where customers pay a subscription fee for an outcome, compared to traditional energy plans where a customer pays for a unit of energy.[944] In this case, a customer pays a fee for access to a neighbourhood battery. It means a customer can use part of a shared battery instead of buying their own. Retailers offering this kind of plan to customers in Ausgrid's network can access a special tariff. It is a 'local use of system' tariff which allows free battery charging if it absorbs local generation.[945] This enables bill benefits.[946]

This tariff trial supports multiple eligible customers to access a shared battery without upfront costs. It will study customer responses to these tariffs.[947]

Draft recommendation 32

Determine long duration energy storage needs

> Determine the most efficient policy or investment options to provide enough long duration energy storage to meet Victoria's needs.

The electricity system will operate differently as coal power plants close

Victoria's 3 remaining coal power plants need to close by 2035 to meet emissions and renewable energy targets.[948] Transition arrangements are in place for 2 of them.[949] As each plant closes, Victoria must replace its energy generation with renewable sources and energy storage.

Electricity generation will depend heavily on weather conditions when coal power stations close. Victoria will have times of low demand and high supply, and high demand and low supply. A flexible system can manage this.[950] However, sometimes Victoria has several cloudy and windless days in a row. This weather pattern is difficult to predict, including how often it might happen or how long it will last.[951] During those times, Victoria will need other electricity sources to cover the shortfall.

Long duration energy storage can help manage the energy transition

Long duration energy storage is defined as storage that can last 8 hours or more.[952] It comes in various forms, including pumped hydroelectricity, compressed air, molten salts and advanced battery systems.[953] Victoria's largest battery under development will be able to deliver energy for up to 4 hours.[954] Current battery technology can address daily peaks and troughs, but not days or weeks of low renewable output.[955] And the energy market does not currently support developers to invest in longer duration technologies.[956]

A lack of long duration energy storage is a high risk for Victoria's energy transition.[957] The impacts of this include high prices and unreliable supply by 2035, depending on weather and demand patterns.[958] Without enough long duration storage, Victoria will rely on fossil gas power plants and electricity imports from other states to cover gaps in supply when there is less renewable energy available. But this approach also has risks, including future gas shortages (see draft recommendation 33).[959] Energy projects in other states have similar cost, supply chain and timing pressures.[960]

The Victorian Government should decide the most efficient policy or investment options to provide enough long duration storage to meet Victoria's needs. Several options are available. For example, the government can work with other jurisdictions to develop market signals that encourage developers to invest in long duration energy storage.[961] This can be part of the National Electricity Market wholesale market settings review.[962]

It can also set targets for different duration storage requirements and develop procurement to support them, like some other jurisdictions (see case study – Long duration energy storage in Australia and overseas). For instance, New South Wales uses Long-Term Energy Service Agreements.[963] This approach offers developers stable income, which reduces project risks and can lower costs for consumers.

Another option the government can consider is direct support through grants or targeted tenders. State-level planning can also improve system reliability and ensure resources and infrastructure are available as coal plants close.[964]

Reliable energy operations require an understanding of long duration storage needs

Research shows that grid planners must identify storage needs in detail to ensure reliable energy supply and operations.[965] In deciding the most efficient policy or investment option, the government should define Victoria's long duration energy storage needs and its policy goals. For example, the need might differ if local

energy storage is a priority. There might also be trade-offs between making the system reliable and reducing emissions. The government can consider different risk scenarios, such as potential downtime of critical energy infrastructure. Public consultation can help balance the different goals, risks and trade-offs.

Cost range, timing and funding

We estimate that determining long duration energy storage needs will cost $1 million to $5 million over 2 years. General government revenue can fund this draft recommendation.

The cost range includes the Victorian Government's costs to complete investigations, develop policy, consult and determine future actions. Completing this work by 2027 means that the government can reduce the risk of not having enough long duration storage to support Victoria's energy transition.

Case study

Long duration energy storage in Australia and overseas

New South Wales long duration energy storage review

The *NSW electricity infrastructure roadmap* sets out minimum long duration storage objectives.[966] These were initially set with 2 gigawatt and 16 gigawatt hours of long duration storage by 2030.

In 2024, the New South Wales Government reviewed long duration storage.[967] This followed an independent *Electricity supply and reliability check up*, and the interaction between the Australian Government's Capacity Investment Scheme and state tenders for long duration storage.[968] New South Wales also commissioned AEMO Services to advise on the value of long duration storage.[969]

Consultation focused on the roadmap's 2030 infrastructure objectives and the potential to reduce minimum storage duration to help meet system reliability to 2030. It considered the challenge of meeting energy needs for 2030 and beyond, when reliability risks and system needs are expected to be different.[970]

Stakeholder feedback outlined the need to focus on system needs when coal closes.[971] The New South Wales Government also commissioned AEMO to run a reliability scenario that assumed all NSW coal power plants closed by 2034, to investigate how storage portfolios can close reliability gaps. This produced an estimate of the minimum long duration storage infrastructure needed to meet the reliability standard.[972]

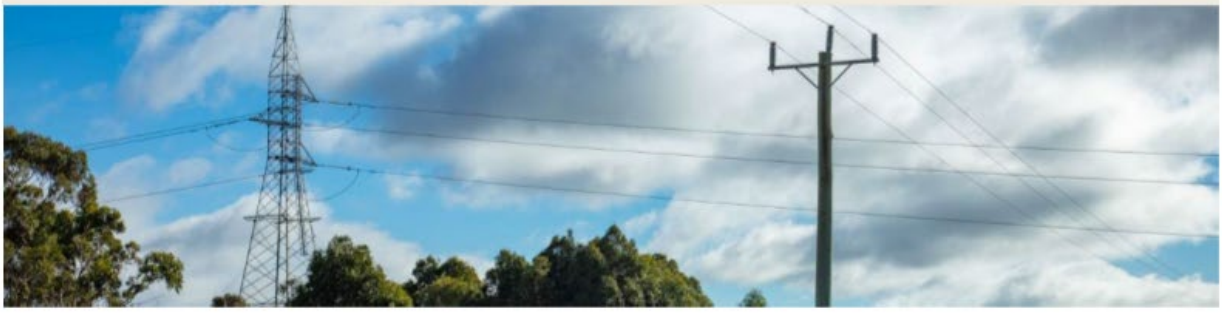
The New South Wales Government will also update its Long Term Energy Service Agreement framework to include a requirement for the Consumer Trustee to consider additional financial benefits when assessing a competitive tender. This can be the value of system resilience to low-probability/high-impact events, additional system security services such as inertia and system strength, and any value that long duration storage creates by avoiding or deferring network investment.[973]

Long duration energy storage developments in the UK

In early 2024, the UK Department for Energy Security and Net Zero consulted on a policy framework for long duration energy storage investment.[974]

By October 2024, the UK Government agreed to a cap and floor scheme for its long duration energy storage policy to support rapid and efficient investment.[975] A cap and floor scheme provides a guaranteed revenue should returns fall below an agreed floor price, and a cap on the revenue earned. Some or all revenue earned over the cap is returned to the consumer.[976] This type of scheme provides revenue certainty for investors.

The government also appointed Ofgem, the energy regulator, to act as the long duration energy storage regulator and the investment framework delivery body, due to its track record and expertise in a cap and floor scheme.[977]



Draft recommendation 33

Develop regional energy plans, guide transition from fossil gas and maintain reliable gas supply

> Develop an energy plan for electrification and gas use that meets each region's needs and prepare gas infrastructure decommissioning for homes and some businesses. Secure gas supplies to meet demand. Set a renewable gas target and support renewable gas production.

Victoria relies on gas but needs to reduce its emissions impact

Victoria relies on fossil gas to meet its current energy needs. Many households use it for heating and cooking. Some industries rely on it.[978] Gas can also provide stable electricity as coal power plants close.[979]

Victoria's gas supply is expected to fall faster than demand. Reduced production and ageing infrastructure will lead to shortfalls by 2027.[980] At the same time, gas accounts for around 16% of Victoria's total emissions.[981] Victorians need to reduce fossil gas use to meet climate targets.[982] Renewable gases like biomethane and green hydrogen are not yet commercially viable.[983]

Gas use is declining slowly.[984] Switching to efficient electric appliances has lower running costs but high upfront costs, and rental households are less able to electrify.[985] Electrification will double electricity demand by 2050, requiring major network upgrades.[986] Some industries, like heavy manufacturing, cannot easily switch to other fuels.[987]

Energy planning should include electrification, renewable gas and a gradual phase out of residential and some commercial gas

As gas demand falls and electricity needs rise, governments must improve integrated energy planning, with more detail on necessary infrastructure. The government should build on the *Gas substitution roadmap* and input from relevant bodies, such as the Australian Energy Market Operator and network businesses, to create a long-term plan for electricity and gas infrastructure that covers:

- electricity network upgrades to handle future demand[988]
- renewable gas production, including biomethane and green hydrogen[989]
- future use of gas networks, including repurposing for renewable gases or removing infrastructure[990]
- gas-powered electricity generation to balance renewables, meet peak demand and improve reliability[991]
- emissions offsets for continued fossil gas use[992]
- residential, commercial and industrial energy use, including electrification, energy efficiency, affordability and renewable gas for hard-to-switch uses[993]

workforce development, focusing on skills gaps and retraining needs.[994]

The plan should include regional strategies that identify where to prioritise electrification, biomethane or hydrogen to meet regional energy needs. It should identify sites that can co-locate industry with renewable gas production, storage and supply.[995] It should also clarify roles and responsibilities in carrying out the plan's actions.

The government should also develop a strategy to phase out gas distribution networks, ending fossil gas use for space and water heating in residential and some commercial buildings (see case study – Various approaches to help customers get off gas). It should provide clear timelines, set criteria based on customer density and pipeline use, and provide guidelines for complex buildings like multi-unit apartments.[996] Early planning will help low-income households to switch (see draft recommendation 34).[997]

A secure gas supply can support reliable power during the energy transition

The Victorian Government needs to secure a reliable gas supply to prevent expected shortages from 2027 and to keep gas available for industries and electricity generation.[998] It should work with energy companies and other Australian governments to deliver more gas and expand storage. This helps maintain reliable supplies during peak demand times and prevent price spikes as coal plants close.[999]

The government should also work with other jurisdictions and regulators to deliver changes to the national gas rules. These can include prioritising domestic supply, capping prices, supporting renewable gas integration and improving transparency and reporting.[1000]

Renewable gas, including biomethane and green hydrogen, can support industries in the longer term

A renewable gas production target can support industry and power supply. The government is proposing a target of 4.5 petajoules by 2035 as part of its planned Industrial Renewable Gas Guarantee scheme. It will review the scheme after 3 years to assess costs and demand.[1001] The government should increase the target at this time, if it is confident the scheme is producing renewable gas with reasonable costs. Higher targets are more consistent with emissions reduction goals. An ambition of between 9 and 28 petajoules by 2035 is consistent with modelling and industry analysis.[1002]

Case study

Various approaches to help customers get off gas

The European Union recognises the need to transition from fossil gas to achieve net zero emissions by 2050.[1003] Distribution system operators are required to create plans to shut down gas networks when demand for fossil gas is expected to decrease.[1004] Utilities companies must adopt transparent pricing models and offer subsidies for vulnerable consumers to ensure costs are allocated fairly as gas users leave the network.[1005]

Several European countries are developing local plans to phase out gas. In the Netherlands, municipalities develop local heating plans and apply accelerated depreciation to gas infrastructure. In Germany, municipalities create detailed heating decarbonisation plans and specify areas for gas grid phase out. Denmark has taken the most ambitious approach by buying back its gas grid, setting up a decommissioning fund and aiming to phase out gas for heating by 2030.[1006]

The ACT Government's *Integrated energy plan* outlines the transition from gas to electricity. It has banned new gas connections since 2023 to introduce electric alternatives. The plan aims to significantly reduce residential and commercial gas use by 2030, phase out most gas infrastructure by 2040 and achieve net zero emissions by 2045. The local distributor, Evoenergy, will help to wind down the gas network.[1007] The government offers interest-free loans of up to $15,000 and subsidies of up to $5,000 to support households, along with education campaigns.[1008]

Cost range, timing and funding

We estimate that this draft recommendation will cost around $65 million over 5 years. General government revenue can fund this work. Alternatively, costs to develop Victoria's renewable gas production can be passed on to customers through their energy bills.

Our cost range includes about $50 million over 5 years to develop an integrated energy plan for electricity and gas networks, and then region-specific strategies to phase out gas networks. This is a significant investment as the involvement of many stakeholders with competing interests adds complexity to the process. The Victorian Government will need to thoroughly investigate, analyse and consult on these plans and strategies. Existing government staff can do this work.

Our cost range includes $10 million in Victorian Government costs to work with energy companies and other Australian governments to deliver more gas and expand storage by 2027. The government can also work with private industry, the Australian Government, other jurisdictions and regulators to develop policy and change the national gas rules.

We also include $1 million to $5 million to develop policy, undertake a regulatory impact statement and consult on a renewable gas target. We assume scheme costs are recovered from gas consumers and a full cost recovery model for fees, like the Victorian Energy Upgrades program.[1009] Energy concessions can provide discounts on bills for eligible low-income households.

Draft recommendation 34

Speed up household energy efficiency and electrification

> Require efficient electric space heating and hot water when people replace their heaters at end-of-life and support low-income households to go all-electric. Complete social housing energy upgrades, including electrification. Require Victorian homeowners to disclose the energy efficiency of their homes at the time of sale or lease.

Energy efficiency and electrification have many benefits

Home electricity and gas accounts for around 40% of Victoria's net greenhouse gas emissions, mostly through space heating and hot water.[1010] Unless homes are more energy efficient, Victoria risks missing its emissions reduction targets by up to 1 million tonnes of carbon dioxide equivalent a year.[1011] Victoria also faces future gas supply shortfalls.[1012]

More efficient homes can lower energy bills, make homes more comfortable in a changing climate and reduce the need for new energy infrastructure.[1013] Homeowners can make their homes more energy efficient by installing insulation, sealing draughts and covering windows.[1014] Some electrical appliances are also more efficient than gas, such as heat pumps.[1015] Switching from gas to efficient electric appliances when they need replacing can save households around $1,200 a year.[1016]

In 2024, the Victorian Government assessed pathways to electrify homes across Victoria.[1017] It should require that households switch to efficient electric space heating and hot water when they replace their end-of-life gas heaters.

Low-income households and renters are missing out

People who cannot afford to make home upgrades face more challenges with energy costs. The energy transition can increase inequality if the benefits and costs are unevenly distributed.

Low-income households and renters are less likely to access schemes that help manage energy costs, such as energy efficiency upgrades and solar rebates.[1018] Some people cannot afford the upfront costs.[1019] Others cannot make changes because they do not own their homes.[1020]

As more people switch from gas to electricity, the financial burden for those who remain on the gas network increases. This makes energy more expensive for people who cannot switch.[1021] The Victorian Government should support low-income homeowners to electrify their homes, including cooktops, to reduce their exposure to higher gas prices.[1022]

The government should also fund a 7-year program to electrify all social homes. It should include energy efficiency upgrades and install solar panels where possible, to achieve benefits from scale.[1023] The program can leverage the existing Energy Efficiency in Social Housing Program and partner with the Australian Government to fund the upgrades.[1024]

Better information can lead to more energy efficient homes

Most Victorian homes have low energy efficiency. Around two-thirds of detached and semi-detached homes have an energy rating of 2 stars or below, much lower than the current 7-star standard for new homes.[1025]

Having clear information about their home's energy efficiency encourages homeowners to make upgrades. It also helps renters and buyers choose homes that are more energy efficient, comfortable and affordable.[1026]

The Victorian Government should introduce a mandatory energy efficiency disclosure scheme. This should require owners to share their home's energy efficiency rating in all marketing when selling or leasing. The scheme should align with the national framework on home energy disclosure, and rate how homes handle hot and cold weather, the energy efficiency of installed appliances, and provide advice on improvements.[1027] It should also include information on rebates or discounts for energy efficiency upgrades, and how much money they are likely to cost or save.

Better information can encourage more new homes to exceed minimum energy efficiency standards. In Victoria, less than 25% of homes built since 2016 are above minimum standards. In the ACT, where disclosures are mandatory, this is more than 60%.[1028]

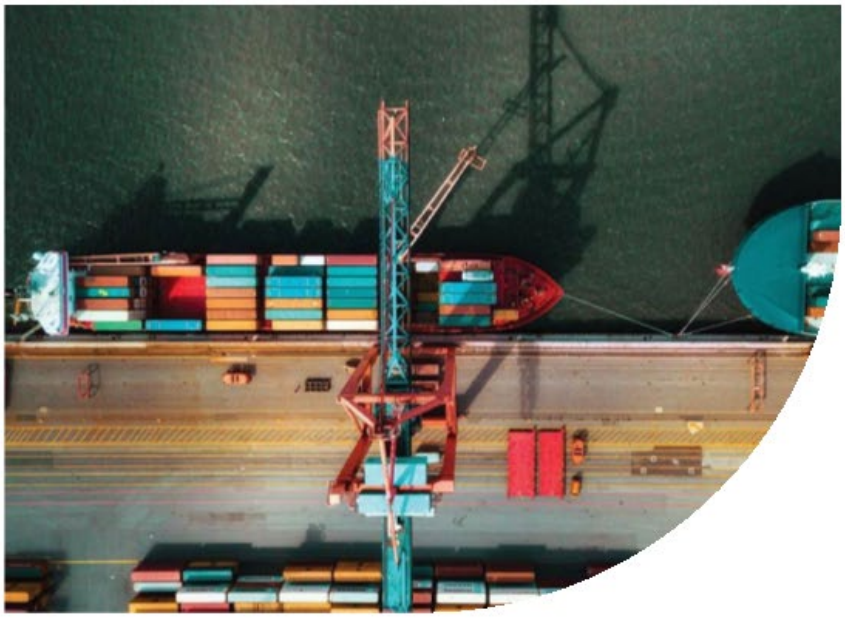
Cost range, timing and funding

We estimate that this draft recommendation will cost $2 billion to $5 billion. General government revenue can fund this draft recommendation. The Australian Government can also provide funding under similar existing schemes.[1029]

Our cost range includes $1 billion to $2.5 billion in Victorian Government grants to support low-income households switch to efficient electric appliances.[1030]

We included $1 billion to $2.5 billion to electrify social housing properties currently using gas, along with energy efficiency and solar upgrades. This would cover approximately 70,000 social homes.[1031] Starting both programs from 2026 can help low-income households manage the impact of higher gas prices.

We also include cost estimates of $5 million to $10 million for the Victorian Government to oversee the low-income household grant program, and to introduce and manage the mandatory energy efficiency disclosure scheme.



Victoria has a high productivity and circular economy

Victoria has a high productivity economy that creates well-paid jobs, attracts investment and facilitates trade. It does so while also continually reducing the environmental impacts of production and consumption.

Infrastructure can drive a more productive economy

Increasing productivity can help Victoria's economy grow.[1032] This can improve work and social opportunities for Victorians. When productivity grows, employers can afford to pay higher wages.[1033] Productivity growth also means workers can have more time for leisure.[1034]

In a high productivity economy businesses can attract the investment they need. They can then create the goods and services that drive economic growth. Consumers can get better products, which businesses can produce with fewer resources and hours of work.[1035]

Investing in infrastructure is one way of building a more productive economy. Education and training infrastructure helps workers get the right skills for the jobs the local economy needs.[1036] This helps workers find well-paying jobs. Transport infrastructure helps Victorians access these jobs. It also makes it easier for businesses to send their goods across Victoria, interstate and internationally. Digital infrastructure connects people remotely to jobs and services. It allows businesses to be more efficient and to reach global markets.

A circular economy leads to less waste, more jobs and healthier environments

Victorians made it clear through our consultation that a highly productive economy must not come at the cost of a healthy and thriving natural environment.[1037] Victoria can do this by moving towards a more circular economy.

Businesses typically use raw materials like wood, plastics or metals to make products. This creates some waste. After consumers use these products, they often throw them out, creating more waste. A circular economy shifts away from this linear system of production and consumption. It aims to design products so they are in use for longer.[1038] This means that consumers can meet their needs with fewer materials.

In a circular economy, Victoria would recycle and reuse more materials. This would reduce the environmental impact of the goods communities produce and consume. The Victorian Government has committed to transitioning to a circular economy.[1039] It has taken some steps towards this. For example, the government uses some recycled materials when it builds transport infrastructure.[1040]

The government wants to reduce the amount of waste Victoria produces.[1041] But it expects that Victorians will produce more over the coming years (see Figure 19).[1042] This means more waste will end up in landfill. Materials sent to landfill often have economic value, which is lost if they are thrown away. For example, electronic waste contains valuable materials that Victoria can recover and reuse.[1043]

A circular economy helps businesses innovate and develop new ways to reuse products. This can mean new jobs that need different skills.[1044] Highly skilled workers help grow the economy.[1045]

Figure 19: The government expects Victoria's waste volume to increase over coming years

Victoria's projected waste generation. Source: Infrastructure Victoria, adapted from Recycling Victoria, *Victorian waste projection model dashboard*

Infrastructure helps businesses move goods across Victoria and beyond

Trade helps productivity grow.[1046] When Victorian businesses trade with each other and with businesses outside the state, they can become experts at making certain products. Trade also gives consumers access to goods from around the world.[1047] Infrastructure is a part of the supply chains that make trade possible.[1048] These supply chains mean Victorians can get what they want, when they need it, often delivered to their doorstep.

Transport infrastructure helps Victorian businesses move imports and locally produced goods across the state. Businesses also use infrastructure to send their products interstate and overseas. For example, farmers use roads, railways and ports to send their produce to different places. This includes food and fibre, which make up more than 35% of Victoria's exports.[1049] These exports were worth $19.6 billion in 2022–23.[1050]

Rail can be more efficient than road transport when moving heavy freight over long distances.[1051] But some goods still need to move by road, particularly during the last stage of delivery. Traffic congestion can make this expensive. Freight operators can work more efficiently when infrastructure makes their deliveries easier. They can have faster delivery times, be safer and produce fewer emissions.[1052]

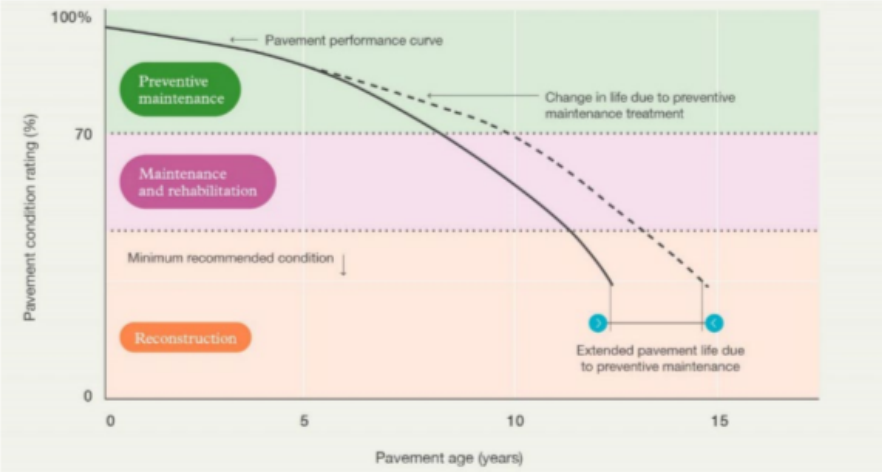
Opportunities exist to make infrastructure more productive

Infrastructure is more productive when it is well-designed, built efficiently and maintained regularly.[1053] Planning infrastructure early reduces overall costs.[1054] It helps the government deliver the most important infrastructure when and where Victorians need it.[1055]

Managing how people use infrastructure can make it more productive.[1056] This includes making the most of space on roads and public transport during quieter hours of the day. Maintaining infrastructure also keeps it in better condition for longer. For example, preventive maintenance of road surfaces means they last longer (see Figure 20).[1057] This helps Victoria do more with less.

Our commissioned research *Digital technology and infrastructure productivity* looked at how digital technologies can help meet Victoria's growing infrastructure needs faster. It found 5 technologies that can transform the way infrastructure is designed, built and maintained.[1058] These technologies will need workers with new skills.[1059] Technologies can also help the Victorian Government save money, improve worker safety and boost productivity.[1060]

Figure 20: Preventive maintenance can help to extend asset life



Source: Infrastructure Victoria, *Opportunities to reduce greenhouse gas emissions of infrastructure*, 2023, p 29, accessed 14 November 2024.

Draft recommendation 35

Prepare and publish infrastructure sector plans to shape Victoria's cities

> Agree a set of assumptions for future population, jobs and land use for more compact cities. Require each department that owns infrastructure to develop an infrastructure sector plan as soon as possible, based on these assumptions, and publish strategic-level plans. Use the finished sector plans to decide infrastructure project funding.

Integrated infrastructure and land use planning delivers better outcomes

Different city shapes need different amounts of each infrastructure type to work well.[1061] For example, a more compact city needs a different public transport network for people to move around easily, compared to a more dispersed city.[1062] Governments can better coordinate land use and infrastructure planning to shape the growth of Victoria's cities.

Governments can better plan and sequence infrastructure delivery so people can reach facilities and services.[1063] The base assumptions Victorian Government agencies use to plan their infrastructure are not aligned with government goals for more compact cities. They do not always share their plans with each other, or with local governments and industry. This means they miss chances to pool funding or streamline delivery. It also means infrastructure costs more in the long term.[1064]

Integrated land use and infrastructure planning requires governments to discuss options at an early stage, long before they make final commitments or budget decisions.[1065] If government agencies are open about their plans, then government, private and non-profit sectors can align their decisions.

Infrastructure sector plans can help improve Victoria's cities

The Victorian Government should agree on a set of assumptions for departments to use in their plans to shape more compact cities. These assumptions should set out long-term population, job and land use forecasts. They should also match the housing targets set by a new plan for Victoria.[1066]

The government should then direct each department that owns infrastructure to develop an infrastructure sector plan as soon as possible, based on the assumptions. The plans should show the government's goals and options to reach them.

The plans should at least cover:

- transport
- health, including hospitals and other health facilities
- social housing and social services
- education, including schools, TAFE and early childhood facilities
- justice and emergency services
- water and sewerage
- recycling and resource recovery.

Plans should cover 15 to 20 years. They should name the timelines, triggers and order for infrastructure design and delivery. They should consider the supporting assets each sector needs for its infrastructure to perform well as a network. For example, the transport sector needs clear plans for its train and tram power and signalling assets to support network planning and operation (see case study – Sector plans help with network planning and operation). The government should use the plans to decide which projects to fund.

Departments should publish their high-level plans. This means local governments, businesses and not-for-profit organisations can better align their decisions with them.[1067] Publishing these plans can also help encourage private investment earlier. If needed, the plans can leave out detailed information about exact locations.

Some governments worry that people might think the plans are promises to build a specific infrastructure project by a certain date. But governments in Queensland, New South Wales and the United Kingdom show they can publish plans and manage this risk.[1068]

Cost range, timing and funding

We estimate that preparing and publishing infrastructure sector plans will cost around $35 million. General Victorian Government revenue can fund this draft recommendation.

We estimate that the 7 plans will cost around $5 million each. This covers technical studies, and policy review and development. This will help the Victorian Government determine a consistent set of assumptions, common policy scenarios and produce sector-specific plans.

Sector plans might use existing work being done by government. Each plan can be developed by existing government staff and largely funded through existing resources, supported by technical advice. Preparing each plan will require sharing and coordination within an infrastructure sector, and with other departments, agencies and stakeholders.

Case study

Sector plans help with network planning and operation

The Victorian Government has spent the last 10 years building large train and road infrastructure projects.[1069] People moved to Victoria, families grew and businesses expanded. They needed new and improved transport infrastructure to help them travel and move goods. The government has finished over 60% of its Big Build projects.[1070] It can now begin to shift its emphasis towards how Victoria's transport network can operate cohesively to support achievement of future population, jobs and land use goals.

Transport sector service and infrastructure planning enables the full benefits of individual Big Build projects to be realised across the network. These plans can address all the different components that make up the sector. For example, train infrastructure planning can cover important assets like power, signalling, tunnels and rolling stock.[1071] These plans can provide clear direction on adoption of new, rather than 100-year-old, technologies.[1072] This will help public transport operators prioritise the changes they need to make each year. They can also guide the asset management strategies for transport infrastructure (see draft recommendation 37) so that the overall network can be planned and operated optimally.

Service, infrastructure and asset plans can provide the foundations for a future-focused transport network that helps achieve population, jobs and land use goals.

Draft recommendation 36

Reform infrastructure contributions

> Simplify Victoria's infrastructure contribution schemes to cover all types of housing developments and reflect the cost of infrastructure in different development settings.

Infrastructure costs vary in different development settings

Growing suburbs create more demand for local infrastructure like schools, roads and parks. Governments need to upgrade or build new infrastructure to support more people. In new suburbs, people need new transport, utilities, footpaths and social infrastructure.

Large urban renewal projects can increase housing supply in established suburbs, but they might need costly investment in new or upgraded infrastructure. These areas might also need new land for open space. A lack of infrastructure is often the reason sites stay undeveloped.[1073]

Our report *Choosing Victoria's future* found that the infrastructure needed to support an extra house in a new suburb is $59,000 more expensive than in an established suburb.[1074] Infrastructure in established suburbs will also need upgrades as cities grow, but the total costs are likely to be lower than in new suburbs.[1075]

Victoria's current infrastructure contribution system is complicated and inconsistent

Infrastructure contributions can help fund essential infrastructure in new and growing communities.[1076] They can apply to new developments like housing, commercial spaces and urban renewal projects.[1077] They encourage developers to factor in the costs of new infrastructure when they develop land.[1078] This helps reflect infrastructure costs in the price of new homes and can influence where developers choose to build.[1079]

Victoria has several infrastructure contribution schemes. They apply in Melbourne's new suburbs but are less common in established suburbs and regional cities. Both Victorian and local governments can charge them. Different schemes work separately and are not part of an overall system.[1080] This is complex and costly for governments and developers.[1081] It also means that developments do not contribute equally to infrastructure costs. Even in areas covered by contribution schemes, most infrastructure funding comes from taxpayers.[1082]

Victoria's infrastructure contribution schemes are not delivering the infrastructure that growing communities need.[1083] The Victorian Auditor-General has called for a development contributions framework with clear strategic goals, accountability and governance.[1084]

Infrastructure contributions can support more new homes in established suburbs

The Victorian Government is working with property industry stakeholders to identify a new model for infrastructure contributions in 10 activity centres.[1085] It should then select a statewide model that creates a simple, consistent and efficient system for both Victorian and local government infrastructure. The system should cover established suburbs, new suburbs and urban development projects in Victoria's cities. It should set a higher rate for areas where infrastructure costs more to deliver.

An infrastructure contribution system that reflects development costs in different settings can distribute infrastructure costs more fairly. It can help increase new home building in established suburbs and urban renewal areas. It can also help communities get the infrastructure they need faster.

Cost range, timing and funding

We estimate that reforming infrastructure contributions will cost $1 million to $5 million. This cost range includes assessing alternative contribution schemes, legislative impacts, consulting with stakeholders and developing guidelines. Government should use existing staff to do this work.

General Victorian Government revenue can fund this draft recommendation. Depending on the selected contribution scheme, this draft recommendation might generate more revenue than existing schemes.

We suggest the Victorian Government begins work to reform infrastructure contributions as soon as possible.

Draft recommendation 37

Improve asset management of all government infrastructure

> Fund asset managers to better understand the condition, use and performance standards of all government infrastructure. Use this information to develop asset management strategies and prioritise funding.

Government needs to better understand its infrastructure to improve asset management

The Victorian Government owns and manages infrastructure and land worth around $400 billion.[1086] The government needs to maintain this infrastructure throughout its life to make sure it is reliable, safe and provides value for money. Infrastructure lasts a long time. Its condition, operating requirements and use all change over time. Climate change will speed up this change. Infrastructure will face more extreme weather impacts more often.[1087] This makes asset management even more important.

Identifying how, when and what amount of money to spend on infrastructure maintenance and renewal is complicated. The asset management industry has developed guidelines to manage infrastructure efficiently. Software systems and smart technology make the task easier. But organisations need to understand their infrastructure to manage it well.[1088]

The Victorian Government does not report how much money it spends to renew and maintain its infrastructure. Using average depreciation rates, we estimate around $5 billion each year may be needed.[1089] If the government does not have data and information on the condition of its assets, it will not know where to invest for the best results. This wastes money and creates risk for people and businesses.

Government has taken steps to improve asset management

The Victorian Government introduced the *Asset management accountability framework* in 2016 to improve its asset management practices.[1090] The framework sets mandatory requirements for activities including resourcing, governance, risk management, performance monitoring and information management.[1091]

The government has still not met the performance levels it set itself. Departments assessed their asset management maturity in 2021 and 2024. In 2021, 4 departments did not comply with the framework and were still developing competence. This assessment did not change in 2024.[1092] These departments manage over $130 billion of critical infrastructure including hospitals, roads and public transport.

Government departments report that they often do not have good data on the condition and use of their assets.[1093] They do not have systems to collect and manage the data they need to make decisions. They often have few staff to manage the assets. As a result, the government is not well-prepared to respond to the challenges its infrastructure faces.[1094]

Victoria can do more to manage its infrastructure

The Victorian Government should fund its departments to improve asset management by 2027 and to comply with the framework by 2030 or earlier. In 2018, the government provided funding to the Department of Education to reform its asset management.[1095] The department now reports its asset management maturity as competent in all categories and it is delivering targeted maintenance to schools.[1096]

Agencies must assess and report their asset management maturity by 2027.[1097] Some departments manage multiple types of infrastructure. For example, the Department of Transport and Planning manages roads, and passenger train and bus infrastructure. These departments should assess each major type of infrastructure separately.

The Victorian Government should develop standards and systems and collect better data on asset condition. Once government better understands its infrastructure, it can develop asset management strategies. It should then prioritise funding for infrastructure maintenance and renewal over building new. It should allocate this funding on a rolling basis at least 3 years ahead to support delivery.

Cost range, timing and funding

We estimate that improving asset management will cost $150 million to $250 million over 5 years. This is around 0.05% of the $400 billion worth of infrastructure and land managed by the Victorian Government. Our cost estimate includes developing standards and systems and collecting asset condition data. It also covers developing asset management strategies and business cases for ongoing asset management investment. General government revenue can fund this draft recommendation.

Asset managers will need more funding to plan beyond 2030, and for future infrastructure upgrades and maintenance. Our estimates do not include costs to renew or maintain government infrastructure.

Draft recommendation 38

Prepare for more recycling and waste infrastructure

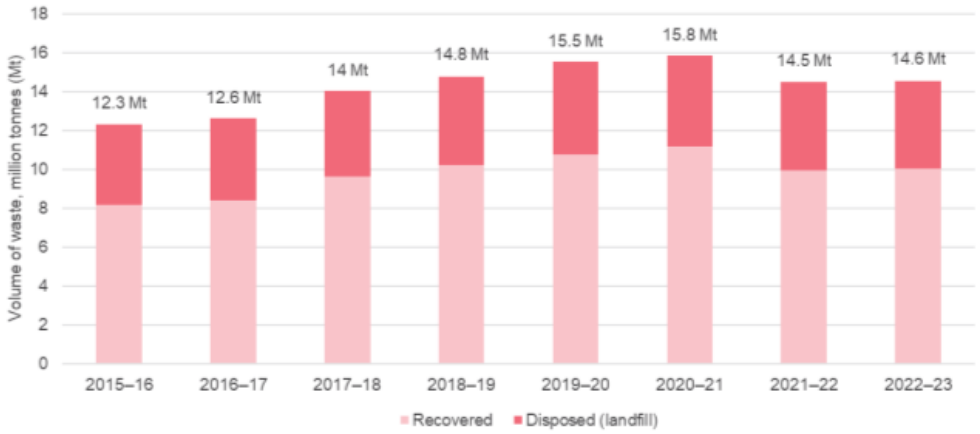
> Identify places for new recycling and waste infrastructure and publish them in the next update to the *Victorian recycling infrastructure plan*. Plan for waste and recycling sites together with other commercial and industrial land. Make changes to planning controls to allow for facilities where they are needed.

Victoria buries too much waste in landfill

Victorians produced 14.6 million tonnes of waste in 2022–23 and sent a third of it to landfill.[1098] Landfill is the least sustainable way to manage waste, and Victoria's landfills are filling up.[1099] Valuable resources are lost when they are thrown away.[1100] Recycling helps prevent this and creates jobs.

The Victorian Government wants to move towards a circular economy.[1101] This means reducing waste and recycling more. But this change will take time. In the meantime, pressure on landfills will continue (see Figure 21).

Figure 21: Victoria sends over 4 million tonnes of waste to landfill each year



Source: Infrastructure Victoria, adapted from Recycling Victoria, *Recycling Victoria data hub*, accessed 1 November 2024.

Victoria will need more waste and recycling infrastructure

Victoria needs more recycling facilities to reduce waste. This includes infrastructure for concrete and bricks, soils, paper, cardboard, soft plastics, electronic waste, textiles and metals.[1102] It will need facilities to recycle electronic waste, the fastest growing type of waste globally.[1103] Victoria also needs more waste to energy facilities to divert waste from landfill.[1104] This is supported by government's plan to increase Victoria's waste to energy cap to 2 million tonnes a year.[1105]

Victoria's transition to renewable energy will generate more electronic waste from used batteries, solar panels and wind turbines.[1106] The Australian Government is developing a mandatory product stewardship scheme to reduce the amount of electronic waste going to landfill.[1107] The Victorian Government will need to plan for the facilities where this waste can be recycled.

Finding suitable locations for waste and recycling facilities is hard. They need to be far away from homes, schools and hospitals.[1108] But they can be expensive to run if they are too far away due to transport costs.[1109]

The Victorian Government introduced new planning controls, like the Buffer Area Overlay, so that waste and recycling facilities do not affect communities.[1110] Some wastewater treatment plants have an overlay, but it has rarely been used for waste and recycling sites.[1111] Governments can consult with communities to find suitable locations.[1112]

Statewide planning can achieve a circular economy

A circular economy relies on local supply chains and access to sustainable materials.[1113] The Victorian Government should plan statewide for waste and recycling infrastructure to support the circular economy. Planning must factor in relationships between different councils, as well as local and regional needs. Leaving waste and recycling decisions up to the market has led to bad community outcomes such as odour and air pollution in the past.[1114]

The government should identify suitable places for new waste and recycling facilities in Melbourne and regional Victoria. It can co-locate infrastructure with other compatible industries and use existing planning buffers to protect residential areas. The government should publish these places in the next update of the *Victorian recycling infrastructure plan*.[1115]

The government can also update *Melbourne's industrial and commercial land use plan* so that enough land has the right planning zones and buffers.[1116] The updated plan should have guidance on how users of commercial and industrial land can better manage their waste and recycling to achieve circular economy outcomes. The government should use these documents to guide local planning for waste and recycling infrastructure, including Precinct Structure Planning and site rezoning.

Governments can apply the Buffer Area Overlay to protect communities from potential impacts. Planning for Eaglehawk Landfill in Bendigo included recycling and used the Buffer Area Overlay to reduce its impact on local residents.[1117] The overlay will have the most benefits when applied in new suburbs and regional areas.

Cost range, timing and funding

We estimate that preparing for more recycling and waste infrastructure will cost $1 million to $5 million over 5 years. This includes strategic planning, consulting with government authorities and business, community engagement and amending planning schemes. The Victorian Government can fund this draft recommendation through its Sustainability Fund.[1118]

Identifying suitable places for new waste and recycling facilities by 2027 means they can be incorporated in the next update to the *Victorian recycling infrastructure plan.*[1119] Existing government staff can carry out much of this work.

Draft recommendation 39

Use digital technologies to better design, build, operate and maintain government infrastructure

> Pilot digital technologies on government infrastructure projects and report on their progress. Use building information modelling on major infrastructure and housing projects. Improve capabilities in government agencies and review procurement processes to promote greater use of digital technologies.

Digital technologies can boost Victoria's productivity

Digital technologies can help Victoria do more with less. The Victorian Government already uses digital technologies to design, build, operate and maintain some infrastructure. For example, the Department of Transport and Planning's Smarter Roads project is improving traffic light network operations to help avoid the need for new roads (see draft recommendation 40).[1120] But governments and businesses have other opportunities to use digital technologies more often.

Our commissioned report *Digital technologies and infrastructure productivity* looked at technologies that can lift the productivity of Victoria's infrastructure. We found big benefits from using robotics, building information modelling and artificial intelligence.[1121] For example, using robotics to inspect and maintain the water network might provide Victoria with $3.5 billion of savings by 2055.[1122] Machine learning and artificial intelligence can help the government better design and build schools and kindergartens.[1123]

Victoria can get more from building information modelling

Infrastructure designers can use building information modelling to create a 3-dimensional digital model. This has more information than standard 2-dimensional construction drawings.[1124] Project teams can access information, collaborate and share data online.[1125] They can test design options and make changes in the model. This saves time and resources, particularly when projects use building information modelling without standard construction drawings (see case study – Design and construction of bridges with building information modelling).[1126]

Building information modelling can lower the costs of designing and building infrastructure.[1127] It helps reduce mistakes during design and construction. Our research found that using building information modelling to build public housing might provide Victoria with $1.9 billion of benefits by 2055. Applied to road construction, it might provide over $13 billion of benefits by 2055.[1128]

The Victorian Government should use building information modelling on major infrastructure and housing projects (see draft recommendations 1 and 3).

Pilot projects can help Victoria to better understand the benefits of digital technologies

Common barriers to adopting digital technologies include technology costs and a lack of digital skills.[1129] Trials and pilot projects can help by letting government and businesses test new technologies before rolling them out.[1130]

The Victorian Government should pilot digital technologies on infrastructure projects and report on their outcome. Our research identified building information modelling with online data sharing and a single 3-dimensional model as a good technology to pilot.[1131] Robotics, machine learning, artificial intelligence, advanced imaging and geospatial technologies also show good potential. The government can pilot these in sectors including transport, education, housing and water.

New skills and procurement processes can enable digital technologies

Government employees involved in planning, designing and procuring infrastructure will need new skills to understand the opportunities and manage use of digital technologies. The Victorian Government should build these skills to help integrate technology into the infrastructure lifecycle. This can give industry confidence that government will ask for and consider proposals that use digital technologies.

The Victorian Government can also set expectations on how businesses use technology in its procurement policy.[1132] The government should review procurement policies and frameworks so they encourage digital technology use. This can include the *Ministerial directions for public construction procurement* and the *Procurement – investment lifecycle and high value high risk guidelines.*[1133]

Cost range, timing and funding

We estimate that piloting digital technologies will cost $15 million to $30 million over 5 years. General government revenue can fund this draft recommendation.

Our estimated cost range includes piloting various digital technologies, like using building information modelling on a major infrastructure project. Starting by 2030 means the government can select suitable projects, identify delivery models and develop specifications to engage designers and contractors.

This cost range also includes training and mentoring government and project staff, as well as monitoring and evaluation of the pilot.

Digital technologies can deliver significant cost savings on government infrastructure projects, especially on billion dollar projects. For example, using building information modelling to build public housing can save up to around 7% of project costs in reduced cost overruns and risks, or $76.5 million a year. Using robotics to inspect and maintain the water network can save up to $140 million a year in maintenance and avoided costs.[1134]

Case study

Design and construction of bridges with building information modelling

Randselva Bridge

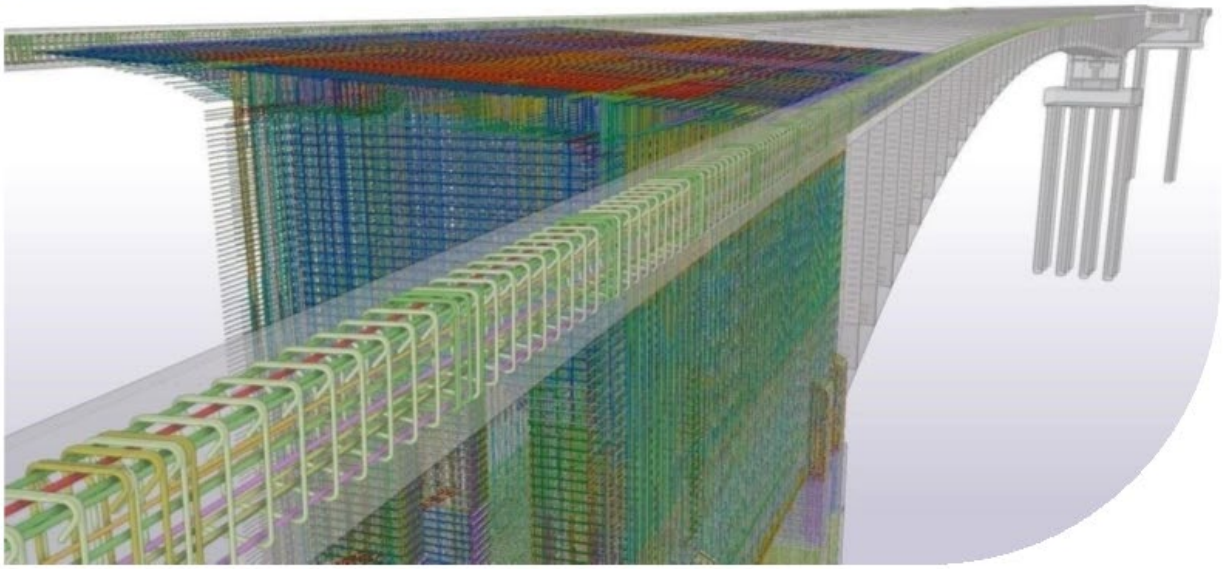
Randselva Bridge is a 634 metre long concrete bridge located about 50 kilometres from the Norwegian capital of Oslo. At its highest point the bridge is 55 metres above ground level.[1135]

The project team used building information modelling to create a detailed 3-dimensional information model for Randselva Bridge. This model holds all project information in a shared data base. It is the world's longest bridge built without 2-dimensional drawings.[1136]

The 3-dimensional information model was available online to all parties involved in the project. This allowed teams across 5 countries to easily collaborate and stay up to date during the different stages of design and construction.[1137] The project team could also use information from the model to order building materials.[1138]

Using building information modelling allowed the project team to make changes in the shared model. This enabled more efficient construction by ending the need to communicate the change and edit multiple drawings. It also reduced the number of errors made during design, reducing time and allowing better quality assurance.[1139]

Image below: Tekla, *Randselva Bridge*, Tekla website, n.d., accessed 12 December 2024.



Draft recommendation 40

Use modern traffic control technology for efficient and safe journeys

> Further extend modern traffic control technology like sensors and cameras along arterial roads in Victoria's largest cities. Begin expanding smart motorways into Melbourne's growth area freeways.

The road network is under pressure and building more roads is not a fix

Many arterial roads and freeways will reach capacity over the next decade.[1140] Growing congestion will lead to delays and longer travel times. It limits the opportunities that Victorians have access to, and costs businesses and the community money.[1141]

As more Victorians use roads, incidents like a freeway crash can delay thousands of people. They also risk leaving those involved with life-changing injuries and trauma.[1142]

Traffic control technology can deliver smoother and safer journeys. Victoria's roads carry more than cars. Improved journeys can reduce delays for buses, trams, pedestrians and trucks.[1143] On some tram routes, almost 20% of travel time is spent waiting at red lights.[1144]

Governments usually build bigger roads to manage congestion.[1145] But evidence from around the world confirms that expanding roads only works for a short time. The roads soon become congested again because more motorists start using them.[1146]

Traffic control technology can improve traffic flow on arterial roads

The Victorian Government's $340 million Smarter Roads program aims to keep traffic moving on arterial roads. It originally targeted Melbourne's west and south-east and brings together real-time transport data from devices like traffic sensors and cameras across the network.[1147] Engineers use this data to optimise traffic signals and improve traffic flow. Our modelling shows that more efficient roads can provide benefits of up to $14 for every dollar invested.[1148] These benefits can be delivered for under a third of the cost of major road projects.[1149]

The Victorian Auditor-General found that the government is not fully using the new data to make traffic flow better.[1150] For example, it can use the data to identify roads that can reduce congestion the most and change traffic flows on these roads first. This would increase the benefits of the investment in Smarter Roads technology.[1151]

The Victorian Government should extend Smarter Roads technology to more arterial roads in Melbourne, Ballarat, Bendigo and Geelong. It should then identify roads where congestion can be reduced the most. Traffic signals should be optimised to improve flow.

The government should also fund new traffic incident response teams near high-risk arterial roads to manage incidents quickly. Staff in the Victorian traffic control room can use the new cameras to direct the response teams to the incidents.[1152]

Our assessment found roads like Melbourne's Sydney Road, Bell Street and Ballarat Road carry large volumes of traffic. They are also significantly congested at peak hour.[1153]

The government should also consider demand management measures like changes to public transport and road pricing (see draft recommendation 13 and future option – Charge people fairly to use roads).[1154]

Traffic control technology on Victoria's roads

Traffic signal engineers use cameras and sensors to understand traffic patterns and behaviours on Victoria's roads.[1155]

Changing conditions like population growth or major events means traffic lights need to be updated. By optimising the amount of green time across traffic signals, engineers can provide a smoother and safer journey for all road users.[1156]

A well-optimised network can mean the difference between stop-start traffic and getting through intersections on a single green cycle. It can also reduce the amount of time pedestrians or public transport services wait at traffic signals, like around busy shopping strips.[1157]

Upgrades can improve traffic flow on Victoria's busiest motorways

The opportunity to improve traffic flow extends to Victoria's busiest motorways.[1158] Melbourne's Monash Freeway already uses smart motorway technology.[1159] This includes ramp signals, overhead lane and trip information signs, cameras and vehicle sensors.[1160] Upgrades have increased speeds by up to 28% and enabled more vehicles to travel on the freeway. Upgrades have also allowed operators to quickly respond to disruptions.[1161] This makes the freeway safer, reducing the crash rate by 30%.[1162]

New technology will help prepare Victoria's road network for automated vehicles.[1163] Upgrades can be staged as part of motorway improvement projects or included in assessments for future funding.[1164]

The government should complete the smart motorway network by extending the technology to Melbourne's growth area freeways. This includes the Princes, Western, Calder and Hume freeways to Werribee, Melton, Sunbury and Wallan, respectively.

Cost range, timing and funding

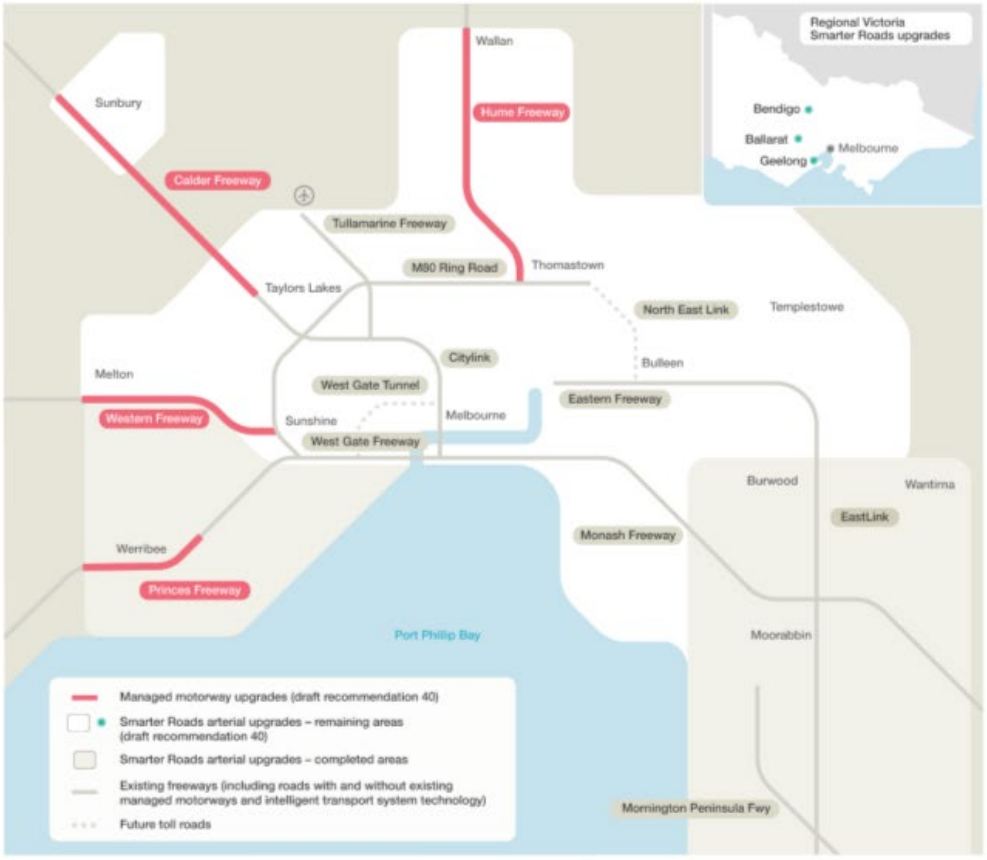
We estimate that using modern traffic technology on Victoria's roads will cost $2 billion to $3 billion over 10 years. This includes upgrades on 1,600 kilometres of Victoria's roads, covering new and upgraded traffic signals, trip information signs, cameras, sensors, support structures, power, communications and central control systems. General government revenue can fund this draft recommendation.

Within 5 years, the Victorian Government can use traffic control systems to manage more arterial roads in Melbourne. We estimate this will cost $600 million to $800 million. Adding these systems on arterial roads in Geelong, Ballarat and Bendigo will cost around $150 million across the 3 cities.

After 2030, the government can expand the smart motorway network. This requires more complex systems and infrastructure. We estimate that adding another 82 kilometres of smart motorways to Melbourne's growth areas will cost $1.3 billion to $1.9 billion.

Both technologies can be introduced in stages. For example, a stage might cost $10 million for upgraded traffic control systems on an arterial road, or $30 million for a section of managed motorway. The government can also build on existing systems.

Figure 22: Roads in Victoria's largest cities can be upgraded with modern traffic control technology



Source: Infrastructure Victoria

Future option

Charge people fairly to use roads

> Introduce road charges that help manage congestion and improve productivity. Consider options such as car parking levies, off-peak freeway tolls, congestion pricing trials, or road user charging for all motorists with lowered fixed road charges. Work with the Australian Government on road pricing options.

Road congestion remains a big problem

Victoria's roads will get busier over time.[1165] More cars and trucks will mean longer, less predictable travel times.[1166] Inner Melbourne is the most congested part of the state.[1167] By 2030, Melbourne's traffic delays might cost over $14 billion each year in time, vehicle costs and extra pollution.[1168] Building more roads does not solve congestion, but changing how motorists pay to use roads can help reduce it.[1169]

Changing how we pay to use roads can help ease congestion

The Victorian Government's vehicle registration charges and stamp duties help pay for roads.[1170] The Australian Government also contributes using the tax raised by the fuel excise.[1171] Motorists pay fixed road charges regardless of how much they travel.[1172] These charges do not reflect the costs of infrastructure, congestion, pollution, emissions or road trauma.

As more motorists switch to electric and hybrid vehicles, the Australian Government will collect less fuel excise.[1173] This means it might have less infrastructure funding to allocate to Victoria, including for roads.

Our modelling shows that in 2031, pricing specific roads during peak periods might increase travel speeds by up to 25%.[1174] Travel during peak hours might fall by 8%, with 168,000 fewer car trips each day.[1175] Road pricing can encourage more people to use public transport, meaning less road congestion.[1176]

The Victorian Government can phase in road charges to help reduce congestion. By the 2030s around 40% of motorists will be driving electric cars.[1177] The government has several options to change how motorists pay for roads. For example, it can:

- further expand the reach and scope of Melbourne's congestion levy to include current and future higher density precincts and activity centres, following the recent expansion into inner-eastern suburbs in December 2024[1178]
- introduce cheaper tolls on freeways outside of peak hours
- trial low-emission zones or congestion charging at ports, in major precincts or inner Melbourne
- work with the Australian Government to introduce variable distance-based road user charging.

Motorists have paid tolls on Melbourne's freeways since the 1970s.[1179] Charging motorists based on how much, when and where they drive can change travel behaviour. It encourages people to travel at different times, to different places or to use public transport. Discounts for low-income or vulnerable Victorians or people living in rural areas help improve fairness.[1180]

Under road pricing, drivers can expect less congestion, more predictable travel times and higher productivity. It will also reduce emissions and improve road safety.[1181] Road pricing can delay the need for costly and disruptive infrastructure projects because it makes better use of existing infrastructure.

Road pricing reforms can also generate government revenue

Transport pricing reforms might generate over $7.5 billion in revenue for the Victorian Government.[1182] This can be used to improve public transport to meet increased demand. People are more likely to accept road pricing if they see that it pays for better public transport.[1183] Cheaper off-peak public transport fares can also support road pricing changes (see draft recommendation 13).

Trialling road pricing can help different options work together with public transport fare changes to build community acceptance.[1184] By making changes in stages, the government can show the benefits and find lessons for further reforms.

Cost range, timing and funding

We estimate that this future option costs $25 million to $160 million, depending on the selected approach. General government revenue can fund this work. Road pricing like tolls can help to cover some, or all, operational costs once the infrastructure and systems are in place.

Our cost range includes $5 million to $10 million for the government to plan, phase-in and track road pricing. This involves reviewing policies, changing legislation and regulations, and communicating any new charges to Victorians. The State Tolling Corporation can do this work if the government expands its role.[1185]

Congestion pricing or road user charging options will require some new infrastructure. A 2019 estimate found that introducing congestion pricing in Melbourne would cost around $100 million.[1186] New technologies can help to make this cheaper as they do not require barriers, gantries and detection points.[1187] Other options like expanding Melbourne's congestion levy or applying off-peak road tolls can be done at low cost as they require less infrastructure.

High Court decision on electric vehicle road user charging

In 2021, the Victorian Government passed the *Zero and Low Emission Vehicle Distance-based Charge Act 2021* (Vic). This charged zero and low emissions vehicle users up to 2.5 cents per kilometre to drive on public roads.[1188]

The High Court of Australia decided in 2023 that this charge was a duty of excise because it had a 'close relation to the production or manufacture, sale, distribution, or consumption of goods'.[1189] Under section 90 of the Australian Constitution, only the Australian Government can impose a duty of excise.

This decision made the *Zero and Low Emission Vehicle Distance-based Charge Act 2021* (Vic) invalid, which removes the Victorian Government's charge on zero and low emissions vehicles.

The High Court of Australia's decision challenges the Victorian Government's ability to charge people fairly to use Victoria's roads. It also affects government revenue, which it can use to improve public transport or fund road maintenance.[1190] To overcome this, the Victorian Government should work with the Australian Government on road pricing options.

Case study

Road pricing success stories around the world

Cities like London, Singapore, Stockholm, Milan and Oslo have successfully introduced transport pricing reforms. These reforms have reduced congestion, improved vehicle travel speeds and reduced emissions.[1191] Some cities have used funds from road pricing to build roads, tunnels, public transport infrastructure, and cycling and walking facilities.[1192] New York also recently introduced congestion pricing with promising initial results.[1193]

Scheme	Main features	Benefits
London Congestion Charge	• Daily area charge for central London. • 90% discount for residents inside the charging zone.[1194] • No charge for vehicles used by people with disability.[1195]	• 3 million fewer car trips.[1196] • 39% less private car traffic entering central London between 2002 and 2014.[1197] • Revenue used for transport improvements like public and active transport.[1198] • Fewer cars meant road space could be reused for sustainable transport modes.[1199]
Singapore Electronic Road Pricing	• Major roads tolled to achieve congestion targets. • Tolls regularly changed to get traffic speeds to match a target.[1200]	• 15% less daily traffic within the restricted zone throughout the day and 16% less at morning peak.[1201]
Stockholm Congestion Tax	• Cordon charge for central Stockholm. • Applies from 6:30am to 6:30pm, higher charge during peaks.[1202]	• 18–21% less traffic in the first 6 years.[1203] • 3% less emissions.[1204] • 5–10% fewer road accidents involving injuries.[1205]
Milan Area C Charge	• Cordon charge for central Milan. • Single charge on entry during the day.[1206]	• 15% fewer vehicle entries into charge area.[1207] • 6–17% less pollution.[1208]
Oslo toll rings	• Three tiers of toll points on major arterials from outer to inner Oslo.[1209] • Four tiers of vehicle fuel-based charge.[1210] • Higher tolls during peak hours 6.30am to 9am and 3pm to 5pm.[1211]	• Exemption from tolls for electric vehicles incentivised their uptake.[1212] • 15% less direct greenhouse gas emissions from road traffic.[1213] • 5% less congestion from cordon changes (2005 figure), but more electric vehicles offset some congestion benefits.[1214]

Draft recommendation 41

Make rail freight competitive, reliable and efficient

> Develop and publish a 30-year integrated rail freight network plan and fund a 10-year rail freight maintenance program. Develop a freight network coordination policy.

Victoria's freight is predicted to reach nearly 900 million tonnes in 2051 – more than double the volume in 2014.[1215] Improving how freight moves can boost Victoria's productivity, competitiveness and regional development.[1216]

Rail can produce 16 times less greenhouse gas emissions than road freight.[1217] Moving more freight by rail can help Victoria achieve its net zero emissions targets.[1218] Rail is also efficient for moving heavy goods over longer distances but can be less reliable and flexible than road for many freight tasks.[1219] However, rail can still be viable with the right infrastructure and set-up.[1220]

A long-term network plan will support rail freight growth

Rail freight demand is forecast to nearly quadruple between 2020 and 2050.[1221] Projects like the Port Rail Shuttle Network, Inland Rail and Beveridge Intermodal Freight Terminal will enable some of this growth. But some routes will still be congested, particularly into the Port of Melbourne and Dynon precinct from the west and south-east.[1222] The government will need to develop the network to meet growing demand.

The Victorian Government should publish a 30-year integrated plan for the rail freight network that:

- identifies land to set aside to expand network capacity, such as for intermodal terminals and empty container parks[1223]
- clarifies timing and responsibility for infrastructure projects like the rail link to Webb Dock[1224]
- outlines performance standards and aligns with national standards.

The plan will guide investment and improve connectivity and integration across Victorian and national rail networks.[1225]

Victoria's rail freight network is not well maintained

Recent maintenance funding has improved the rail freight network.[1226] Benefits include the removal of some speed restrictions, reduced travel times and increased load capacity.[1227] However, over 10% of V/Line assets will be near or past their design life by 2025.[1228] The overall network condition is still below the standards outlined in the 2018 freight plan. This means that heavy freight trains cannot always travel safely at speed.[1229]

Planned rail freight maintenance is 10% to 15% cheaper than ad hoc repairs.[1230] But Victoria does not have long-term funding for rail freight network maintenance.

The Victorian Government should develop a 10-year rail maintenance program. Annual funding of around $100 million for the next 4 years will allow V/Line to plan and deliver network maintenance.[1231] V/Line should assess and prioritise maintenance needs to inform longer-term funding and publish key network performance indicators.

Unreliable access is disruptive to rail freight businesses

Passenger services have priority over freight on the shared rail network.[1232] This means freight services can be cancelled when there is network disruption or conflict.[1233] Rail access to the Port of Melbourne is also

challenging. Multiple freight operators need to coordinate access and they have no agreed way to resolve conflicts.[1234]

Victoria does not have a policy to coordinate reliable freight access to the rail network. This increases business costs and affects efficiency.[1235] The government should develop a freight network coordination policy to guide freight access to the network. As a first step, it should include provisions for enough reliable freight access in passenger rail franchise agreements.

The government could increase the benefits of this draft recommendation by creating a rail freight coordinator to plan and schedule freight movements on rail. This coordinator can be government-led or industry-led (see case study – The Hunter Valley Coal Chain Coordinator).

Cost range, timing and funding

We estimate this draft recommendation will cost around $400 million over 4 years. This can be funded in different ways. General government revenue can partly fund ongoing regional rail freight maintenance when it provides wider benefits, such as avoided road transport costs and less pollution.

Freight operators already pay access fees to use Victoria's existing rail infrastructure.[1236] More private businesses can pay to use regional rail for freight because they directly benefit from the government's infrastructure investment.

Rail freight network maintenance and renewal will cost approximately $100 million a year for the 4 years to 2029, extending current funding. Recovered rail user charges can help offset rail freight maintenance costs.

The Victorian Government can spend around $5 million on a 30-year integrated plan for rail freight and rail freight network coordination policy, and around $5 million on a 10-year rail maintenance plan. The maintenance plan can set funding beyond 2029 once the government has a better understanding of how to get value for money.

Case study

The Hunter Valley Coal Chain Coordinator

The Hunter Valley Coal Chain Coordinator Limited is an independent body that oversees coal movement from mines to export terminals and domestic customers in the Hunter Valley region of New South Wales.[1237]

The coordinator functions as a business analyst, traffic coordinator, maintenance scheduler, network planner and investment manager.[1238] It was set up to address cancellations and queues caused by the lack of clear roles and responsibilities in coordinating coal movements through the region. This lack of coordination was increasing costs for businesses and creating investment uncertainty.

Membership of the coordinator includes all Hunter Valley coal producers, rail operators and port terminal operators, as well as the Australian Rail Track Corporation as the track owner.

Central planning and digital scheduling have achieved reliable and efficient performance for the rail network. Industry stakeholders consider this a model for rail freight.[1239]

Draft recommendation 42

Encourage off-peak freight delivery in urban areas

> Prepare for growing freight volumes in urban areas by piloting an off-peak freight delivery program in a high-density area of Melbourne. If successful, expand off-peak delivery for more productive and sustainable freight movement.

Melbourne's population growth and increasing density will mean more freight deliveries to urban areas.[1240] More people shop online, further increasing freight traffic in business and residential suburbs.[1241]

Trucks move most of the freight in urban areas. They currently make up 15% to 20% of city traffic.[1242] Trucks contribute to congestion, traffic accidents, and air and noise pollution.[1243] Moving freight in cities can also be expensive. Deliveries are not coordinated and parking is restricted.[1244] The 'last mile' of freight delivery (the final stage of delivery to customers) can account for over half of total delivery costs.[1245]

The freight industry is complex. It involves many stakeholders, including customers, governments, freight operators, communities and retailers.[1246] The Victorian Government can work with stakeholders to test ways to improve freight productivity and reduce negative impacts, including greenhouse gas emissions. Victoria will need to reduce emissions from urban freight to meet its target of net zero emissions by 2045.[1247] Small trucks and vans carry most freight in urban areas. They produce around one-fifth of transport emissions.[1248]

Delivering goods outside peak hours reduces congestion and increases productivity

Delivering goods outside peak hours when roads are less congested can save time and money.[1249] It makes better use of existing infrastructure and increases productivity.[1250] Freight providers can cover more distance and make more deliveries in less time with less equipment.[1251]

Other cities have seen the benefits of moving more freight in off-peak hours. For example, off-peak delivery trials in Sydney reduced freight travel and service times by up to 50%.[1252] New York expanded its off-peak program in 2024 due to significant efficiency and environmental benefits (see case study – Delivering goods outside of peak hours).[1253]

Modelling shows that moving 30% of Victorian freight to off-peak hours by 2051 might result in:[1254]

- 155,000 fewer hours spent on the road for Victorian cars every day
- 800,000 fewer kilometres travelled by trucks each day while delivering the same amount of freight across Victoria.

There are many barriers to moving more freight in off-peak hours. These include truck curfews, local laws against after-hours deliveries, and higher staff and security costs.[1255] Research shows that major fashion retailers, supermarkets, food services and convenience stores have the most potential for off-peak delivery.[1256]

Pilot projects can test the benefits of off-peak freight delivery

The Victorian Government can encourage stakeholders to work together to overcome barriers and explore changes to delivery times. By 2030, it should set up a pilot in Melbourne for off-peak freight delivery to test feasibility and confirm benefits. The pilot should:

- target dense residential and commercial areas, such as inner Melbourne
- focus on a single sector

- remove barriers to participation, for example by relaxing truck access restrictions and helping freight receivers upgrade storage and security.[1257]

Lessons learned from the pilot can help determine how to expand the program in the future.

Cost range, timing and funding

We estimate that piloting an off-peak freight delivery program will cost $1 million to $5 million over 5 years. This includes costs to design, run and evaluate the program. We assume existing government staff will do this work.

General government revenue can fund this draft recommendation.

Case study

Delivering goods outside of peak hours

Delivering and collecting goods outside peak hours in busy areas makes better use of existing infrastructure and increases efficiency. There have been many trials around the world, including in Australia.[1258]

In 2016, the New South Wales Government worked closely with businesses to trial off-peak deliveries and collections. The trials involved companies from the supermarket, waste and hardware sectors.[1259] The benefits of scheduling some activities to occur at night instead of during the day included:[1260]

- travel time savings of up to 50% to reach Sydney's central business district
- between 15% and 40% fewer kilometres travelled within the city centre
- time savings of 30% to 50% to load and unload goods after parking
- productivity improvements of between 30% and 40% due to faster vehicle turnaround.

The New South Wales Government continues to help connect businesses with service providers to trial and implement off-peak delivery.[1261]

In 2009, New York piloted an off-peak delivery program in Manhattan's central business district to help businesses receive goods between 7pm and 6am. Participating businesses were eligible for a US$2,000 incentive if they shifted multiple weekly deliveries to off-peak hours and committed to the program for at least 6 months.[1262]

The pilot successfully shifted deliveries for over 400 businesses.[1263] It reduced congestion, lowered emissions, and improved efficiency for delivery companies and customers.[1264] The pilot estimated annual business savings of US$100 million to $200 million through reduced congestion and improved delivery efficiency.[1265]

In 2010, New York City made the off-peak delivery program permanent. Around 1,120 locations currently receive off-peak deliveries.[1266] The city allocated $6 million to expand the program in 2024, aiming to reach 5,000 locations by 2040.[1267]

Future option

Plan for more efficient and sustainable urban freight

> Develop a network of urban freight delivery precincts in Melbourne to improve freight productivity and reduce emissions.

Urban freight contributes to congestion and greenhouse gas emissions

Growth in urban freight is expected to continue in line with population growth, increasing e-commerce, and changing customer expectations.[1268] 'Last mile' delivery is the final stage of freight delivery to customers. It is inefficient in urban areas because roads are more congested and it can be difficult for trucks to move.[1269] Some businesses can shift deliveries to off-peak hours (see draft recommendation 42). But this will not work for all.

As cities attract more people and businesses, and become more compact, there will be less land available in inner suburbs for freight operators to use.[1270] This is likely to increase freight costs.[1271] Governments will need to integrate freight industry needs into land use planning to help boost the economy, make roads safer and improve local amenity (see draft recommendation 35).[1272]

Urban freight also contributes to greenhouse gas emissions. Emissions from last mile deliveries in the world's largest cities might increase by over 30% by 2030.[1273] Low or zero emission freight vehicles can help achieve Victoria's goal of net zero emissions by 2045.[1274]

Innovation can improve freight productivity and reduce emissions

Policymakers in Australia and worldwide are exploring innovative urban freight solutions to reduce congestion and pollution, or to promote zero emission vehicles. Some aim to do both (see case study – Innovative solutions for urban freight). Suitable initiatives for Victoria include:

- developing urban freight consolidation centres near busy urban areas, where larger trucks drop off their loads for smaller vehicles to handle last mile delivery
- setting up zero emission zones that restrict or charge entry for petrol and diesel vehicles
- providing delivery parking and loading zones for zero emission commercial vehicles in high-density areas.

By 2035, the Victorian Government can create a network of urban freight delivery precincts in Melbourne to improve urban freight, boost productivity and cut emissions. The Victorian Government is targeting 50% of small truck and van sales to be zero emission vehicles by 2030.[1275] This timing will also support the population growth expected in key activity centres.[1276]

To prepare for increased freight volumes in urban areas, the government can work with industry and local governments to identify opportunities to boost productivity and reduce freight pollution. These are likely to be places where housing density and congestion are increasing, such as *Victoria's housing statement* priority precincts, activity centres, Suburban Rail Loop precincts and areas close to the Port of Melbourne.[1277] The government can consider population and freight demand forecasts, access to the Principal Freight Network, industrial precincts and local businesses, and levels of air pollution when selecting specific locations.

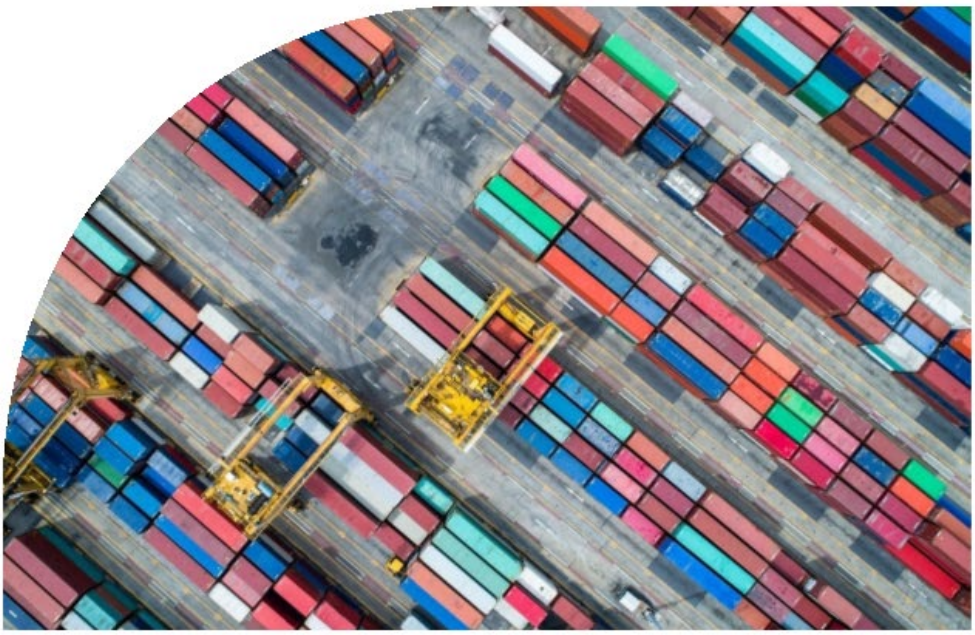
The government can also complete a feasibility study to test effective urban freight solutions for different precincts and decide how and when to action them. Some areas might need a mix of solutions. The government can start by testing urban freight consolidation centres and zero emission zones.

Empowering local governments to create and enforce urban freight delivery precincts can also help the government prepare for more freight. This might include updating land strategies and engaging with industry, businesses and local communities.

Cost range, timing and funding

We estimate that planning for more efficient and sustainable urban freight will cost $1 million to $5 million over 5 years from 2030. General government revenue can fund this future option.

The Victorian Government can work with local governments and stakeholders to find opportunities and test solutions. The cost range includes consultation with stakeholders, development of guidelines and standards, and grant funding for pilot initiatives. Charges collected from petrol and diesel vehicles entering zero emission zones could be used to support freight operators to transition to zero emission vehicles. The costs for this future option might be higher if government needs to buy or lease land to trial urban freight solutions.



Case study

Innovative solutions for urban freight

Many initiatives can improve urban freight. Government policies like road pricing, vehicle restrictions, and low emission zones can help address urban logistics challenges. Infrastructure such as freight hubs can improve city logistics. Freight operators can combine deliveries and improve truck loading.[1278]

Urban freight consolidation centres

Urban freight consolidation centres can boost productivity with faster vehicle turnaround and higher driver efficiency.[1279] They can reduce congestion and emissions by using smaller, low emission vehicles for last mile deliveries.[1280] They can also improve road safety in local areas.[1281]

In 2019, 62 urban freight consolidation centres operated in Europe. They work best when government and industry collaborate, when they are within 1 kilometre to 3 kilometres of the end destination and when they have easy access to key freight routes.[1282] Government typically provides the land for the centres, alongside other regulatory and financial support.[1283] For example, Paris has reserved over 60 sites for future logistics hubs.[1284]

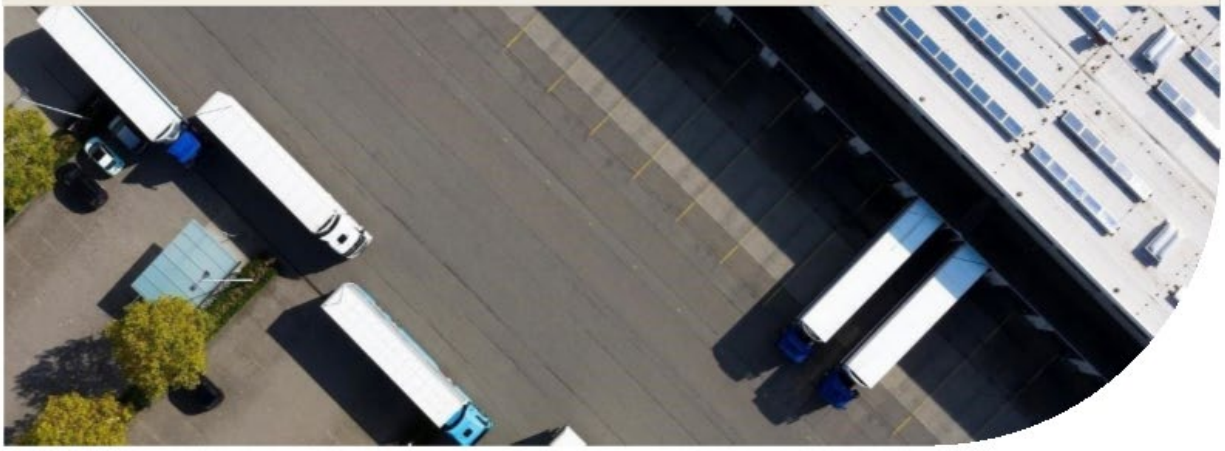
The City of Sydney and Transport for New South Wales trialled a free courier hub in a carpark near Sydney's central business district.[1285] Transport companies delivered goods faster and reduced their operating costs. The value of community benefits was 5 times more than total project costs.[1286]

Zero emission zones

From 2025, Dutch cities can introduce zero emission zones to reduce emissions from freight.[1287] Around 30 zero emission zones will cover city centres and nearby areas.[1288] Businesses are notified at least 4 years in advance so they can prepare.[1289] All new vans and trucks must be zero emission vehicles. The government offers subsidies of up to €5,000 to help with the cost of buying zero emission vans or trucks.[1290]

Zero emission parking and loading zones

Santa Monica trialled USA's first voluntary zero emission delivery zone in 2021.[1291] It provided priority kerb space in a one square mile area. This zone covers nearly 16,000 residents and 2 commercial districts with about 30,000 workers.[1292] The program aimed to address congestion and pollution from transport. It monitored vehicle activity in curb zones to study efficiency, safety, congestion and emissions. It also provided real-time parking data to zero emission drivers.[1293]



Draft recommendation 43

Create and preserve opportunities for future major infrastructure projects

> Create and preserve opportunities to build major infrastructure projects which might be required in the long term. This includes expanding desalination capacity, City Loop reconfiguration, extending and electrifying metropolitan trains to growth areas in Melbourne's north and south-east, Melbourne Metro 2, the Bay West port, the outer metropolitan road and rail corridor and connecting western intermodal freight terminal.

The government has limited ability to invest in new major infrastructure projects in the short-term

The Australian economy faces shortages in the skills and materials needed now for infrastructure projects.[1294] At the same time, the Victorian Government has limited capacity to fund new major projects.[1295] Reflecting these challenges, the government expects annual capital spending to fall in the next few years from recent highs.[1296]

In the short term, there are many ways the government can get more out of existing infrastructure without building large new projects. Many of the draft recommendations we make in this strategy will help the government achieve this.

In the long term, a larger population means that Victoria will still need to invest in new projects to expand infrastructure capacity. Victoria's road and public transport networks will be under increasing strain with more people travelling.[1297] A growing population will demand more goods, putting pressure on Victoria's freight network and ports.[1298] Victorians will also need more water from a range of different sources.[1299]

Our draft recommendation to prepare and publish infrastructure sector plans to shape Victoria's cities (draft recommendation 35) will help the government plan and sequence the infrastructure needed to support this growth.

Victoria can plan now for future infrastructure needs

The government should prepare now for major infrastructure projects that Victoria is likely to need in the long term. It should:

- complete a detailed business case to expand the existing Victorian Desalination Plant to support meeting water demand until 2035 (see future option – Plan for and invest in manufactured water)
- complete a preliminary business case and detailed engineering assessment to reconfigure the City Loop (see future option – Reconfigure the City Loop for more frequent trains)
- complete detailed assessments to extend and electrify metropolitan trains to Melbourne's north and south-east growth areas (see future option – Extend metropolitan trains to growth areas in Melbourne's north and south-east)
- complete a preliminary business case for the Melbourne Metro 2 tunnel project, confirm its route and protect the land needed to build it
- apply planning protection for transport corridors and buffers for a future Bay West port, particularly for future road and rail connections, and monitor and report on the environmental conditions and triggers to develop a new port
- determine project staging to build the outer metropolitan road and rail corridor and connecting western intermodal freight terminal.

These projects respond to the long-term infrastructure needs we have identified in our work (see box – Why these projects?).

Why these projects?

We have identified several projects that might be needed in the future. This work includes our *Major transport program strategic assessment report* and *Advice on securing Victoria's port capacity*. The 5 projects in this draft recommendation are long-term projects that require the government to start preparing now. This will keep the opportunity open to pursue them in the future.

Victorian Desalination Plant expansion

Victoria's largest cities will need more water in coming decades.[1300] Our future option - Plan for and invest in manufactured water shows that Victoria will need a range of water sources in the long term. A first step might be to use the existing Victorian Desalination Plant's full capacity. The plant's design allows for a 50 gigalitre expansion to deliver 200 gigalitres each year to Melbourne.[1301]

City Loop reconfiguration

The Metro Tunnel will add capacity to the metropolitan train network and reduce the impact of disruptions.[1302] But even after that project is complete, some parts of the train network will reach capacity in the next decade.[1303] The Craigieburn and Upfield lines will still share one City Loop track, limiting the number of train services on each line as passenger demand continues to grow.[1304] Engineering and service planning work needs to take place, including on where capacity is best provided south or east of the city centre. Our future option – Reconfigure the City Loop for more frequent trains explains how changing the way the City Loop works can add substantial capacity to the train network.

Extend and electrify metropolitan trains to growth areas in Melbourne's north and south-east

Our draft recommendation to extend metropolitan trains to Melbourne's west (draft recommendation 11) will better connect communities in western suburbs to jobs and services. However, rapidly growing communities in Melbourne's north and south-east also have limited public transport. Our future option – Extend metropolitan trains to growth areas in Melbourne's north and south-east outlines how extending train lines to Clyde and towards Kalkallo can help address transport needs for more of Melbourne's growth area communities.

Melbourne Metro 2

Our draft recommendation to extend Melbourne's trams to encourage more new homes nearby (draft recommendation 8) shows strong demand for tram services in Fishermans Bend. Our research shows the proposed Fishermans Bend tram will reach capacity in peak hours during the mid-2030s.[1305] To achieve the 80,000 jobs and 80,000 residents anticipated for the precinct, Fishermans Bend will need a new train line.[1306] The Melbourne Metro 2 project provides this. It will help address train network capacity issues and improve access to National employment and innovation clusters.[1307] Key issues for a business case to explore are route alignment and the type of train technology to use.

Bay West port

Our advice on Victoria's ports found that growing freight volumes can be met by continuing to boost capacity at the Port of Melbourne.[1308] The Victorian Government should continue to collaborate with the Port of Melbourne in developing its capacity. However, Victoria will need a second major container port at around 2055.[1309] Detailed planning for this will need to begin around 2040, or when triggered by changes such as faster growth in demand, congestion, amenity impacts or cost changes.[1310] Short-term action is needed to secure transport connections to the future port as there are significant land development pressures within the Urban Growth Boundary in Melbourne's west that might restrict future access.[1311] Monitoring and assessing environmental conditions around the Bay West site will improve environmental outcomes and support regulatory approvals.[1312]

Outer metropolitan road and rail corridor

Growing freight volumes will add to road congestion in coming decades. By 2051, the M80 Ring Road will see up to 1,800 more trucks in the morning peak alone.[1313] The outer metropolitan road and rail corridor will help accommodate this growth. It improves connections to current and future industrial and logistics precincts with international and interstate transport terminals. This includes the proposed Bay West port, western and Beveridge intermodal freight terminals, Melbourne and Avalon airports, and the Port of Geelong.[1314] The government has done some initial planning including a preliminary business case.[1315] A public acquisition overlay is in place.[1316] More needs to be done to confirm which sections of the project have the greatest benefit to inform how it can be staged and connected to the western intermodal freight terminal.

Preparing now will keep Victoria's opportunities open

Planning and preparing now keeps the opportunity open to start these projects in the future. Preparing now can reduce total project costs, prevent conflicting land use and allow others to plan accordingly.[1317]

When the need for these projects arises, this draft recommendation will ensure that projects are ready to start quickly, and the community can see the benefits sooner.

Cost range, timing and funding

We estimate this draft recommendation will cost $125 million to $150 million. General government revenue can fund this draft recommendation. We assume existing government staff will do some of this work.

Completing environmental and technical studies, consulting with Victorians, and developing business cases within the next 5 years means Victoria is prepared if these projects are required in the long term. Existing government staff can lead this work.

Our estimated cost range includes $15 million to $30 million to update existing overlays or apply new public acquisition overlays to protect land. We have not included the cost of buying land as it may be many years between when government applies a public acquisition overlay and buys the land.

Developing Victoria's second major container port at Bay West will require time and attention to assess and manage impacts on sensitive coastal habitats.[1318] Our cost range includes $40 million to $50 million for environmental assessment and monitoring costs for the future port over the 10 years to 2035.

Future option

Reconfigure the City Loop for more frequent and reliable trains

> Reconfigure the City Loop by splitting 2 City Loop tunnels into 2 separate cross-city train lines. Build around 3 kilometres of new train tunnels and upgrade related power and signalling. Increase service frequency on the Craigieburn, Upfield and Frankston lines.

Melbourne's northern suburbs are growing and have worse access to jobs and services

The Victorian Government forecasts 850,000 more people will live in Melbourne's growth areas by 2036, but these places will have only 250,000 more jobs.[1319] People living in these places are less likely to be able to access jobs within reasonable travel times compared to those living in Melbourne's inner and middle suburbs.[1320] This can mean travelling further for work, or accepting lower paid, lower skilled work. When more people travel further, the road network becomes congested and rail services become crowded.

The City Loop consists of 4 sets of tracks that circle central Melbourne. The northern part of the City Loop is a bottleneck and cannot support many more trains.[1321] This limits how often train services run on the Craigieburn and Upfield lines. Using only current infrastructure, all morning peak Craigieburn services will be overcrowded by the mid-2030s.[1322] Regional train services on the Shepparton and Seymour lines also have high demand at V/Line stations north of Craigieburn, like Donnybrook and Wallan.[1323]

Reconfiguring the City Loop provides more frequent and reliable cross-city train services

After 2030, when train services are expected to be crowded, the Victorian Government can build around 3 kilometres of new train tunnels. This would enable the redesign of 2 City Loop tracks and create:

- a pair of cross-city tunnels from Richmond to North Melbourne via Flagstaff
- a separate pair of tracks from Richmond to North Melbourne via Southern Cross.

Reconfiguring the City Loop would separate the Craigieburn and Upfield lines and remove the current bottleneck. It would allow trains to run through the city and continue onto other lines, such as the Frankston, Ringwood, Alamein or Glen Waverley lines. This separation would mean the 2 lines no longer share the same City Loop track. It would reduce the risk of disruptions on one line affecting others.

The government can boost passenger capacity by upgrading power and signalling on the Craigieburn and Upfield lines at the same time, or earlier. This would support over 18 more train services each hour, increasing both frequency and reliability.[1324]

This project will generate significant benefits for a relatively low cost

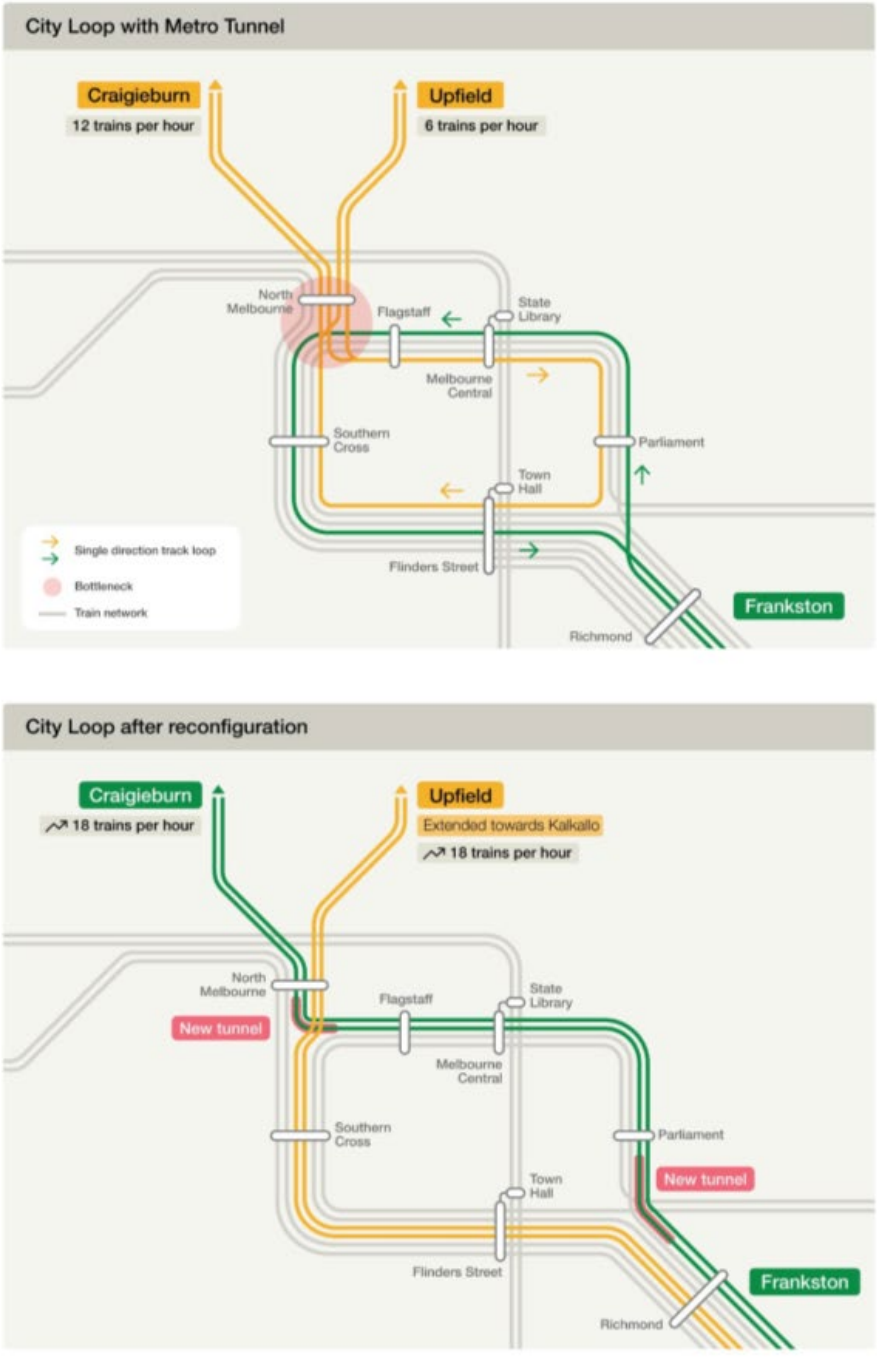
This project allows more trains to enter Melbourne's city centre at a relatively low cost.[1325] Providing up to 18 trains an hour in each direction on the metropolitan train network would be the equivalent of building a 16-lane freeway.[1326]

We estimate this project would generate $5 billion to $13 billion in benefits for public transport and car users.[1327] Our modelling shows it can attract more jobs and housing along train lines in the north, including in Coburg and Broadmeadows.[1328]

This future option can work alongside other train network expansions (see draft recommendation 11), including extending and electrifying the Upfield line towards Kalkallo via Craigieburn (future option – Extend metropolitan trains to growth areas in Melbourne's north and south-east), to improve public transport access in outer suburbs.

Draft recommendation 43 calls for the government to complete a preliminary business case for reconfiguring the City Loop.

Figure 23: Reconfiguring the City Loop allows for more cross-city services and reduces disruption



City Loop layout in this figure is indicative only and does not show all detailed platform, track and junction configurations.
Source: Infrastructure Victoria

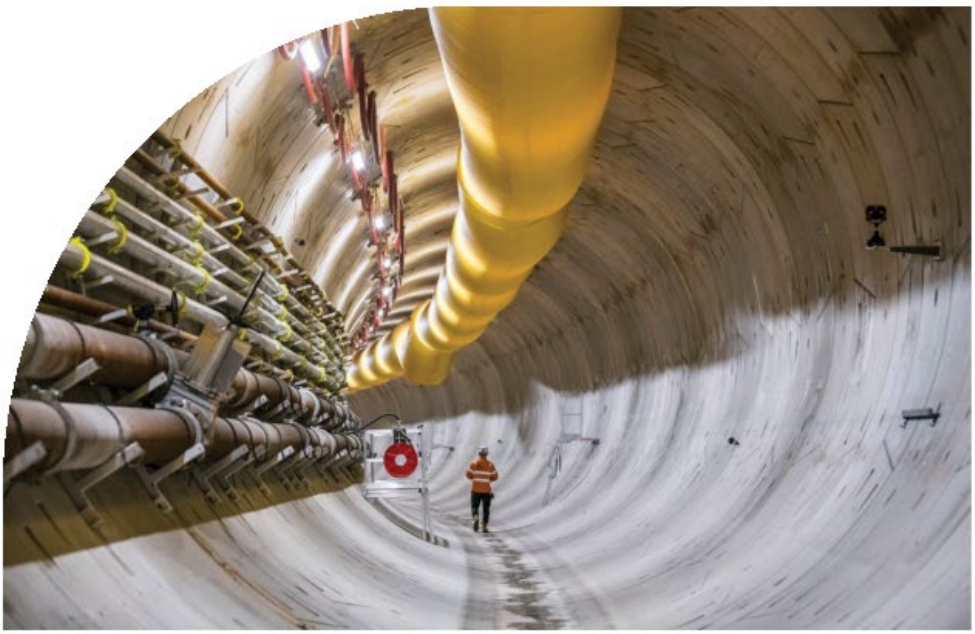
Cost range, timing and funding

We estimate that reconfiguring the City Loop will cost $2.2 billion to $5.9 billion. This includes building new tunnels and upgrading connecting train lines. An additional approximately $2 billion is required for new rolling stock and supporting infrastructure like train depot and maintenance facilities.

General government revenue is likely to be a major funding source for this future option. Public transport fares can help offset the operating costs of public transport upgrades. The Victorian Government can also seek additional funding from the Australian Government.[1329]

We have provided a broad cost range as the project can be implemented in various ways to provide best value for money. This requires further analysis by the Victorian Government. Our cost estimates are based on 2020 prices, adjusted to reflect today's higher costs.[1330]

We estimate it will cost $40 million to $50 million each year to operate more trains through a reconfigured City Loop. This includes the cost to run more train services, and to maintain and renew train lines and rolling stock.



Future option

Extend metropolitan trains to growth areas in Melbourne's north and south-east

> Extend and electrify metropolitan trains to Clyde and towards Kalkallo to support growth in new suburbs.

Melbourne's north and south-east suburbs are growing with a congested transport network

Melbourne's western suburbs are seeing the city's fastest population growth (draft recommendation 11), but new suburbs in Melbourne's north and south-east are also growing rapidly. Over 612,000 new residents are expected to live there by 2041.[1331] But these areas are only expected to have 238,000 new jobs.[1332] Many residents will need to travel elsewhere for work.

More people and more car use means busier roads. Between 25% and 40% of major roads will be congested during morning peak hours by 2041.[1333] This means longer journey times without better public transport options.[1334]

Extending the train network can improve access to local jobs

Extending metropolitan train lines to Clyde and towards Kalkallo can help address the need for public transport in Melbourne's north and south-east. Draft recommendation 43 calls for the government to complete detailed assessments of these extensions and electrifications to enable metropolitan train services.

After 2030, when construction has started on other train network expansions, the Victorian Government can begin:

- electrifying the Craigieburn line towards Kalkallo, including extending the Upfield line to Roxburgh Park to allow trains to run towards Kalkallo via Upfield, and building 2 new stations
- extending and electrifying the Cranbourne line to Clyde and building 4 new stations.

Our modelling shows that these extensions will improve access to jobs and services for growth area residents. In Melbourne's south-east, extending the Cranbourne line to Clyde and building a new Dandenong South station means that residents could access around 50,000 more jobs in 45 minutes.[1335]

In Melbourne's north, Kalkallo residents could access 74,000 more jobs in 60 minutes with the extension from Craigieburn.[1336] People living near the new station at Campbellfield could access up to 120,000 more jobs in 45 minutes.[1337]

Network benefits result when people's public transport journeys are seamless

These extensions would reduce congestion on many roads during morning peak hours.[1338] Our modelling shows that these extensions would result in up to 13,000 more train boardings and 10,700 fewer car trips each day by 2041.[1339]

These new rail extensions service large areas, as alternative train lines are a long distance away. Frequent bus services to connect with trains are essential for seamless public transport journeys. Our draft recommendation to run more bus services in Victoria's largest cities (draft recommendation 9) outlines the needs and cost.

Without frequent bus services, more people drive to stations in Melbourne's growth areas. This increases the need for expensive car parks.[1340] Stations with high-quality bus connections can see over 25% of passengers switching between buses and trains.[1341]

Figure 24: Extending metropolitan trains to Melbourne's north and south-east will help to support future population growth

Source: Infrastructure Victoria

Table 3: Additional weekday train boardings at stations on line segments (with train extensions)

Train extension	Year 2031	Year 2041
Extend the Craigieburn line to Kalkallo, including extending the Upfield line to Roxburgh Park to allow trains to run to Kalkallo via Upfield, and build 2 new stations (Kalkallo/Lockerbie and Campbellfield)	3,900	6,100
Extend and electrify the Cranbourne line to Clyde and build 4 new stations (Dandenong South, Cranbourne East, Casey Fields, and Clyde)	3,700	6,900

Cost range, timing and funding

We estimate that extending metropolitan trains to Melbourne's growth areas will cost $5 billion to $7 billion by 2035. The Victorian Government can consider a mix of funding mechanisms, including value capture. General government revenue is likely to be a major funding source. Public transport fares can help offset operating costs. The Victorian Government can also seek additional funding from the Australian Government.[1342]

Our cost estimates include:

- $3 billion to $4 billion to electrify the Craigieburn line towards Kalkallo, including extending the Upfield line to Roxburgh Park to allow trains to run towards Kalkallo via Upfield, and building 2 new stations
- $2 billion to $3 billion to upgrade and extend the Cranbourne line to Clyde.

The cost includes upgrading the train line and buying new rolling stock. Our cost ranges are broad as each extension or upgrade can be implemented in various ways to provide best value for money. Each cost estimate is approximate and based on 2020 estimates adjusted to reflect today's higher costs.[1343] The government can extend train lines as separate smaller project packages, rather than one project. Overall costs will require further analysis by the government.

We estimate this draft recommendation will then cost government $50 million to $75 million each year to operate. This includes asset renewal of the train corridor and rolling stock. It also includes maintenance costs.

How we developed the draft strategy

We heard from Victorians and spoke with stakeholders

Our draft recommendations are based on evidence and engagement. We heard from thousands of Victorians and spoke with stakeholders.[1344] We analysed policy, literature and data, and commissioned advice on complex issues.

More than 500 people helped shape the strategy objectives. Our call for submissions encouraged individuals and organisations to share their ideas. They told us about the future they want and suggested how infrastructure can help achieve it. During workshops and discussions, we captured the perspectives of Victoria's First Peoples, regional Victoria's infrastructure challenges and opportunities, and the views of young Victorians.

This consultation informed our strategy objectives (see section – Victoria's infrastructure strategy objectives) and helped us develop our draft recommendations. Through our research program we heard from 18,500 Victorians on important infrastructure issues. This included housing options, gas infrastructure, better buses and social infrastructure.

Our draft recommendations address infrastructure priorities for the next 30 years

We researched major infrastructure challenges and opportunities

We assessed the current state of Victoria's infrastructure and researched how infrastructure can help respond to existing and future challenges. We analysed trends in data, looked at Australian and international literature, found case studies and talked with stakeholders from industry. We spoke extensively to policymakers in government departments and agencies who shared their work on the challenges and opportunities for Victoria's future infrastructure.

We reviewed *Victoria's infrastructure strategy 2021–2051* to see how the government is implementing our earlier recommendations, and what infrastructure issues remain (see *Review of 2021 recommendations*).

We researched specific issues, like:

- different urban growth patterns for Melbourne and major regional cities in *Choosing Victoria's future: 5 urban development scenarios*
- actions to better prepare Victoria's infrastructure for more frequent and extreme weather in *Weathering the storm: adapting Victoria's infrastructure to climate change*
- how Victoria can make the most of its gas infrastructure in *Towards 2050: gas infrastructure in a net zero emissions economy*
- actions the Victorian Government can take to make emissions count as part of infrastructure decision-making in *Opportunities to reduce greenhouse gas emissions of infrastructure*
- how buses can give more people access to good public transport in *Fast, frequent, fair: how buses can better connect Melbourne*
- giving Victorians more access to open space in *Getting more from school grounds: sharing places for play and exercise*
- investing in education infrastructure that benefits all Victorians in *Learning for life: preparing kindergarten, school and TAFE infrastructure for the future*.

We commissioned advice to add to our evidence base

We commissioned technical advice on infrastructure issues. This supported our research and helped us develop draft recommendations. The advice included economic analysis, desktop reviews, spatial mapping, and transport and energy modelling. Technical reports are available on our website, including reports on:

- how digital technologies can improve infrastructure productivity in *Digital technology and infrastructure productivity*
- the risks to Victoria's energy transition and how Victoria can mitigate them in *Victoria's energy transition risks and mitigation actions*
- the impact of different scenarios on Victoria's energy transition in *Infrastructure Victoria energy transition analysis*
- opportunities for First Peoples' self-determination in infrastructure projects in *Self-determination in infrastructure*
- opportunities to extend tram and train services in middle and outer suburbs in *Strategic transport modelling of tram and train projects to inform Victoria's infrastructure strategy 2025-2055*
- the future need for primary and secondary schools in Victoria in *Estimating primary and secondary school provision*
- the future need for kindergartens in Victoria in *Estimating kindergarten provision*
- the cost of land in different regions and how this affects the value of school outdoor sports facilities in *Cost of land for different regions in Victoria*
- how Victorians use social infrastructure in *Consumer research – access to school sports grounds consumer research*, *Accessibility mapping for outdoor school grounds*, *Consumer research – access to TAFE* and *Mapping access to TAFE*.

We developed draft recommendations

This strategy update focuses on what the Victorian Government can do to address Victoria's most pressing infrastructure challenges, in addition to the measures it has already announced. Our draft recommendations point to actions the government can start in the 5 years to 2030 that will deliver long-term benefits. Taken together, these recommendations will help advance the strategy objectives and position Victoria for the next 30 years.

The draft strategy also includes some actions the Victorian Government can start in the longer term, beyond 2030. We present these as future options for government. We believe these will also help achieve the strategy objectives, but they do not require the government's immediate attention.

In selecting our draft recommendations, we scoped the major problems and opportunities in each infrastructure sector. We analysed these alongside existing Victorian Government policy directions, and other policy and external developments. This helped us identify the infrastructure priorities our draft recommendations should respond to, and where Victorian Government action can make a difference.

We then assessed these against the strategy objectives, to make sure each of our draft recommendations further the goals most important to Victorians. We show how our draft recommendations relate to the strategy objectives in the section – *Our draft recommendations each span multiple objectives*.

We also used Infrastructure Victoria's strategic priorities to guide our draft recommendations. These are the problems that Infrastructure Victoria aims to make a significant impact on across all our work:[1345]

- doing more with less
- navigating change and disruption
- improving social equity through access
- mitigating and adapting to our changing climate.

Each of our draft recommendations directly responds to at least one of these strategic priorities.

We estimated the cost of each draft recommendation

Our draft recommendations have many economic, social and environmental benefits. We estimate that implementing all 43 draft recommendations can result in over $155 billion worth of benefits to Victorians.[1346] But these benefits also come with a financial cost to the Victorian Government. We present our cost estimates as approximate ranges under each recommendation.

A long-term infrastructure strategy can help the Victorian Government achieve a stable investment profile. Our cost estimates help the government make informed decisions about infrastructure investments, project sequencing and delivery timelines. Before making an investment decision, the government should assess the costs and benefits of a project or policy based on its final design.

The Victorian Government will need to do more work to fully detail the costs of the proposed infrastructure, policies and reforms. This further planning and development can include design, procurement, construction, operation and maintenance of infrastructure.

Our estimates include once-off and yearly costs

Some draft recommendations include capital costs, like the costs to design, procure, build and upgrade infrastructure. Some include the costs to develop policy or introduce reforms. Some include a yearly operating cost to run and maintain new infrastructure.

We also include the costs of staff or consultancies to develop and deliver plans or policies, or provide technical advice. In many cases, existing Victorian Government staff can help to deliver our draft recommendations. These staffing costs might also be absorbed by general government spending through reprioritising available resources.

Our estimates do not include the costs of providing the services from social infrastructure. For example, we do not include the salaries of nurses providing care in upgraded hospitals, or teachers in new schools. However, we do include the costs of running additional transport services like trains, trams and buses as they are part of the infrastructure in our draft recommendations.

Many of our costs are presented as ranges and are strategic order of magnitude estimates.[1347] They are approximate and generally based on similar earlier projects, using limited data. Our estimates may be narrow or wide depending on our level of certainty. We include sources for our cost data, except where we have used confidential information.

All cost estimates are in real dollars as of June 2024. For example, this could be the cost of signing a contract to build infrastructure or starting a new policy in June 2024. To do the same thing in future years would require escalation to be added to the 2024 cost.

Estimating the cost of our draft recommendations

Order of magnitude estimates are initial cost estimates within a broad accuracy range and based on historical information. They are commonly applied in early stages of a business case where few details are available. Order of magnitude estimates are helpful in comparing high-level alternatives to determine the most feasible solutions.[1348]

Real dollars measure the cost of something without increasing prices for future inflation.[1349] All our cost estimates are in real dollars. We have used real dollars to avoid introducing future price inflation as an additional source of uncertainty.

Escalation adjusts the cost of something for future price inflation.[1350] We have not applied escalation to our cost estimates.

We proposed ways to fund each draft recommendation

Funding is the money needed to pay for infrastructure. Victorian Government funding can come from the community through taxes, from charging people when they use infrastructure, by shifting government spending from other initiatives, or from debt. The Australian Government also raises money through taxes and can share some of this money with the states. This often helps fund infrastructure.

We assume the Victorian Government can start to include funding for our draft recommendations in its May 2026 budget. We assume the government will start spending that money from the 2026–27 financial year. We also assume the government will start acting on our draft recommendations within 5 years. Some of these draft recommendations may be delivered over a longer period beyond the initial 5 years.

The government can explore other funding sources to help pay for infrastructure

Our draft strategy suggests alternative ways to fund some infrastructure. New or upgraded infrastructure can help some groups of people or businesses. A logistics firm might save money because a new road lets them move goods faster and at lower cost. New infrastructure can make land more valuable. Asking those who benefit to help pay can be fairer than all Victorians paying taxes to fund infrastructure from general government revenue.

Policies and reforms can encourage people to use infrastructure more efficiently. They might use infrastructure at different times or in different ways. This can help the Victorian Government save money by using infrastructure in better, fairer ways.[1351]

The Victorian Government can also partner with the Australian Government, and private and not-for-profit sectors and share infrastructure costs. For example, commercial businesses can lease parts of hospitals and their rents can go towards running those hospitals.

Victorian Government departments and agencies should look at alternative funding sources when they plan infrastructure investments. These might only partly fund an infrastructure project, but they can help.

We estimated the total cost for Victoria's 30-year infrastructure strategy recommendations

Victorian Government infrastructure investment is now at record levels. It will average $19.3 billion each year from the 2024–25 to the 2027–28 financial years. The government's investment was approximately $15 billion in the 2020–21 financial year. The government aims to get back to this level by the 2027–28 financial year.[1352]

Only 27 of our 43 draft recommendations need Victorian Government capital investment. Very few are large-scale major projects that require high upfront investment. Many upgrade or replace infrastructure that is not running efficiently. The other 16 draft recommendations need policy work, legislative reform and better planning.

We estimate that the total cost of implementing all draft recommendations is around $60 billion to $75 billion. Most of this spending will happen before 2035. Around 75% of the total cost is from 6 draft recommendations with capital-intensive projects that improve social housing, kindergartens, schools, public transport and hospitals.

Funding for our draft recommendations does not need to come from the Victorian Government alone. The Victorian Government can partner with the Australian Government (see box – Making the case for strategic and evidence-based infrastructure funding) and other organisations, or funding can come through other sources like charging infrastructure users.

Federal partnerships, along with smarter use of existing government land, can help reduce the Victorian Government's costs of implementing our draft strategy recommendations to around $55 billion, with average spending of approximately $5 billion each year for the next 10 years.

Our future options would add around $10 billion in capital works after 2030.

Making the case for strategic and evidence-based infrastructure funding

The 2023 *Infrastructure policy statement* details the Australian Government's commitment to delivering high-quality and nationally significant land transport infrastructure that meet a set criteria.[1353] This includes investing in proposals that are supported by evidence and long-term strategic plans.

A recently reformed Infrastructure Australia will also support improved infrastructure evaluation and decision-making.[1354]

Many of our draft recommendations on land transport are strongly aligned with the Australian Government's focus on productivity, sustainability and liveability for infrastructure investment.[1355]

The Australian Government has committed $19.2 billion to Victoria over the next 10 years under the Infrastructure Investment Program.[1356] Although this funding has already been committed to projects, maintaining this level of investment in Victoria would result in Australian Government funding of approximately $1.9 billion each year.[1357]

Continued partnership between the Victorian and Australian governments could help to reduce the cost of delivering our future options by around $5 billion.

We estimated overall costs, but this strategy is not a budgeting exercise. The Victorian Government's published budget figures are for the next 4 years only. Government needs to consider the state's financial position and the fiscal policy situation to make decisions on how to raise revenue and spend money on infrastructure.

Implementing our draft recommendations is realistic and achievable within the planned government infrastructure investment range. Some of our draft recommendations might only use funds that are regularly spent on social and transport infrastructure anyway. Some of our draft recommendations include large scale investment in infrastructure like kindergartens, schools and hospitals (for example, draft recommendations 1, 2 and 20). We designed these draft recommendations to meet current and future infrastructure needs that are difficult to avoid and are necessary investments to achieve key Victorian Government policies.

Similarly, many of our draft transport recommendations (see draft recommendations 8, 9, 10, 11, 12 and 40) improve access to opportunities for Victorians already living in new suburbs on the city's fringes based on

past planning decisions. They also support more homes in inner and middle suburbs and help achieve the Victorian Government's housing targets.

Investing in social housing (draft recommendations 1 and 22) to meet the current and future housing needs of low-income Victorians is one of our highest cost draft recommendations, even when delivered over a longer period. The higher costs of meeting needs for more transport, housing, and social infrastructure demonstrate that the Victorian Government will need to carefully balance its policy ambitions with available funding over the coming years.

Have your say

Every decision on infrastructure shapes Victoria's future. Your input will help shape Victoria's infrastructure strategy for the next 30 years. The draft strategy provides recommendations to the Victorian Government and Parliament on how to deliver new infrastructure where it is needed most and get the best use from the state's existing infrastructure.

We are seeking your feedback and evidence on our draft recommendations. Get involved in our public consultation at: https://engage.vic.gov.au/victorias30yearinfrastructurestrategy.

The updated infrastructure strategy will be tabled in the Victorian Parliament at the end of 2025.

Our draft recommendations each span multiple strategy objectives

This updated infrastructure strategy is structured around the 6 objectives. We placed each of the 43 draft recommendations under the strategy objective that they help to advance the most.

The table below shows how our draft recommendations align with each of the strategy objectives. We use a green circle (●) to show the primary objective for each draft recommendation. But many of our draft recommendations also respond to multiple objectives. We use an orange circle (●) to show the additional objectives advanced by each draft recommendation.

● : *Primary objective*
● : *Additional objective*

#	Recommendation	Victorians have good access to housing, jobs, services and opportunities	Victorians are healthy and safe	Aboriginal people have self-determination and equal outcomes to other Victorians	Victoria has a thriving natural environment	Victoria is resilient to climate change and other future risks	Victoria has a high productivity and circular economy
1	Build more social housing	●	●	●			
2	Facilitate markets and invest in kindergarten infrastructure	●	●				●
3	Plan and deliver expanded and new schools	●	●				●
4	Expand TAFE in Melbourne's growth areas and some large regional centres	●					●
5	Build libraries and aquatic centres for Melbourne's growing communities	●	●				
6	Make government infrastructure more accessible	●	●				
7	Rezone locations near existing infrastructure for more home choices	●					●
8	Extend Melbourne's trams to encourage more new homes nearby	●					
9	Run faster bus services, more often, in Victoria's largest cities	●					
10	Build a new bus rapid transit network	●					

● : Primary objective
● : Additional objective

#	Recommendation	Victorians have good access to housing, jobs, services and opportunities	Victorians are healthy and safe	Aboriginal people have self-determination and equal outcomes to other Victorians	Victoria has a thriving natural environment	Victoria is resilient to climate change and other future risks	Victoria has a high productivity and circular economy
11	Extend metropolitan trains and run more services in Melbourne's west	●					
12	Run more bus and coach services in regional Victoria	●		●			
13	Make off-peak public transport cheaper and simplify regional fare zones	●					
14	Make local streets safer for children and communities	●	●				
15	Build safe cycling networks in Melbourne and regional cities	●	●				
16	Help government schools share their grounds	●	●				
17	Invest in maintenance, upgrades and expansions of community health facilities	●	●				
18	Build more residential alcohol and other drug treatment facilities	●	●	●			
19	Invest in digital healthcare	●	●				
20	Upgrade critical public hospital infrastructure	●	●			●	
21	Better use prisons and invest more in health facilities and transition housing	●	●	●			
22	Invest in secure homes for Aboriginal Victorians	●	●	●			
23	Fund better health and wellbeing infrastructure for Aboriginal Victorians	●	●	●			
24	Reduce greenhouse gas emissions from infrastructure				●	●	●

● : Primary objective
● : Additional objective

#	Recommendation	Victorians have good access to housing, jobs, services and opportunities	Victorians are healthy and safe	Aboriginal people have self-determination and equal outcomes to other Victorians	Victoria has a thriving natural environment	Victoria is resilient to climate change and other future risks	Victoria has a high productivity and circular economy
25	Advance integrated water management and use more recycled water				●	●	●
26	Better use government land for open space and greenery		●		●	●	
27	Better prepare infrastructure for climate change		●			●	
28	Use new flood maps to revise planning schemes		●		●	●	
29	Coordinate faster delivery of key energy infrastructure				●	●	
30	Improve environmental assessments and site selection for energy projects				●	●	
31	Invest in home, neighbourhood and big batteries for more energy storage				●	●	
32	Determine long duration energy storage needs				●	●	
33	Develop regional energy plans, guide transition from fossil gas and maintain reliable gas supply				●	●	
34	Speed up household energy efficiency and electrification		●		●	●	
35	Prepare and publish infrastructure sector plans to shape Victoria's cities	●					●
36	Reform infrastructure contributions	●					●
37	Improve asset management of all government infrastructure	●	●				●
38	Prepare for more recycling and waste infrastructure				●		●

● : Primary objective
● : Additional objective

#	Recommendation	Victorians have good access to housing, jobs, services and opportunities	Victorians are healthy and safe	Aboriginal people have self-determination and equal outcomes to other Victorians	Victoria has a thriving natural environment	Victoria is resilient to climate change and other future risks	Victoria has a high productivity and circular economy
39	Use digital technologies to better design, build, operate and maintain government infrastructure					●	●
40	Use modern traffic control technology for efficient and safe journeys	●	●				●
41	Make rail freight competitive, reliable and efficient						●
42	Encourage off-peak freight delivery in urban areas						●
43	Create and preserve opportunities for future major infrastructure projects					●	●

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Sustainability note

Infrastructure Victoria is committed to reducing its impact on the environment. This report is available in accessible version online or in PDF format only.

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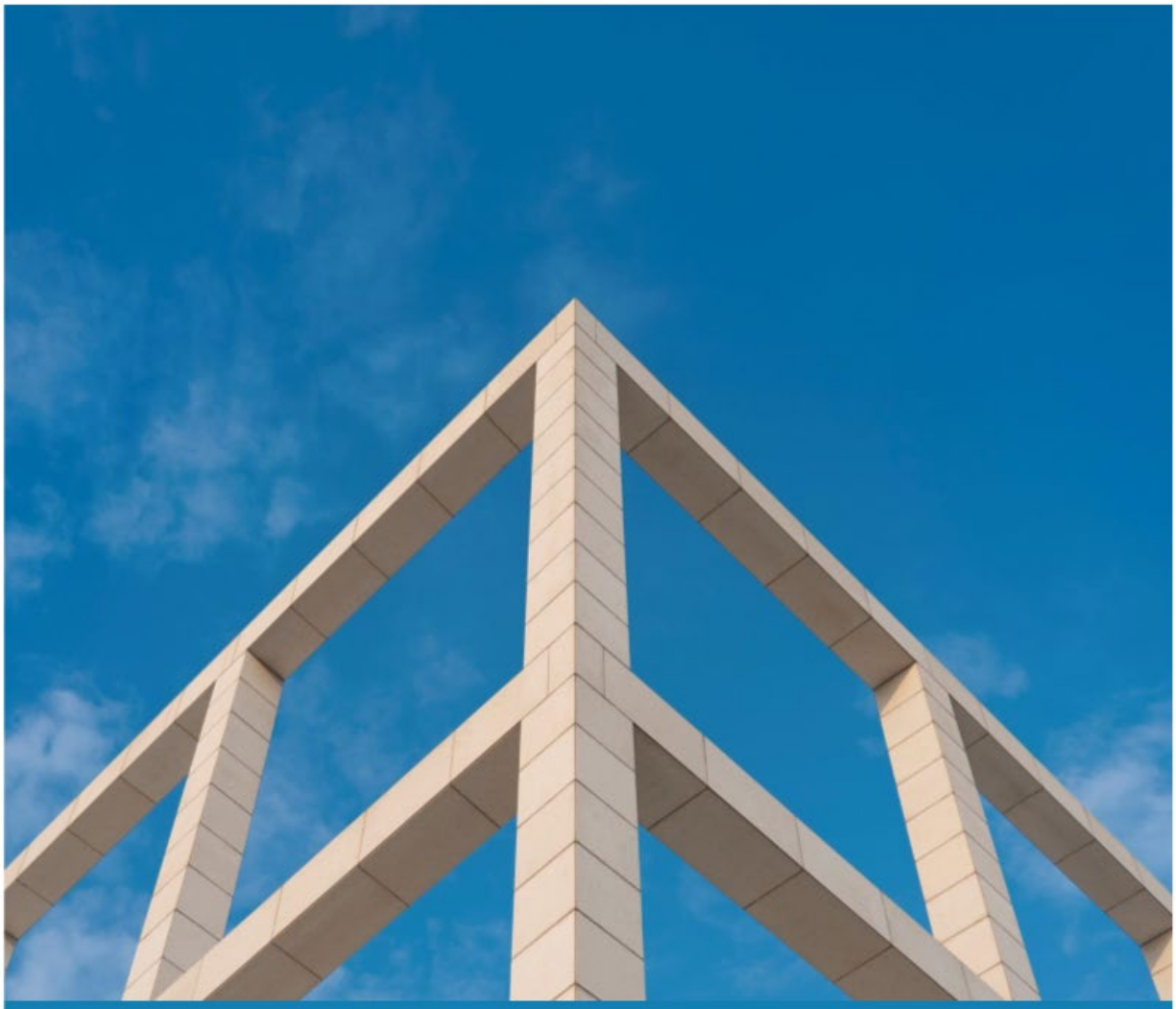

Manningham Council Submission

Infrastructure Victoria's Draft 30-Year Infrastructure Strategy

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MANNINGHAM

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Details

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MANNINGHAM

Acknowledgment

Manningham Council acknowledges the Wurundjeri Woi-wurrung people as the Traditional Custodians of the land and waterways now known as Manningham.

Council pays respect to Elders past, present and emerging, and values the ongoing contribution to enrich and appreciate the cultural heritage of Manningham.

Council acknowledges and respects Australia's First Peoples as Traditional Custodians of lands and waterways across Country and encourages reconciliation between all.

Statement of recognition of diverse cultures

Manningham Council also values the contribution made to Manningham over the years by people of diverse backgrounds and cultures.

Executive Summary

1. This submission has been prepared on behalf of Manningham Council (Council) in relation to the public exhibition of the draft version of Victoria's 30 Year Infrastructure Strategy, which has been prepared by Infrastructure Victoria.

2. The draft strategy contains 43 recommendations and 7 'future options' for the State Government to consider – with various timelines and associated considerations outlined.

3. Council has previously commented on Infrastructure Victoria's draft 30-year Infrastructure Strategies in 2016 and 2021.

4. As a key stakeholder and delivery agency for public infrastructure, it is important that Council review and comment on the draft strategy to ensure our community is represented.

5. Council generally supports the draft strategy and looks forward to the State Government acknowledging and actioning the recommendations.

Introduction

6. Council welcomes the opportunity to provide feedback on the exhibited draft strategy, which will become the key advisory document for the State Government for all public infrastructure decisions.

7. We acknowledge that renewed consultation occurs each time that the strategy is refreshed and commend this approach by Infrastructure Victoria to continue checking-in with key stakeholders and community. Council would welcome any further opportunities to be involved including to progress/discuss any of the matters raised in this submission.

8. Through the planning and delivery of our broad range of services and functions, Council is aware of the importance that infrastructure plays in supporting liveability, functionality and environmental resilience.

9. Our Community Infrastructure Plan (CIP) currently directs Manningham's significant investment in new and upgraded infrastructure, and guides decisions to decommission any assets that no longer meet the needs of the community. The key focus areas of the CIP are early years, young people, libraries and learning spaces, arts and culture, community meeting spaces, and community services (medical and legal services, material aid and aged care).

10. Manningham has a set of specific characteristics to consider when it comes to infrastructure. We have no rail network, an ageing but growing population, a large area of land outside the Urban Growth Boundary, a number of watercourses physically dividing land, and environmental risks including bushfires and flooding.

11. Our landscape and infrastructure environment are also undergoing significant change as the State's North East Link Project (NELP) continues to progress – which is the largest road infrastructure project in Victoria's history. Council continues to work proactively to ensure Manningham's interests are addressed throughout the project and officers are involved with a range of matters including planning, design, construction, communications and stakeholder management.

12. This submission has been prepared by Council officers based on Council officer feedback and expertise, and with input by Councillors and executive management. In addition, the recommendations of Manningham's Community Panel have been considered and noted where relevant in response to the Infrastructure Victoria recommendations.

13. The Community Panel was formed in September 2024 to help determine key priorities for Manningham's future. The Panel recruitment started with 8000 envelopes sent randomly to local households. Of those who accepted the invitation, a second random draw resulted in the final 40 people chosen. This second draw was then 'stratified,' so people chosen were representative of Manningham by age, gender, location, living situation and the language spoken at home.

14. The Community Vision generated by the Panel is that *Manningham is a harmonious, inclusive and safe community that is committed to sustainable growth, well-being, and innovation. We celebrate our diversity and natural environment whilst fostering a connected community that enriches the lives of all.*

Submission

Council's submission is generally structured to align with the structure of the draft strategy, for clarity and legibility. We discuss each recommendation under the six objectives of the draft strategy.

We seek to highlight the recommendations that we support or otherwise have concerns with, and to identify key Manningham initiatives that align with the recommendations. We have also taken the opportunity to outline any suggested changes, issues or gaps in the strategy.

Objective 1 - Victorians have good access to housing, jobs, services and opportunities

Recommendation 1 – **Build more social housing**

15. Council supports this recommendation for the State Government to invest in social housing to enable more Victorians on low incomes to access a secure and affordable home.

16. The rate of social housing provision in Manningham is far lower than the average for Greater Melbourne (0.6% of total dwellings compared with 2.6% in Greater Melbourne). Manningham also has the lowest supply of social housing in the eastern region.

17. Subsequently, we support initiatives that may assist with increasing our social housing provision and continue to advocate for this through the Eastern Affordable Housing Alliance. We note that any such initiatives would require robust consultation with Council and community prior to implementation.

18. The Eastern Region Group (ERG) submission to Plan for Victoria also advocates for a greater focus on social housing. The submission notes that the gap between the number of households requiring assistance and the number of available dwellings (in the Eastern Region) will increase to 24,700 by 2041.

Recommendation 2 – **Facilitate markets and invest in kindergarten infrastructure**

19. Council supports this recommendation focused on encouraging investment in kindergarten infrastructure.

20. The recommendation aligns with ongoing work by Council to plan for the State Government's *Best Start Best Life* reforms, through Council's Community Infrastructure Plan and Early Years Infrastructure Plan.

21. Council is currently developing a new Early Years Infrastructure Plan (EYIP) to identify current and future demand for early years services. We seek that the State Government refer to local policies such as this when/if acting on Infrastructure Victoria's recommendations.

22. Infrastructure Victoria have also identified opportunities to co-locate kindergarten services in primary schools, which is strongly supported by Council. Clear identification of school sites by the State Government is recommended, as this will further strengthen the opportunities for co-location which are currently being identified through the EYIP project.

23. It is important that the State Government continue to enable infrastructure to meet population growth as identified within the State Government's Housing Targets. This must be considered through State Government financial contributions and developer contributions for new and upgraded early years facilities.

24. It is integral that the State Government also plays their role and provides kindergarten infrastructure to minimise the funding impact on local governments. There is currently an obligation for Council to fill a growing gap in funding, which can be significant for some sites. This is in addition to the ongoing maintenance and renewal costs for kindergarten infrastructure, for which there is currently no external funding support.

Recommendation 3 – Plan and deliver expanded and new schools

This recommendation is not within Council's scope. However, we support the concept in principle due to projected population growth, housing targets, and the importance of providing access to education. Council also encourages this initiative given it would assist in the use of school land for enhanced access for public and active open space for the community.

25. We see an opportunity for the State Government to actively plan ahead for shared/joint use of school infrastructure when it is in development – including sport and community infrastructure such as playing fields and indoor sports facilities. This would respond to increasing demand and the compatibility of school versus community usage times – which we note also aligns with Recommendation 16.

Recommendation 4 – Expand TAFE in Melbourne's growth areas and some large regional centres

26. This recommendation is also generally outside Council's scope as there is no TAFE campuses within Manningham. We support the recommendation in principle given the identified need to fill skills gaps.

27. We note that it is integral to support the expansion and creation of new TAFE campuses with the delivery of a robust transport network, to ensure equitable access for students and workers.

28. This network should also include consideration of connections to existing education hubs – which aligns with Manningham's advocacy for an express bus route that mirrors the future Suburban Rail Loop alignment, starting with a route between Monash and La Trobe Universities via Deakin University, Box Hill Station, Doncaster, Bulleen and Heidelberg.

Recommendation 5 – Build libraries and aquatic centres for Melbourne's growth areas and some large regional centres.

29. This recommendation focuses on facility provision in regional and growth areas. Whilst this is understandable, focus should still be made towards established metropolitan areas - especially given the significant population increases anticipated in response to the State Government's Housing Targets.

30. Funding should continue to be made available to assist with upgrading existing facilities to cater for increasing demand, as well as funding for expansion of existing or development of new services. Access to additional funding would also assist local governments in elevating community facilities to meet enhanced Environmental Sustainable Development (ESD) polices and principles as supported by Council Alliance for Sustainable Built Environment (CASBE).

31. Similar to libraries, the State Government's investment into planning and construction should continue for metropolitan Councils. This is especially relevant given current infrastructure is ageing, and a growing population means increasing pressures on these assets.

32. As an example, Aquarena is Manningham's sole aquatic centre, and its outdoor area was built in 1960s. Aquarena is a much-loved space, however, is at the end of its lifespan and requires a total refresh. This facility serves the entire municipality, receiving 1.14 million visits annually. Without its redevelopment, Manningham Council will struggle to accommodate the growing demands of the community and the delivery of essential health and wellbeing outcomes effectively.

33. We will continue our advocacy for government to assist in funding the Aquarena outdoor redevelopment project. We seek that Infrastructure Victoria expand Recommendation 5 to also acknowledge the need for government to support local governments in established metropolitan areas with much needed upgrades of existing library and aquatic centres.

Recommendation 6 - **Make government infrastructure more accessible**

34. Council supports all initiatives related to improving accessibility and has keenly participated in recent discussions with the Chief Accessibility Advocate for Public Transport Victoria through our involvement with the Metropolitan Transport Forum (MTF). We note that accessibility to public transport can be limited for a variety of reasons and seek physical DDA compliance in addition to initiatives that address other factors such as visual and hearing impairments.

35. Our work with the MTF has highlighted the importance of progressing accessible transport, in particular following the State's failure to meet the 2022 deadline for all public transport to be accessible. It is integral that improvement is achieved in this space to enable people with disability to be mobile across all transport modes.

36. Noting the complexity of the required upgrades, it is understood that extensive investment and planning is required. However, this is all the more reason to act as soon as possible to build momentum and ensure roll-out as early as possible.

37. This recommendation could also be expanded to acknowledge the flow-on infrastructure impacts from accessibility upgrades, which will have a financial impact on local Councils. For example, once a public transport stop is upgraded there may be a need for subsequent changes to connecting infrastructure such as redesign or construction of wider footpaths to meet DDA standard, which may come at substantial cost.

38. We also note that this recommendation identifies that one-third of Melbourne's bus stops are not wheelchair accessible – which is a significant concern for Manningham given buses are our only form of public transport.

39. Of note is that Council is also seeking funding to upgrade our bus stops and shelters, which includes ensuring full accessibility compliance. We remain in an arrangement where a large majority of bus shelters in Manningham are owned and maintained by Council, rather than by the State government Department of Transport and Planning. As a result, we have significant expenditure on a service that should be the responsibility of the State. Our long-term goal is to hand-over the shelters to DTP for ongoing delivery, ownership, and maintenance - which would facilitate better consistency and pace in the roll-out of accessibility upgrades. In the meantime, we are working towards delivering as many shelters as we can within our budget and capabilities.

Recommendation 7 – Rezone locations near existing infrastructure for more home choices

40. Council supports this recommendation and believes that its strategic housing and residential framework closely aligns with this direction.

41. Manningham currently directs its housing growth to preferred strategic locations. This includes activity centres and along main roads, which have good access to commercial, community and recreational facilities.

42. Over the previous 13 years, Manningham Council has successfully facilitated housing growth in these locations in accordance with State Government policy directions and in accordance with the existing Manningham Residential Strategy (2012). The introduction of the Doncaster Hill Strategy (2002, revised 2004) provides for the highest density development in the 58ha area forming part of Doncaster Hill Major Activity Centre which surrounds and includes Westfield Doncaster.

43. The Pines Shopping Centre is the other Major Activity Centre in Manningham after Doncaster Hill and is also surrounded by substantial higher density dwellings. In addition, the previous and current Manningham Residential Strategies (2002 and 2012 respectively) have resulted in increased residential densities and apartment development around our activity centres and along main roads, near public transport and employment opportunities.

44. Council is currently preparing a new Residential Strategy that will provide an updated plan for how Manningham will accommodate projected population growth and housing needs up to 2036. It will take into consideration and respond to the recently released State Government Housing targets and Plan for Victoria.

45. This new strategy will deliver clear strategic direction on the spatial distribution of residential growth with consideration of the housing needs of our growing and changing community. In particular, the Residential Strategy will:

- ensure the supply of residential land is maintained up to 2036 based on an analysis of housing capacity.
- ensure areas for growth are well planned and delivers sustainable outcomes.
- identify existing and new areas most suitable for accommodating projected growth and
- use the areas for housing change identified in the strategy as the basis for determining the spatial application of residential zones across Manningham.

46. To this end, it is likely that the new Residential Strategy will recommend some changes to zonings to support residential growth in certain locations.

47. There is also, however, a need to investigate other opportunities at the state and local level to introduce more innovative planning policy and/or legislative changes that support emerging housing models and outcomes that focus on moderate income households. These may include affordable "Build to Rent" and "Rent to Buy" housing for key workers and shared equity schemes.

48. Whilst the planning system can provide the policy setting for development, it cannot compel land to be developed. There are many external factors that developers consider when developing land, including taxation, interest rates, finance, material and labour costs and availability and market interest. Council cannot compel the lodgement of planning permit

applications for residential development and likewise cannot force developers to act upon active planning permits. Accordingly, we support Infrastructure Victoria's suggestion that rezoning should be bundled with other development incentives.

49. The last decade of high-density housing growth in Manningham has slowed down with very limited new construction in the pipeline for the foreseeable future. Achieving the targets will be a challenge without a major change in housing delivery. In this context, information on how the State Government proposes to re-ignite established area housing supply is welcomed.

50. The need for additional housing and a responsive zoning structure is acknowledged, however a multi-faceted solution and whole of government approach is also required. Numerous factors impact the delivery of housing, with many of these elements being outside of Council's influence. Council is committed to establishing a planning policy setting that facilitates appropriate housing growth and encourages investment, which is demonstrated through the comprehensive process underway to develop the new Manningham Residential Strategy.

51. Outside of residential land use considerations, we also note there will be a need for any rezoning to account for the increasing demand for services and facilities that will come with the growing population. While Recommendation 7 has a focus on rezoning to allow more housing near existing services, it is generally silent on the need for any rezoning to also consider *new* services and facilities that may be required to support additional housing.

52. Overall, Council supports this recommendation in principle, and it aligns with our ongoing advocacy via the Eastern Affordable Housing Alliance. We stress the importance of meaningful consultation occurring with local government and community to ensure the rezoning mechanism is appropriate and considers all flow-on implications.

Recommendation 8 – Extend Melbourne's trams to encourage more new homes nearby.

53. Council generally supports this recommendation. However, our position is that further investment in trams should not be prioritised above investment in buses. Bus infrastructure is widely known to be more affordable than light rail, and Council's view is that substantial benefit could be achieved through upgrades to the bus network in advance of any tram extensions.

54. Recommendation 8 aligns with historical advocacy by Manningham for the route 48 tram to be extended down Doncaster Road. While this priority is not at the forefront of our advocacy currently, we request that Infrastructure Victoria consider showing this as an indicative potential link on the Figure 5 map within the draft strategy.

55. It is understood that concerns were previously raised with the steep gradient up to Doncaster Road not being feasible for a tram route. However, we note that transport technology and infrastructure is continuing to evolve and anticipate this issue will not be insurmountable forever.

56. Notably, throughout the NELP planning and design works for the Doncaster Road interchange and bridge – we have sought assurances that the weight of a tram and associated infrastructure could be accommodated to future proof for a tram connection. If Doncaster cannot be included on the Figure 5 map, Council would appreciate the strategy to mention the importance of future-proofing for future light rail upgrades at key locations, including Doncaster.

Recommendation 9 – Run faster bus services, more often, in Victoria's largest cities.

57. Council strongly supports this recommendation and notes it closely aligns with many of our current advocacy priorities. Faster, more frequent and more reliable buses are a common theme throughout our ongoing strategic, community engagement and advocacy work.

58. Manningham is the only metropolitan Melbourne municipality with no rail network. Buses are the only form of public transport service available in Manningham.

59. In the context of increased growth due to the State Government's housing targets, Manningham's liveability will be significantly impacted if the transport network is not upgraded to support the anticipated growth. This additional urgency for transport infrastructure to be upgraded can only be addressed by bus improvements in Manningham, due to the lack of other public transport options.

60. We have closely followed Infrastructure Victoria's work on buses including background research undertaken by Quantum Market Research, which found that:

- All respondents residing in Manningham travel by car/motorcycle at least weekly (100%) and were more likely than average to own a car (93%) and hold a valid drivers licence (99%).
- Manningham respondents were more likely than average to use a bus more often than once a year (59% vs. 44% of all respondents).
- Manningham respondents were more likely than average to agree that buses are for people like them (40% vs. 24% of all respondents) however, they were less likely than average to agree that they feel positively towards public transport overall (46% vs. 57% of all respondents).
- 25% of Melbournians would love to get rid of their cars but do not feel that they have a viable alternative.

61. Manningham's Community Panel has also dedicated one of fourteen Council-wide recommendations to improving bus services. Recommendation 4 of the Manningham Community Panel Final Report is: *Increase Manningham Connectivity through Bus Service*. The Panel seeks improved bus services and routes to align with local community needs, and improved frequency for key routes.

62. A community survey undertaken in October 2023 found that the top priorities for bus users in Manningham were increased frequency, better reliability, additional and/or more direct routes, and improved service spread – which further supports Recommendation 9.

63. We note that significant work has already been undertaken by DTP as part of their bus network reform project, for which the north east pilot area included Manningham. However, we were disappointed that implementation funding for the new network was not provided in the May 2024 budget. We continue to seek visibility on the draft network maps to provide local insights, and for the State Government to provide funding to facilitate the mapped improvements to be rolled out on the ground.

64. We strongly support this recommendation and echo Infrastructure Victoria's call for the State Government to improve the bus network and services as a matter of urgency, to respond to population and housing projections and net zero emissions goals.

65. We also seek assurance of local government support in the event that the State Government acts on this recommendation. Flow-on infrastructure and asset impacts to Council may

include requirements for additional bus shelters and/or stops, accessibility upgrades, additional parking for bicycles and vehicles, wider roads, extra works in road reserves, upgraded bus interchanges and increased maintenance requirements.

Recommendation 10 - Build a new bus rapid transit network

66. In accordance with our Transport Action Plan 2021, Manningham's top transport advocacy priority is the provision of a Bus Rapid Transit (BRT) network, beginning with the highly patronised 907 route from Mitcham Station along Doncaster Road to the CBD.

67. We welcome the Eastern Busway as part of NELP, which will provide part of our envisaged busway link from Doncaster Park and Ride to Hoddle Street. However, the beginning of the 907's journey from Mitcham to Doncaster is not covered by the Eastern Busway, and the final connection at Hoddle Street is hampered by congestion issues and a lack of on-road priority.

68. We therefore commend Infrastructure Victoria for addressing the Hoddle Street end of the 907's journey via Recommendation 10. Council strongly supports the recommended extension of the Eastern Busway along Hoddle Street to address existing congestion issues, which are projected to get worse.

69. However, the BRT map in Figure 7 does not provide a link between Mitcham and Doncaster, to cover the initial stage of the 907's journey. Council has recently commenced work to progress initial investigations for a solution, via a new campaign and project plan to investigate high frequency busway options for the Doncaster Road Corridor. However, we lack the funding to support key feasibility testing for this major project, which is integral to achieve improved transport connectivity along this strategic growth corridor.

70. Additionally, Figure 7 is also missing an orbital north/south link crossing over or connecting to the Eastern Busway, which is a noticeable gap in the modelled BRT network. A bus link along this orbital north/south alignment would respond to Manningham's advocacy for an express bus route to mimic the future Suburban Rail Loop (SRL) alignment. This link would form a key part of the BRT network shown in Figure 7 and would begin generating the commuter movements expected for Stage 2 of SRL, as well as acting as a feeder route to existing train stations and the Stage 1 SRL alignment.

71. As such, while we strongly support the sentiment behind Recommendation 10, we request it also consider how the State Government may support and/or collaborate with local councils on initial investigations into BRT or similar busway options, beyond those identified on the Figure 7 map.

Recommendation 11 – Extend metropolitan trains and run more services in Melbourne's west

72. This recommendation is not directly relevant to Manningham. However, we note that bus improvements can be achieved at a fraction of the cost of new rail infrastructure. As such, we note that improving bus services to these areas may provide the desired public transport connections in a more timely and affordable manner than rail.

73. We also support the intention of Recommendation 11 to reduce car dependency and work towards electrification of trains.

Recommendation 12 – Run more bus and coach services in regional Victoria

74. Council supports this recommendation in principle, although it is not directly related to our local area. Bus improvements are generally an affordable solution to existing transport needs and better connectivity in regional areas will also benefit Manningham residents when visiting or travelling though Victoria's regions for work, tourism, education, or other purposes.

Recommendation 13 – Make off-peak public transport cheaper and simplify regional fare zones

75. Council supports this recommendation, in particular considering the cost of living crisis being felt by many residents in Manningham, and indeed across all of Victoria.

76. Feedback from Manningham bus users obtained via the 2023 Metropolitan Transport Forum (MTF) 'Better Buses' Survey included that driving was sometimes more cost effective than catching the bus – creating a challenge for building bus patronage.

77. Making public transport more affordable increases access to a wider range of users and will contribute to the much-desired mode shift away from private vehicles.

78. To further improve this accessibility, Council recommends additional considerations in relation to ticketing be included as follows:

- Increase the provision of ticketing facilities (i.e. locations where a Myki can be 'topped-up' immediately – given there is currently a delay with online top-ups.)
- Address the delay with online 'top-ups'.
- Adoption of credit card 'touch on' facilities.

79. Council also seeks assurance that off-peak fares will not be made more affordable than on-peak fares simply by increasing the price of on-peak fares.

80. The 50 cent fares initiative in Queensland should be looked to as an example, which was introduced as a trial in August 2024 and subsequently made permeant. As measured in February 2025, Queensland public transport users had saved more than $181 million since the start of the trial, based on the same number of trips being taken under the previous fare structure. This initiative has also achieved a marked uplift in public transport patronage, which is a key goal for Manningham and indeed Victoria more widely.

81. Council also seeks advice from Infrastructure Victoria on whether fare evasion has been considered in the costings for this initiative.

Objective 2 – Victorians are healthy and safe

Recommendation 14 – Make local streets safer for children and communities

82. Council supports this recommendation in-principle and is committed to improving road safety for all road users including children. We note that the recommendation should also consider locations such as Maternal and Child Health Centres as key locations that children often visit.

83. Investigating reduced speed limits is an identified action of Council's (draft) Road Safety Strategy and aligns with the Safe Systems approach to road safety. We understand DTP is working with the Council areas where 30km/h zones are being trialled, to determine their effectiveness. As the reduction of speed limits to 30km/h is controversial, Council would be most supportive of 30km/h speed zones where there is clear, evidence-based justification demonstrating that it would improve road safety and align with best practice guidelines.

84. As such, there will be case-by-case considerations for whether a 30km/h speed limit is appropriate and feasible for some locations, but we support the overall concept of reducing speeds to improve safety.

85. Council seeks that the recommended support to local governments in implementing this recommendation should also extend to additional local traffic management treatments that may become necessary with changed speed limits, to assist with compliance.

86. Creating safer streets for pedestrians and cyclists also aligns with Council's aspirations to improve active transport access to sporting venues, ovals and similar recreational facilities – which are often visited by children.

Recommendation 15 – **Build safe cycling networks in Melbourne and regional cities**

87. Council supports this recommendation and notes that perceptions of safety are a huge barrier to cycling uptake at present, which connected and protected cycle corridors would address.

88. This recommendation aligns with Manningham's Liveable City Strategy, which aims to encourage walking and cycling to contribute to wellbeing, improve separation between bicycles and vehicles and upgrade footpaths/bicycle paths and associated infrastructure.

89. Manningham's Community Panel has also highlighted this issue, with Recommendation 10 of their report being: *Improving Manningham's active transport network (constructive footpaths and bicycle lanes).*

90. We are yet to see a significant increase in active transport uptake within Manningham (based on ABS data assessment and localised surveys/counts). As reported in the Manningham Bicycle Strategy 2013, the percentage of Manningham residents using a bicycle to travel to work at that time was 0.23%. In 2021, the ABS reported that this percentage had dropped to 0.1% - although the census was conducted during COVID-19 lockdowns. This is likely in part due to the key issues identified by Infrastructure Victoria in Recommendation 15 including disconnected networks, safety concerns, and poor quality infrastructure.

91. Moving forwards, our goal is to achieve an increase in uptake of active transport in Manningham to reduce reliance on private vehicles, encourage inter-modal trips with public transport, increase micromobility, better connect our community and contribute to improving their overall health and wellbeing.

92. Connected and protected infrastructure delivered by both Council and the State Government will play a key role in achieving this increased uptake. As such, we are disappointed to see that the Figure 12 map does not include links within Manningham. Additionally, we note that orbital connections between mainline routes are not proposed. We seek clarity on the reasoning behind these omissions on the Figure 12 map.

93. We also seek clarity on how recreational cyclists have been considered by Infrastructure Victoria in the draft strategy. We support the objectives and rationale of the strategy in planning for cycling more generally, but additional focus on recreational trail infrastructure could be included.

94. Of note, is that Council is in the early stages of a refresh of all active transport related strategies, to be finalised in 2026. This project will provide an updated, integrated active transport strategy to guide Council programs, planning, infrastructure, and advocacy for the next 10 years – and will consider all active transport modes and how they interact. We will echo Infrastructure Victoria's recommendation for the State Government to better support the roll-out of cycling infrastructure as a part of this project.

Recommendation 16 – Help government schools share their grounds

95. Although schools are outside the remit of Council, we strongly support this recommendation in principle and note the wide-ranging potential community benefits. This initiative would relieve some of the pressure on Council and we agree that schools would need sufficient support from the government to participate.

96. Our view is that this initiative could also be expanded to other school facilities beyond sporting grounds, such as theatre spaces, indoor sporting facilities, playgrounds and other facilities and spaces of use to the community.

97. Public access to outdoor school spaces (e.g. playgrounds, ovals, etc) should also be encouraged for informal and casual use, in addition to organised sporting/community bookings, to help facilitate more active communities. However, a key challenge to be addressed is vandalism, anti-social behaviour and other risks to schools from allowing casual public access to their spaces out of hours. This should be a key focus for the State Government in providing support to facilitate any sharing arrangements.

98. For formal/organised sharing of facilities, we note that there will be significant complexities to be managed including how this might change priorities for development of parks and recreational facilities, how school facilities will be managed, legal agreements for access, risk management, and funding of maintenance and management.

99. For example, Council's experience is that the process to develop Joint Usage Agreements can be difficult and can be met with resistance from the schools. We hope that additional support for schools by government as recommended by Infrastructure Victoria may assist with mitigating this challenge.

100. We note Infrastructure Victoria's report '*Getting more from Melbourne's school grounds: sharing places for play and exercise'* also had a strong focus on general recreation. However, we submit that this needs to be broadened to reflect organised sport, as supporting amenities like toilets, change rooms and shelter need to also be funded to maximise use of ovals.

101. Opening up access to school facilities directly responds to Manningham's Active for Life Recreation Strategy and is therefore supported overall. Our view is that it is essential to simplify the process to establish agreements and ensure ongoing State Government investment to enhance and maintain this infrastructure.

102. We note that sharing of facilities aligns with Recommendation 8 of the Manningham Community Panel – which seeks to transition single use facilities into multi-use facilities that can be shared for all different demographics.

Recommendation 17 – Invest in maintenance, upgrades and expansions of community health facilities.

103. We support this recommendation and suggest that it should also include additional Maternal and Child Health locations and services, youth mental health services, and Priority Health Clinics.

104. There are a number of compounding factors which make access to health care services a concern for our community, including the lack of a train or tram line, our hilly terrain (causing difficulty in reaching bus stops), and our high percentage of older adults.

105. We seek assurance that Manningham will be considered as part of the development of priorities for government investment in community health, as outlined by Recommendation 17.

106. Manningham's Community Panel has called out health and wellbeing support as Recommendation 7 of their report, with a request for Council to facilitate programs focused on enhancing the overall mental health and well-being of Manningham residents - with a particular emphasis on mental health, youth and ageing. These envisaged programs will need facilities to operate out of.

107. Council is continuing to advocate for an Eastern Health location within Manningham via multiple channels including cross-organisational meetings and letters to relevant persons/bodies such as the CEO of Eastern Health. The community in Manningham is disadvantaged in their ability to access local publicly funded health care services as there is no Eastern Health facility available within our boundaries, despite Manningham being a key catchment for the service.

108. Council is also advocating for community legal services to be introduced in Manningham, to be co-located with community health facilities – which the recommended facility upgrades and extensions could facilitate. Recommendation 8 of the Manningham Community Panel Report identifies that using Council assets more efficiently by transitioning to multi-use facilities is a supported outcome.

109. There is currently no dedicated community legal service located in Manningham. With limited public transport available, our residents face extensive travel times to access the closest available community legal service (in Box Hill, Boronia and Healesville) where there are already extensive waiting lists.

110. Manningham has a high percentage of overseas born residents (44%) and an increasing number of very low-income residents (25%). These factors indicate that our population has a range of vulnerabilities and needs for a legal service that provides free or low-cost assistance that caters for cultural and linguistic diversity.

111. We need a dedicated community legal centre based in Manningham, that provides general legal services. A part time service of several days per week would meet local needs. Community legal centres take a multi-disciplinary approach and are therefore uniquely placed to improve social and emotional wellbeing in our community. Clients are provided a wrap-

around service with access to social workers, advocates, financial counsellors, and educators which in turn provides stronger, holistic wellbeing outcomes.

112. We note that Recommendation 17 does not specify whether funding support for services solely run by local government, such as Maternal Child Health, would receive funding support for new and upgraded facilities to respond to growing population. We seek clarity on this in the final strategy.

113. Health promotion, mental health services and other Community Health Service areas can also be delivered in conjunction with local government. The funding advice for Recommendation 17 should therefore be updated to consider this.

Recommendation 18 – Build more residential alcohol and other drug treatment facilities

114. We support this recommendation in principle and note its high-level alignment with our advocacy outlined above in relation to Recommendation 17. Health and social support facilities are generally lacking in Manningham, and we would welcome support from State Government in improving access for our community. For facilities of this type, we note that robust consultation with Council and community would be essential.

Recommendation 19 – Invest in digital healthcare

115. Council supports this recommendation due to the potential for improved efficiency and quality of healthcare for all Victorians.

116. We continue to seek an Eastern Health location to be established in Manningham to improve direct access to health services for Manningham residents.

117. We note that this recommendation for digital improvements may assist in the meantime due to the increased ability for remote monitoring of patients – which would enable our residents to receive healthcare access without needing to leave Manningham.

118. However, remote healthcare is not a suitable replacement for direct services, and we do not wish to see roll-out of physical healthcare locations slowed or halted as a result.

119. We also suggest this this recommendation be extended to cover Maternal and Child Health sites – which could also benefit from digital improvements.

Recommendation 20 – Upgrade critical public hospital infrastructure

120. Although the major public hospitals mentioned by this recommendation are not within Manningham, we support the recommendation and its intention to ensure adequate investment in hospital upgrades.

121. Again, we note our ongoing advocacy for an Eastern Health location to be established in Manningham – which would assist in spreading the demand for public hospital services.

122. As previously mentioned, a major barrier between Manningham residents and services such as public hospitals is the lack of public transport infrastructure. This may also create a challenge in relation to attracting and retaining staff when/if public health infrastructure (i.e. Eastern Health) is provided within Manningham.

123. We note that it is crucial to support the expansion and creation of new public hospital services with the provision of a robust transport network, ensuring equitable access for both patients and healthcare workers. This network should also consider connections to existing healthcare hubs, aligning with Manningham's advocacy for an express bus route that mirrors the future Suburban Rail Loop alignment, starting with a route between Eastern Health Maroondah and Austin Hospital via Box Hill Hospital, Doncaster, Bulleen, and Heidelberg.

Recommendation 21 – Better use prisons and invest more in health facilities and transition housing

124. There are no prison facilities within Manningham and prisons are outside the scope of local government. We do not seek to comment on this recommendation besides supporting the sentiment for more efficient State Government spending.

Objective 3 – Aboriginal people have self-determination and equal outcomes to other Victorians

Recommendation 22 – Invest in secure homes for Aboriginal Victorians.

125. Manningham is situated within Wurundjeri Woi wurrung Country. 0.2% of the Manningham population are Aboriginal or Torres Strait Islander identifying – and there has been a 40% increase between 2016 and 2021.

126. We agree with this recommendation and strongly support the sentiment behind it. We continue to advocate for investment in housing for First Nations people through our work with the Eastern Affordable Housing Alliance. This recommendation also aligns with our Council Plan – which encourages an inclusive and resilient community.

Recommendation 23 – Fund better health and wellbeing infrastructure for Aboriginal Victorians.

127. We support this recommendation and suggest that it also be extended to include Maternal and Child Health services.

128. Council currently provides links to relevant local services for First Nations people on our website, however these services are all located outside of Manningham. Our advocacy for an Eastern Health location (with co-located community legal services) to be established in Manningham would also enable greater focus on health and wellbeing services for First Nations people.

Objective 4 – Victoria has a thriving natural environment

Recommendation 24 – reduce greenhouse gas emissions from infrastructure

129. Maximising carbon emissions reduction is aligned with Manningham's Climate Emergency Response Plan (2023), Liveable City Strategy 2040 and ongoing Council actions to achieve net zero by 2028 for Council operations and 2035 for community. We also suggest this

recommendation be expanded to acknowledge the link with circularity in building materials disposal, utilising what would normally be considered waste as a resource, as well as other reuse options.

130. We are already making efforts at a local level to reduce emissions and support Infrastructure Victoria in seeking that the State Government does the same. For example, Council's Floodlight Audit and LED conversion Programs are reducing emissions while enhancing energy efficiency in sports facilities.

131. We note that this recommendation also discusses the materials being used to build infrastructure, in addition to emissions from the infrastructure assets themselves. We are open to a standardised approach being implemented but seek assurance that sufficient support and transitional requirements will be provided to enable local government to adapt and adjust to any new materials standards.

Recommendation 25 – Advance integrated water management and use more recycled water

132. Council agrees with the sentiment of this recommendation. There is a need to advance integrated water management delivery and increase the use of recycled water. There is also a need to consider Traditional Custodians' needs as part of integrated water management.

133. We also suggest expansion of the integrated water management elements considered – to also address the impacts of urbanisation increasing stormwater volumes, and reduced water quality adversely impacting waterways.

134. Council is supportive of the draft guidelines for development and IWM currently being prepared by DEECA. We support the ongoing collaborative approach to IWM across the local government and private sector and seek further engagement and funding from the State and Federal Government to deliver large scale projects which will deliver long term benefits water security and healthy water sources for Victorians.

135. Officers also support the intent to increase community education and engagement around integrated water management but suggest that the engagement not be limited to acceptance of recycled drinking water and the need for more diverse water sources. The scope could also seek to enhance community water cycle literacy, achieve behaviour change, educate the community on the impacts of urbanisation on waterways and how the community can help to better manage water resources and demand.

136. Education should also highlight the responsibilities and need for maintenance of private integrated water management infrastructure – which would be targeted towards the development sector. Ideally, local government would be consulted regarding the proposed engagement scope and materials.

137. There is suggestion in the draft strategy that partner organisations including local government could contribute project funding and/or be involved in the collection of user charges for recycled water. It needs to be noted that local government does not currently have responsibilities for the supply or distribution of drinking water. The statement in the strategy should be further clarified.

138. Further direction could also be provided in the strategy about how the proposed recycled water supply should be used. If the water is to be made available for non-drinking purposes, consideration should be given to how it may impact the long-term feasibility and viability of

other integrated water management projects and/or other operations (e.g. irrigation and watering of reserves).

Future option – plan for and invest in manufactured water

139. This future option relates to Recommendation 25 and Council generally supports the initiative - in particular the intent to increase Traditional Custodians' involvement in water management and increase cultural allocation of water. We also suggest that utilising alternate water sources to maximise supply should allow for increased environmental flows. The need for this has been particularly evident this past summer with water levels dropping in some of our creeks to extremely low levels. Low flows have previously led to instances of fish and bird deaths at our prominent local waterways.

140. We note that climate change and subsequent increased flood events will affect lifecycle of assets, shortening them and requiring more maintenance and renewal (along with increased depreciation costs). More flooding will impact on the design of drainage and storm water management, resulting in the need to explore more modern and innovative approaches to manage runoff during storm events.

141. Figure 14 of the draft strategy focuses on projected Melbourne based demand for alternative water sources. We seek clarity on whether work has been undertaken to understand statewide demand as well.

Recommendation 26 – Better use government land for open space and greenery

142. We strongly agree with the intention of this recommendation to increase access to public open space and greenery. We commend the acknowledgement of gaps in the existing open space network and support the general principle to have a connected open space network, as well as unlock as-yet inaccessible parcels of green space for community use.

143. We suggest that this recommendation be expanded to also address the need for active open space, as the demand for playing fields continues to grow.

144. A key focus of the Manningham Liveable City Strategy is 'greening our city', which aims to provide a diverse range of high quality and inclusive open spaces within walking distance of as many residents as possible. Manningham's Community Panel have also dedicated one of their recommendations to open space, with Recommendation 3 of the Community Panel report being: *retaining existing and creating new open spaces.*

145. We suggest that Recommendation 26 be further expanded to outline requirements for the recommended ratio of open space to area/population for the 'compact city' concept. We also seek further clarity on the 'compact city' concept itself, including how it might relate to or be a further iteration of the '20 minute neighbourhood' concept that our Liveable City Strategy has a strong focus on.

146. We note the recommendation for the State Government to financially support the bodies responsible for ongoing maintenance requirements of open space, and also carefully consider the land contributions by Parks Victoria and Melbourne Water. There will be a need for the State Government to ensure relevant agencies are adequately resourced to support this initiative.

147. We request clarification of the mention of open space 'along streets', in terms of what areas this refers to and how Infrastructure Victoria envisages it will contribute to the open space network.

148. Recommendation 26 seeks to increase access to open space as a result of population growth and new hosing pressures. However, it does not specifically highlight that these factors are themselves a direct challenge to the provision of open space.

149. We suggest the strategy provides comments on how demand for land should be managed between housing targets and development demand, and the need for open space. This conflict is somewhat acknowledged by the statement that land is expensive for local government to acquire for open space, but the ongoing maintenance costs for local government are not considered. Further details on how this challenge should be managed would be helpful in the final strategy.

150. In relation to the recommendation for increased vegetation cover, Council strongly supports this initiative. We agree with Infrastructure Victoria that a minimum target of 30% tree canopy cover on public land should be set. However, we note that these targets can be skewed when assessed on a municipal-wide basis, such as in Manningham where almost half the municipality is within green wedge land, which enhances the perception of elevated tree canopy. Our suggestion is that the targets focus on activity centres and/or urban zones – where cooling and greening is most needed and the impacts from urban heat islands are most felt by community. Green infrastructure such as green roofs and walls should also be considered when setting parameters for the targets.

Objective 5 – Victoria is resilient to climate change and future risks

Recommendation 27 – Better prepare infrastructure for climate change

151. We support this recommendation and remain committed to net zero emissions goals in accordance with Manningham's Climate Emergency Response Plan.

152. We note the strong focus on energy adaption being an integral part of preparing infrastructure for climate change. In relation to Council's infrastructure programs, we have a rolling 5 year program to install solar panels and batteries on council and community facilities, improve the building stock with energy efficiency measures such as LED lighting upgrades and other thermal comfort initiatives such as insulation and draft proofing. This ensures our facilities have improved usability and operational efficiency for our community while reducing carbon emissions.

153. We are eager for the additional guidance from the State Government that may arise from the implementation of this recommendation, which will assist us in further progressing our initiatives to prepare infrastructure for climate change.

Recommendation 28 - Use new flood maps to revise planning schemes

154. Council supports this recommendation for planning schemes to be revised to include a common set of flood projections based on the latest climate data. However, we strongly

advise that local knowledge and expertise be utilised in the preparation of flood mapping to ensure accuracy.

155. Council is in the progress of developing an Integrated Water Management Strategy, which is being undertaken concurrently to a flood mapping project by Council in collaboration with Melbourne Water. These projects have highlighted the significant complexities of flood mapping for local and regional catchments, and we welcome Infrastructure Victoria's recommendation that the State Government provide greater assistance and involvement going forwards.

156. Flood mapping assists us to quantify flood risk, by locating overland flow paths and calculating flow depths and velocities and in turn inform potential planning controls.

157. We support the recommended involvement of the State Government to coordinate flood studies and ensure regular updates on flood projections and modelling. This will help to maintain an up-to-date understanding of flood risk and ensure planning controls remain adequate to protect from flood risk.

158. However, a greater focus on flood mitigation and community resilience is recommended including how the State Government may support the flood resilience of owners of flood affected properties. Consideration could be given to the implementation of a grant scheme similar to the Queensland and Australian Government's 'Resilient Homes Fund', to assist to reduce flood damages.

159. Additionally, consideration must be given to how the State Government will mitigate impacts for property owners where land becomes unsuitable to build on due to newly identified flood risk. We seek Infrastructure Victoria's advice on whether consideration should be given to land swaps or compensation in relevant cases.

160. In order to improve the level of success for local catchment flooding planning scheme amendments, it is strongly recommended that the Minister for Planning assume the role of Responsible Authority for all future flood amendments.

161. We also suggest that consideration be given to a more finessed approach to monitoring and review, rather than the proposed blanket-requirement to remodel flood risk every five years. A risk based criteria could be developed to guide the timing of remodelling on a catchment by catchment basis.

Recommendation 29 – **Coordinate faster delivery of key energy infrastructure**

162. This recommendation is generally outside of Council's scope as it relates to the State Government needing to deliver key energy infrastructure to support the transition to reach their net zero emissions targets. We support the overall intention for battery roll-out and note that a distributed network of batteries will assist with electric vehicle charging, including for the bus network.

163. However, we note the possibility that new energy infrastructure may be proposed on or over Councils' assets. For example - the neighbourhood battery scheme, while unlikely in a metropolitan area, would require a dedicated location which could be quite large and have significant risks associated with it. Council would expect significant involvement and consultation if any such initiative was proposed by the State and would determine our position on any such project on a case by case basis.

Recommendation 30 – Improve environmental assessments and site selection for energy projects

164. Council supports this recommendation for reforms to the assessment process for energy projects to streamline approvals, however natural environment must be considered in this process and ensure minimal compromise to biodiversity (ground storey to tree canopy).

165. It is noted that Recommendation 30 suggests the reforms can 'assess a project's environmental benefits', however there is no mention of biodiversity considerations. We seek assurance that any new process will include sufficient rigour to ensure there is no unreasonable compromises for energy versus biodiversity outcomes.

Recommendation 31 – Invest in home, neighbourhood and big batteries for more energy storage.

166. We strongly support this recommendation and note the key long-term sustainability and climate benefits, in addition to important energy cost savings for households and businesses.

167. We suggest that the recommendation be extended to require support for local government to partner with community and business (or other) groups to translate to on-the-ground action and implementation.

Recommendation 32 – Determine long duration energy storage needs

168. Council supports this recommendation and notes the importance of ensuring uninterrupted energy for the community during the important transition to net zero. Manningham has a wide ranging demographic with varying needs, and it is important that no one experiences disadvantage directly because of this initiative.

169. The approach outlined in this recommendation for long duration energy storage is supported in principle by Council, provided it achieves the outlined goal of ensuring energy availability when weather conditions are not conducive to renewable production.

Recommendation 33 – Develop regional energy plans, guide transition from fossil gas and maintain reliable gas supply

170. Council supports the initiative to transition away from gas in households, businesses and industry by moving to all-electric plus battery storage initiatives. We note the infrastructure responsibilities for this initiative are generally State-level as outlined in Recommendation 33.

Recommendation 34 – Speed up household energy efficiency and electrification

171. We support this recommendation and note the important climate and social benefits that will result. We agree that efficient electric space heaters and hot water should be incentivised, and note that split systems can be an efficient choice.

172. We also strongly support this recommendation's focus on enabling low income households to transition to more efficient options by assisting with the costly installation / start-up costs.

173. We also support the initiative for disclosure of energy efficiency being required for sale and leasing of houses – and note that any disclosure process would need to be tightly regulated to ensure compliance and fairness.

Objective 6 – Victoria has a high productivity and circular economy

Recommendation 35 – **Prepare and publish infrastructure sector plans to shape Victoria's cities**

174. We understand the sentiment behind this recommendation and support the desire to break down silos in State Government departments to improve efficiency of operations and spending for infrastructure.

175. Whilst we agree a set of assumptions for future population, jobs and land use may be helpful, development of an infrastructure sector plan without preparing strategic-level plans first is a reactive approach that may miss important long-term considerations.

176. We also suggest that the finished sector plans not be the only factor to decide infrastructure project funding, particularly if they are not preceded by strategic-level planning.

177. We seek that the recommended topics that the sector plans cover be expanded to also cover sports and recreational facilities, which would align with Council' Indoor Sports Facility Plan by ensuring clear sector planning to meet future community needs for indoor recreational spaces.

Recommendation 36 – **Reform infrastructure contributions**

178. We are generally supportive of this recommendation and have experienced the complexities of the existing infrastructure contributions system first hand.

179. A key challenge to be considered is that some established areas have high infrastructure costs (e.g. semi-rural residential areas that require drainage upgrades) but low rates of new development. This raises the question of whether new development in other areas should support infrastructure in already-established areas and if not, then how the required infrastructure will be funded.

180. We commend Infrastructure Victoria in highlighting that any new infrastructure contribution system must consider how infrastructure costs can be distributed more fairly. We note that flow-on implications must also be considered, including the potential for costs to be passed down to the purchaser and whether that is an acceptable outcome in the current financial environment.

Recommendation 37 – **Improve asset management of all government infrastructure**

181. We support this recommendation in principle but note there is minimal information provided on how it (or if) it will be implemented for local government.

182. We are open to the possibility that asset management will become more prescribed, such as adoption of the Victorian Asset Management Accountability Framework, the use of specified standards for asset management, and improved or directed asset management ratio funding targets.

183. Our suggestion is that software systems and smart technology need to be implemented to help manage asset and infrastructure conditions. Logging data over time will help to determine lifespan benchmarks, better quality product use and enable municipalities to work together to cater for wider community use. There should also be a stronger commitment to using condition audits to inform upgrades and new development priorities.

Recommendation 38 – Prepare for more recycling and waste infrastructure

184. Council acknowledges that Recommendation 38 is a good starting point in relation to recycling and waste infrastructure. However, our view is that this initiative will cost more than the estimated $1 - $5 million if the aim is to transform the recycling and waste industry to support long term circular-economy goals.

185. It is also critical that the State Government acquires appropriate land for the development of future sites to provide facilities that are easily accessible to all Victorians. We stress the importance of local government being engaged in direct and meaningful consultation on any such land acquisitions or opportunities.

Recommendation 39 – Use digital technologies to better design, build, operate and maintain government infrastructure

186. Council agrees that there are vast opportunities to use technologies to achieve improvements for infrastructure and we generally support this recommendation. However, we note that that the recommendation is very broad and could benefit from further detail on specific technologies and/or projects to provide clearer guidance.

187. Council will be exploring options for pilot projects in the short to medium term and we would welcome any support from the State Government. Accordingly, we request that where Recommendation 39 discusses funding – that it also notes that support should be provided at a local government level. This includes filling any skills-gaps by training and/or additional staff, which will be key to achieving success in this emerging field.

Recommendation 40 – Use modern traffic control technology for efficient and safe journeys

188. In accordance with our Road Safety Strategy, our primary approach to improving road safety is to adopt the 'Safe System', which is a best-practice standard that addresses all elements of the road transport system in an integrated way, with the aim of ensuring that crash energy levels are below what would cause fatal or serious injury.

189. We are open to technology innovations and how they may form part of a Safe Systems approach, however we are conscious of the need to ensure efficient and useful spending of government funding.

190. Based on the information provided in the strategy, Council is not persuaded that greater investment in new technologies will result in the desired safety outcomes without significant conflicts with existing systems and processes.

191. We also seek to highlight that 'efficient and safe journeys' are not necessarily limited to transport by vehicles. All future traffic control or other road technology must consider coexistence with bicycles, pedestrians and buses.

Future Option – Charge people fairly to use roads

192. While Council acknowledges the potential benefits of road pricing in managing congestion and encouraging sustainable transport, it must be carefully considered within our local context. Manningham is a highly car-dependent municipality due to limited access to public transport, and as such, road pricing could disproportionately impact our residents and may be viewed as inequitable without viable alternative travel options.

Recommendation 41 - Make rail freight competitive, reliable and efficient

193. Manningham has no rail network on which freight could be transported. This recommendation is outside our scope – although we support the proposed shift away from road freight due to emissions saving outcomes.

Recommendation 42 – Encourage off-peak freight delivery in urban areas

194. We support this recommendation in principle and seek confirmation that it would not cause any flow-on impacts especially given Manningham is predominately a residential municipality. For example, school area safety during early morning and/or late evening periods must be considered. Additionally, consideration must be given to minimising further noise or disturbance to the local road network.

Recommendation 43 - Create and preserve opportunities for future major infrastructure projects

195. While this recommendation focuses on major infrastructure projects that are well outside Council's scope, we support the principle of future-proofing and planning ahead for necessary infrastructure.

196. We note that preserving opportunities for infrastructure projects may result in the acquisition of Council managed land and impacts on future development.

197. Accordingly, we seek to be actively involved in discussions with the State Government in relation to any land within Manningham that is being considered for future projects.

198. This is not something we have had a positive experience with in the past, in particular in relation to the Suburban Rail Loop (SRL) project.

199. Stage 2 of SRL is proposed to include a train station in Doncaster. We have continuously sought transparency on the potential Doncaster station location from the State, with no success. Without an understanding of where a station box may be located (and whether Stage 2 will proceed or not), our long-term strategic planning for population growth and evolving community needs is impacted. We have an obligation to meet the State's Housing Targets through robust strategic planning, which is hindered by this uncertainty.

200. Accordingly, we seek that Infrastructure Victoria acknowledge the importance of involving local government in discussions about future planning and preserving opportunities for major infrastructure as early as possible.

Conclusion

201. Council generally supports the objectives and recommendations from Infrastructure Victoria in the draft strategy.

202. Council would welcome any further opportunities to be involved including to progress/discuss any of the matters raised in this submission.

203. We respectfully request that the considerations, issues and opportunities raised by this submission be incorporated into the final version of the strategy.

204. Council looks forward to reviewing the final version of the strategy to understand how all feedback from the consultation period has been addressed.

205. We share Infrastructure Victoria's hope that the Victorian government will use this strategy to sustainably plan for the infrastructure that communities will need over the coming decades, to address major challenges from population growth and climate change, and to support the published Housing Targets.

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MANNINGHAM

11 CONNECTED COMMUNITIES

11.1 Renewal of the Annual Councillor Event Program

File Number: IN25/240

Responsible Director: Director Connected Communities

Attachments: 1 Proposed Manningham Community Award Categories

PURPOSE OF REPORT

This report presents recommendations for the renewal of the Annual Councillor Event Program to maintain its relevance, align with Council's strategic objectives, and enhance community participation. It proposes an updated event format that improves accessibility, inclusivity and recognition, providing meaningful opportunities for the celebration of community achievements.

EXECUTIVE SUMMARY

The Annual Councillor Event Program is designed to recognise community contributions, strengthen connections between Councillors and residents, and reinforce Council's commitment to civic engagement. Community feedback and benchmarking with other councils suggest that renewing the program could increase participation and enhance community relationships.

*The proposal recommends consolidating two existing events (Civic Awards and Mayoral Ball) into a flagship event, the **Manningham Community Awards**, designed to align with Council priorities and modernise community recognition. This renewed approach will enable Councillors to champion community successes and encourage broader, more diverse participation.*

*Additionally, the introduction of a dedicated **Annual Grant Celebration** is proposed to highlight the positive outcomes of Council-funded projects, reinforcing Council's commitment to community collaboration and activation.*

COUNCIL RESOLUTION

MOVED: CR JIM GRIVAS
SECONDED: CR LAURA MAYNE

That Council:

A. Endorses the revised events within the Annual Councillor Event Program:
- **Manningham Community Awards; and**
- **Annual Grant Celebration**

B. Notes the proposal to continue the recognition of volunteers via two events:
- **Emergency Services Reception; and**
- **Volunteer Recognition Evening**

C. Endorses the categories for the Manningham Community Awards.

CARRIED UNANIMOUSLY

2. BACKGROUND

2.1 The Annual Councillor Event Program has historically provided valuable opportunities for Councillors to publicly recognise and celebrate community achievements.

2.2 Traditionally, the program has included the following four key events:

2.2.1 **Civic Awards:** Established in 2018, the Civic Awards recognise outstanding community contributions across five distinct categories:

- Citizen of the Year
- Young Citizen of the Year
- Sports Volunteer of the Year
- Doreen Stoves Volunteer of the Year
- Community Organisation of the Year

2.2.2 **Mayoral Ball:** Initiated in 1998, this formal event has successfully raised awareness and financial support for various local causes. Over the years, attendance has ranged from 200 to 400 guests, reflecting varying levels of community interest.

2.2.3 **Emergency Services Reception:** This annual event recognises and thanks emergency service personnel and volunteers for their dedication to keeping the community safe. It provides an opportunity for Council to formally acknowledge their contributions and strengthen relationships with key emergency response organisations.

2.2.4 **Volunteer Recognition Evening:** Volunteers play a vital role in supporting community wellbeing. This event celebrates their contributions by providing a platform for local organisations to nominate representatives for recognition. It reinforces Council's commitment to fostering civic participation and ongoing engagement with the volunteer sector.

2.3 Benchmarking with neighbouring councils highlighted varied approaches to community recognition events, with some councils opting to consolidate or refresh their programs. These changes have been informed by community expectations, operational efficiencies and alignment with strategic priorities. The findings provide useful insights into potential improvements for Manningham's event program while maintaining its focus on celebrating community contributions.

3. DISCUSSION / ISSUE

3.1 To enhance community connection through increased participation and engagement, a renewed and strategically aligned approach is proposed for the Annual Councillor Event Program. The introduction of two complementary events, the **Manningham Community Awards** and the **Annual Grant Celebration**, aims to modernise community recognition, broaden engagement, and strengthen Councillor involvement in celebrating local achievements.

3.2 **Manningham Community Awards**

3.2.1 This flagship event combines the strengths of the Civic Awards and the Mayoral Ball, presenting a prestigious, accessible, and contemporary celebration that creates a meaningful opportunity for the Councillor group to recognise and celebrate community achievements and contributions. It would be a formal, seated event, emphasising the importance of the achievements of the nominees to maximise appeal and participation.

3.2.2 By broadening the scope and number of award categories (as compared to the current Civic Awards), the event aims to capture a wider range of community contributions, fostering increased nominations and deeper engagement across diverse sectors of Manningham.

3.2.3 To ensure a fair and transparent process, the assessment panel for the Manningham Community Awards will comprise the Mayor of the day, Director Connected Communities, the previous Citizen of the Year, and two Advisory Committee members.

3.2.4 The attached proposed award categories, (Attachment 1), have been carefully selected to reflect Manningham's diverse community and align with Council's strategic priorities and Advisory Committee allocations.

3.2.5 Each category recognises excellence and contributions in key areas of community development and engagement within the past 12 months, focusing on recent impact rather than total years of service.

3.2.6 Award winners will be promoted prominently throughout the following year as part of Council's communications and storytelling strategy, enhancing community awareness and participation.

3.2.7 Furthermore, the consolidation of these two events generates financial efficiencies, which in turn will allow Council to subsidise ticket costs. This will improve accessibility, ensuring greater community participation and making the event more inclusive for all residents.

3.3 **Annual Grant Celebration**

3.3.1 This proposed event is designed to formally recognise and showcase the positive outcomes of community projects funded through Council's Annual Grant Program. It aims to visibly demonstrate the tangible benefits of Council's investments, encouraging future participation, collaboration and community involvement.

3.3.2 The event will highlight how Council's financial contributions foster innovation, social inclusion, and resilience in the community. A dedicated communications strategy will ensure that successful grant recipients and their achievements are widely promoted, with stories shared through Council's media channels, reinforcing the importance of community investment.

3.3.3 The Annual Grant Celebration also provides networking opportunities for Councillors, grant recipients, and community members to build relationships and explore collaborations, reinforcing Councillors' role as advocates for grassroots initiatives. Key community organisations, including local emergency services personnel, will be also invited to attend.

3.4 **Ongoing Community Recognition Events**

3.4.1 In addition to the newly proposed events, the **Emergency Services Reception** and **Volunteer Recognition Evening** will continue as key components of the Annual Councillor Event Program.

3.4.2 These events remain important in recognising the contributions of key community members and ensuring Council maintains strong engagement with volunteers and emergency services personnel.

3.4.3 No changes are proposed to these events.

3.5 Therefore, the proposed Annual Councillor Event Program would now consist of:

- Manningham Community Awards (September)
- Annual Grant Celebration (August)
- Emergency Services Reception (June)
- Volunteer Recognition Evening (May)

3.6 By combining established events with newly introduced formats, the refreshed program ensures a comprehensive and inclusive approach to community recognition, whilst aligning with Council's strategic priorities.

4. COUNCIL PLAN / STRATEGY

4.1 The renewed program aligns directly with:

- **Council Plan 2021-25:** Strengthening community connection, resilience, and inclusive engagement.

- **Health and Wellbeing Strategy 2021-25:** Promoting community health, resilience, and inclusivity.

- **Reconciliation Action Plan and Welcoming Cities Accreditation:** Supporting cultural diversity, inclusion, and reconciliation.

5. IMPACTS AND IMPLICATIONS

5.1 Finance / Resource Implications

The consolidation of events improves cost efficiency, enabling Council to redirect resources towards increased community participation, including subsidised ticket costs.

Existing budgets will be utilised, with no additional funding required.

6. IMPLEMENTATION

6.1 Communication and Engagement

Is engagement required?	No
Stakeholder Groups	1. Manningham Community
Where does it sit on the IAP2 spectrum?	Inform
Approach	Individual events will be promoted through existing channels (Manningham Matters, website info, social medial posts, etc.)

6.2 Timelines

Subject to Council's endorsement, the following dates will apply:

May 2025	Volunteer Recognition Evening
June 2025	Emergency Services Reception
August 2025	Annual Grant Celebration
September 2025	Manningham Community Awards

In an election year, the timeframes will need to be altered to allow for caretaker period.

7. DECLARATIONS OF CONFLICT OF INTEREST

No officers involved in the preparation of this report have any general or material conflict of interest in this matter.

Award Category	Description	Alignment to Council Objectives
Manningham Citizen of the Year Award *UNCHANGED*	Recognising an individual who has made an outstanding contribution to the Manningham community through leadership, advocacy, or service that has had a lasting impact on the local area.	- Council Plan 2021-25 - Health and Wellbeing Strategy 2021-25
Doreen Stoves Excellence in Volunteering Award *UNCHANGED*	Honouring an individual who has demonstrated exceptional commitment to volunteerism, reflecting the values and dedication exemplified by the late Doreen Stoves AM PSM JP.	- Council Plan 2021-25 - Health and Wellbeing Strategy 2021-25
Manningham Artistic Achievement Award *NEW*	Celebrating individuals or groups who have made significant contributions to the arts, fostering creativity and cultural expression within the Manningham community.	- Council Plan 2021-25 - Health and Wellbeing Strategy 2021-25 - Arts Advisory Committee - Historical Societies Working Group
Manningham Community Health and Wellbeing Award *NEW*	Recognising individual or group efforts that have enhanced health, wellbeing, and resilience within the community, whether through advocacy, program development, or direct service delivery.	- Council Plan 2021-25 - Health and Wellbeing Strategy 2021-25 - Health and Wellbeing Advisory Committee - Disability Advisory Committee - Reconciliation Action Plan Working Group - Municipal Emergency Management Planning Committee - Liveable Places and Spaces Advisory Committee
Manningham Inclusive Community Award *NEW*	Recognising individuals or groups that have worked to promote accessibility, inclusivity, and diversity within the Manningham community.	- Council Plan 2021-25 - Health and Wellbeing Strategy 2021-25 - Health and Wellbeing Advisory Committee - Disability Advisory Committee - Gender Equality and LGBTQIA+ Advisory Committee - Multicultural Communities Advisory Committee - Reconciliation Action Plan Working Group - Liveable Places and Spaces Advisory Committee
Manningham Ageing Well Award *NEW*	Celebrating individuals or groups that have contributed to enhancing the lives of older residents, fostering social connection, safety, and active ageing.	- Council Plan 2021-25 - Health and Wellbeing Strategy 2021-25 - Healthy Ageing Advisory Committee
Manningham Active Community Award *NEW*	Acknowledging outstanding individuals or groups that encourage active lifestyles, participation in sports, and community engagement in physical activity.	- Council Plan 2021-25 - Health and Wellbeing Strategy 2021-25 - Recreation and Sport Advisory Committee - Liveable Places and Spaces Advisory Committee

Award Category	Description	Alignment to Council Objectives
Manningham Young Achiever Award *REVISED*	Recognising an outstanding young person who has shown leadership, innovation, or dedication to making a positive impact within their community.	- Council Plan 2021-25 - Health and Wellbeing Strategy 2021-25 - Manningham Youth Advisory Committee (MYAC)
Manningham Community Excellence Award (Organisation) *REVISED*	Honouring a community organisation or group that has delivered outstanding programs or initiatives that contribute to the wellbeing, development, and cohesion of the Manningham community.	- Council Plan 2021-25 - Health and Wellbeing Strategy 2021-25

11.2 Mullum Mullum Reserve Covered Bowling Green

File Number: IN25/180

Responsible Director: Director Connected Communities

Attachments: 1 Draft Memorandum of Understanding

PURPOSE OF REPORT

This report seeks endorsement of a covered bowling green at Mullum Mullum Reserve, by expanding the scope of the original project to redevelop the northern bowling green, as noted in Council's current capital program. This report also seeks support to execute a draft Memorandum of Understand between Council and the Donvale Bowling Club and notes the potential for additional funding to be incorporated in Council's 2025/26 capital program.

EXECUTIVE SUMMARY

The redevelopment of the northern bowling green at Mullum Mullum Reserve is included in Council's 2024/25 Annual Budget. The project incorporates a conversion from natural turf to synthetic turf and installation of floodlights.

A proposal to expand the scope of the green redevelopment to include a cover has been investigated in collaboration with key stakeholders, following advocacy from the tenant club – Donvale Bowling Club (DBC).

This proposal is consistent with the Outdoor Sports Infrastructure and Allocations Policy, which was endorsed by Council on 24 August 2024. This Policy includes the provision of a cover for regional bowls facilities, based on a funding ratio of 50% Club / 50% Council and subject to broader community access to the green being provided.

A draft Memorandum of Understanding (MOU) has been developed in conjunction with DBC. The MOU outlines DBC's commitment to achieving broader community access, which builds on their current social programming and involves working collaboratively with the Manningham Bowls Group to promote and increase participation in lawn bowls. The draft MOU also outlines DBC's ongoing maintenance and funding obligations. The MOU is proposed to be executed between Council and DBC, pending Council's endorsement of the project.

The 2024/25 Annual Budget includes an allocation of $700,000 for the redevelopment of the northern green, which excludes the required matching funding from the DBC. Additional Council funding may be required, pending the outcome of the procurement process and incorporating DBC's required funding contribution of 50% of the total project cost.

The project is ready to be procured, with tender documents ready for the proposed revised project scope (in addition to the original scope of works). This Report seeks support to proceed with the revised scope of works, which includes the provision of a covered synthetic bowling green with lighting at Mullum Mullum Reserve.

COUNCIL RESOLUTION

MOVED: CR ANDREW CONLON
SECONDED: CR CARLI LANGE

That Council:

A. Support the provision of a cover over the northern bowling green at Mullum Mullum Reserve, by expanding the current project scope for the green redevelopment.

B. Support executing the draft Memorandum of Understanding between Council and the Donvale Bowling Club.

CARRIED UNANIMOUSLY

BACKGROUND

1.1 The Mullum Mullum Reserve bowls facility consists of two bowling greens. The southern green has a synthetic surface with floodlights and the northern green has a natural turf surface with no floodlights. The facility is currently tenanted under a long-term lease by the Donvale Bowling Club (DBC).

1.2 Council's endorsed 2024/25 Annual Budget includes a budget line for '*Donvale Bowls North Field Redevelopment*', which includes a $700,000 Council funding allocation. The initial project scope aimed to convert the natural turf surface to synthetic and install floodlights. During the planning stage for this project, DBC advocated to explore the addition of a cover over the green, including proposing a significant financial contribution towards the project.

1.3 Concurrent to the advocacy from DBC, Officers were developing the Outdoor Sports Infrastructure and Allocations Policy (Policy), which governs the provision of infrastructure for outdoor sports including bowls. To respond to the DBC's request, Officers undertook research to investigate the demand, strategic rationale and whole of life costs for a cover. This included considering outcomes from consultation with key stakeholders including the Manningham Bowls Group (MBG) and Bowls Victoria.

1.4 The key findings from this research found significant benefits and strategic justification for covered bowling greens. This led to the addition of a covered green into the Policy's facility standards for regional level bowls facility, based on a 50/50 funding ratio between Council and user groups. The funding is also based on broader community access being available (e.g. for non-members of the tenant club) to maximise the benefits of any Council investment. The Mullum Mullum Reserve bowling facility was elevated to a regional classification based on the profile and capacity of the site and associated facilities. The Policy was subsequently endorsed at the Council Meeting on 27 August 2024.

1.5 As a result of the changes within the endorsed Policy, Officers have refined designs for the synthetic green, obtained quotes from suppliers to better understand anticipated costs, and have also worked to define and consult on '*broader community access'*.

2. DISCUSSION / ISSUE

2.1 Proposed Project Scope Amendment

2.1.1 The existing 2024/25 budget allocation for the northern green redevelopment at Mullum Mullum Reserve is based on converting the natural turf green to synthetic and installing floodlights. Since the Policy endorsement, an opportunity to expand the project scope to include a cover has been explored, which includes conversion of the natural turf to synthetic, installation of new floodlights and the provision of a roof cover. This revised scope is proposed for endorsement.

2.2 Maintenance

2.2.1 Should support for an amended project scope be received, a maintenance schedule for the green cover will be developed in conjunction with the infrastructure supplier. The schedule will set out the required maintenance activities to ensure the longevity of the structure, safety, and compliance with the warranty requirements. DBC will be required to complete the maintenance tasks within the schedule and provide evidence as part of their annual lease reporting requirements. All costs associated with this maintenance, including damage resulting from improper use by the club, are proposed to be met by DBC. Council would however be responsible for reactive maintenance such as storm damage.

2.2.2 To ensure future maintenance responsibilities are met, the establishment of a sinking fund is proposed. Under this arrangement, it is proposed that DBC will be required to contribute $5,000 per annum (increasing by CPI annually) into the sinking fund, to be used as a future club contribution towards the replacement of the cover. This includes funding towards replacement of the roofing material and the steel frame, in which a 50% contribution would be required based on the current Policy. This fund may also be used to ensure required maintenance is undertaken.

2.3 Memorandum of Understanding

2.3.1 A draft MOU (attachment 1) has been developed between Council and DBC for the proposed project. This outlines the responsibilities of Council and DBC in relation to financial contributions and future maintenance requirements. Furthermore, it details key elements of how DBC will achieve broader community access to the proposed covered green, in line with the funding requirements within the Policy.

2.3.2 The MOU is a draft only and signifies the intent of subsequent Funding and Lease Agreements between Council and DBC.

2.4 Community Access

2.4.1 Consistent with the requirements within the Policy, a set of responsibilities have been developed relating to DBC providing broader community access to the proposed covered bowling green. These responsibilities build upon discussions with the MBG and ongoing dialogue with DBC. The MOU outlines several requirements, including:

- DBC will continue to work with the MBG to promote and increase participation in lawn bowls.
- Access to the covered green will be provided for a minimum of 3 days per year, for the MBG to run sessions that promote bowls and increase social participation, such as 'Come n Try' days.
- DBC will provide other Manningham based bowls clubs an opportunity to casually book the covered green.
- DBC will explore opportunities to provide access to the covered green for non-bowls activities such as Tai Chi, yoga and other such activities.

2.4.2 The above requirements build on DBC's current work in promoting bowls to the community, with the MOU requiring DBC to continue to offer a diversity in opportunities for the community to participate in lawn bowls.

2.4.2 The MOU also outlines that DBC is to continue to promote bowls participation and work collaboratively with other Manningham based bowls clubs, if the MBG cease operations. Furthermore, the MOU provides an annual reporting framework to ensure that DBC report to Council on how broader community access is being achieved.

3. COUNCIL PLAN / STRATEGY

3.1 The proposed change in project scope to include a cover, and the subsequent community use of the facility, responds to various Council Plans and Strategies.

3.1.1 Council Plan 2021-25

Goal 1.1 – A healthy, safe, and resilient community.

Identify strategies to get people to be more active at all stages of life to increase participation in juniors, women, culturally diverse and other priority groups.

Goal 2.4 – Well utilised and maintained community infrastructure.

Proactively plan, upgrade, and improve our recreation facilities to ensure they are maintained and accessible for a broad range of community uses.

Goal 5.1 – A financially sustainable Council that manages resources effectively and efficiently.

Delivery of annual Capital Works Program to maintain, upgrade and develop Council assets to meet current and future needs.

Goal 5.2 – A Council that values customers and community in all that we do.

Deliver initiatives that advocate or demonstrate Council leadership to promote equality across gender, age, diversity, ability, and culture.

3.1.2 Health and Wellbeing Strategy 2021-25

Priority 3 – Increased active lifestyle.

Priority 7 – Increased connection to and engagement in community life.

3.1.3 Active for Life Recreation Strategy 2010-25 (2019 Review)

Priority Area 1 – Provide flexible, multi-use and durable spaces for recreation to meet the needs of a growing community.

Priority Area 2 – Collaborate with key partners and organisations.

Priority Area 3 – Foster and environment of inclusion.

4 IMPACTS AND IMPLICATIONS

4.1 Finance / Resource Implications

4.1.1 The 2024/25 Annual Budget includes a funding allocation of $700,000 for the '*Donvale Bowls Northern Field Redevelopment*', being the original scope of works (synthetic conversion and floodlights). This amount does not consider the matching contribution required from DBC. Should a revised project scope be supported to include a cover, it may require an additional Council contribution, subject to costs received through the procurement process. Any additional Council contribution would be considered within Council's 2025/26 capital program.

4.1.2 External funding opportunities have been explored to reduce Council's required contribution, however timelines for these grant opportunities do not align with the project timelines. Therefore, no additional external funding will be obtained for the project, with the exception of DBC's required contribution.

5 IMPLEMENTATION

5.1 Communication and Engagement

Is engagement required?	Yes
Stakeholder Groups	1. Donvale Bowling Club 2. Manningham Bowls Group 3. Wider Community
Where does it sit on the IAP2 spectrum?	Inform – Community Consult – Donvale Bowling Club and Manningham Bowls Group
Approach	Communication material (website info, signs, social medial posts etc) Co-Design Stakeholder meetings

5.2 Timelines

5.2.1 Should support be received to proceed with the revised project scope (covered synthetic green with floodlighting), procurement will occur immediately. Delivery timelines will be subject to availability of the successful contractor.

5.2.2 Should support not be received for the proposed cover, procurement for the original project scope (synthetic green with floodlighting and no cover) would proceed immediately.

6 DECLARATIONS OF CONFLICT OF INTEREST

No officers involved in the preparation of this report have any general or material conflict of interest in this matter.

MANNINGHAM

Memorandum of Understanding

This Memorandum of Understanding (**MOU**) is dated [insert date] and is entered into between Manningham City Council, ABN 61 498 471 081 of 699 Doncaster Road, Doncaster, Victoria 3108 (**MCC**) and Donvale Bowling Club, ABN 77 009 442 832 of PO Box 1312, Doncaster East, Victoria 3109 (**DBC**), both of which are known as the 'Parties'.

[DRAFTING NOTE: this MOU will be updated (prior to execution) to reflect any changes necessary to capture the intent of the Funding Agreement, Maintenance Schedule and construction of the Project works (these 3 factors not being resolved/in final form at the time of drafting this MOU). Accordingly, this draft is intended to be indicative until it is capable of being finalised]

Background

1. Pursuant to a Lease dated 8 November 2011 and renewed on 4 August 2014, DBC leases 11 Springvale Road, Donvale (**Premises**) from MCC (**Lease**). The Lease term is currently in overhold.

2. The Permitted Use for the Premises under the Lease is for the "*operation of a club for bowls, social and other sporting and ancillary purposes as agreed by Council in writing from time to time.*"

3. The Parties acknowledge that the Premises would benefit from upgrades comprising:

    a. Conversion of the northern bowling green from natural turf to synthetic turf;
    b. Installation of new floodlighting; and
    c. Construction of a cover over the bowling green,

    (**Project**).

4. The Parties have reached agreement to implement the Project jointly upon the terms and conditions set out in this MOU.

5. The obligations set out in this MOU are intended to be binding, enforceable obligations.

Purpose

6. The purpose of this MOU is to provide the framework, terms and conditions and responsibilities of the Parties aligned with the Project, including:

    a. Financial contributions towards construction, maintenance and replacement;
    b. Responsibilities to organise and report on annual maintenance; and
    c. The provision of broader community access to the covered green.

7. This MOU does not restrict either party from performing or exercising their ordinary functions or exercising their statutory powers.

Responsibilities and Services of DBC

8. DBC commits in good faith to undertaking the following obligations at DBC's cost:

   a. Financial Contributions

      i. To meet the financial obligations as set out in the Funding Agreement entitled ##### and dated ##### for construction, in line with the Outdoor Sports Infrastructure and Allocations Policy. ***[DRAFTING NOTE: Following finalisation of the Funding Agreement, provision will be added to this MOU (prior to execution) to cover, in clear terms, the cost allocation of the Project between MCC and DBC]***

      ii. To pay into a sinking fund $5,000 + GST each year, with the first payment to occur on the first anniversary of the Commencement Date of this MOU and thereafter on each anniversary of that Commencement Date throughout the term, which sum shall increase each year of the term by CPI (**DBCs Annual Payment**).

   b. Maintenance:

      i. On and from completion of the Project, DBC shall throughout the Term:
         1. keep and maintain the Project installations in good and tenantable repair and condition (except for fair wear and tear); and
         2. perform, in a proper and workmanlike manner, by contractors approved by MCC (where applicable), all annual maintenance tasks required for the Project installations, to MCCs reasonable satisfaction, in line with the agreed maintenance schedule (which schedule shall be developed prior to the commencement of the Project, by MCC in consultation with DBC, and once finalised, a copy of which shall be attached to this MOU).

      ii. To engage suitably qualified contractors and tradespersons to undertake its annual maintenance of the cover in accordance with the agreed maintenance schedule.

      iii. To provide MCC with the relevant documentation for all contractors being engaged by DBC to undertake maintenance of the cover, including Public Liability Insurance for at least $20 million for any one event with a reputable and substantial insurer, and other relevant documentation as determined by MCC from time to time (e.g. Working at Heights ticket etc.).

      iv. To provide MCC on each anniversary of the Commencement Date throughout the Term with an annual report detailing the maintenance undertaken to the cover (including attaching copies of invoices/receipts, where relevant) during the preceding 12 months.

      v. To be responsible for repairing any damage which has occurred as a result of the negligent act, omission or default by the DBC or DBC's user groups, visitors or invitees to the Premises.

      vi. To comply with the Lease (or any subsequent occupancy agreement entered into by the Parties), including but not limited to maintenance obligations and

responsibilities for other infrastructure (e.g. synthetic green etc.) and the Premises.

c. Community Access

i. To provide a diversity of opportunities for community members to participate in lawn bowls, such as:
   1. Social participation opportunities such as barefoot bowls, bowling with babies;
   2. School participation;
   3. Partnerships with community groups such as neighbourhood houses and the University of the Third Age;
   4. Other programs aligned with the Council's Health and Wellbeing Strategy such as those targeting healthy ageing, mental health etc.

ii. To continue to work with the Manningham Bowls Group (or equivalent) to promote and increase participation in bowls.

iii. To provide access to the covered green for a minimum of 3 days (annually), on a weekend (or during the week, by agreement with the Manningham Bowls Group), to run 'come and try' sessions or similar promotional and social participation activities, under the auspices of the Manningham Bowls Group. If the covered green is required by the Manningham Bowls Group for less than 3 activities, this responsibility will be deemed to have been met by DBC.

iv. In the event that the Manningham Bowls Group cease operations, DBC is required to continue to develop opportunities for broader community participation in lawn bowls in collaboration with other Manningham based bowling clubs.

v. To provide opportunities to other Manningham Bowling Clubs to casually book the covered green, where their use focuses on increasing participation in bowls (excluding activities such as pennant). A fee covering reasonable operational costs for use of the covered green is permitted to be charged, and use is subject to availability. For the avoidance of doubt, DBC will not be expected to provide volunteers to run any event organised by other Manningham Bowling Clubs, unless mutually agreed. Use of supporting amenities such as the pavilion (excluding toilets) is subject to agreement with the tenant sporting club.

vi. To explore opportunities to provide access to the covered green for other groups to deliver alternate (non-bowls) activities, such as low impact exercises like Tai Chi, yoga and other such activities, where there is availability on the greens and demand for such programs has been identified.

vii. To provide MCC with an annual report on each anniversary of the Commencement Date throughout the Term detailing how broader community access to the covered green has been achieved for the preceding 12 months.

Responsibilities and Services of MCC

9. MCC commits in good faith to undertaking the following obligations at MCC's cost:

a. Construction works:
[DRAFTING NOTE: Following a procurement process and finalisation of the Funding Agreement, provision will be added to this MOU to cover the construction of the Project – this will detail key construction responsibilities and a scope of works (including annexing a Plan – if available) required to be arranged by MCC (and/or DBC, if relevant). If necessary (unless covered in a separate document), it may also set out access rights (in the form of an access licence) for MCC to enter the Premises to perform the works.]

b. Financial Contributions

i. To meet the financial obligations as set out in the Funding Agreement entitled #### dated ### for construction, in line with the Outdoor Sports Infrastructure and Allocations Policy. ***[DRAFTING NOTE: Following finalisation of the Funding Agreement, provision will be added to this MOU (prior to execution) to cover, in clear terms, the cost allocation of the Project between MCC and DBC]***
ii. Throughout the Term, to obtain and maintain appropriate insurance for the cover, synthetic green and floodlights.

c. Maintenance

i. To develop an appropriate maintenance schedule for the Project installations (including the cover), which sets out the ongoing maintenance requirements for the DBC throughout the Term.
ii. To attach a copy of the final maintenance schedule to this MOU.
iii. In the event of damage caused by natural events, such as storms, heavy rainfall, or bushfires, MCC will take the necessary measures to ensure that the Project installations (including the cover) is made safe and restored to, or close to, its original condition as soon as reasonably practicable.
iv. To perform remediation work for damage to the Project installations that results from vandalism, being graffiti, theft, or other malicious acts (except to the extent that the damage has been caused by the act or default of DBC, its employees, contractors, members or visitors).

Obligations of the Parties

10. The Parties acknowledge and agree that with respect to DBC's Annual Payment:

a. The sinking fund will be a separate bank account opened and managed by MCC;

b. MCC is entitled to draw from the sinking fund at any time and without notice to DBC if MCC determines, or reasonably believes, that DBC can no longer meet its obligations to perform ongoing maintenance of the cover installed under the Project;

c. Any balance remaining in the sinking fund at the time of replacement of the cover (the need for which will be determined by MCC in its absolute discretion) is agreed by the Parties to be applied towards that cover replacement;

d. For the avoidance of doubt, in the unlikely event of a balance remaining in the sinking fund following the completion of the replacement of the cover referred to in clause 10c above, that balance, if any, shall then be returnable to DBC by MCC; and

e. the DBCs Annual Payment may be increased (in addition to annual CPI increases) at any time by written agreement of the Parties (to reflect more accurate maintenance costs of the day).

11. By entering this MOU, both parties acknowledge that they intend to abide by the terms of this agreement. During the term of the MOU, the parties will as far as reasonably practicable:
    a. Develop and maintain processes to meet the objectives of this MOU.
    b. Remain in consultation to ensure there is successful results of the deliverables.
    c. Communicate and coordinate activities within the framework of this MOU.

Intellectual Property

12. All intellectual property, working documents and design elements shall remain the property of the party who developed it, unless otherwise agreed in writing by both parties.

Variations to the Agreement

13. The Parties agree that this MOU may (if necessary) be amended at any time upon the agreement in writing of both parties.

Settlement of Disputes

14. If any dispute arises between the Parties regarding the Project or this MOU, then either party may give the other party a written notice of the dispute, adequately identifying and providing details of the dispute.

15. Within 15 business days after service of a notice of dispute, the Parties must confer at least once and attempt to resolve the dispute through good faith negotiations or agree on the methods of doing so. Each party must be represented by a person having authority to agree to a resolution.

Duration of MOU

16. This MOU will commence from the date of execution (**Commencement Date**) and will terminate immediately upon the earlier of:

    (a) Twenty (20) years following the Commencement Date;

    (b) DBCs occupancy of the Premises ceasing (for whatever reason); and

(c) the Parties entering into a new lease agreement with respect to the Premises which agreement documents the then-relevant provisions of this MOU to the reasonable satisfaction of MCC,

(being the **Term**).

EXECUTED as a Deed

EXECUTED for and on behalf of **MANNINGHAM CITY COUNCIL** ABN 61 498 471 081 by **LEE ROBSON, Director Connected Communities** pursuant to instrument of delegation in the presence of:

Signature of witness

Signature of duly authorised officer

Full name of witness

Lee Robson
Full name of duly authorised officer

EXECUTED for and on behalf of **DONVALE BOWLING CLUB** ABN 77 009 442 832 by [ ], [ ] pursuant to [ ] in the presence of:

Signature of witness

Signature of duly authorised officer

Full name of witness

[ ]
Full name of duly authorised officer

MANNINGHAM

Attachment - Maintenance Schedule

[DRAFTING NOTE: to be inserted by MCC once finalised]

12 CITY SERVICES

There were no City Services reports this month.

13 EXPERIENCE AND CAPABILITY

13.1 Informal Meetings of Councillors

File Number: IN25/271

Responsible Director: Manager Integrity

Attachments:
1 Strategic Briefing Session - 18 March 2025
2 Consultation Meeting PLN23_0519 22 Leslie Street, Donvale - 19 March 2025
3 Councillor and CEO Only Time - 25 March 2025
4 Healthy Ageing Advisory Committee - 26 March 2025
5 Consultation Meeting PLN24_0108 232-236 Foote Street, Templestowe - 31 March 2025
6 Strategic Briefing Session - 1 April 2025
7 Strategic Briefing Session - 7 April 2025
8 Councillor and CEO Only Time - 8 April 2025
9 Strategic Briefing Session - 15 April 2025

PURPOSE OF REPORT

The purpose of this report is to promote transparency in Council's business by providing a record of informal meetings attended by Councillors.

EXECUTIVE SUMMARY

Chapter 6, sub rule 1 of Manningham's Governance Rules requires a record of each meeting that constitutes an Informal Meeting of Councillors to be reported to Council and those records to be incorporated into the minutes of the Council Meeting.

COUNCIL RESOLUTION

MOVED: CR LAURA MAYNE
SECONDED: CR PETER BAIN

That Council note the Informal Meetings of Councillors for the following meetings:

- **Strategic Briefing Session – 18 March 2025**
- **Consultation Meeting PLN23/0519 22 Leslie Street, Donvale – 19 March 2025**
- **Councillor and CEO Only Time - 25 March 2025**
- **Healthy Ageing Advisory Committee – 26 March 2025**
- **Consultation Meeting PLN24/0108 232-236 Foote Street, Templestowe – 31 March 2025**
- **Strategic Briefing Session – 1 April 2025**
- **Strategic Briefing Session – 7 April 2025**
- **Councillor and CEO Only Time – 8 April 2025**
- **Strategic Briefing Session – 15 April 2025**

CARRIED UNANIMOUSLY

2. BACKGROUND

2.1 Section 60 of the *Local Government Act 2020*, requires a Council to develop, adopt and keep in force Governance Rules (the Rules).

2.2 Chapter 6, sub rule 1 of Manningham's Governance Rules requires the Chief Executive Officer to ensure a summary of matters discussed at an informal meeting is tabled at the next convenient Council meeting and recorded in the minutes of that meeting.

2.3 An Informal Meeting of Councillors is a meeting that:

- is a scheduled or planned meeting of all Councillors (irrespective of how many Councillors attend) with the Chief Executive Officer for the purpose of discussing the business of Council or briefing Councillors; or
- is a scheduled or planned meeting of all Councillors (irrespective of how many Councillors attend) with the Executive Management Team for the purpose of discussing the business of Council or briefing Councillors; or
- is a scheduled or planned advisory committee meeting attended by at least one Councillor and one member of Council staff; and
- is not a Council meeting, Delegated Committee meeting or Community Asset Committee meeting.

3. DISCUSSION / ISSUE

Summaries of the following informal meetings are attached to this report:

- Strategic Briefing Session – 18 March 2025
- Consultation Meeting PLN23/0519 22 Leslie Street, Donvale – 19 March 2025
- Councillor and CEO Only Time - 25 March 2025
- Healthy Ageing Advisory Committee – 26 March 2025
- Consultation Meeting PLN24/0108 232-236 Foote Street, Templestowe – 31 March 2025
- Strategic Briefing Session – 1 April 2025
- Strategic Briefing Session – 7 April 2025
- Councillor and CEO Only Time – 8 April 2025
- Strategic Briefing Session – 15 April 2025

4. IMPLEMENTATION

4.1 Communication and Engagement

Stakeholder Groups	Councillors, Officers and members of Manningham's Advisory Committees
Is engagement required?	No. This information is provided in the interests of public transparency.
Where does it sit on the IAP2 spectrum?	N/A
Approach	N/A

5. DECLARATIONS OF CONFLICT OF INTEREST

No officers involved in the preparation of this report have any general or material conflict of interest in this matter.

Informal Meeting of Councillors

Chapter 6, Sub rule 1 of the Governance Rules 2020

MANNINGHAM

MEETING DETAILS			
Meeting Name:	Strategic Briefing Session		
Date:	Tuesday, 18 March 2025	**Time Opened:**	6:30pm
		Time Closed:	9:14pm
Location:	Council Chambers, Civic Centre		
Councillors Present:	Cr Deirdre Diamante (Mayor), Cr Andrew Conlon (Deputy Mayor), Cr Peter Bain (virtual attendance), Cr Anna Chen, Cr Isabella Eltaha, Cr Jim Grivas, Cr Carli Lange and Cr Laura Mayne		
Officers Present:	**Executive Officers Present** Andrew Day, Chief Executive Officer Andrew McMaster, Director City Planning & Liveability Kerryn Paterson, Director Experience and Capability Rachelle Quattrocchi, Director City Services Emma Michie, Acting Director Connected Communities **Other Officers in Attendance** Kim Tran, Governance Officer Julia Jenvey, Manager Integrated Planning Andrew Mangan, Coordinator Integrated Transport Julia Mardjuki, Senior Open Space Planner Julia Harding, Senior Legal Counsel Linda Merlino, Project Lead – Strategic Property Portfolio Anton Peiris, Manager City Assets		
Apologies:	Cr Geoff Gough		
Items discussed:	1. Integrated Transport - Advocacy Update 2. Implementation of the Open Space Strategy 3. Strategic Property Portfolio Update (Confidential)		

CONFLICT OF INTEREST DISCLOSURES	
Were there any conflict of interest disclosures by Councillors?	No

Informal Meeting of Councillors

Chapter 6, Sub rule 1 of the Governance Rules 2020

MANNINGHAM

MEETING DETAILS			
Meeting Name:	Consultation Meeting PLN23/0519 22 Leslie Street, Donvale		
Date:	Wednesday, 19 March 2025	**Time Opened:**	6:00pm
		Time Closed:	6:45pm
Location:	Council Chambers, Civic Centre		
Councillors Present:	Cr Diamante (Mayor), Cr Conlon (Deputy Mayor), Cr Chen, Cr Grivas		
Officers Present:	Jonathan Caruso, Suchita Vyas, Shasha Yang		
Apologies:	Cr Eltaha, Cr Lange, Cr Gough, Cr Bain, Cr Mayne		
Items discussed:	Planning application PLN23/0519 22 Leslie Street, Donvale		

CONFLICT OF INTEREST DISCLOSURES	
Were there any conflict of interest disclosures by Councillors?	No

Informal Meeting of Councillors

Chapter 6, Sub rule 1 of the Governance Rules 2020

MANNINGHAM

MEETING DETAILS			
Meeting Name:	Councillor and CEO Only Time		
Date:	Tuesday, 25 March 2025	**Time Opened:**	5:45pm
		Time Closed:	6:30pm
Location:	Councillor Lounge, Civic Centre		
Councillors Present:	Cr Deirdre Diamante (Mayor), Cr Andrew Conlon (Deputy Mayor), Cr Peter Bain, Cr Anna Chen, Cr Isabella Eltaha, Cr Geoff Gough, Cr Jim Grivas, Cr Carli Lange and Cr Laura Mayne		
Officers Present:	Andrew Day (CEO)		
Apologies:	Nil		
Items discussed:	• North East Link Project (NELP) (Standing item) • Council agenda review • Eastern Region Group (ERG) of Councils - Planning & Advocacy update • Manningham Council / Whitehorse City Council Dinner • Student Media Enquiries / Election enquiries • Councillor support		

CONFLICT OF INTEREST DISCLOSURES	
Were there any conflict of interest disclosures by Councillors?	No

1

Informal Meeting of Councillors

Chapter 6, Sub rule 1 of the Governance Rules 2020

MANNINGHAM

MEETING DETAILS			
Meeting Name:	Healthy Ageing Advisory Committee		
Date:	Wednesday, 26 March 2025	**Time Opened:**	6:00pm
		Time Closed:	7:40pm
Location:	Council Chambers, Civic Centre		
Councillors Present:	Cr Chen, Cr Bain		
Officers Present:	Michelle Zemancheff, Gabrielle Spence, Annie Valentine, Jane Porter and Kirra Solty		
Apologies:	Nil		
Items discussed:	1. Terms of Reference and Code of Conduct 2. Age-Friendly Cities Framework - Latrobe 3. Age-Friendly Cities Framework - Manningham Action Plan 4. Healthy Ageing updates – Senior Morning Tea and World Elder Abuse Awareness 5. Other Business		

CONFLICT OF INTEREST DISCLOSURES	
Were there any conflict of interest disclosures by Councillors?	No

1

Informal Meeting of Councillors

Chapter 6, Sub rule 1 of the Governance Rules 2020

MANNINGHAM

MEETING DETAILS			
Meeting Name:	Consultation Meeting PLN24/0108 232-236 Foote Street, Templestowe		
Date:	Monday, 31 March 2025	**Time Opened:**	6:00pm
		Time Closed:	7:30pm
Location:	Council Chambers, Civic Centre		
Councillors Present:	Cr Diamante (Mayor), Cr Eltaha, Cr Chen, Cr Grivas		
Officers Present:	Jonathan Caruso, Suchita Vyas, Shasha Yang		
Apologies:	Cr Conlon (Deputy Mayor), Cr Lange, Cr Gough, Cr Bain, Cr Mayne		
Items discussed:	Planning application PLN24/0108 232-236 Foote Street, Templestowe		

CONFLICT OF INTEREST DISCLOSURES	
Were there any conflict of interest disclosures by Councillors?	No

Informal Meeting of Councillors

Chapter 6, Sub rule 1 of the Governance Rules 2020

MANNINGHAM

MEETING DETAILS			
Meeting Name:	Strategic Briefing Session		
Date:	Tuesday, 1 April 2025	**Time Opened:**	6:30pm
		Time Closed:	8:28pm
Location:	Council Chambers, Civic Centre		
Councillors Present:	Cr Deirdre Diamante (Mayor), Cr Andrew Conlon (Deputy Mayor), Cr Peter Bain, Cr Anna Chen, Cr Isabella Eltaha, Cr Geoff Gough, Cr Jim Grivas, Cr Carli Lange		
Officers Present:	**Executive Officers Present** Andrew Day, Chief Executive Officer Kerryn Paterson, Director Experience and Capability Rachelle Quattrocchi, Director City Services Lee Robson, Director Connected Communities Stewart Martin, Acting Director City Planning & Liveability **Other Officers in Attendance** Vanessa Bove, Manager of Economic and Cultural Activation Rachel Drill, Coordinator Community Grants and Events Emma Michie, Manager Community Participation Robert Morton, Coordinator Community Projects and Planning Lisa DiCenso, Community Projects Lead		
Apologies:	Cr Laura Mayne		
Items discussed:	1. Renewal of the Annual Councillor Event Program 2. Early Years Infrastructure Plan Project Update		

CONFLICT OF INTEREST DISCLOSURES	
Were there any conflict of interest disclosures by Councillors?	No

Informal Meeting of Councillors

Chapter 6, Sub rule 1 of the Governance Rules 2020

MANNINGHAM

MEETING DETAILS			
Meeting Name:	Strategic Briefing Session		
Date:	Monday, 7 April 2025	**Time Opened:**	6:30pm
		Time Closed:	9.45pm
Location:	Council Chambers, Manningham Civic Centre		
Councillors Present:	Cr Deirdre Diamante (Mayor), Cr Andrew Conlon (Deputy Mayor), Cr Peter Bain, Cr Anna Chen, Cr Isabella Eltaha, Cr Geoff Gough, Cr Jim Grivas, Cr Carli Lange and Cr Laura Mayne		
Officers Present:	Andrew Day, Chief Executive Officer Andrew McMaster, Director City Planning & Liveability Kerryn Paterson, Director Experience and Capability Anton Pieris, Acting Director City Services Lee Robson, Director Connected Communities Carrie Bruce, Manager Integrity Jon Gorst, Chief Financial Officer Lawrie McLaughlin, Manager Business Enablement		
Apologies:	Nil		
Items discussed:	Update on Strategic Plans 2025+ Draft 2025/2026 Budget Update Community Infrastructure Priorities		

CONFLICT OF INTEREST DISCLOSURES	
Were there any conflict of interest disclosures by Councillors?	No

Informal Meeting of Councillors

Chapter 6, Sub rule 1 of the Governance Rules 2020

MANNINGHAM

MEETING DETAILS			
Meeting Name:	Councillor and CEO Only Time		
Date:	Tuesday, 8 April 2025	**Time Opened:**	5:45pm
		Time Closed:	6:15pm
Location:	Councillor Lounge, Civic Centre		
Councillors Present:	Cr Deirdre Diamante (Mayor), Cr Andrew Conlon (Deputy Mayor), Cr Peter Bain, Cr Anna Chen, Cr Isabella Eltaha, Cr Geoff Gough, Cr Jim Grivas, Cr Carli Lange and Cr Laura Mayne		
Officers Present:	Andrew Day (CEO)		
Apologies:	Nil		
Items discussed:	• Councillor role during consultation meetings and submitter meetings • Councillor PAYG		

CONFLICT OF INTEREST DISCLOSURES	
Were there any conflict of interest disclosures by Councillors?	No

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Informal Meeting of Councillors

Chapter 6, Sub rule 1 of the Governance Rules 2020

MANNINGHAM

MEETING DETAILS			
Meeting Name:	Strategic Briefing Session		
Date:	Tuesday, 15 April 2025	**Time Opened:**	6:30pm
		Time Closed:	9:21pm
Location:	Council Chambers, Civic Centre		
Councillors Present:	Cr Deirdre Diamante (Mayor), Cr Andrew Conlon (Deputy Mayor), Cr Peter Bain, Cr Anna Chen, Cr Isabella Eltaha, Cr Geoff Gough, Cr Jim Grivas, Cr Carli Lange and Cr Laura Mayne		
Officers Present:	**Executive Officers Present** Andrew Day, Chief Executive Officer Andrew McMaster, Director City Planning & Liveability Kerryn Paterson, Director Experience and Capability Rachelle Quattrocchi, Director City Services Lee Robson, Director Connected Communities **Other Officers in Attendance** Carrie Bruce, Manager Integrity Paul Bonnici, Coordinator City Compliance Stewart Martin, Manager City Safety Anthony Drahidis, Team Leader Local Laws Emma Michie, Manager Community Participation Lisa DiCenso, Community Projects Lead Robert Morton, Coordinator Community Projects and Planning		
Apologies:	Nil		
Items discussed:	1. Domestic Animal Management Plan 2. Park Orchards Community House Draft Feasibility Study – Sensitive 3. Manningham Templestowe Leisure Centre Draft Conceptual Designs (Confidential) 4. Mullum Mullum Reserve Covered Bowling Green 5. Manningham's Submission to Infrastructure Victoria's Draft 30 Year Infrastructure Strategy		

CONFLICT OF INTEREST DISCLOSURES	
Were there any conflict of interest disclosures by Councillors?	No

13.2 Documents for Sealing

File Number: IN25/272

Responsible Director: Manager Integrity

Attachments: Nil

PURPOSE OF REPORT

The purpose of this report is to seek Council's authority to sign and seal the documents outlined in the recommendation.

EXECUTIVE SUMMARY

The following documents are submitted for signing and sealing by Council.

COUNCIL RESOLUTION

MOVED: CR ANDREW CONLON
SECONDED: CR ISABELLA ELTAHA

That the following documents be signed and sealed:

Deed of Surrender
Council and Access Health and Community Limited
Property: Part 687 Doncaster Road, Doncaster

Deed of Surrender
Council and Access Health and Community Limited
Property: 40-44 Balmoral Ave, Templestowe Lower

Community Services Lease
Council and Early Childhood Management Services Inc.
Property: Part 18 Studley Street, Doncaster

Community Services Lease
Council and Early Childhood Management Services Inc.
Property: 3 Birchwood Avenue, Templestowe Lower

Community Services Lease
Council and Early Childhood Management Services Inc.
Property: 18 Hovea Street, Templestowe

Community Services Lease
Council and Schramms Sports Club Inc
Property: Part Schramms Reserve, 7 JJ Tully Drive, Doncaster

CARRIED UNANIMOUSLY

2. BACKGROUND

The Council's common seal must only be used on the authority of the Council or the Chief Executive Officer under delegation from the Council. An authorising Council resolution is required in relation to the documents listed in the recommendation section of this report.

3. IMPLEMENTATION

3.1 Communication and Engagement

Stakeholder Groups	The other parties to the agreements
Is engagement required?	No. This information is provided in the interests of public transparency.
Where does it sit on the IAP2 spectrum?	N/A
Approach	N/A

4. DECLARATIONS OF CONFLICT OF INTEREST

No officers involved in the preparation of this report have any general or material conflict of interest in this matter.

14 CHIEF EXECUTIVE OFFICER

There were no Chief Executive Officer reports this month.

15 URGENT BUSINESS

There were no items of Urgent Business this month.

16 COUNCILLOR REPORTS AND QUESTION TIME

16.1 Councillor Reports

Cr Laura Mayne extended congratulations to the Director City Services, Ms Rachelle Quattrocchi, on her new appointment as Chief Executive Officer of Strathbogie Shire Council.

Cr Mayne expressed gratitude to Ms Quattrocchi with regard to her exceptional contribution to Manningham Council over the past five years and her ability to face every challenge with determination and a genuine commitment to finding thoughtful, effective solutions.

Cr Mayne further emphasised Ms Quattrocchi's leadership across a range of complex areas, particularly in waste, drainage and tree management, which had been outstanding, and that the progress achieved had been a direct result of Ms Quattrocchi's hard work and vision.

Cr Mayne remarked that it had been an absolute pleasure to work alongside Ms Quattrocchi and had learned a great deal from her insights and the way she conducted herself professionally. Cr Mayne noted that whilst Ms Quattrocchi would be moving on in her career path, that her legacy at Manningham Council would certainly remain. Ms Quattrocchi having mentored many of council's officers, helping them to develop and grow; Cr Mayne said it would be understandable that her influence would continue to be felt through the officers ongoing contributions.

Cr Mayne concluded that Ms Quattrocchi's leadership, dedication and presence would be missed both at Manningham Council and amongst the local community and sincerely wished her every success moving forward into her next exciting chapter.

Ms Rachelle Quattrocchi, Director City Services *thanked the Councillors, noting that the moment had caught her slightly off guard. Ms Quattrocchi acknowledged the privilege of working with the Councillors and reflected on the strong relationship built between the Executive Management Team and the Councillors. Ms Quattrocchi said she believed that this partnership had contributed to many achievements for the Manningham community.*

Ms Quattrocchi shared that it had been an absolute pleasure to work at Manningham Council and that she would carry fond memories of this time into her next chapter at Strathbogie Shire Council. Ms Quattrocchi remarked that a part of the rural character of Manningham would remain with her, and that she intended to observe and celebrate the Council's future successes from afar. Ms Quattrocchi expressed that she would not forget the community or those she had enjoyed working alongside.

Ms Quattrocchi extended her gratitude to the various stakeholders with whom she had collaborated, noting that the number was too great to mention individually; however some had been contacted personally. Ms Quattrocchi spoke of the strong professional

relationships she had developed over time and highlighted the importance of staying connected in the belief that mutual support would be valuable in the years ahead.

Ms Quattrocchi, in conclusion, expressed appreciation for the opportunity to work within the Council and expressed confidence in what could be achieved over the forthcoming four-year term.

Cr Isabella Eltaha congratulated the team at Aligned Leisure and the through Active Manningham program for successfully hosting their inaugural Manningham Fun Run and Walk event at the scenic Ruffey Lake Park. The event was organised in support of the local charity group, Carenet Food Relief, which provides food relief services to families across Manningham.

Cr Eltaha highlighted the importance of such community initiatives, particularly in the face of increasing demand for basic food support amongst local families. Cr Eltaha was pleased to report that over $3,000 had been raised on the day to support the charity and hoped that it would become an annual tradition.

Cr Eltaha also encouraged members of the community to consider donating spare canned or non-perishable goods at donation points which were located near the Templestowe IGA.

Cr Eltaha then addressed the roadworks in the Templestowe Village area, and acknowledged the significant challenges faced by local traders and residents during this period. The Councillor encouraged both traders and residents to continue to communicate with Council and provided reassurance that Council would continue its commitment to advocate for traders and explore ways to support their businesses during the roadworks project.

Cr Anna Chen recently attended the free movie screening of “Clean Bin Project” at the Doncaster Playhouse, which was organised by Council and was a fantastic initiative. Cr Chen remarked that the film had an inspiring message about environmental responsibility and reducing waste, which resonated strongly with the community.

Cr Carli Lange took a moment to acknowledge that April had been a deeply commemorative month, notably with Easter, which was particularly significant this year, as both Western and Orthodox Christian communities celebrated at the same time. Cr Lange shared that it had been heartening to see so many people coming together for combined Easter services.

Cr Lange attended the Good Friday service held at the park in Warrandyte, organised by the local church network. Cr Lange shared that it had been especially moving to see churches and representatives from across the community united in remembrance of the journey of the cross.

Cr Lange noted that April also marked Anzac Day, and that there were three services held in Manningham, located at Doncaster, Templestowe, and Warrandyte. Cr Lange remarked that these ceremonies honoured those who have served our country, but that the message went beyond that. Cr Lange expressed that it was also a day of recognition for the families left behind, for those who continue to carry the legacy and memory of their lost loved ones. Cr Lange concluded that it was a reminder that they are not alone and that their sacrifices are remembered and appreciated.

Cr Andrew Conlon reiterated Councillor Lange's sentiments about Anzac Day. Cr Conlon remarked that it really was a fantastic effort by our local community and not just one group, but three different groups of dedicated volunteers who helped run the Anzac Day services through the RSL, and they all did a tremendous job.

Cr Conlon expressed that he found it encouraging to see young people starting to understand the significance of Anzac Day; what it means to serve, to remember, and to honour those who gave so much. Cr Conlon stated that there was something very powerful in that sense of shared responsibility and service to each other, and it was great to see that resonating with the next generation.

Cr Conlon recognised Mr Keith Wolahan MP, for several stirring speeches at the services. Cr Conlon noted that his words really brought home the importance of Anzac Day, not just for those who served, but also for those who carry forward their legacy.

Cr Conlon thanked everyone who had contributed and participated and expressed that it had been a remarkable occasion of real meaning and reflection.

Mayor Cr Deirdre Diamante echoed her fellow Councillors sentiments on the theme of Anzac Day, and shared that she had attended an Anzac Day Schools Event, where primary and secondary schools from across Manningham came together at the Templestowe RSL. There were more than 700 students in attendance, and Mayor Diamante had the privilege of speaking with the students about the significance of Anzac Day.

Mayor Diamante shared with the students, that we honour the bravery and sacrifice of the men and women who served, and their families, not only through remembrance, but by being kind to one another, by showing respect, and by looking out for each other. We also honour them by loving and respecting our country. We are incredibly fortunate to live in Australia, and it's important for young people to appreciate and uphold the values that make our community strong.

Secondly, Mayor Diamante shared that she had the pleasure of attending the EV Strengthening Communities, Inclusive Volunteering Awards. Mayor Diamante was very proud to share that Manningham Council received two awards. The first went to the Manningham Whitehorse TAC L2P Program, a learner driver program that provides vital support for young people gaining their driving hours. The second award was given to the Manningham Australian Chinese Mutual Aid Association.

Mayor Diamante congratulated both of these outstanding organisations on their well-deserved recognition and the important work they do within the local community.

16.2 Councillor Questions

Cr Anna Chen shared that at a recent community event, a local resident had discussed with her, an inspiring idea where Council could partner with charities or not-for-profit organisations, to repair unwanted furniture items left on nature strips or collected during the annual hard waste collection. The repaired items could then be donated to those in need or sold for a good cause.

Cr Chen noted that various councils currently list "repair and donate" programs on their websites. Cr Chen questioned if Council could explore a similar initiative, potentially by sourcing repairable items from the depot and collaborating with local organisations. Cr Chen queried if this could also be promoted on Council's website to encourage community involvement.

Ms Rachelle Quattrocchi, Director City Services *thanked Cr Chen for her question and responded that Manningham Council is committed to supporting its residents with a variety of ways that they can dispose of materials that are no longer in use. Council are always looking at alternative ways for re-use or to recycle household items.*

Currently Council is in the early stages of planning for the waste contract that will include the review of Council's hard waste collection service. There is also information available on Council's website that provides a range of options for waste resource and recovery.

'Waste Drop Off Day' where residents can reasonably dispose of a range of materials that cannot be placed into household bins. Ms Quattrocchi also recommended that Council Officers contact the resident to explore ideas that they may wish to contribute.

Cr Geoff Gough raised an issue that has become increasingly concerning within his Ward. Cr Gough explained that recently he had encountered several disturbing examples where older members of the local community held felt disenfranchised by the shift to entirely electronic government services. One case in particular that made an impact on Cr Gough, was of an 88-year-old resident, who had received land tax bills but was told that communication would only be accepted electronically. The resident would have the option to have a telephone conversation, however there was no option for documentation to be sent via post or access provided to an office where they could speak to someone in person.

Cr Gough commented that this kind of process isolated people, especially the older citizens. Cr Gough stated that unfortunately, this was not an isolated case and it appeared to be a growing trend across multiple state government departments.

Cr Gough requested that Manningham Council undertake an assessment of Council's current practices, and asked if Council processes are accessible to everyone, regardless of age or digital capability?

Cr Gough wished to ensure that Manningham remains inclusive and respectful of all its citizens, especially its elders.

Ms Lee Robson, Director Connected Communities *thanked Cr Gough for his question and responded that indeed it is an important issue, and one Council is very mindful of.*

Ms Robson highlighted the work Council was currently undertaking to support older residents navigating services such as My Aged Care.

Ms Robson shared that Council's Healthy Ageing Unit plays a central role in this space. Council has dedicated staff whose job is to assist residents, however they prefer, with accessing and understanding aged care services. Council recognises that navigating the My Aged Care portal, and similar government systems, can be complex and often frustrating. Ms Robson echoed Cr Gough's concerns in that regard.

Manningham Council support our community, by offering several options such as: residents can call a dedicated support line, which is staffed Monday to Friday, from 9am to 5pm; they can also visit Council offices in person to speak directly with an officer; in addition, Council is running mobile pop-up sessions at local shopping centres to connect directly with older residents and answer their questions.

Ms Robson acknowledged the ongoing support provided by local libraries. For many years, libraries have been a go-to place for residents seeking assistance with technology and information. Library staff have noted a growing demand for help in these areas, and their services, along with those at neighbourhood houses complement the work of the Healthy Ageing Unit.

Ms Robson stated that this is still a relatively new initiative for Council, and Council does recognise that more needs to be done to raise awareness. Council is committed to ensuring residents know that support is available, and that support is available to help them through what can be a challenging process.

Ms Robson advised Cr Gough that she would pass his concerns on to the Healthy Ageing team and reinforce the importance of continuing this vital work. Ms Robson provided reassurance that Council would also look at ways to further promote these services more broadly in the community.

Mayor Cr Diamante raised a question regarding a disused site in the Tullamore Ward, located on the corner of Doncaster Road and Elgar Road. The former Volkswagen dealership has become a significant concern for local residents. There have been reports of unsavoury behaviour and increased crime in and around the site, which has understandably caused considerable anxiety in the neighbourhood.

Mayor Diamante asked Mr Andrew McMaster, Director City Planning and Liveability for an update on this site. Specifically, what action is being taken, both by Council and by the property's receivers, to ensure the site is secured and made safe for the su*rrounding community.*

Mr Andrew McMaster, Director City Planning and Liveability *thanked the Mayor for her question and responded that Council had received a number of complaints regarding the former Volkswagen site located on Doncaster Road. There has been ongoing issues with the condition of the site, including unsecured buildings and overgrown vegetation.*

Council initially faced difficulties in contacting the property owner, who is an absentee foreign owner. However, recently Council has discovered that the ownership of the site is now under receivership. Council has successfully established contact with the receivers and have held constructive discussions about the ongoing management of the site.

The receivers have expressed a clear interest in ensuring the site is maintained in a safe, secure, and presentable manner. While Council has not yet seen any significant action taken on-site, Council has intervened to remove some vegetation and improve the site's appearance from a community standpoint.

Council has also been working closely with the local Police on reports of anti-social behaviour at the site; and the Inspector at the Doncaster Police station is aware of the situation. The Inspector has made himself available as a point of contact for any residents affected by these issues. Council has identified and is monitoring the concerns of around 20 impacted residents.

At this stage, no further action has been taken by the receivers, but the dialogue remains positive. There is currently security present on-site, and the receivers have indicated a potential interest in demolishing the remaining buildings. Mr McMaster assured the Mayor that Council will continue to advocate strongly for this outcome.

17 CONFIDENTIAL REPORTS

There were no Confidential Reports this month.

The meeting concluded at 8.33pm.

Chairperson
CONFIRMED THIS 27 May 2025